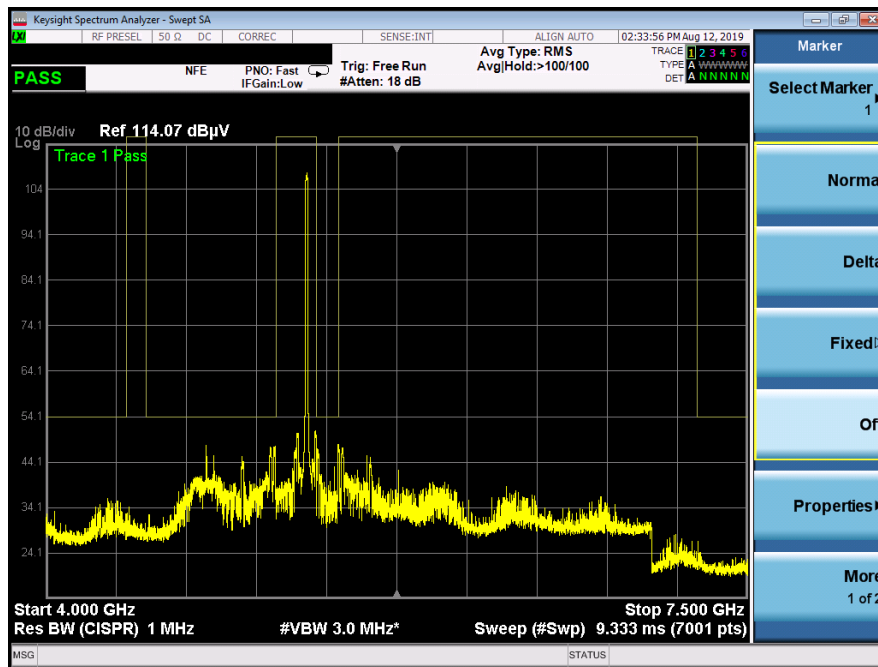
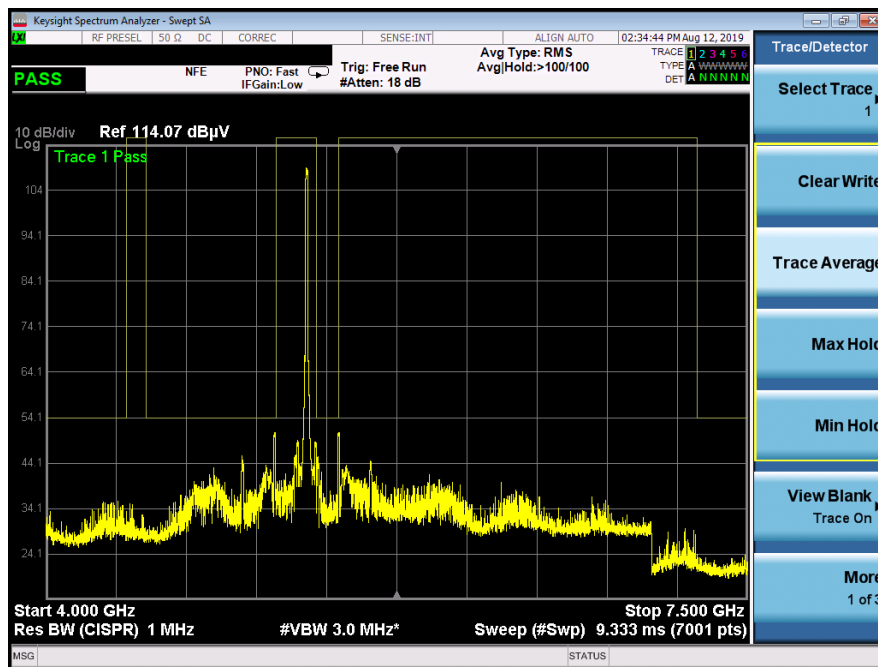
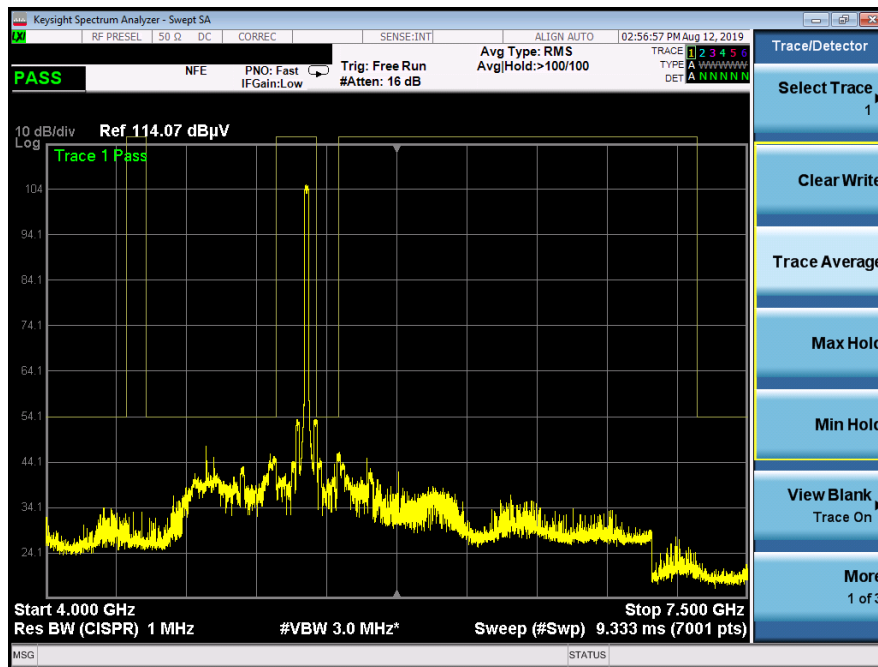




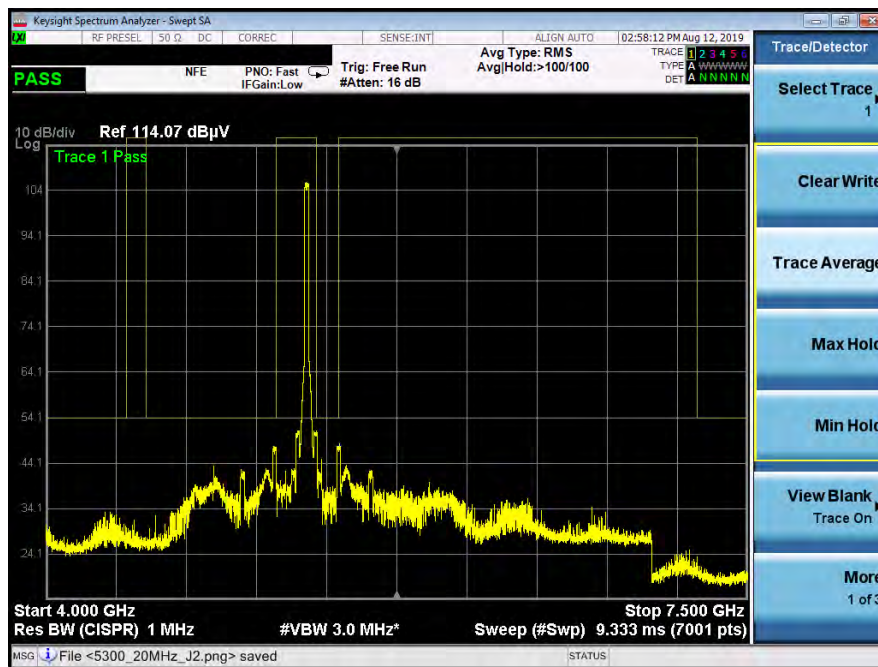
5300 MHz_10 MHz Channel_J2



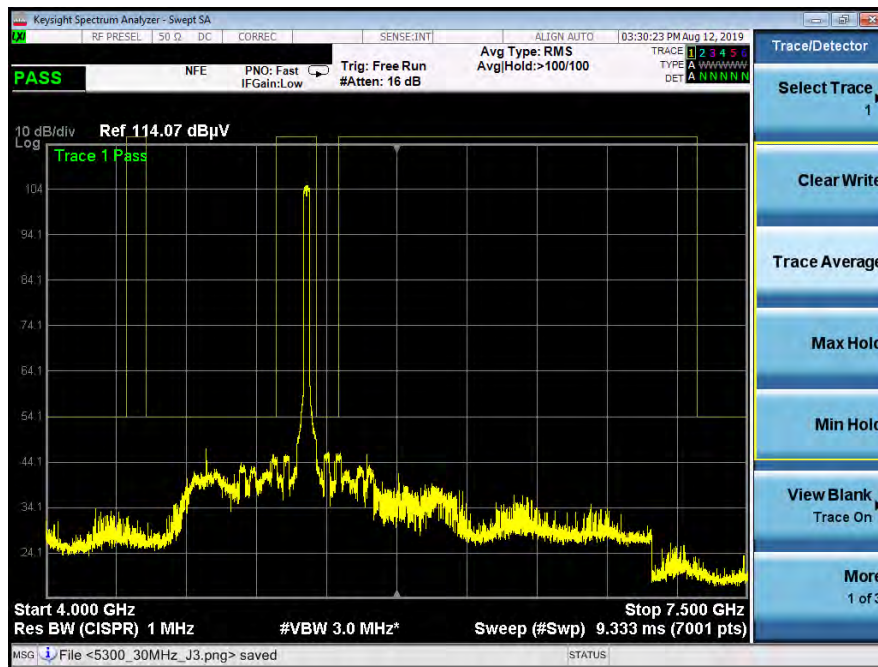
5300 MHz_10 MHz Channel_J3



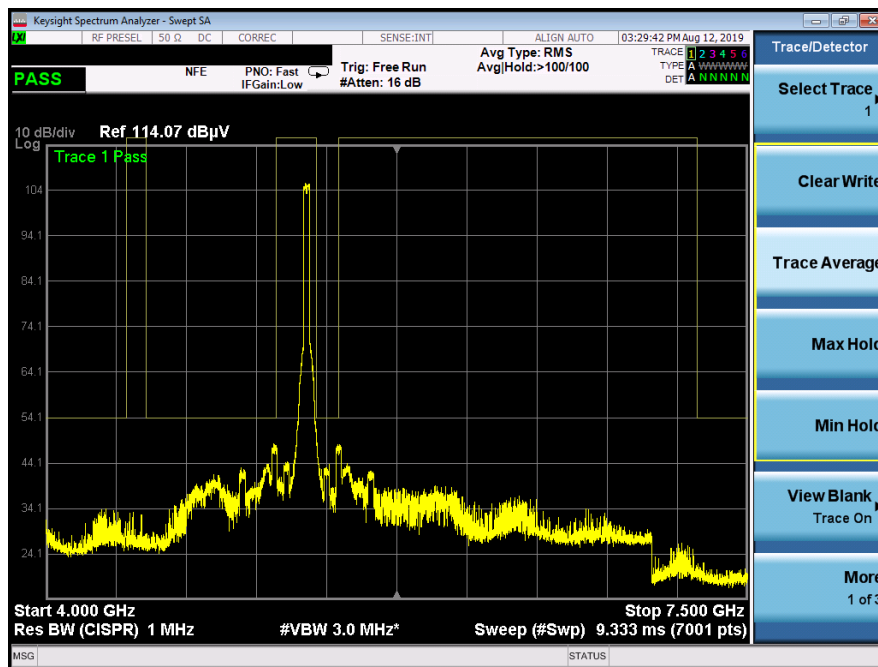
5300 MHz_20 MHz Channel_J2



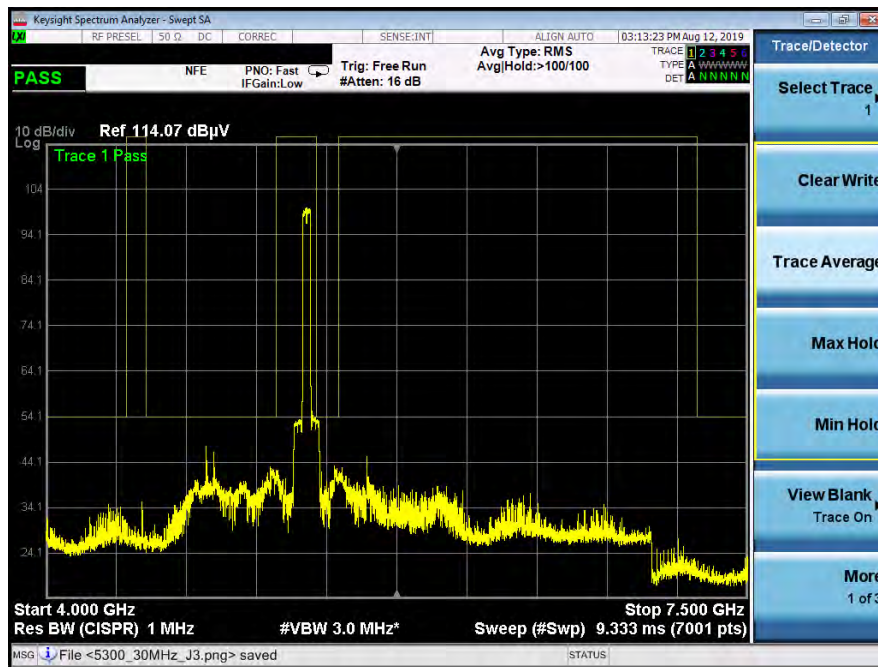
5300 MHz_20 MHz Channel_J3



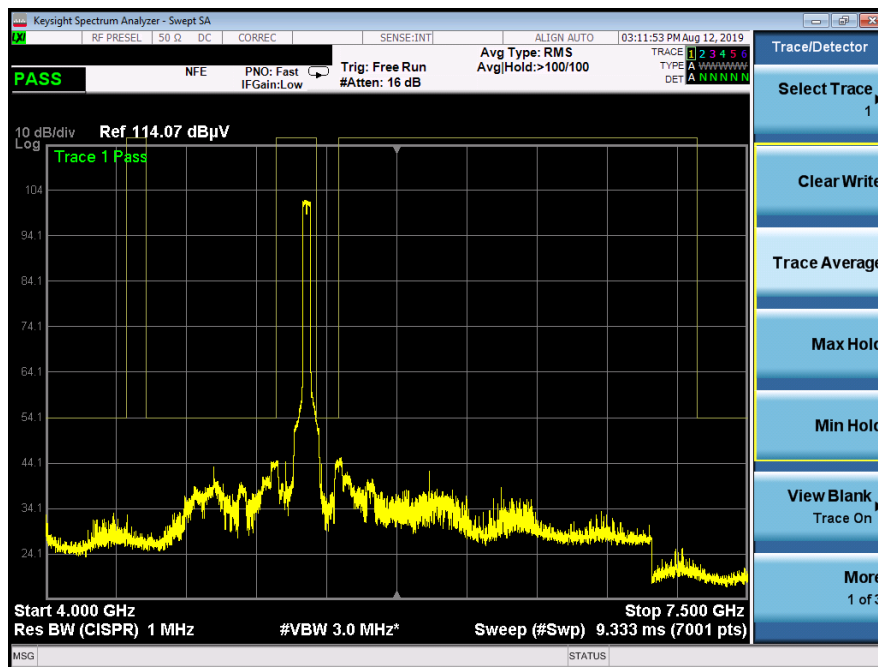
5300 MHz_30 MHz Channel_J2



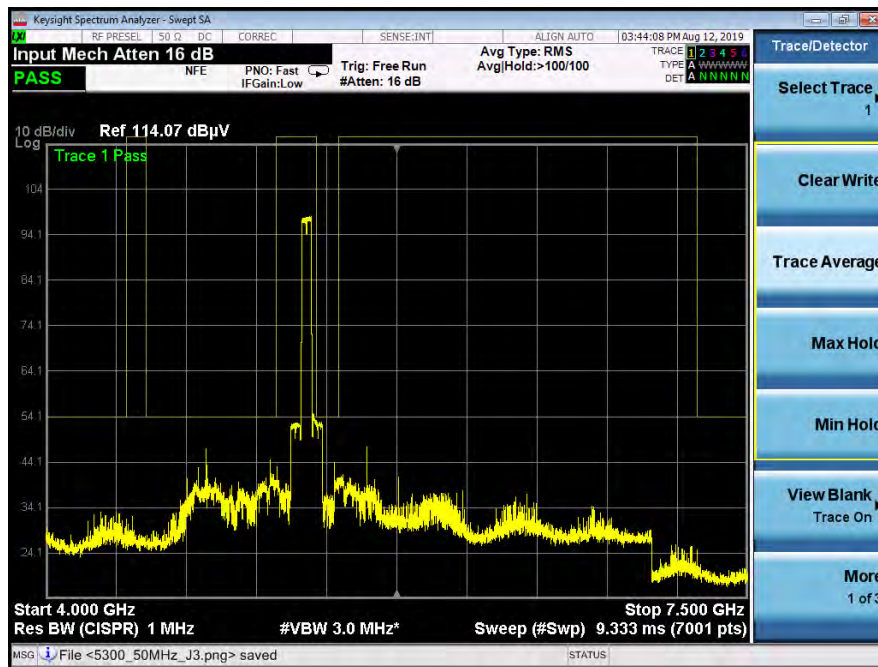
5300 MHz_30 MHz Channel_J3



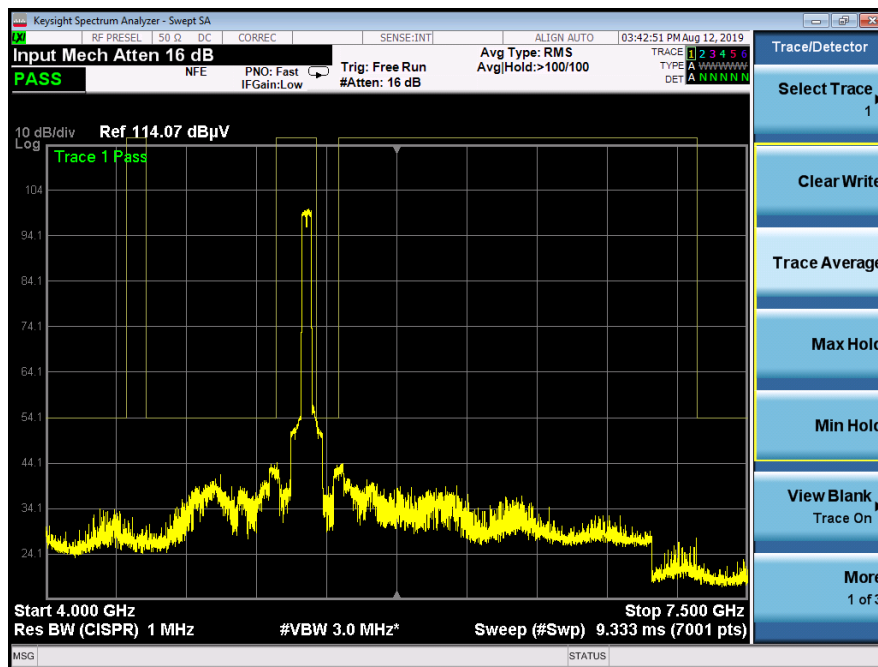
5300 MHz_40 MHz Channel_J2



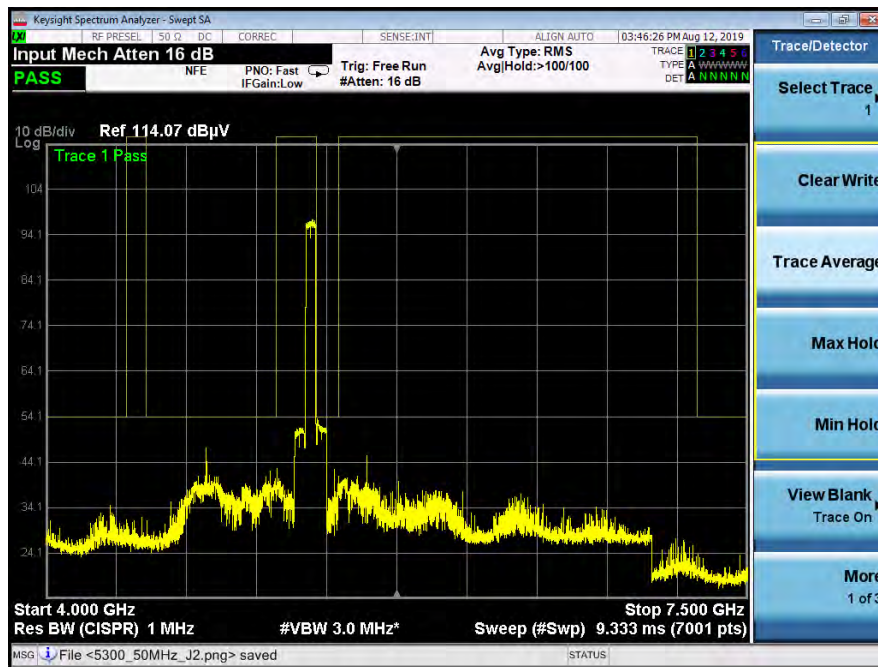
5300 MHz_40 MHz Channel_J3



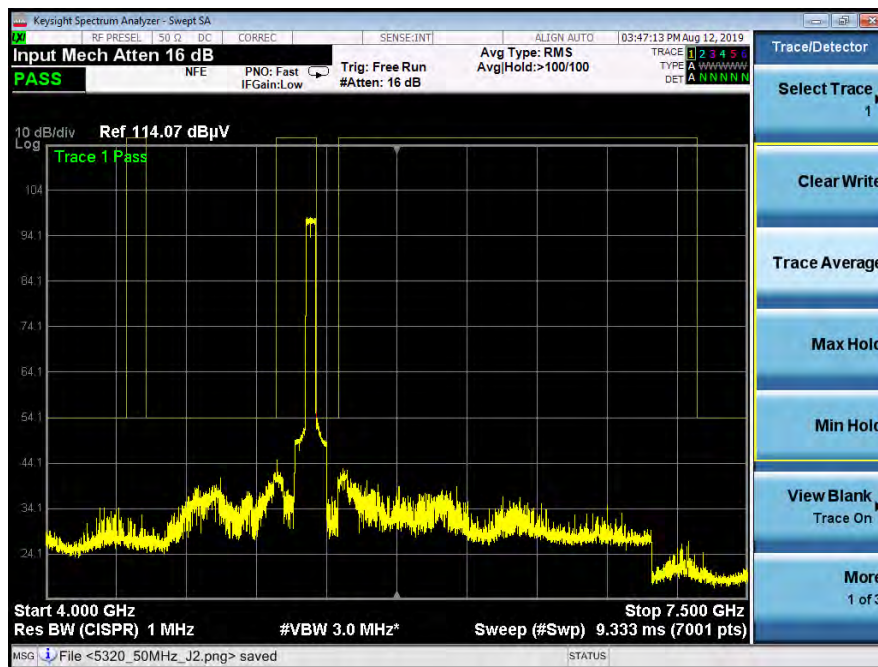
5300 MHz_50 MHz Channel_J2



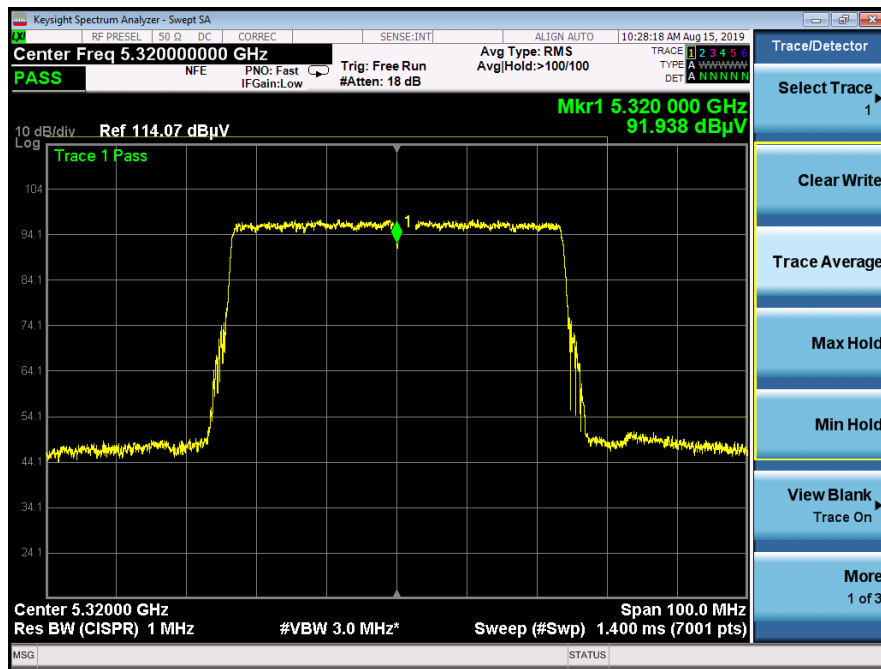
5300 MHz_50 MHz Channel_J3



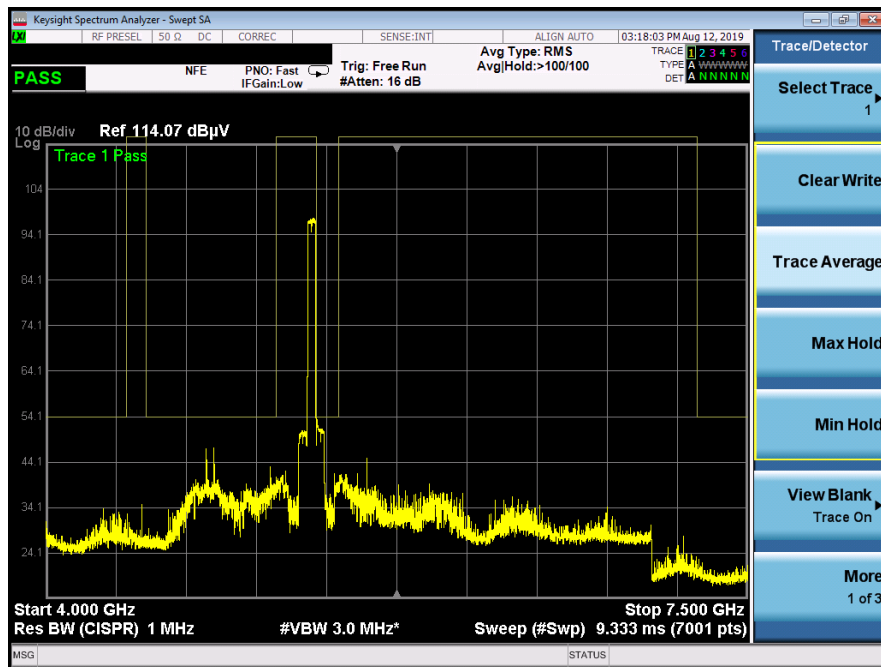
5320 MHz_50 MHz Channel_J2



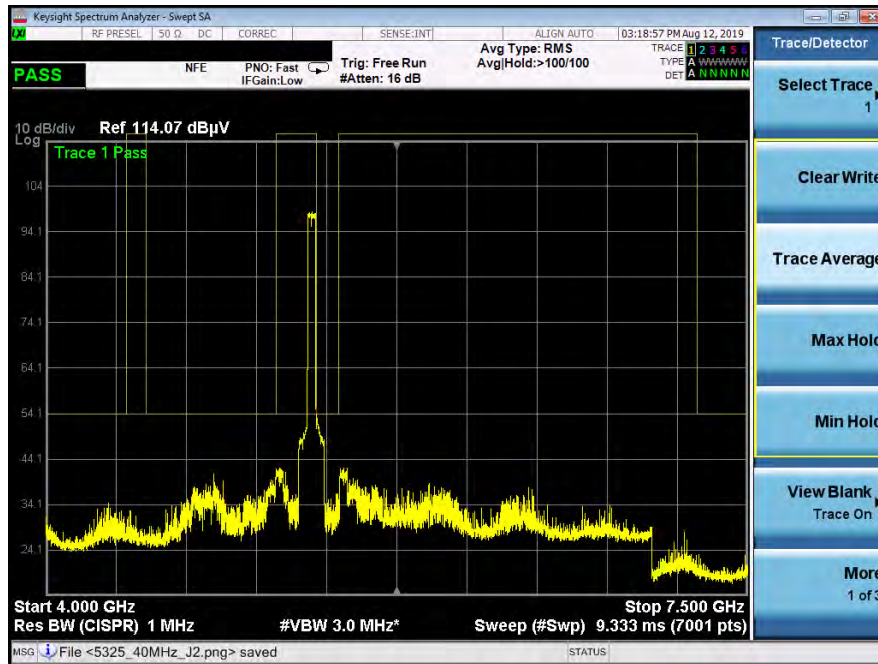
5320 MHz_50 MHz Channel_J3



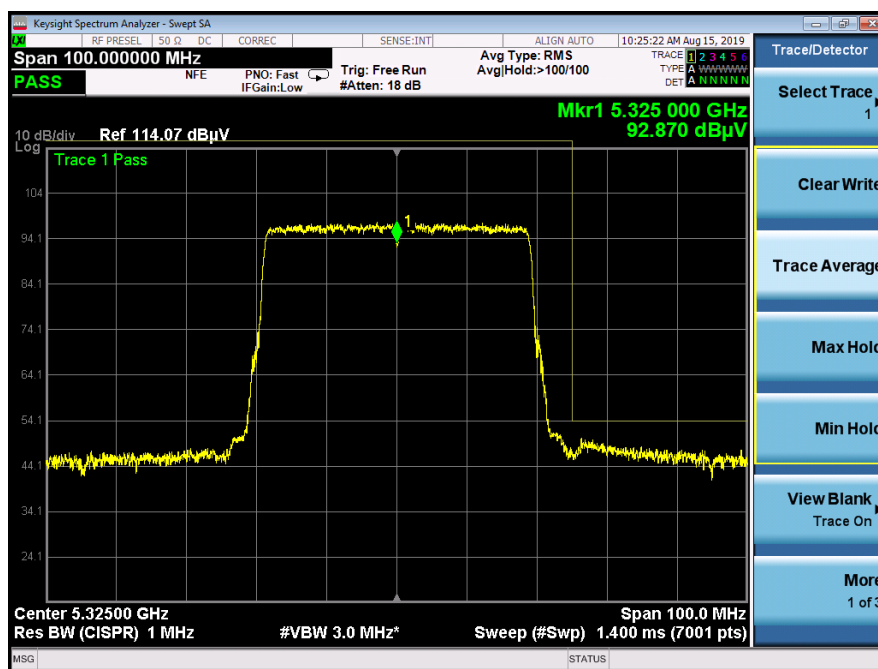
5320 MHz_50 MHz Channel_J3_Zoom



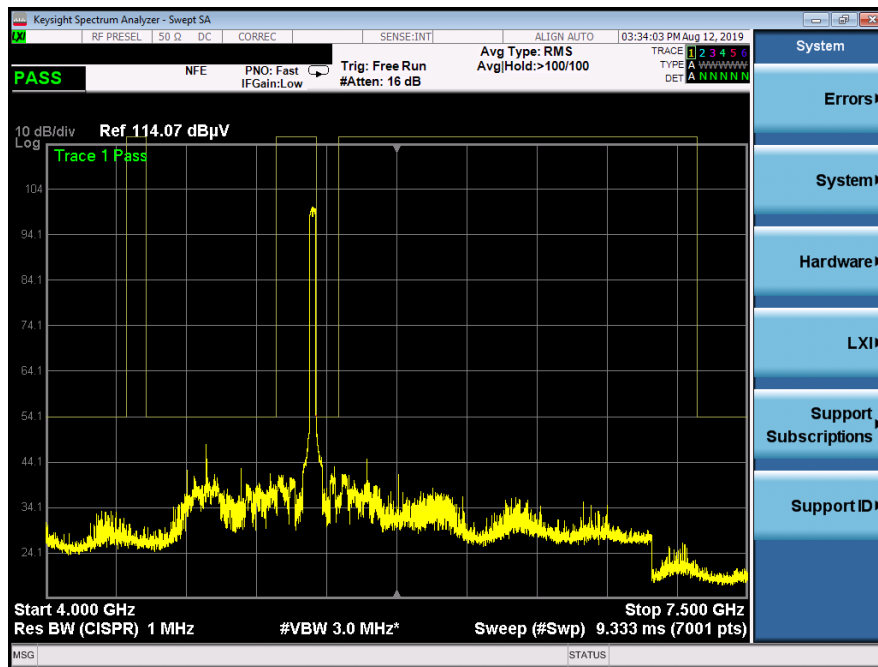
5325 MHz_40 MHz Channel_J2



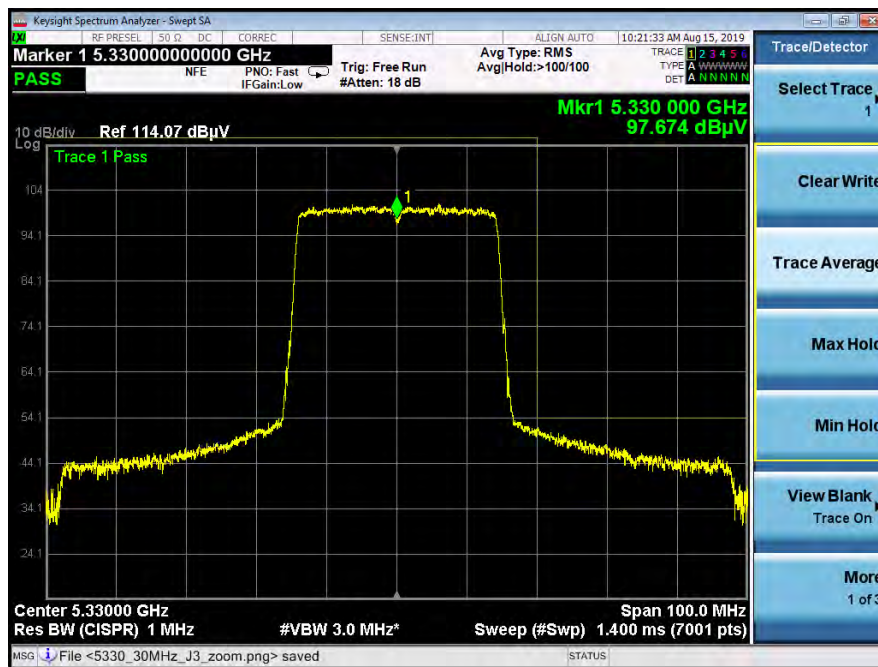
5325 MHz_40 MHz Channel_J3



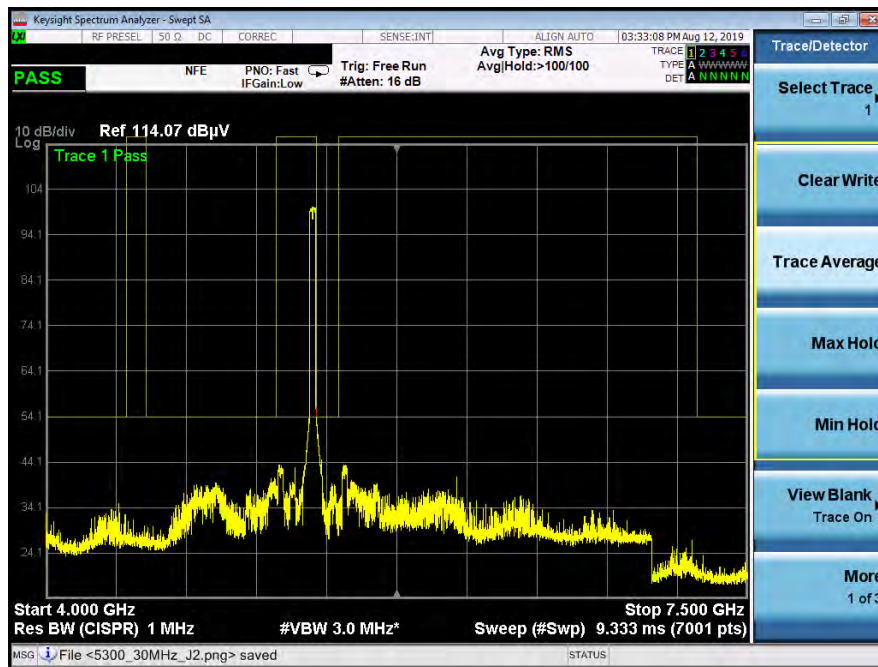
5325 MHz_40 MHz Channel_J3_Zoom



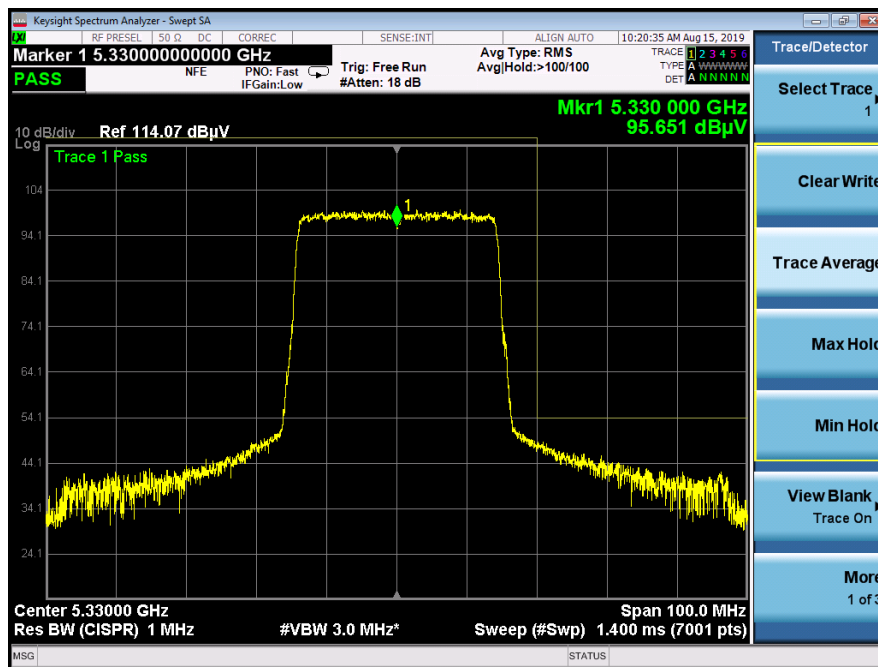
5330 MHz_30 MHz Channel_J2



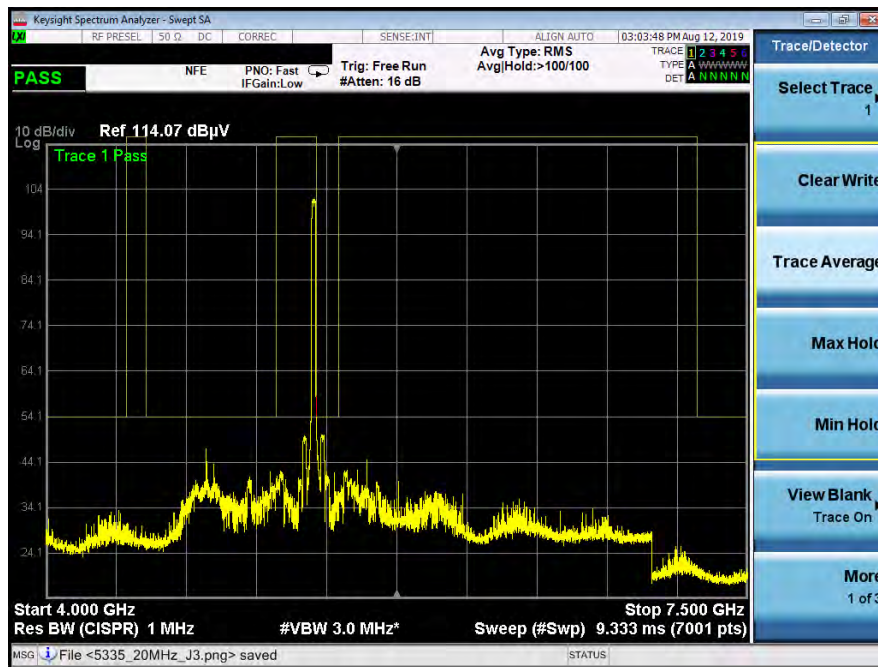
5330 MHz_30 MHz Channel_J2_Zoom



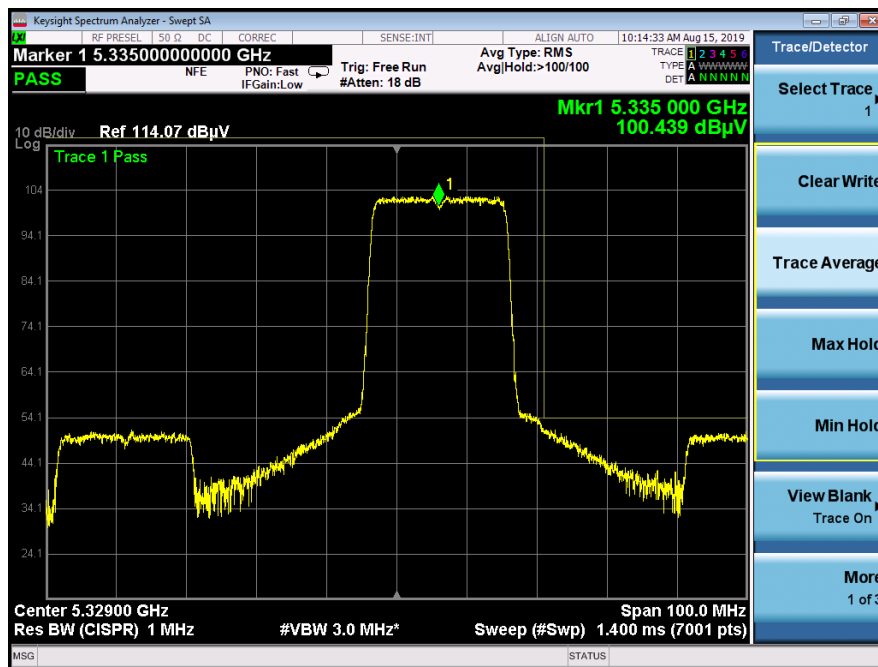
5330 MHz_30 MHz Channel_J3



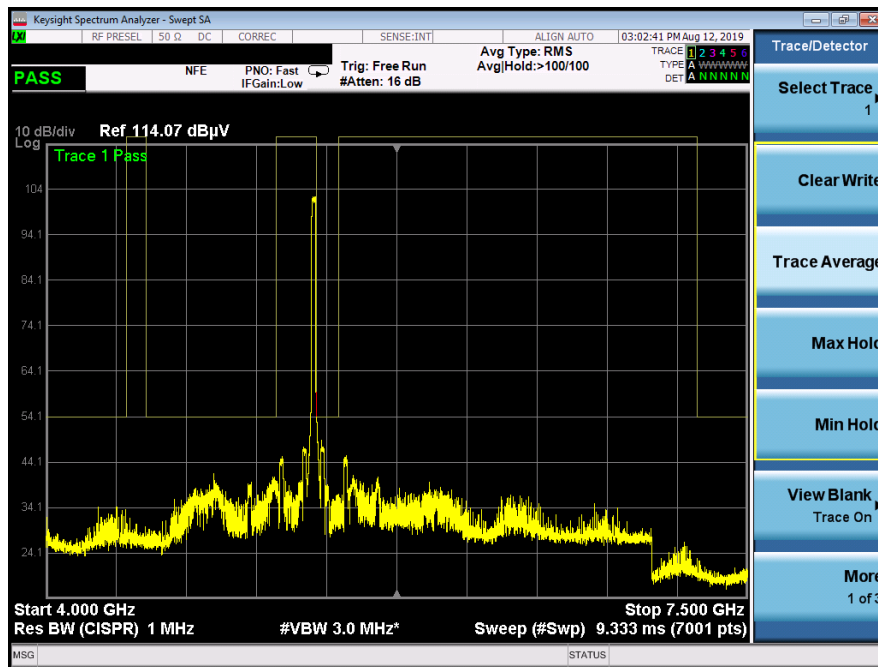
5330 MHz_30 MHz Channel_J3_Zoom



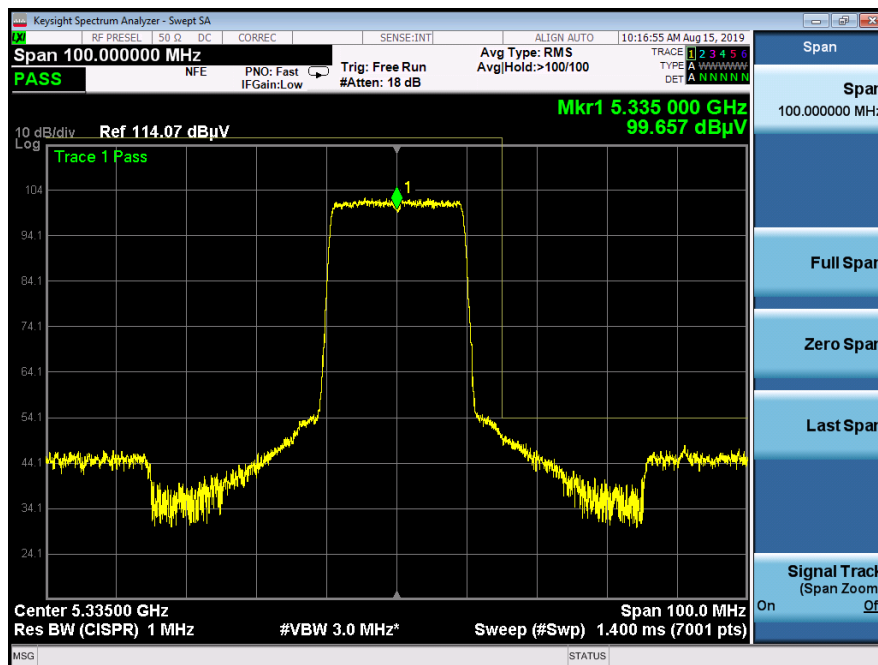
5335 MHz_20 MHz Channel_J2



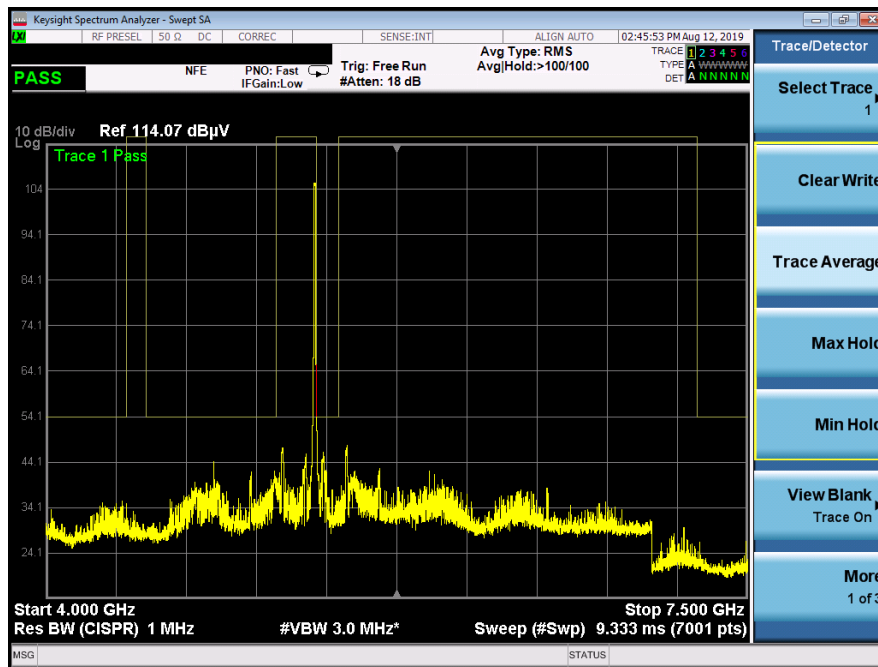
5335 MHz_20 MHz Channel_J2_Zoom



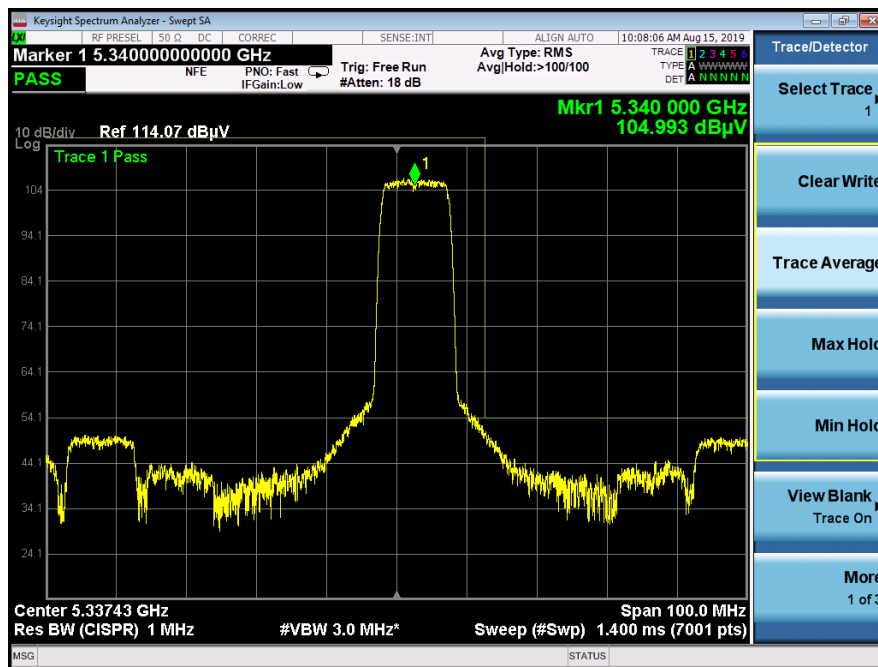
5335 MHz_20 MHz Channel_J3



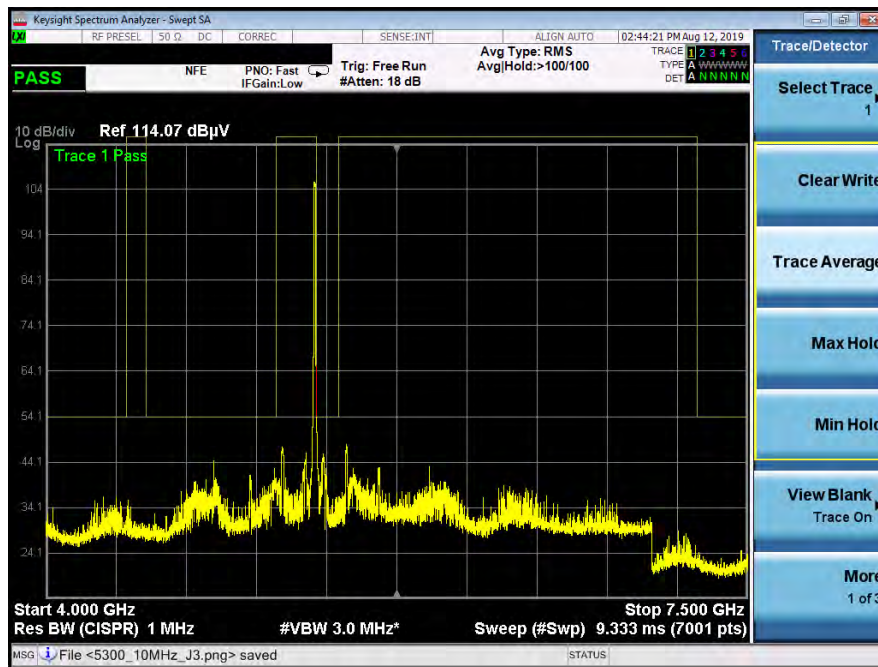
5335 MHz_20 MHz Channel_J3_Zoom



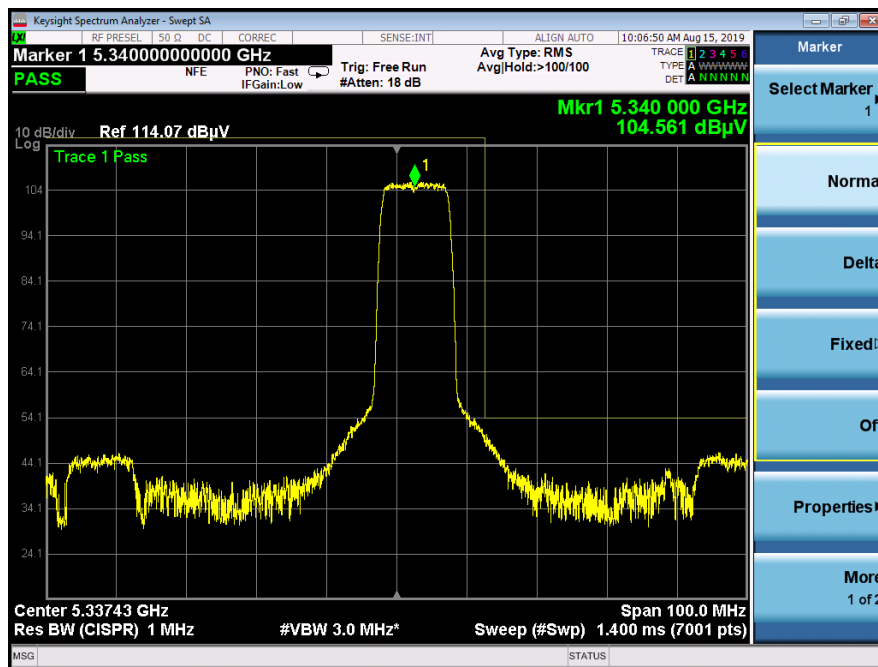
5340 MHz_10 MHz Channel_J2



5340 MHz_10 MHz Channel_J2_Zoom



5340 MHz_10 MHz Channel_J3



5340 MHz_10 MHz Channel_J3_Zoom

UNII-2C

Summary

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Emission Bandwidth 26 dB	5480.000	20.0	10.000000	PASS
RF output power	5480.000	20.0	10.000000	PASS
Power Spectral Density	5480.000	20.0	10.000000	PASS
Occupied Channel Bandwidth 99%	5480.000	20.0	10.000000	PASS
Frequency stability	5480.000	20.0	10.000000	PASS
Tx Spurious Emission	5480.000	20.0	10.000000	PASS
Emissions in restricted frequency bands (Peak)	5480.000	20.0	10.000000	PASS
Emission Bandwidth 26 dB	5600.000	20.0	10.000000	PASS
RF output power	5600.000	20.0	10.000000	PASS
Power Spectral Density	5600.000	20.0	10.000000	PASS
Occupied Channel Bandwidth 99%	5600.000	20.0	10.000000	PASS
Emission Bandwidth 26 dB	5715.000	20.0	10.000000	PASS
RF output power	5715.000	20.0	10.000000	PASS
Power Spectral Density	5715.000	20.0	10.000000	PASS
Occupied Channel Bandwidth 99%	5715.000	20.0	10.000000	PASS
Frequency stability	5715.000	20.0	10.000000	PASS
Tx Spurious Emission	5715.000	20.0	10.000000	PASS
Emissions in restricted frequency bands (Peak)	5715.000	20.0	10.000000	PASS
Emission Bandwidth 26 dB	5485.000	20.0	20.000000	PASS
RF output power	5485.000	20.0	20.000000	PASS
Power Spectral Density	5485.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5485.000	20.0	20.000000	PASS
Tx Spurious Emission	5485.000	20.0	20.000000	PASS
Emissions in restricted frequency bands (Peak)	5485.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5600.000	20.0	20.000000	PASS
RF output power	5600.000	20.0	20.000000	PASS
Power Spectral Density	5600.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5600.000	20.0	20.000000	PASS
Emissions in restricted frequency bands (Peak)	5600.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5710.000	20.0	20.000000	PASS
RF output power	5710.000	20.0	20.000000	PASS
Power Spectral Density	5710.000	20.0	20.000000	PASS
Occupied Channel Bandwidth 99%	5710.000	20.0	20.000000	PASS
Tx Spurious Emission	5710.000	20.0	20.000000	PASS
Emissions in restricted frequency bands (Peak)	5710.000	20.0	20.000000	PASS
Emission Bandwidth 26 dB	5490.000	20.0	30.000000	PASS
RF output power	5490.000	20.0	30.000000	PASS
Power Spectral Density	5490.000	20.0	30.000000	PASS
Occupied Channel Bandwidth 99%	5490.000	20.0	30.000000	PASS
Tx Spurious Emission	5490.000	20.0	30.000000	PASS
Emissions in restricted frequency bands (Peak)	5490.000	20.0	30.000000	PASS
Emission Bandwidth 26 dB	5600.000	20.0	30.000000	PASS
RF output power	5600.000	20.0	30.000000	PASS
Power Spectral Density	5600.000	20.0	30.000000	PASS
Occupied Channel Bandwidth 99%	5600.000	20.0	30.000000	PASS
Emissions in restricted frequency bands (Peak)	5600.000	20.0	30.000000	PASS
Emission Bandwidth 26 dB	5705.000	20.0	30.000000	PASS
RF output power	5705.000	20.0	30.000000	PASS
Power Spectral Density	5705.000	20.0	30.000000	PASS
Occupied Channel Bandwidth 99%	5705.000	20.0	30.000000	PASS
Tx Spurious Emission	5705.000	20.0	30.000000	PASS
Emissions in restricted frequency bands (Peak)	5705.000	20.0	30.000000	PASS
Emission Bandwidth 26 dB	5495.000	20.0	40.000000	PASS
RF output power	5495.000	20.0	40.000000	PASS
Power Spectral Density	5495.000	20.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5495.000	20.0	40.000000	PASS
Tx Spurious Emission	5495.000	20.0	40.000000	PASS
Emissions in restricted frequency bands (Peak)	5495.000	20.0	40.000000	PASS
Emission Bandwidth 26 dB	5600.000	20.0	40.000000	PASS
RF output power	5600.000	20.0	40.000000	PASS
Power Spectral Density	5600.000	20.0	40.000000	PASS

Test	Frequency (MHz)	Nominal Power (dBm)	Nominal Bandwidth (MHz)	Result
Occupied Channel Bandwidth 99%	5600.000	20.0	40.000000	PASS
Emissions in restricted frequency bands (Peak)	5600.000	20.0	40.000000	PASS
Emission Bandwidth 26 dB	5700.000	20.0	40.000000	PASS
RF output power	5700.000	20.0	40.000000	PASS
Power Spectral Density	5700.000	20.0	40.000000	PASS
Occupied Channel Bandwidth 99%	5700.000	20.0	40.000000	PASS
Tx Spurious Emission	5700.000	20.0	40.000000	PASS
Emissions in restricted frequency bands (Peak)	5700.000	20.0	40.000000	PASS
Emission Bandwidth 26 dB	5500.000	20.0	50.000000	PASS
RF output power	5500.000	20.0	50.000000	PASS
Power Spectral Density	5500.000	20.0	50.000000	PASS
Occupied Channel Bandwidth 99%	5500.000	20.0	50.000000	PASS
Tx Spurious Emission	5500.000	20.0	50.000000	PASS
Emissions in restricted frequency bands (Peak)	5500.000	20.0	50.000000	PASS
Emission Bandwidth 26 dB	5600.000	20.0	50.000000	PASS
RF output power	5600.000	20.0	50.000000	PASS
Power Spectral Density	5600.000	20.0	50.000000	PASS
Occupied Channel Bandwidth 99%	5600.000	20.0	50.000000	PASS
Emissions in restricted frequency bands (Peak)	5600.000	20.0	50.000000	PASS
Emission Bandwidth 26 dB	5690.000	20.0	50.000000	PASS
RF output power	5690.000	20.0	50.000000	PASS
Power Spectral Density	5690.000	20.0	50.000000	PASS
Occupied Channel Bandwidth 99%	5690.000	20.0	50.000000	PASS
Tx Spurious Emission	5690.000	20.0	50.000000	PASS
Emissions in restricted frequency bands (Peak)	5690.000	20.0	50.000000	PASS
Emissions in restricted frequency bands (Average)	5480.000	20.0	10.000000	PASS
Emissions in restricted frequency bands (Peak)	5600.000	20.0	10.000000	PASS
Emissions in restricted frequency bands (Average)	5600.000	20.0	10.000000	PASS
Emissions in restricted frequency bands (Average)	5715.000	20.0	10.000000	PASS
Emissions in restricted frequency bands (Average)	5485.000	20.0	20.000000	PASS
Emissions in restricted frequency bands (Average)	5600.000	20.0	20.000000	PASS
Emissions in restricted frequency bands (Average)	5710.000	20.0	20.000000	PASS
Emissions in restricted frequency bands (Average)	5495.000	20.0	40.000000	PASS
Emissions in restricted frequency bands (Average)	5600.000	20.0	40.000000	PASS
Emissions in restricted frequency bands (Average)	5700.000	20.0	40.000000	PASS
Emissions in restricted frequency bands (Average)	5490.000	20.0	30.000000	PASS
Emissions in restricted frequency bands (Average)	5600.000	20.0	30.000000	PASS
Emissions in restricted frequency bands (Average)	5705.000	20.0	30.000000	PASS
Emissions in restricted frequency bands (Average)	5500.000	20.0	50.000000	PASS
Emissions in restricted frequency bands (Average)	5600.000	20.0	50.000000	PASS
Emissions in restricted frequency bands (Average)	5690.000	20.0	50.000000	PASS

Emission Bandwidth 26 dB (5480 MHz; 10 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 v02r01 D and ANSI C63.10-2013

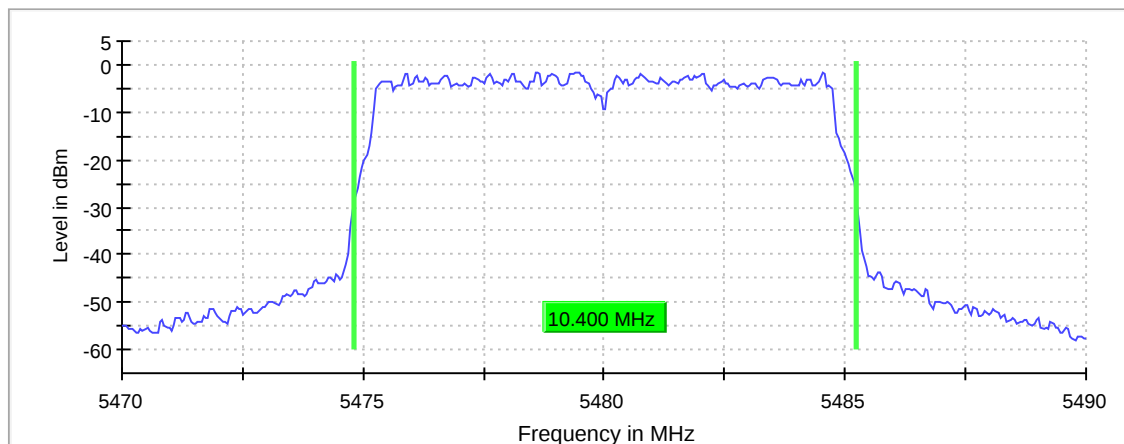
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5480.000000	10.400000	---	---	5474.825000	5485.225000

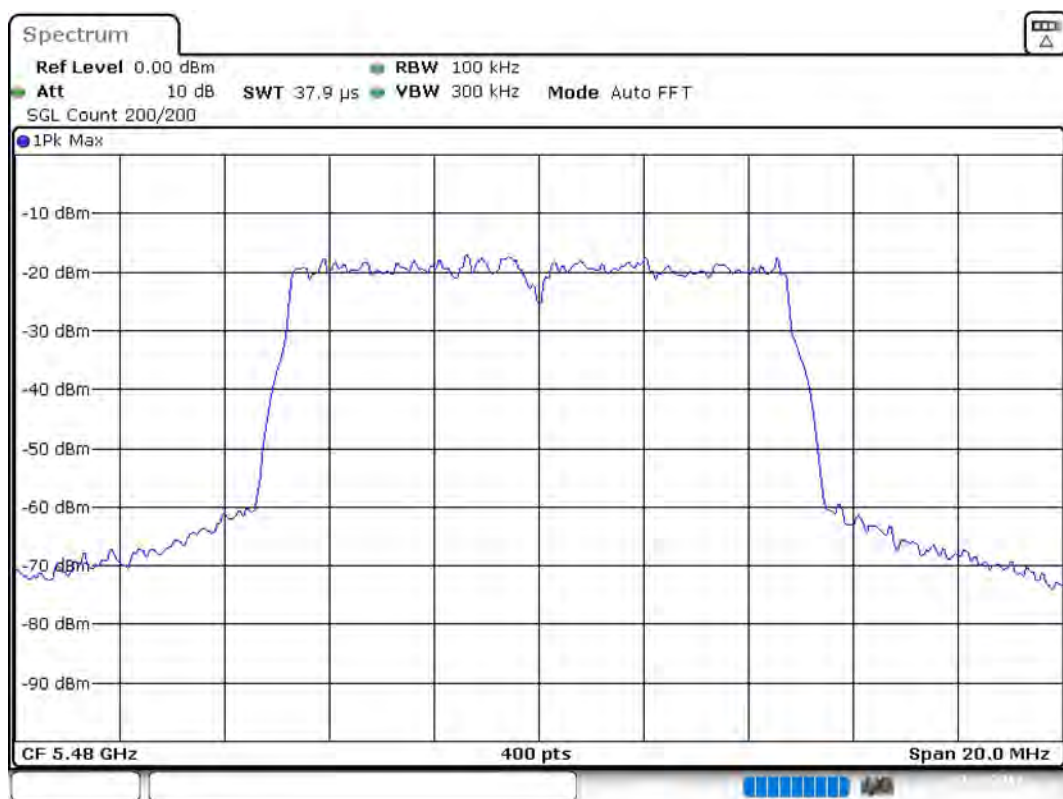
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5480.000000	-1.4	PASS

26 dB Bandwidth



Bandwidth



Date: 7.AUG.2019 21:24:31

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.47000 GHz	5.47000 GHz
Stop Frequency	5.49000 GHz	5.49000 GHz
Span	20.000 MHz	20.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	400	~ 400
Sweeptime	37.891 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamplifier	off	off

RF output power (5480 MHz; 10 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.E and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5480.000000	26.2	---	26.2	98.357	PASS

Power Spectral Density (5480 MHz; 10 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.F and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5480.000000	5481.386139	2.490	5.3	PASS

Ports

Port	Duty Cycle (%)
1	0.000
2	0.000

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.47500 GHz	5.47500 GHz
Stop Frequency	5.48500 GHz	5.48500 GHz
Span	10.000 MHz	10.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 20
SweepTime	2.020 ms	2.020 ms
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

Occupied Channel Bandwidth 99% (5480 MHz; 10 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 v02r01 D and ANSI C63.10-2013

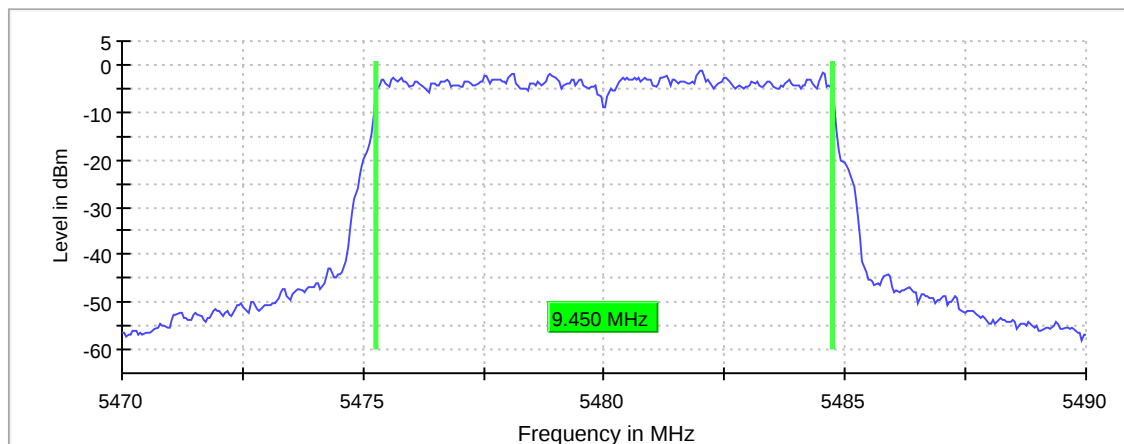
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5480.000000	9.450000	---	---	5475.275000	5484.725000

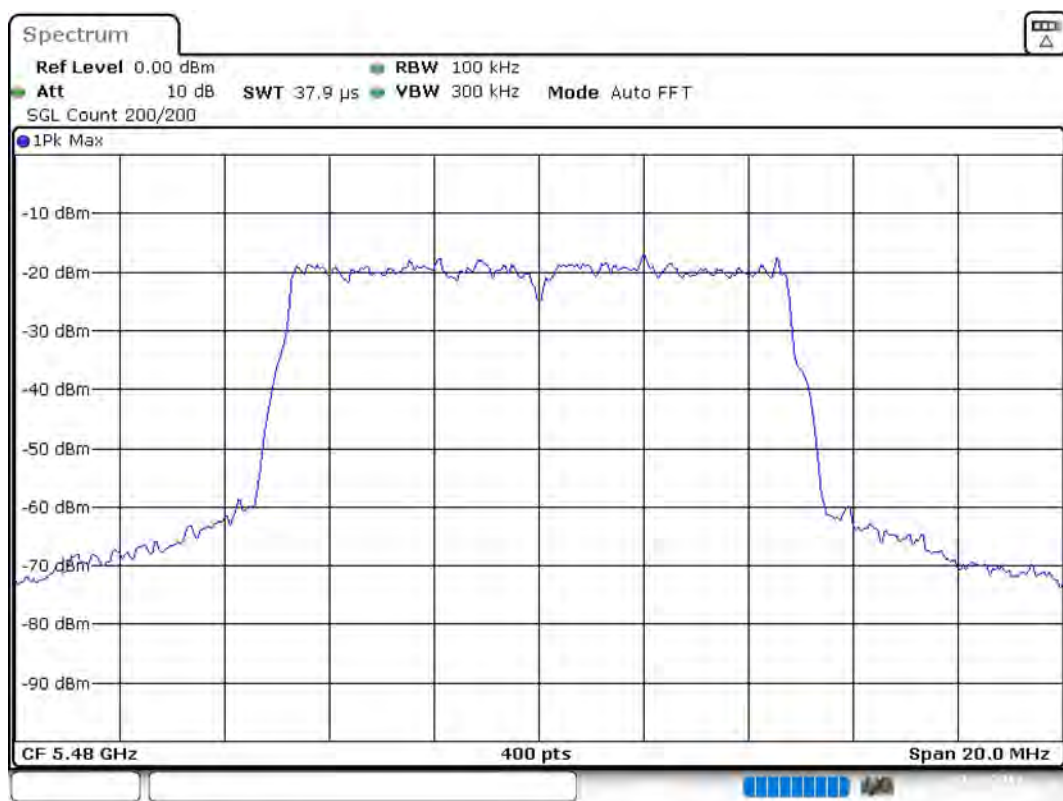
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5480.000000	PASS

99 % Bandwidth



Bandwidth



Date: 7.AUG.2019 21:25:23

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.47000 GHz	5.47000 GHz
Stop Frequency	5.49000 GHz	5.49000 GHz
Span	20.000 MHz	20.000 MHz
RBW	100.000 kHz	>= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	400	~ 400
Sweeptime	37.891 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamplifier	off	off

Frequency stability (5480 MHz; 10 MHz)

Test according to FCC title 47 part 15 §15.407(g), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 A.3 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	Difference (ppm)	Frequency Difference (kHz)	Limit Min (MHz)	Limit Max (MHz)	Result
5480.000000	5480.001500	0.274	1.500000	---	---	PASS

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.47500 GHz	5.47500 GHz
Stop Frequency	5.48500 GHz	5.48500 GHz
Span	10.000 MHz	10.000 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	10001	~ 10001
SweepTime	568.782 µs	AUTO
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	50	50
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	1.00 dB	1.00 dB
Run	9 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.99 dB	1.00 dB

Tx Spurious Emission (5480 MHz; 10 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.G.4&5 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5480.000000	PASS

Final measurements

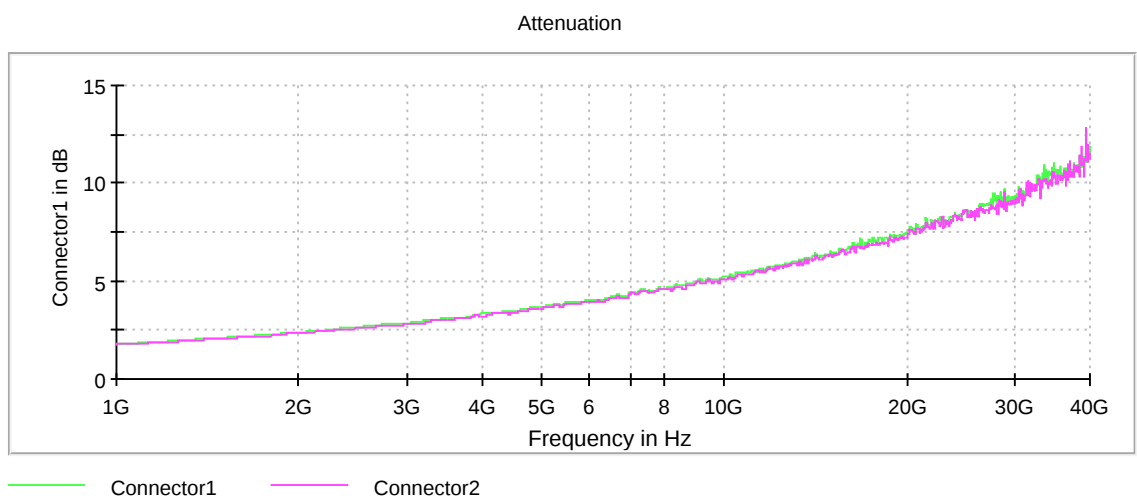
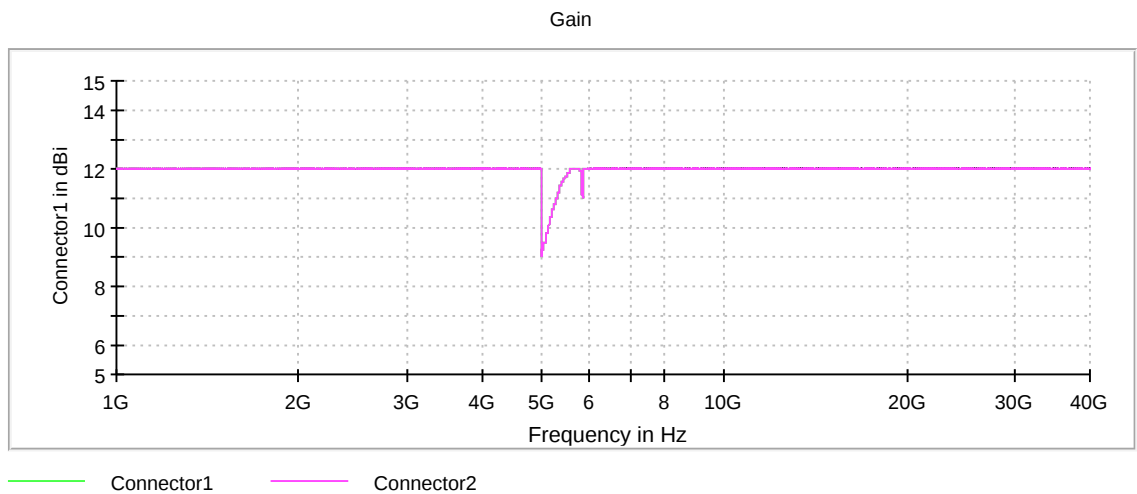
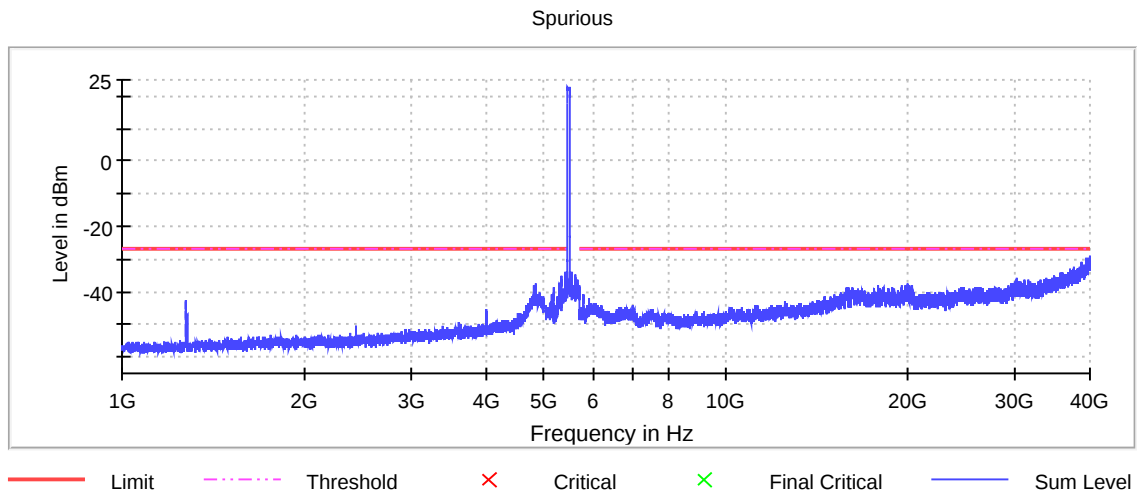
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
39895.750000	-29.1	2.1	-27.0
39904.750000	-29.1	2.1	-27.0
39347.250000	-29.4	2.4	-27.0
39935.250000	-29.6	2.6	-27.0
39847.750000	-29.7	2.7	-27.0
39905.250000	-29.7	2.7	-27.0
5469.750000	-29.9	2.9	-27.0
39908.250000	-29.9	2.9	-27.0
39847.250000	-30.0	3.0	-27.0
39881.750000	-30.1	3.1	-27.0
39963.250000	-30.1	3.1	-27.0
39887.750000	-30.2	3.2	-27.0
39880.750000	-30.3	3.3	-27.0
39334.750000	-30.3	3.3	-27.0
39504.750000	-30.3	3.3	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
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 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	≤ 1.000 MHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	8300	~ 8300
SweepTime	8.300 ms	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off

Emissions in restricted frequency bands (Peak) (5480 MHz; 10 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures
New Rules v02r01 II.G.1 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5480.000000	PASS

Final measurements

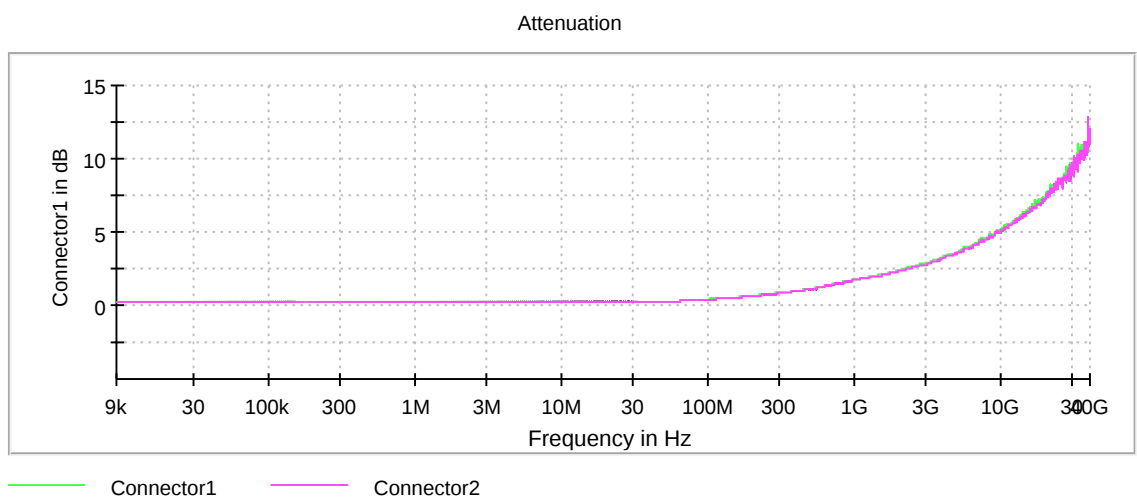
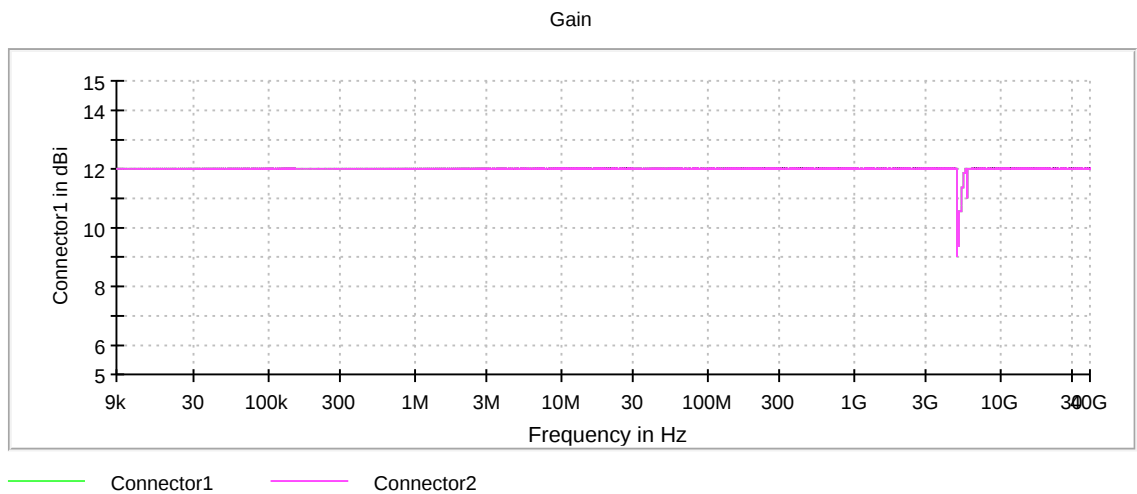
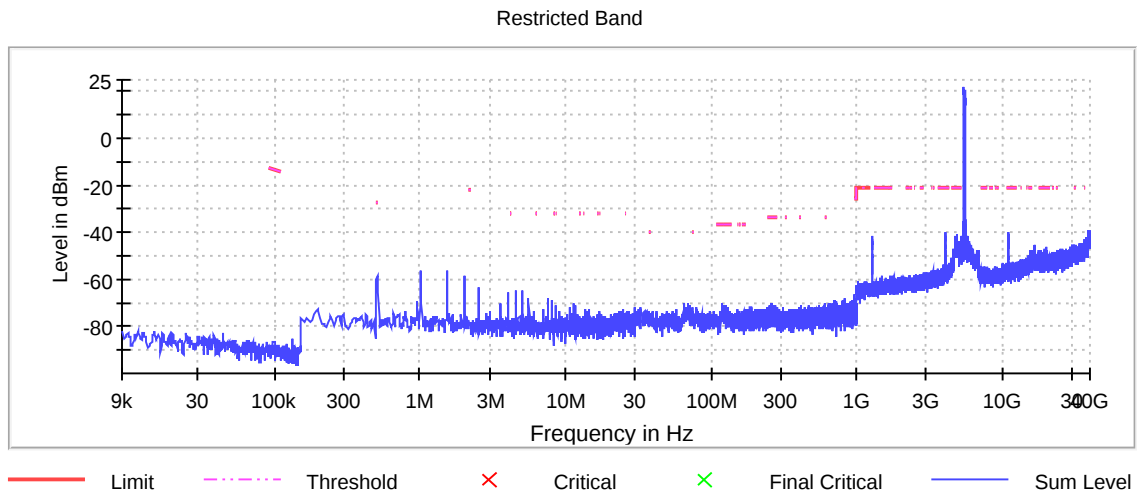
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5438.250000	-36.7	15.5	-21.2
5437.750000	-36.7	15.5	-21.2
5433.750000	-37.0	15.8	-21.2
5434.250000	-37.1	15.9	-21.2
5437.250000	-38.0	16.8	-21.2
5424.250000	-38.1	16.9	-21.2
5438.750000	-38.2	17.0	-21.2
5431.250000	-38.2	17.0	-21.2
5436.250000	-38.3	17.1	-21.2
5424.750000	-38.4	17.2	-21.2
5423.750000	-38.5	17.3	-21.2
5434.750000	-38.5	17.3	-21.2
5435.750000	-38.7	17.5	-21.2
5431.750000	-38.7	17.5	-21.2
5433.250000	-38.8	17.6	-21.2

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
0.009000	0.150000	1	1
0.150000	30.000000	1	1
30.000000	1000.000000	1	1
1000.000000	5150.000000	1	2
5150.000000	5350.000000	1	2
5350.000000	5470.000000	1	2
5470.000000	5850.000000	1	2
5850.000000	18000.000000	1	2
18000.000000	26000.000000	1	2
26000.000000	40000.000000	1	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	300.000 Hz	<= 300.000 Hz
VBW	1.000 kHz	>= 900.000 Hz
SweepPoints	940	~ 940
SweepTime	6.322 ms	AUTO
Reference Level	5.000 dBm	AUTO
Attenuation	15.000 dB	5.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

Emission Bandwidth 26 dB (5600 MHz; 10 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 v02r01 D and ANSI C63.10-2013

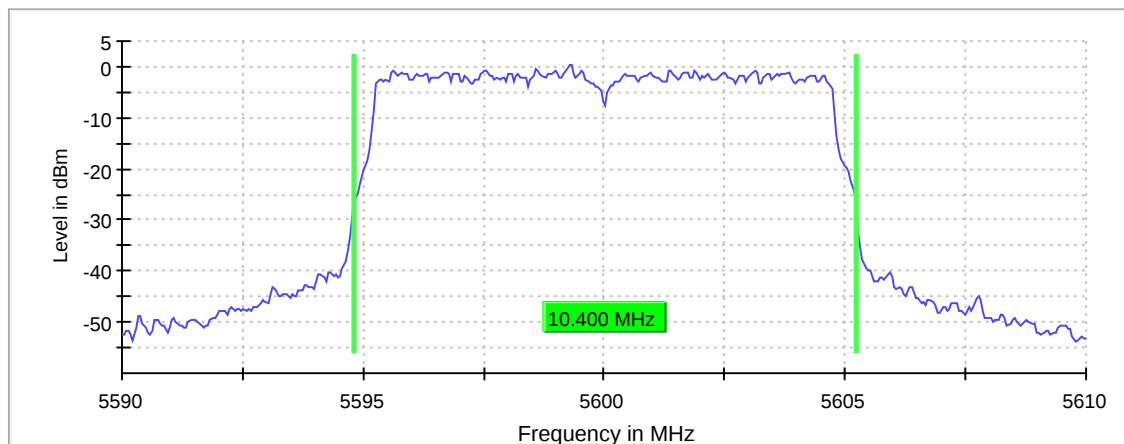
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5600.000000	10.400000	---	---	5594.825000	5605.225000

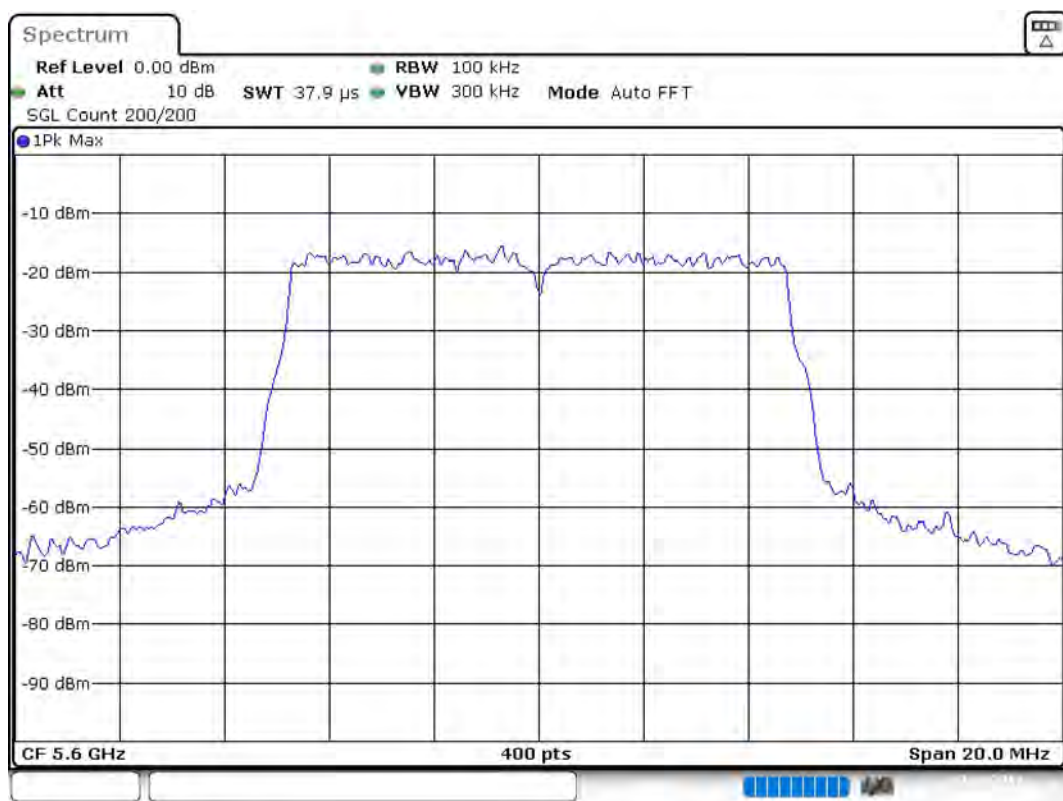
(continuation of the "26 dB Bandwidth" table from column 6 ...)

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

26 dB Bandwidth



Bandwidth



Date: 7.AUG.2019 21:44:31

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.59000 GHz	5.59000 GHz
Stop Frequency	5.61000 GHz	5.61000 GHz
Span	20.000 MHz	20.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	$\geq$ 300.000 kHz
SweepPoints	400	~ 400
Sweeptime	37.891 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamplifier	off	off

RF output power (5600 MHz; 10 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.E and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5600.000000	27.8	---	27.8	98.358	PASS

Power Spectral Density (5600 MHz; 10 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.F and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5600.000000	5601.584158	4.652	5.0	PASS

Ports

Port	Duty Cycle (%)
1	0.000
2	0.000

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.59500 GHz	5.59500 GHz
Stop Frequency	5.60500 GHz	5.60500 GHz
Span	10.000 MHz	10.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 20
SweepTime	2.020 ms	2.020 ms
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

Occupied Channel Bandwidth 99% (5600 MHz; 10 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 v02r01 D and ANSI C63.10-2013

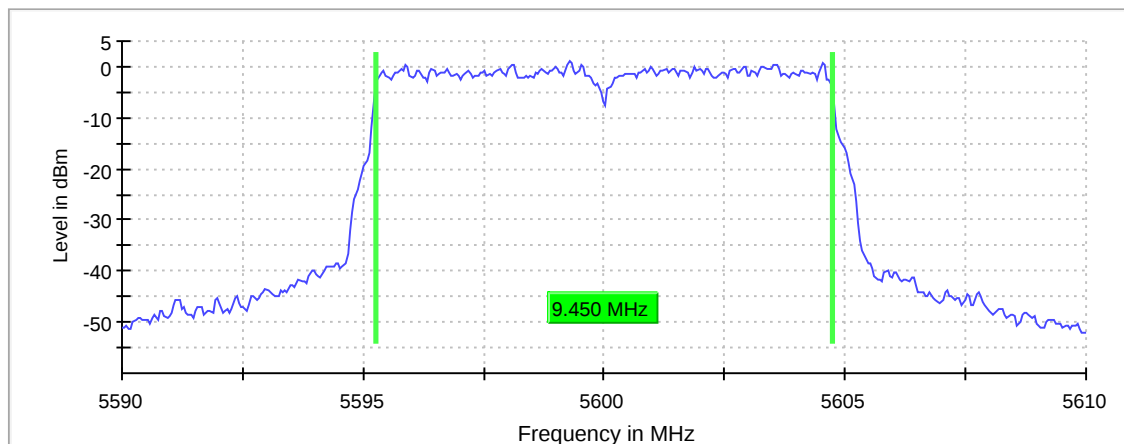
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5600.000000	9.450000	---	---	5595.275000	5604.725000

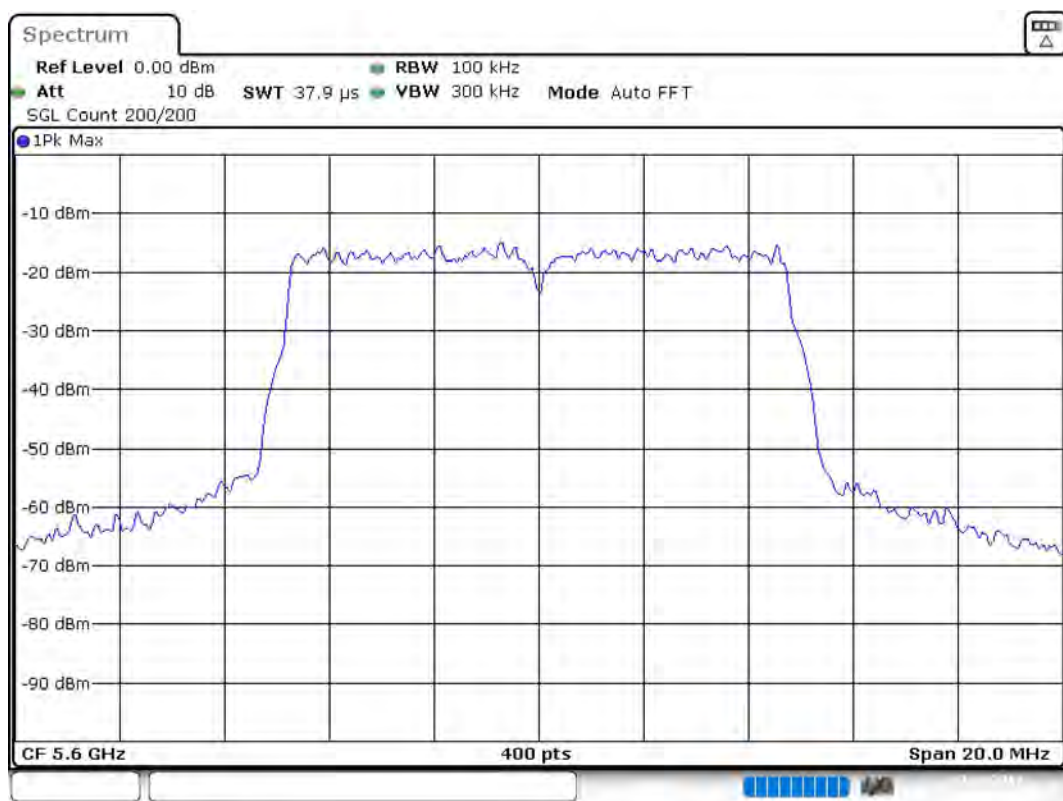
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5600.000000	PASS

99 % Bandwidth



Bandwidth



Date: 7.AUG.2019 21:45:23

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.59000 GHz	5.59000 GHz
Stop Frequency	5.61000 GHz	5.61000 GHz
Span	20.000 MHz	20.000 MHz
RBW	100.000 kHz	>= 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	400	~ 400
Sweeptime	37.891 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamplifier	off	off

Emission Bandwidth 26 dB (5715 MHz; 10 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 v02r01 D and ANSI C63.10-2013

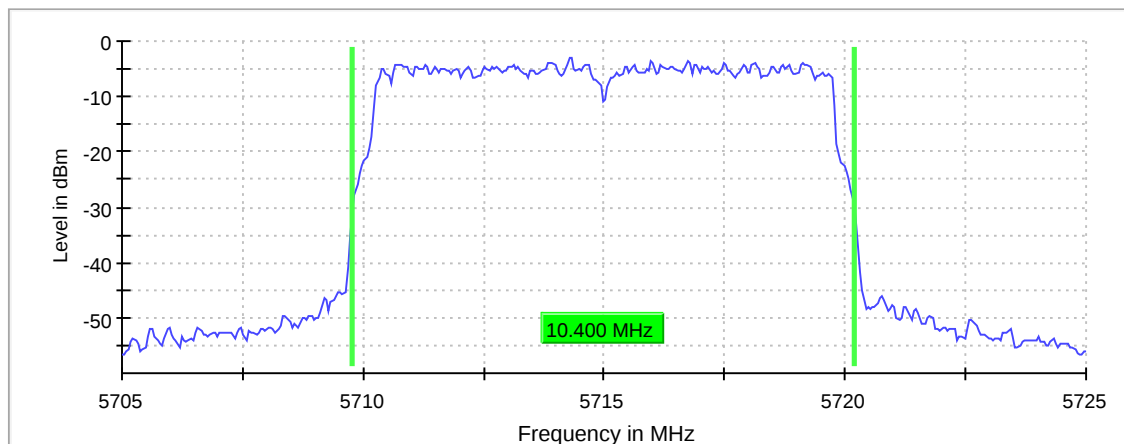
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5715.000000	10.400000	---	---	5709.775000	5720.175000

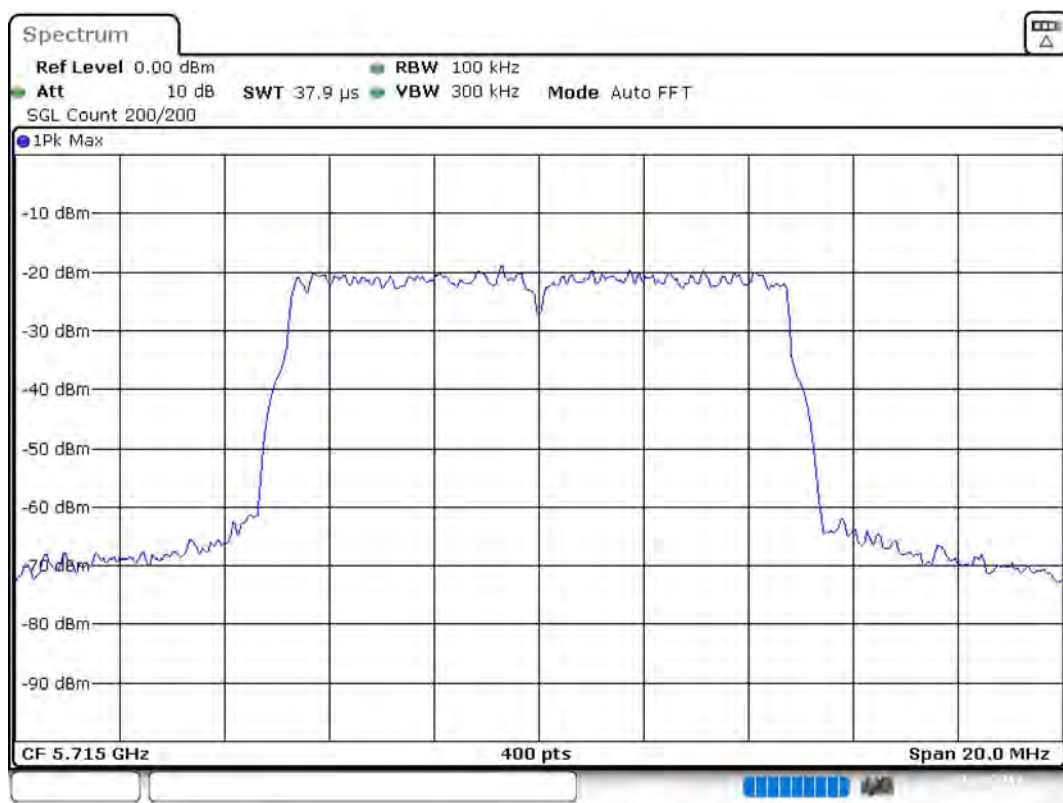
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5715.000000	-2.9	PASS

26 dB Bandwidth



Bandwidth



Date: 7.AUG.2019 22:05:09

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.70500 GHz	5.70500 GHz
Stop Frequency	5.72500 GHz	5.72500 GHz
Span	20.000 MHz	20.000 MHz
RBW	100.000 kHz	~ 100.000 kHz
VBW	300.000 kHz	>= 300.000 kHz
SweepPoints	400	~ 400
Sweeptime	37.891 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off

RF output power (5715 MHz; 10 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.E and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5715.000000	24.7	---	24.7	98.368	PASS

Power Spectral Density (5715 MHz; 10 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.F and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5715.000000	5712.920792	1.529	5.0	PASS

Ports

Port	Duty Cycle (%)
1	0.000
2	0.000

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.71000 GHz	5.71000 GHz
Stop Frequency	5.72000 GHz	5.72000 GHz
Span	10.000 MHz	10.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 20
SweepTime	2.020 ms	2.020 ms
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

Occupied Channel Bandwidth 99% (5715 MHz; 10 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 v02r01 D and ANSI C63.10-2013

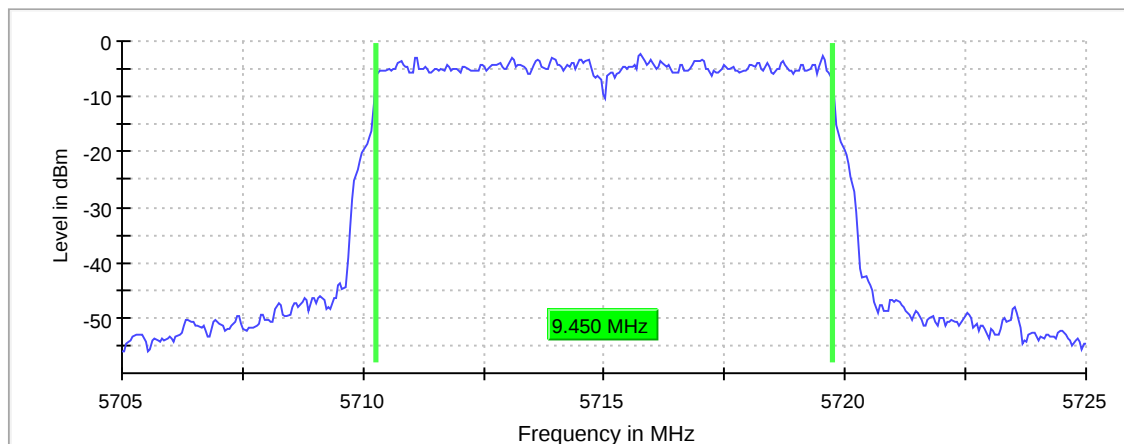
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5715.000000	9.450000	---	---	5710.275000	5719.725000

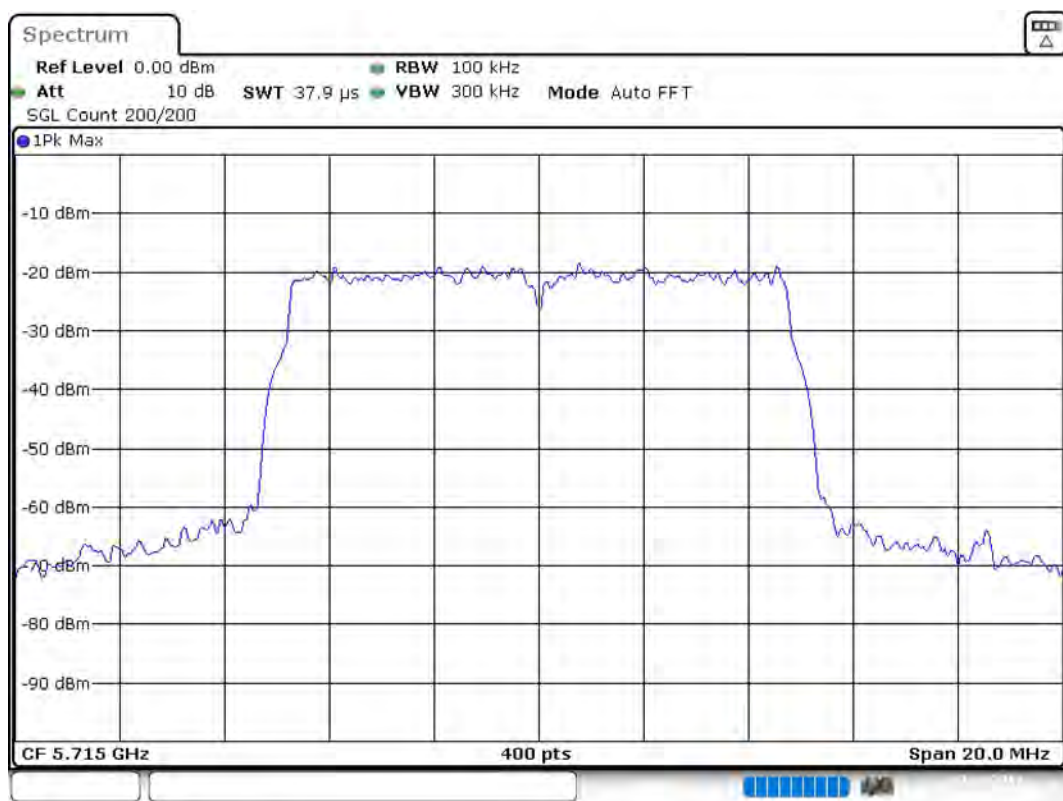
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5715.000000	PASS

99 % Bandwidth



Bandwidth



Date: 7.AUG.2019 22:06:00

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.70500 GHz	5.70500 GHz
Stop Frequency	5.72500 GHz	5.72500 GHz
Span	20.000 MHz	20.000 MHz
RBW	100.000 kHz	≥ 100.000 kHz
VBW	300.000 kHz	≥ 300.000 kHz
SweepPoints	400	~ 400
Sweeptime	37.891 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off

Frequency stability (5715 MHz; 10 MHz)

Test according to FCC title 47 part 15 §15.407(g), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 A.3 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	Difference (ppm)	Frequency Difference (kHz)	Limit Min (MHz)	Limit Max (MHz)	Result
5715.000000	5715.001500	0.262	1.500000	---	---	PASS

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.71000 GHz	5.71000 GHz
Stop Frequency	5.72000 GHz	5.72000 GHz
Span	10.000 MHz	10.000 MHz
RBW	10.000 kHz	<= 10.000 kHz
VBW	30.000 kHz	>= 30.000 kHz
SweepPoints	10001	~ 10001
SweepTime	568.782 µs	AUTO
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	MaxPeak	MaxPeak
SweepCount	50	50
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off
Stablemode	Trace	Trace
Stablevalue	1.00 dB	1.00 dB
Run	8 / max. 150	max. 150
Stable	1 / 1	1
Max Stable Difference	0.94 dB	1.00 dB

Tx Spurious Emission (5715 MHz; 10 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.G.4&5 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5715.000000	PASS

Final measurements

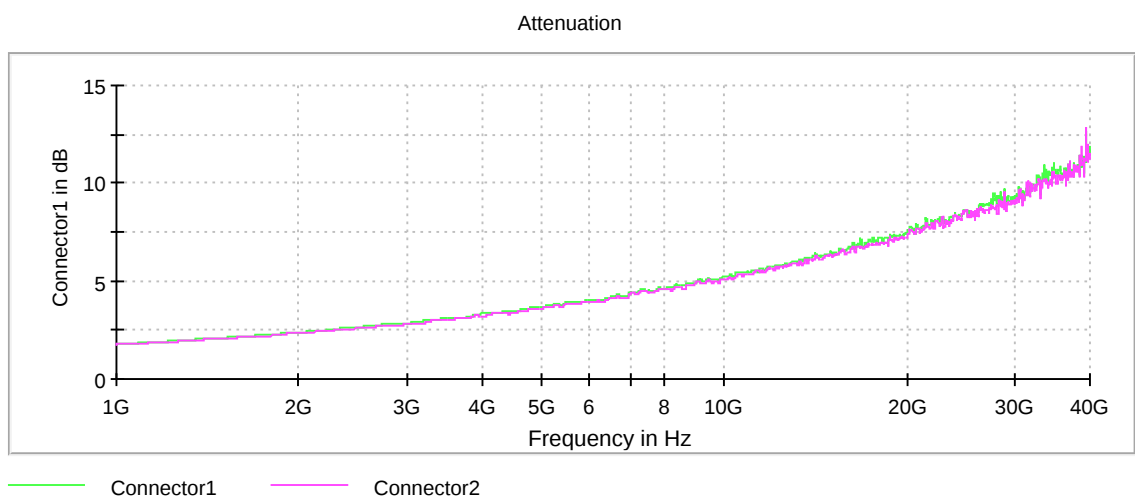
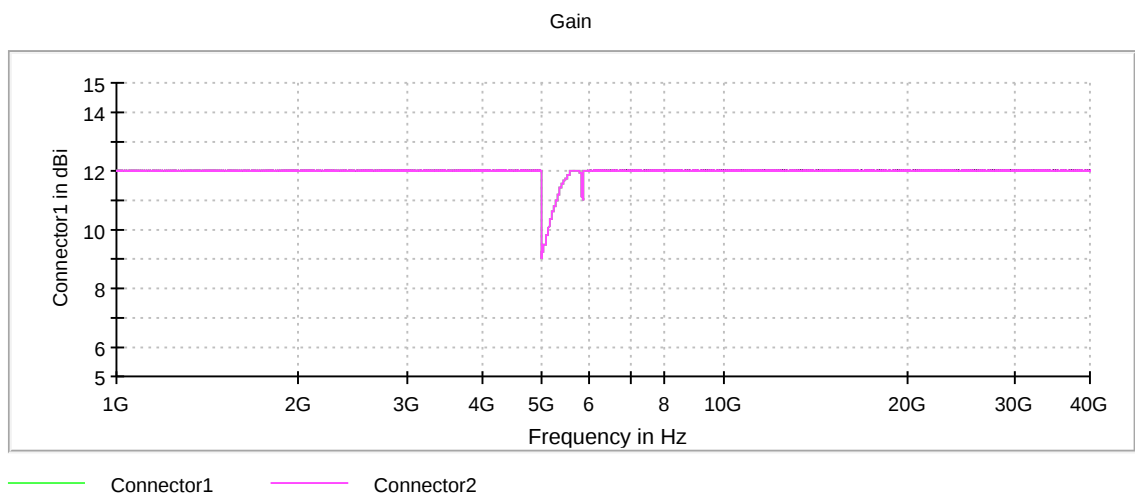
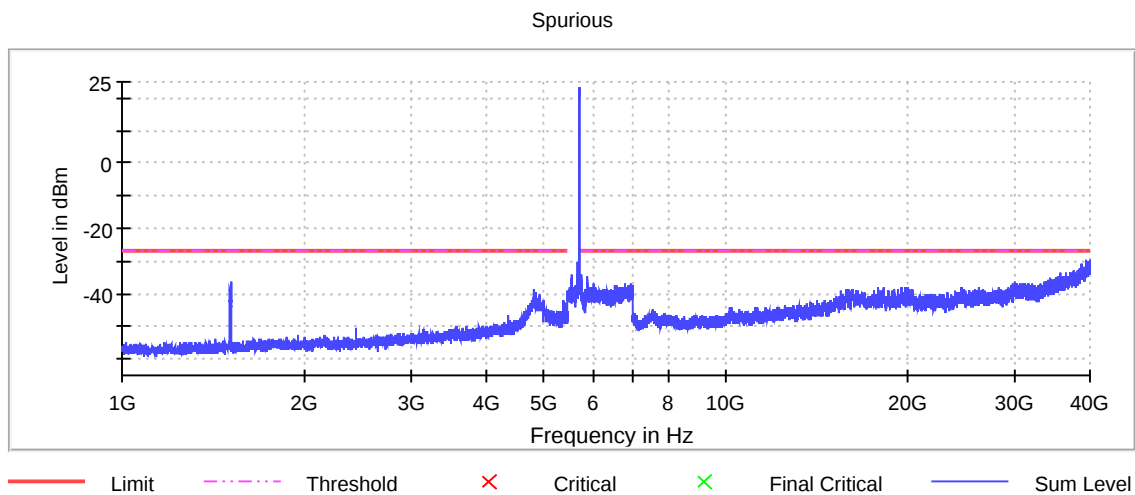
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
39338.250000	-29.8	2.8	-27.0
39908.250000	-29.8	2.8	-27.0
39929.250000	-29.9	2.9	-27.0
39883.250000	-30.1	3.1	-27.0
39311.750000	-30.1	3.1	-27.0
39924.250000	-30.1	3.1	-27.0
39882.750000	-30.2	3.2	-27.0
39896.250000	-30.2	3.2	-27.0
5725.250000	-30.2	3.2	-27.0
39327.750000	-30.3	3.3	-27.0
39727.750000	-30.3	3.3	-27.0
39880.750000	-30.3	3.3	-27.0
39891.250000	-30.3	3.3	-27.0
39330.250000	-30.3	3.3	-27.0
39943.250000	-30.4	3.4	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
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 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	8300	~ 8300
SweepTime	8.300 ms	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	off	off

Emissions in restricted frequency bands (Peak) (5715 MHz; 10 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures
New Rules v02r01 II.G.1 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5715.000000	PASS

Final measurements

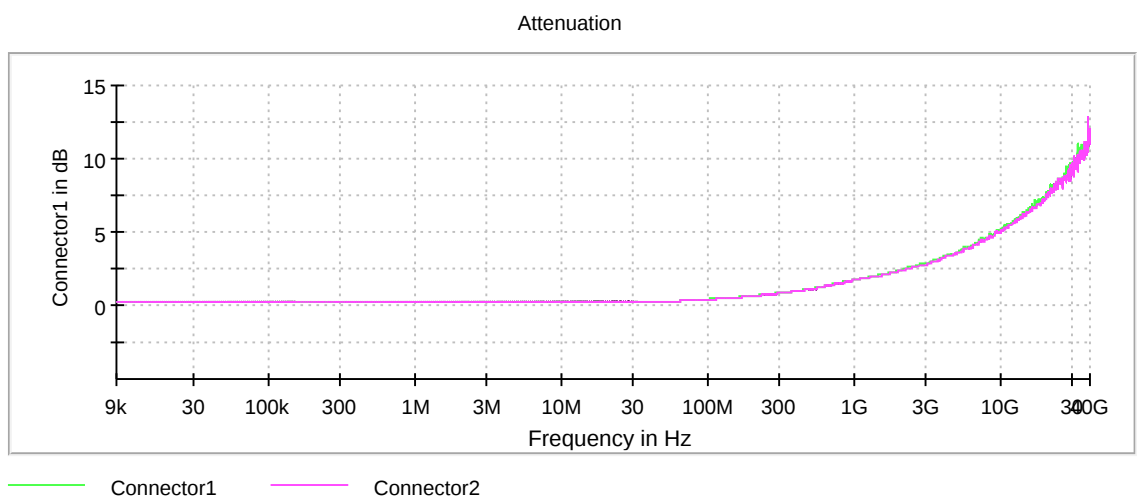
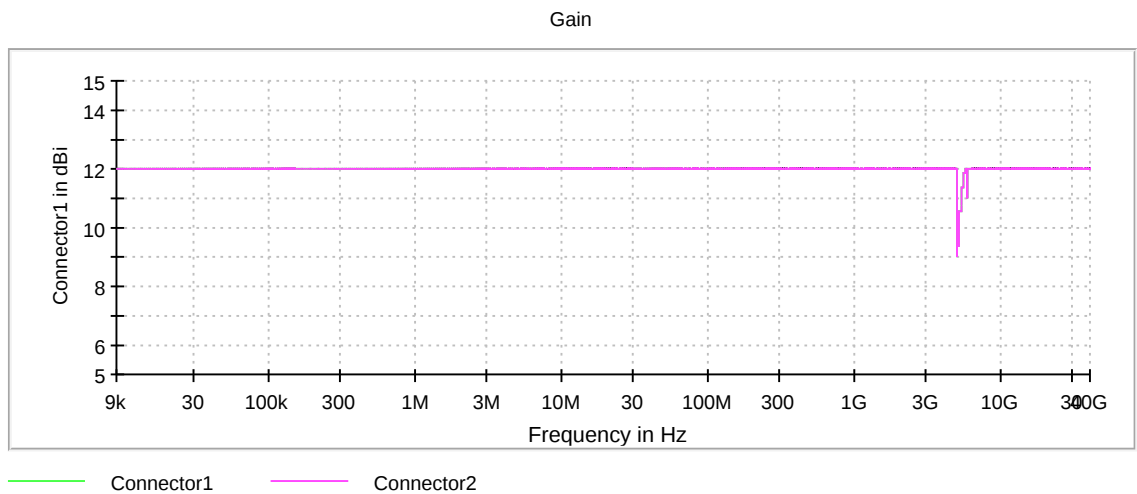
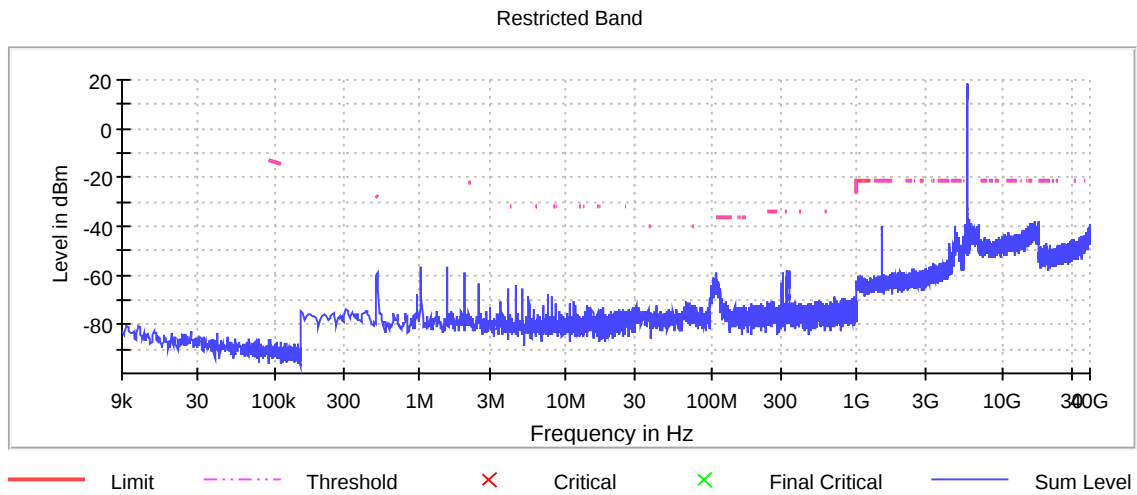
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
17908.750000	-38.1	16.9	-21.2
15836.250000	-38.2	17.0	-21.2
17902.750000	-38.2	17.0	-21.2
15836.750000	-38.3	17.1	-21.2
16111.250000	-38.4	17.2	-21.2
17909.250000	-38.6	17.4	-21.2
15840.250000	-38.6	17.4	-21.2
17886.750000	-38.6	17.4	-21.2
16176.250000	-38.7	17.5	-21.2
17878.250000	-38.7	17.5	-21.2
17895.250000	-38.8	17.6	-21.2
16166.250000	-38.9	17.7	-21.2
17835.250000	-38.9	17.7	-21.2
15810.750000	-39.0	17.8	-21.2
17890.750000	-39.0	17.8	-21.2

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
0.009000	0.150000	1	1
0.150000	30.000000	1	1
30.000000	1000.000000	1	1
1000.000000	5150.000000	1	2
5150.000000	5350.000000	1	2
5350.000000	5470.000000	1	2
5470.000000	5850.000000	1	2
5850.000000	18000.000000	1	2
18000.000000	26000.000000	1	2
26000.000000	40000.000000	1	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	300.000 Hz	<= 300.000 Hz
VBW	1.000 kHz	>= 900.000 Hz
SweepPoints	940	~ 940
SweepTime	6.322 ms	AUTO
Reference Level	5.000 dBm	AUTO
Attenuation	15.000 dB	5.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Emission Bandwidth 26 dB (5485 MHz; 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 v02r01 D and ANSI C63.10-2013

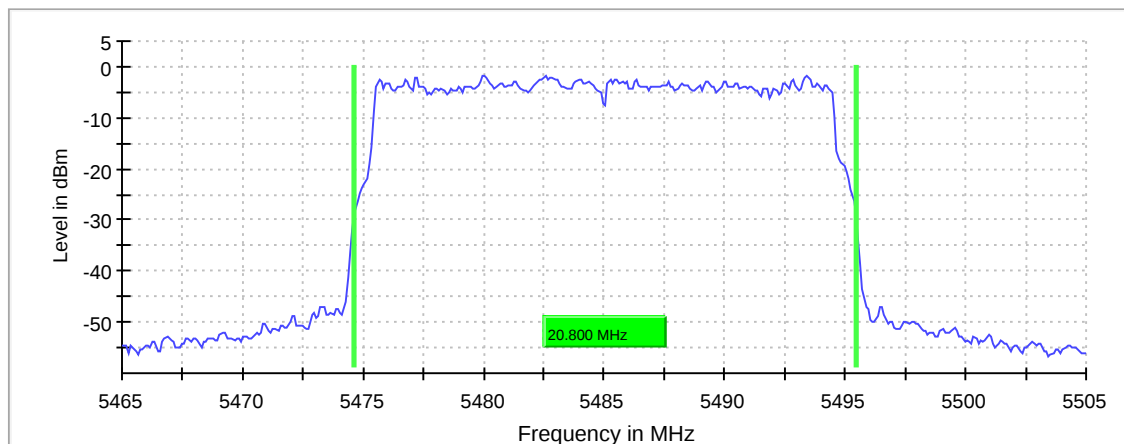
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5485.000000	20.800000	---	---	5474.650000	5495.450000

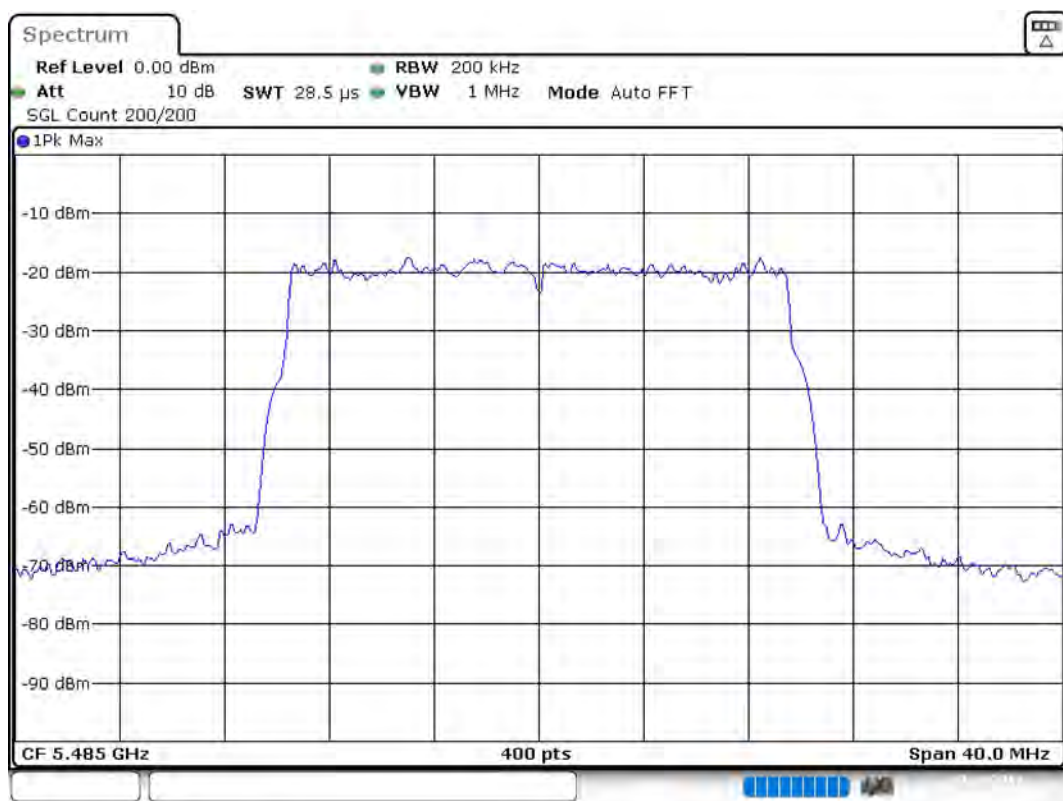
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5485.000000	-1.7	PASS

26 dB Bandwidth



Bandwidth



Date: 7.AUG.2019 23:07:44

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.46500 GHz	5.46500 GHz
Stop Frequency	5.50500 GHz	5.50500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
SweepTime	28.477 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

RF output power (5485 MHz; 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 v02r01 II.E and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5485.000000	26.3	---	26.3	99.417	PASS

Power Spectral Density (5485 MHz; 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 v02r01 II.F and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5485.000000	5486.386139	-0.245	5.3	PASS

Ports

Port	Duty Cycle (%)
1	0.000
2	0.000

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.47500 GHz	5.47500 GHz
Stop Frequency	5.49500 GHz	5.49500 GHz
Span	20.000 MHz	20.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 40
SweepTime	2.020 ms	2.020 ms
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

Occupied Channel Bandwidth 99% (5485 MHz; 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 v02r01 D and ANSI C63.10-2013

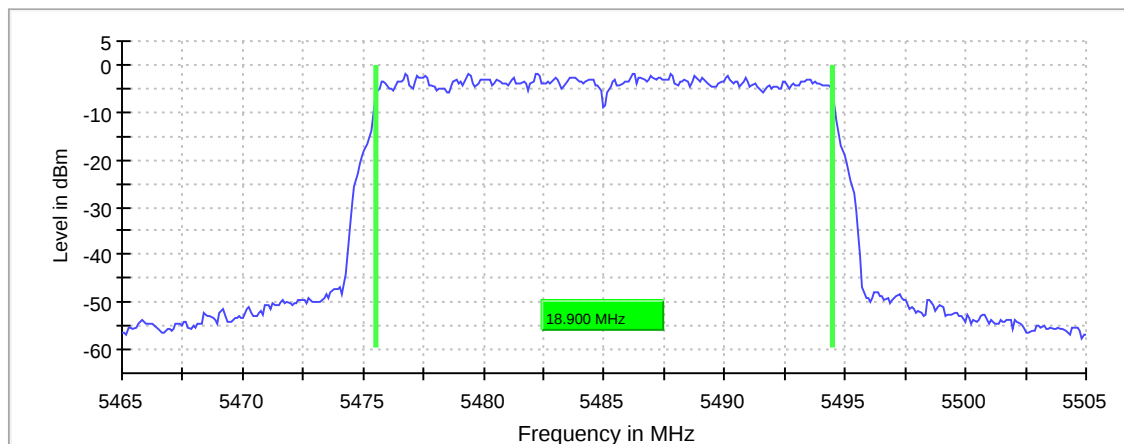
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5485.000000	18.900000	---	---	5475.550000	5494.450000

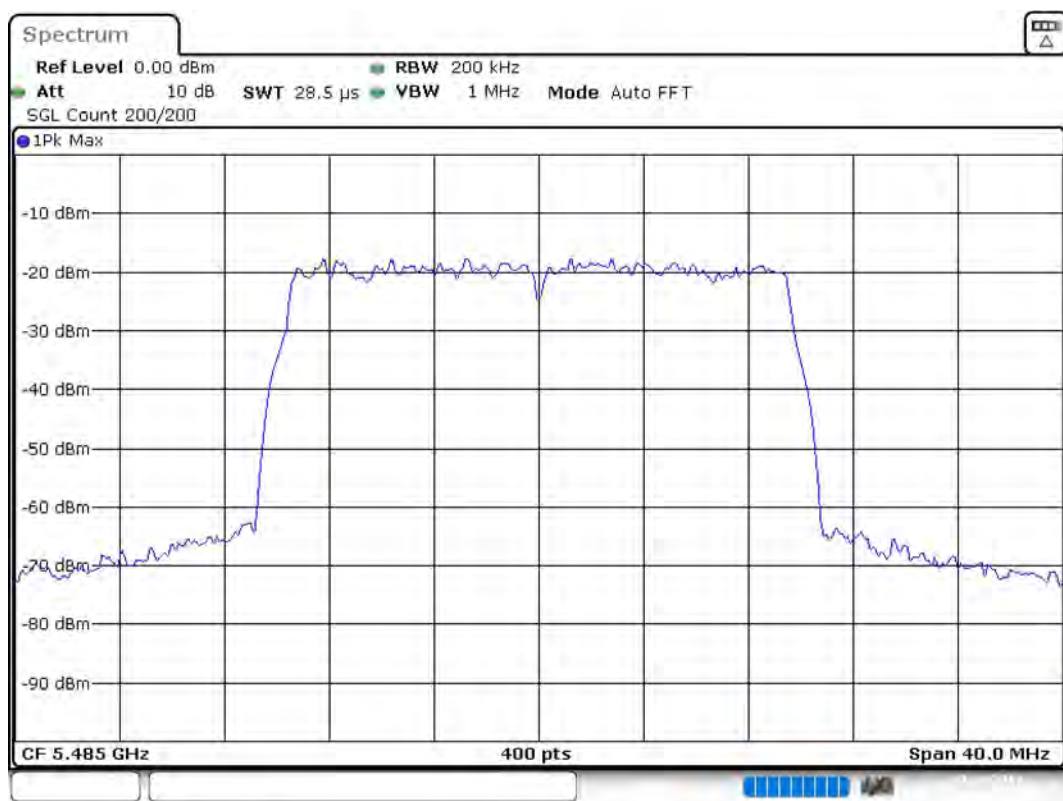
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5485.000000	PASS

99 % Bandwidth



Bandwidth



Date: 7.AUG.2019 23:06:36

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.46500 GHz	5.46500 GHz
Stop Frequency	5.50500 GHz	5.50500 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	≥ 200.000 kHz
VBW	1.000 MHz	≥ 600.000 kHz
SweepPoints	400	~ 400
SweepTime	28.477 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

Tx Spurious Emission (5485 MHz; 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 v02r01 II.G.4&5 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5485.000000	PASS

Final measurements

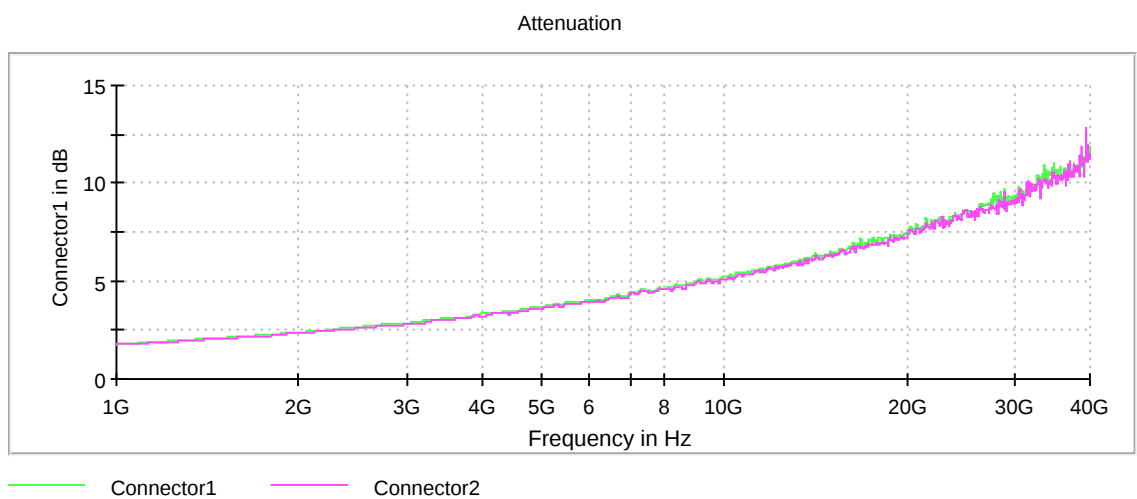
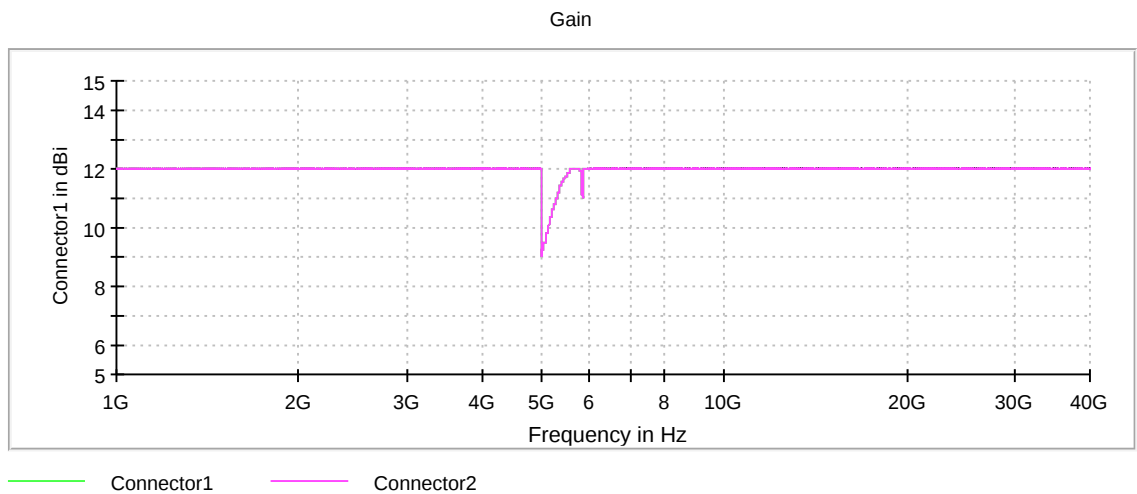
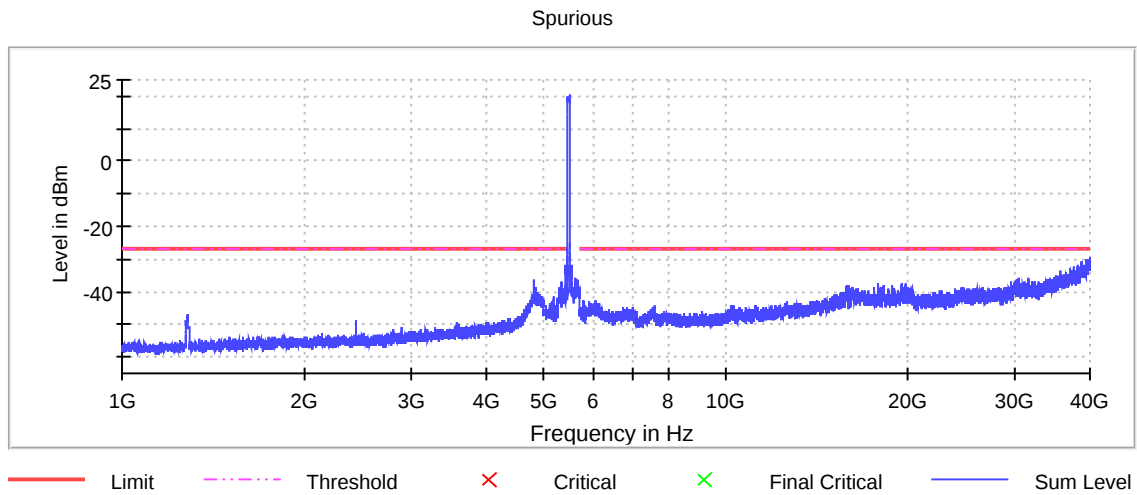
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5467.750000	-29.0	2.0	-27.0
5467.250000	-29.0	2.0	-27.0
39867.250000	-29.4	2.4	-27.0
39889.750000	-29.5	2.5	-27.0
5469.750000	-29.5	2.5	-27.0
5469.250000	-29.6	2.6	-27.0
39972.250000	-29.8	2.8	-27.0
39892.250000	-29.9	2.9	-27.0
39878.250000	-29.9	2.9	-27.0
39880.750000	-30.0	3.0	-27.0
39903.750000	-30.1	3.1	-27.0
39515.750000	-30.1	3.1	-27.0
39896.250000	-30.1	3.1	-27.0
39382.250000	-30.2	3.2	-27.0
39374.750000	-30.3	3.3	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
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 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	8300	~ 8300
SweepTime	8.300 ms	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	off	off

Emissions in restricted frequency bands (Peak) (5485 MHz; 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 v02r01 II.G.1 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5485.000000	PASS

Final measurements

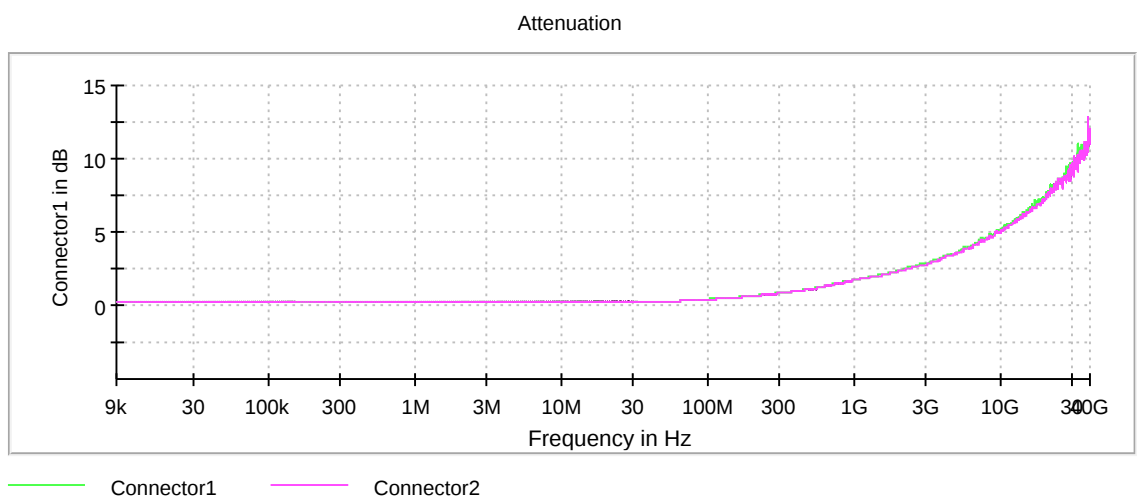
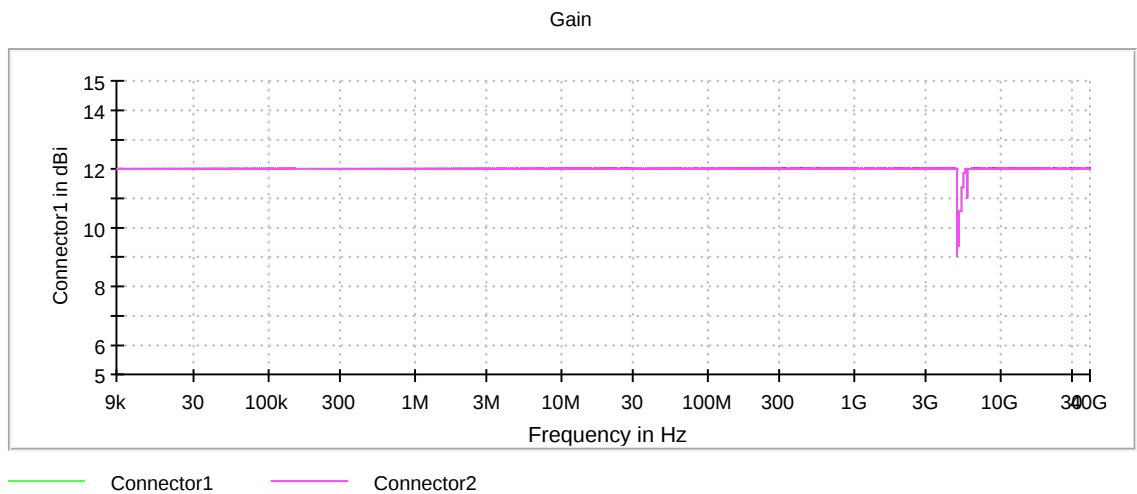
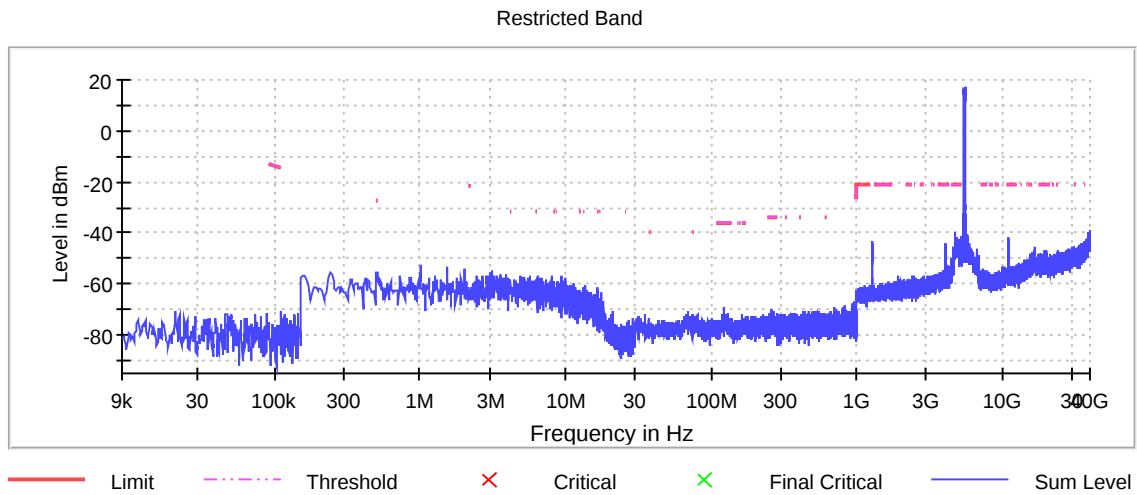
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5438.250000	-33.4	12.2	-21.2
5437.750000	-33.5	12.3	-21.2
5447.750000	-33.9	12.7	-21.2
5447.250000	-34.1	12.9	-21.2
5432.250000	-34.5	13.3	-21.2
5438.750000	-34.5	13.3	-21.2
5437.250000	-34.6	13.4	-21.2
5436.750000	-34.7	13.5	-21.2
5436.250000	-35.0	13.8	-21.2
5431.750000	-35.3	14.1	-21.2
5435.750000	-35.5	14.3	-21.2
5432.750000	-35.6	14.4	-21.2
5439.250000	-36.0	14.8	-21.2
5448.250000	-36.0	14.8	-21.2
5431.250000	-36.3	15.1	-21.2

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
0.009000	0.150000	1	1
0.150000	30.000000	1	1
30.000000	1000.000000	1	1
1000.000000	5150.000000	1	2
5150.000000	5350.000000	1	2
5350.000000	5470.000000	1	2
5470.000000	5850.000000	1	2
5850.000000	18000.000000	1	2
18000.000000	26000.000000	1	2
26000.000000	40000.000000	1	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	300.000 Hz	<= 300.000 Hz
VBW	1.000 kHz	>= 900.000 Hz
SweepPoints	940	~ 940
SweepTime	6.322 ms	AUTO
Reference Level	-5.000 dBm	AUTO
Attenuation	5.000 dB	5.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

Emission Bandwidth 26 dB (5600 MHz; 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 v02r01 D and ANSI C63.10-2013

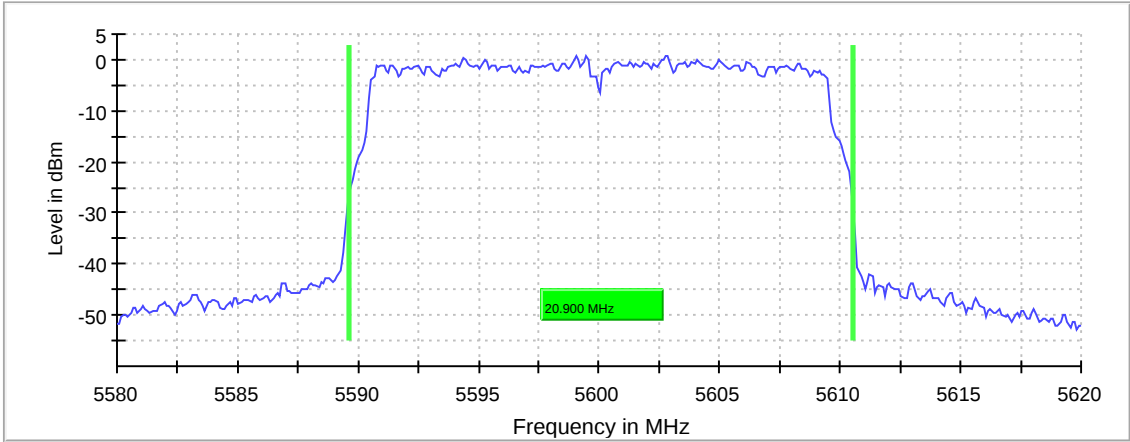
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5600.000000	20.900000	---	---	5589.650000	5610.550000

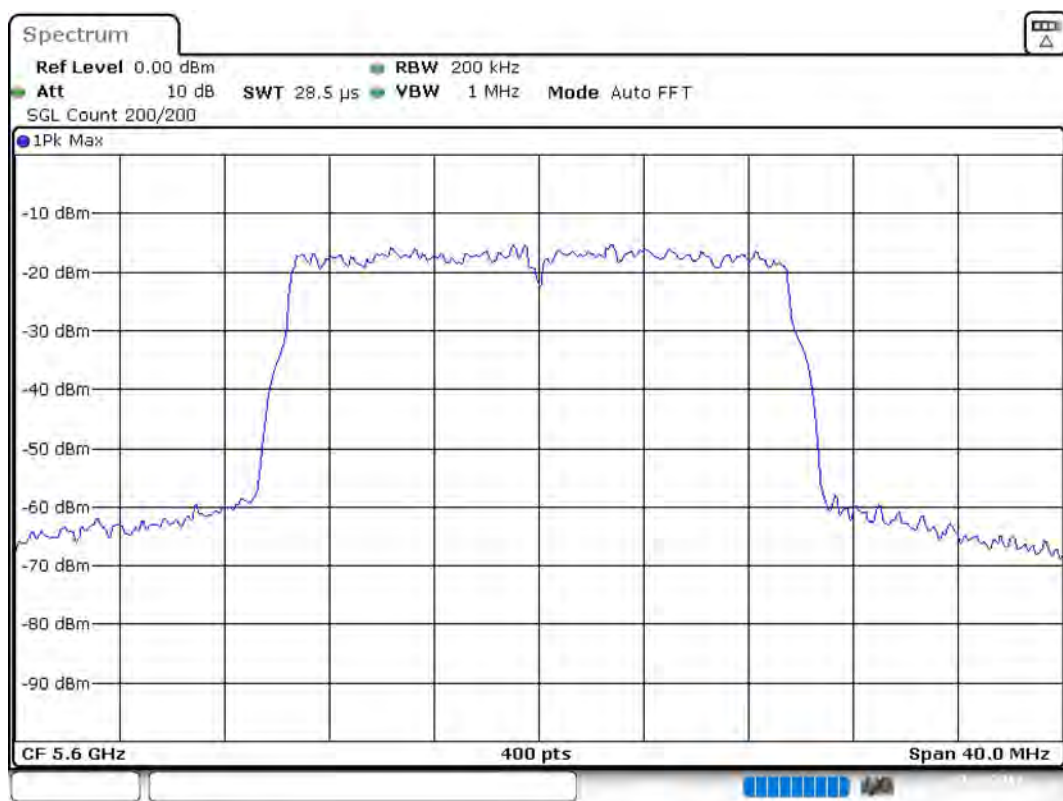
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5600.000000	0.7	PASS

26 dB Bandwidth



Bandwidth



Date: 7.AUG.2019 23:30:58

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.58000 GHz	5.58000 GHz
Stop Frequency	5.62000 GHz	5.62000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	28.477 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off

RF output power (5600 MHz; 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 v02r01 II.E and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5600.000000	28.5	---	28.5	99.417	PASS

Power Spectral Density (5600 MHz; 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 v02r01 II.F and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5600.000000	5602.772277	2.665	5.0	PASS

Ports

Port	Duty Cycle (%)
1	0.000
2	0.000

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.59000 GHz	5.59000 GHz
Stop Frequency	5.61000 GHz	5.61000 GHz
Span	20.000 MHz	20.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 40
SweepTime	2.020 ms	2.020 ms
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

Occupied Channel Bandwidth 99% (5600 MHz; 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 v02r01 D and ANSI C63.10-2013

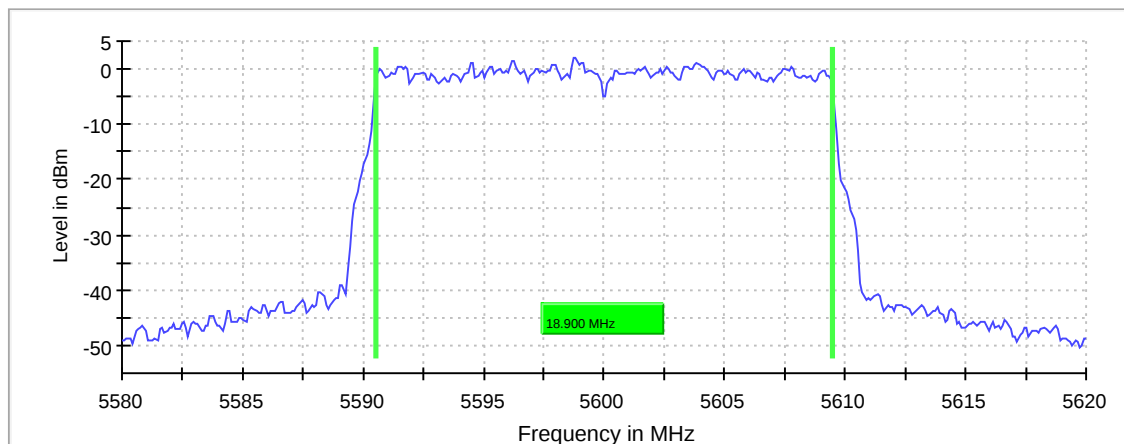
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5600.000000	18.900000	---	---	5590.550000	5609.450000

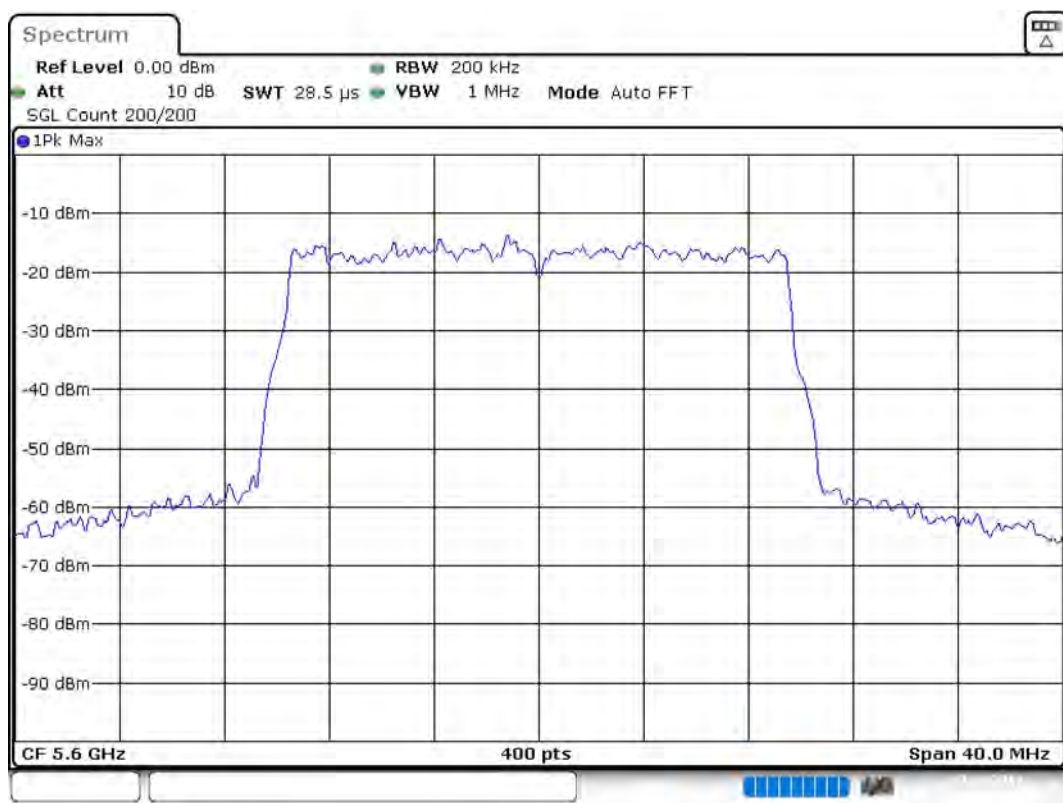
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5600.000000	PASS

99 % Bandwidth



Bandwidth



Date: 7.AUG.2019 23:31:51

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.58000 GHz	5.58000 GHz
Stop Frequency	5.62000 GHz	5.62000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	≥ 200.000 kHz
VBW	1.000 MHz	≥ 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	28.477 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off

Emissions in restricted frequency bands (Peak) (5600 MHz; 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 v02r01 II.G.1 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5600.000000	PASS

Final measurements

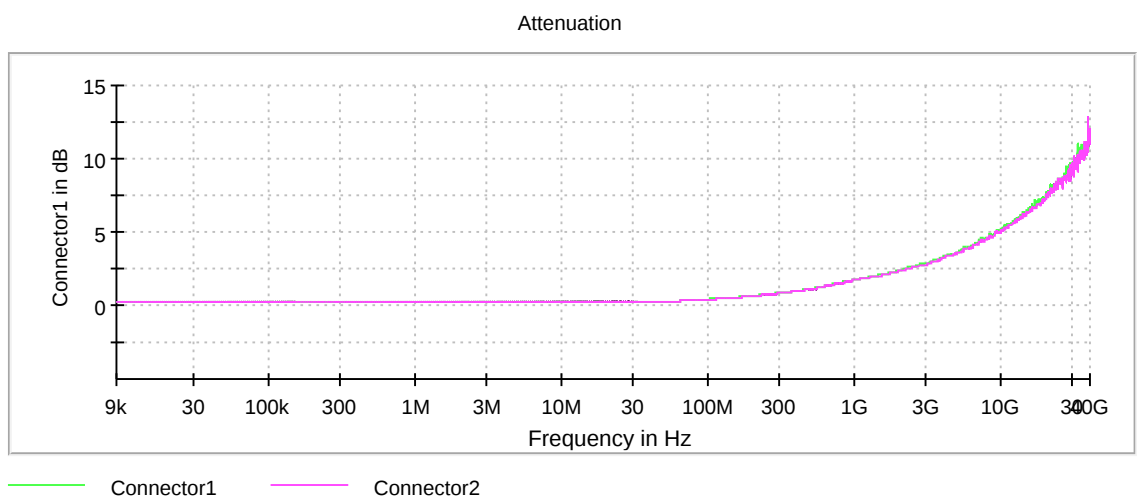
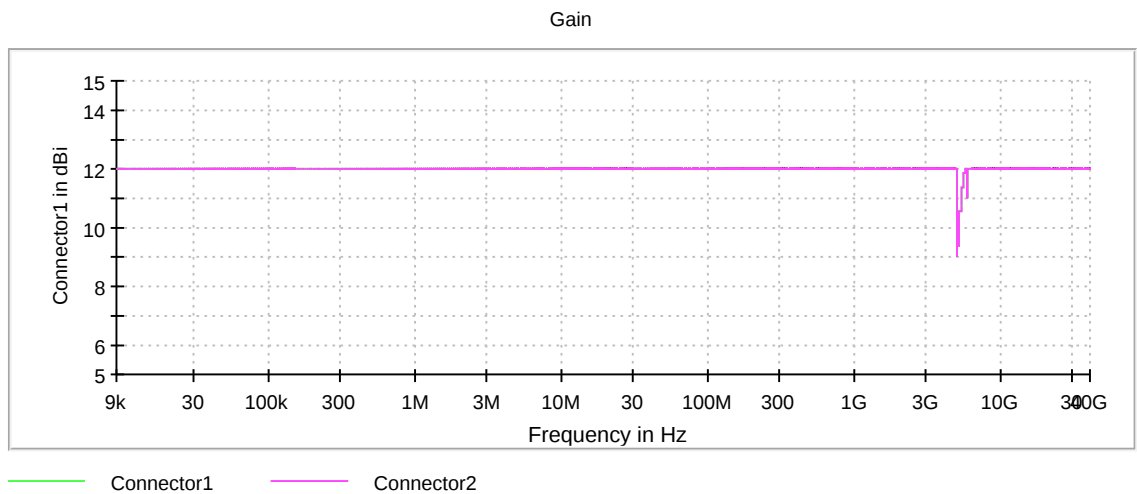
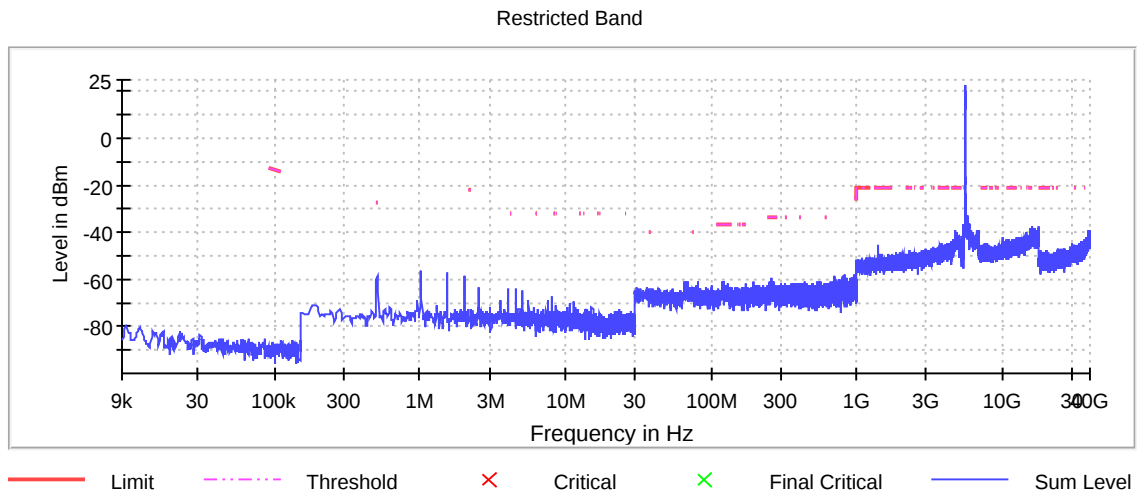
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
16165.250000	-37.3	16.1	-21.2
17841.250000	-37.8	16.6	-21.2
16165.750000	-37.9	16.7	-21.2
17884.250000	-38.0	16.8	-21.2
5438.750000	-38.0	16.8	-21.2
17894.750000	-38.0	16.8	-21.2
5438.250000	-38.1	16.9	-21.2
15873.750000	-38.3	17.1	-21.2
17888.250000	-38.3	17.1	-21.2
17873.250000	-38.4	17.2	-21.2
15883.250000	-38.5	17.3	-21.2
17877.250000	-38.5	17.3	-21.2
15860.250000	-38.6	17.4	-21.2
5437.750000	-38.7	17.5	-21.2
17889.250000	-38.7	17.5	-21.2

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
0.009000	0.150000	1	1
0.150000	30.000000	1	1
30.000000	1000.000000	1	1
1000.000000	5150.000000	1	2
5150.000000	5350.000000	1	2
5350.000000	5470.000000	1	2
5470.000000	5850.000000	1	2
5850.000000	18000.000000	1	2
18000.000000	26000.000000	1	2
26000.000000	40000.000000	1	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	300.000 Hz	<= 300.000 Hz
VBW	1.000 kHz	>= 900.000 Hz
SweepPoints	940	~ 940
SweepTime	6.322 ms	AUTO
Reference Level	5.000 dBm	AUTO
Attenuation	15.000 dB	5.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Emission Bandwidth 26 dB (5710 MHz; 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 v02r01 D and ANSI C63.10-2013

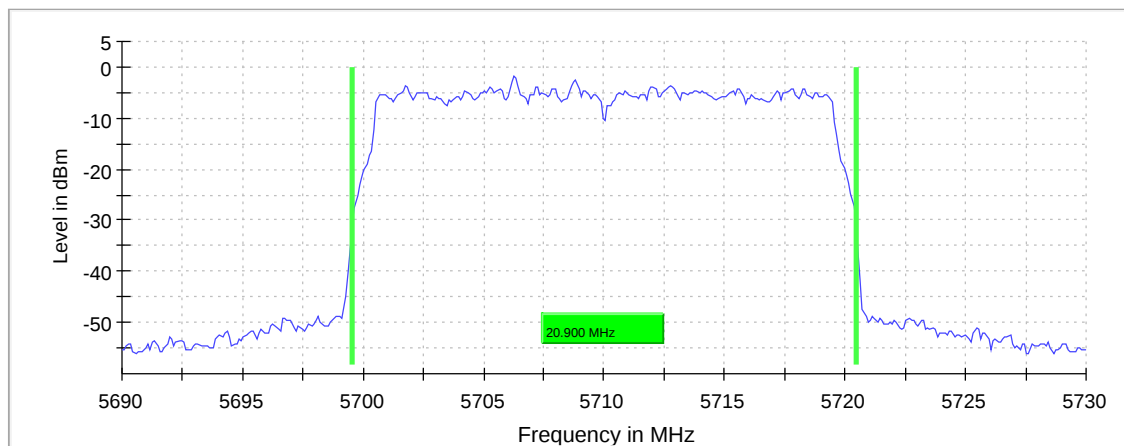
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Bandwidth U-NII 2C (MHz)	Bandwidth U-NII 3 (MHz)	Limit Min (MHz)	Limit Max (MHz)
5710.000000	20.900000	20.900000	0.000000	---	---

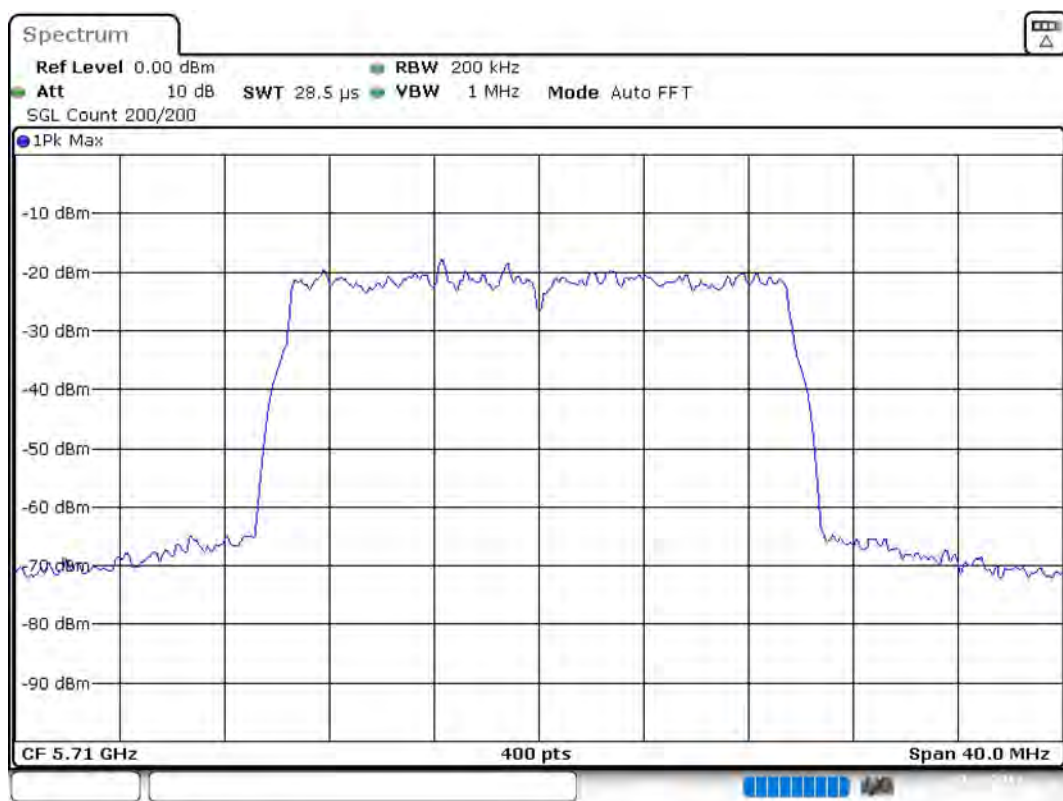
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5710.000000	5699.550000	5720.450000	-1.9	PASS

26 dB Bandwidth



Bandwidth



Date: 7.AUG.2019 23:46:21

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.69000 GHz	5.69000 GHz
Stop Frequency	5.73000 GHz	5.73000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	~ 200.000 kHz
VBW	1.000 MHz	>= 600.000 kHz
SweepPoints	400	~ 400
Sweeptime	28.477 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

RF output power (5710 MHz; 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 v02r01 II.E and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5710.000000	24.8	---	24.8	99.427	PASS

Power Spectral Density (5710 MHz; 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 v02r01 II.F and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5710.000000	5705.643564	-1.254	5.0	PASS

Ports

Port	Duty Cycle (%)
1	0.000
2	0.000

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.70000 GHz	5.70000 GHz
Stop Frequency	5.72000 GHz	5.72000 GHz
Span	20.000 MHz	20.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 40
SweepTime	2.020 ms	2.020 ms
Reference Level	10.000 dBm	10.000 dBm
Attenuation	30.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

Occupied Channel Bandwidth 99% (5710 MHz; 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 v02r01 D and ANSI C63.10-2013

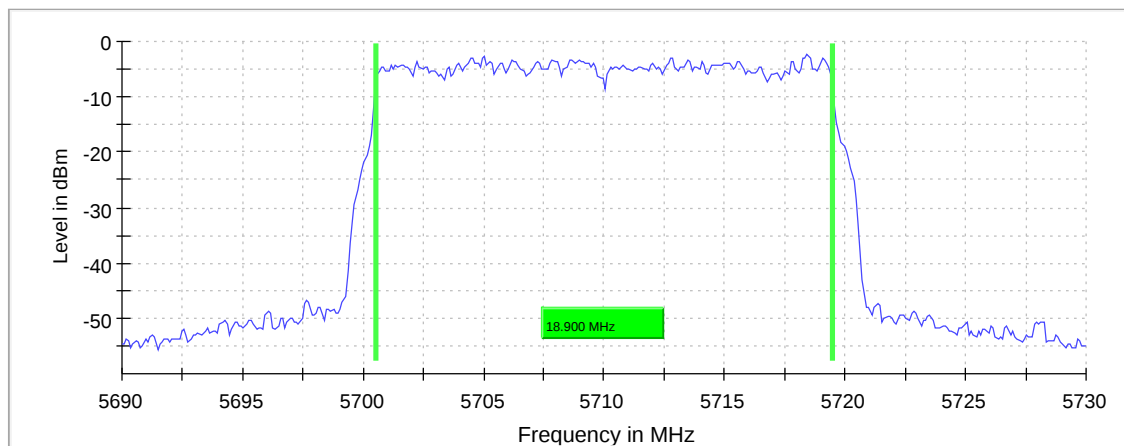
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Bandwidth U-NII 2C (MHz)	Bandwidth U-NII 3 (MHz)	Limit Min (MHz)	Limit Max (MHz)
5710.000000	18.900000	18.900000	0.000000	---	---

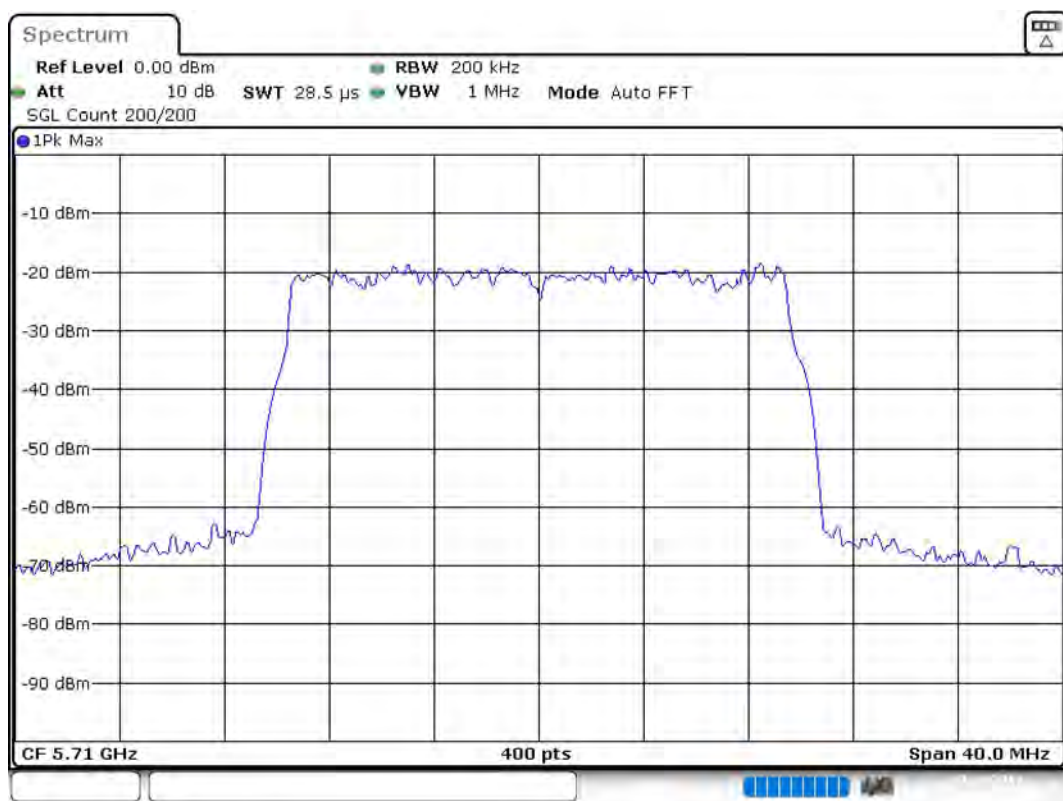
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5710.000000	5700.550000	5719.450000	PASS

99 % Bandwidth



Bandwidth



Date: 7.AUG.2019 23:47:13

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.69000 GHz	5.69000 GHz
Stop Frequency	5.73000 GHz	5.73000 GHz
Span	40.000 MHz	40.000 MHz
RBW	200.000 kHz	≥ 200.000 kHz
VBW	1.000 MHz	≥ 600.000 kHz
SweepPoints	400	~ 400
SweepTime	28.477 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

Tx Spurious Emission (5710 MHz; 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 v02r01 II.G.4&5 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5710.000000	PASS

Final measurements

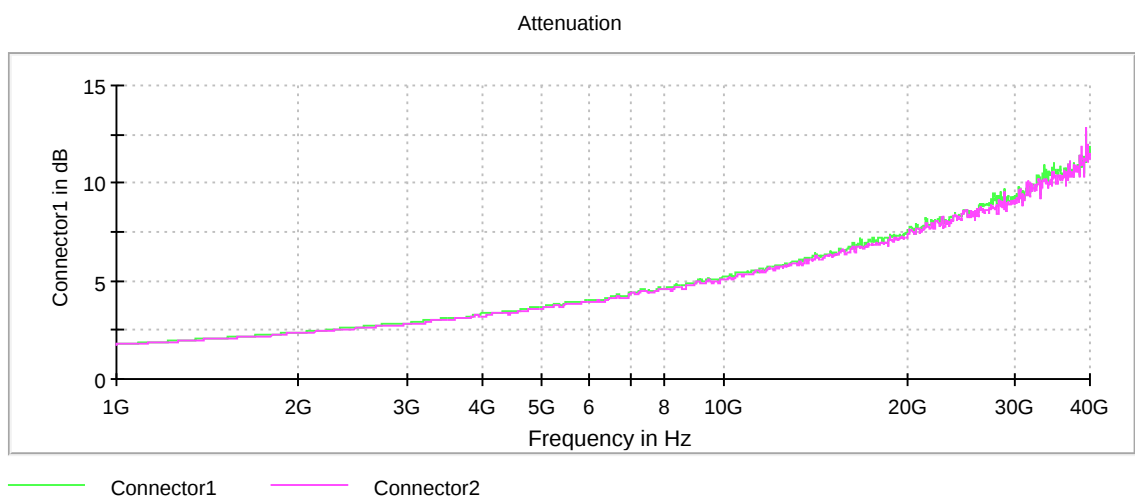
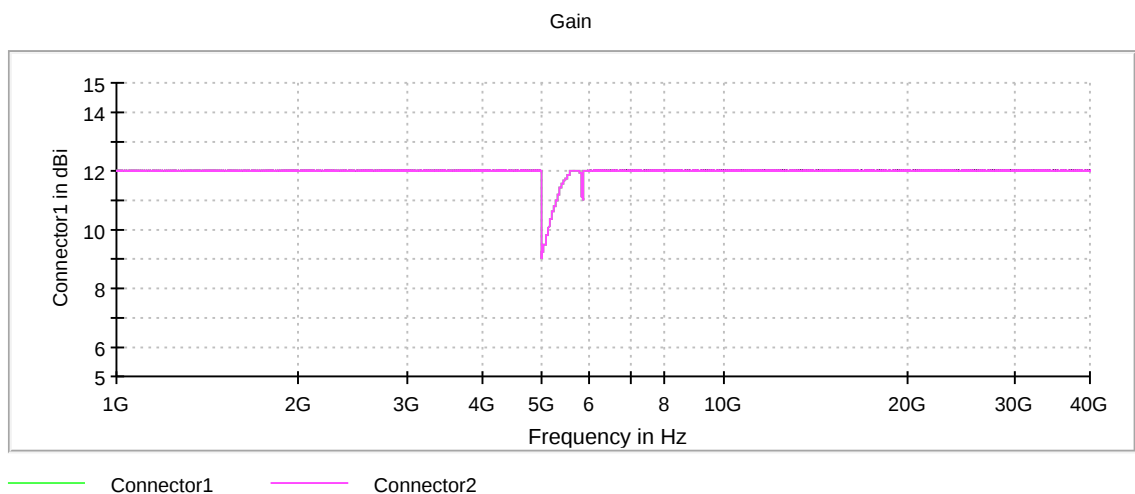
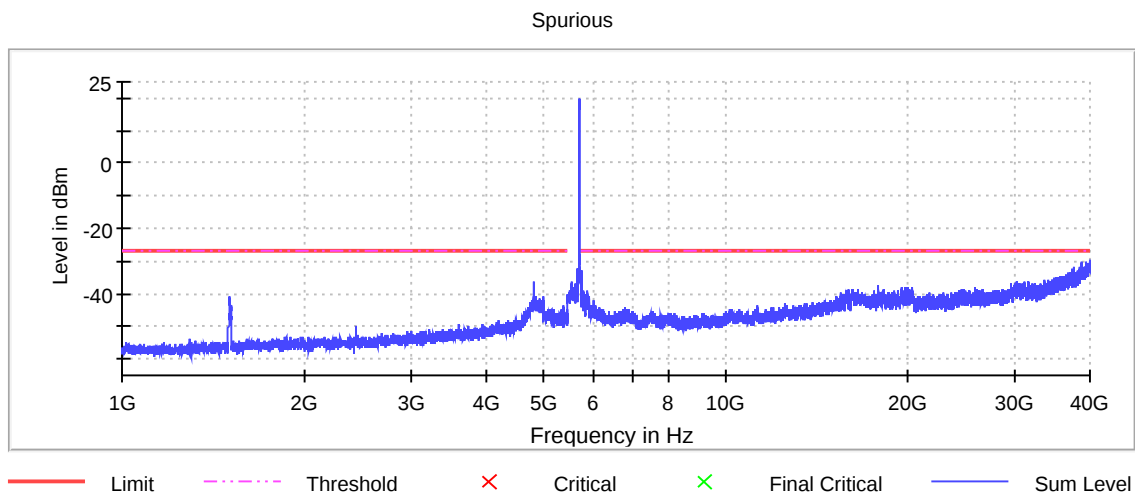
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5725.750000	-27.9	0.9	-27.0
5726.250000	-28.2	1.2	-27.0
5725.250000	-28.6	1.6	-27.0
5726.750000	-29.1	2.1	-27.0
39876.250000	-29.7	2.7	-27.0
5727.250000	-29.9	2.9	-27.0
38827.750000	-30.0	3.0	-27.0
39863.750000	-30.1	3.1	-27.0
39936.250000	-30.1	3.1	-27.0
39285.250000	-30.1	3.1	-27.0
39922.250000	-30.2	3.2	-27.0
39873.250000	-30.3	3.3	-27.0
39977.250000	-30.3	3.3	-27.0
39942.250000	-30.4	3.4	-27.0
39881.750000	-30.4	3.4	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
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 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	≤ 1.000 MHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	8300	~ 8300
SweepTime	8.300 ms	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off

Emissions in restricted frequency bands (Peak) (5710 MHz; 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 v02r01 II.G.1 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5710.000000	PASS

Final measurements

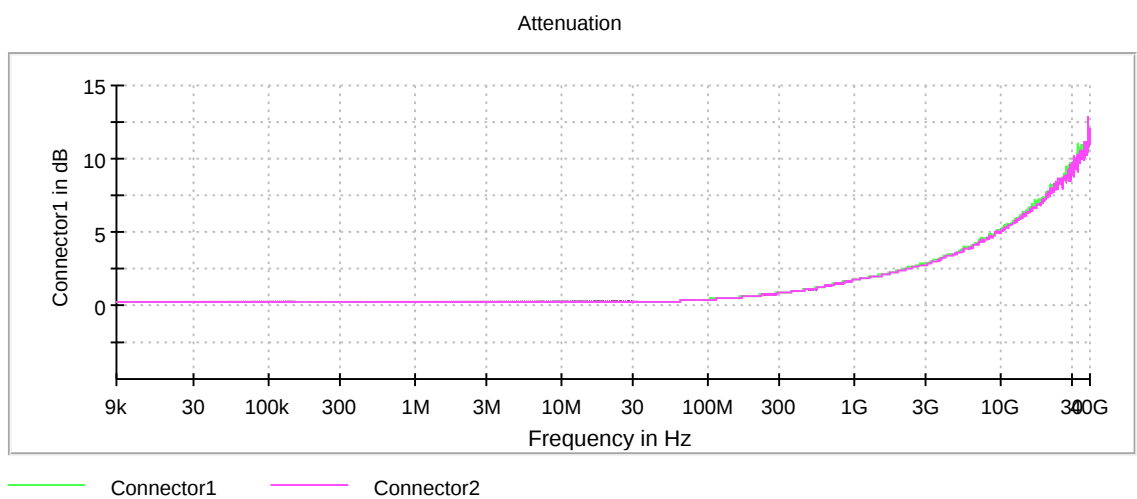
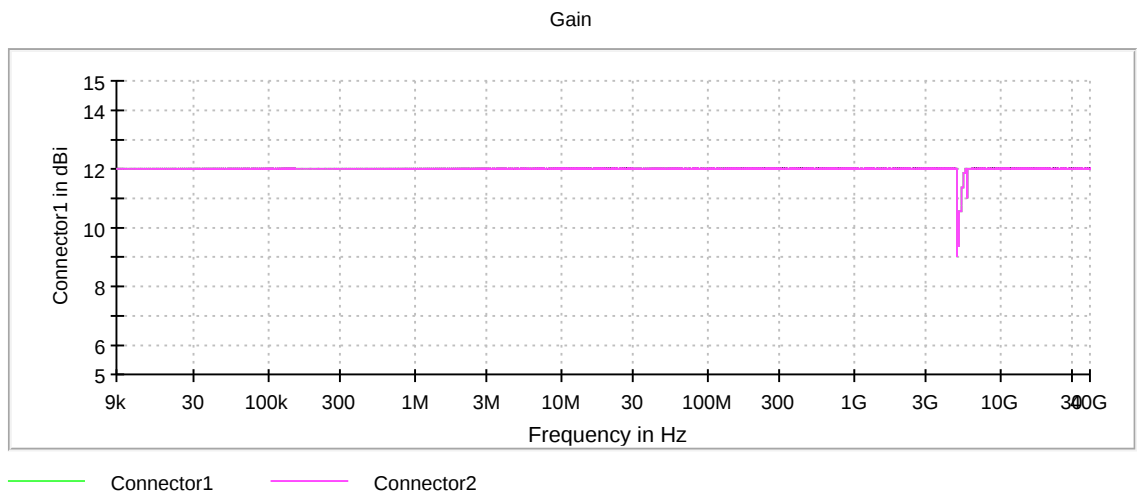
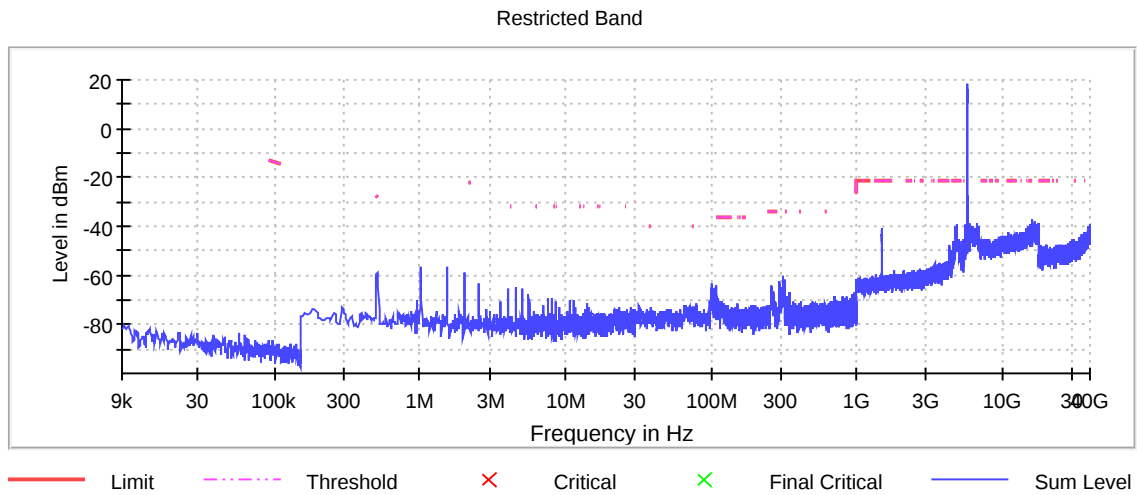
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
15934.750000	-37.3	16.1	-21.2
17910.750000	-38.4	17.2	-21.2
16178.250000	-38.6	17.4	-21.2
17868.250000	-38.6	17.4	-21.2
17879.250000	-38.7	17.5	-21.2
17865.750000	-38.8	17.6	-21.2
17891.250000	-38.8	17.6	-21.2
16184.750000	-38.9	17.7	-21.2
15951.250000	-38.9	17.7	-21.2
17847.750000	-38.9	17.7	-21.2
16171.250000	-38.9	17.7	-21.2
15794.250000	-39.0	17.8	-21.2
15814.750000	-39.1	17.9	-21.2
15934.250000	-39.1	17.9	-21.2
15801.250000	-39.1	17.9	-21.2

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
0.009000	0.150000	1	1
0.150000	30.000000	1	1
30.000000	1000.000000	1	1
1000.000000	5150.000000	1	2
5150.000000	5350.000000	1	2
5350.000000	5470.000000	1	2
5470.000000	5850.000000	1	2
5850.000000	18000.000000	1	2
18000.000000	26000.000000	1	2
26000.000000	40000.000000	1	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	300.000 Hz	<= 300.000 Hz
VBW	1.000 kHz	>= 900.000 Hz
SweepPoints	940	~ 940
SweepTime	6.322 ms	AUTO
Reference Level	5.000 dBm	AUTO
Attenuation	15.000 dB	5.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Emission Bandwidth 26 dB (5490 MHz; 30 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 v02r01 D and ANSI C63.10-2013

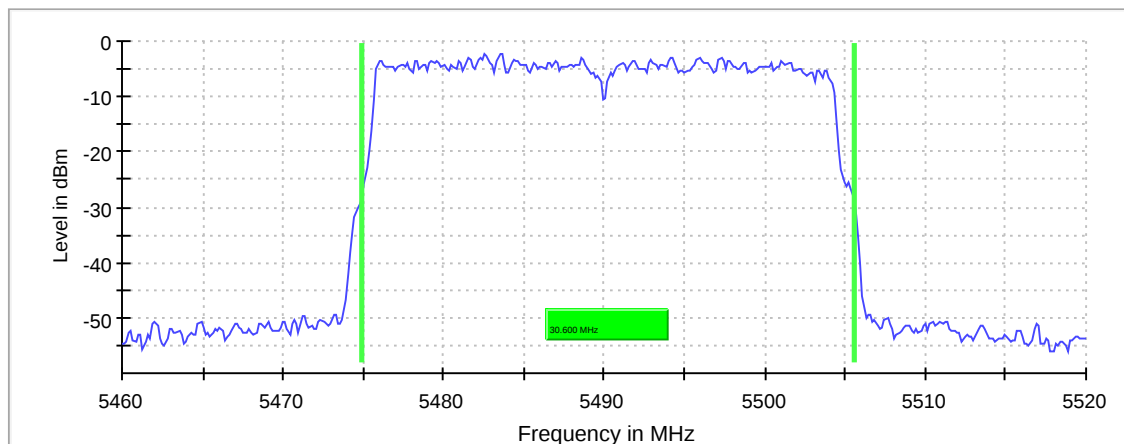
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5490.000000	30.600000	---	---	5474.925000	5505.525000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5490.000000	-2.3	PASS

26 dB Bandwidth



Bandwidth



Date: 8.AUG.2019 00:33:26

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.46000 GHz	5.46000 GHz
Stop Frequency	5.52000 GHz	5.52000 GHz
Span	60.000 MHz	60.000 MHz
RBW	300.000 kHz	~ 300.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	400	~ 400
Sweeptime	25.313 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

RF output power (5490 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.E and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5490.000000	25.2	---	25.2	99.607	PASS

Power Spectral Density (5490 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.F and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5490.000000	5492.376238	-1.392	5.3	PASS

Ports

Port	Duty Cycle (%)
1	0.000
2	0.000

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.47500 GHz	5.47500 GHz
Stop Frequency	5.50500 GHz	5.50500 GHz
Span	30.000 MHz	30.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 60
SweepTime	2.020 ms	2.020 ms
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	off	off

Occupied Channel Bandwidth 99% (5490 MHz; 30 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 v02r01 D and ANSI C63.10-2013

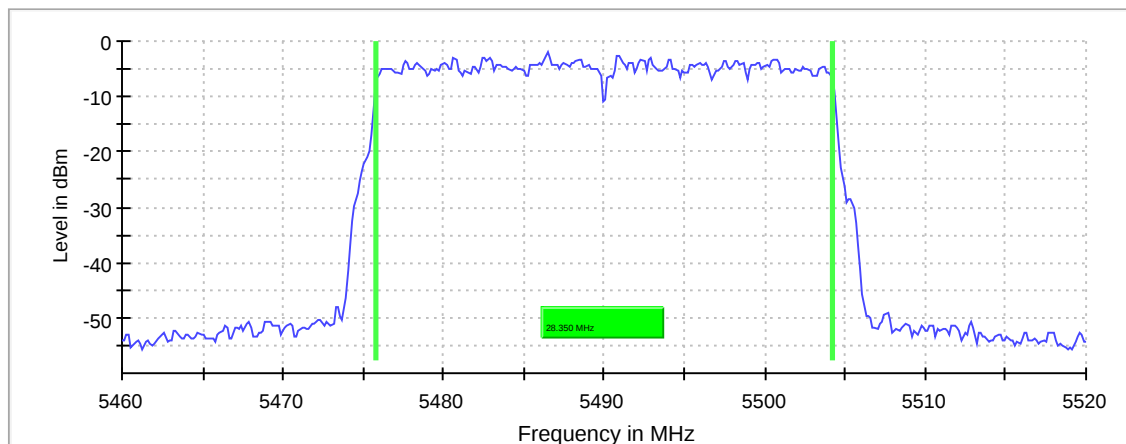
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5490.000000	28.350000	---	---	5475.825000	5504.175000

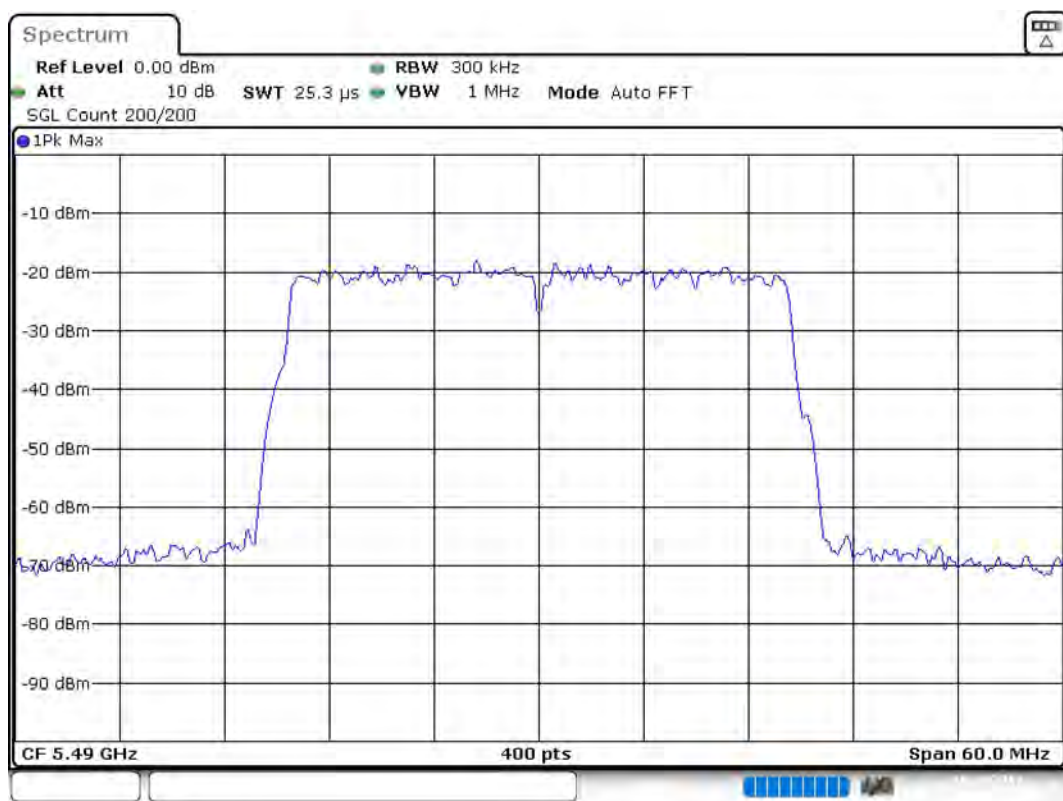
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5490.000000	PASS

99 % Bandwidth



Bandwidth



Date: 8.AUG.2019 00:34:17

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.46000 GHz	5.46000 GHz
Stop Frequency	5.52000 GHz	5.52000 GHz
Span	60.000 MHz	60.000 MHz
RBW	300.000 kHz	≥ 300.000 kHz
VBW	1.000 MHz	≥ 900.000 kHz
SweepPoints	400	~ 400
Sweptime	25.313 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off

Tx Spurious Emission (5490 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.G.4&5 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5490.000000	PASS

Final measurements

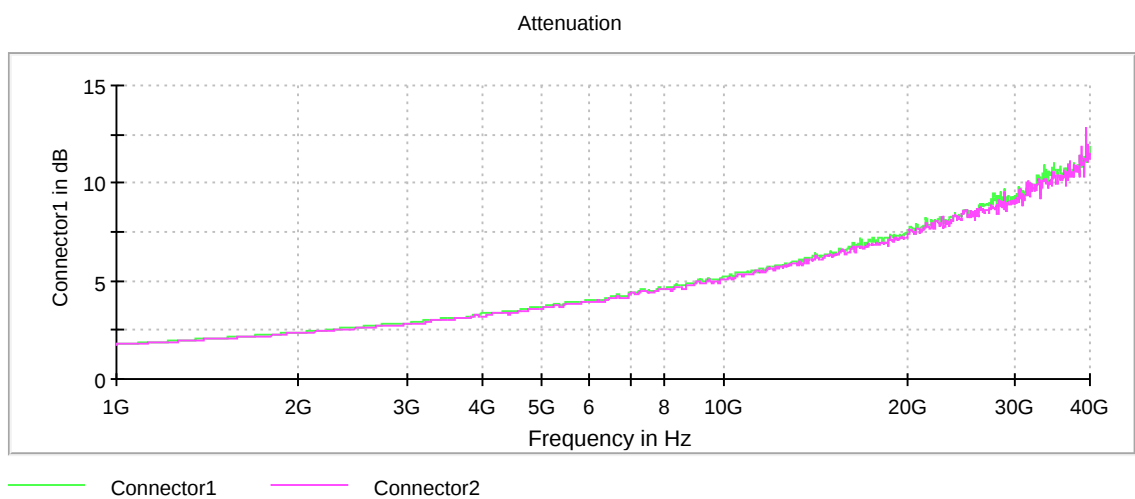
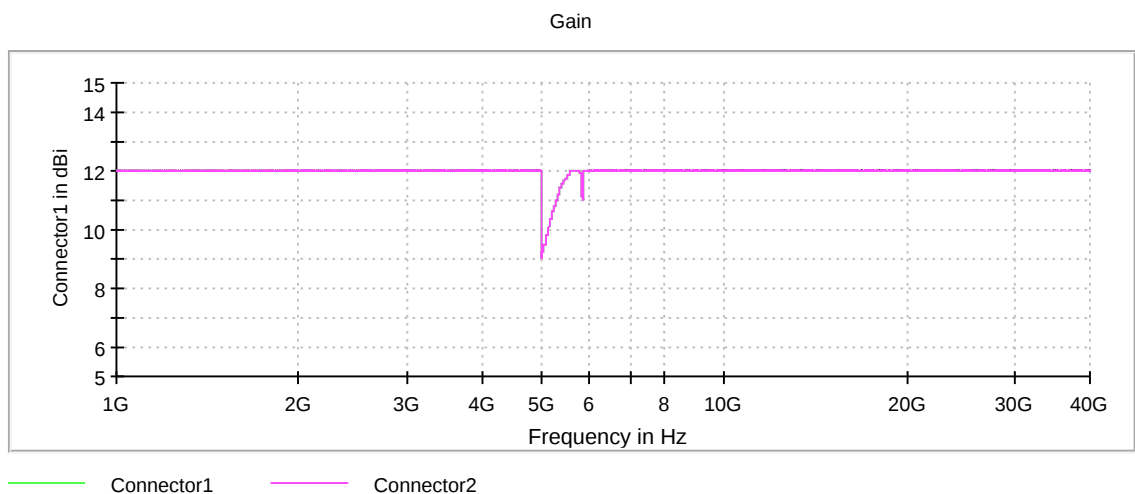
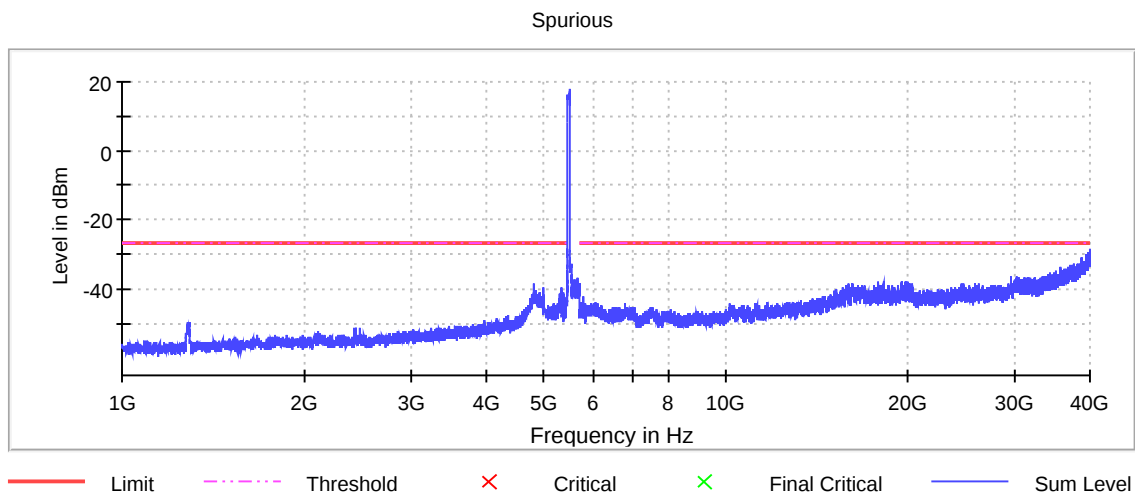
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5469.750000	-28.2	1.2	-27.0
39891.750000	-28.5	1.5	-27.0
5469.250000	-28.5	1.5	-27.0
5468.250000	-28.5	1.5	-27.0
5468.750000	-28.6	1.6	-27.0
39891.250000	-29.0	2.0	-27.0
5467.750000	-29.0	2.0	-27.0
39688.250000	-29.5	2.5	-27.0
39910.750000	-29.6	2.6	-27.0
39852.750000	-29.7	2.7	-27.0
39928.750000	-29.7	2.7	-27.0
39327.750000	-29.9	2.9	-27.0
39497.750000	-29.9	2.9	-27.0
39908.750000	-30.0	3.0	-27.0
39868.250000	-30.0	3.0	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
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 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	8300	~ 8300
SweepTime	8.300 ms	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	off	off

Emissions in restricted frequency bands (Peak) (5490 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures
New Rules v02r01 II.G.1 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5490.000000	PASS

Final measurements

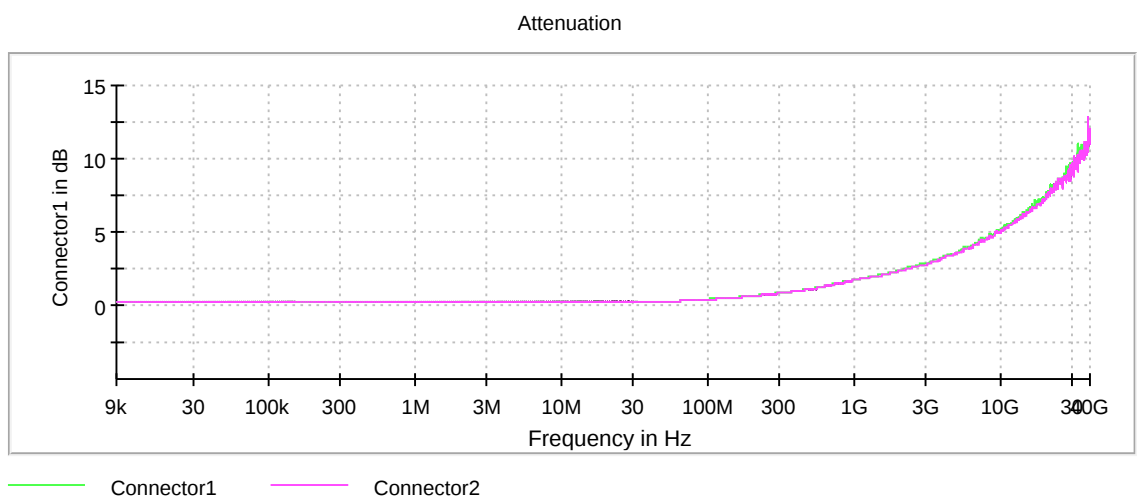
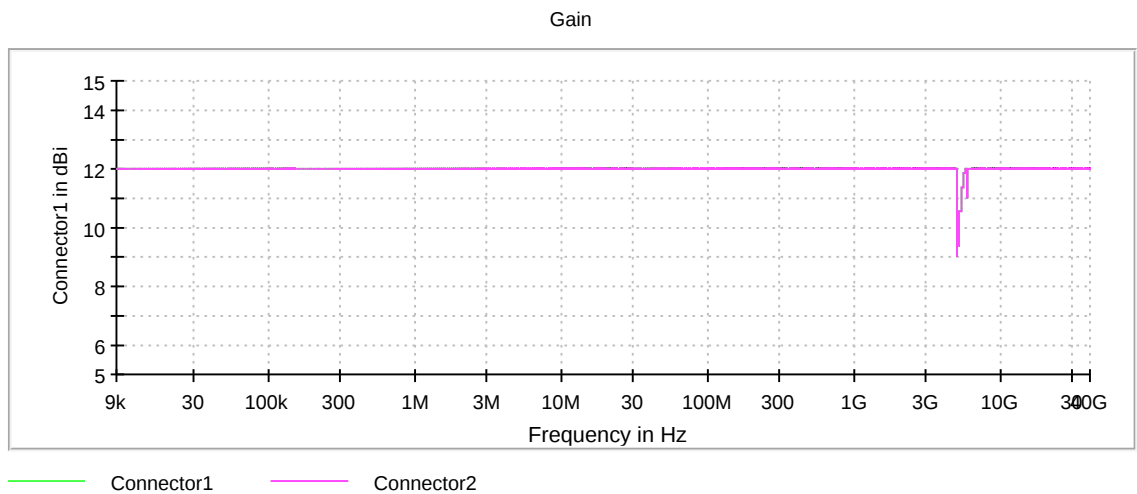
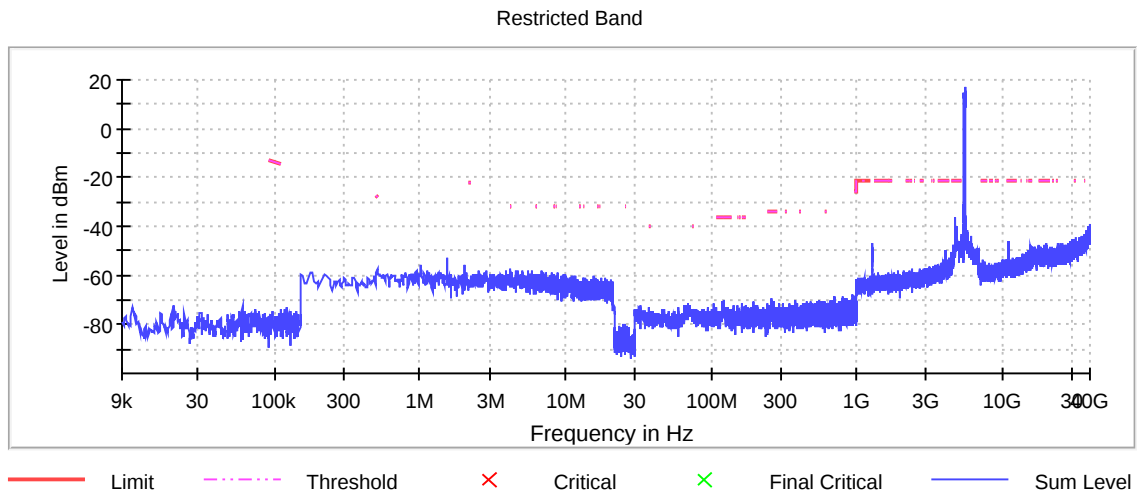
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4800.250000	-36.5	15.3	-21.2
4799.750000	-38.7	17.5	-21.2
4800.750000	-38.9	17.7	-21.2
5448.250000	-39.2	18.0	-21.2
4919.250000	-39.9	18.7	-21.2
5448.750000	-40.1	18.9	-21.2
5451.250000	-40.2	19.0	-21.2
5451.750000	-40.3	19.1	-21.2
5459.750000	-40.3	19.1	-21.2
5447.750000	-40.3	19.1	-21.2
5452.750000	-40.3	19.1	-21.2
5453.250000	-40.4	19.2	-21.2
4918.750000	-40.5	19.3	-21.2
5456.250000	-41.0	19.8	-21.2
5454.750000	-41.1	19.9	-21.2

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
0.009000	0.150000	1	1
0.150000	30.000000	1	1
30.000000	1000.000000	1	1
1000.000000	5150.000000	1	2
5150.000000	5350.000000	1	2
5350.000000	5470.000000	1	2
5470.000000	5850.000000	1	2
5850.000000	18000.000000	1	2
18000.000000	26000.000000	1	2
26000.000000	40000.000000	1	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	300.000 Hz	<= 300.000 Hz
VBW	1.000 kHz	>= 900.000 Hz
SweepPoints	940	~ 940
SweepTime	6.322 ms	AUTO
Reference Level	-5.000 dBm	AUTO
Attenuation	5.000 dB	5.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Emission Bandwidth 26 dB (5600 MHz; 30 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 v02r01 D and ANSI C63.10-2013

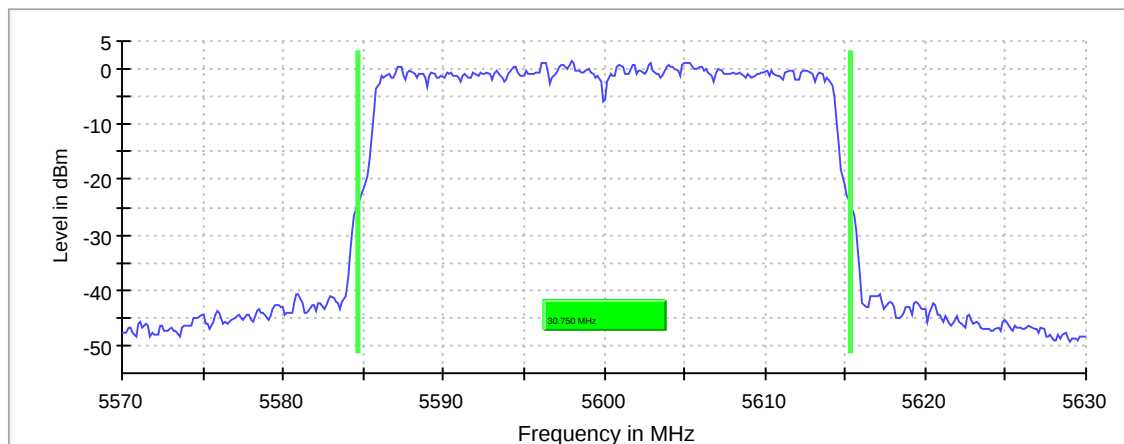
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5600.000000	30.750000	---	---	5584.625000	5615.375000

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

DUT Frequency (MHz)	Max Level (dBm)	Result
5600.000000	1.4	PASS

26 dB Bandwidth



Bandwidth



Date: 8.AUG.2019 01:01:29

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.57000 GHz	5.57000 GHz
Stop Frequency	5.63000 GHz	5.63000 GHz
Span	60.000 MHz	60.000 MHz
RBW	300.000 kHz	~ 300.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	400	~ 400
Sweeptime	25.313 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamplifier	off	off

RF output power (5600 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.E and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5600.000000	29.2	---	29.2	99.600	PASS

Power Spectral Density (5600 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.F and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5600.000000	5598.217822	2.195	5.0	PASS

Ports

Port	Duty Cycle (%)
1	0.000
2	0.000

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.58500 GHz	5.58500 GHz
Stop Frequency	5.61500 GHz	5.61500 GHz
Span	30.000 MHz	30.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 60
SweepTime	2.020 ms	2.020 ms
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	off	off

Occupied Channel Bandwidth 99% (5600 MHz; 30 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 v02r01 D and ANSI C63.10-2013

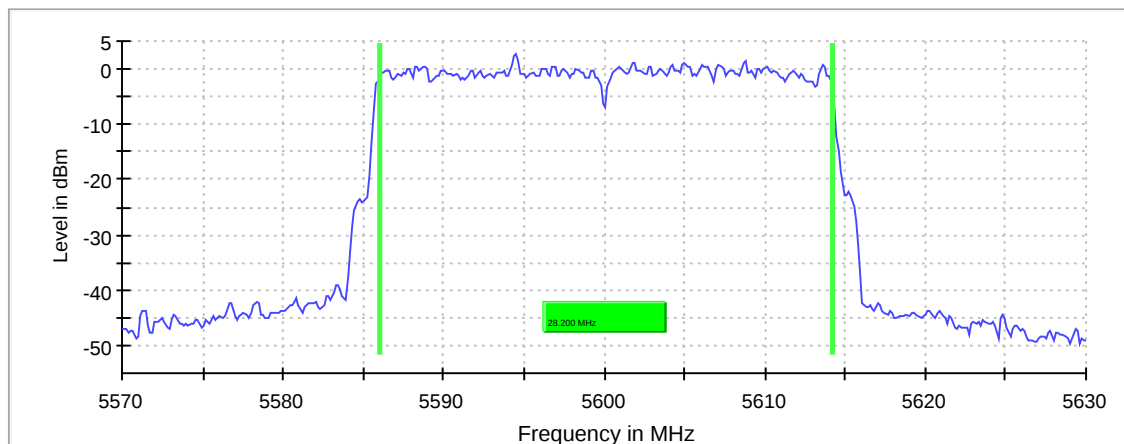
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5600.000000	28.200000	---	---	5585.975000	5614.175000

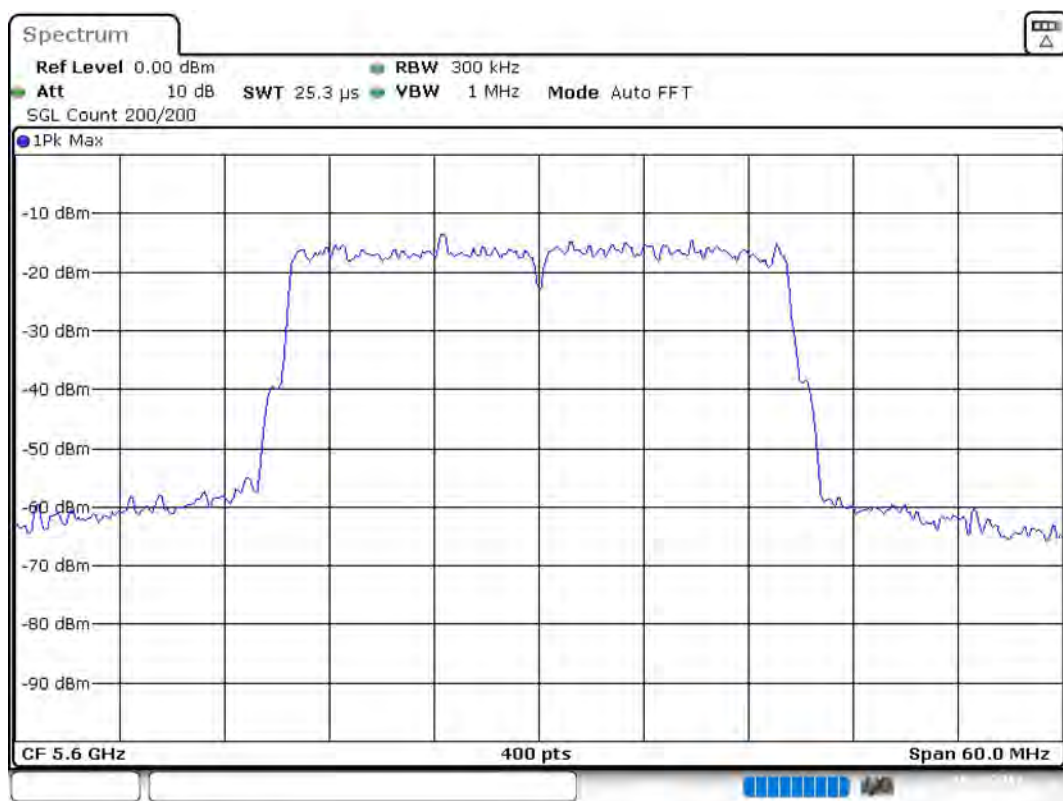
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5600.000000	PASS

99 % Bandwidth



Bandwidth



Date: 8.AUG.2019 01:02:20

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.57000 GHz	5.57000 GHz
Stop Frequency	5.63000 GHz	5.63000 GHz
Span	60.000 MHz	60.000 MHz
RBW	300.000 kHz	≥ 300.000 kHz
VBW	1.000 MHz	≥ 900.000 kHz
SweepPoints	400	~ 400
Sweeptime	25.313 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamp	off	off

Emissions in restricted frequency bands (Peak) (5600 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures
New Rules v02r01 II.G.1 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5600.000000	PASS

Final measurements

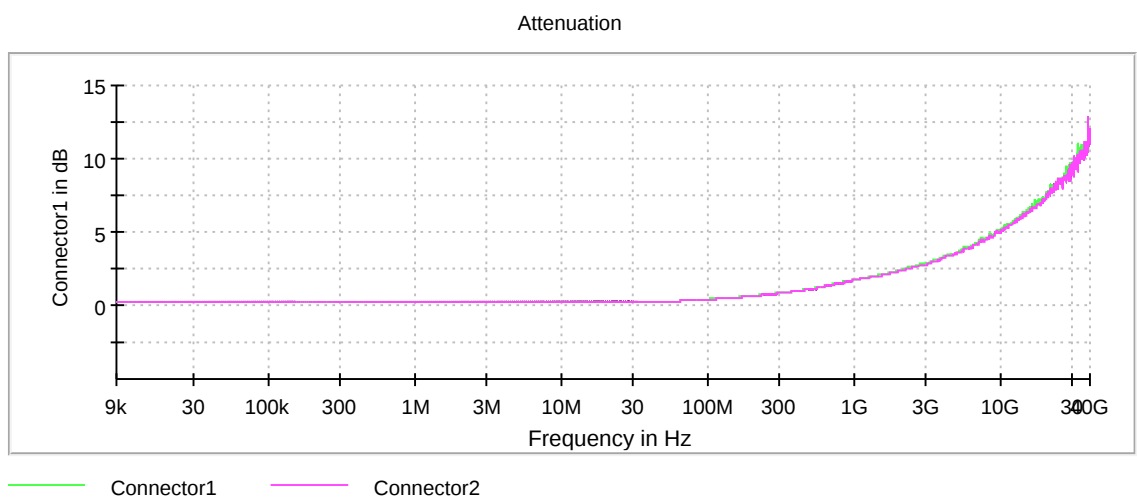
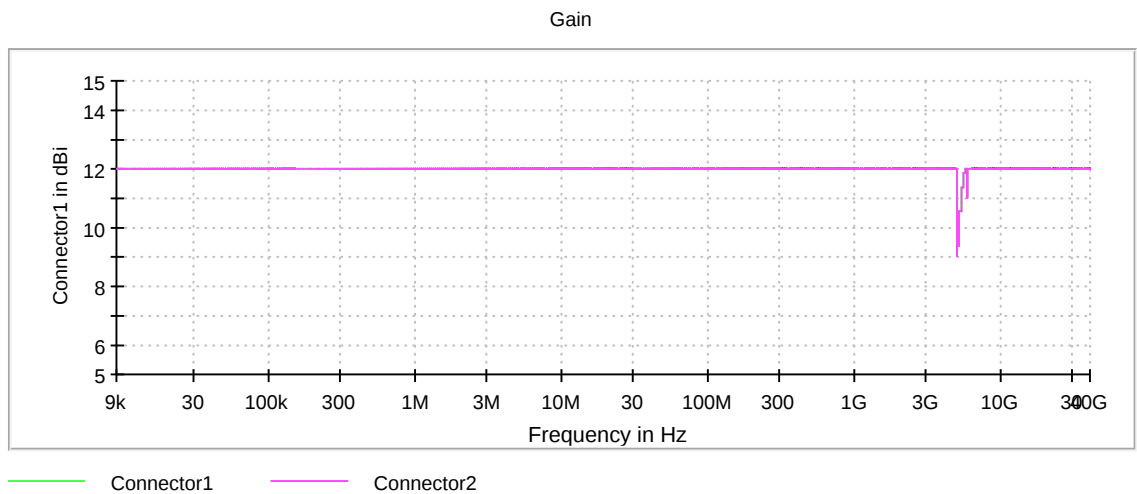
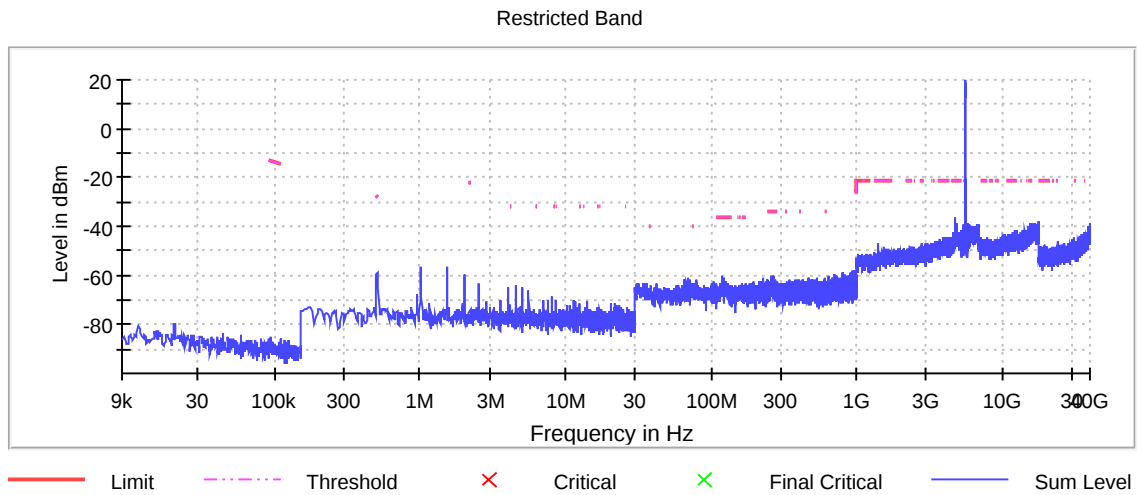
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
4800.250000	-36.6	15.4	-21.2
4799.750000	-37.0	15.8	-21.2
17822.250000	-38.0	16.8	-21.2
17898.250000	-38.1	16.9	-21.2
15799.750000	-38.2	17.0	-21.2
17886.250000	-38.4	17.2	-21.2
15895.750000	-38.4	17.2	-21.2
17882.750000	-38.6	17.4	-21.2
17897.250000	-38.6	17.4	-21.2
17905.750000	-38.7	17.5	-21.2
17916.250000	-38.7	17.5	-21.2
17886.750000	-38.7	17.5	-21.2
4973.750000	-38.8	17.6	-21.2
15896.250000	-38.8	17.6	-21.2
15903.750000	-38.8	17.6	-21.2

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
0.009000	0.150000	1	1
0.150000	30.000000	1	1
30.000000	1000.000000	1	1
1000.000000	5150.000000	1	2
5150.000000	5350.000000	1	2
5350.000000	5470.000000	1	2
5470.000000	5850.000000	1	2
5850.000000	18000.000000	1	2
18000.000000	26000.000000	1	2
26000.000000	40000.000000	1	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	300.000 Hz	<= 300.000 Hz
VBW	1.000 kHz	>= 900.000 Hz
SweepPoints	940	~ 940
SweepTime	6.322 ms	AUTO
Reference Level	5.000 dBm	AUTO
Attenuation	15.000 dB	5.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Emission Bandwidth 26 dB (5705 MHz; 30 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 v02r01 D and ANSI C63.10-2013

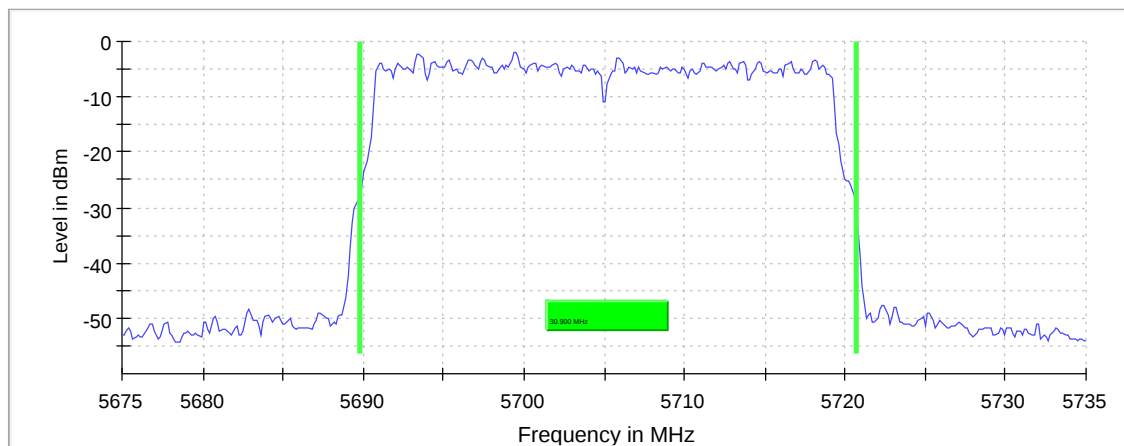
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Bandwidth U-NII 2C (MHz)	Bandwidth U-NII 3 (MHz)	Limit Min (MHz)	Limit Max (MHz)
5705.000000	30.900000	30.900000	0.000000	---	---

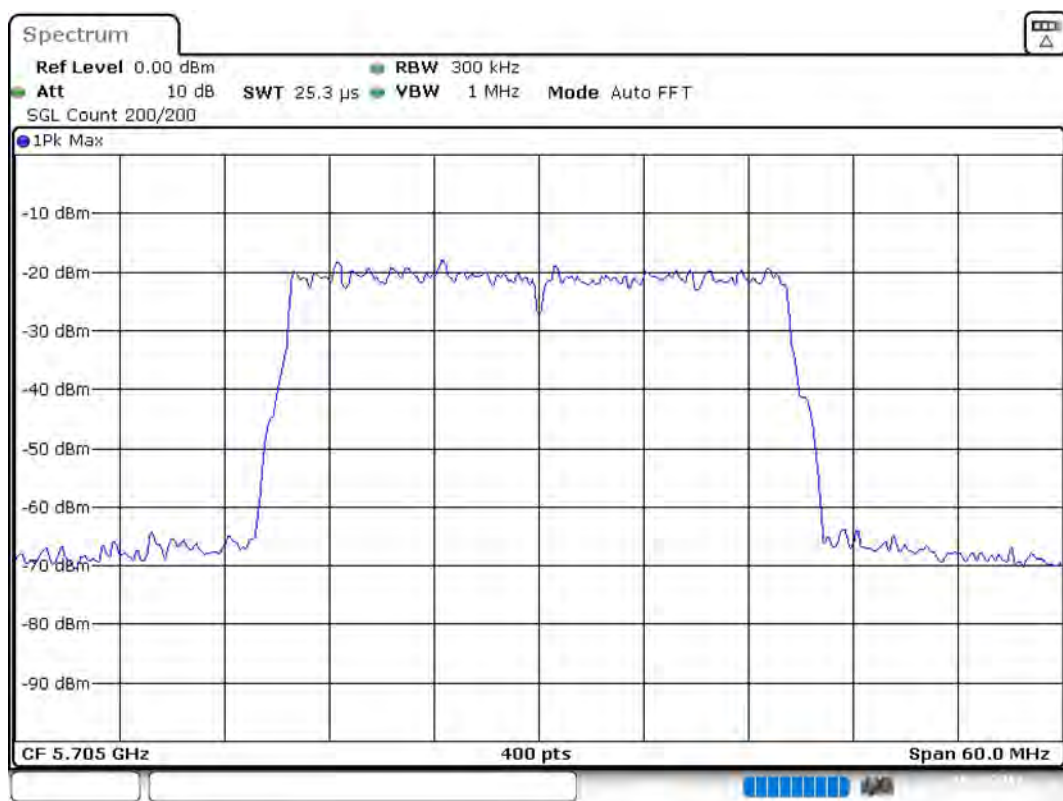
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Max Level (dBm)	Result
5705.000000	5689.775000	5720.675000	-2.0	PASS

26 dB Bandwidth



Bandwidth



Date: 8.AUG.2019 01:17:43

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.67500 GHz	5.67500 GHz
Stop Frequency	5.73500 GHz	5.73500 GHz
Span	60.000 MHz	60.000 MHz
RBW	300.000 kHz	~ 300.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	400	~ 400
Sweeptime	25.313 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamplifier	off	off

RF output power (5705 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.E and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5705.000000	25.3	---	25.3	99.611	PASS

Power Spectral Density (5705 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(a), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.F and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5705.000000	5703.217822	-1.492	5.0	PASS

Ports

Port	Duty Cycle (%)
1	0.000
2	0.000

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.69000 GHz	5.69000 GHz
Stop Frequency	5.72000 GHz	5.72000 GHz
Span	30.000 MHz	30.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 60
SweepTime	2.020 ms	2.020 ms
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	off	off

Occupied Channel Bandwidth 99% (5705 MHz; 30 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 v02r01 D and ANSI C63.10-2013

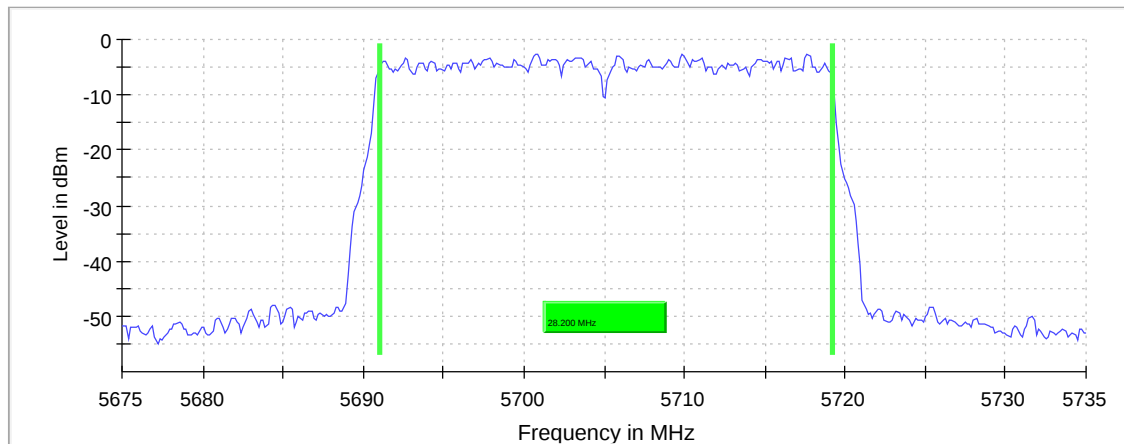
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Bandwidth U-NII 2C (MHz)	Bandwidth U-NII 3 (MHz)	Limit Min (MHz)	Limit Max (MHz)
5705.000000	28.200000	28.200000	0.000000	---	---

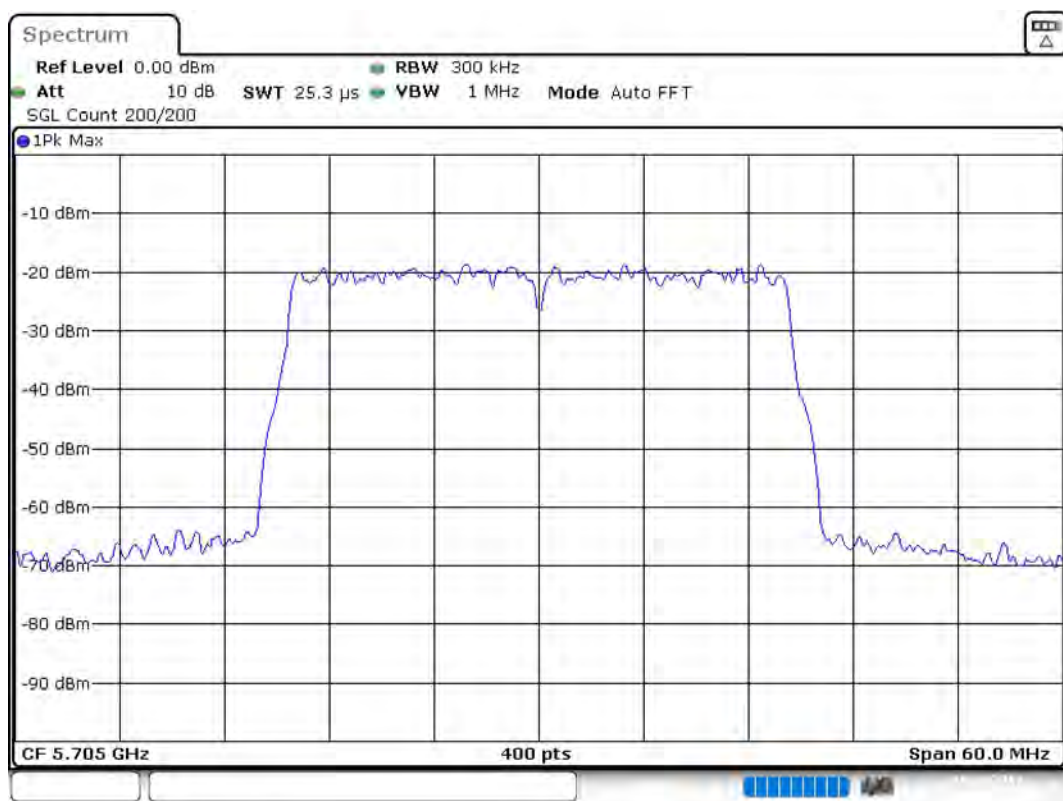
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)	Result
5705.000000	5690.975000	5719.175000	PASS

99 % Bandwidth



Bandwidth



Date: 8.AUG.2019 01:18:35

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.67500 GHz	5.67500 GHz
Stop Frequency	5.73500 GHz	5.73500 GHz
Span	60.000 MHz	60.000 MHz
RBW	300.000 kHz	≥ 300.000 kHz
VBW	1.000 MHz	≥ 900.000 kHz
SweepPoints	400	~ 400
Sweptime	25.313 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweptype	FFT	AUTO
Preamp	off	off

Tx Spurious Emission (5705 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 II.G.4&5 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5705.000000	PASS

Final measurements

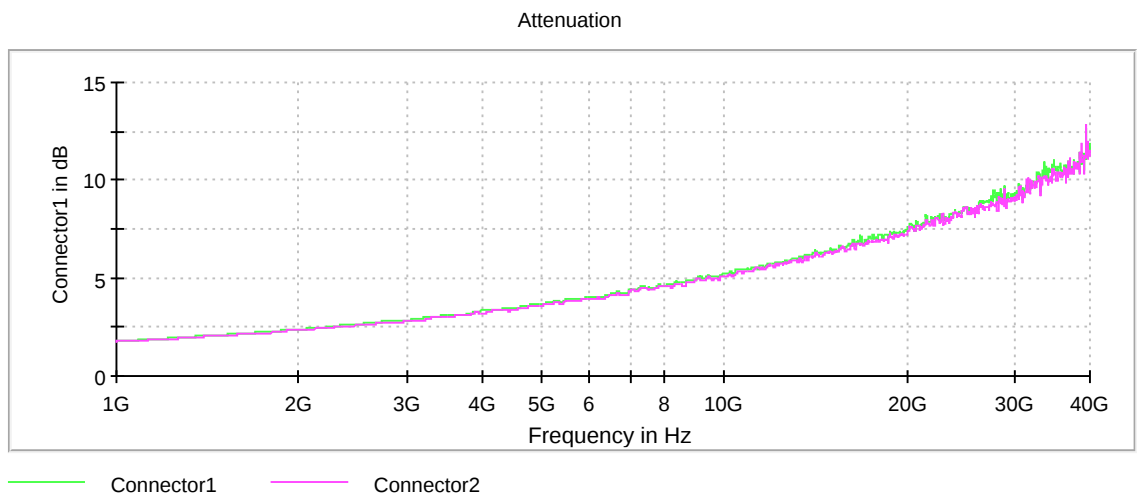
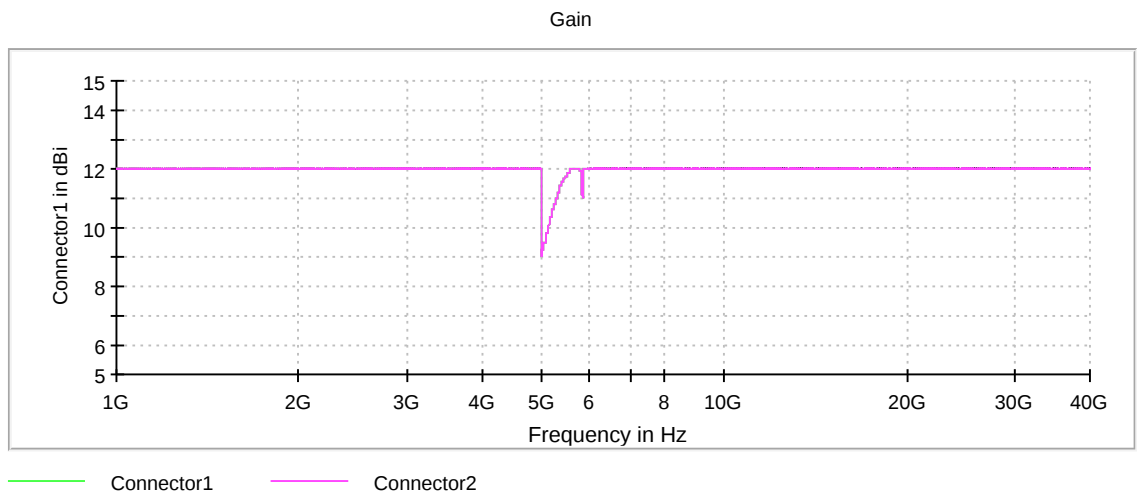
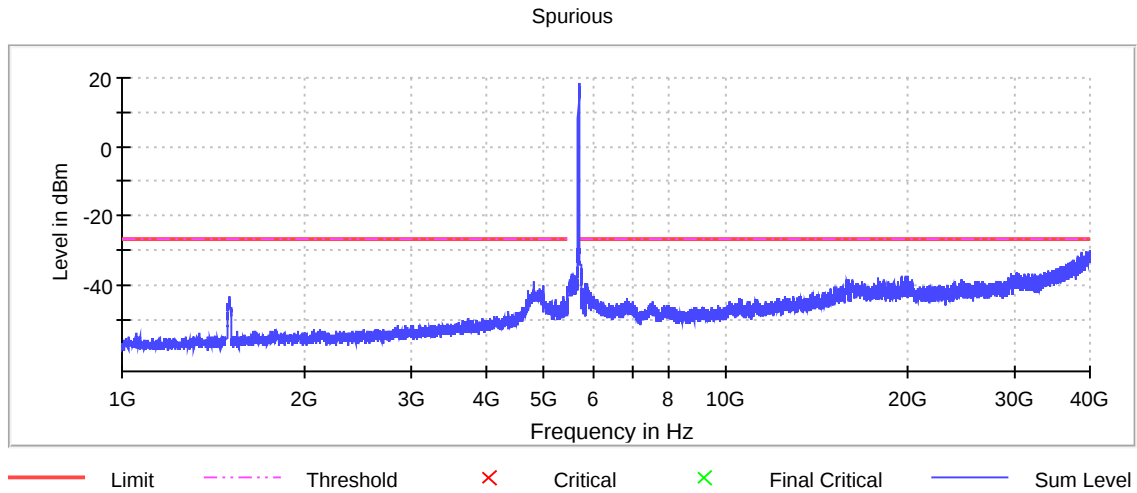
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
5725.750000	-29.2	2.2	-27.0
5726.250000	-29.5	2.5	-27.0
39874.250000	-29.8	2.8	-27.0
5727.250000	-29.9	2.9	-27.0
5726.750000	-29.9	2.9	-27.0
39910.750000	-29.9	2.9	-27.0
39951.250000	-29.9	2.9	-27.0
39872.250000	-30.0	3.0	-27.0
39896.750000	-30.0	3.0	-27.0
5725.250000	-30.0	3.0	-27.0
5727.750000	-30.1	3.1	-27.0
39847.750000	-30.2	3.2	-27.0
39322.250000	-30.2	3.2	-27.0
39904.250000	-30.2	3.2	-27.0
39724.750000	-30.3	3.3	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
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 2

Setting	Instrument Value	Target Value
RBW	1.000 MHz	≤ 1.000 MHz
VBW	3.000 MHz	≥ 3.000 MHz
SweepPoints	8300	~ 8300
SweepTime	8.300 ms	AUTO
Reference Level	0.000 dBm	AUTO
Attenuation	10.000 dB	10.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	30	30
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamp	off	off

Emissions in restricted frequency bands (Peak) (5705 MHz; 30 MHz)

Customized settings.

Test according to FCC title 47 part 15 §15.407(b), KDB 789033 D02 General U-NII Test Procedures
New Rules v02r01 II.G.1 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5705.000000	PASS

Final measurements

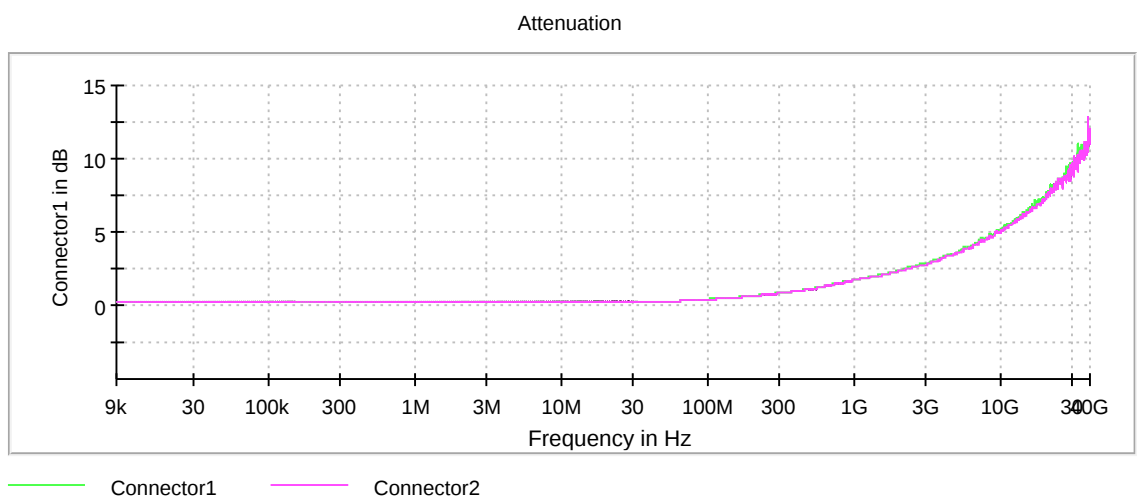
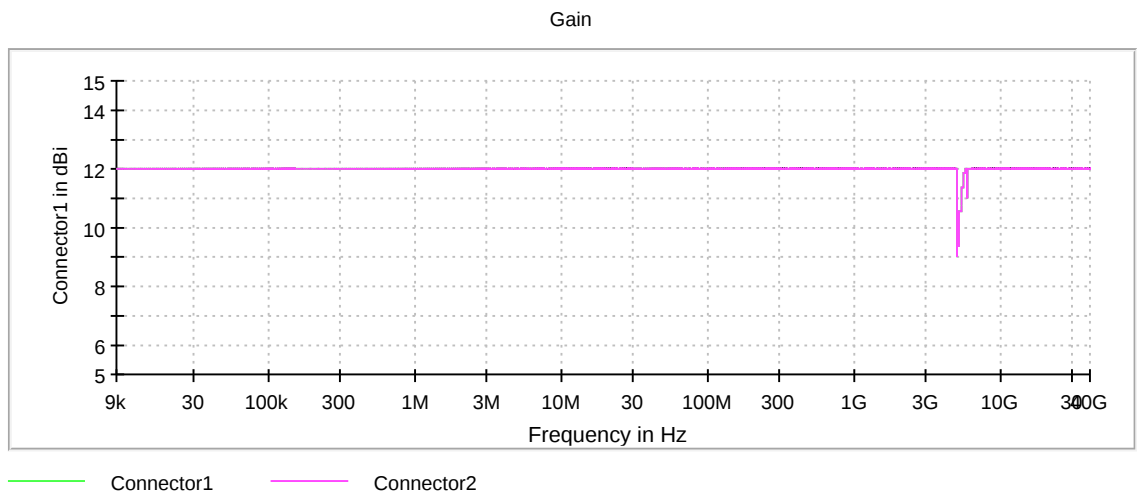
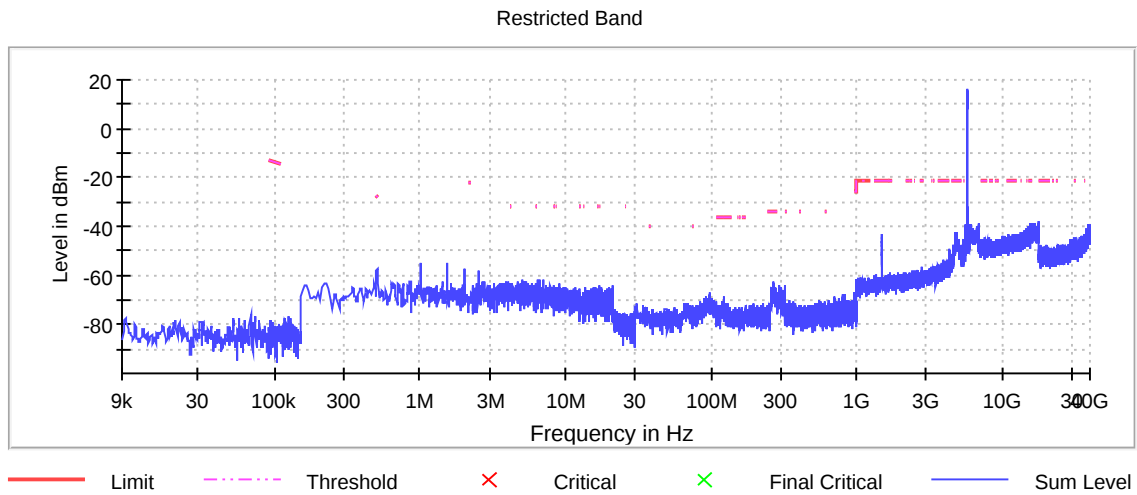
Frequency (MHz)	Level Pre Measurement (dBm)	level (dBm)	Limit (dBm)	Margin (dB)	Result
---	---	---	---	---	---

Pre Measurements

Frequency (MHz)	Level (dBm)	Margin (dB)	Limit (dBm)
17888.750000	-37.9	16.7	-21.2
16166.750000	-38.1	16.9	-21.2
17898.750000	-38.3	17.1	-21.2
17903.750000	-38.3	17.1	-21.2
17863.250000	-38.3	17.1	-21.2
15799.250000	-38.3	17.1	-21.2
17877.250000	-38.4	17.2	-21.2
17865.750000	-38.5	17.3	-21.2
16186.750000	-38.7	17.5	-21.2
17866.250000	-38.7	17.5	-21.2
17904.250000	-38.8	17.6	-21.2
15916.250000	-38.8	17.6	-21.2
16195.250000	-38.9	17.7	-21.2
16190.250000	-39.0	17.8	-21.2
17870.250000	-39.0	17.8	-21.2

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
0.009000	0.150000	1	1
0.150000	30.000000	1	1
30.000000	1000.000000	1	1
1000.000000	5150.000000	1	2
5150.000000	5350.000000	1	2
5350.000000	5470.000000	1	2
5470.000000	5850.000000	1	2
5850.000000	18000.000000	1	2
18000.000000	26000.000000	1	2
26000.000000	40000.000000	1	2



Pre Measurement 1

Setting	Instrument Value	Target Value
RBW	300.000 Hz	<= 300.000 Hz
VBW	1.000 kHz	>= 900.000 Hz
SweepPoints	940	~ 940
SweepTime	6.322 ms	AUTO
Reference Level	-5.000 dBm	AUTO
Attenuation	5.000 dB	5.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	3	3
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamp	off	off

Emission Bandwidth 26 dB (5495 MHz; 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 v02r01 D and ANSI C63.10-2013

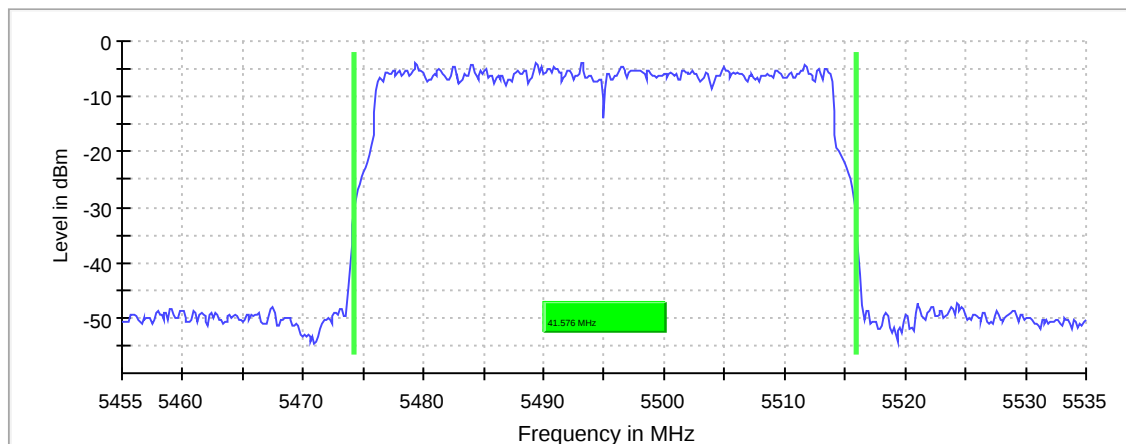
26 dB Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5495.000000	41.575985	---	---	5474.287054	5515.863039

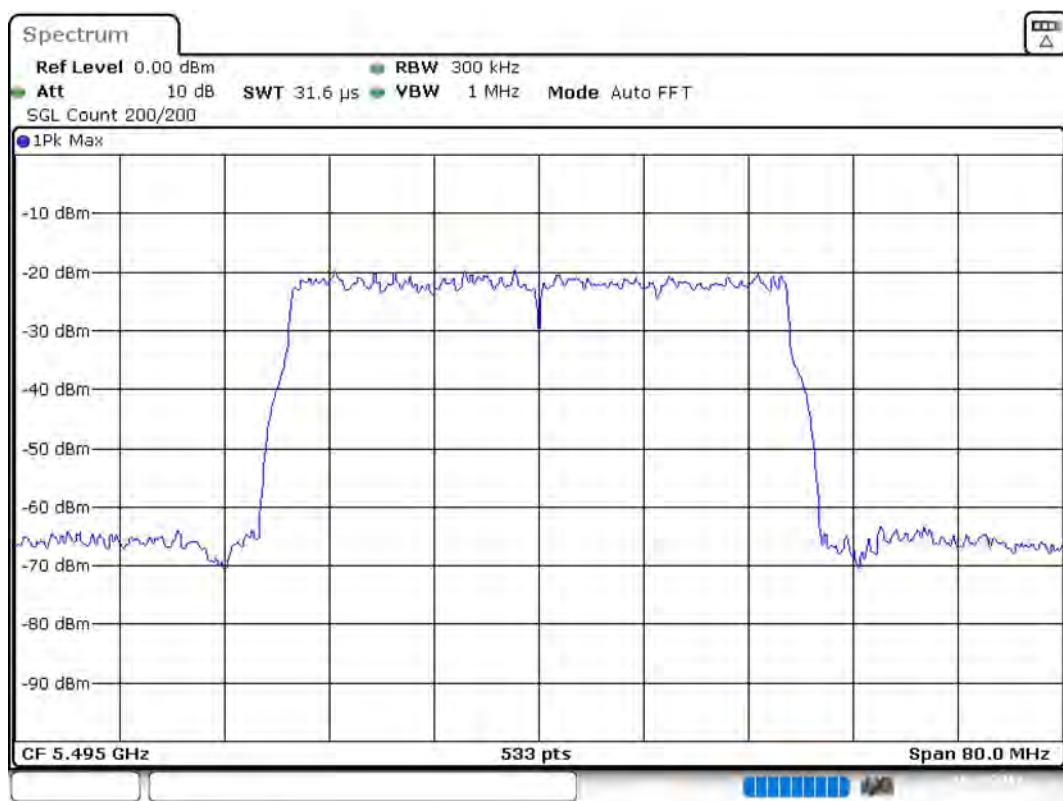
(continuation of the "26 dB Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Max Level (dBm)	Result
5495.000000	-3.9	PASS

26 dB Bandwidth



Bandwidth



Date: 8.AUG.2019 14:33:26

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.45500 GHz	5.45500 GHz
Stop Frequency	5.53500 GHz	5.53500 GHz
Span	80.000 MHz	80.000 MHz
RBW	300.000 kHz	~ 400.000 kHz
VBW	1.000 MHz	>= 900.000 kHz
SweepPoints	533	~ 533
Sweeptime	31.621 μ s	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	FFT	AUTO
Preamplifier	off	off

RF output power (5495 MHz; 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 v02r01 II.E and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Gated RMS (dBm)	Limit Max (dBm)	Gated EIRP (dBm)	DutyCycle (%)	Result
5495.000000	26.2	---	26.2	99.498	PASS

Power Spectral Density (5495 MHz; 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 v02r01 II.F and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Frequency (MHz)	PSD (dBm)	Limit Max (dBm)	Result
5495.000000	5500.940594	-1.771	5.3	PASS

Ports

Port	Duty Cycle (%)
1	0.000
2	0.000

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.47500 GHz	5.47500 GHz
Stop Frequency	5.51500 GHz	5.51500 GHz
Span	40.000 MHz	40.000 MHz
RBW	1.000 MHz	<= 1.000 MHz
VBW	3.000 MHz	>= 3.000 MHz
SweepPoints	101	~ 80
SweepTime	2.020 ms	2.020 ms
Reference Level	20.000 dBm	20.000 dBm
Attenuation	40.000 dB	AUTO
Detector	RMS	RMS
SweepCount	100	100
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
SweepType	Sweep	AUTO
Preamplifier	off	off

Occupied Channel Bandwidth 99% (5495 MHz; 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 v02r01 D and ANSI C63.10-2013

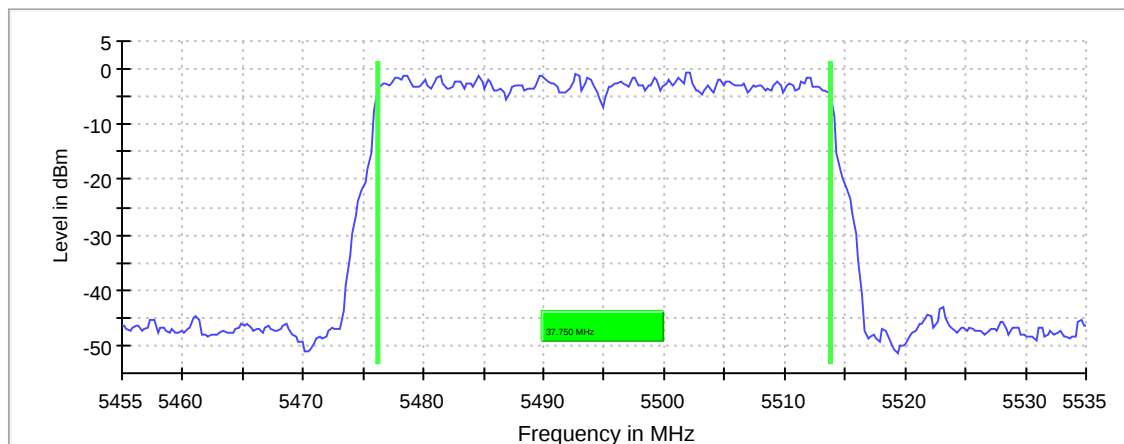
99 % Bandwidth

DUT Frequency (MHz)	Bandwidth (MHz)	Limit Min (MHz)	Limit Max (MHz)	Band Edge Left (MHz)	Band Edge Right (MHz)
5495.000000	37.750000	---	---	5476.125000	5513.875000

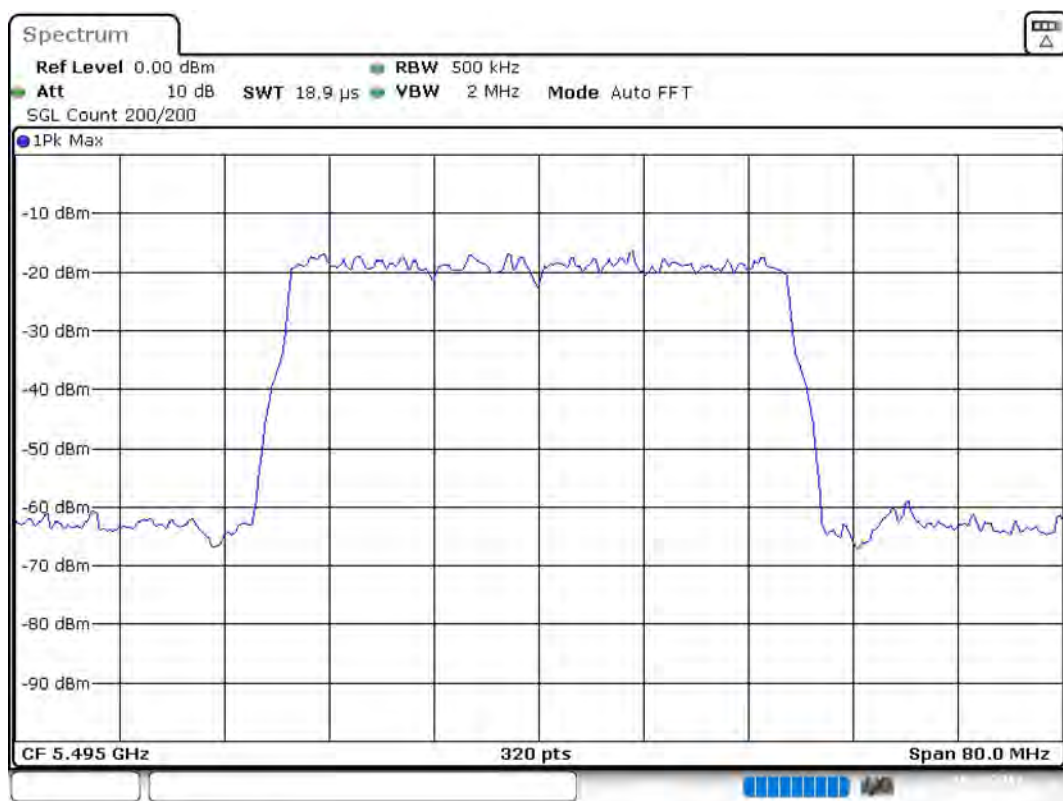
(continuation of the "99 % Bandwidth" table from column 6 ...)

DUT Frequency (MHz)	Result
5495.000000	PASS

99 % Bandwidth



Bandwidth



Date: 8.AUG.2019 14:34:18

Measurement

Setting	Instrument Value	Target Value
Start Frequency	5.45500 GHz	5.45500 GHz
Stop Frequency	5.53500 GHz	5.53500 GHz
Span	80.000 MHz	80.000 MHz
RBW	500.000 kHz	≥ 400.000 kHz
VBW	2.000 MHz	≥ 1.500 MHz
SweepPoints	320	~ 320
Sweptime	18.906 µs	AUTO
Reference Level	0.000 dBm	0.000 dBm
Attenuation	10.000 dB	0.000 dB
Detector	MaxPeak	MaxPeak
SweepCount	200	200
Filter	3 dB	3 dB
Trace Mode	Max Hold	Max Hold
Sweeptype	FFT	AUTO
Preamplifier	off	off

Tx Spurious Emission (5495 MHz; 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 v02r01 II.G.4&5 and ANSI C63.10-2013

Result

DUT Frequency (MHz)	Result
5495.000000	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)
5466.750000	-28.4	1.4	-27.0
5464.250000	-28.6	1.6	-27.0
5460.750000	-28.6	1.6	-27.0
5463.750000	-28.6	1.6	-27.0
5469.750000	-28.8	1.8	-27.0
5461.250000	-28.9	1.9	-27.0
5467.250000	-29.0	2.0	-27.0
39902.750000	-29.1	2.1	-27.0
5453.750000	-29.1	2.1	-27.0
5459.750000	-29.2	2.2	-27.0
5434.250000	-29.2	2.2	-27.0
5466.250000	-29.2	2.2	-27.0
39875.750000	-29.2	2.2	-27.0
5453.250000	-29.3	2.3	-27.0
5467.750000	-29.4	2.4	-27.0

Measurement Settings

Start Frequency (MHz)	Stop Frequency (MHz)	Pre Measurement	Final Measurement
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