6. Band Edge Emissions

6.1 Test Standard and Limit

6.1.1 Test Standard

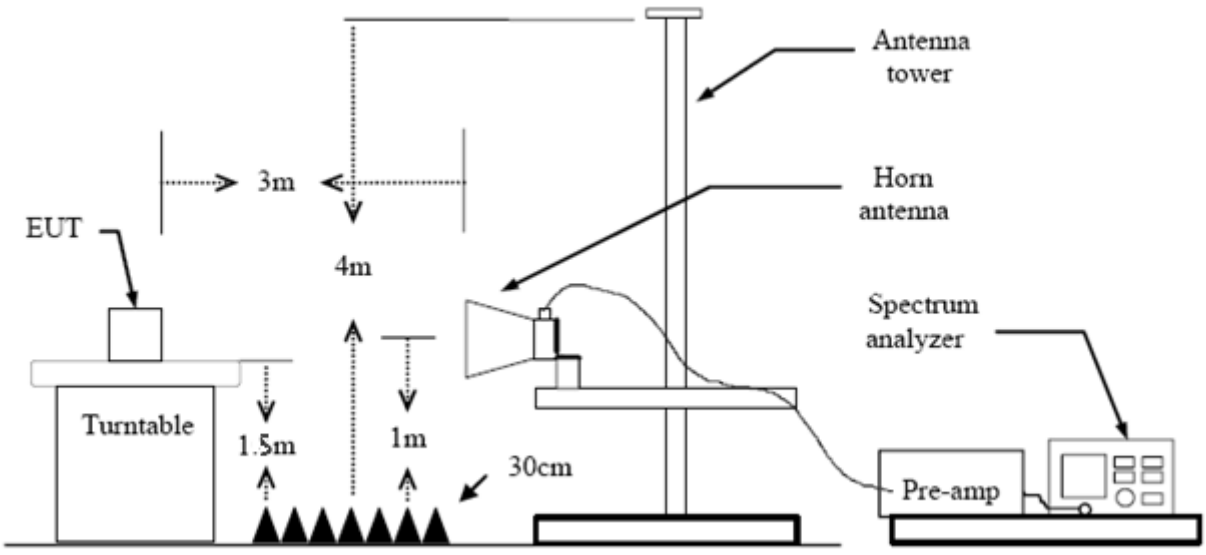
FCC Part 15.407(b)

6.1.2 Test Limit

Limits of unwanted emission out of the restricted bands

Frequency (MHz)	EIRP Limits (dBm)	Equivalent Field Strength at 3m (dBuV/m)
5150~5250	-27	68.3
5250~5350	-27	68.3
5470~5725	-27	68.3
5725~5825	-27(beyond 10MHz of the Band edge)	68.3
	-17(within 10MHz of the Band edge)	78.3
NOTE: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength: $E=\frac{1000000\sqrt{30P}}{3}$ uV/m, where P is the eirp (Watts)		

6.2 Test Setup



6.3 Test Procedure

(1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz. The

EUT was placed on a rotating 0.8m high above the ground, the table was rotated 360 degrees to determine the position of the highest radiation.

(2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.

(3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.

(4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

(5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.

(6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.

(7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

(8) For the actual test configuration, please see the test setup photo.

6.4 EUT Operating Condition

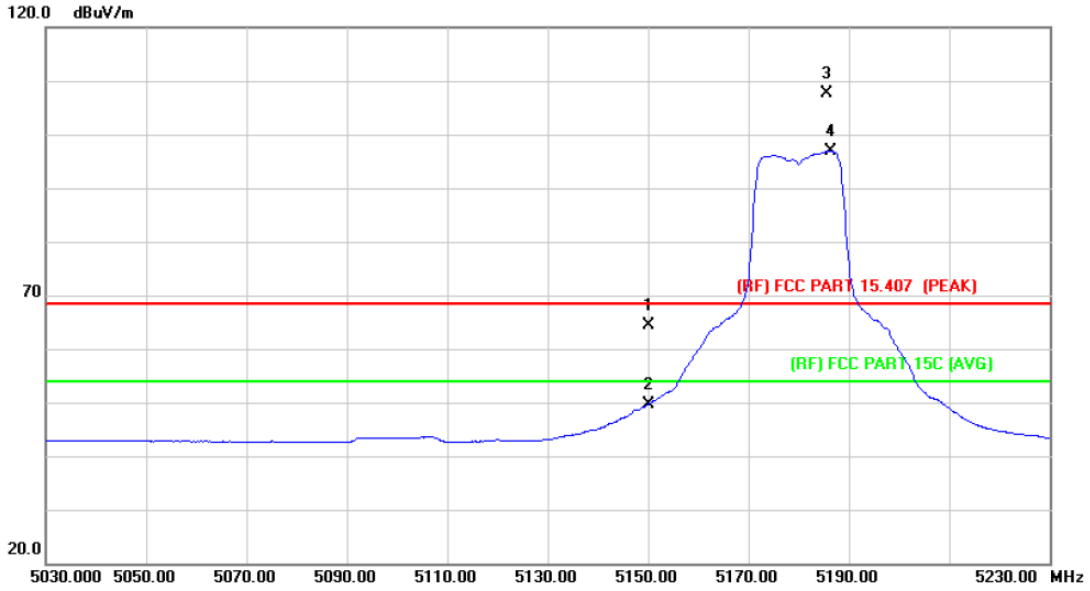
The Equipment Under Test was set to Continual Transmitting in maximum power.

6.5 Test Data

Please see the next page.

(1) Radiation Test

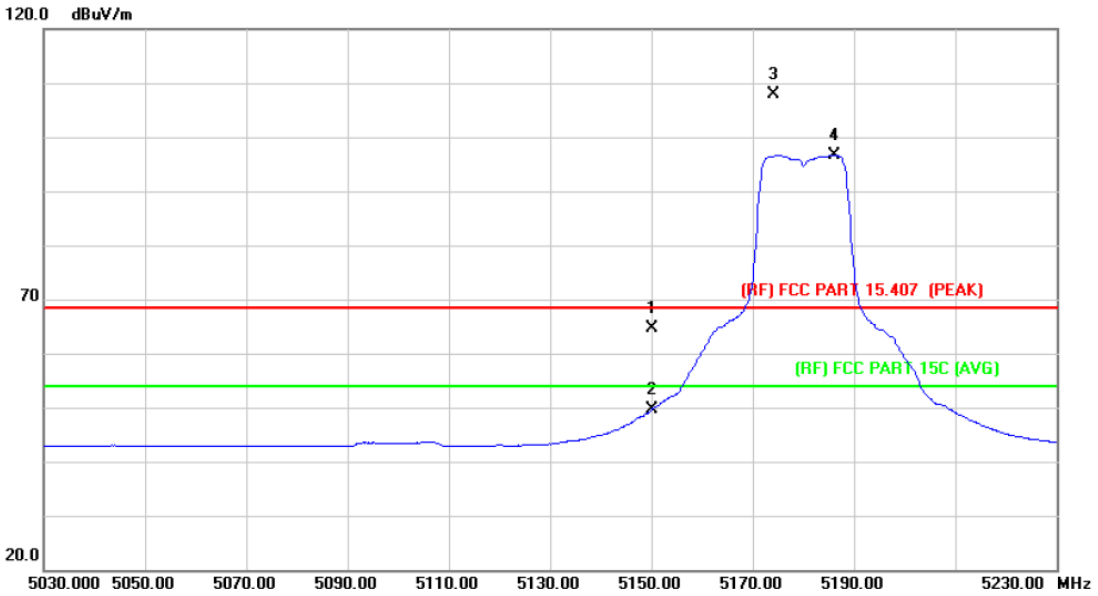
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	**Model Name :**	SBRT8812AUA
Temperature:	25 ℃	**Relative Humidity:**	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11a Mode5180 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	55.73	8.69	64.42	68.30	-3.88	peak
2		5150.000	41.04	8.69	49.73	54.00	-4.27	AVG
3	X	5185.600	98.74	8.79	107.53	Fundamental Frequency		peak
4	*	5186.400	88.13	8.80	96.93	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

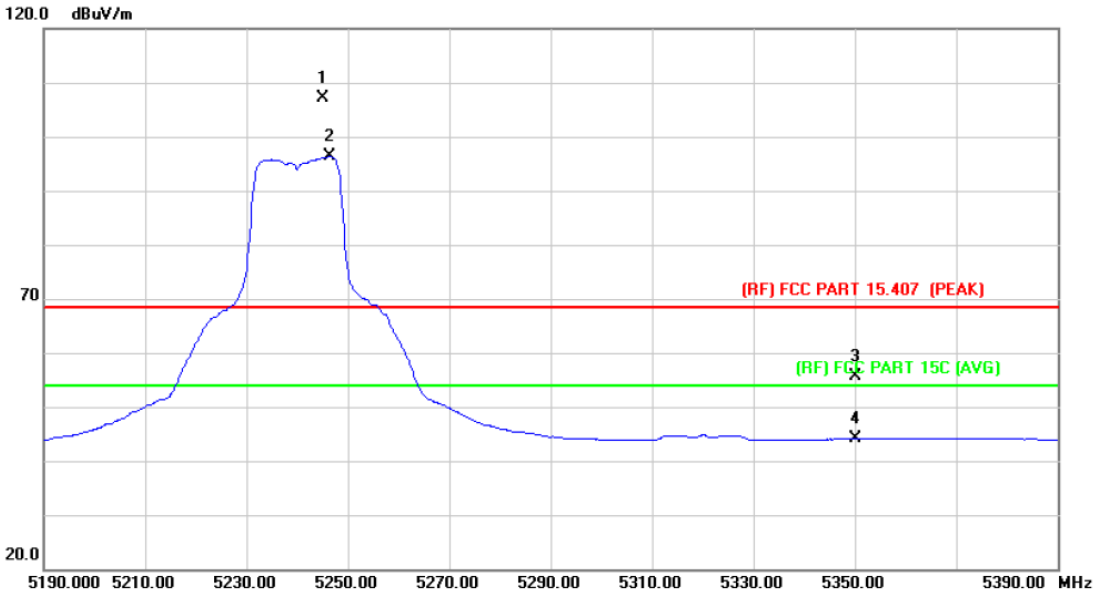
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11a Mode5180 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	55.89	8.69	64.58	68.30	-3.72	peak
2		5150.000	40.93	8.69	49.62	54.00	-4.38	AVG
3	X	5174.000	99.20	8.76	107.96	Fundamental Frequency		peak
4	*	5186.200	87.92	8.79	96.71	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

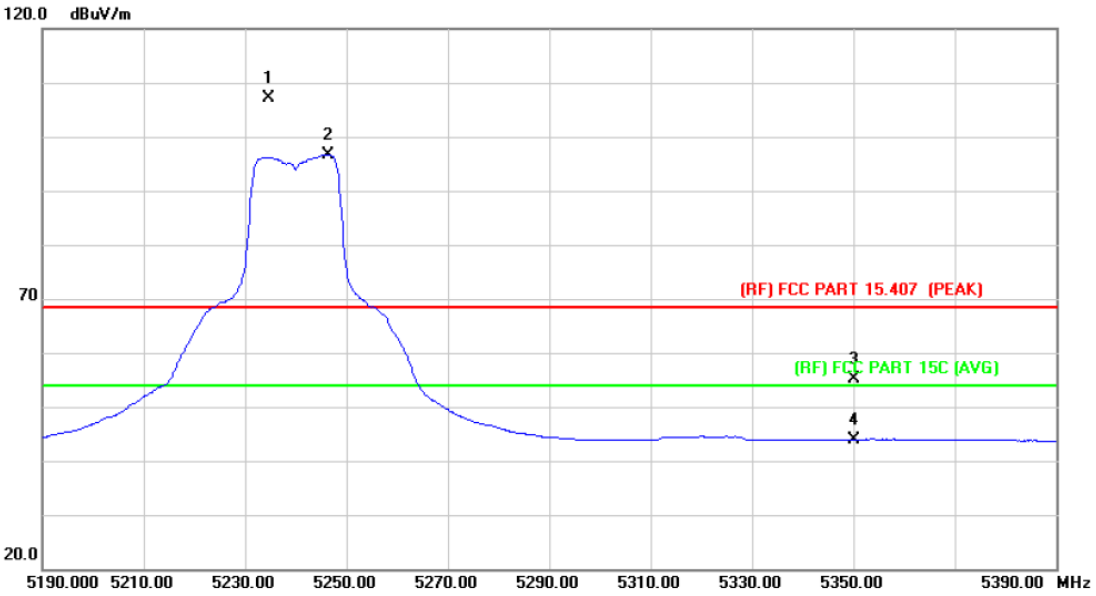
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11a Mode5240 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5245.200	98.09	8.96	107.05	Fundamental Frequency		peak
2	*	5246.400	87.34	8.96	96.30	Fundamental Frequency		AVG
3		5350.000	46.59	9.08	55.67	68.30	-12.63	peak
4		5350.000	35.01	9.08	44.09	54.00	-9.91	AVG

Emission Level= Read Level+ Correct Factor

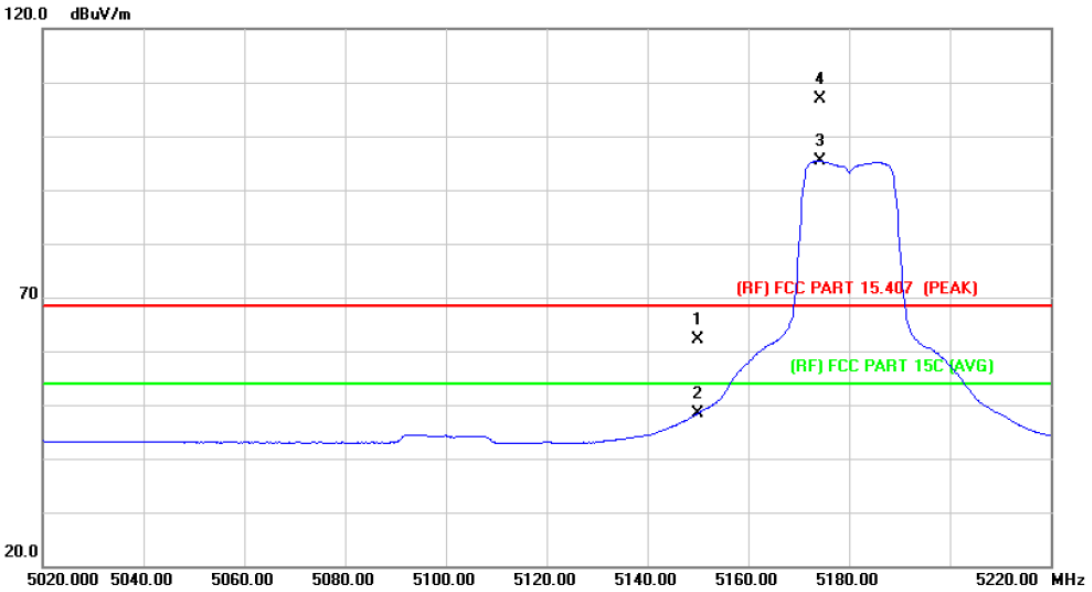
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11a Mode5240 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5234.600	98.19	8.93	107.12	Fundamental Frequency		peak
2	*	5246.400	87.76	8.96	96.72	Fundamental Frequency		AVG
3		5350.000	46.15	9.08	55.23	68.30	-13.07	peak
4		5350.000	34.91	9.08	43.99	54.00	-10.01	AVG

Emission Level= Read Level+ Correct Factor

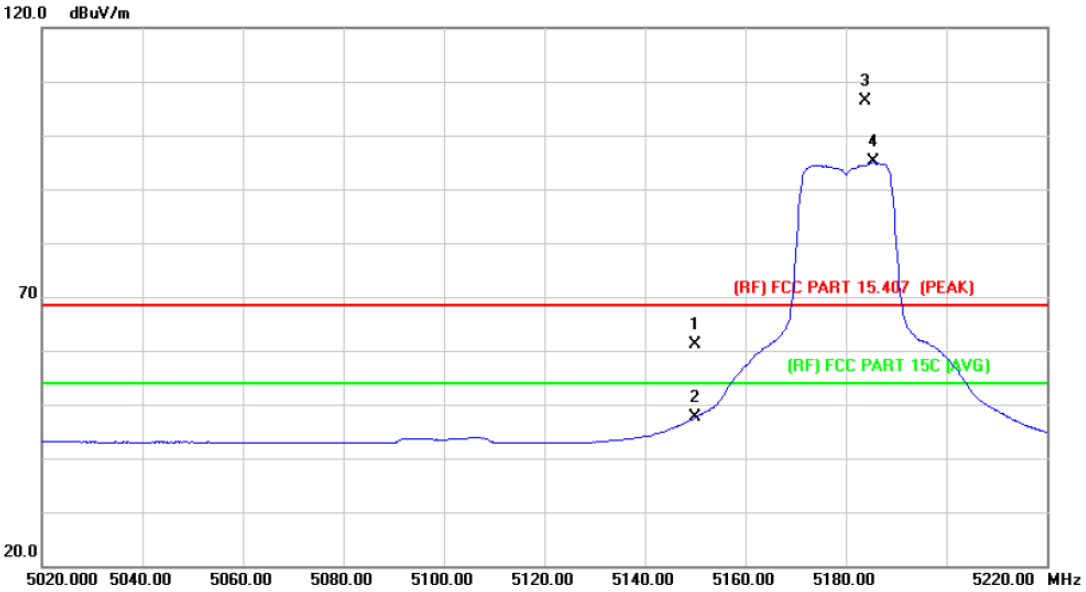
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(20) Mode5180 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	53.46	8.69	62.15	68.30	-6.15	peak
2		5150.000	39.75	8.69	48.44	54.00	-5.56	AVG
3	*	5174.200	86.60	8.76	95.36	Fundamental Frequency		AVG
4	X	5174.400	98.11	8.76	106.87	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

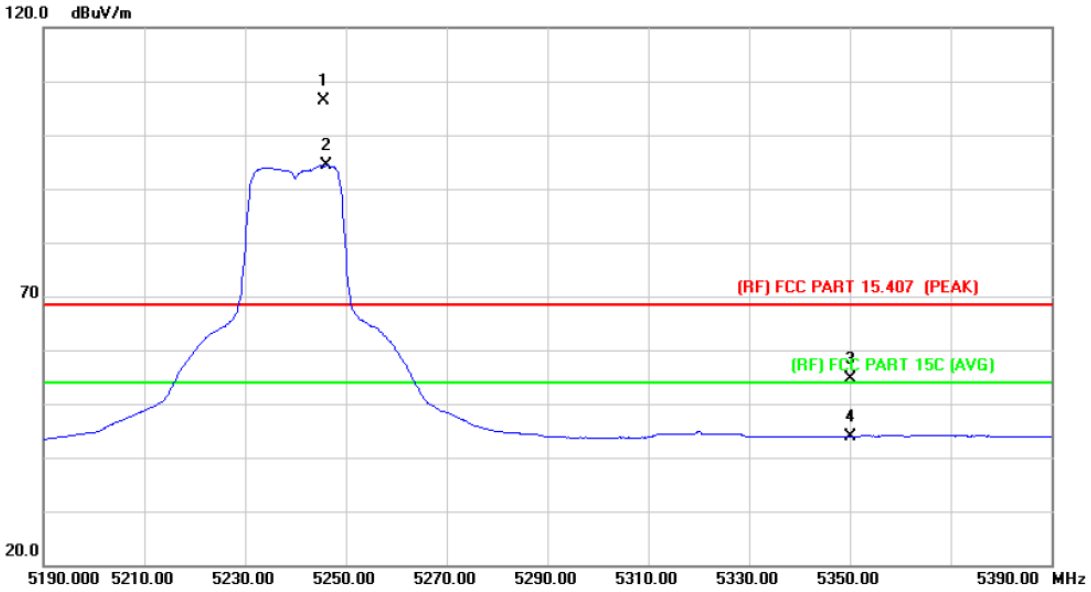
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(20) Mode5180 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	52.53	8.69	61.22	68.30	-7.08	peak
2		5150.000	38.83	8.69	47.52	54.00	-6.48	AVG
3	X	5183.800	97.71	8.79	106.50	Fundamental Frequency		peak
4	*	5185.400	86.23	8.79	95.02	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

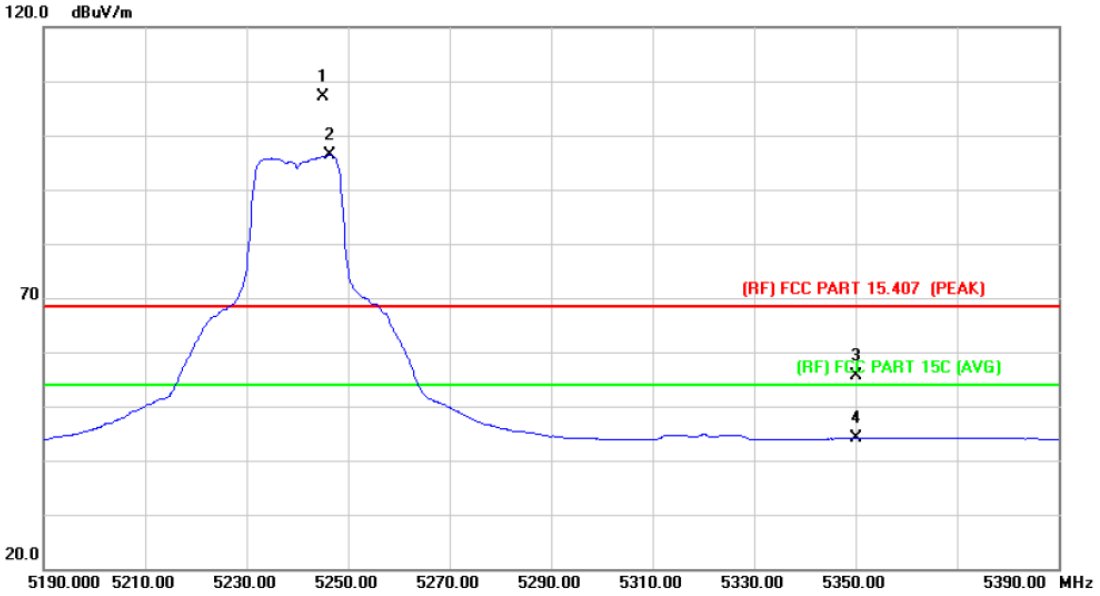
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(20) Mode5240 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5245.600	97.31	8.96	106.27	Fundamental Frequency		peak
2	*	5246.200	85.33	8.96	94.29	Fundamental Frequency		AVG
3		5350.000	45.51	9.08	54.59	68.30	-13.71	peak
4		5350.000	34.89	9.08	43.97	54.00	-10.03	AVG

Emission Level= Read Level+ Correct Factor

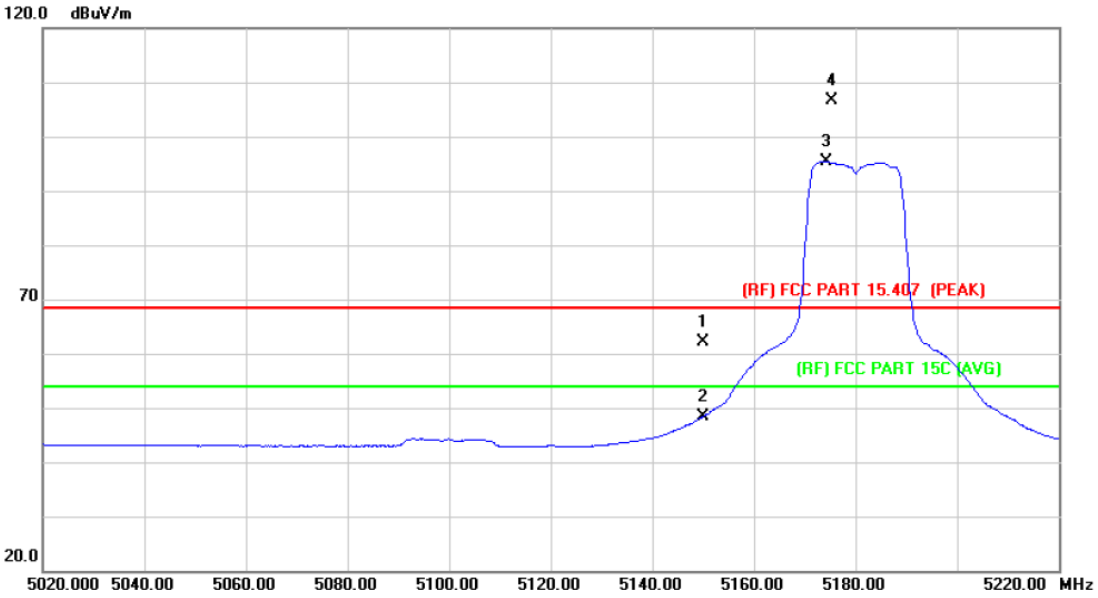
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(20) Mode5240 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5245.200	98.09	8.96	107.05	Fundamental Frequency		peak
2	*	5246.400	87.34	8.96	96.30	Fundamental Frequency		AVG
3		5350.000	46.59	9.08	55.67	68.30	-12.63	peak
4		5350.000	35.01	9.08	44.09	54.00	-9.91	AVG

Emission Level= Read Level+ Correct Factor

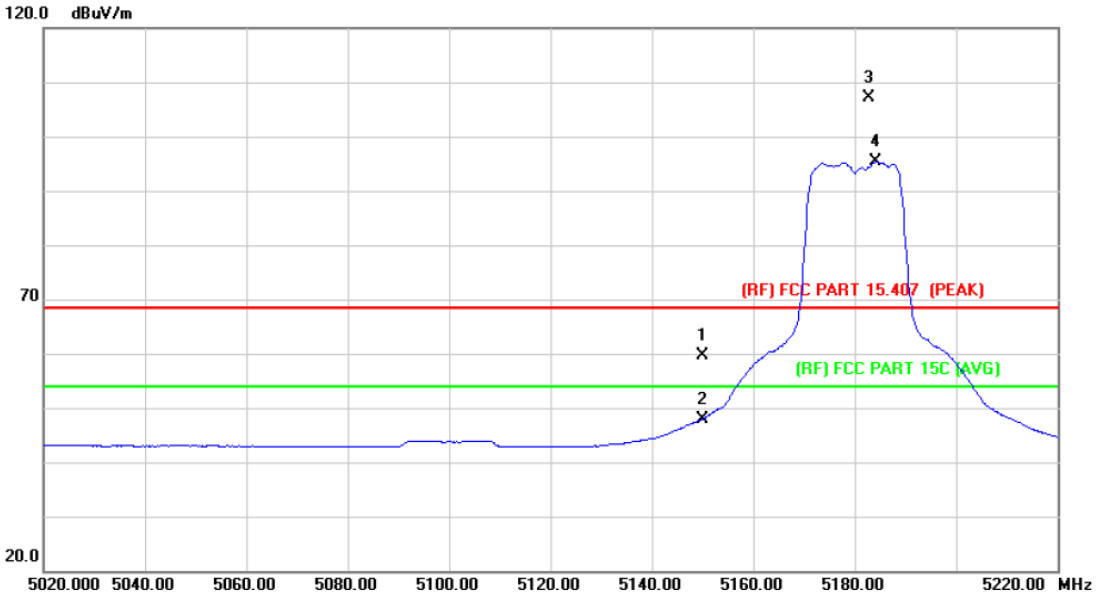
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(20) Mode5180 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	53.40	8.69	62.09	Fundamental Frequency		peak
2		5150.000	39.73	8.69	48.42	Fundamental Frequency		AVG
3	*	5174.200	86.61	8.76	95.37	54.00	41.37	AVG
4	X	5175.400	97.98	8.76	106.74	68.30	38.44	peak

Emission Level= Read Level+ Correct Factor

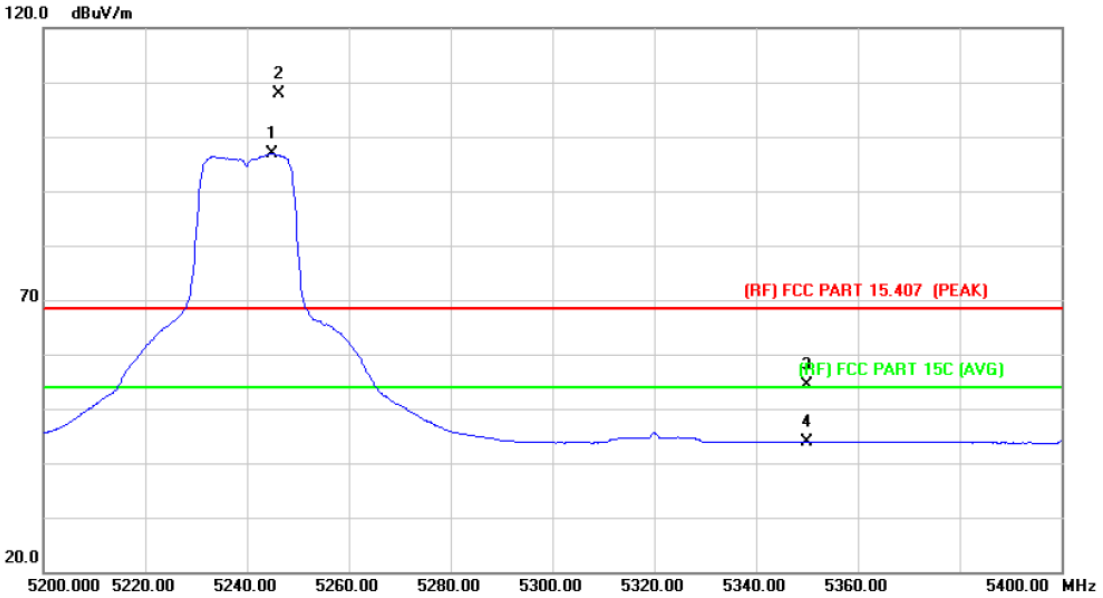
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(20) Mode5180 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	50.96	8.69	59.65	Fundamental Frequency		peak
2		5150.000	39.26	8.69	47.95	Fundamental Frequency		AVG
3	X	5182.800	98.23	8.78	107.01	68.30	38.71	peak
4	*	5184.200	86.54	8.79	95.33	54.00	41.33	AVG

Emission Level= Read Level+ Correct Factor

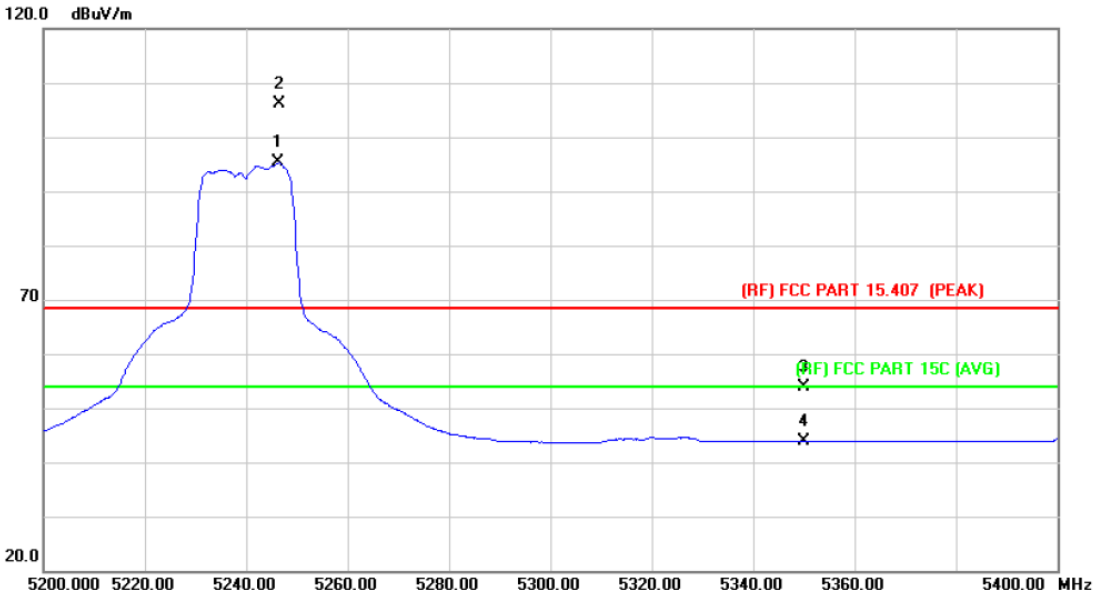
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(20) Mode5240 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	5244.800	87.88	8.96	96.84	Fundamental Frequency		AVG
2	X	5246.200	99.03	8.96	107.99	Fundamental Frequency		peak
3		5350.000	45.42	9.08	54.50	68.30	-13.80	peak
4		5350.000	34.83	9.08	43.91	54.00	-10.09	AVG

Emission Level= Read Level+ Correct Factor

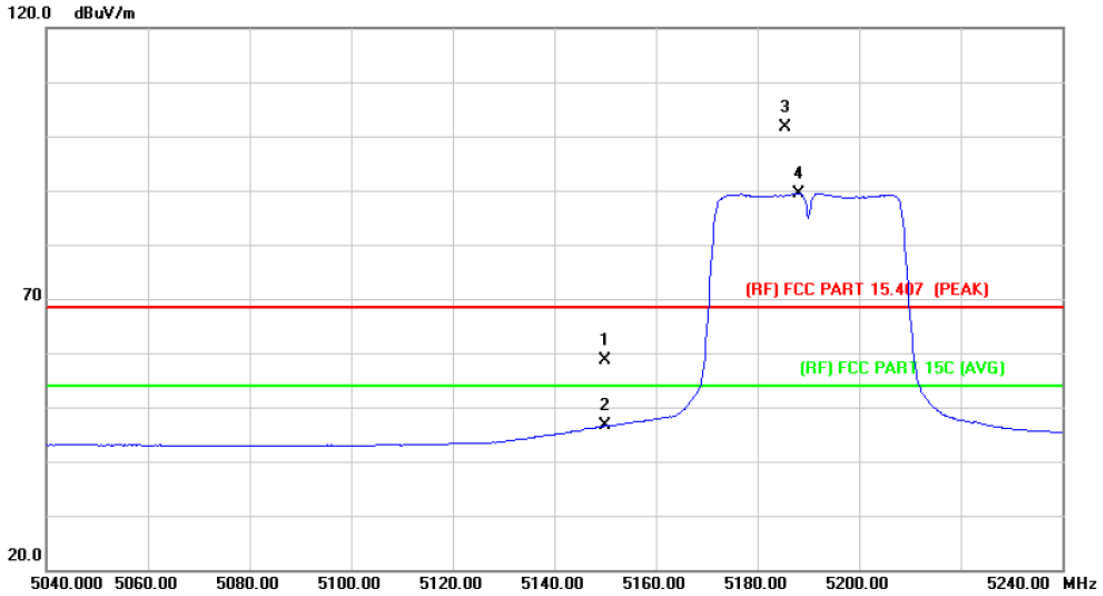
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(20) Mode5240 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	5246.400	86.33	8.96	95.29	Fundamental Frequency		AVG
2	X	5246.600	97.22	8.96	106.18	Fundamental Frequency		peak
3		5350.000	44.81	9.08	53.89	68.30	-14.41	peak
4		5350.000	34.83	9.08	43.91	54.00	-10.09	AVG

Emission Level= Read Level+ Correct Factor

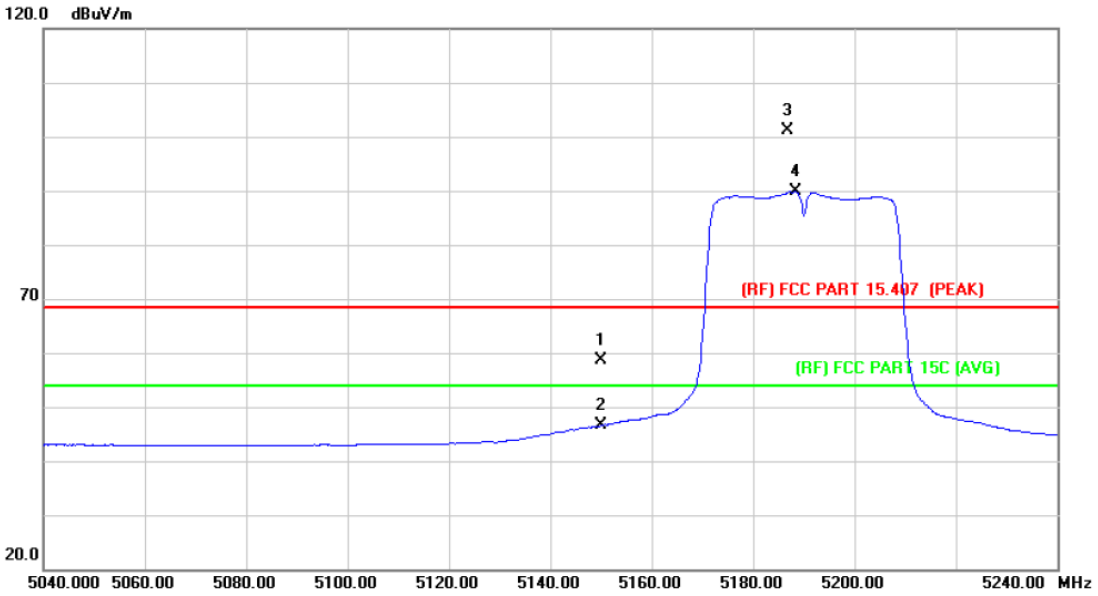
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(40) Mode5190 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	49.97	8.69	58.66	68.30	-9.64	peak
2		5150.000	37.91	8.69	46.60	54.00	-7.40	AVG
3	X	5185.400	92.91	8.79	101.70	Fundamental Frequency		peak
4	*	5188.200	80.61	8.80	89.41	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

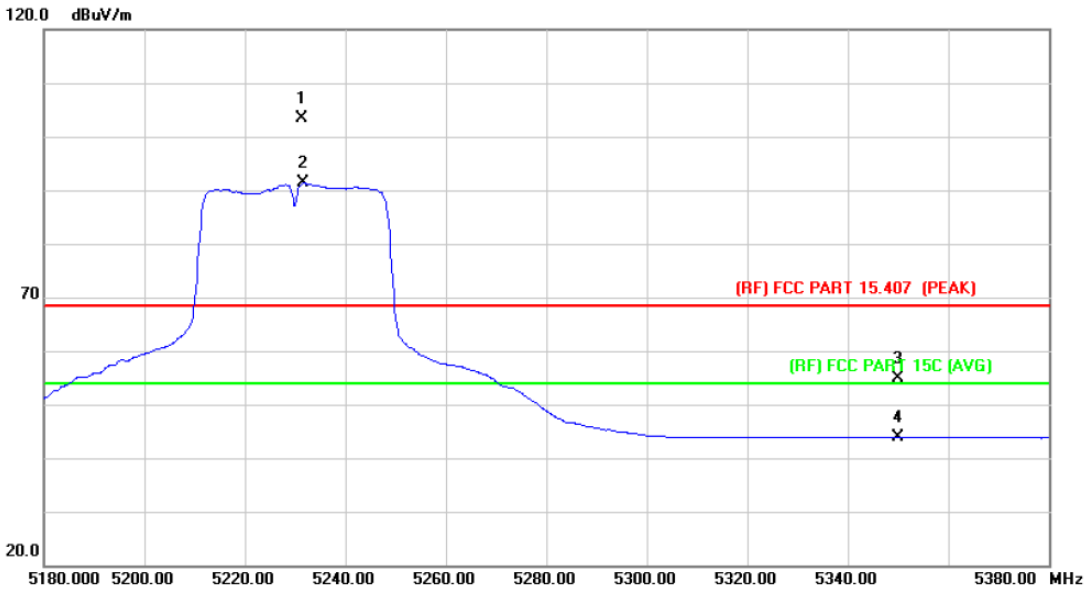
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(40) Mode5190 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	49.85	8.69	58.54	68.30	-9.76	peak
2		5150.000	37.91	8.69	46.60	54.00	-7.40	AVG
3	X	5186.800	92.35	8.80	101.15	Fundamental Frequency		peak
4	*	5188.400	81.03	8.80	89.83	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

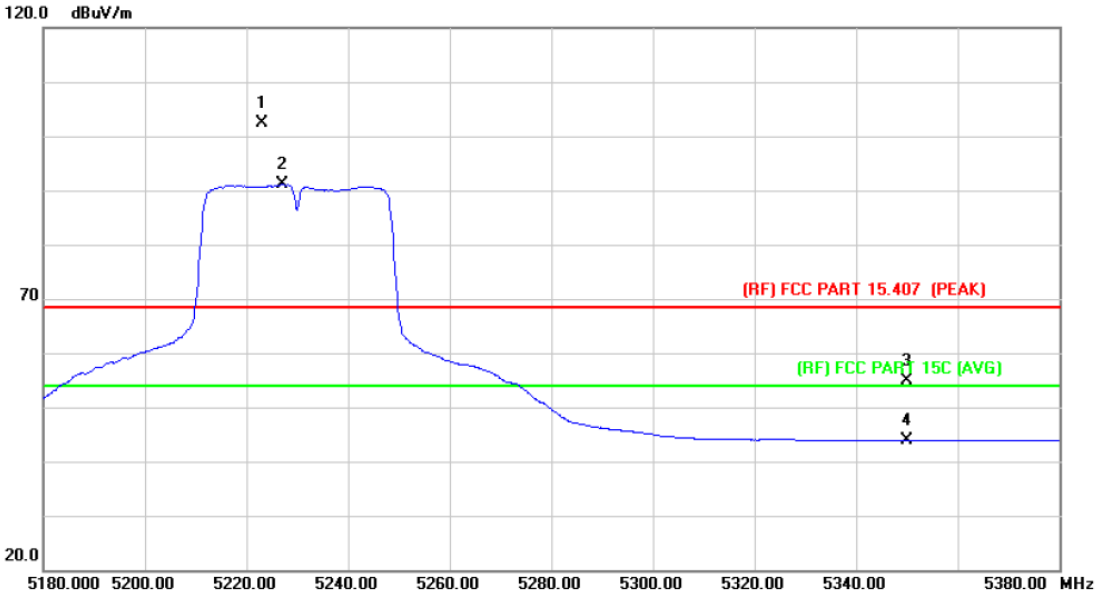
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(40) Mode5230 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5231.400	94.47	8.92	103.39	Fundamental Frequency		peak
2	*	5231.600	82.37	8.92	91.29	Fundamental Frequency		AVG
3		5350.000	45.88	9.08	54.96	68.30	-13.34	peak
4		5350.000	34.75	9.08	43.83	54.00	-10.17	AVG

Emission Level= Read Level+ Correct Factor

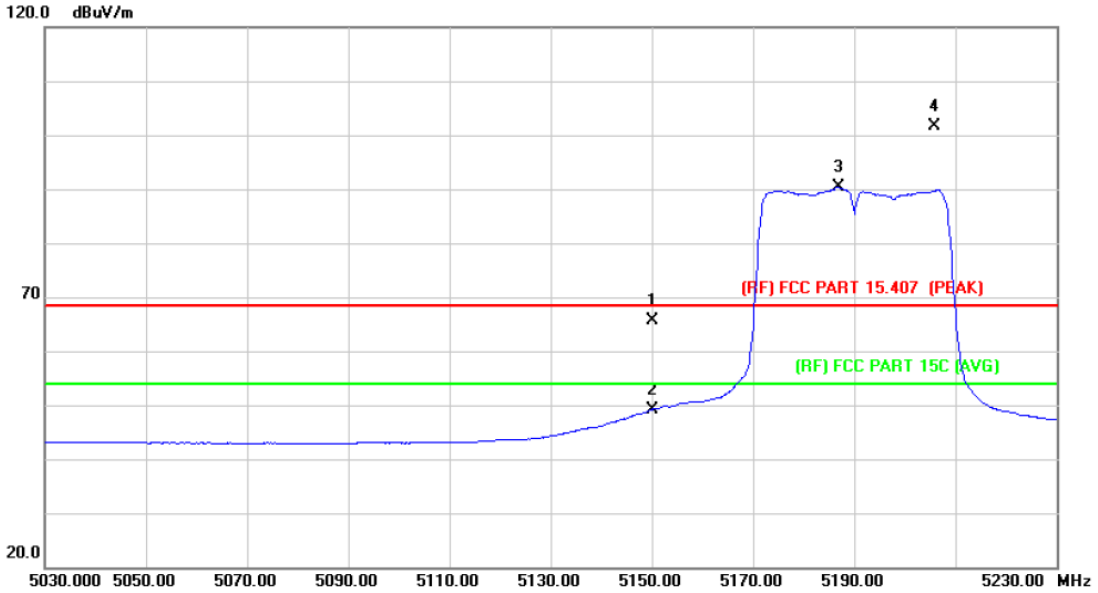
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(40) Mode5230 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5223.000	93.58	8.90	102.48	Fundamental Frequency		peak
2	*	5227.000	82.21	8.90	91.11	Fundamental Frequency		AVG
3		5350.000	45.72	9.08	54.80	68.30	-13.50	peak
4		5350.000	34.83	9.08	43.91	54.00	-10.09	AVG

Emission Level= Read Level+ Correct Factor

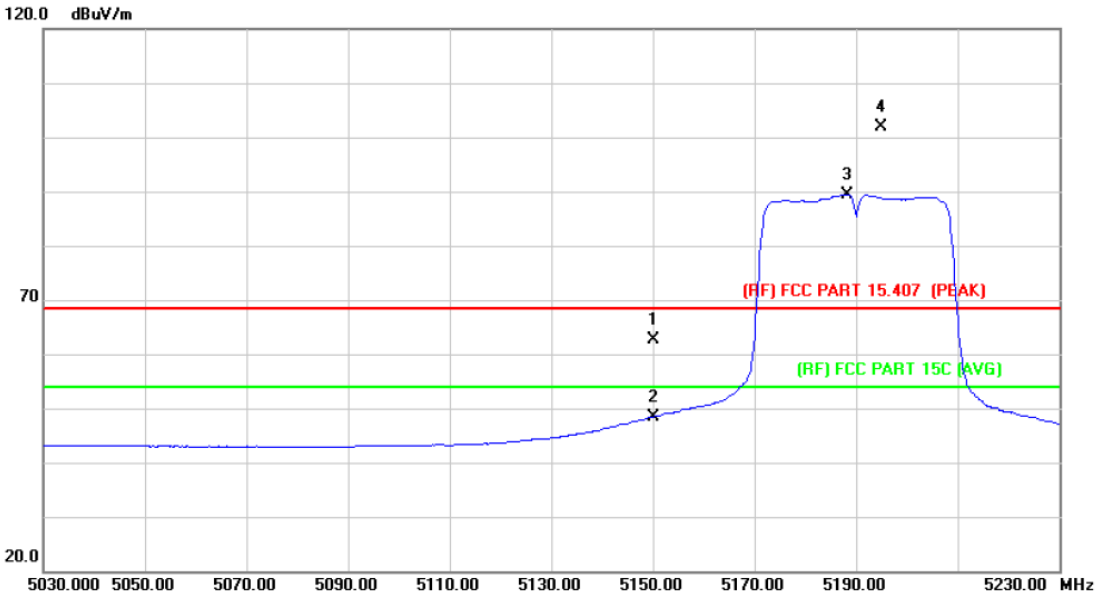
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(40) Mode5190 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	56.99	8.69	65.68	68.30	-2.62	peak
2		5150.000	40.55	8.69	49.24	54.00	-4.76	AVG
3	*	5186.800	81.56	8.80	90.36	Fundamental Frequency		AVG
4	X	5205.800	92.84	8.85	101.69	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

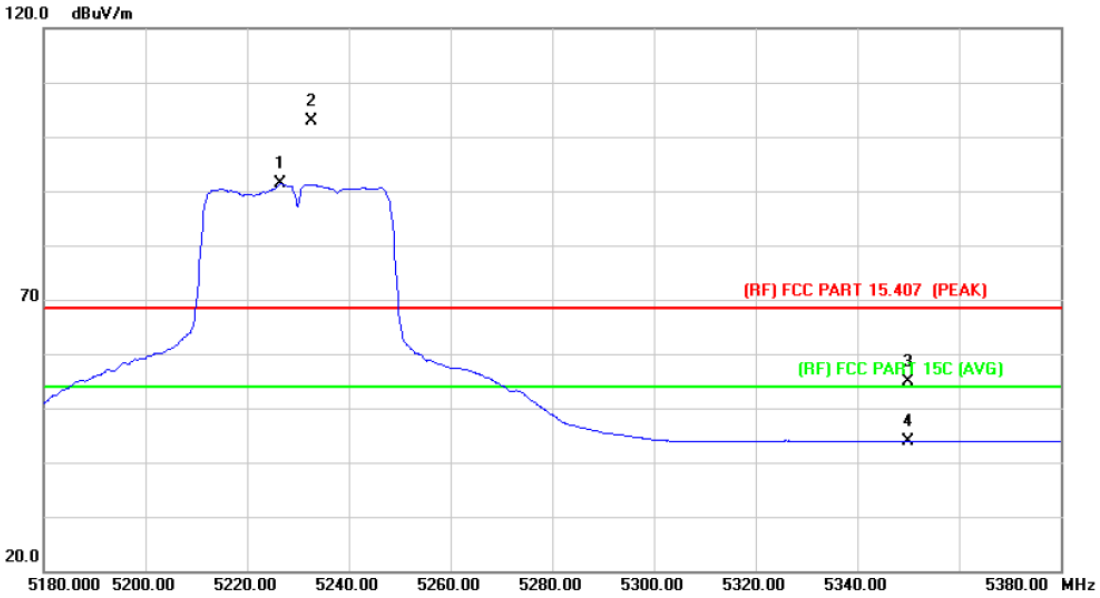
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(40) Mode5190 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	54.00	8.69	62.69	68.30	-5.61	peak
2		5150.000	39.68	8.69	48.37	54.00	-5.63	AVG
3	*	5188.200	80.69	8.80	89.49	Fundamental Frequency		AVG
4	X	5195.000	93.05	8.82	101.87	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

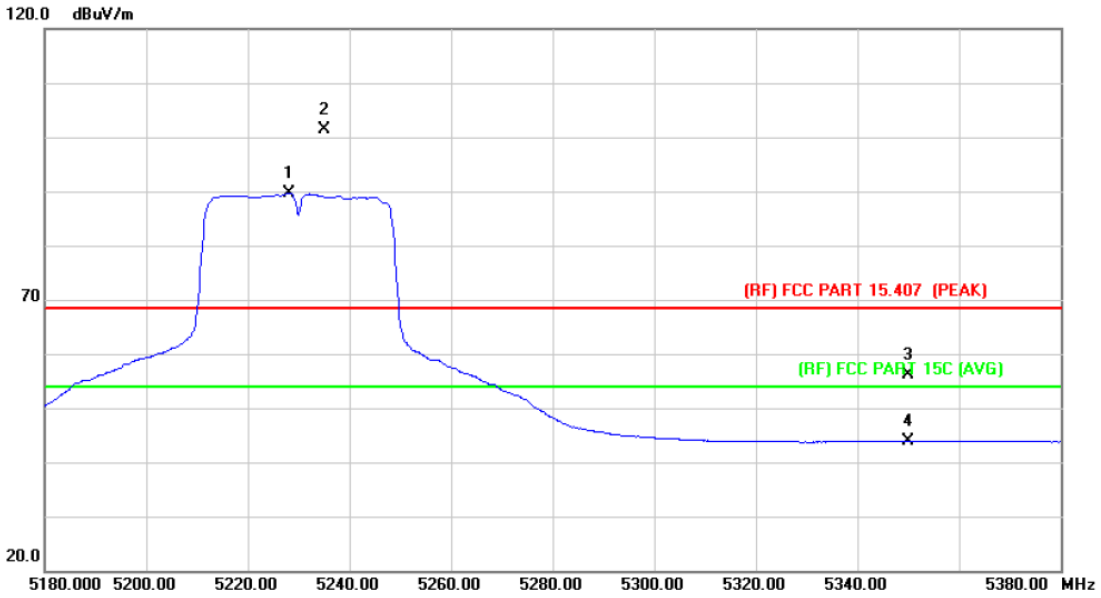
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(40) Mode5230 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	5226.600	82.41	8.90	91.31	Fundamental Frequency		AVG
2	X	5232.600	93.87	8.93	102.80	Fundamental Frequency		peak
3		5350.000	45.90	9.08	54.98	68.30	-13.32	peak
4		5350.000	34.75	9.08	43.83	54.00	-10.17	AVG

Emission Level= Read Level+ Correct Factor

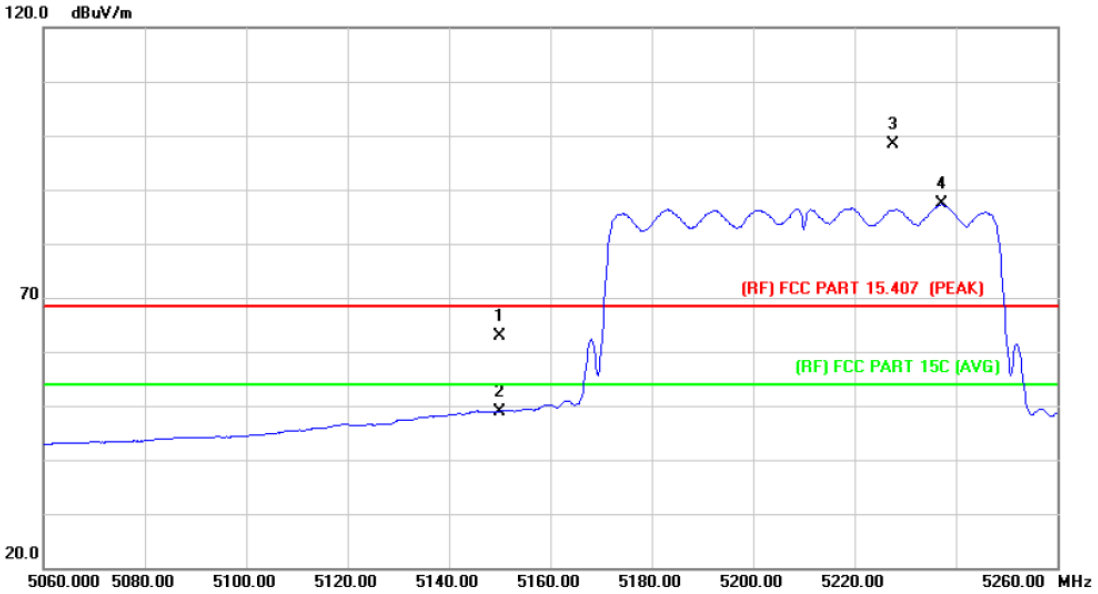
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(40) Mode5230 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	5228.200	80.81	8.92	89.73	Fundamental Frequency		AVG
2	X	5235.200	92.44	8.93	101.37	Fundamental Frequency		peak
3		5350.000	47.00	9.08	56.08	68.30	-12.22	peak
4		5350.000	34.77	9.08	43.85	54.00	-10.15	AVG

Emission Level= Read Level+ Correct Factor

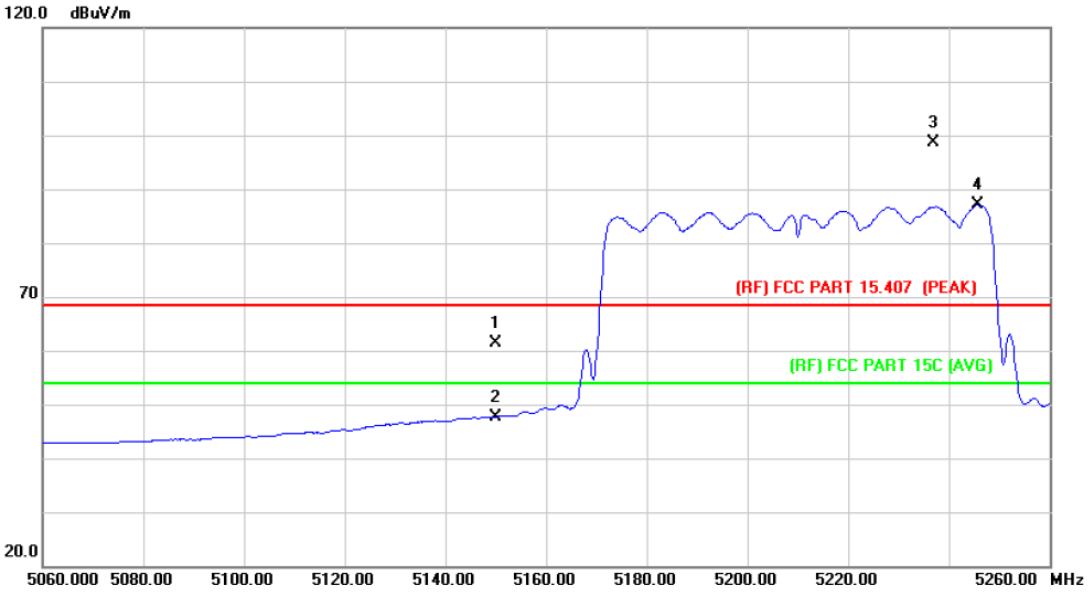
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(80) Mode5210 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	54.19	8.69	62.88	68.30	-5.42	peak
2		5150.000	40.29	8.69	48.98	54.00	-5.02	AVG
3	X	5227.600	89.55	8.91	98.46	Fundamental Frequency		peak
4	*	5237.200	78.33	8.93	87.26	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

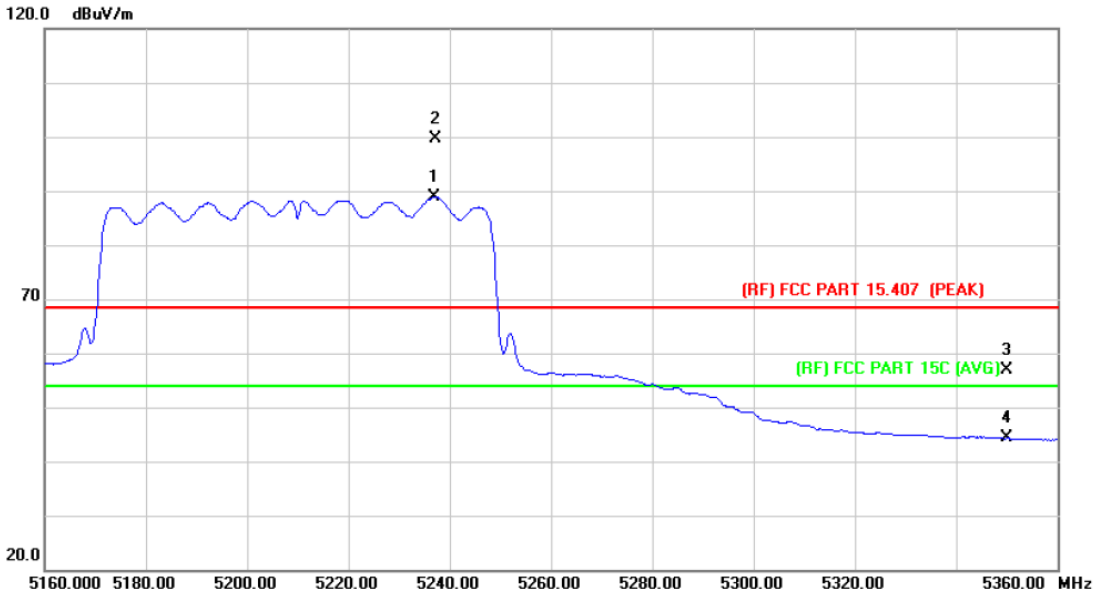
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(80) Mode5210 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5150.000	52.69	8.69	61.38	68.30	-6.92	peak
2		5150.000	39.01	8.69	47.70	54.00	-6.30	AVG
3	X	5236.800	89.82	8.93	98.75	Fundamental Frequency		peak
4	*	5245.600	78.11	8.96	87.07	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

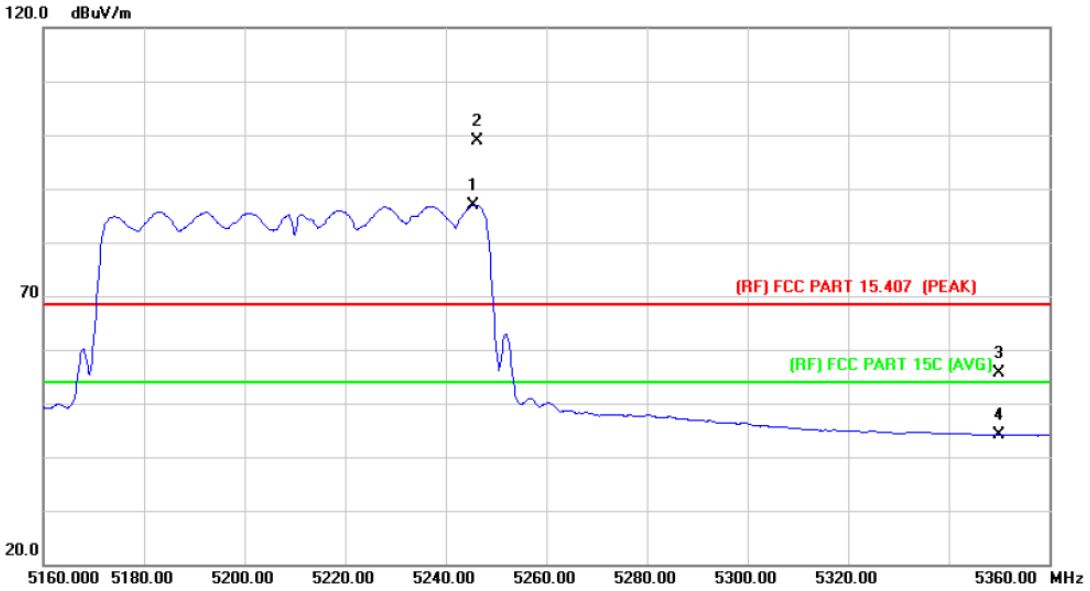
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(80) Mode5210 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	5237.000	80.00	8.93	88.93	Fundamental Frequency		AVG
2	X	5237.200	90.75	8.93	99.68	Fundamental Frequency		peak
3		5350.000	47.72	9.08	56.80	68.30	-11.50	peak
4		5350.000	35.18	9.08	44.26	54.00	-9.74	AVG

Emission Level= Read Level+ Correct Factor

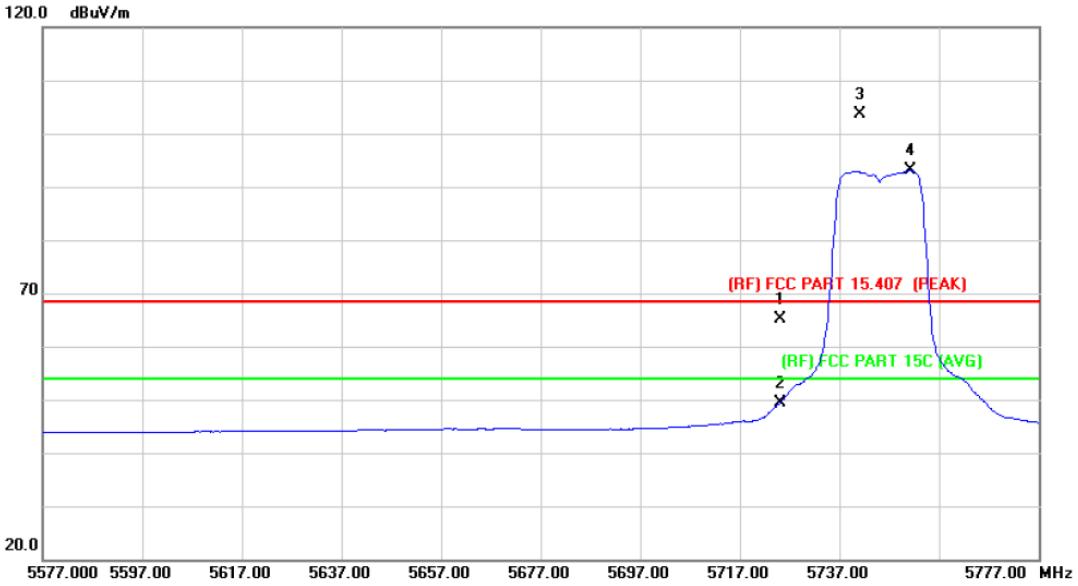
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(80) Mode5210 MHz (U-NII-1)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	5245.400	77.99	8.96	86.95	Fundamental Frequency		AVG
2	X	5246.200	89.82	8.96	98.78	Fundamental Frequency		peak
3		5350.000	46.50	9.08	55.58	68.30	-12.72	peak
4		5350.000	35.06	9.08	44.14	54.00	-9.86	AVG

Emission Level= Read Level+ Correct Factor

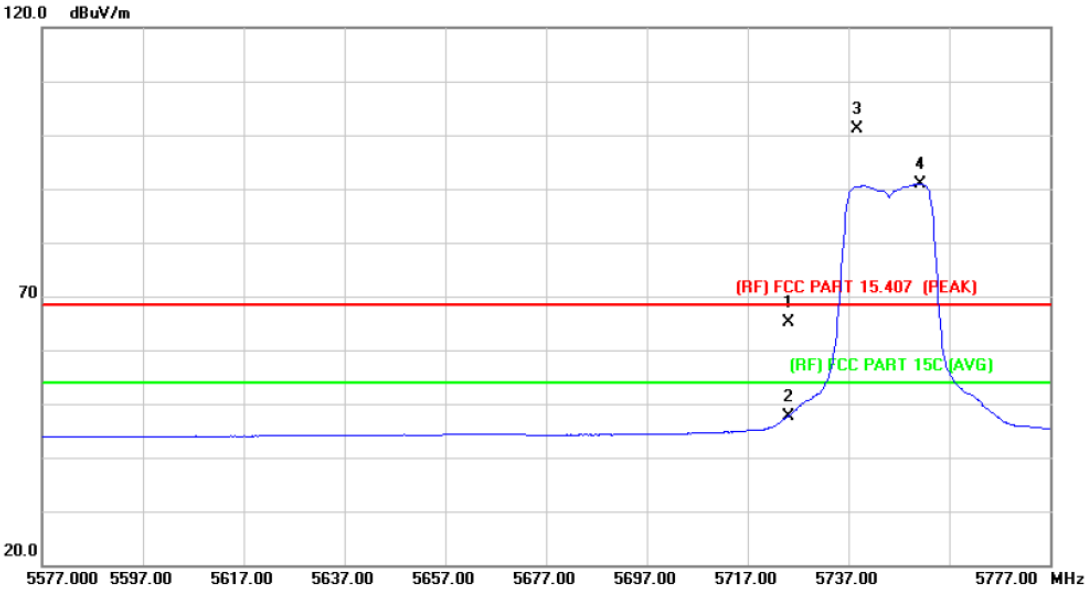
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11a Mode5745 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	55.36	9.78	65.14	68.30	-3.16	peak
2		5725.000	39.66	9.78	49.44	54.00	-4.56	AVG
3	X	5741.000	93.78	9.83	103.61	Fundamental Frequency		peak
4	*	5751.200	83.17	9.85	93.02	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

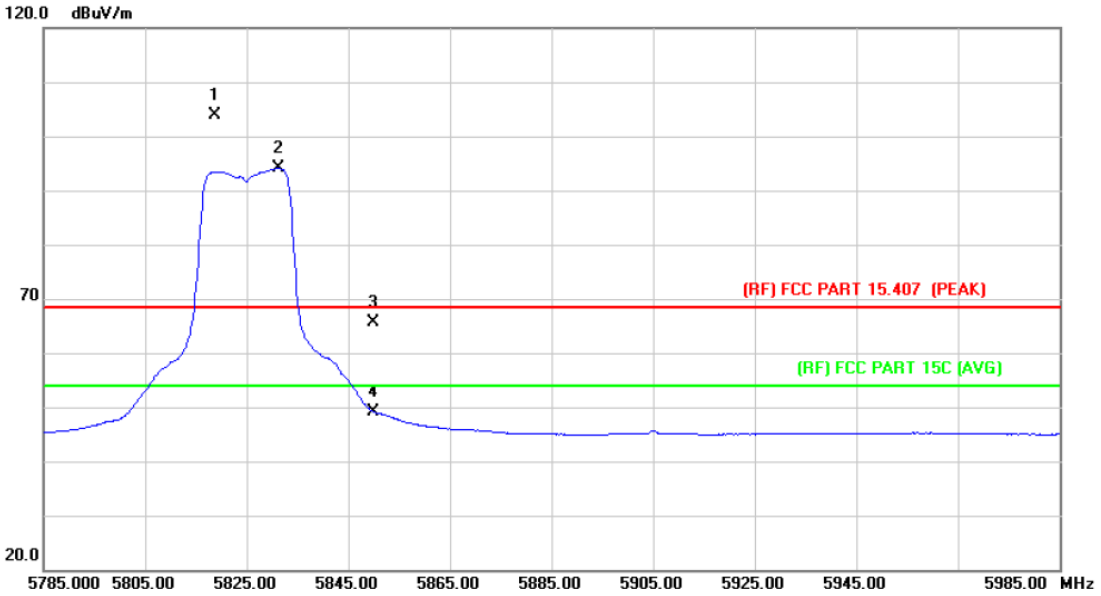
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11a Mode5745 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	55.26	9.78	65.04	68.30	-3.26	peak
2		5725.000	37.86	9.78	47.64	54.00	-6.36	AVG
3	X	5738.600	91.36	9.81	101.17	Fundamental Frequency		peak
4	*	5751.200	81.15	9.85	91.00	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

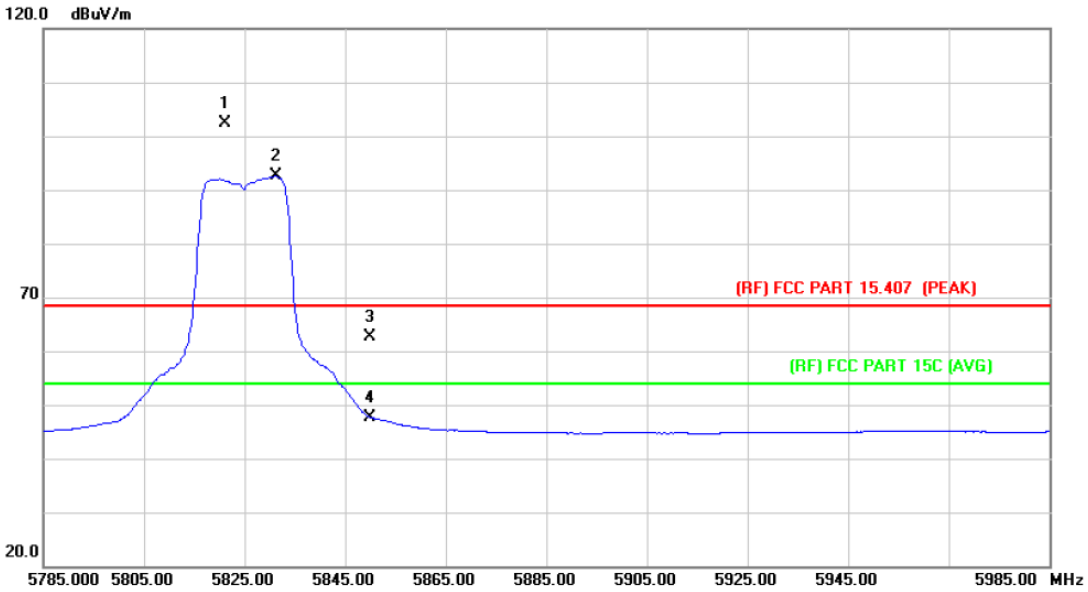
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11a Mode5825 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5818.800	93.94	10.05	103.99	Fundamental Frequency		peak
2	*	5831.200	84.08	10.08	94.16	Fundamental Frequency		AVG
3		5850.000	55.41	10.13	65.54	68.30	-2.76	peak
4		5850.000	38.98	10.13	49.11	54.00	-4.89	AVG

Emission Level= Read Level+ Correct Factor

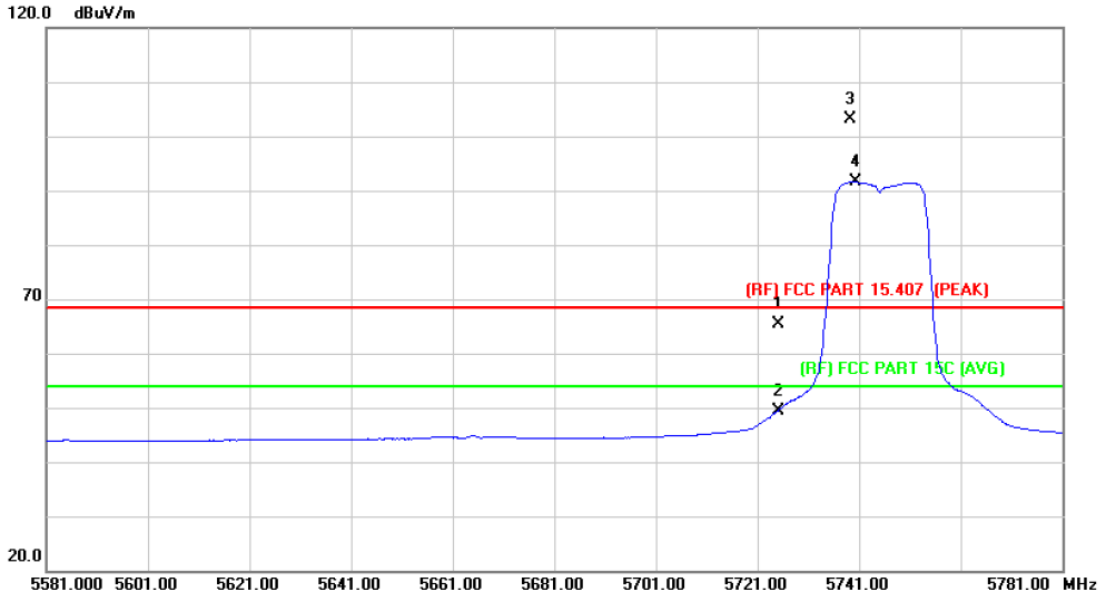
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11a Mode5825 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5821.200	92.44	10.05	102.49	Fundamental Frequency		peak
2	*	5831.200	82.44	10.08	92.52	Fundamental Frequency		AVG
3		5850.000	52.52	10.13	62.65	68.30	-5.65	peak
4		5850.000	37.56	10.13	47.69	54.00	-6.31	AVG

Emission Level= Read Level+ Correct Factor

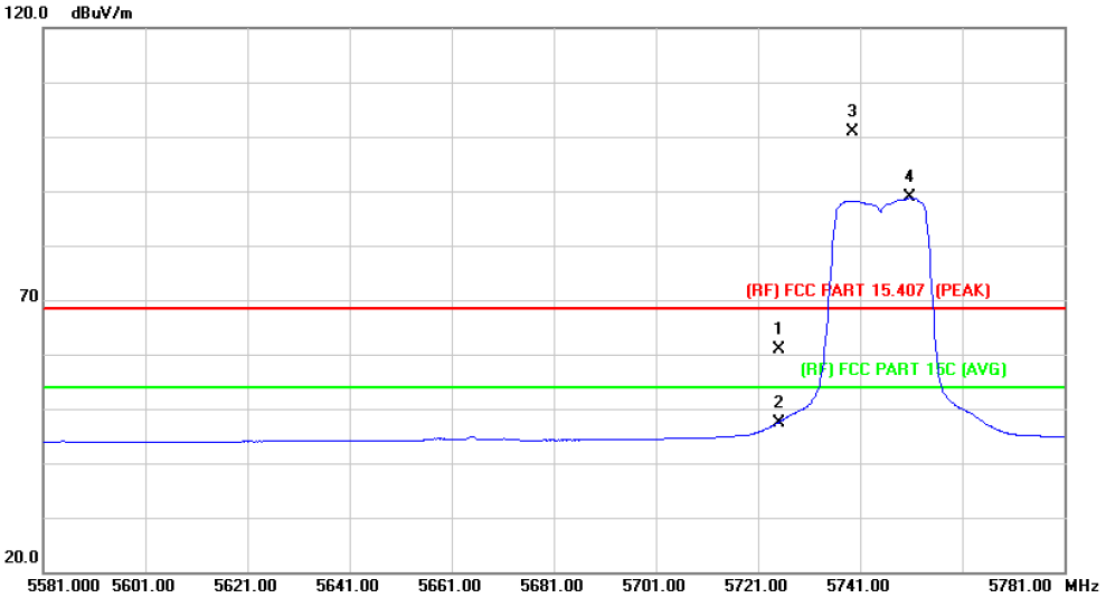
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(20) Mode5745 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	55.60	9.78	65.38	68.30	-2.92	peak
2		5725.000	39.71	9.78	49.49	54.00	-4.51	AVG
3	X	5739.400	93.24	9.82	103.06	Fundamental Frequency		peak
4	*	5740.400	81.72	9.83	91.55	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

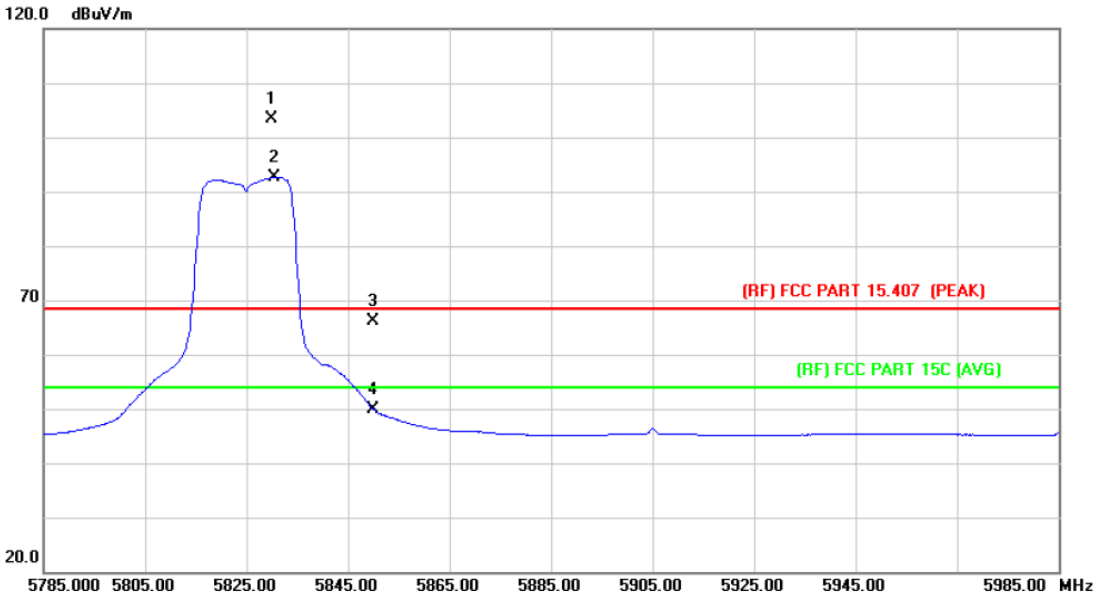
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(20) Mode5745 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	51.06	9.78	60.84	68.30	-7.46	peak
2		5725.000	37.69	9.78	47.47	54.00	-6.53	AVG
3	X	5739.600	91.07	9.82	100.89	Fundamental Frequency		peak
4	*	5750.800	78.93	9.85	88.78	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

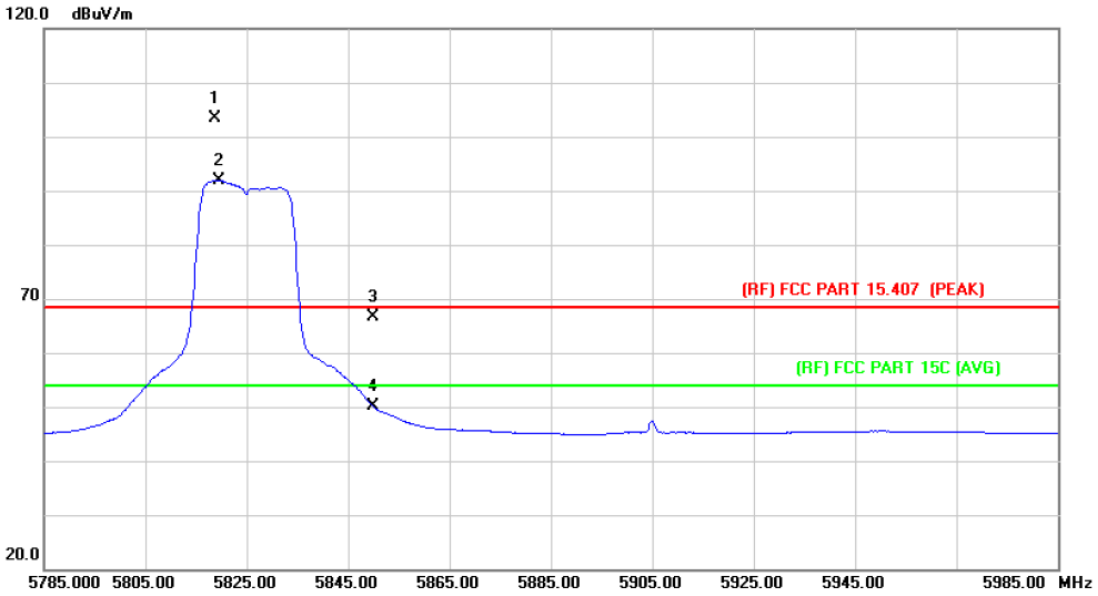
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(20) Mode5825 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5830.000	93.41	10.08	103.49	Fundamental Frequency		peak
2	*	5830.400	82.59	10.08	92.67	Fundamental Frequency		AVG
3		5850.000	56.10	10.13	66.23	68.30	-2.07	peak
4		5850.000	39.83	10.13	49.96	54.00	-4.04	AVG

Emission Level= Read Level+ Correct Factor

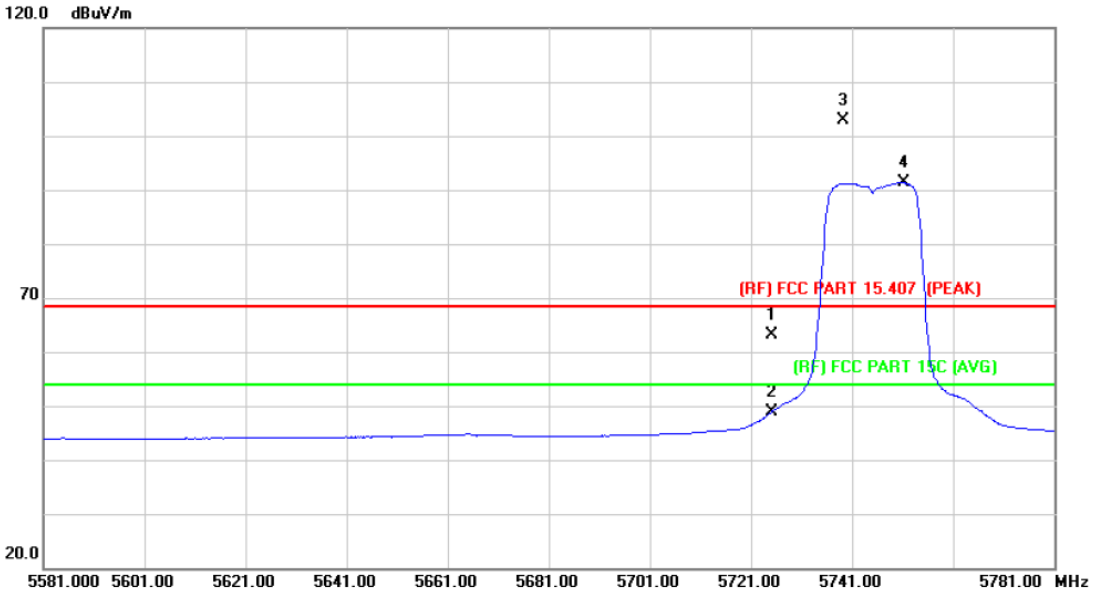
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(20) Mode5825 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5818.600	93.38	10.05	103.43	Fundamental Frequency		peak
2	*	5819.600	81.79	10.05	91.84	Fundamental Frequency		AVG
3		5850.000	56.53	10.13	66.66	68.30	-1.64	peak
4		5850.000	39.93	10.13	50.06	54.00	-3.94	AVG

Emission Level= Read Level+ Correct Factor

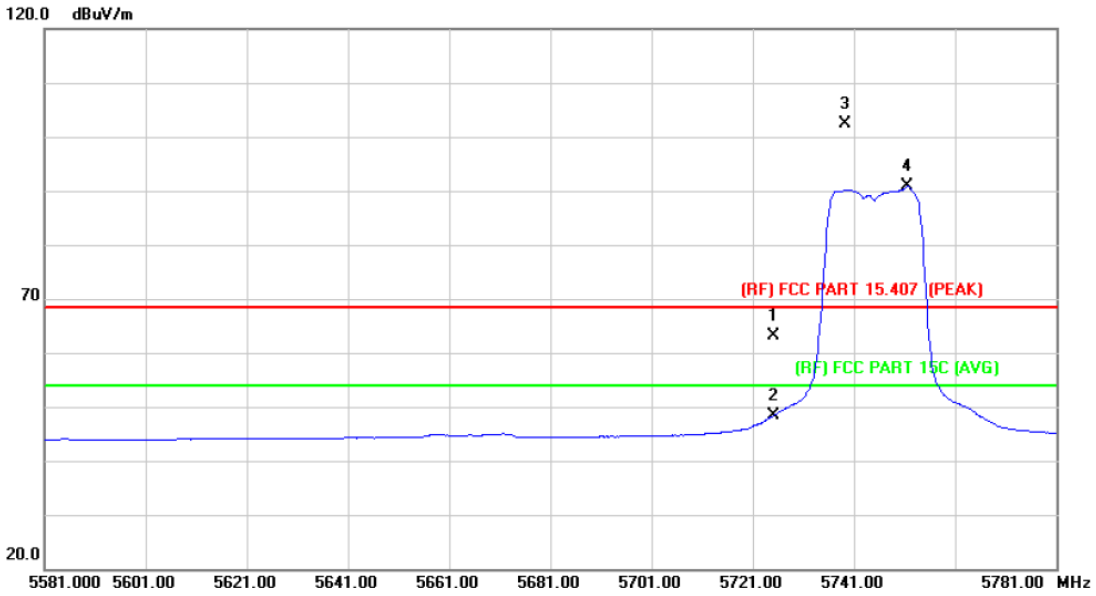
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(20) Mode5745 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	53.43	9.78	63.21	68.30	-5.09	peak
2		5725.000	39.08	9.78	48.86	54.00	-5.14	AVG
3	X	5739.200	93.16	9.82	102.98	Fundamental Frequency		peak
4	*	5751.200	81.48	9.85	91.33	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

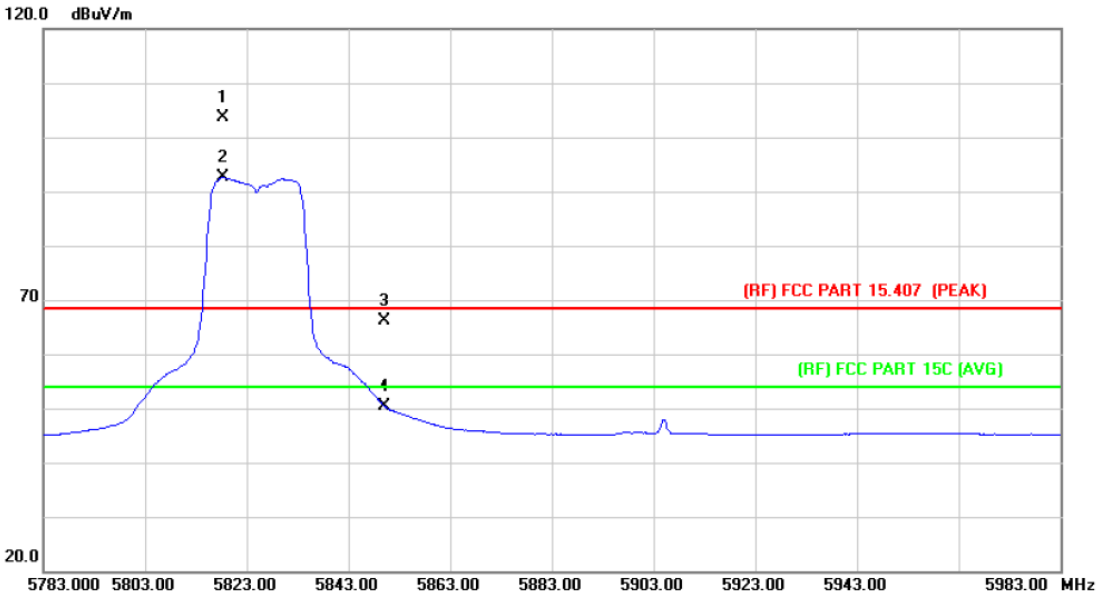
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(20) Mode5745 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	53.26	9.78	63.04	68.30	-5.26	peak
2		5725.000	38.57	9.78	48.35	54.00	-5.65	AVG
3	X	5739.400	92.44	9.82	102.26	Fundamental Frequency		peak
4	*	5751.600	81.03	9.85	90.88	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

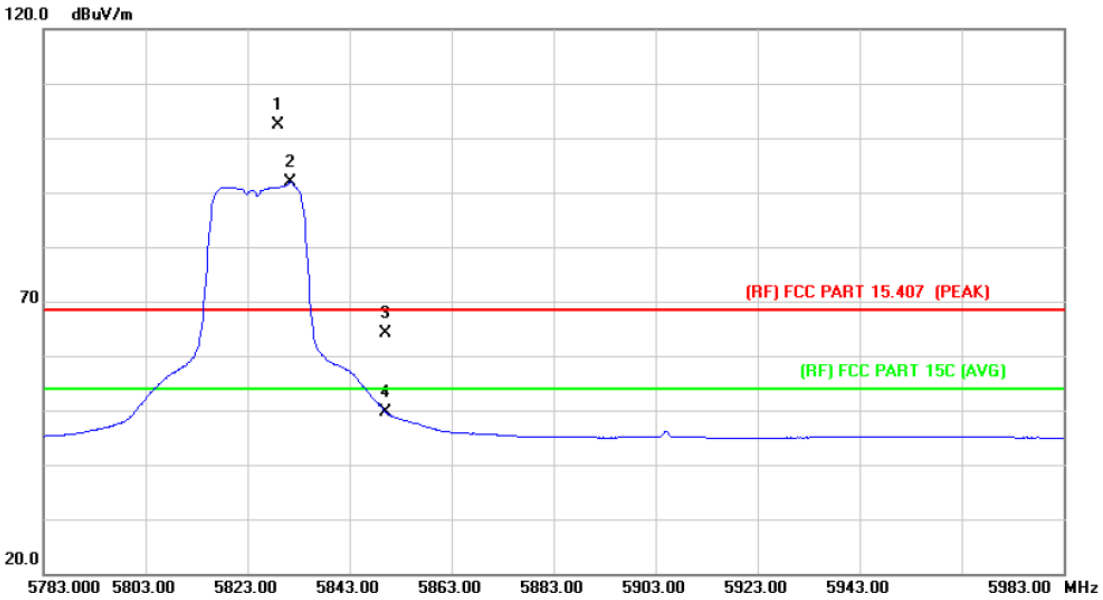
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(20) Mode5825 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5818.400	93.56	10.05	103.61	Fundamental Frequency		peak
2	*	5818.400	82.57	10.05	92.62	Fundamental Frequency		AVG
3		5850.000	56.01	10.13	66.14	68.30	-2.16	peak
4		5850.000	40.33	10.13	50.46	54.00	-3.54	AVG

Emission Level= Read Level+ Correct Factor

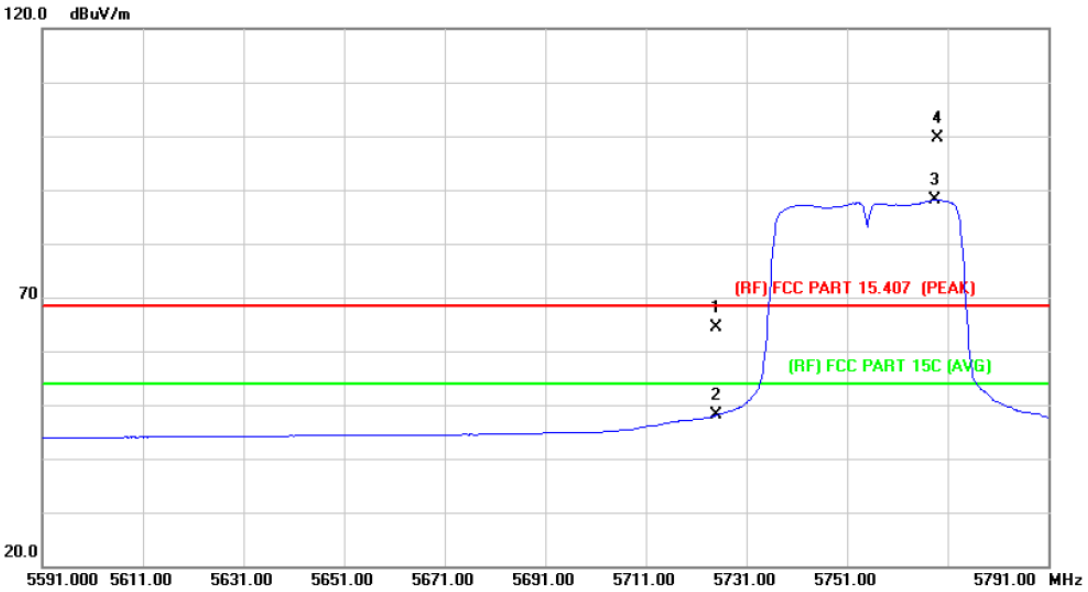
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(20) Mode5825 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5829.000	92.28	10.08	102.36	Fundamental Frequency		peak
2	*	5831.400	81.81	10.08	91.89	Fundamental Frequency		AVG
3		5850.000	54.09	10.13	64.22	68.30	-4.08	peak
4		5850.000	39.62	10.13	49.75	54.00	-4.25	AVG

Emission Level= Read Level+ Correct Factor

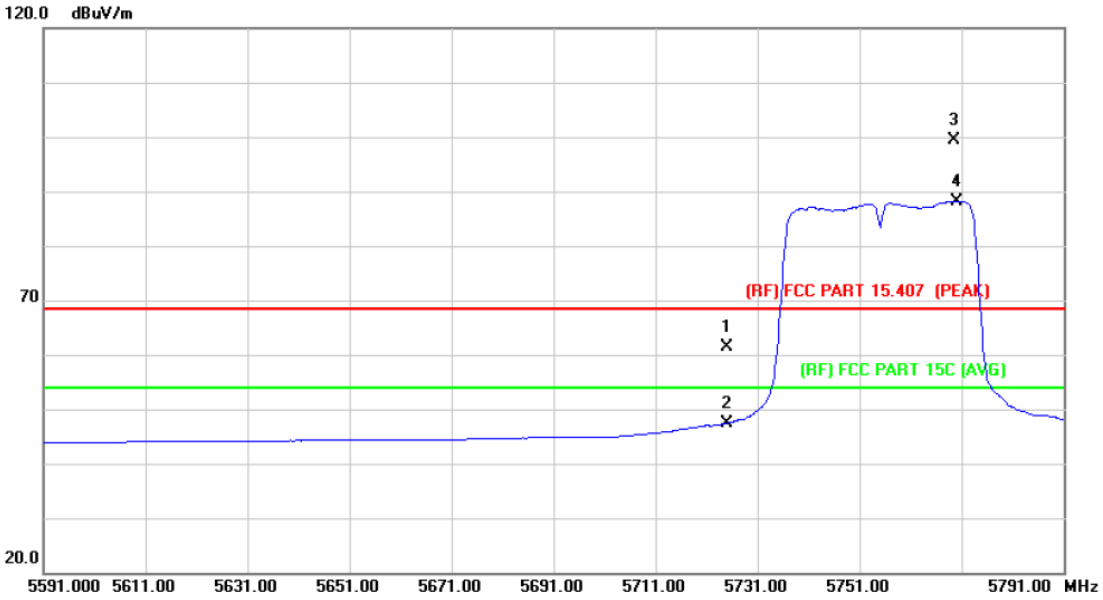
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(40) Mode5755 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	54.51	9.78	64.29	68.30	-4.01	peak
2		5725.000	38.35	9.78	48.13	54.00	-5.87	AVG
3	*	5768.400	78.22	9.89	88.11	Fundamental Frequency		AVG
4	X	5769.000	89.67	9.89	99.56	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

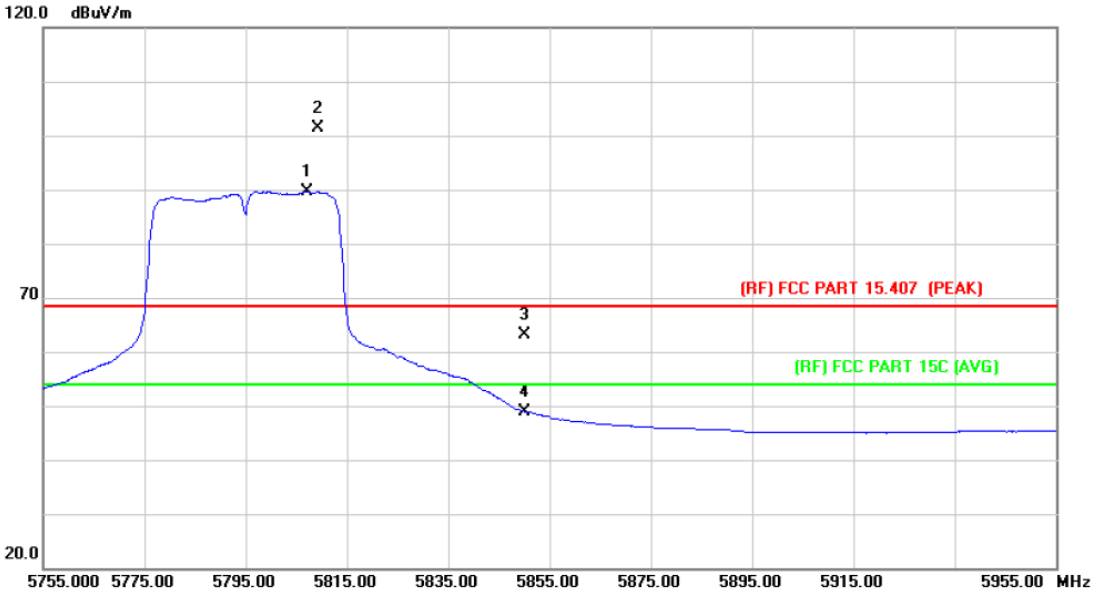
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(40) Mode5755 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	51.72	9.78	61.50	68.30	-6.80	peak
2		5725.000	37.70	9.78	47.48	54.00	-6.52	AVG
3	X	5769.600	89.49	9.90	99.39	Fundamental Frequency		peak
4	*	5770.000	78.34	9.90	88.24	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

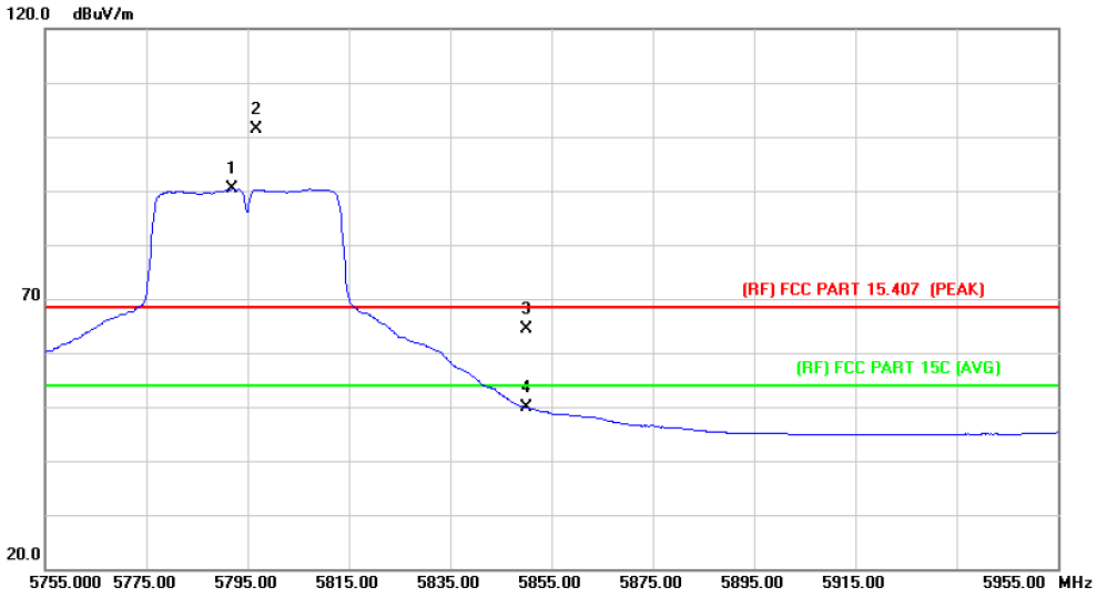
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11n(40) Mode5795 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	5807.000	79.60	10.01	89.61	Fundamental Frequency		AVG
2	X	5809.400	91.24	10.02	101.26	Fundamental Frequency		peak
3		5850.000	52.93	10.13	63.06	68.30	-5.24	peak
4		5850.000	38.83	10.13	48.96	54.00	-5.04	AVG

Emission Level= Read Level+ Correct Factor

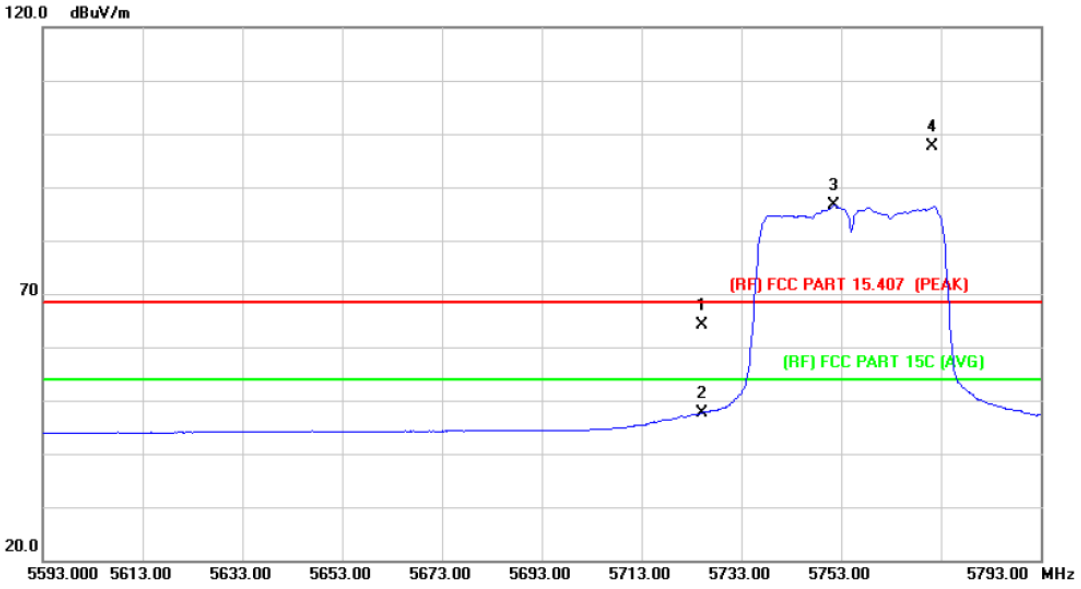
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11n(40) Mode5795 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	5792.000	80.36	9.96	90.32	Fundamental Frequency		AVG
2	X	5796.600	91.32	9.98	101.30	Fundamental Frequency		peak
3		5850.000	54.19	10.13	64.32	68.30	-3.98	peak
4		5850.000	39.75	10.13	49.88	54.00	-4.12	AVG

Emission Level= Read Level+ Correct Factor

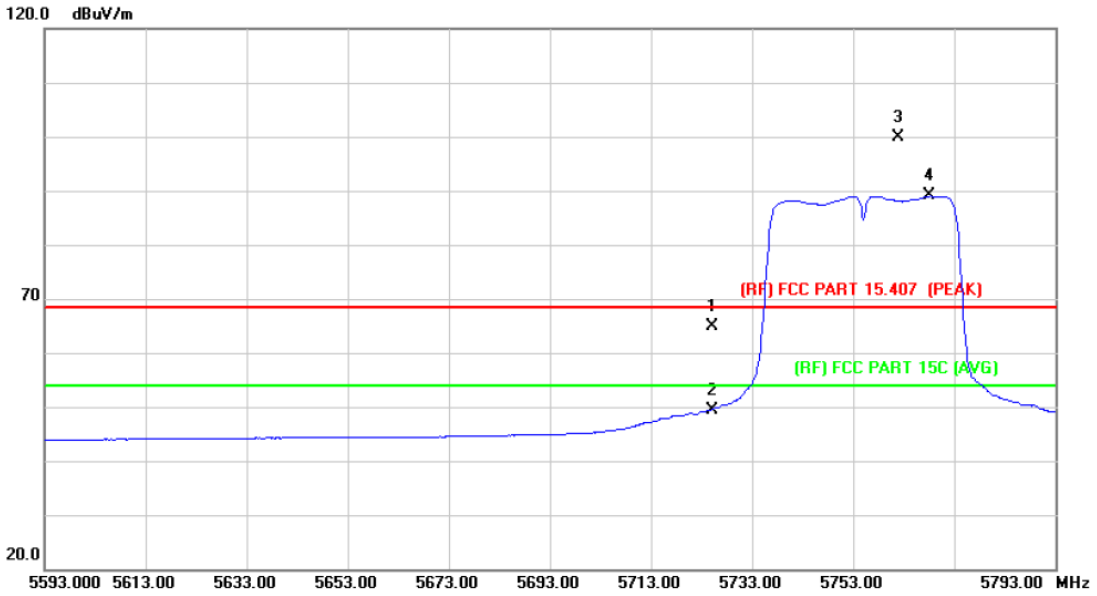
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(40) Mode5755 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	54.24	9.78	64.02	68.30	-4.28	peak
2		5725.000	37.79	9.78	47.57	54.00	-6.43	AVG
3	*	5751.600	76.73	9.85	86.58	Fundamental Frequency		AVG
4	X	5771.200	87.85	9.90	97.75	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

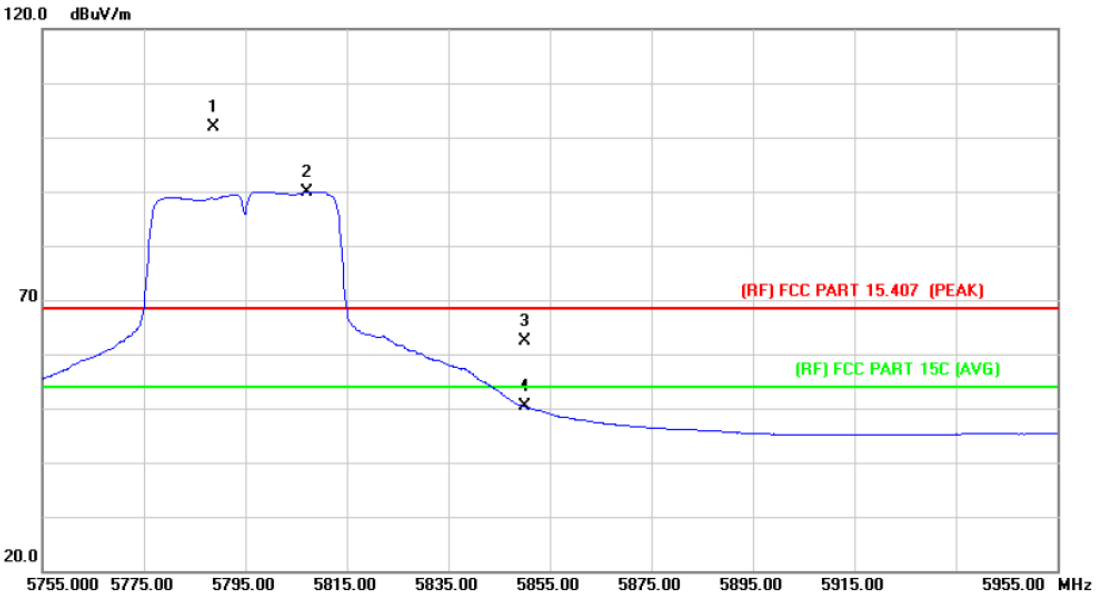
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(40) Mode5755 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	55.19	9.78	64.97	68.30	-3.33	peak
2		5725.000	39.72	9.78	49.50	54.00	-4.50	AVG
3	X	5762.000	90.10	9.88	99.98	Fundamental Frequency		peak
4	*	5768.200	79.15	9.89	89.04	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

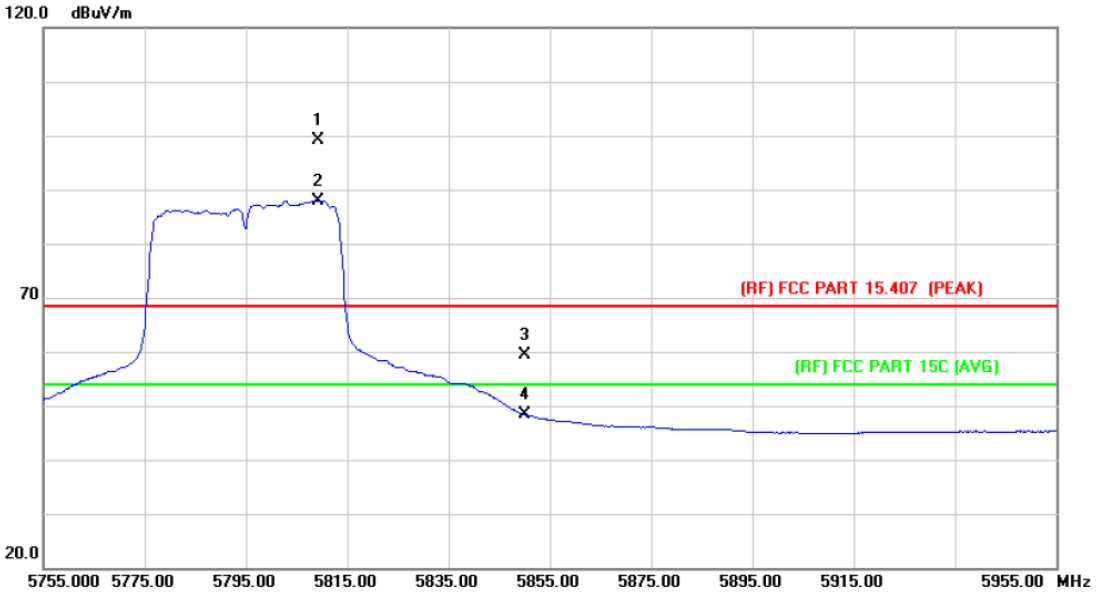
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(40) Mode5795 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5788.800	91.81	9.95	101.76	Fundamental Frequency		peak
2	*	5807.000	79.96	10.01	89.97	Fundamental Frequency		AVG
3		5850.000	52.14	10.13	62.27	68.30	-6.03	peak
4		5850.000	40.13	10.13	50.26	54.00	-3.74	AVG

Emission Level= Read Level+ Correct Factor

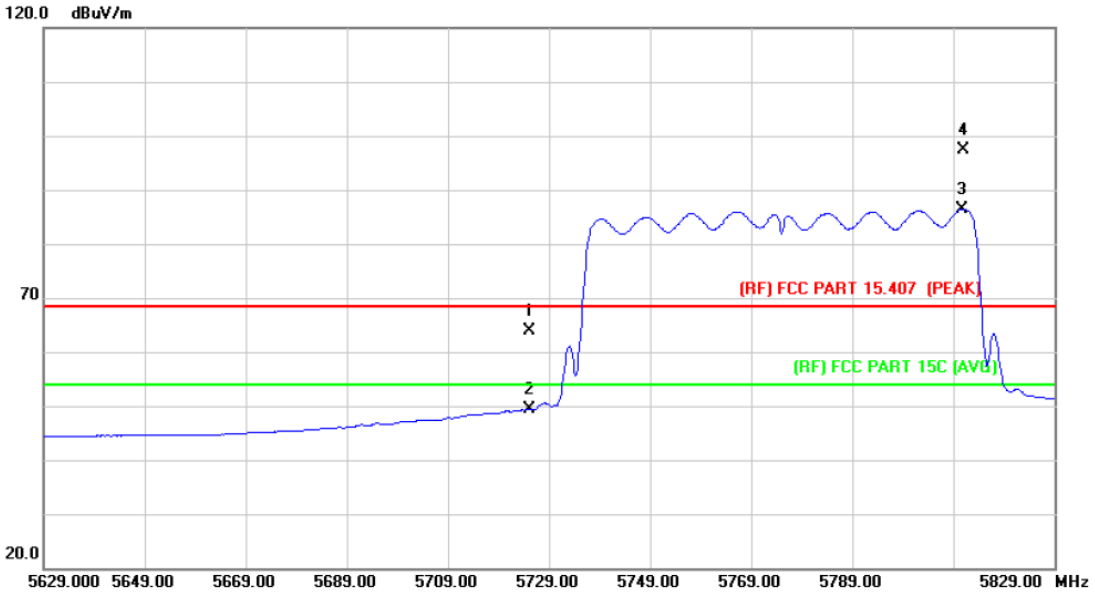
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(40) Mode5795 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5809.200	89.08	10.02	99.10	Fundamental Frequency		peak
2	*	5809.400	77.94	10.02	87.96	Fundamental Frequency		AVG
3		5850.000	49.16	10.13	59.29	68.30	-9.01	peak
4		5850.000	38.25	10.13	48.38	54.00	-5.62	AVG

Emission Level= Read Level+ Correct Factor

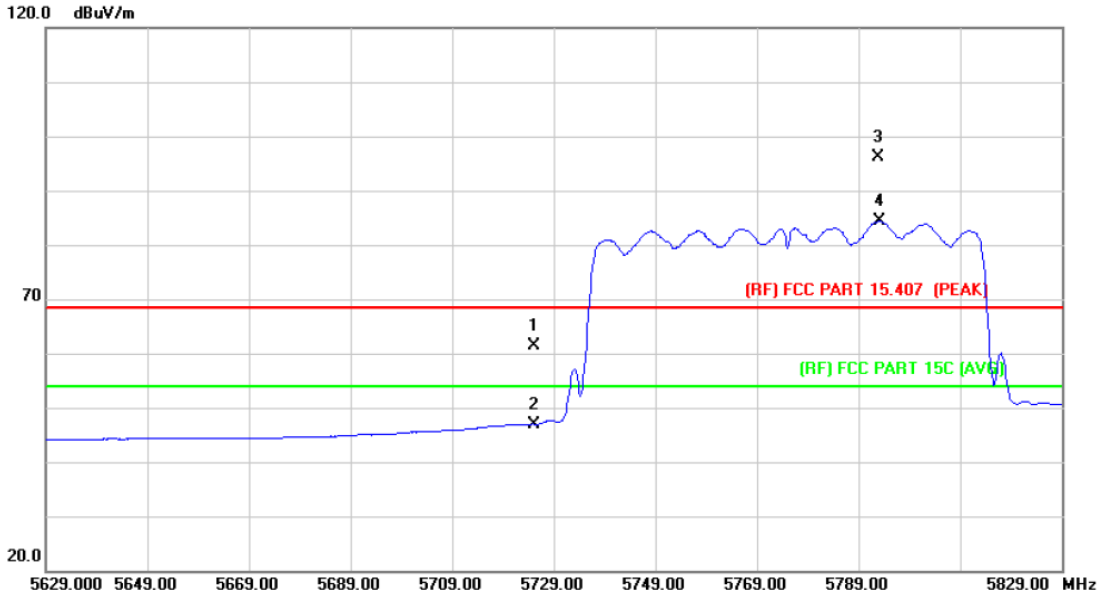
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(80) Mode5775 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	54.07	9.78	63.85	68.30	-4.45	peak
2		5725.000	39.68	9.78	49.46	54.00	-4.54	AVG
3	*	5810.800	76.44	10.02	86.46	Fundamental Frequency		AVG
4	X	5811.000	87.33	10.02	97.35	Fundamental Frequency		peak

Emission Level= Read Level+ Correct Factor

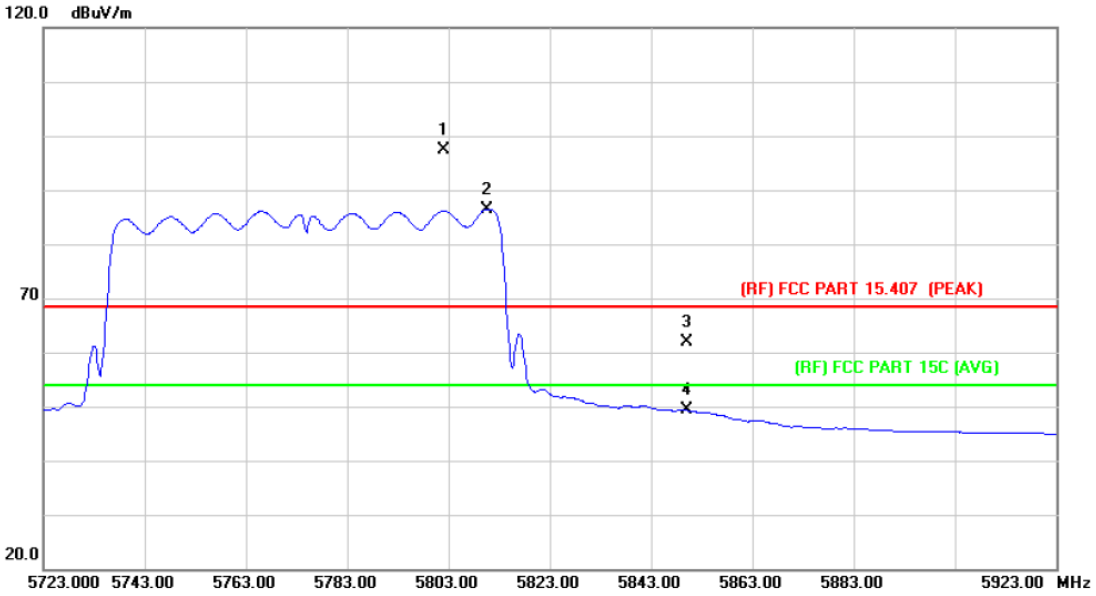
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(80) Mode5775 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		5725.000	51.62	9.78	61.40	68.30	-6.90	peak
2		5725.000	37.21	9.78	46.99	54.00	-7.01	AVG
3	X	5792.800	86.23	9.96	96.19	Fundamental Frequency		peak
4	*	5793.000	74.36	9.96	84.32	Fundamental Frequency		AVG

Emission Level= Read Level+ Correct Factor

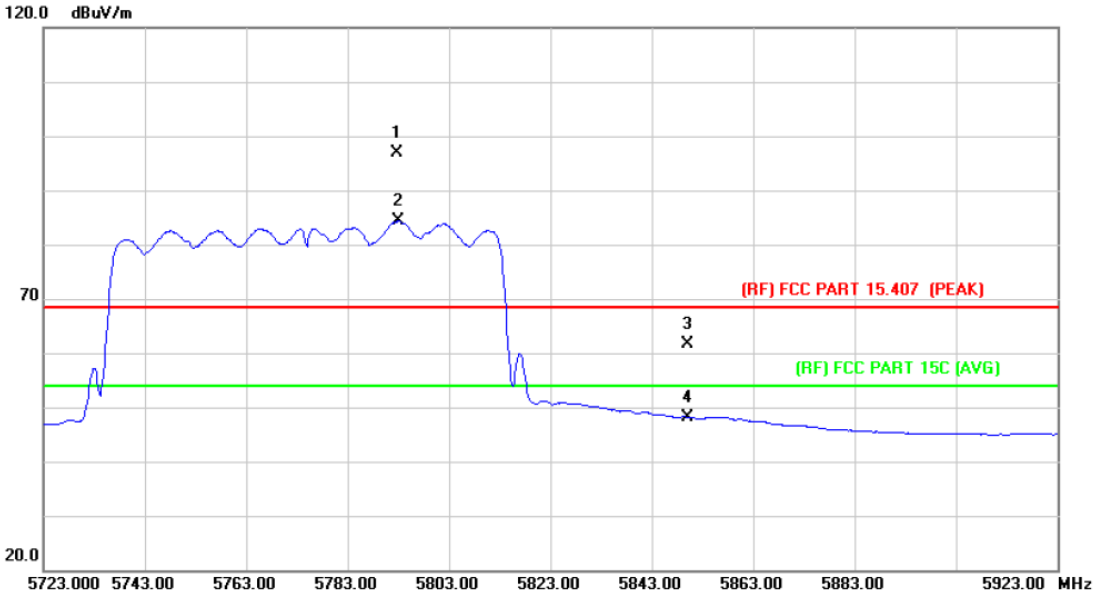
EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Horizontal		
Test Mode:	TX 802.11ac(80) Mode5775 MHz (U-NII-3)		
Remark:	N/A		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5802.200	87.34	10.00	97.34	Fundamental Frequency		peak
2	*	5810.600	76.45	10.02	86.47	Fundamental Frequency		AVG
3		5850.000	51.69	10.13	61.82	68.30	-6.48	peak
4		5850.000	39.13	10.13	49.26	54.00	-4.74	AVG

Emission Level= Read Level+ Correct Factor

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Ant. Pol.	Vertical		
Test Mode:	TX 802.11ac(80) Mode5775 MHz (U-NII-3)		
Remark:	N/A		

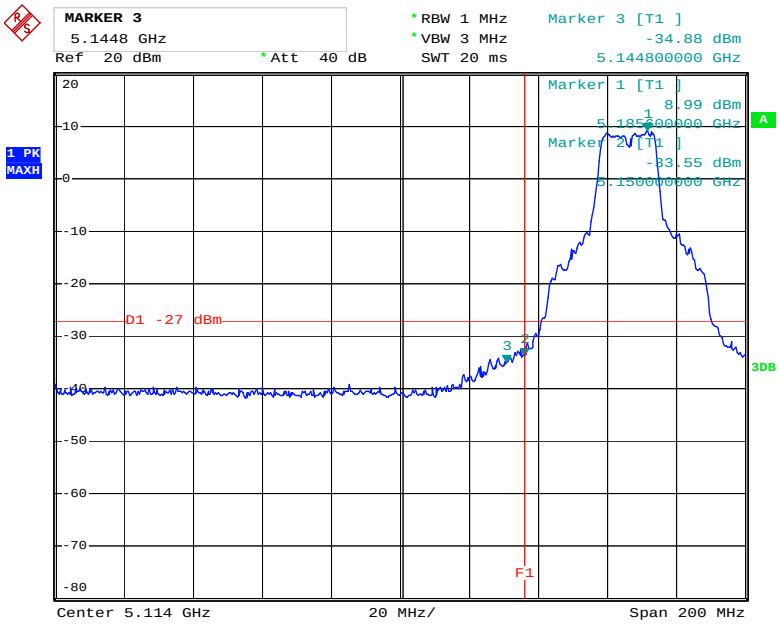


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	5792.600	86.89	9.96	96.85	Fundamental Frequency		peak
2	*	5793.000	74.32	9.96	84.28	Fundamental Frequency		AVG
3		5850.000	51.55	10.13	61.68	68.30	-6.62	peak
4		5850.000	38.05	10.13	48.18	54.00	-5.82	AVG

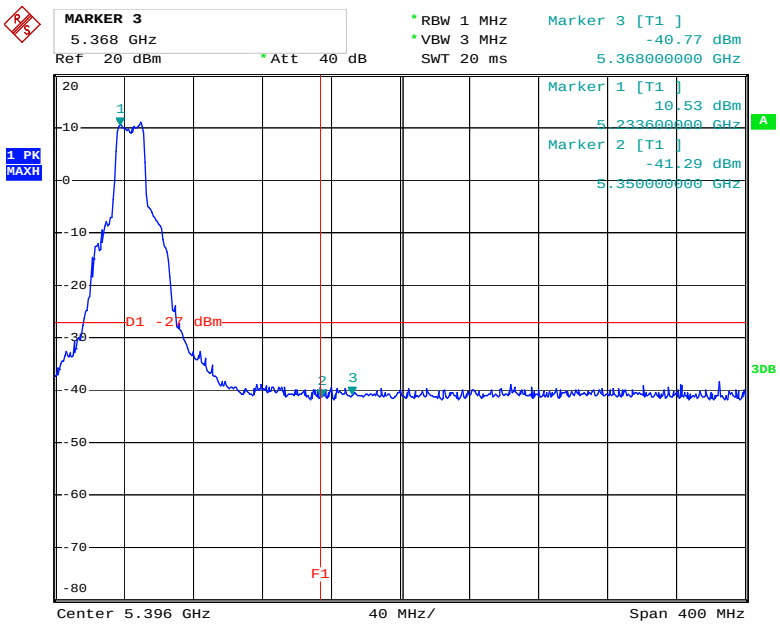
Emission Level= Read Level+ Correct Factor

(2) Conducted Test

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11a Mode 5180MHz /5240MHz (U-NII-1)		
Remark:	The EUT is programed in continuously transmitting mode		

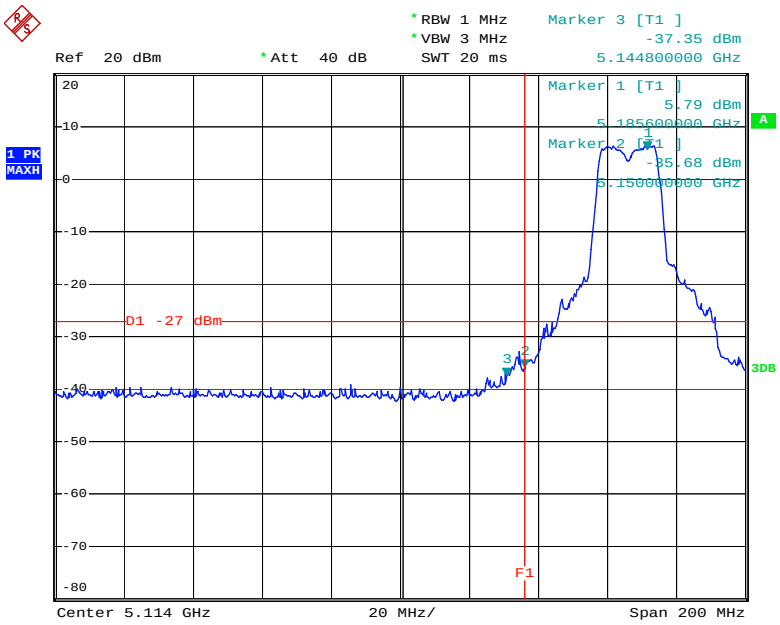


Date: 22.APR.2015 11:55:04

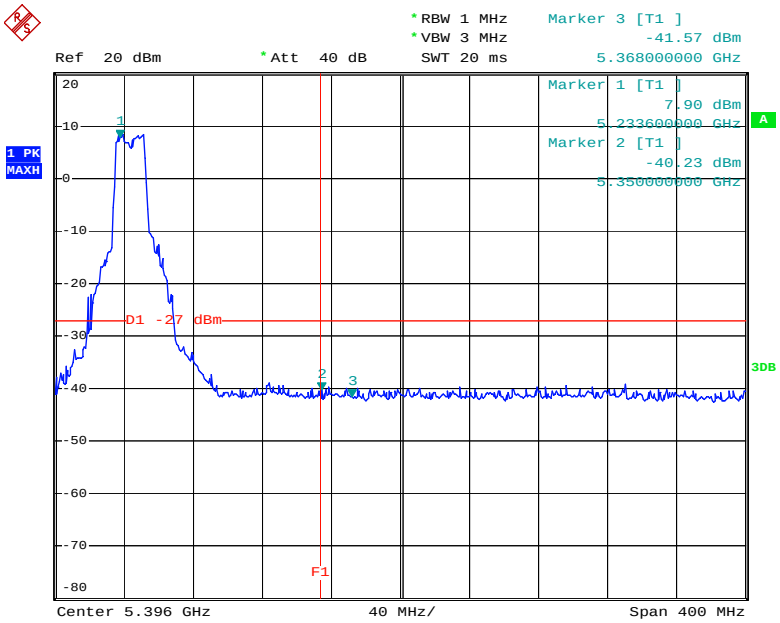


Date: 22.APR.2015 12:00:53

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11n(20) Mode 5180MHz /5240MHz (U-NII-1)		
Remark:	The EUT is programed in continuously transmitting mode		

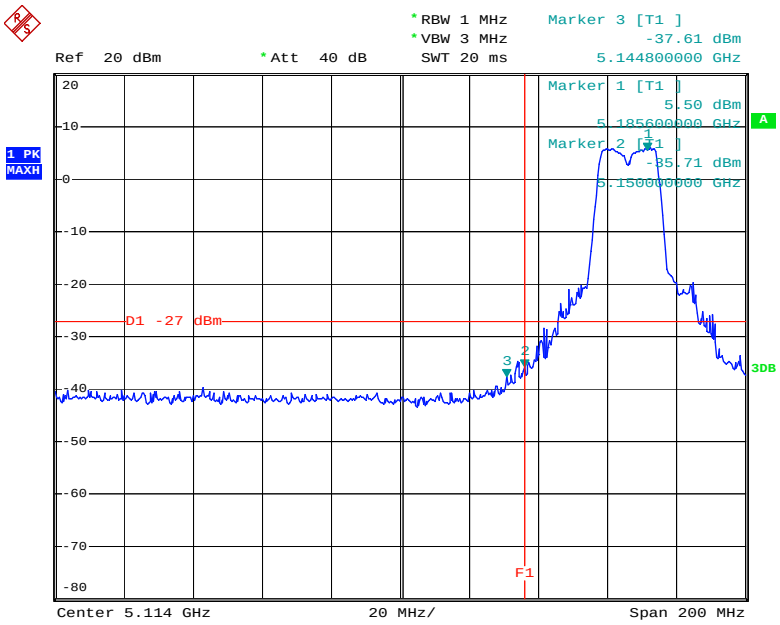


Date: 22.APR.2015 11:55:54

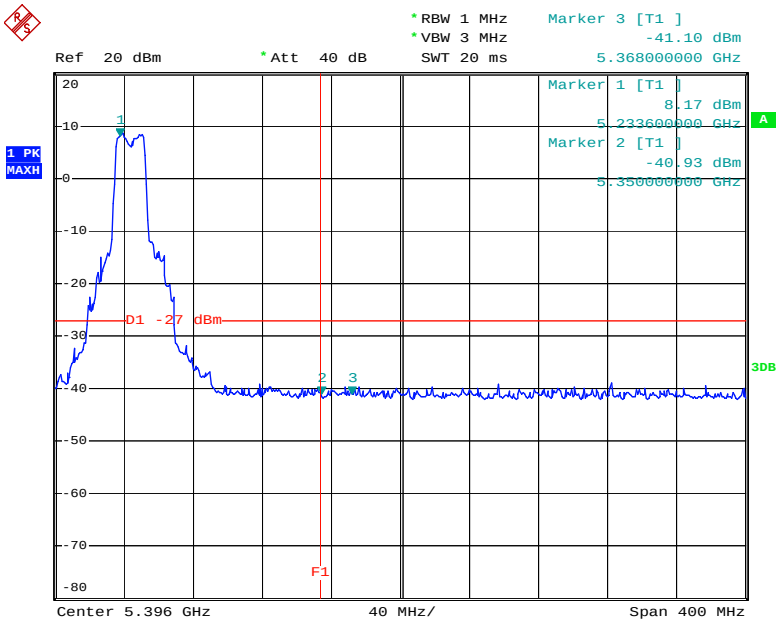


Date: 22.APR.2015 12:01:23

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(20) Mode 5180MHz /5240MHz (U-NII-1)		
Remark:	The EUT is programed in continuously transmitting mode		

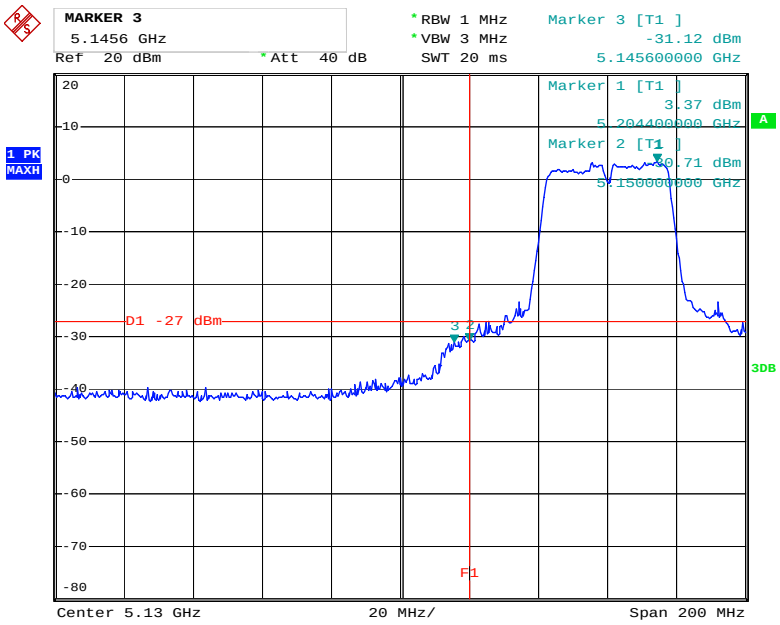


Date: 22.APR.2015 11:56:25

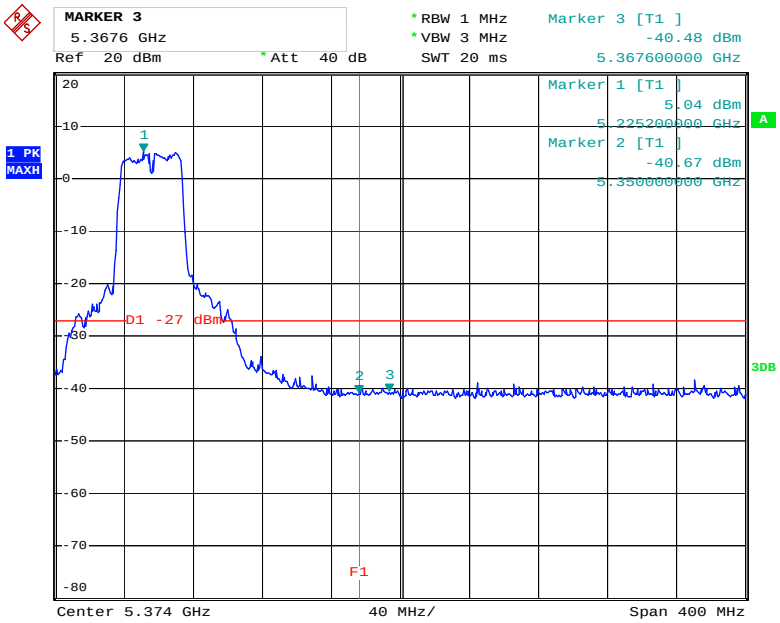


Date: 22.APR.2015 12:01:48

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11n(40) Mode 5190MHz /5230MHz (U-NII-1)		
Remark:	The EUT is programed in continuously transmitting mode		

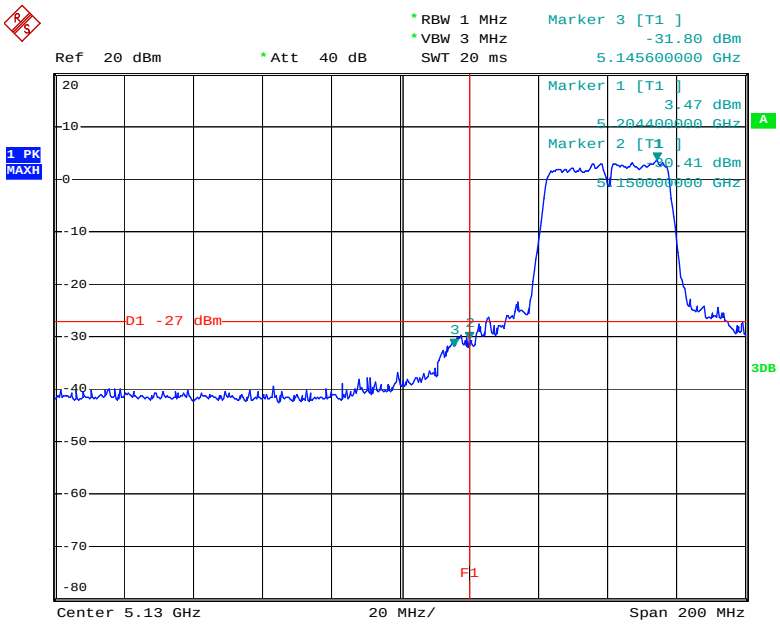


Date: 22.APR.2015 11:57:14

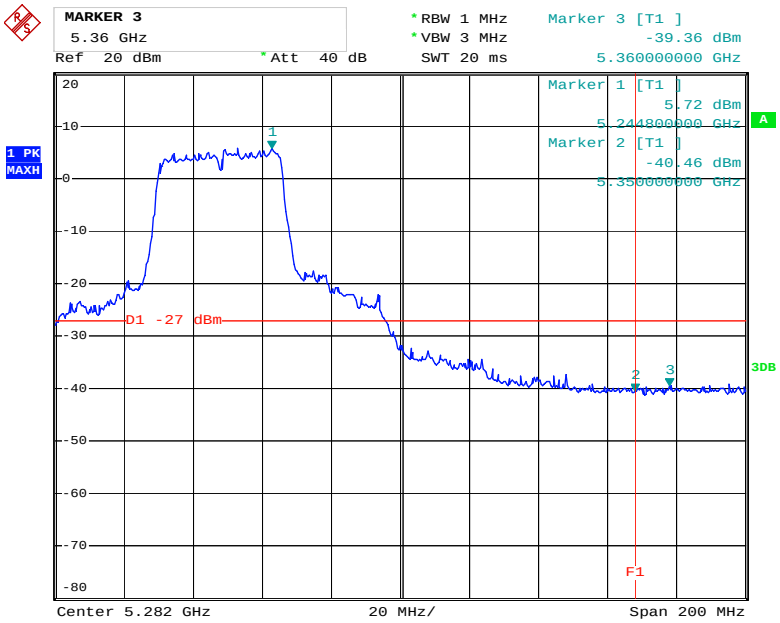


Date: 22.APR.2015 12:02:43

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(40) Mode 5190MHz /5230MHz (U-NII-1)		
Remark:	The EUT is programed in continuously transmitting mode		

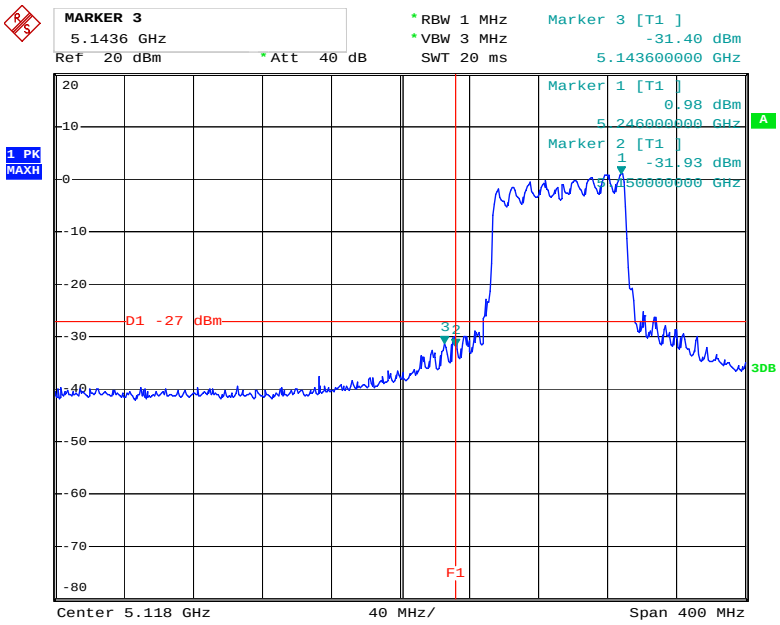


Date: 22.APR.2015 11:57:49

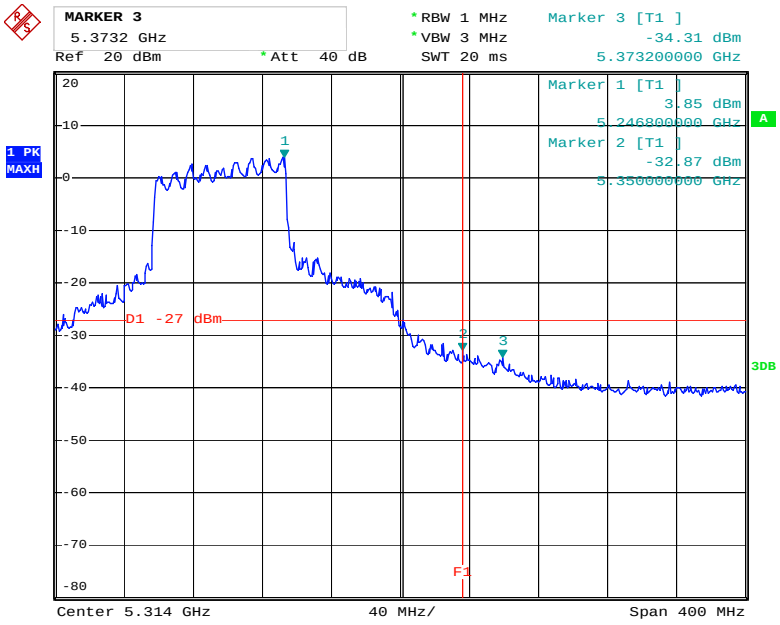


Date: 22.APR.2015 11:05:41

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(80) Mode 5775MHz (U-NII-1)		
Remark:	The EUT is programed in continuously transmitting mode		

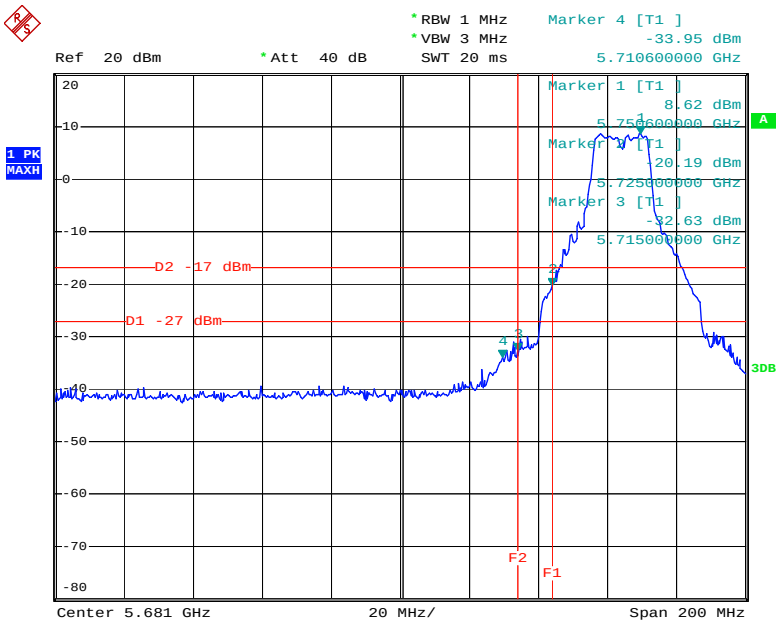


Date: 22.APR.2015 11:08:34

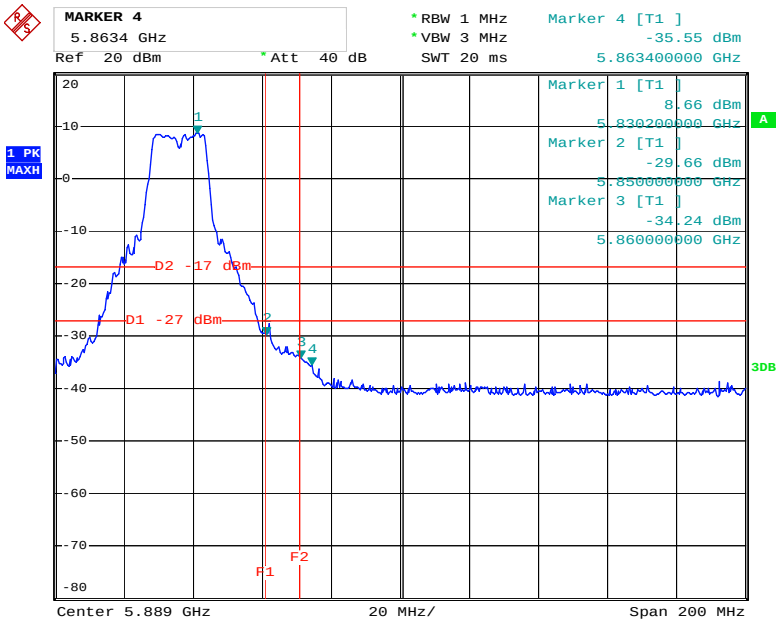


Date: 22.APR.2015 11:06:58

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11a Mode 5745MHz /5825MHz (U-NII-3)		
Remark:	The EUT is programed in continuously transmitting mode		

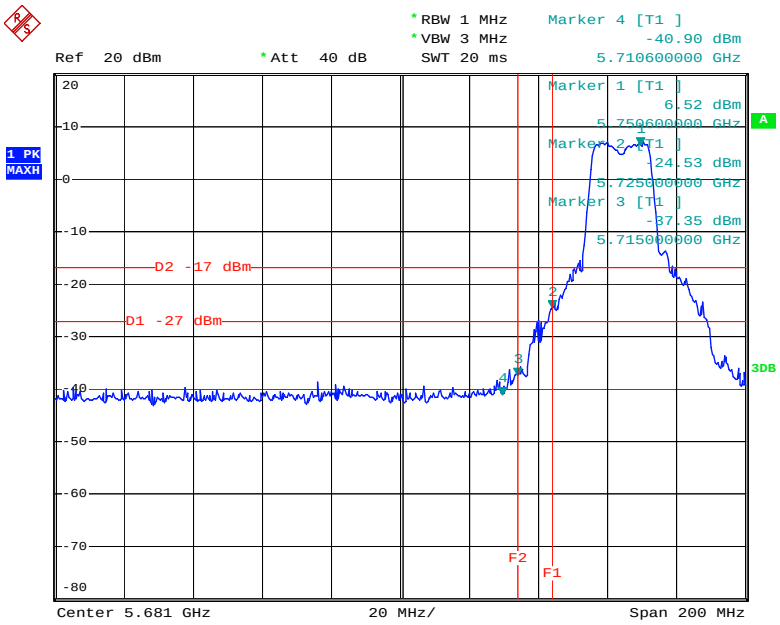


Date: 22.APR.2015 11:49:09

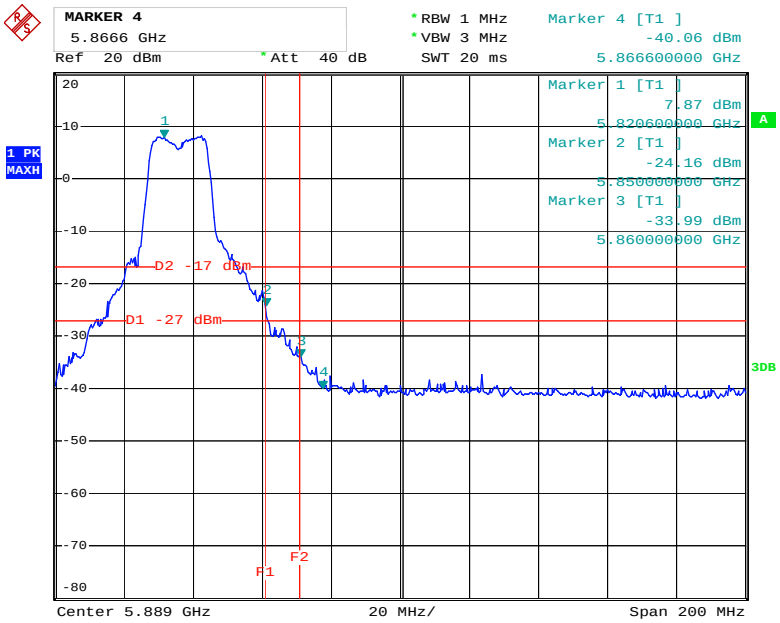


Date: 22.APR.2015 11:38:09

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11n(20) Mode 5745MHz /5825MHz (U-NII-3)		
Remark:	The EUT is programed in continuously transmitting mode		

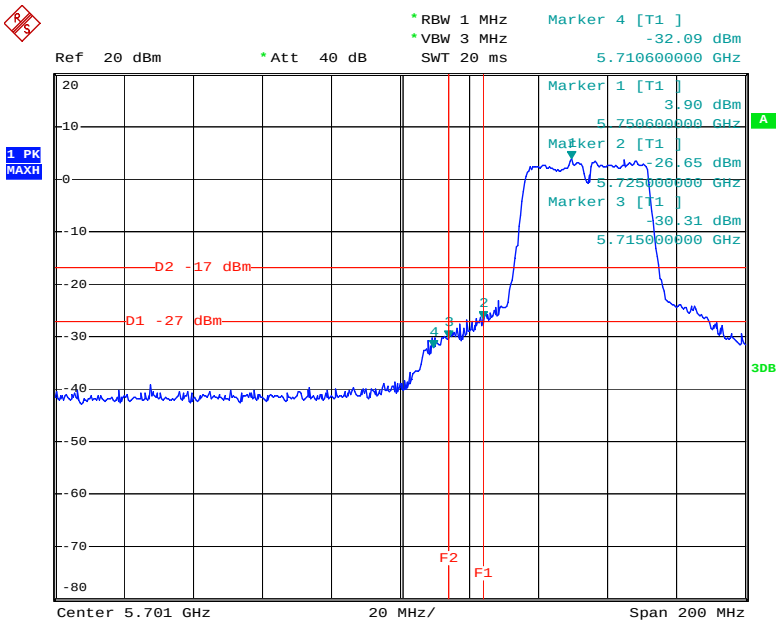


Date: 22.APR.2015 11:49:49

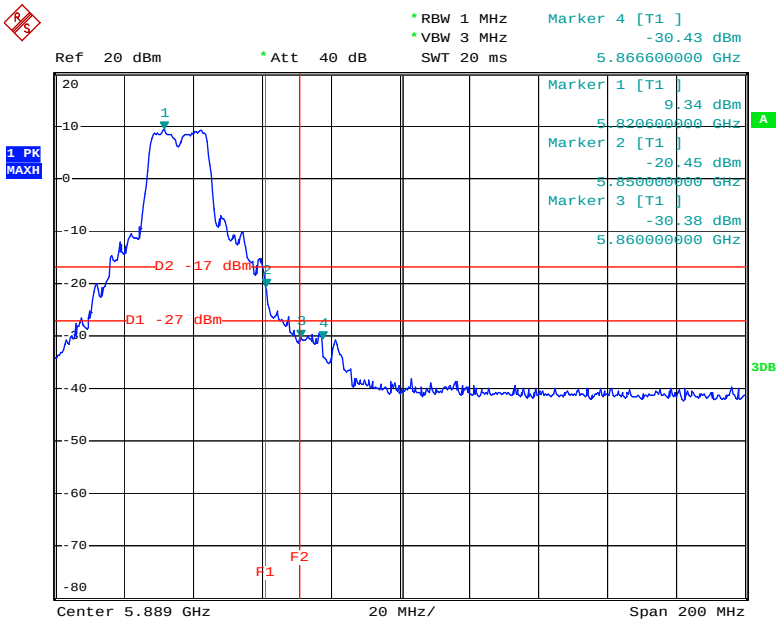


Date: 22.APR.2015 11:40:13

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(20) Mode 5745MHz /5825MHz (U-NII-3)		
Remark:	The EUT is programed in continuously transmitting mode		

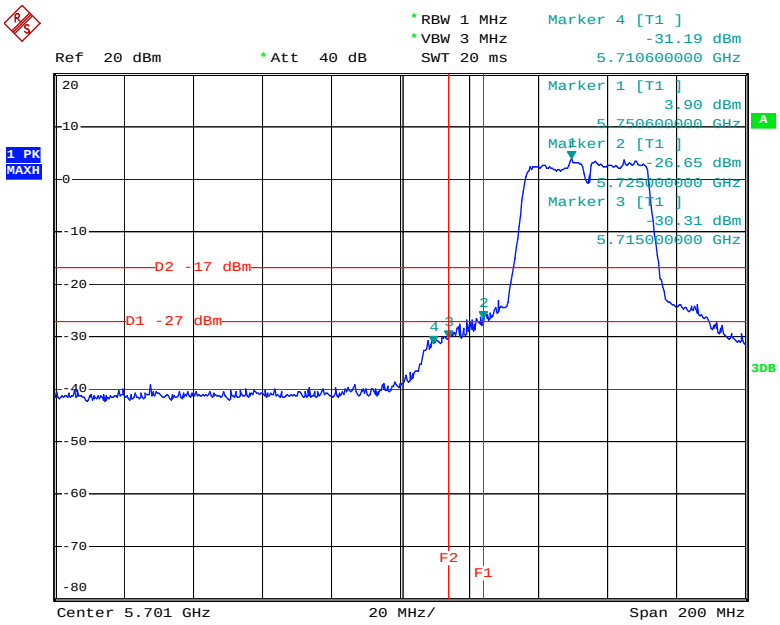


Date: 22.APR.2015 11:51:20



Date: 22.APR.2015 11:41:27

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11n(40) Mode 5755MHz /5795MHz (U-NII-3)		
Remark:	The EUT is programed in continuously transmitting mode		



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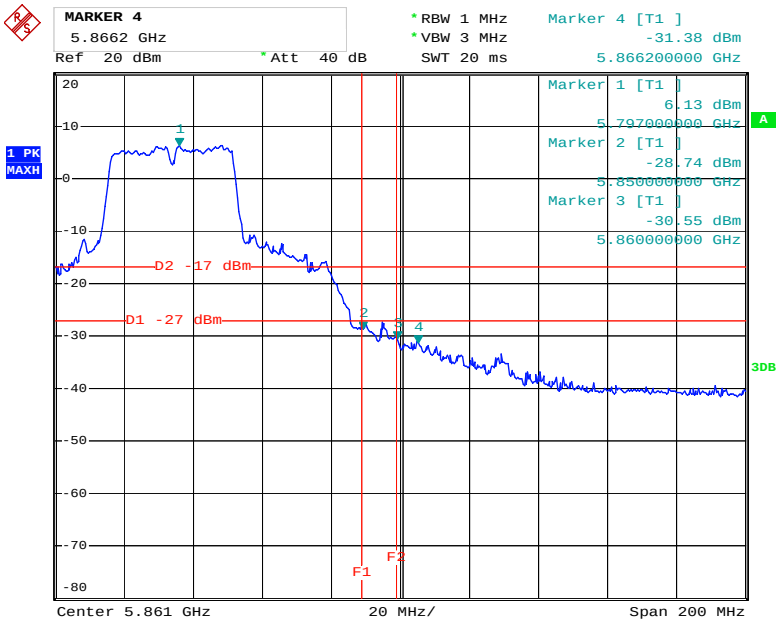
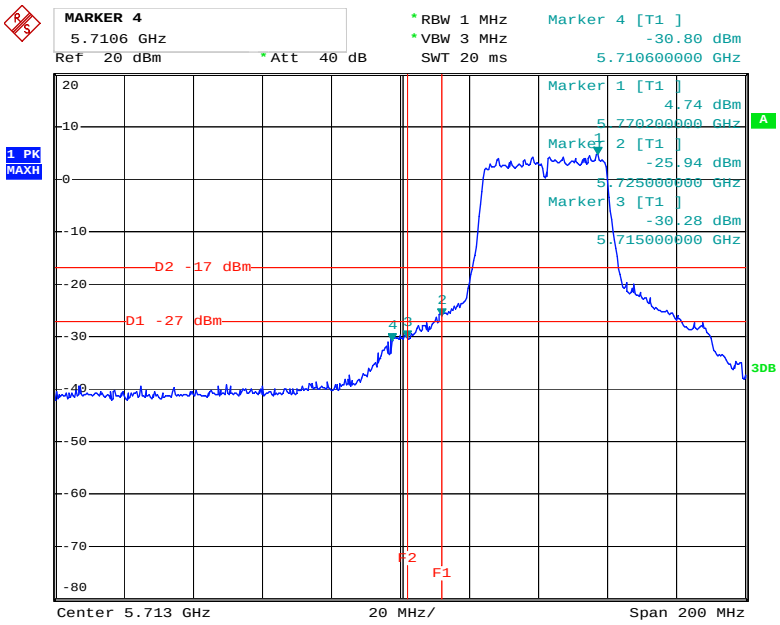
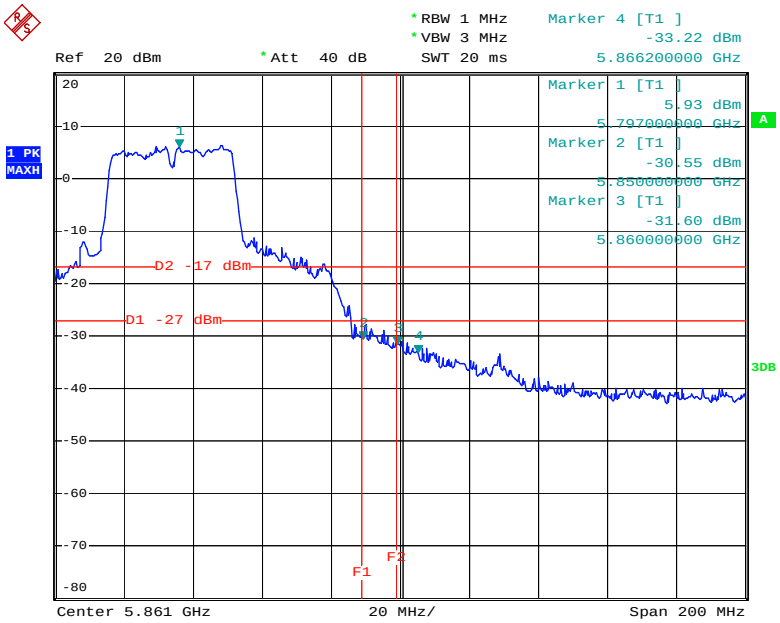


Date: 22.APR.2015 11:43:38

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(40) Mode 5755MHz /5795MHz (U-NII-3)		
Remark:	The EUT is programed in continuously transmitting mode		

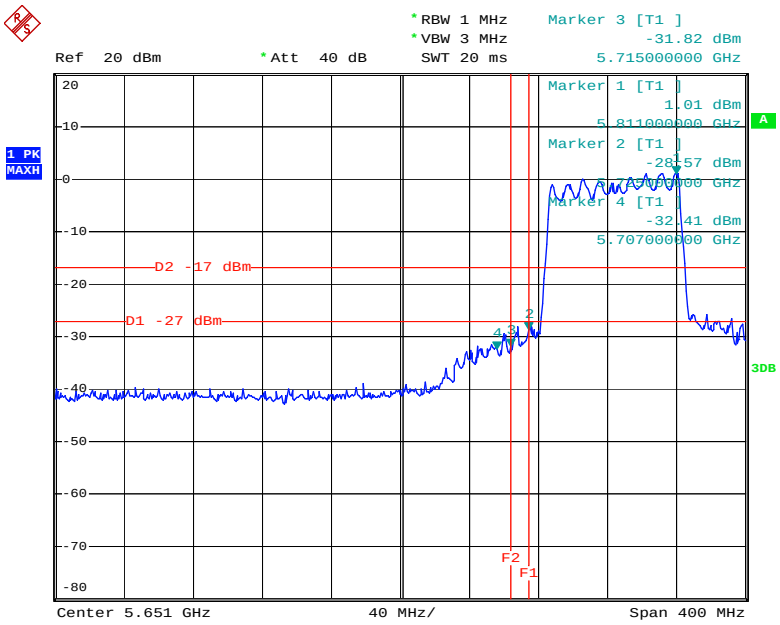


Date: 22.APR.2015 11:20:50



Date: 22.APR.2015 11:44:10

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(80) Mode 5775MHz (U-NII-3)		
Remark:	The EUT is programed in continuously transmitting mode		



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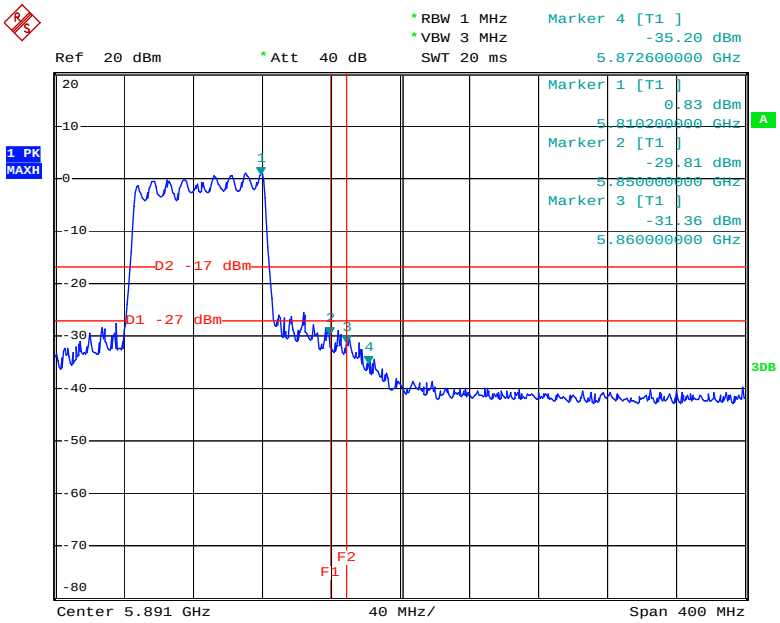


Date: 22.APR.2015 11:45:58

7. Bandwidth Test

7.1 Test Standard and Limit

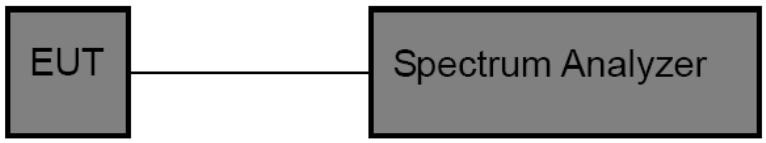
7.1.1 Test Standard

FCC Part 15.407

7.1.2 Test Limit

FCC Part 15 Subpart C(15.407)/RSS-210		
Test Item	**Limit**	**Frequency Range(MHz)**
26 Bandwidth	N/A	5150~5250
6 dB Bandwidth	>500kHz	5725~5850

7.2 Test Setup



7.3 Test Procedure

(1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.

(2) The setting of the spectrum analyser as below:

26dB Bandwidth Test	
Spectrum Parameters	**Setting**
Attenuation	Auto
Span	>26 dB Bandwidth
RBW	Approximately 1% of the emission bandwidth
VBW	VBW>RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto
6dB Bandwidth Test	
Spectrum Parameters	**Setting**
Attenuation	Auto
Span	>6 dB Bandwidth
RBW	100 kHz

VBW	VBW>=3*RBW
Detector	Peak
Trace	Max Hold
Sweep Time	Auto
99% Occupied Bandwidth Test	
Spectrum Parameters	**Setting**
Attenuation	Auto
RBW	1% to 5% of the OBW
VBW	≥ 3RBW
Detector	Peak
Trace	Max Hold

7.4 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

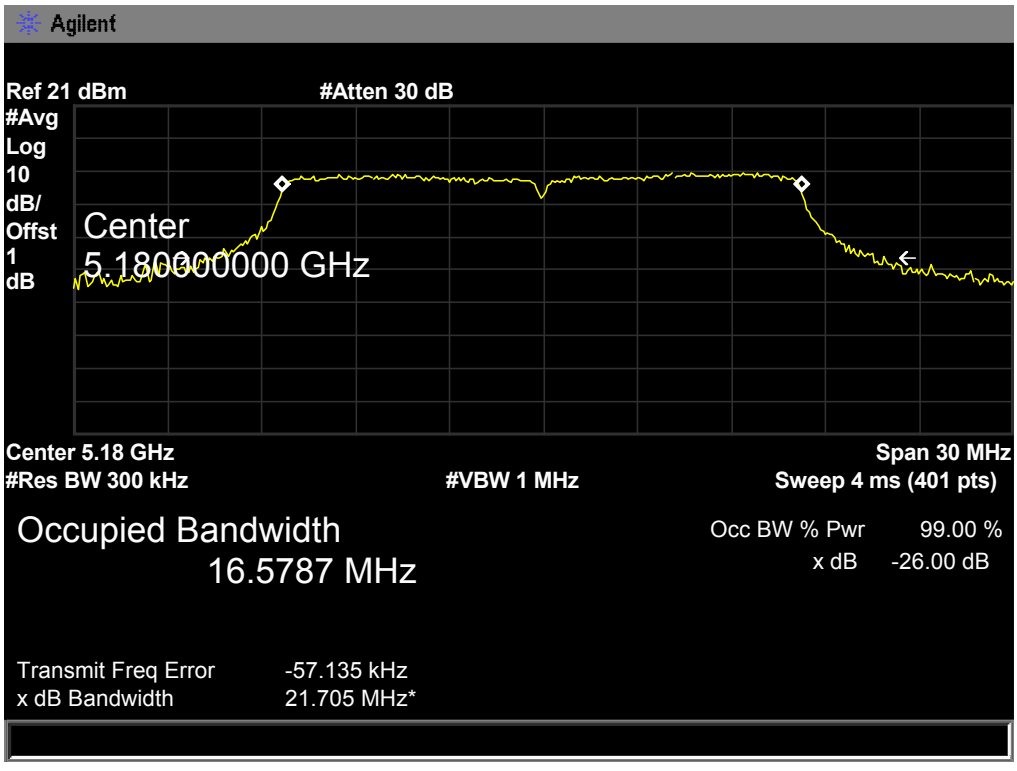
7.5 Test Data

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11a Mode (U-NII-1)		

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	21.705	16.5787
40	5200	23.363	16.6018
48	5240	26.385	16.6641

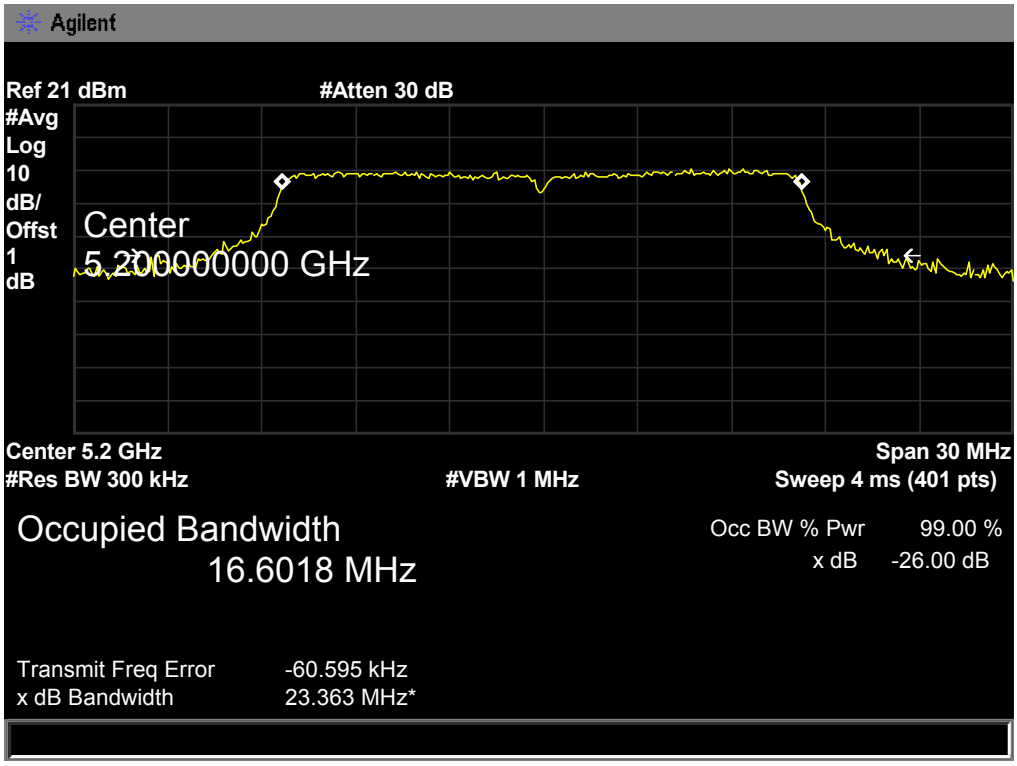
802.11a Mode

5180 MHz



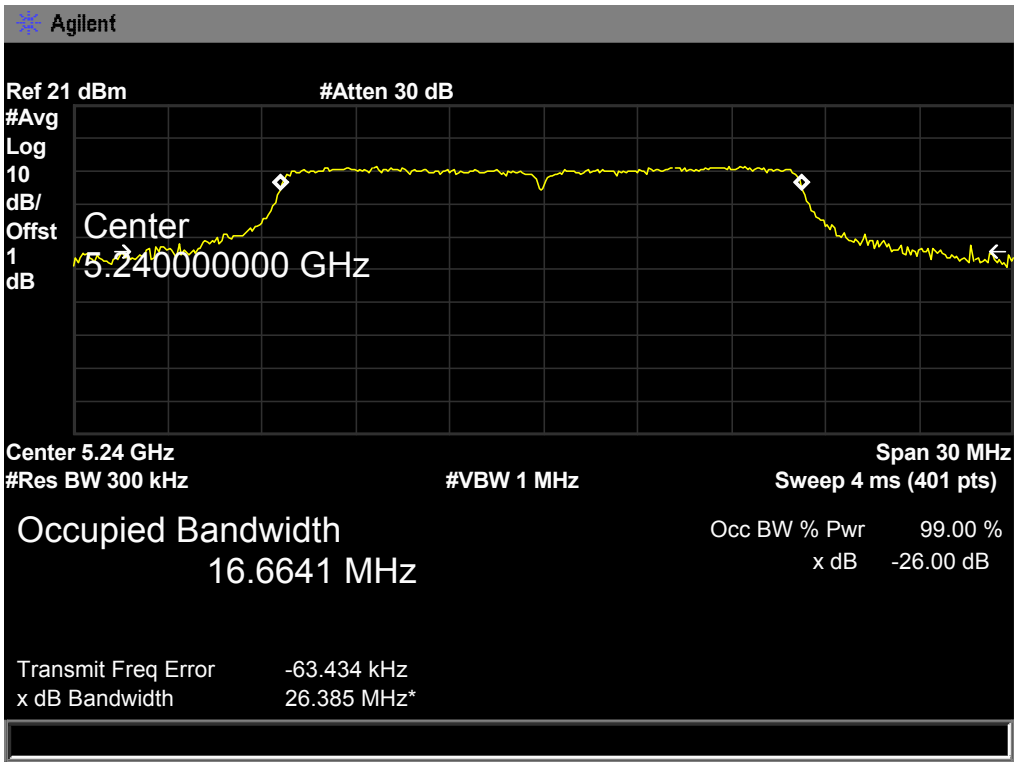
802.11a Mode

5200 MHz



802.11a Mode

5240 MHz

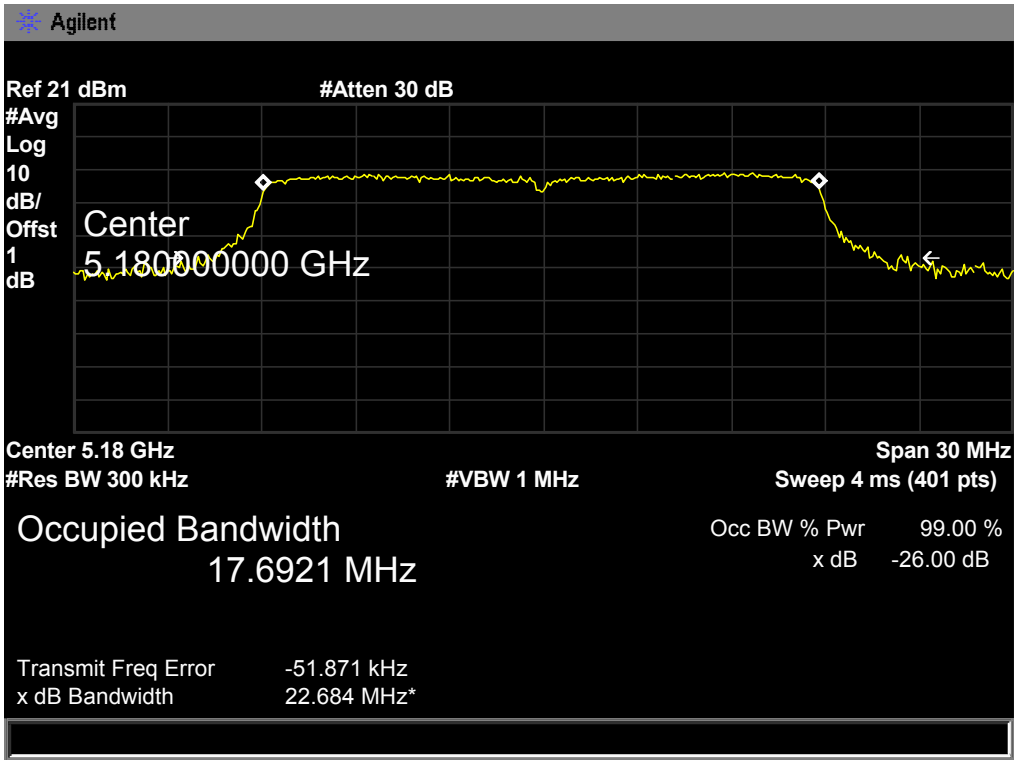


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11n(HT20) Mode (U-NII-1)		

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	22.684	17.6921
40	5200	21.555	17.6763
48	5240	22.924	17.6885

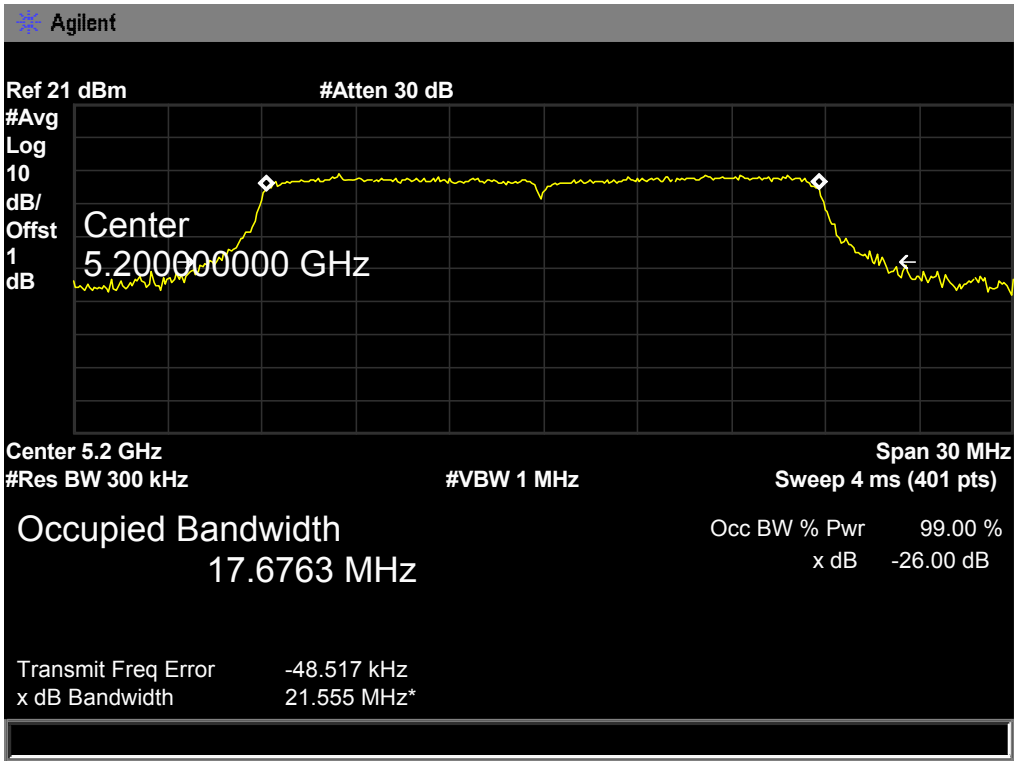
802.11n(HT20) Mode

5180 MHz



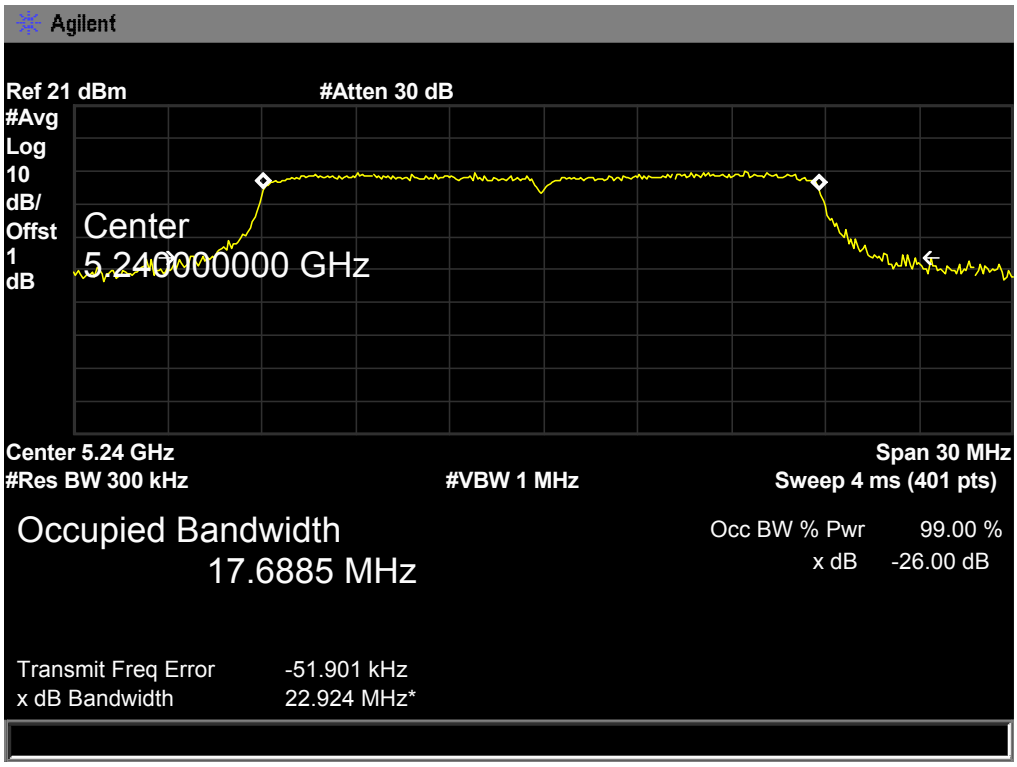
802.11n(HT20) Mode

5200 MHz



802.11n(HT20) Mode

5240 MHz

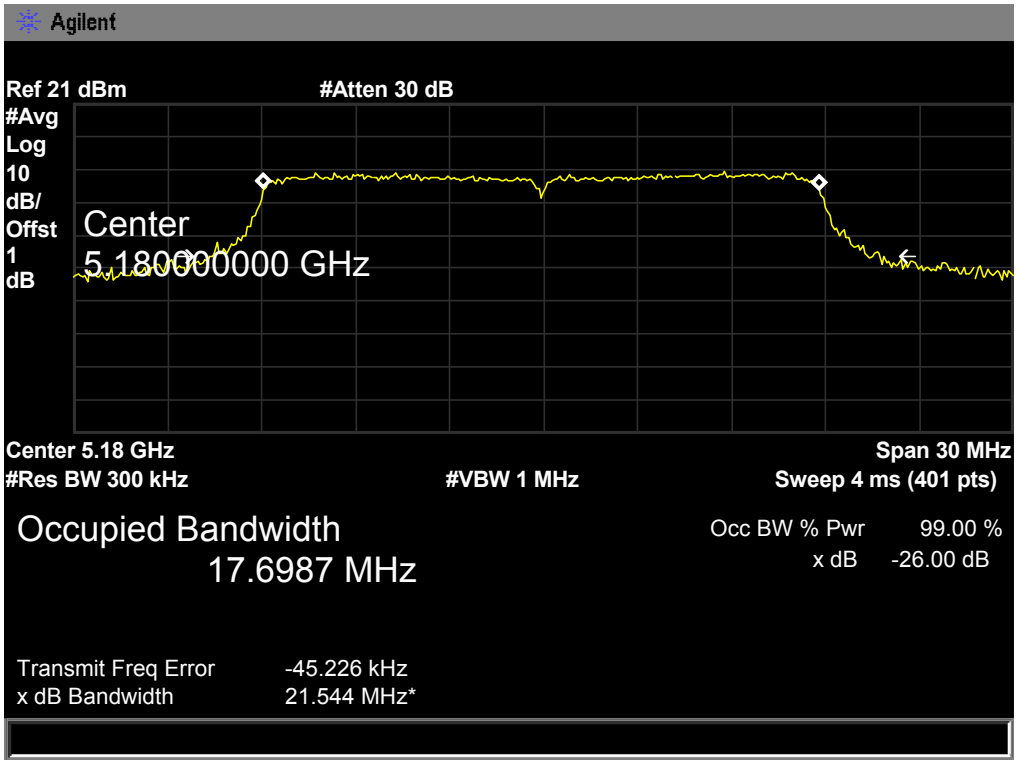


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(20) Mode (U-NII-1)		

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
36	5180	21.544	17.6987
40	5200	22.479	17.7267
48	5240	22.479	17.7661

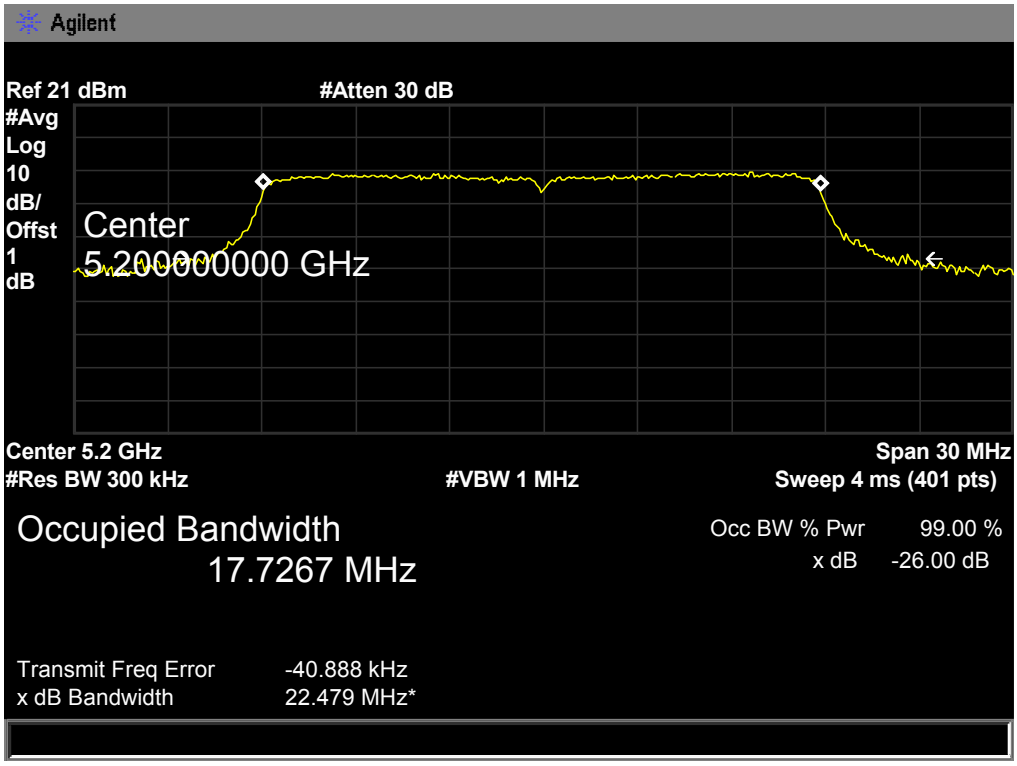
802.11ac(20) Mode

5180 MHz



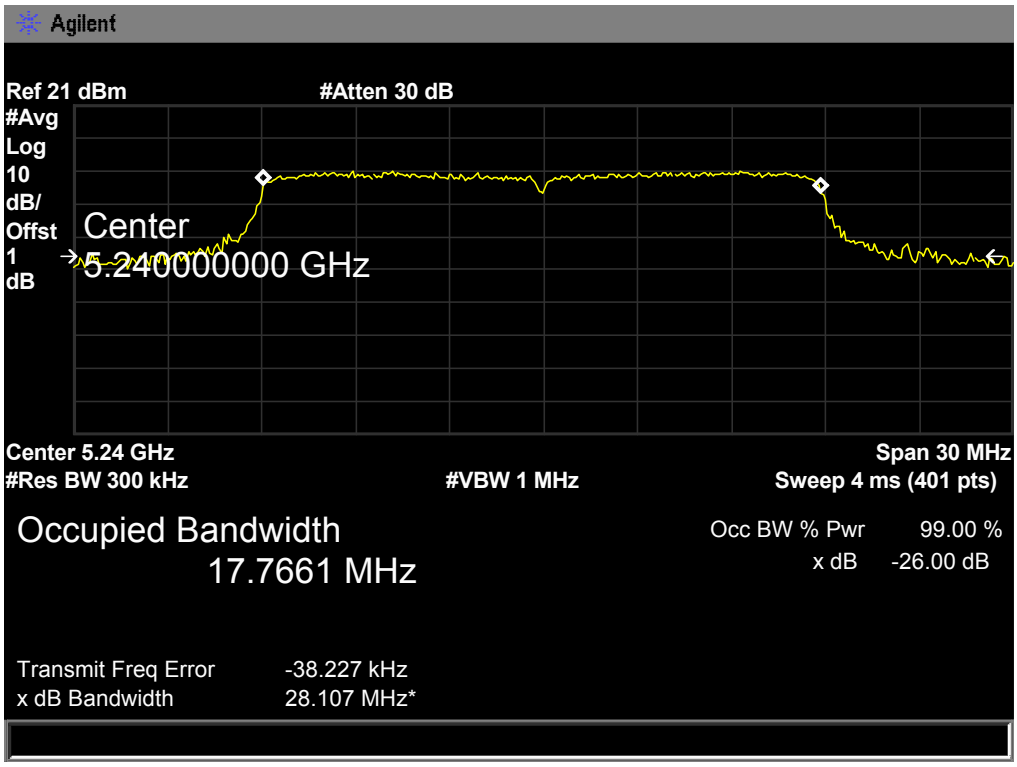
802.11ac(20) Mode

5200 MHz



802.11ac(20) Mode

5240 MHz

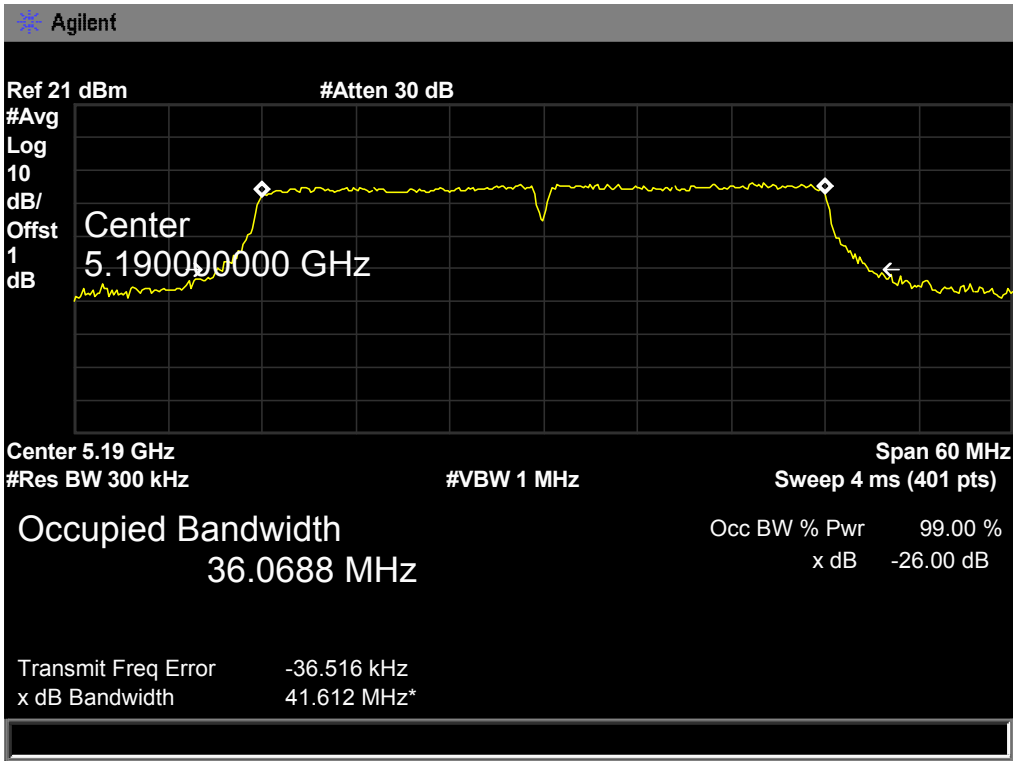


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11N(HT40) Mode (U-NII-1)		

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
38	5190	41.612	36.0688
46	5230	41.984	36.0934

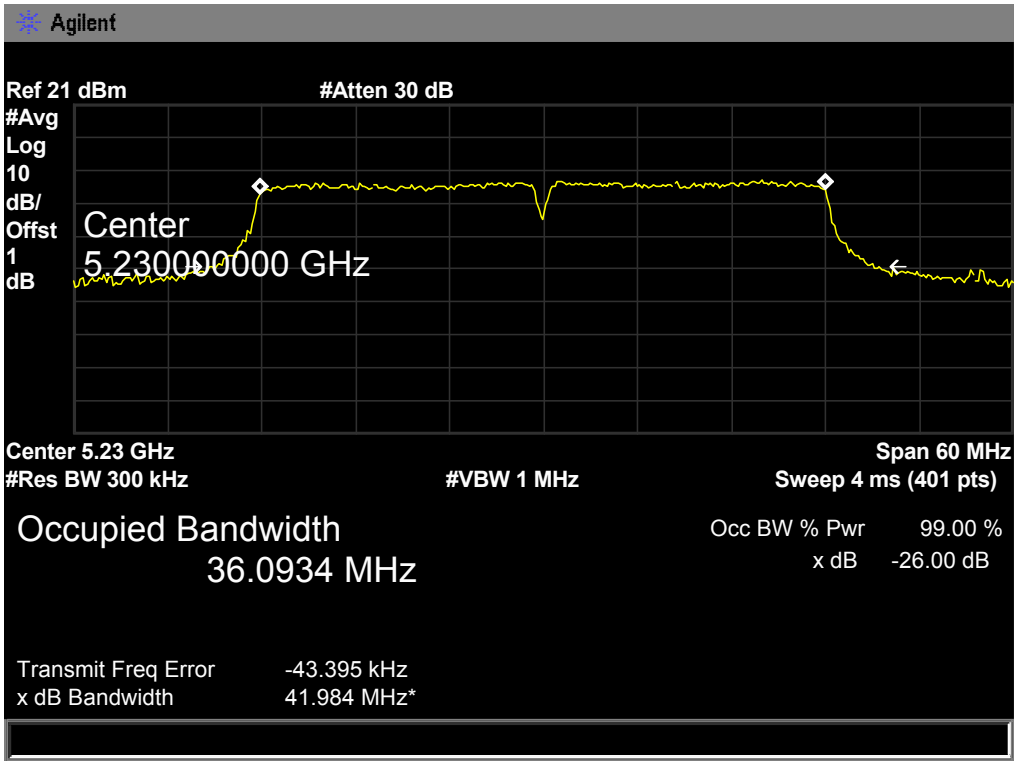
802.11N(HT40) Mode

5190 MHz



802.11N(HT40) Mode

5230 MHz

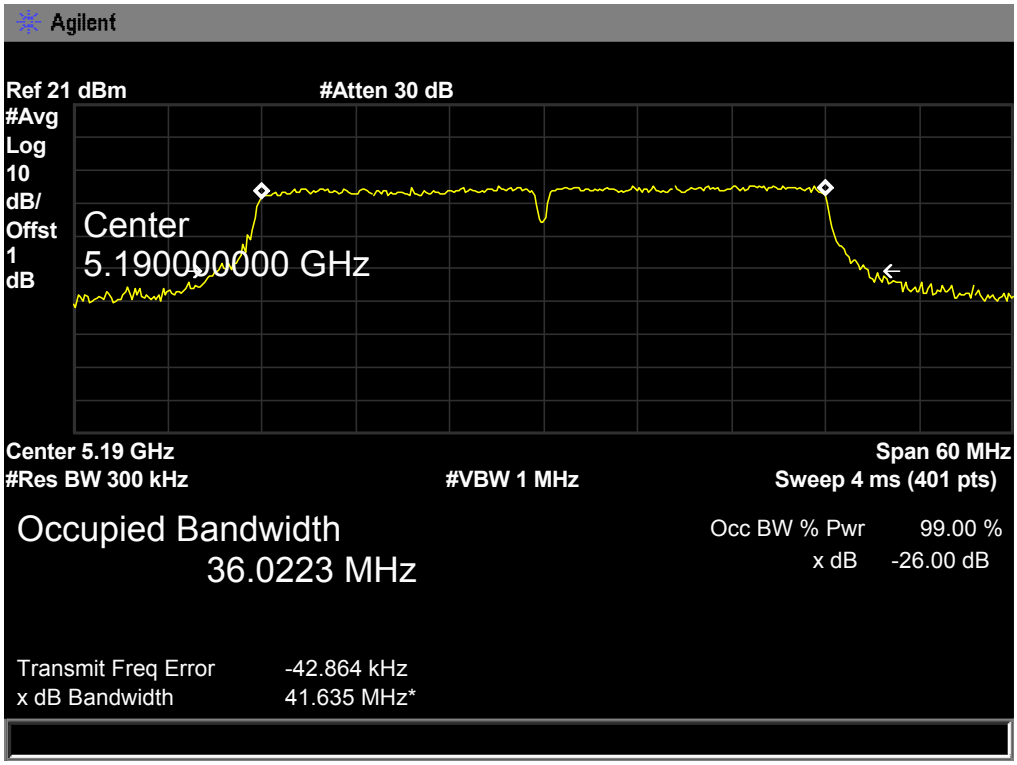


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(40) Mode (U-NII-1)		

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
38	5190	41.635	36.0223
46	5230	42.494	36.0963

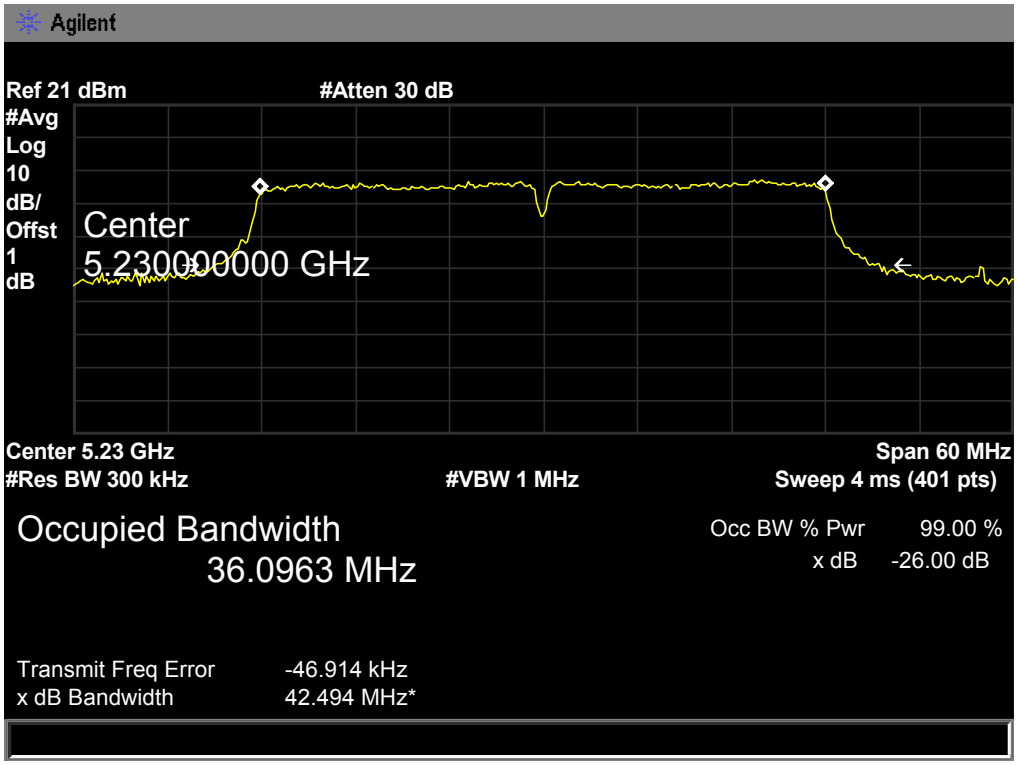
802.11ac(40) Mode

5190 MHz



802.11ac(40) Mode

5230 MHz

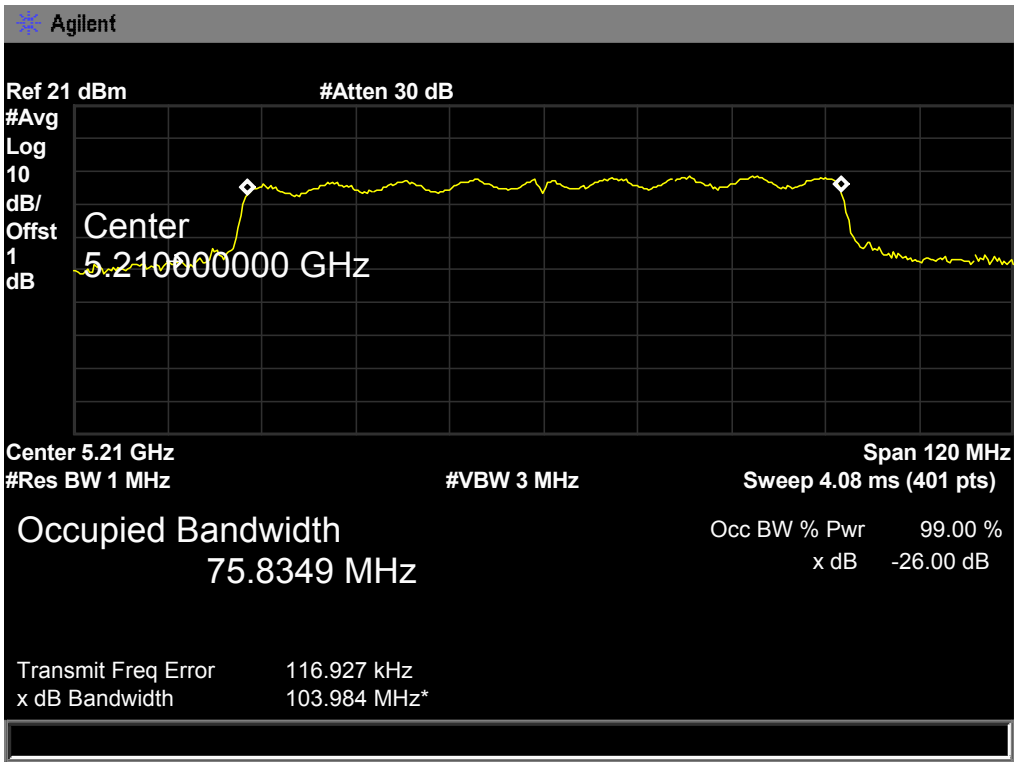


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(80) Mode		

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	99% Bandwidth (MHz)
42	5210	103.984	75.8349

802.11ac(80) Mode

5210 MHz

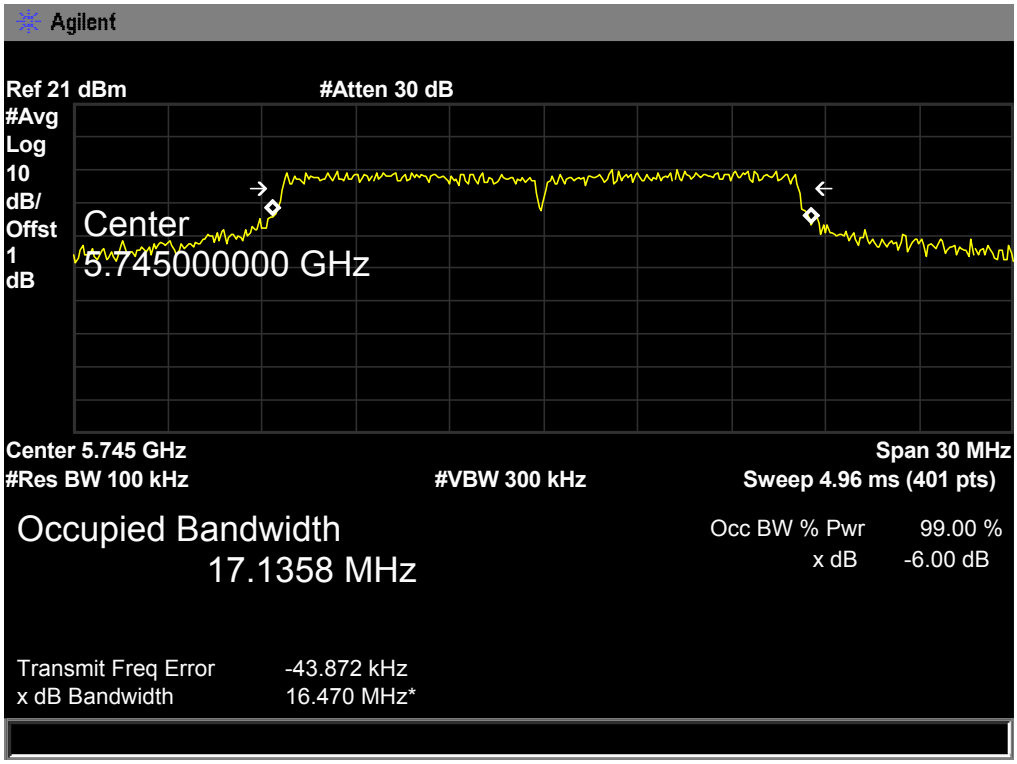


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11a Mode (U-NII-3)		

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
149	5745	16.470	17.1358
157	5785	16.505	17.2033
165	5825	16.505	17.1762

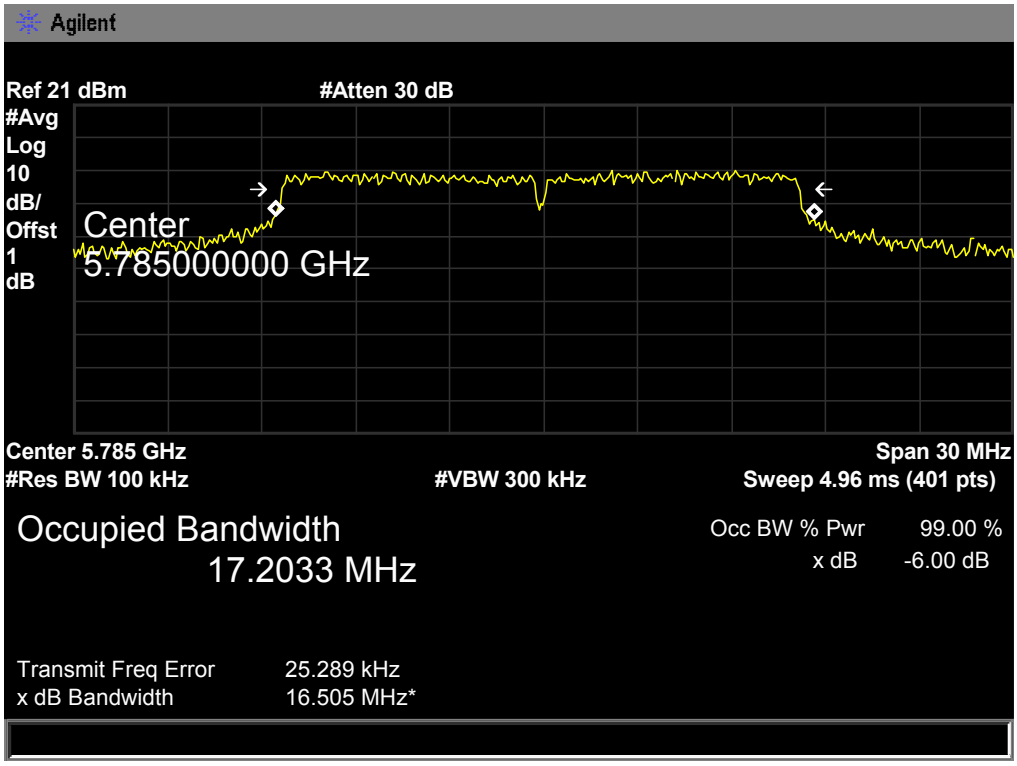
802.11a Mode

5745 MHz



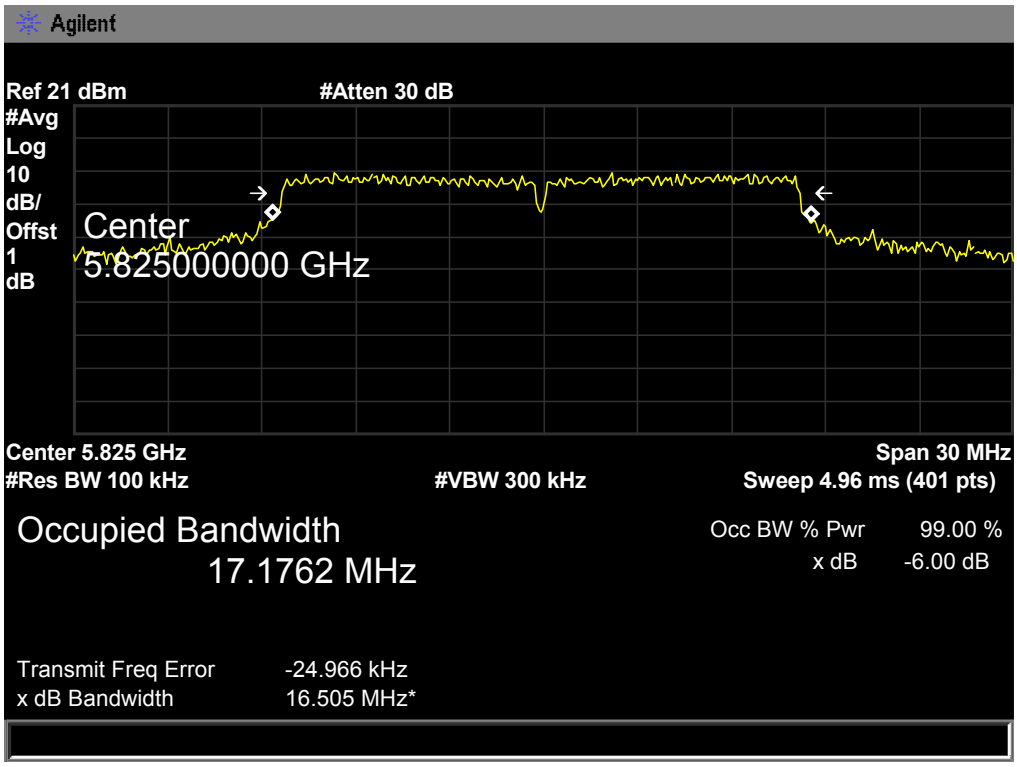
802.11a Mode

5785 MHz



802.11a Mode

5825 MHz

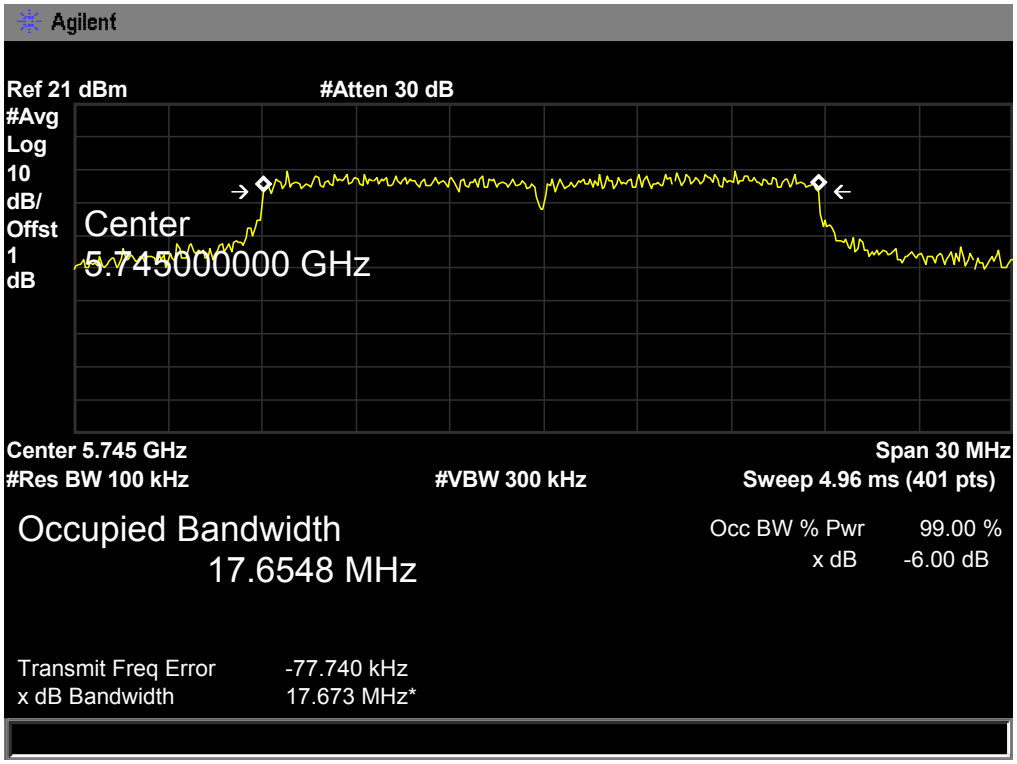


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11n(20) Mode (U-NII-3)		

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
149	5745	17.673	17.6548
157	5785	17.636	17.7014
165	5825	17.669	17.6048

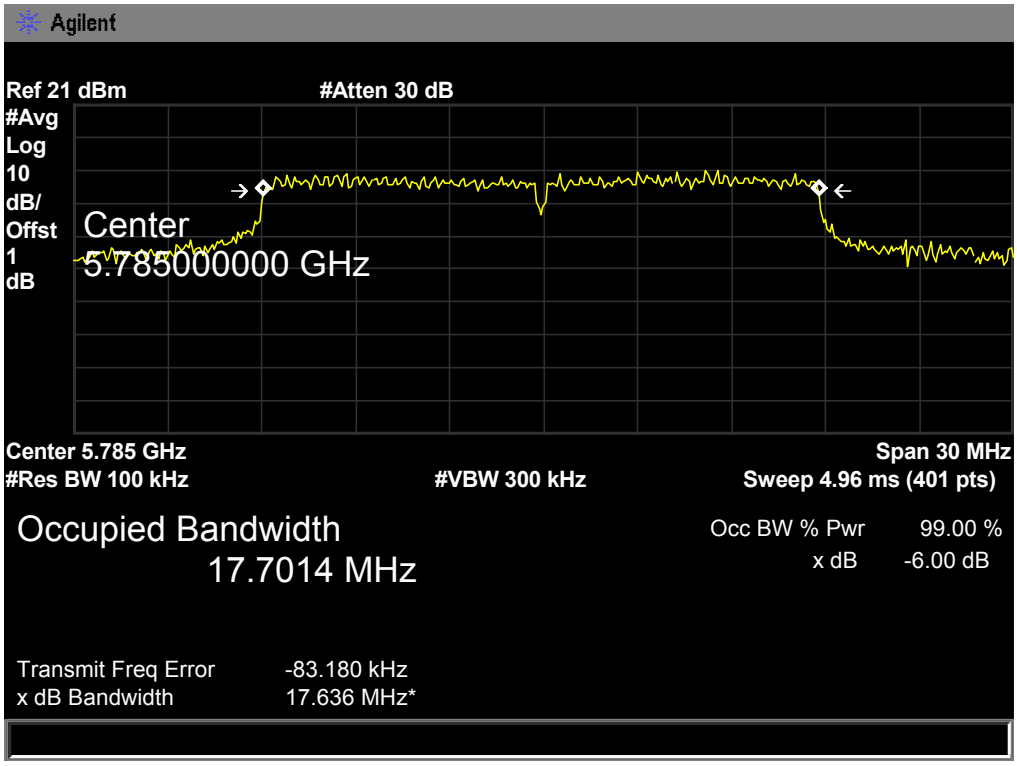
802.11n(HT20) Mode

5745 MHz



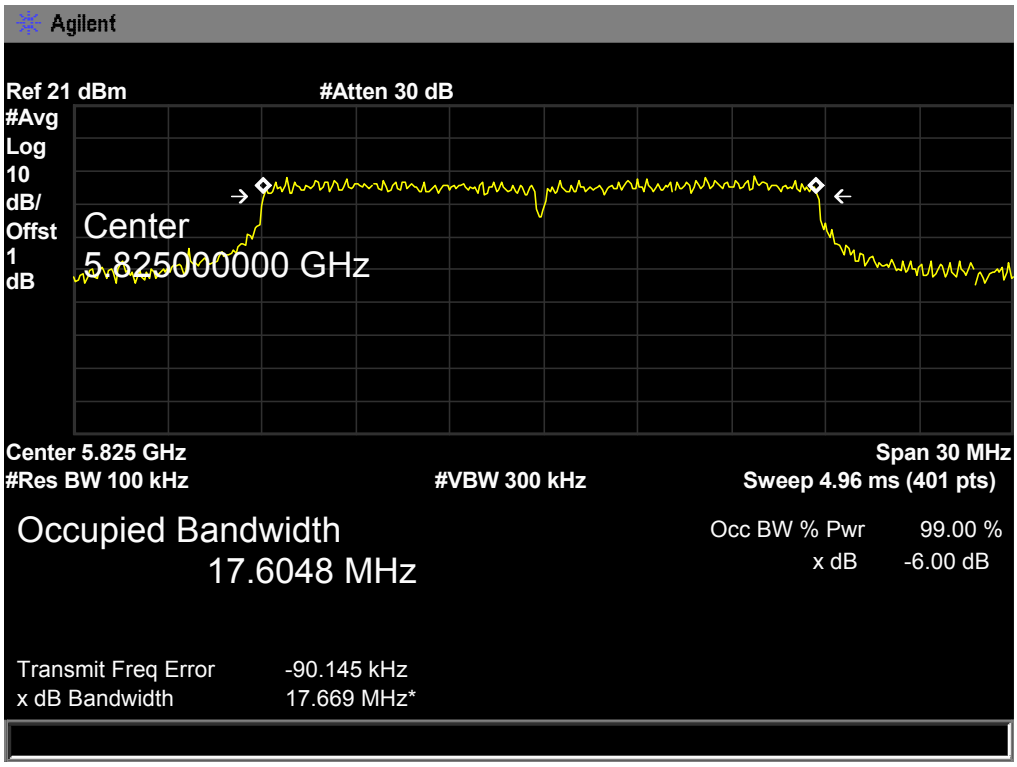
802.11n(HT20) Mode

5785 MHz



802.11n(HT20) Mode

5825 MHz

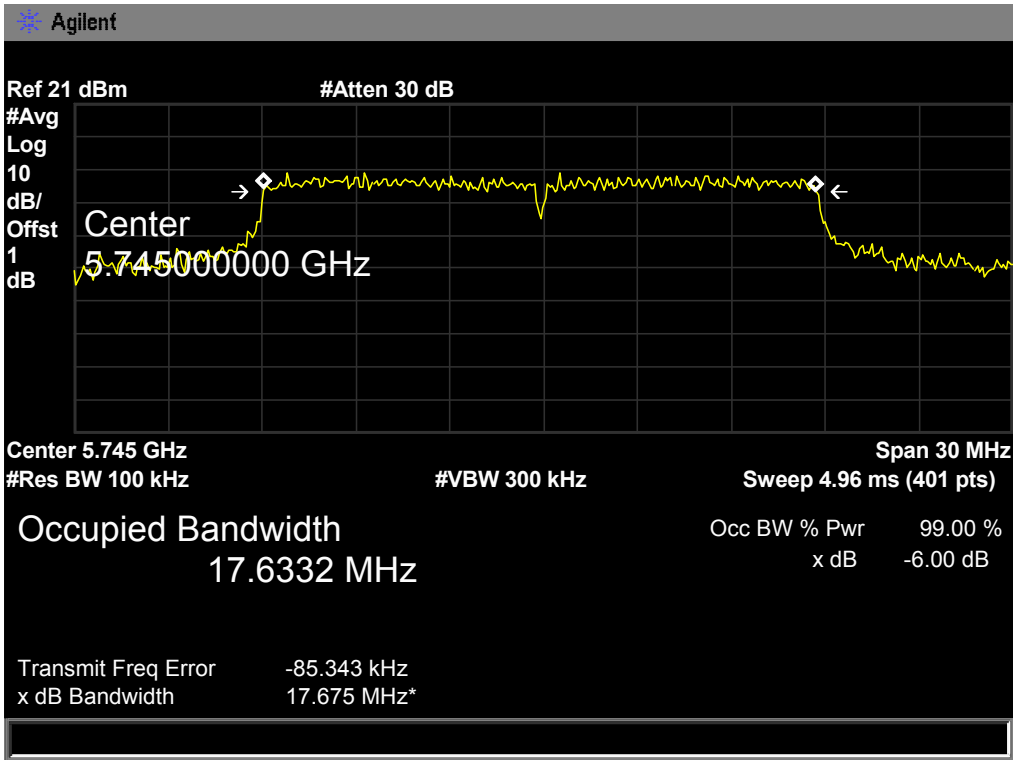


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(20) Mode (U-NII-3)		

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
149	5745	17.675	17.6332
157	5785	17.604	17.6776
165	5825	17.664	17.9353

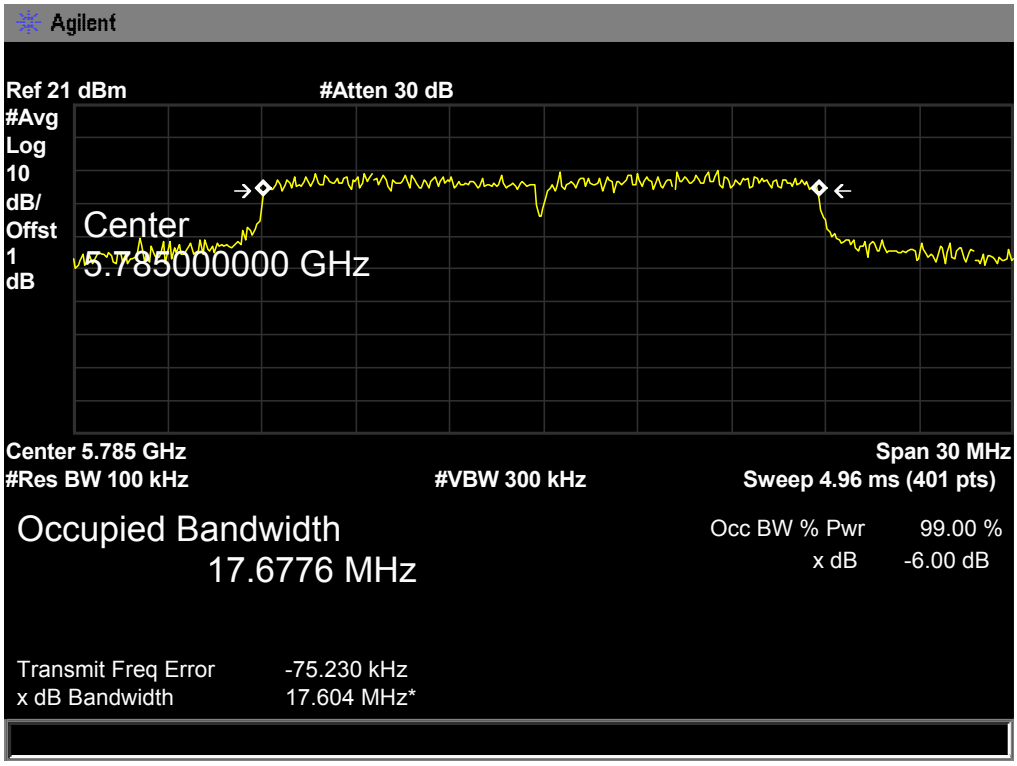
802.11ac(20) Mode

5745 MHz



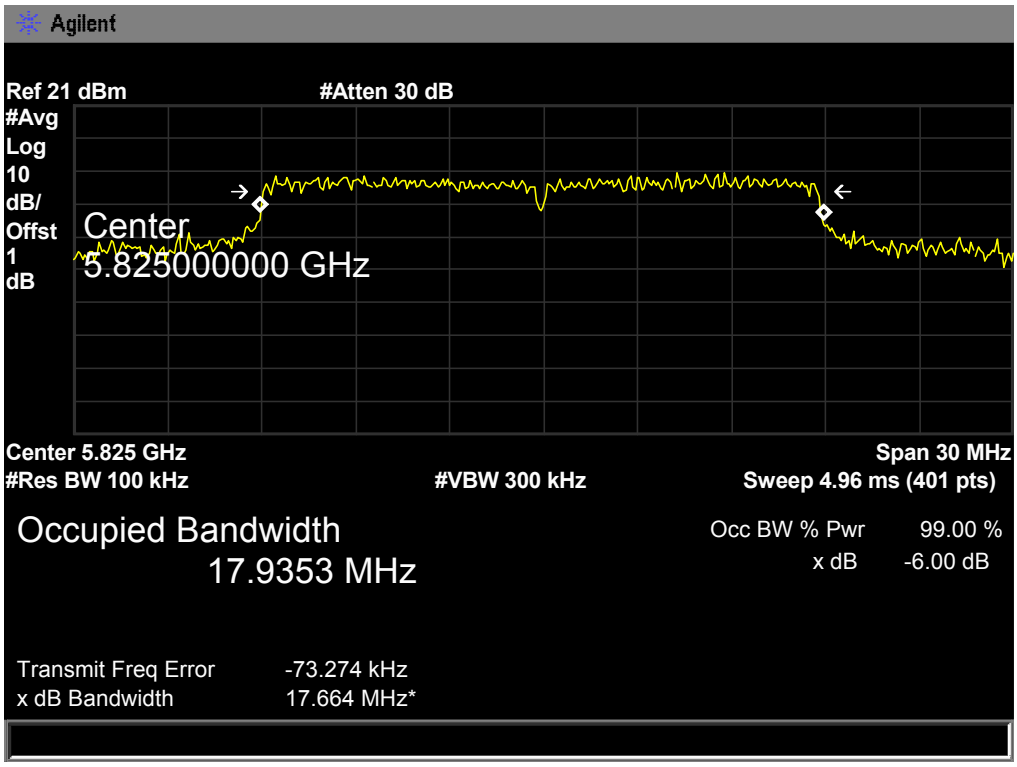
802.11ac(20) Mode

5785 MHz



802.11ac(20) Mode

5825 MHz

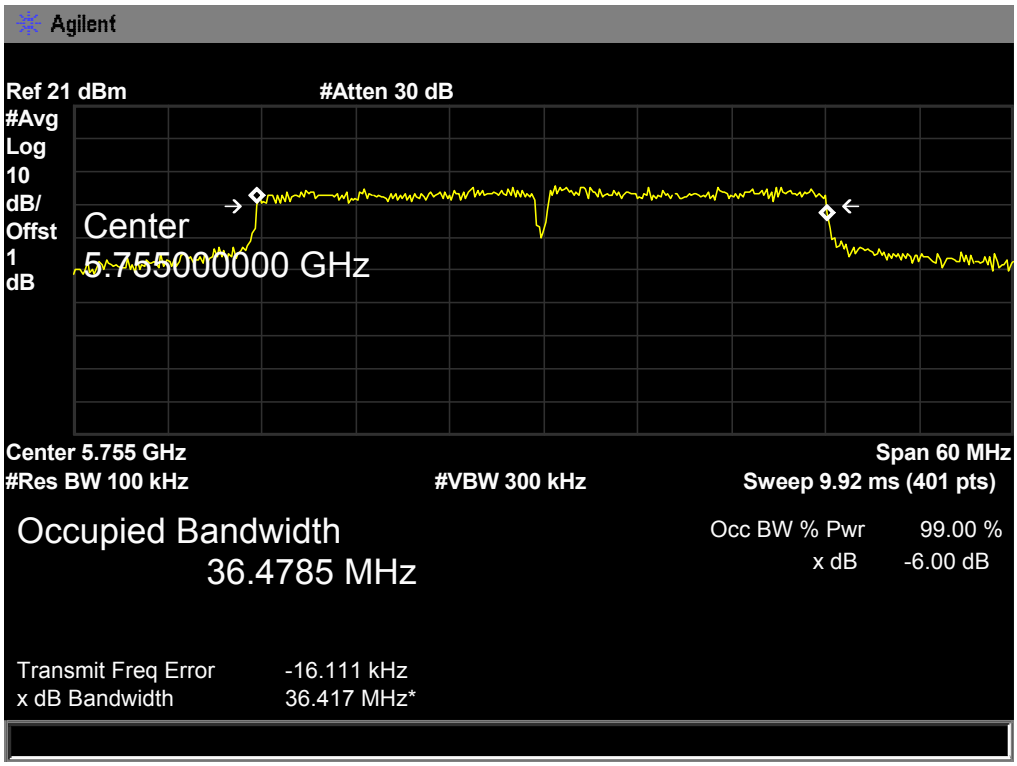


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11n(40) Mode (U-NII-3)		

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
151	5755	36.417	36.4785
159	5795	36.398	37.8510

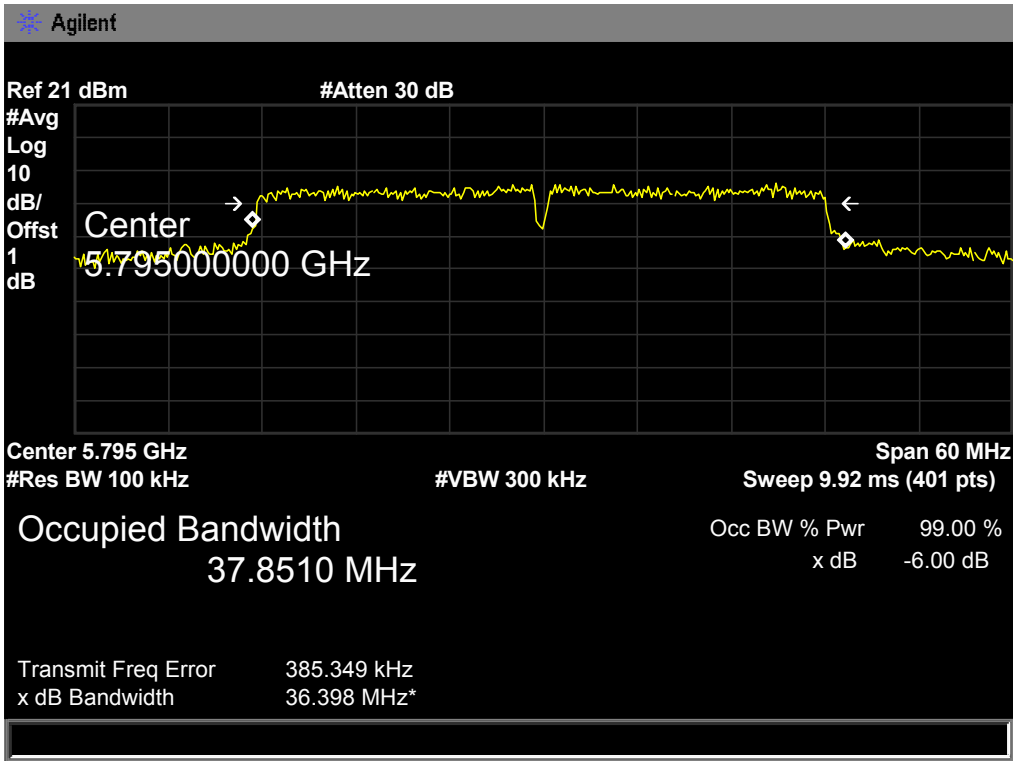
802.11n(HT40) Mode

5755 MHz



802.11n(HT40) Mode

5795 MHz

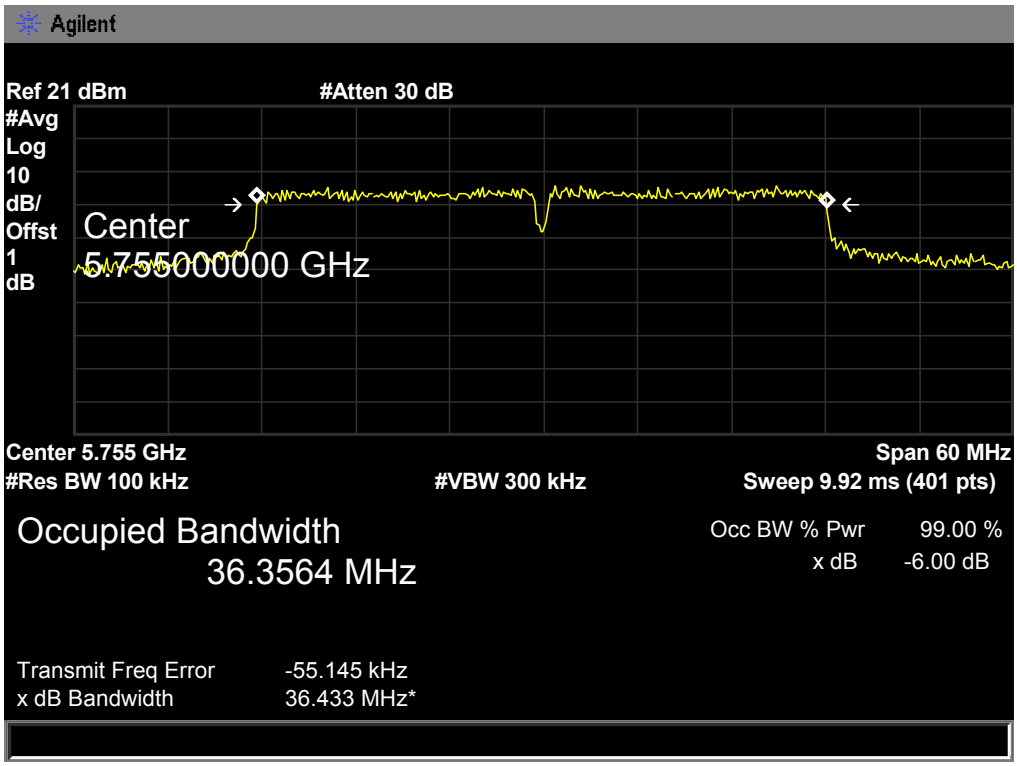


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(40) Mode (U-NII-3)		

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
151	5755	36.386	36.3564
159	5795	36.433	37.6078

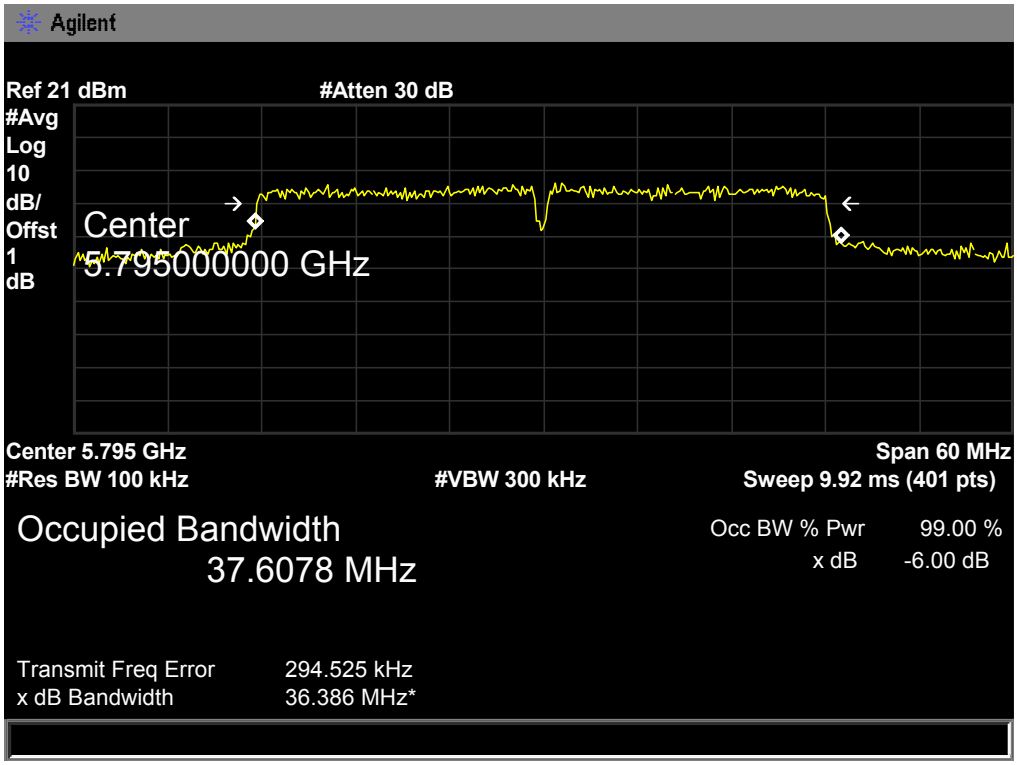
802.11ac(40) Mode

5755 MHz



802.11ac(40) Mode

5795 MHz

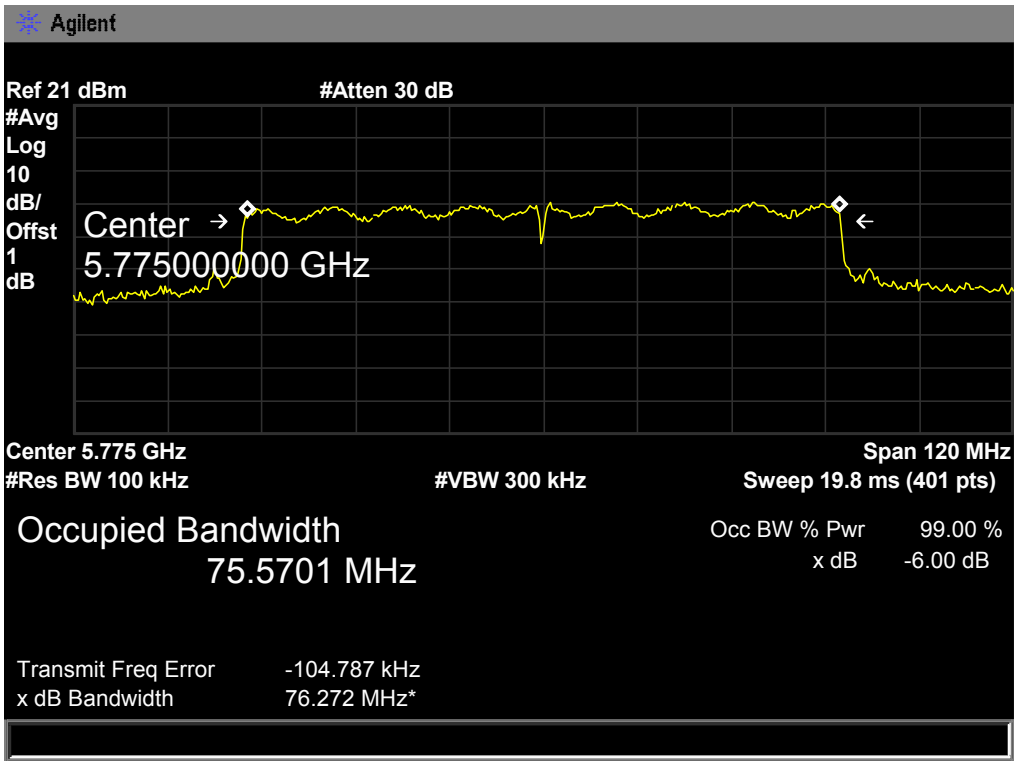


EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		
Test Mode:	TX 802.11ac(80) Mode (U-NII-3)		

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	99% Bandwidth (MHz)
155	5775	76.272	75.5701

802.11ac(80) Mode

5775 MHz



8. Output Power Test

8.1 Test Standard and Limit

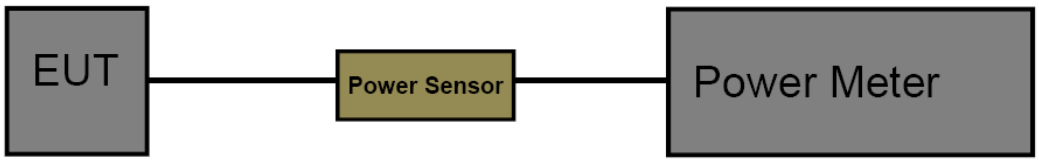
8.1.1 Test Standard

FCC Part 15.407 (a)

8.1.2 Test Limit

FCC Part 15 Subpart E(15.407)/RSS-210		
Test Item	**Limit**	**Frequency Range(MHz)**
Conducted Output Power	Fixed: 1 Watt (30dBm) Mobile and Portable: 250mW (24dBm)	5150~5250
	1 Watt (30dBm)	5725~5850

8.2 Test Setup



8.3 Test Procedure

The measurement is according to section 3 of KDB 789033 D02 General UNII Test Procedures New Rules V01.
The EUT was connected to RF power meter via a broadband power sensor as show the block above.

8.4 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.

8.5 Test Date

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		

U-NII-1

Test Mode	Frequency (MHz)	Test Data				Limit (dBm)
		ANT 2 (dBm)	ANT 1 (dBm)	Duty Factor (dB)	Total Power (dBm)	
802.11a	5180	13.30		0	13.30	24
	5200	13.98		0	13.98	
	5240	13.79		0	13.79	
802.11n (HT20)	5180	9.98	9.25	0	12.64	
	5200	9.26	9.01	0	12.15	
	5240	9.23	9.19	0	12.22	
802.11ac (HT20)	5180	9.01	9.41	0	12.22	
	5200	9.18	9.18	0	12.19	
	5240	9.24	9.2	0	12.23	
802.11n (HT40)	5190	9.29	9.15	0	12.23	
	5230	9.05	9.06	0	12.07	
802.11 ac(40)	5190	9.16	9.21	0	12.20	
	5230	9.11	9.12	0	12.13	
802.11 ac(80)	5210	9.13	9.68	0	12.42	

Result： PASS

Remark: The EUT incorporates a MIMO function. Physically, the EUT provides two antennas for transmitting and receiving. All transmitting signals are completely uncorrelated. So the Directional Gain=$G_{ANT\ 2}$=5.86 dBi.

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		

U-NII-3

Test Mode	Frequency (MHz)	Test Data				Limit (dBm)
		ANT 2 (dBm)	ANT 1 (dBm)	Duty Factor (dB)	Total Power (dBm)	
802.11a	5745	14.49		0	14.49	30
	5785	14.69		0	14.69	
	5825	14.23		0	14.23	
802.11n (HT20)	5745	9.27	9.04	0	12.17	
	5785	9.29	9.29	0	12.30	
	5825	9.03	9.11	0	12.08	
802.11ac (HT20)	5745	9.01	9.40	0	12.22	
	5785	9.02	9.17	0	12.11	
	5825	9.13	9.15	0	12.15	
802.11n (HT40)	5755	9.26	9.19	0	12.24	
	5795	9.14	9.21	0	12.19	
802.11 ac(40)	5755	9.24	9.06	0	12.16	
	5795	9.09	9.14	0	12.13	
802.11 ac(80)	5775	9.18	9.23	0	12.22	

Result： PASS

Remark: The EUT incorporates a MIMO function. Physically, the EUT provides two antennas for transmitting and receiving. All transmitting signals are completely uncorrelated. So the Directional Gain=$G_{ANT\ 2}$=2.39 dBi.

9. Power Spectral Density Test

9.1 Test Standard and Limit

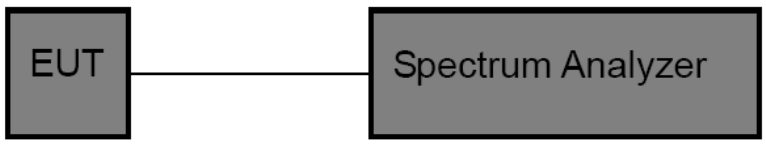
9.1.1 Test Standard

FCC Part 15.407 (a)

9.1.2 Test Limit

FCC Part 15 Subpart E(15.407)		
Test Item	**Limit**	**Frequency Range(MHz)**
Power Spectral Density	Other than Mobile and Portable : 17dBm/MHz Mobile and Portable : 11dBm/MHz	5150~5250
	30dBm/500kHz	5725~5850

9.2 Test Setup



9.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement is according to KDB 789033 D02 General UNII Test Procedures New Rules V01.

(1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.

(2) Set analyser centre frequency to transmitting frequency.

(3) Set the span to encompass the entire emissions bandwidth (EBW)(alternatively, the entire 99% OBW) of the signal.

(4) Set the RBW to: 1 MHz

(5) Set the VBW to: 3 MHz

(6) Detector: RMS

(7) Trace: Max Hold

(7) Sweep time: auto

(8) Trace average at least 100 traces in power averaging.

(9) User the peak marker function to determine the maximum amplitude level within the RBW. Apply correction to the result if different RBW is used.

9.4 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Middle and high channel for the test.

9.5 Test Data

EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		

U-NII-1

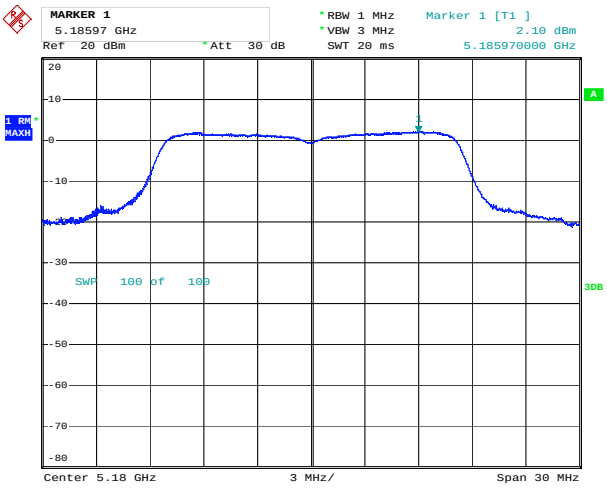
Test Mode	Frequency (MHz)	Test Data				Limit (dBm)
		ANT 2 (dBm)	ANT 1 (dBm)	Duty Factor (dB)	Total Power (dBm)	
802.11a	5180	2.10		0	2.10	11
	5200	2.52		0	2.52	
	5240	3.71		0	3.71	
802.11n (HT20)	5180	-0.92	-1.79	0	1.68	
	5200	0.30	-0.41	0	2.97	
	5240	2.46	0.67	0	4.67	
802.11ac (HT20)	5180	-1.03	-1.64	0	1.69	
	5200	-0.14	-1.11	0	2.41	
	5240	1.46	0.24	0	3.90	
802.11n (HT40)	5190	-3.82	-4.83	0	-1.29	
	5230	-2.22	-3.61	0	0.15	
802.11 ac(40)	5190	-4.14	-5.24	0	-1.64	
	5230	-2.26	-3.33	0	0.25	
802.11 ac(80)	5210	-4.16	-4.31	0	-1.22	

Result： PASS

Remark: The EUT incorporates a MIMO function. Physically, the EUT provides two antennas for transmitting and receiving. All transmitting signals are completely uncorrelated. So the Directional Gain=$G_{ANT\ 2}$=5.86 dBi.

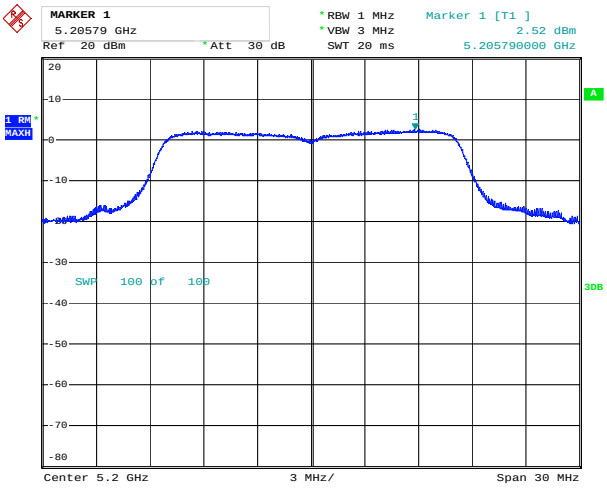
Test plots please refer to below pages:

802.11 a 5180 MHz (ANT 2)



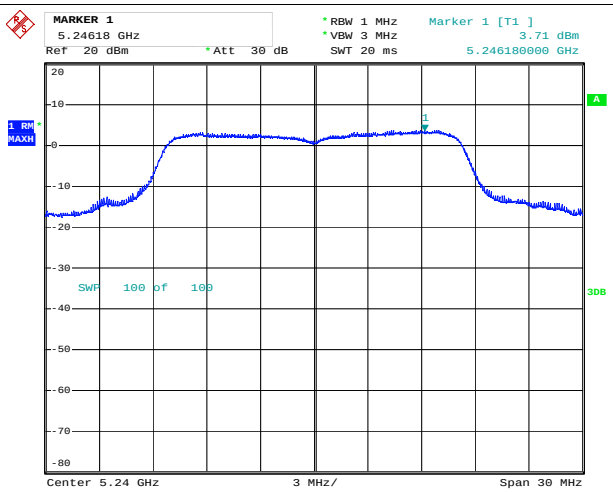
Date: 21.APR.2015 13:28:39

802.11 a 5200 MHz (ANT 2)



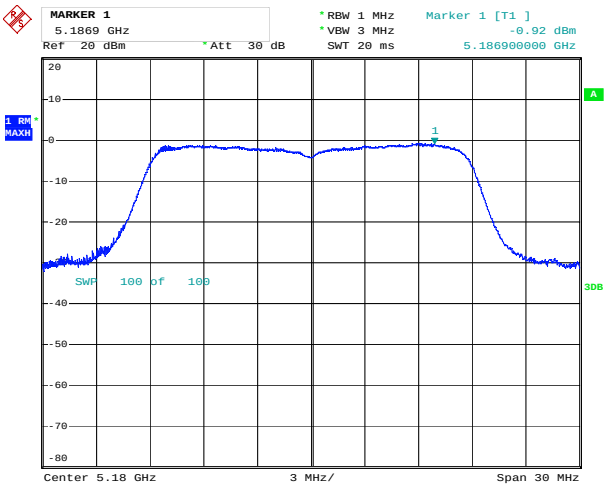
Date: 21.APR.2015 13:29:08

802.11 a 5240 MHz (ANT 2)

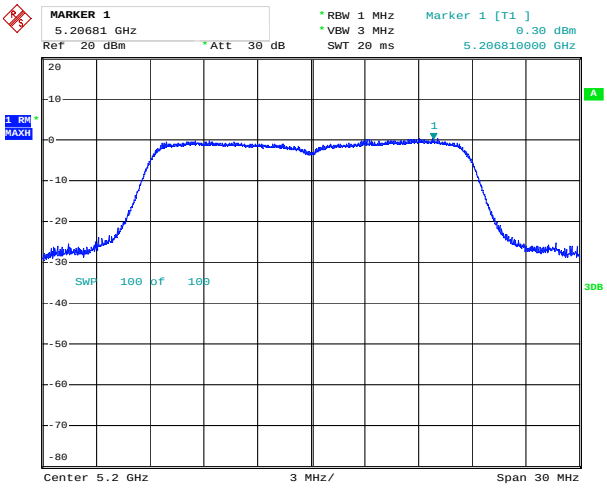


Date: 21.APR.2015 13:29:39

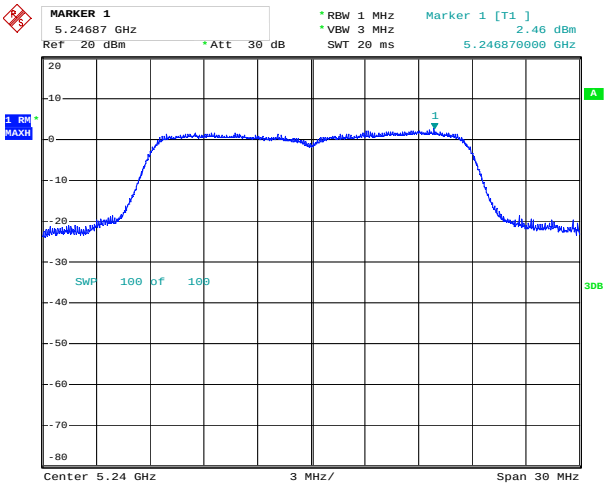
802.11 n(20) 5180 MHz (ANT 2)



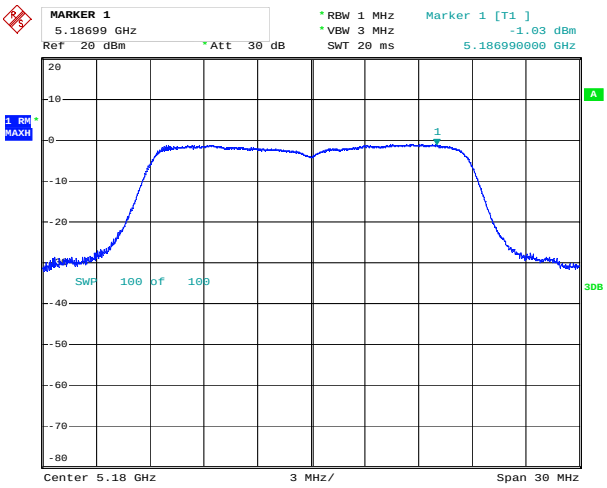
802.11 n(20) 5200 MHz (ANT 2)



802.11 n(20) 5240 MHz (ANT 2)

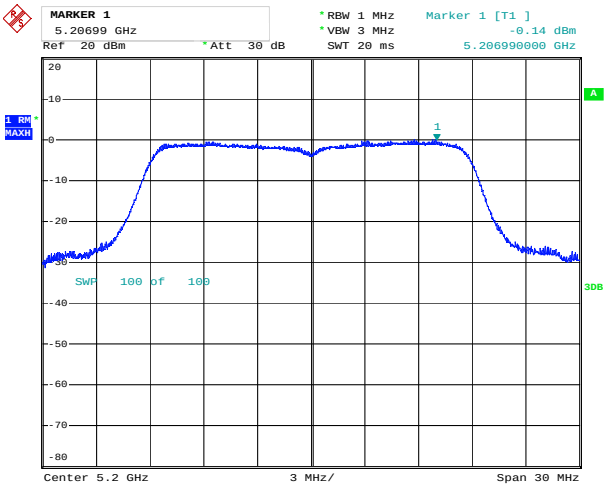


802.11 ac(20) 5180 MHz (ANT 2)



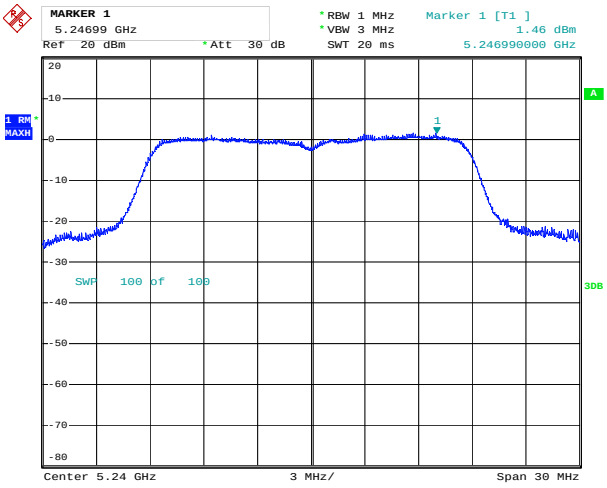
Date: 21.APR.2015 13:31:34

802.11 ac(20) 5200 MHz (ANT 2)



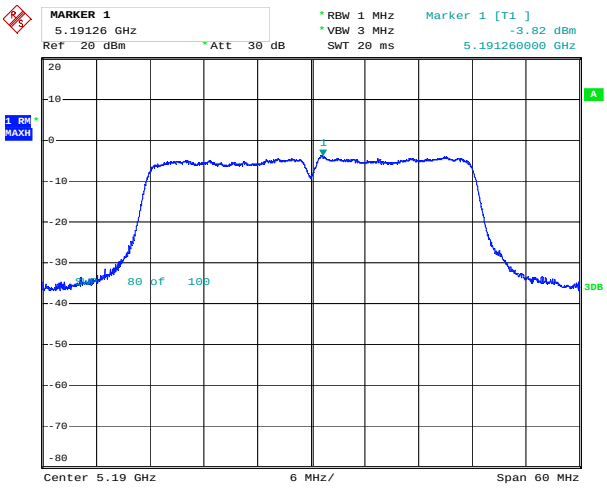
Date: 21.APR.2015 13:32:05

802.11 ac(20) 5240 MHz (ANT 2)



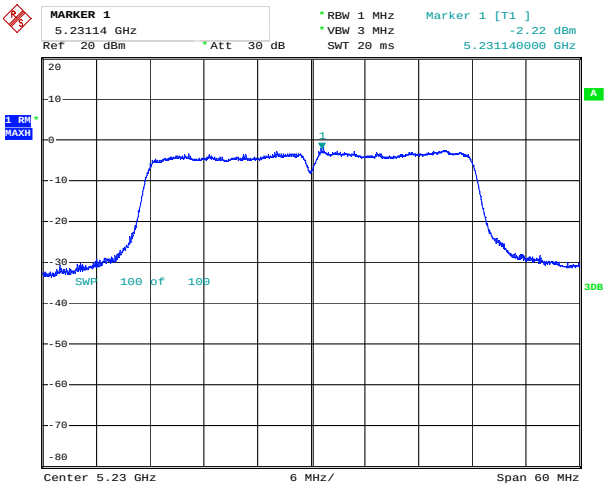
Date: 21.APR.2015 13:32:47

802.11 n(40) 5190 MHz (ANT 2)



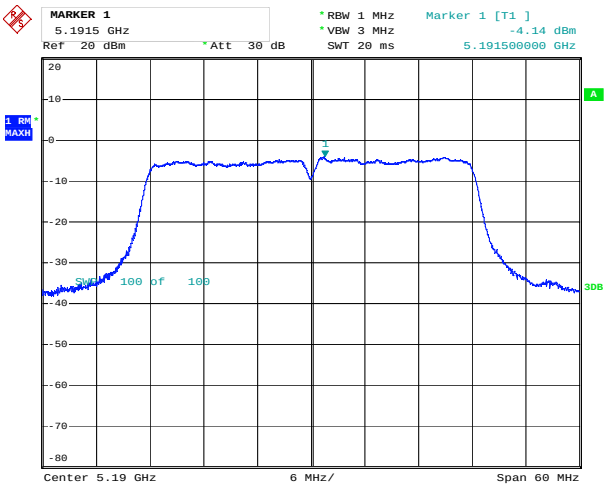
Date: 21.APR.2015 13:33:21

802.11 n(40) 5230 MHz (ANT 2)



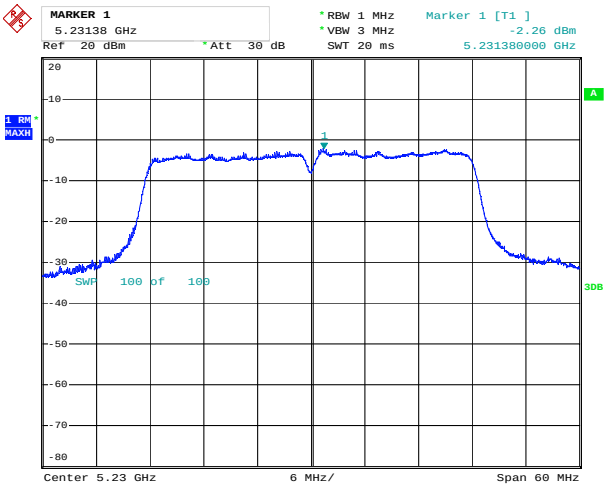
Date: 21.APR.2015 13:33:53

802.11 ac(40) 5190 MHz (ANT 2)



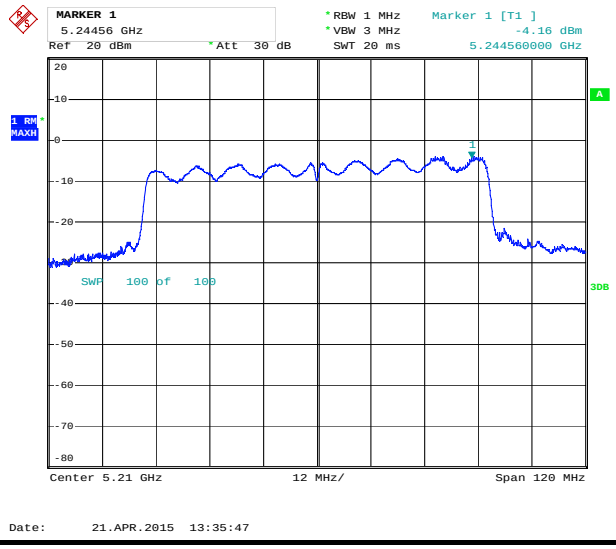
Date: 21.APR.2015 13:35:04

802.11 ac(40) 5230 MHz (ANT 2)

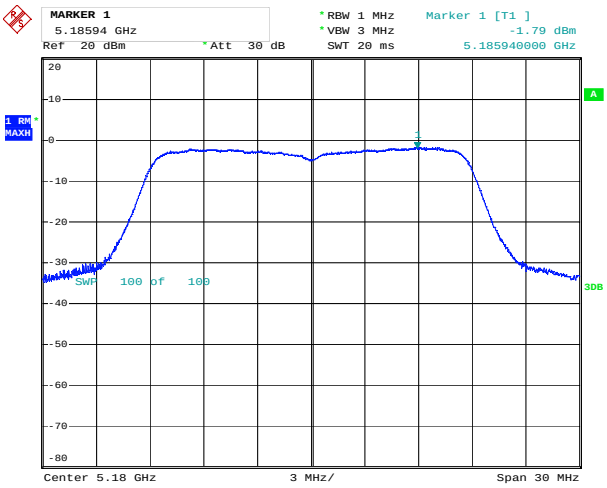


Date: 21.APR.2015 13:34:29

802.11 ac(80) 5210 MHz (ANT 2)

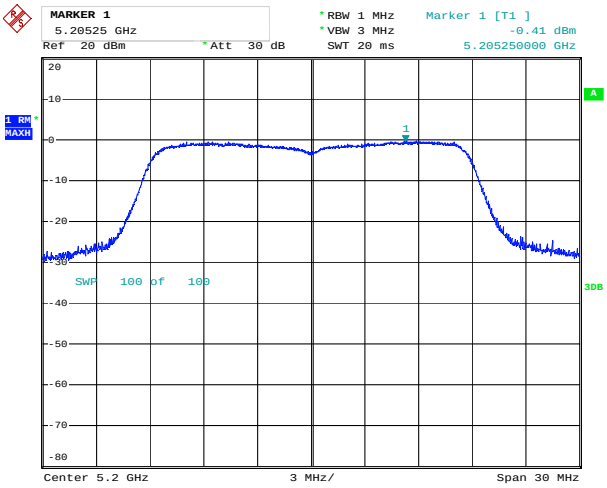


802.11 n(20) 5180 MHz (ANT 1)



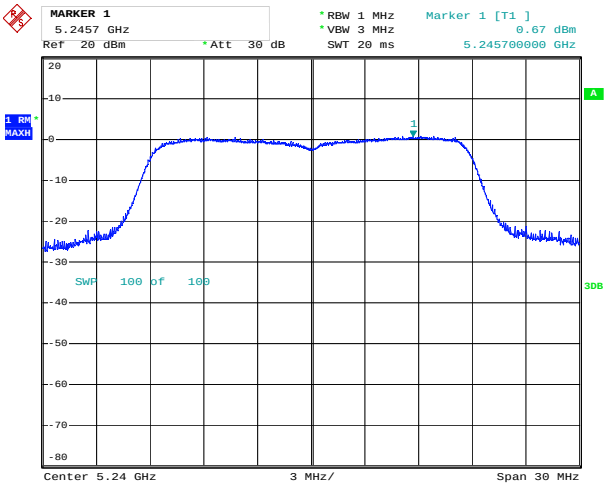
Date: 21.APR.2015 13:07:10

802.11 n(20) 5200 MHz (ANT 1)



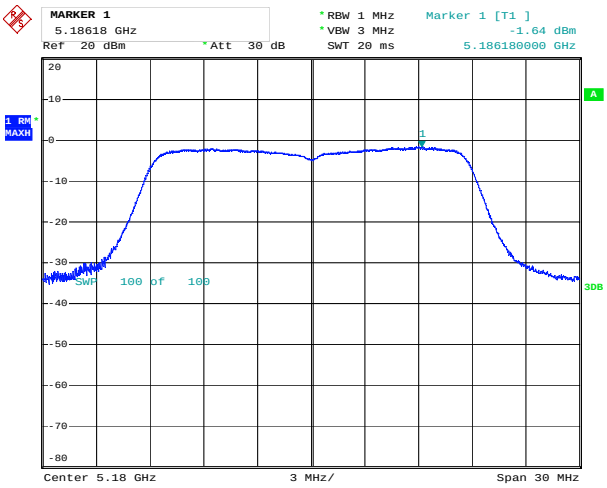
Date: 21.APR.2015 13:14:08

802.11 n(20) 5240 MHz (ANT 1)



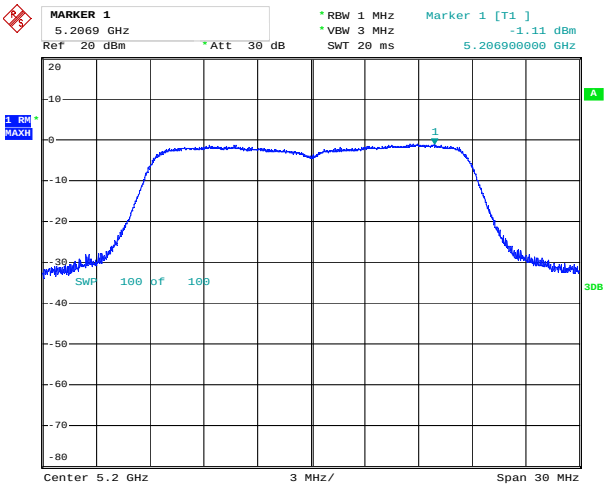
Date: 21.APR.2015 13:06:14

802.11 ac(20) 5180 MHz (ANT 1)



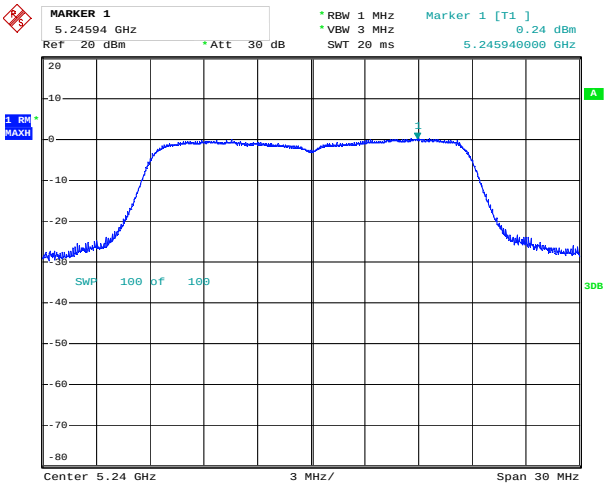
Date: 21.APR.2015 13:07:37

802.11 ac(20) 5200 MHz (ANT 1)



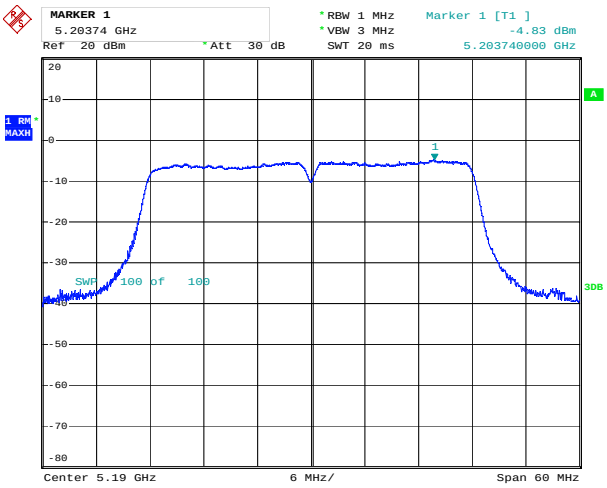
Date: 21.APR.2015 13:08:03

802.11 ac(20) 5240 MHz (ANT 1)



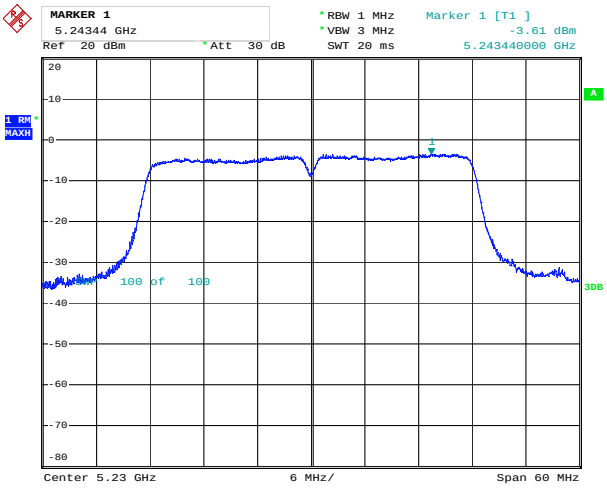
Date: 21.APR.2015 13:08:46

802.11 n(40) 5190 MHz (ANT 1)



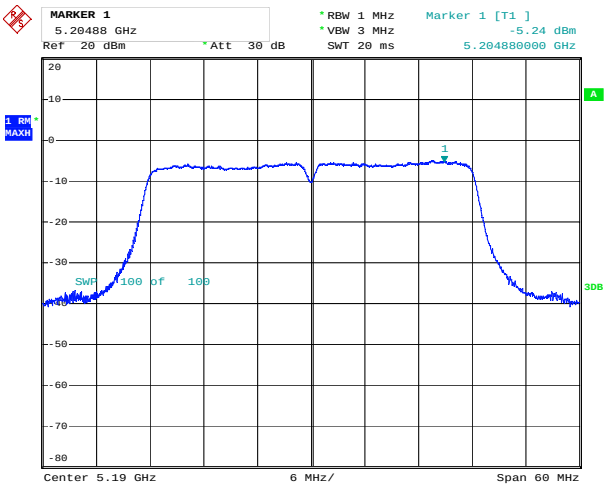
Date: 21.APR.2015 13:09:26

802.11 n(40) 5230 MHz (ANT 1)



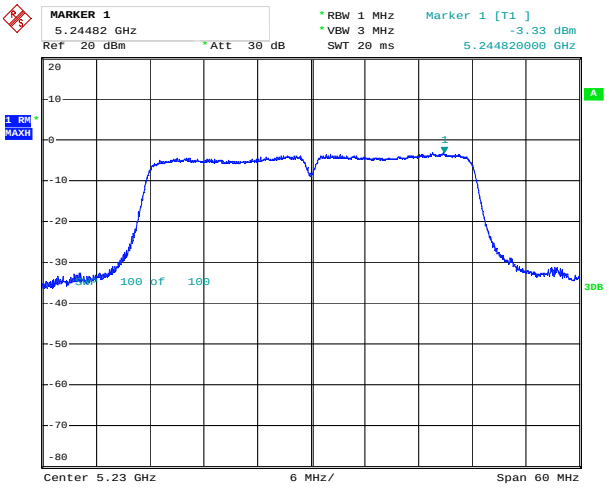
Date: 21.APR.2015 13:09:59

802.11 ac(40) 5190 MHz (ANT 1)



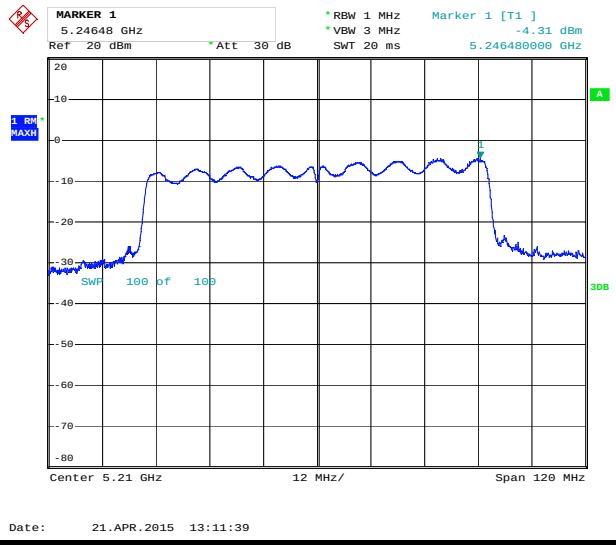
Date: 21.APR.2015 13:11:00

802.11 ac(40) 5230 MHz (ANT 1)



Date: 21.APR.2015 13:10:29

802.11 ac(80) 5210 MHz (ANT 1)



EUT:	ScreenBeam 802.11 a/b/g/n/ac WiFi Module	Model Name :	SBRT8812AUA
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	DC 5V		

U-NII-3

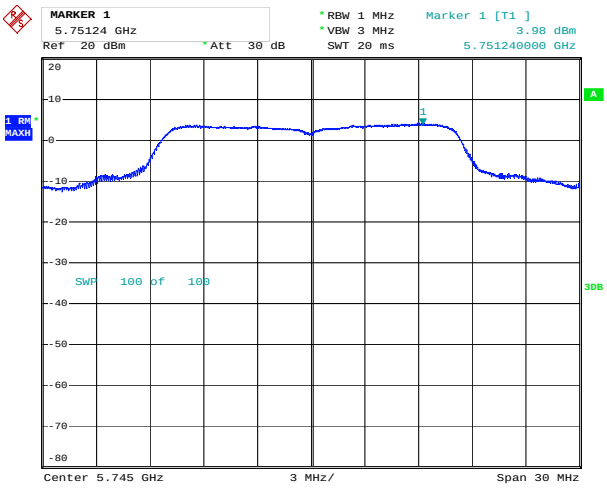
Test Mode	Frequency (MHz)	Test Data					Limit (dBm)
		ANT 2 (dBm)	ANT 1 (dBm)	Duty Factor (dB)	Bandwidth Factor (dB)	Total Power (dBm)	
802.11a	5745	3.98		0	-3.01	2.43	30
	5785	5.56		0	-3.01	3.61	
	5825	6.63		0	-3.01	4.47	
802.11n (HT20)	5745	2.44	0.49	0	-3.01	1.57	
	5785	4.24	1.75	0	-3.01	3.17	
	5825	5.19	2.80	0	-3.01	4.16	
802.11ac (HT20)	5745	2.22	0.69	0	-3.01	1.52	
	5785	3.91	1.96	0	-3.01	3.04	
	5825	4.66	2.41	0	-3.01	3.68	
802.11n (HT40)	5755	0.02	-2.59	0	-3.01	-1.09	
	5795	1.56	-1.21	0	-3.01	0.39	
802.11 ac(40)	5755	-0.25	-2.89	0	-3.01	-1.37	
	5795	1.48	1.18	0	-3.01	1.33	
802.11 ac(80)	5775	-1.38	-3.01	0	-3.01	-2.12	

Result: PASS

Remark: The EUT incorporates a MIMO function. Physically, the EUT provides two antennas for transmitting and receiving. All transmitting signals are completely uncorrelated. So the Directional Gain=$G_{ANT\ 2}$=2.39 dBi.

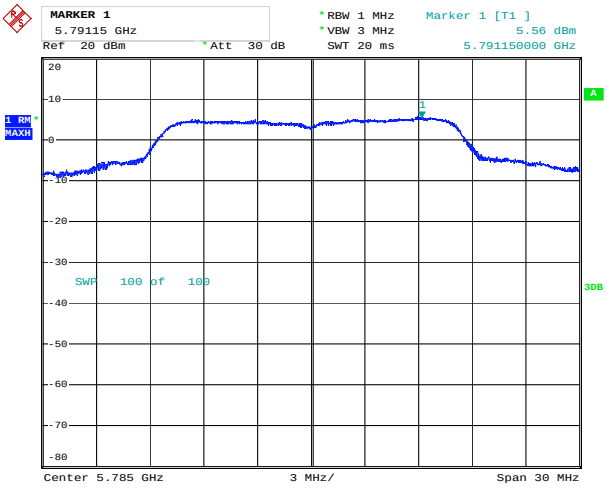
Test plots please refer to below pages:

802.11 a 5745 MHz (ANT 2)



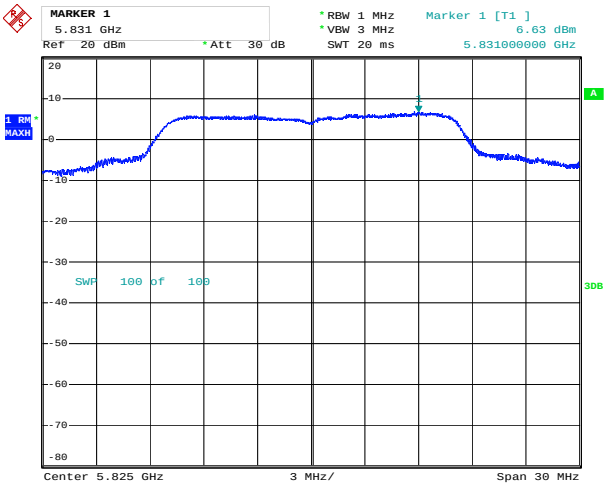
Date: 21.APR.2015 13:38:07

802.11 a 5785 MHz (ANT 2)



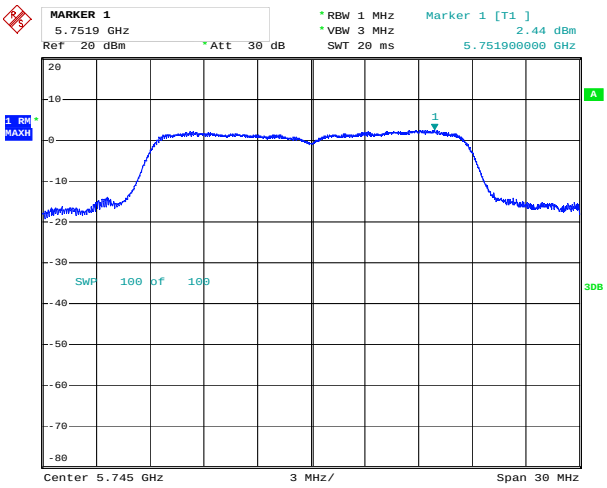
Date: 21.APR.2015 13:38:39

802.11 a 5825 MHz (ANT 2)



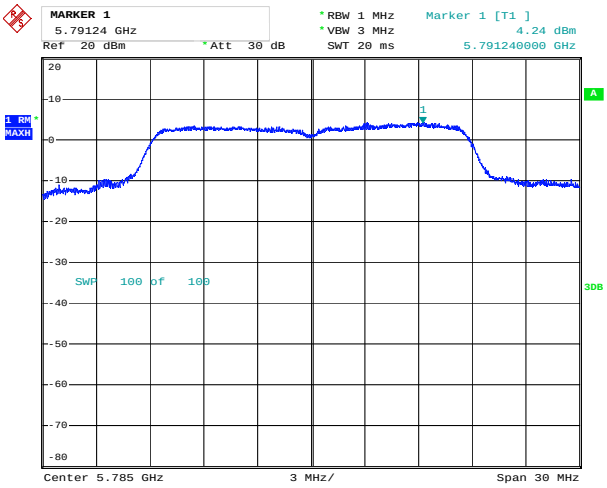
Date: 21.APR.2015 13:39:18

802.11 n(20) 5745 MHz (ANT 2)



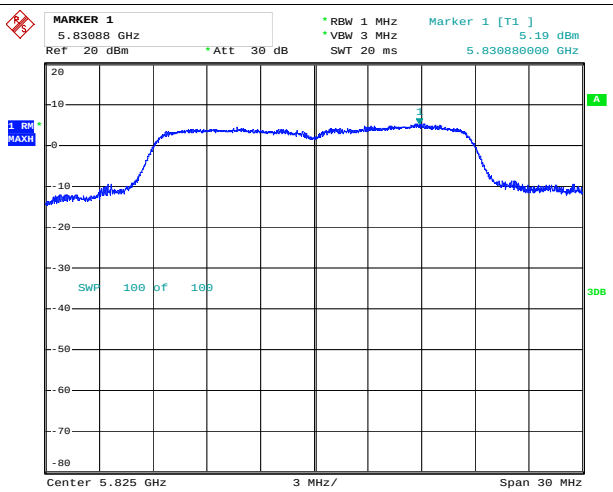
Date: 21.APR.2015 13:41:01

802.11 n(20) 5785 MHz (ANT 2)



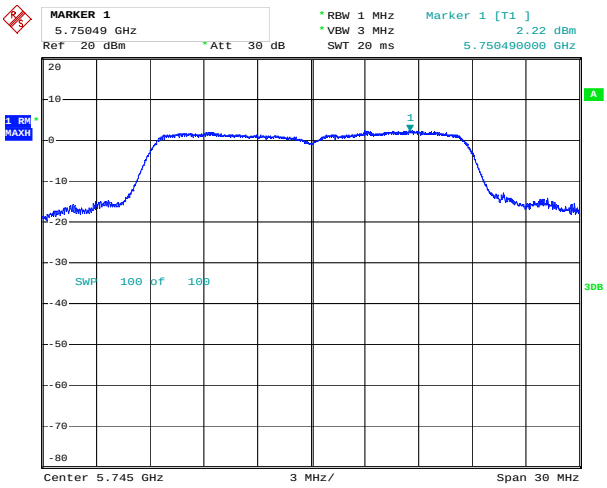
Date: 21.APR.2015 13:40:28

802.11 n(20) 5825 MHz (ANT 2)



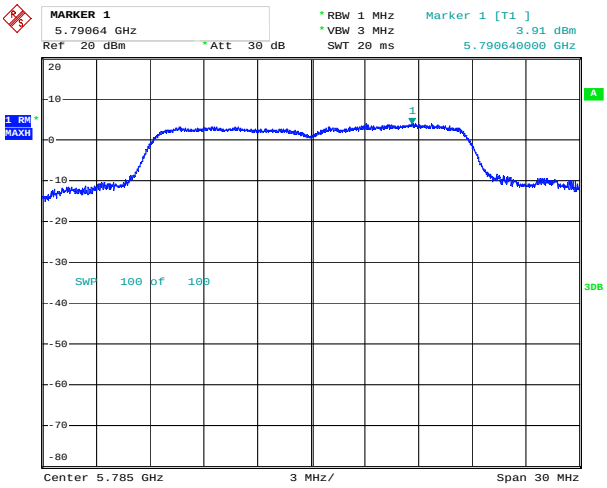
Date: 21.APR.2015 13:39:57

802.11 ac(20) 5745 MHz (ANT 2)



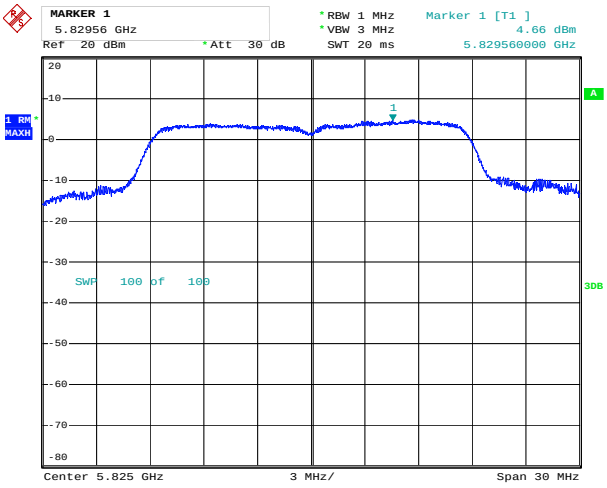
Date: 21.APR.2015 13:41:35

802.11 ac(20) 5785 MHz (ANT 2)



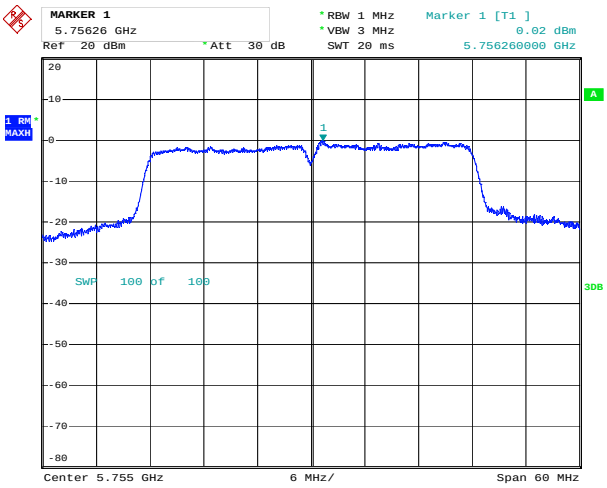
Date: 21.APR.2015 13:42:05

802.11 ac(20) 5825 MHz (ANT 2)



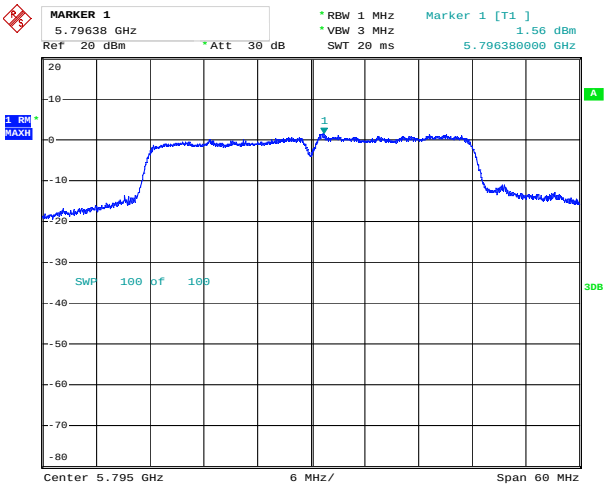
Date: 21.APR.2015 13:42:40

802.11 n(40) 5755 MHz (ANT 2)



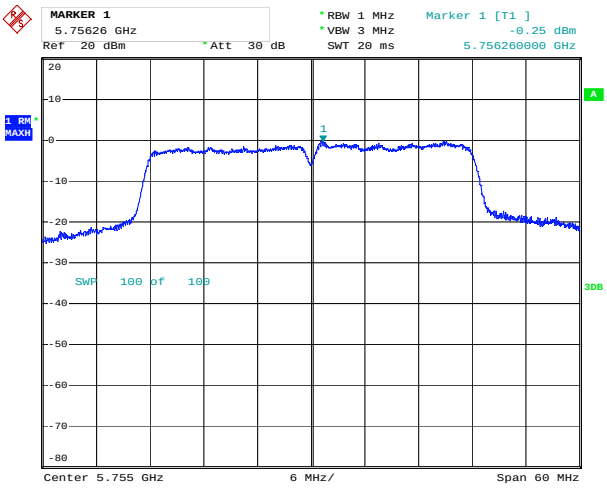
Date: 21.APR.2015 13:43:16

802.11 n(40) 5795 MHz (ANT 2)



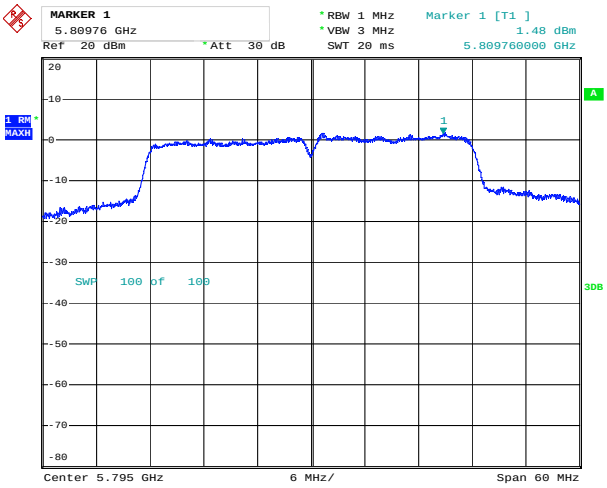
Date: 21.APR.2015 13:43:51

802.11 ac(40) 5755 MHz (ANT 2)



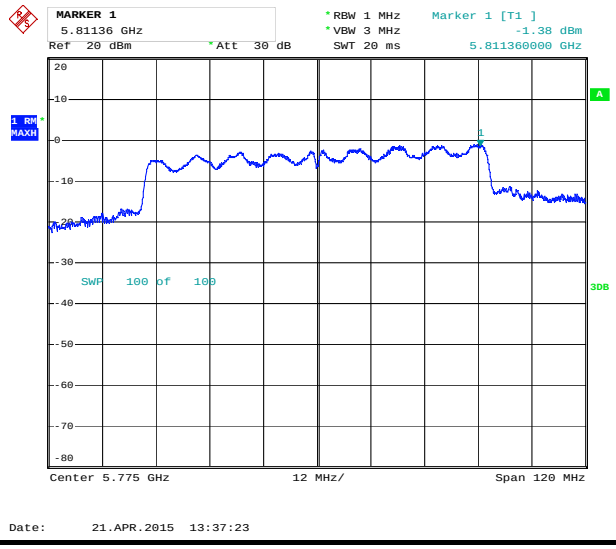
Date: 21.APR.2015 13:45:00

802.11 ac(40) 5795 MHz (ANT 2)

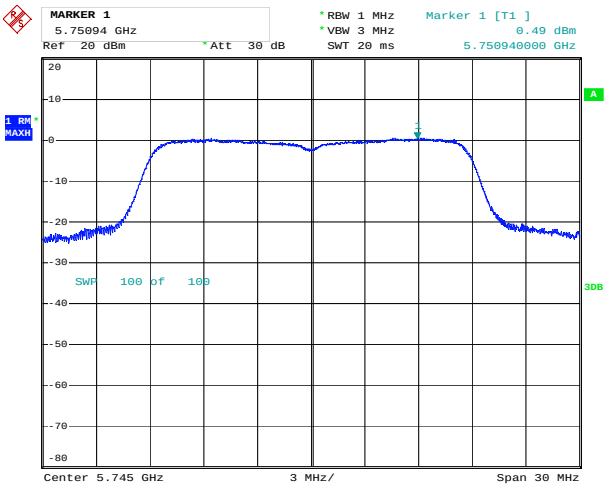


Date: 21.APR.2015 13:44:31

802.11 ac(80) 5775 MHz (ANT 2)

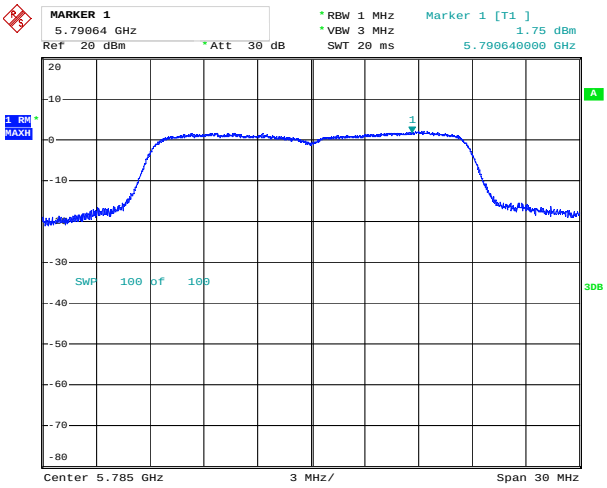


802.11 n(20) 5745 MHz (ANT 1)



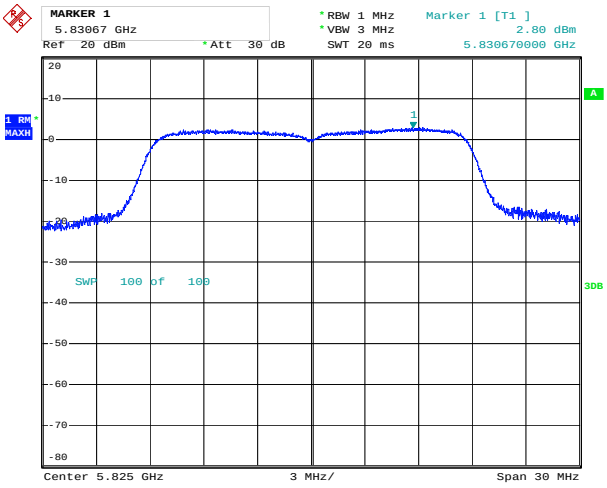
Date: 21.APR.2015 13:19:38

802.11 n(20) 5785 MHz (ANT 1)



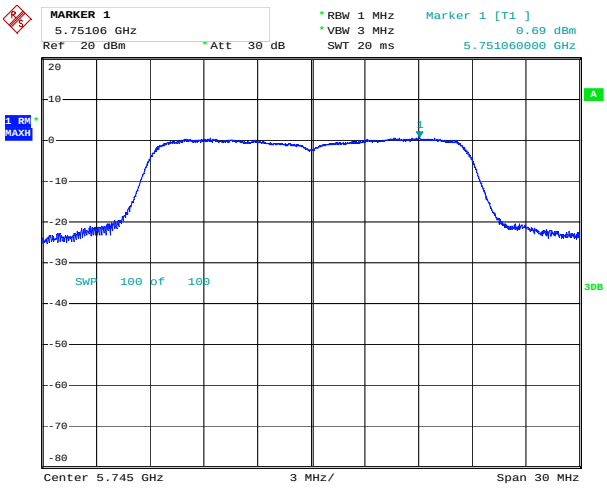
Date: 21.APR.2015 13:19:04

802.11 n(20) 5825 MHz (ANT 1)



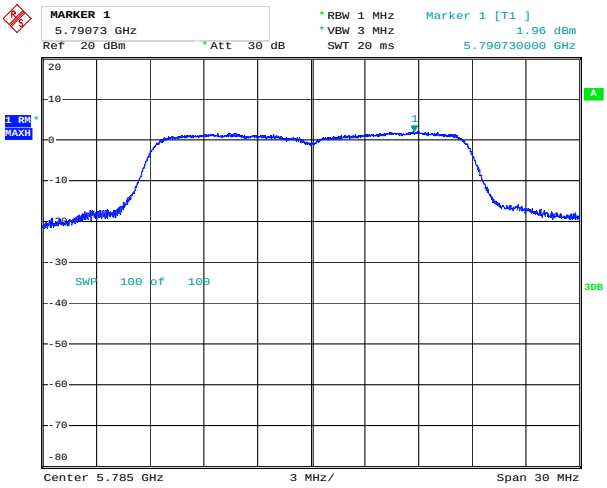
Date: 21.APR.2015 13:18:31

802.11 ac(20) 5745 MHz (ANT 1)



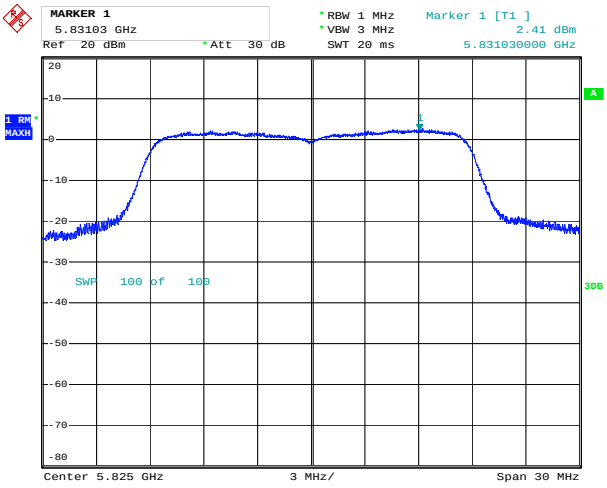
Date: 21.APR.2015 13:20:50

802.11 ac(20) 5785 MHz (ANT 1)



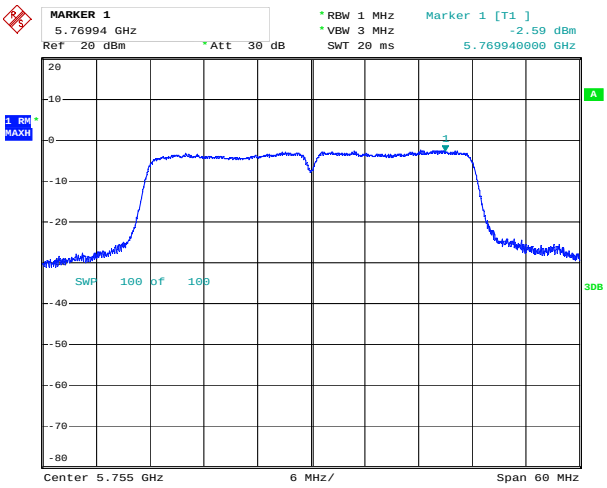
Date: 21.APR.2015 13:21:18

802.11 ac(20) 5825 MHz (ANT 1)



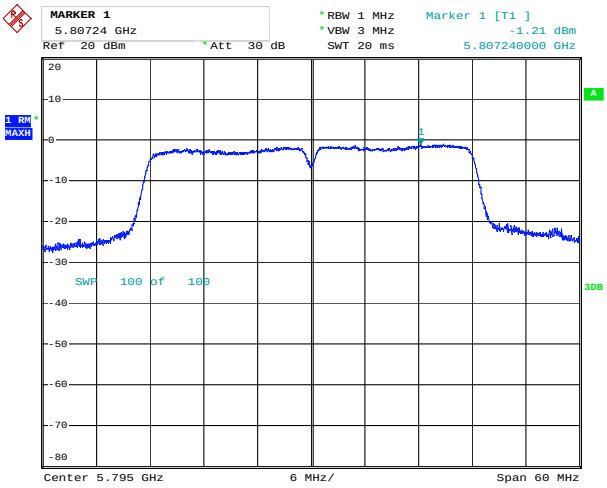
Date: 21.APR.2015 13:21:54

802.11 n(40) 5755 MHz (ANT 1)



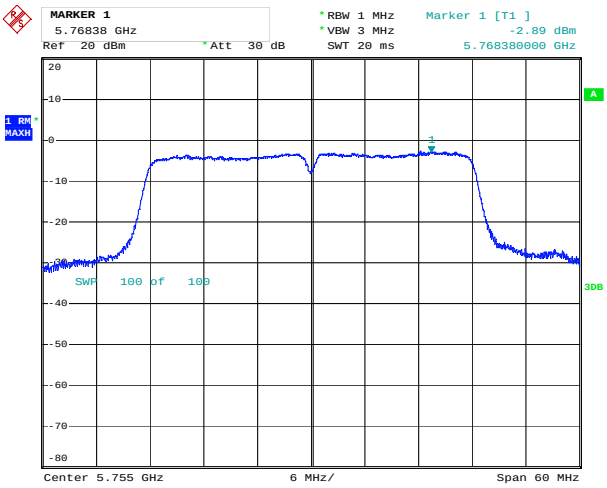
Date: 21.APR.2015 13:22:29

802.11 n(40) 5795 MHz (ANT 1)



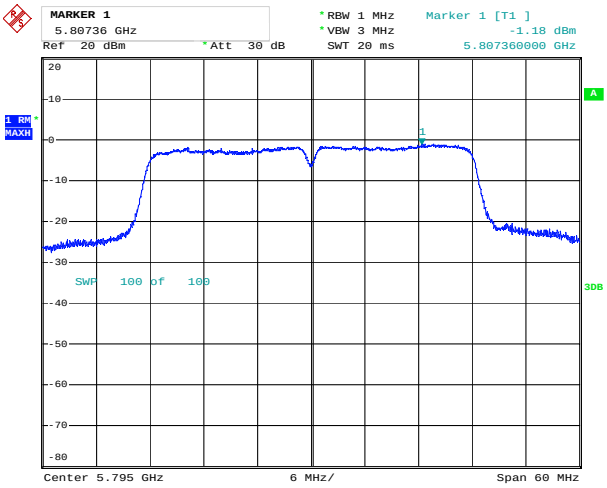
Date: 21.APR.2015 13:23:07

802.11 ac(40) 5755 MHz (ANT 1)



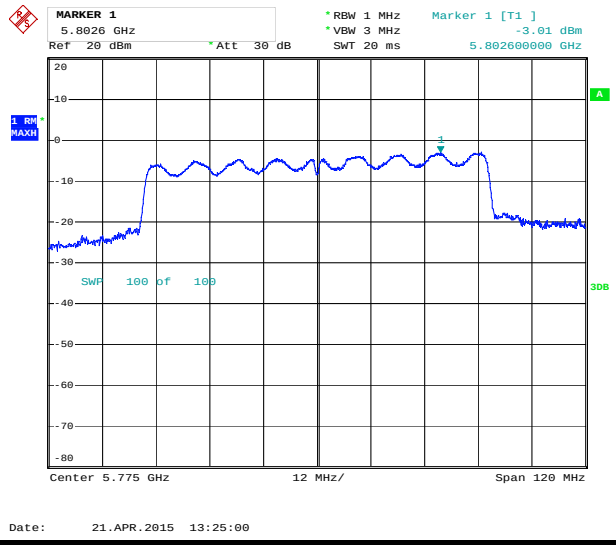
Date: 21.APR.2015 13:24:15

802.11 ac(40) 5795 MHz (ANT 1)



Date: 21.APR.2015 13:23:43

802.11 ac(80) 5775 MHz (ANT 1)



10. Frequency Stability Measurement

10.1 Test Standard and Limit

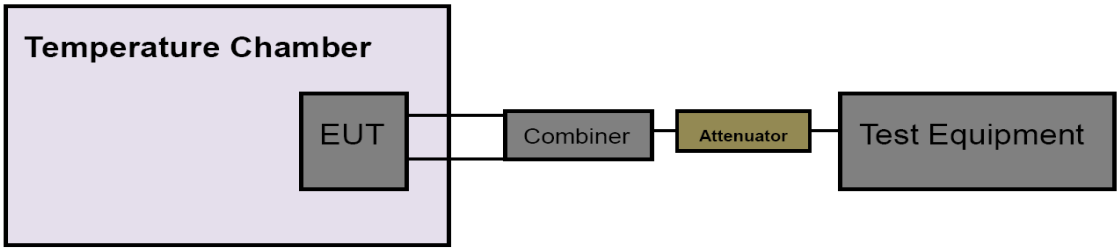
10.1.1 Test Standard

FCC Part 15.407

10.1.2 Test Limit

FCC Part 15 Subpart C(15.407)		
Test Item	**Limit**	**Frequency Range(MHz)**
Peak Excursion Measurement	Specified in the user's manual, the transmitter center frequency tolerance shall be ±20 ppm maximum for the 5 GHz band (IEEE 802.11n specification)	5150~5250
		5725~5850

10.2 Test Setup



10.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above.

(1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.

(2) Set analyser centre frequency to transmitting frequency.

(3) Set the span to encompass the entire emissions bandwidth (EBW) of the signal.

(4) Set the RBW to: 10 kHz, VBW=10 kHz with peak detector and maxhold settings.

(5) The test extreme voltage is to change the primary supply voltage from 85 to 115 percent of the nominal value.

(6) Extreme temperature is 0℃~50℃

10.4 EUT Operating Condition

The EUT was set to continuously transmitting in continuously un-modulation transmitting mode.

10.5 Test Data

801.11a U-NII-1: 5200 MHz	
Voltage vs. Frequency Stability	
Voltage (V)	**Measurement Frequency (MHz)**
132	5199.9926
120	5199.9954
118	5199.9975
Max. Deviation (MHz)	0.0074
Max. Deviation (ppm)	1.42
Temperature vs. Frequency Stability	
Temperature (℃)	**Measurement Frequency (MHz)**
0	5199.9928
10	5199.9947
20	5199.9966
30	5199.9973
40	5199.9978
50	5199.9988
Max. Deviation (MHz)	0.0072
Max. Deviation (ppm)	1.38

801.11a U-NII-3: 5745 MHz	
Voltage vs. Frequency Stability	
Voltage (V)	**Measurement Frequency (MHz)**
132	5745.0086
120	5745.0092
118	5745.0098
Max. Deviation (MHz)	0.0098
Max. Deviation (ppm)	1.71
Temperature vs. Frequency Stability	
Temperature (℃)	**Measurement Frequency (MHz)**
0	5745.0023
10	5745.0016
20	5745.0018
30	5745.0026
40	5745.0033
50	5745.0068
Max. Deviation (MHz)	0.0068
Max. Deviation (ppm)	1.18

11. Antenna Requirement

11.1 Standard Requirement

11.1.1 Standard

FCC Part 15.203

11.1.2 Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

11.2 Antenna Connected Construction

The directional gains of the antenna used for transmitting is 5.86 dBi (5150MHz~5250MHz) and 2.39 dBi(5725MHz~5850MHz), and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

11.3 Result

The EUT antennas are Embedded Antenna. It complies with the standard requirement.

Antenna Type
☑ Permanent attached antenna
☐ Unique connector antenna
☐ Professional installation antenna