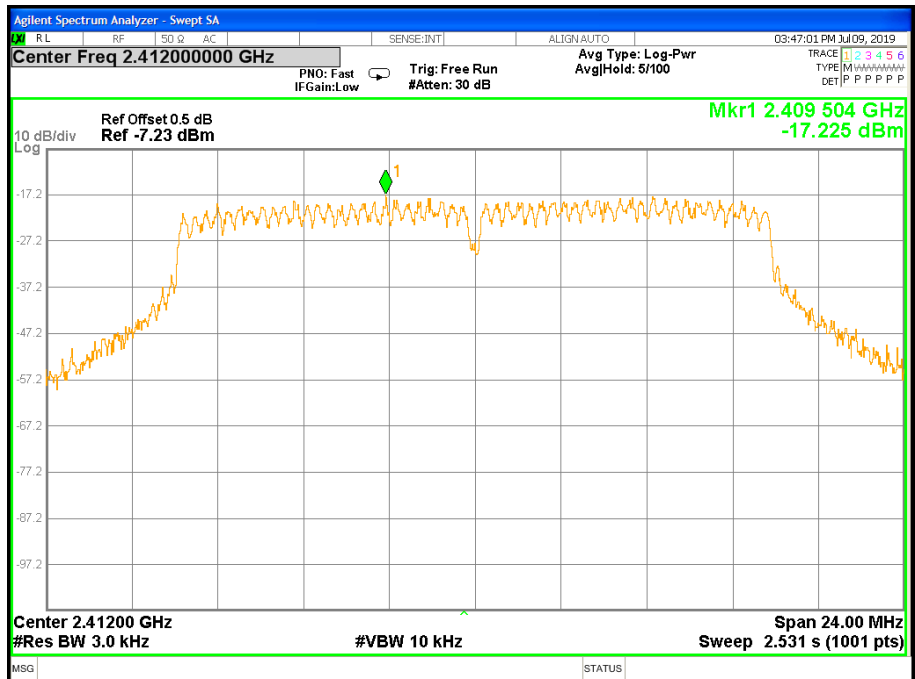




Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX g Mode /CH01, CH06, CH11

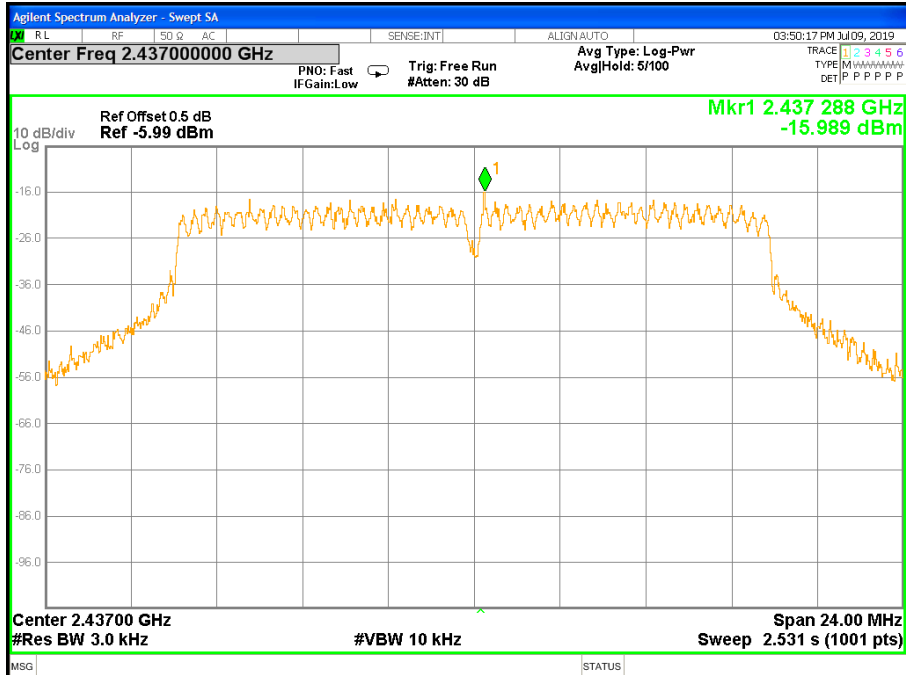
Frequency	Power Density			Limit (dBm)	Result
	ANT A (dBm)	ANT B (dBm)	TOTAL (dBm)		
2412	-17.23	-18.19	--	8	PASS
2437	-15.99	-18.60	--	8	PASS
2462	-16.53	-18.02	--	8	PASS

Antenna A
TX CH01

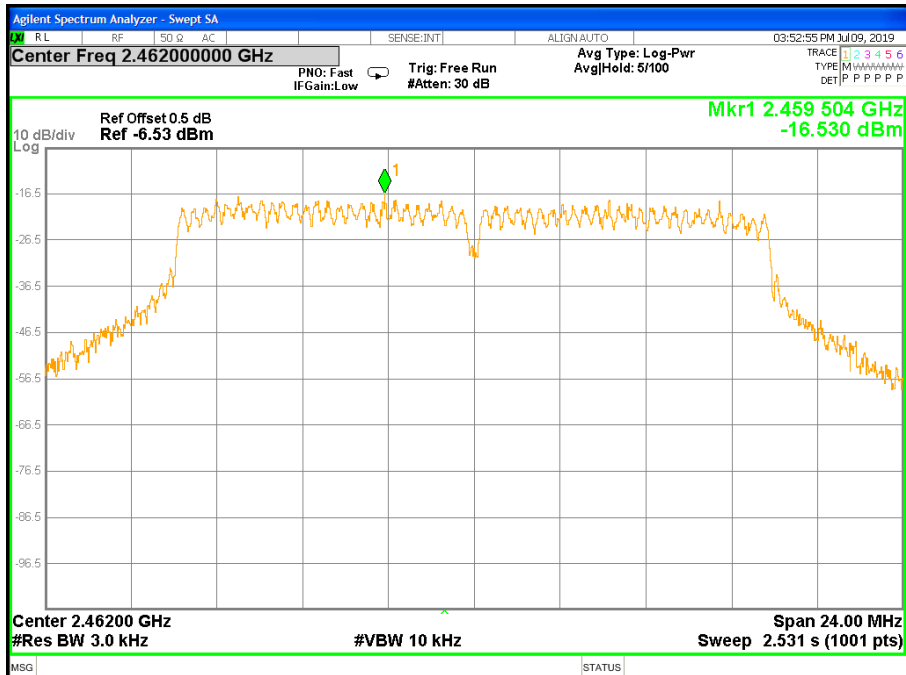




TX CH06



TX CH11

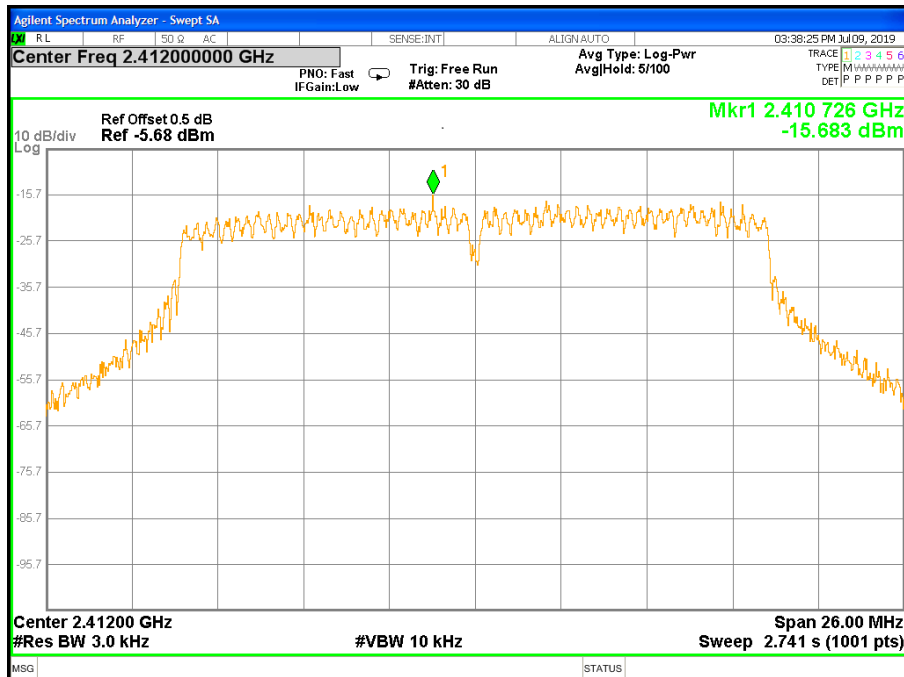




Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n Mode(20M) /CH01, CH06, CH11

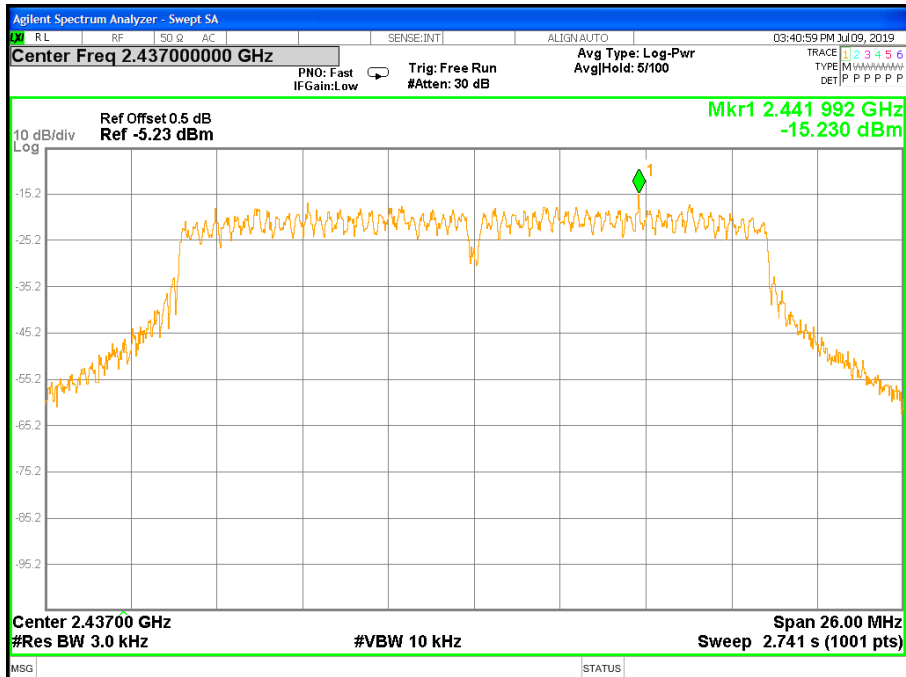
Frequency	Power Density			Limit (dBm)	Result
	ANT A (dBm)	ANT B (dBm)	TOTAL (dBm)		
2412	-15.68	-15.41	-12.54	6.79	PASS
2437	-15.23	-17.88	-13.34	6.79	PASS
2462	-17.01	-17.56	-14.27	6.79	PASS

Antenna A
TX CH01

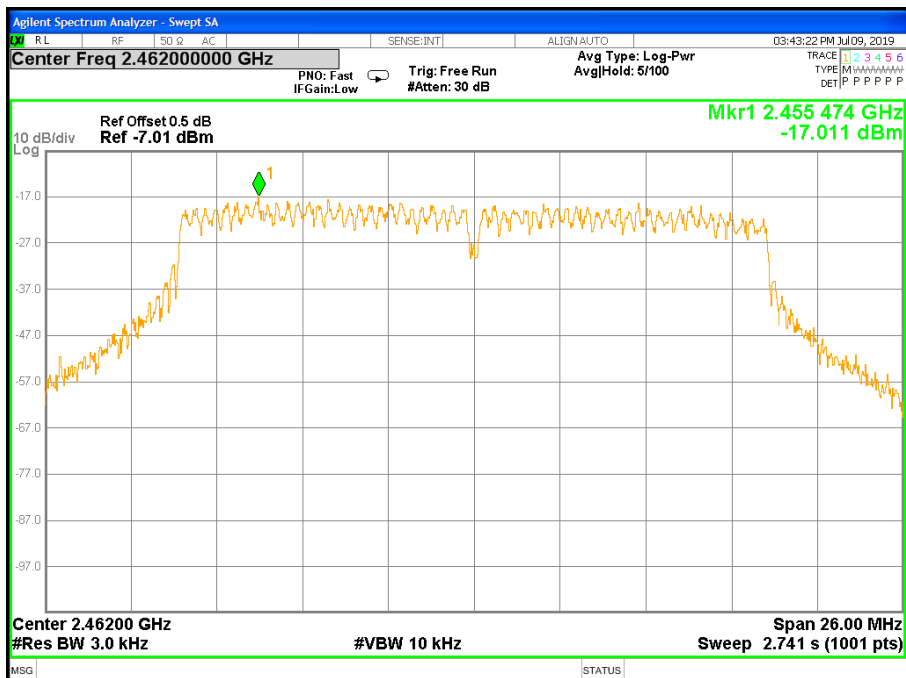




TX CH06



TX CH11

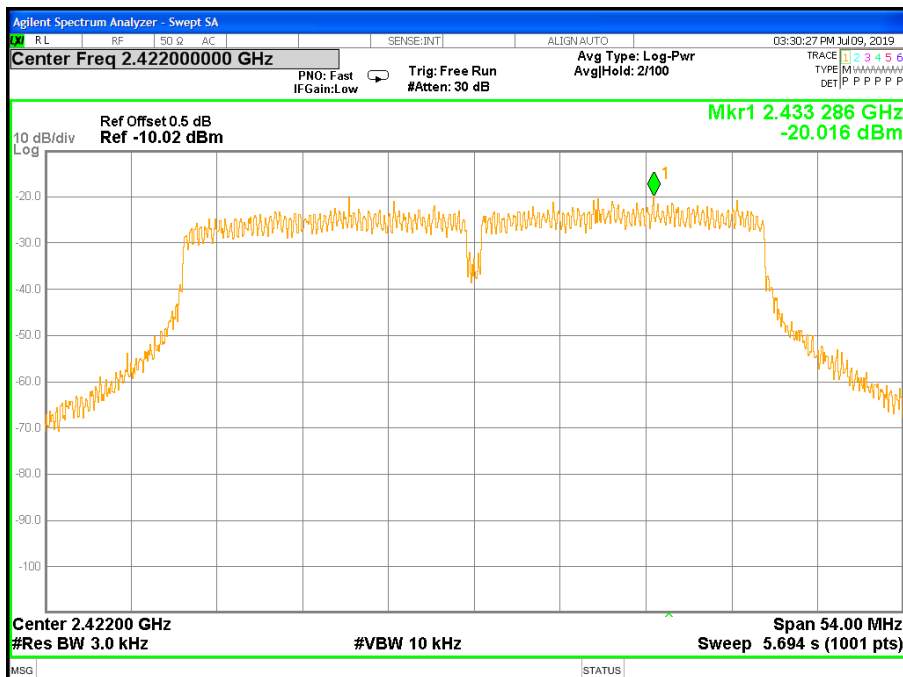




Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n Mode(40M) /CH03, CH06, CH09

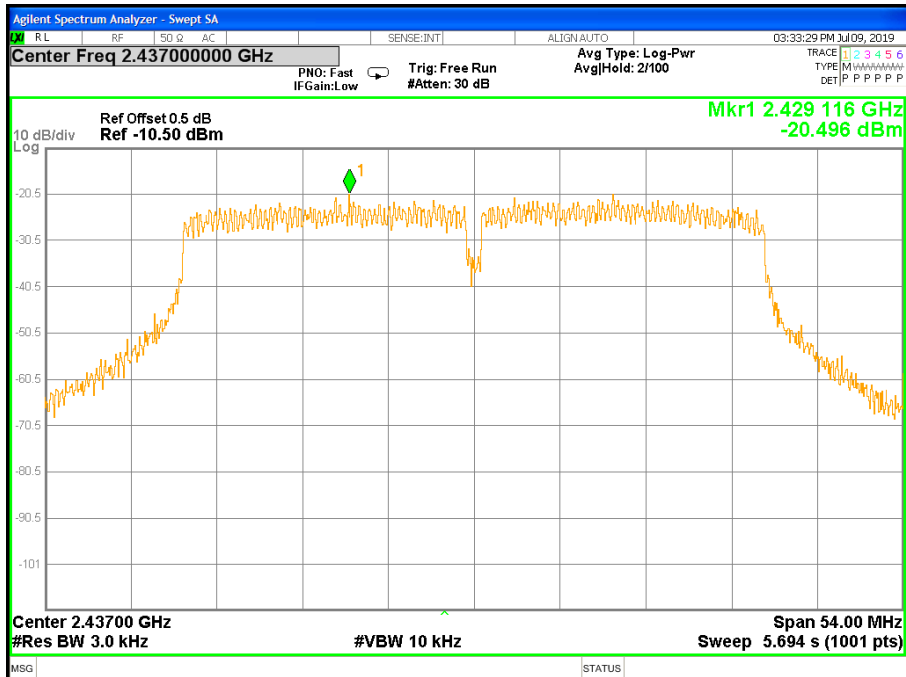
Frequency	Power Density			Limit (dBm)	Result
	ANT A (dBm)	ANT B (dBm)	TOTAL (dBm)		
2422	-20.02	-21.16	-17.54	6.79	PASS
2437	-20.50	-21.09	-17.77	6.79	PASS
2452	-20.99	-21.09	-18.03	6.79	PASS

Antenna A
TX CH03

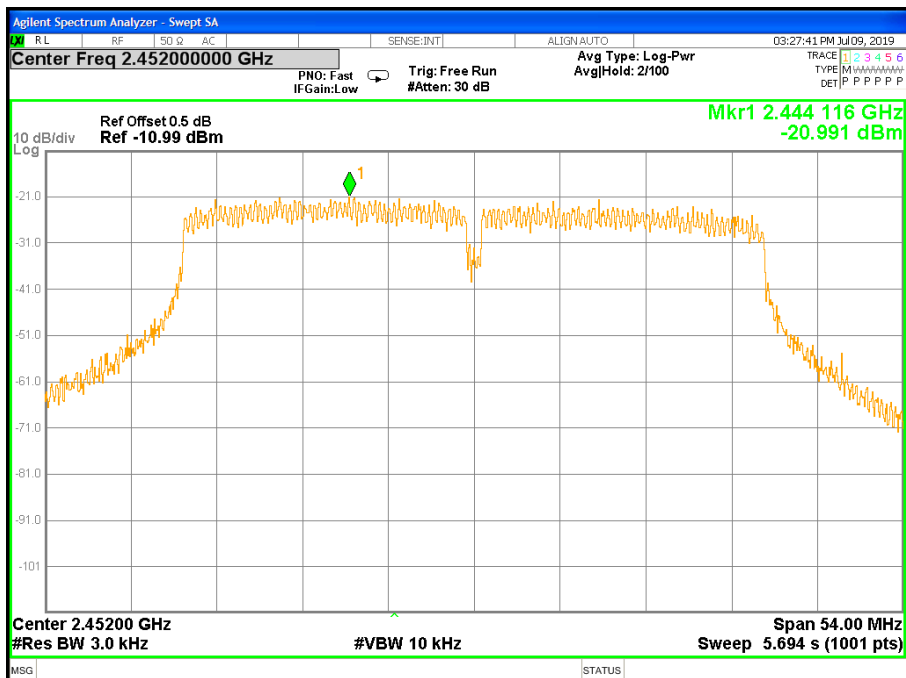




TX CH06



TX CH09





6. BANDWIDTH TEST

6.1 LIMIT

FCC Part15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(a)(2)	Bandwidth	$\geq 500\text{KHz}$ (6dB bandwidth)	2400-2483.5	PASS

6.2 TEST PROCEDURE

The automatic bandwidth measurement capability of an instrument may be employed using the X dB bandwidth mode with X set to 6 dB, if the functionality described above (i.e., RBW = 100 kHz, VBW \geq 3RBW, peak detector with maximum hold) is implemented by the instrumentation function. When using this capability, care shall be taken so that the bandwidth measurement is not influenced by any intermediate power nulls in the fundamental emission that might be ≥ 6 dB.

6.3 DEVIATION FROM STANDARD

No deviation.

6.4 TEST SETUP



6.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.



6.6 TEST RESULTS

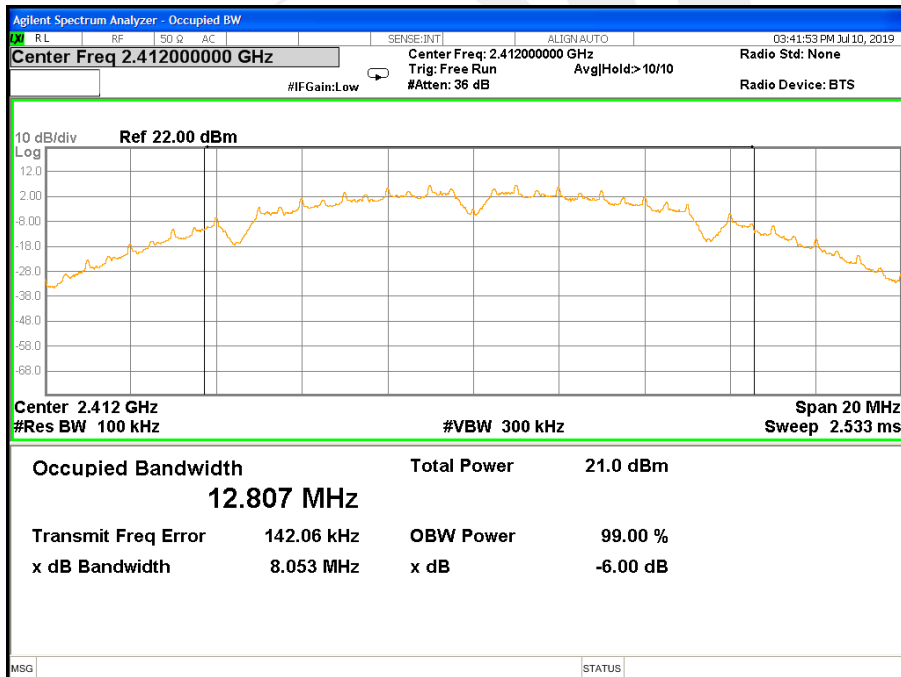
Note: Antenna A Power > Antenna B Power, Both antenna A and B have been test, Only show the worst data of Antenna A

Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX b Mode /CH01, CH06, CH11

Remark: PEAK DETECTOR IS USED

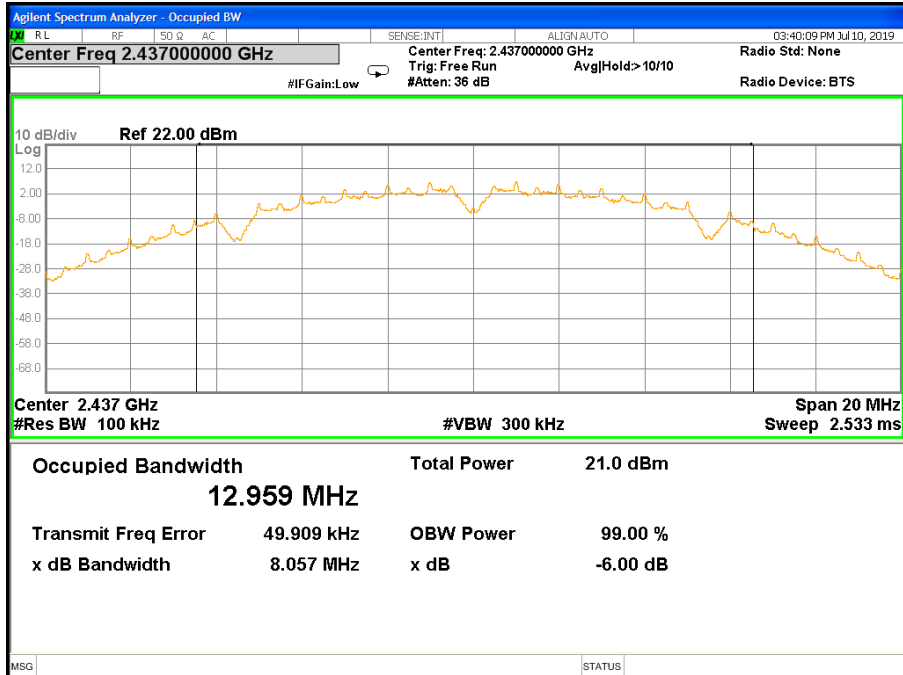
Frequency	6dB Bandwidth(MHz)		Channel Separation	Result
	Antenna -A	Antenna -B	(KHz)	
2412 MHz	8.053	8.006	≥500KHz	PASS
2437 MHz	8.057	8.055	≥500KHz	PASS
2462 MHz	8.06	8.038	≥500KHz	PASS

Antenna A
TX CH 01

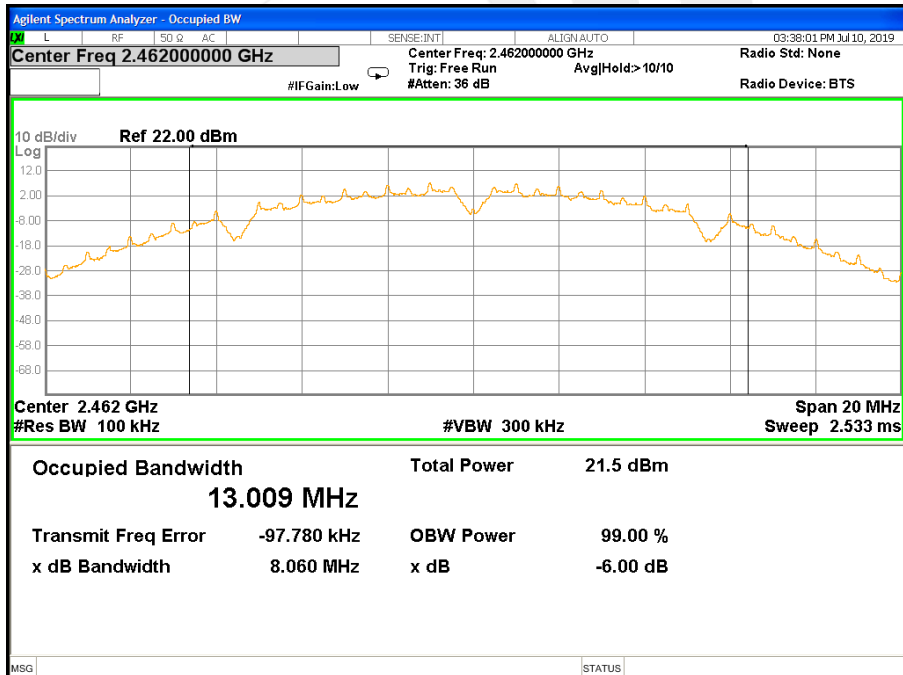




TX CH 06



TX CH 11



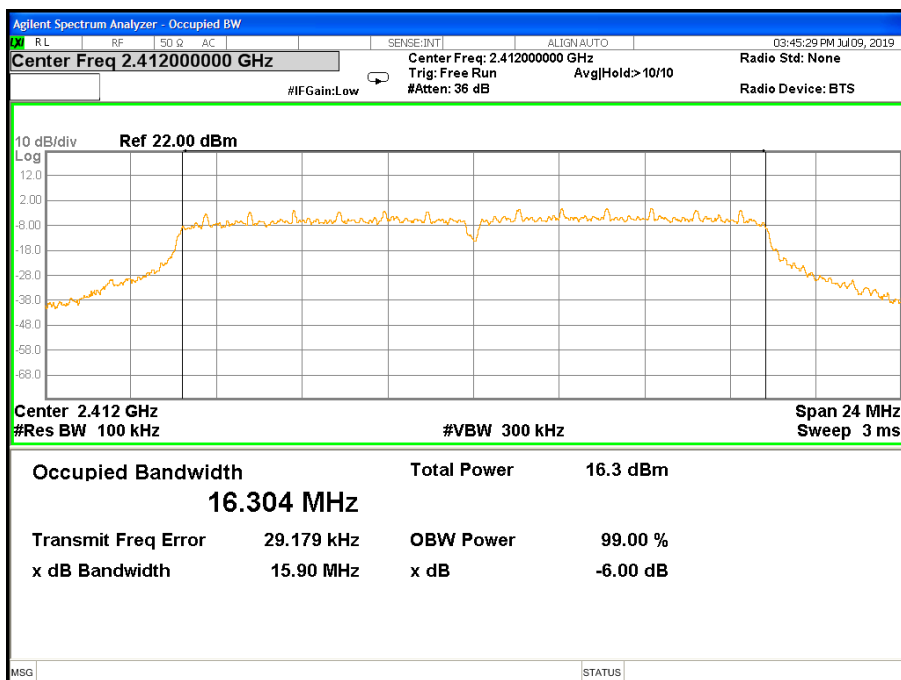


Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX g Mode /CH01, CH06, CH11

Frequency	6dB Bandwidth(MHz)		Channel Separation (KHz)	Result
	Antenna -A	Antenna -B		
2412 MHz	15.90	15.83	≥500KHz	PASS
2437 MHz	16.02	15.96	≥500KHz	PASS
2462 MHz	15.93	15.88	≥500KHz	PASS

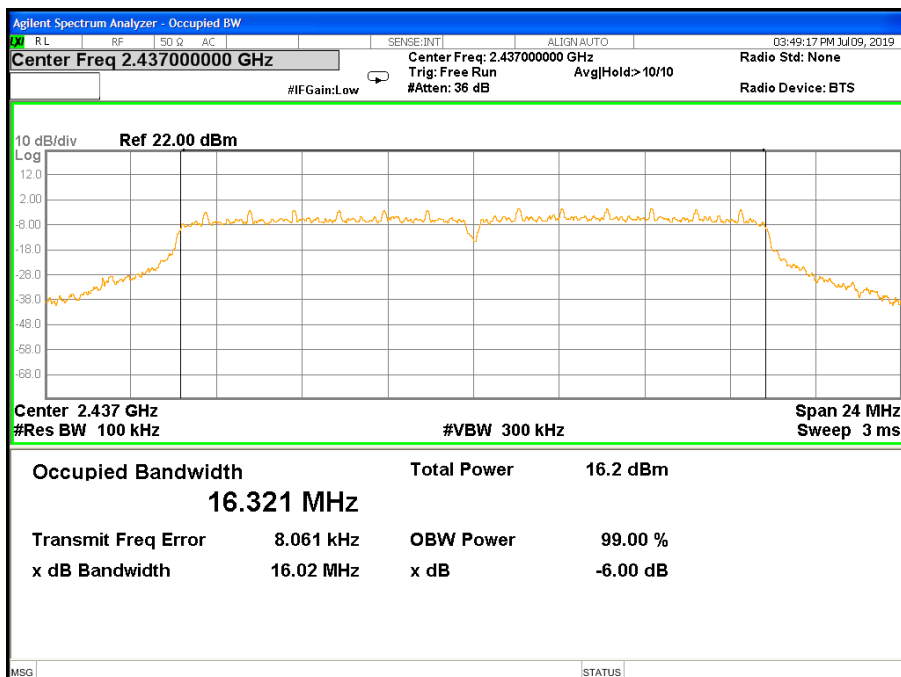
Antenna A

TX CH 01

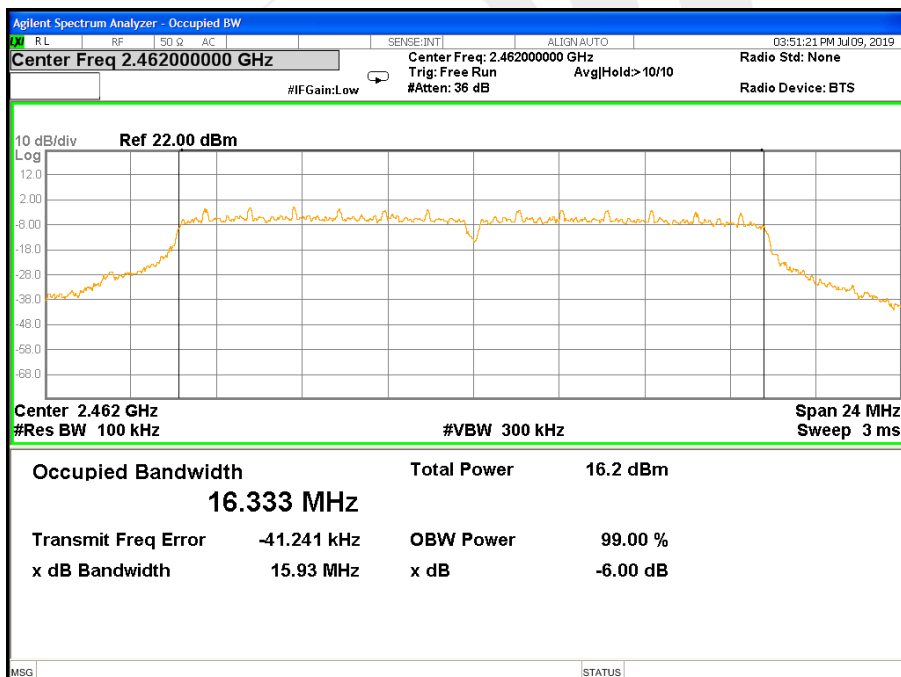




TX CH 06



TX CH 11

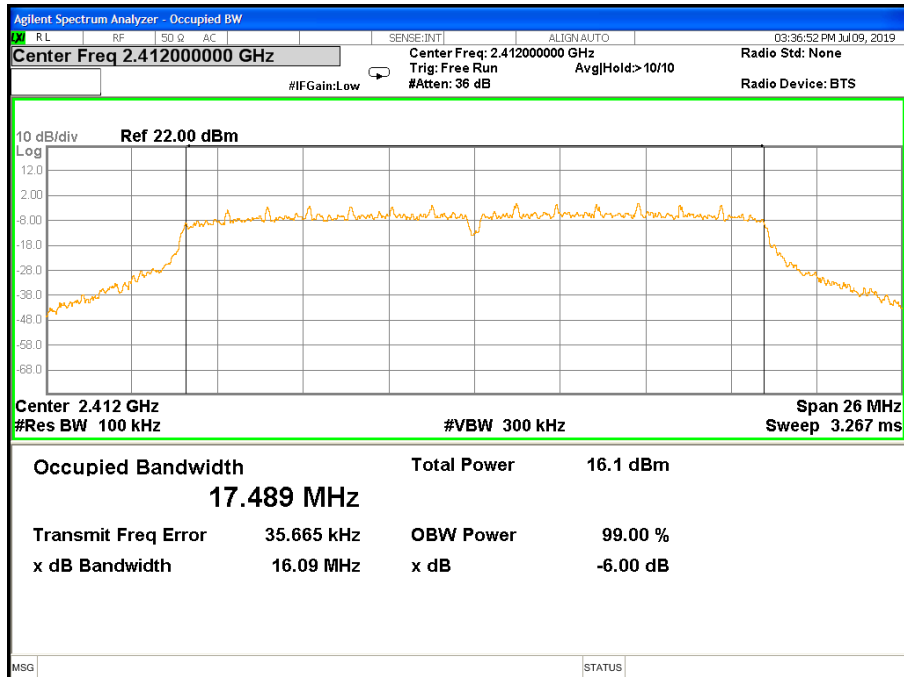




Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n Mode(20M) /CH01, CH06, CH11

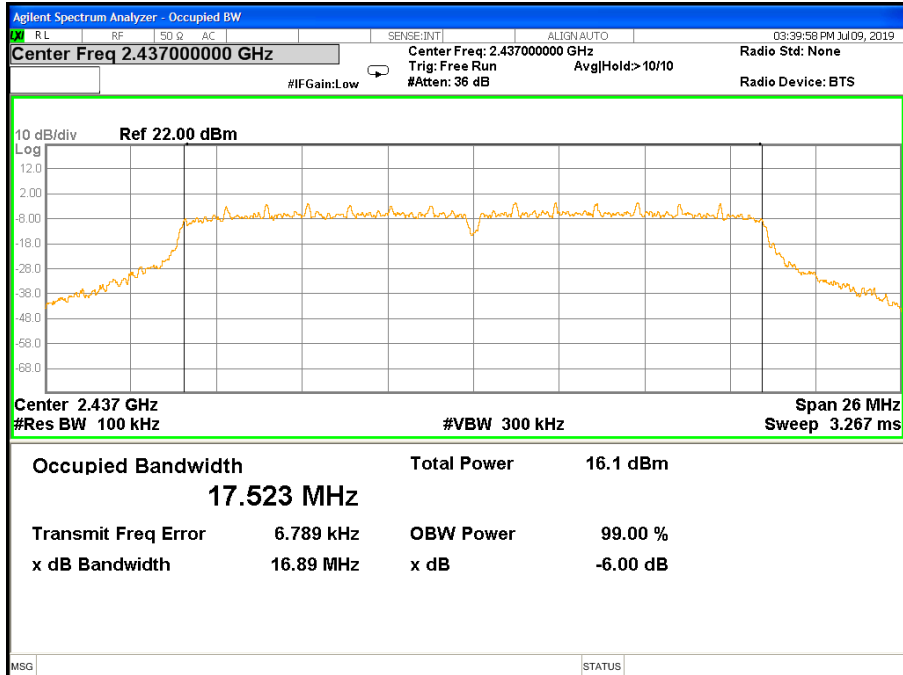
Frequency	6dB Bandwidth(MHz)		Channel Separation (KHz)	Result
	Antenna -A	Antenna -B		
2412 MHz	16.09	16.04	≥500KHz	PASS
2437 MHz	16.89	16.82	≥500KHz	PASS
2462 MHz	16.34	16.26	≥500KHz	PASS

Antenna A
TX CH 01

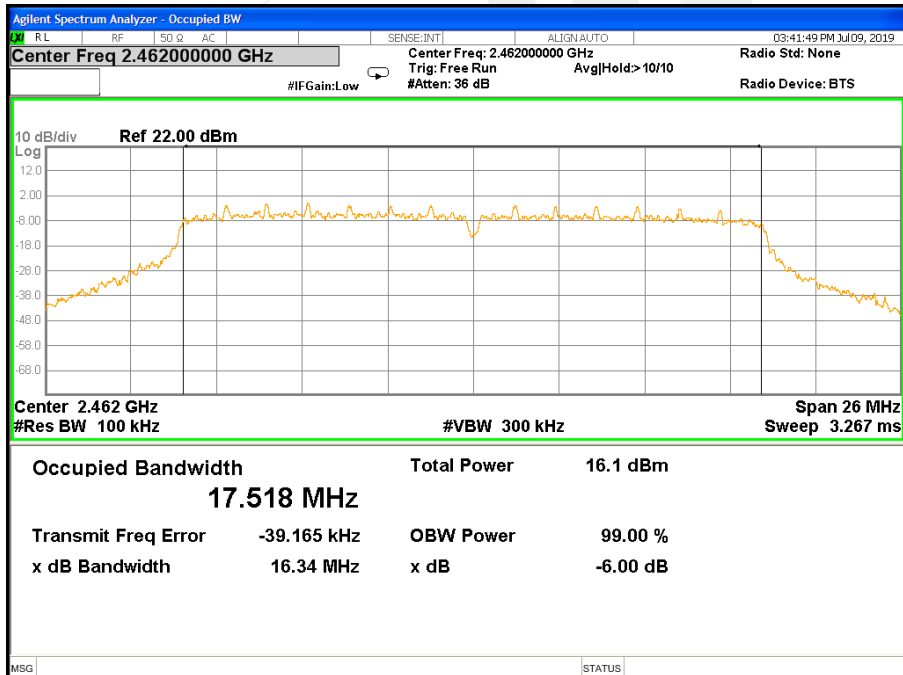




TX CH 06



TX CH 11

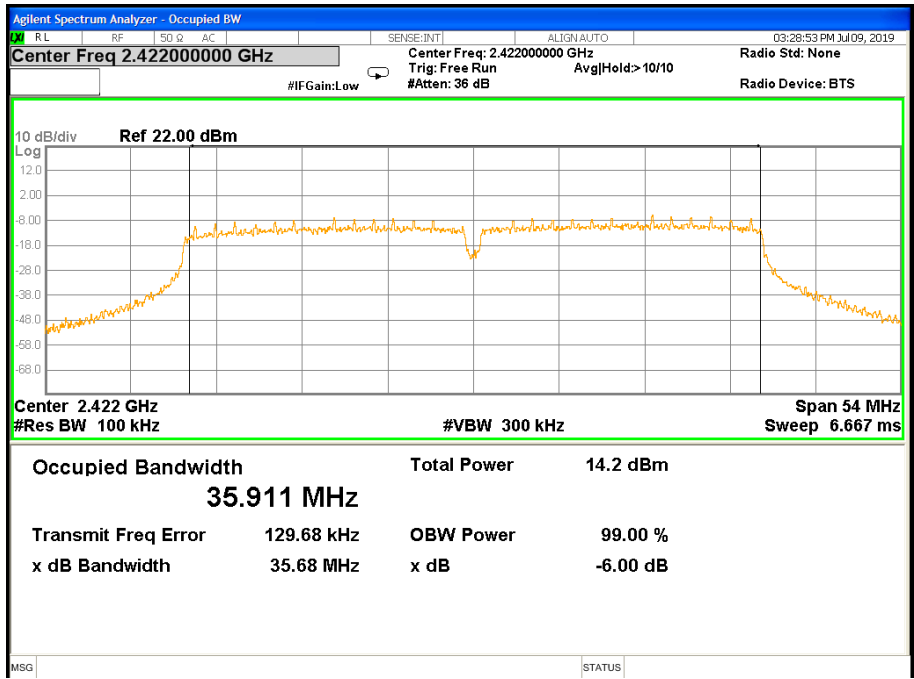




Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz	Test Mode:	TX n Mode(40M) /CH03, CH06, CH09

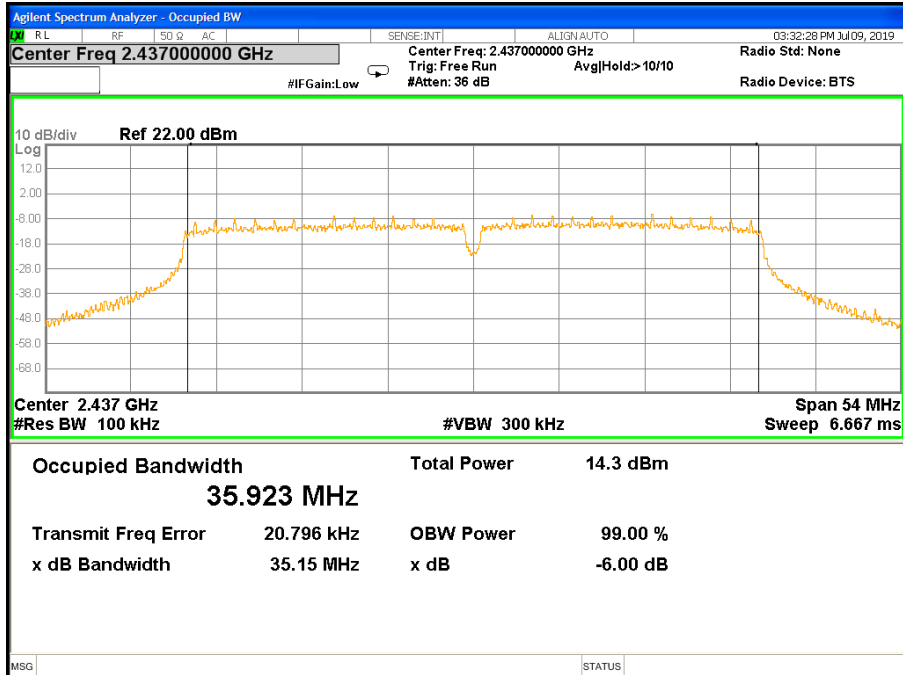
Frequency	6dB Bandwidth(MHz)		Channel Separation (KHz)	Result
	Antenna -A	Antenna -B		
2422 MHz	35.68	35.62	≥500KHz	PASS
2437 MHz	35.15	35.02	≥500KHz	PASS
2452 MHz	35.30	35.25	≥500KHz	PASS

Antenna A
TX CH 03

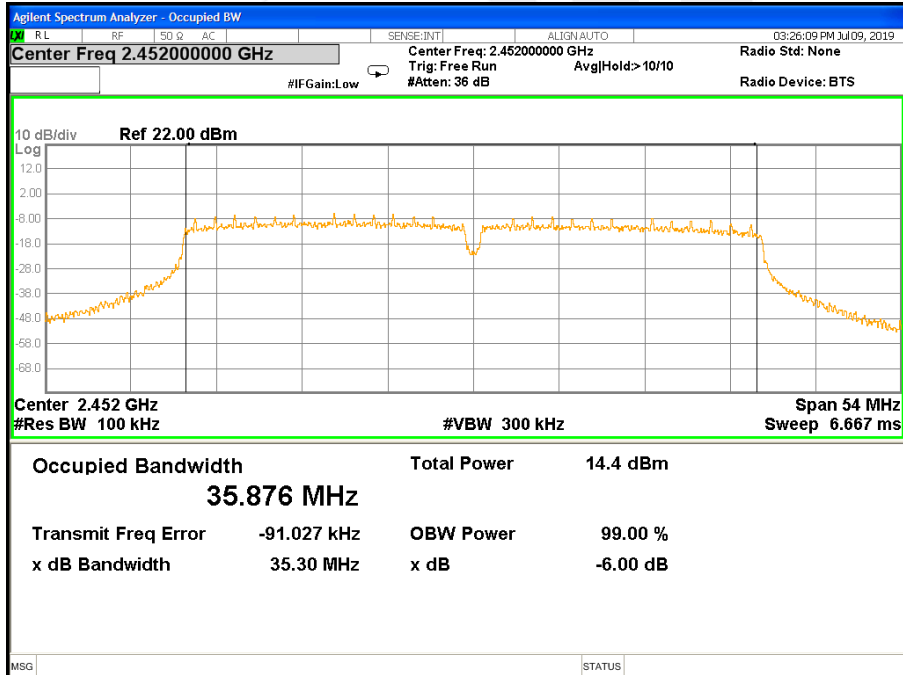




TX CH 06



TX CH 09





7. PEAK OUTPUT POWER TEST

7.1 LIMIT

FCC Part15.247,Subpart C				
Section	Test Item	Limit	Frequency Range (MHz)	Result
15.247(b)(3)	Output Power	1 watt or 30dBm	2400-2483.5	PASS

7.2 TEST PROCEDURE

- a. The EUT was directly connected to the Power Sensor&PC

7.3 DEVIATION FROM STANDARD

No deviation.

7.4 TEST SETUP



7.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.3 Unless otherwise a special operating condition is specified in the follows during the testing.



7.6 TEST RESULTS

Temperature:	25°C	Relative Humidity:	60%
Test Voltage:	AC 120V/60Hz		

TX 802.11b Mode

Test Channel	Frequency (MHz)	PK Powe ANT A	PK Powe ANT B	PK Powe ANT A+ANT B	AV Power ANT A	AV Power ANT B	Ant A Duty cycle factor	Ant B Duty cycle factor	AV Power ANT A	AV Power ANT B	AV Power ANT A+ANT B	LIMIT
		(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
CH01	2412	16.02	15.33	--	13.25	12.63	0.04	0.04	13.29	12.67	--	30
CH06	2437	15.97	15.11	--	13.27	12.45	0.04	0.04	13.31	12.49	--	30
CH11	2462	16.09	15.14	--	13.35	12.46	0.04	0.04	13.39	12.50	--	30

TX 802.11g Mode

Test Channel	Frequency (MHz)	PK Powe ANT A	PK Powe ANT B	PK Powe ANT A+ANT B	AV Power ANT A	AV Power ANT B	Ant A Duty cycle factor	Ant B Duty cycle factor	AV Power ANT A	AV Power ANT B	AV Power ANT A+ANT B	LIMIT
		(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
CH01	2412	14.10	13.41	--	7.23	7.16	0.33	0.34	7.56	7.50	--	30
CH06	2437	14.02	13.16	--	7.83	6.96	0.33	0.34	8.16	7.30	--	30
CH11	2462	14.04	13.18	--	7.84	7.02	0.33	0.34	8.17	7.36	--	30

TX 802.11n20 Mode

Test Channel	Frequency (MHz)	PK Powe ANT A	PK Powe ANT B	PK Powe ANT A+ANT B	AV Power ANT A	AV Power ANT B	Ant A Duty cycle factor	Ant B Duty cycle factor	AV Power ANT A	AV Power ANT B	AV Power ANT A+ANT B	LIMIT
		(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
CH01	2412	14.28	13.64	16.98	7.65	7.01	0.40	0.56	8.05	7.57	10.83	28.79
CH06	2437	14.27	13.42	16.88	7.69	6.82	0.40	0.56	8.09	7.38	10.76	28.79
CH11	2462	14.33	13.46	16.93	7.69	6.89	0.40	0.56	8.09	7.45	10.79	28.79



TX 802.11n40 Mode												
Test Channel	Frequency	PK Powe ANT A	PK Powe ANT B	PK Powe ANT A+ANT B	AV Power ANT A	AV Power ANT B	Ant A Duty cycle factor	Ant B Duty cycle factor	AV Power ANT A	AV Power ANT B	AV Power ANT A+ANT B	LIMIT
		(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
CH03	2422	14.57	13.90	17.26	7.60	6.99	0.82	0.84	8.42	7.83	11.15	28.79
CH06	2437	14.86	14.15	17.53	7.71	6.88	0.82	0.84	8.53	7.72	11.15	28.79
CH09	2452	14.74	14.11	17.45	7.81	6.89	0.82	0.84	8.63	7.73	11.21	28.79

Note: MIMO technology Directional gain=7.21dBi, 802.11n(HT20), 802.11n(HT40) limit will reduce 1.21dBi, the limit is 28.79dBm.





Duty cycle

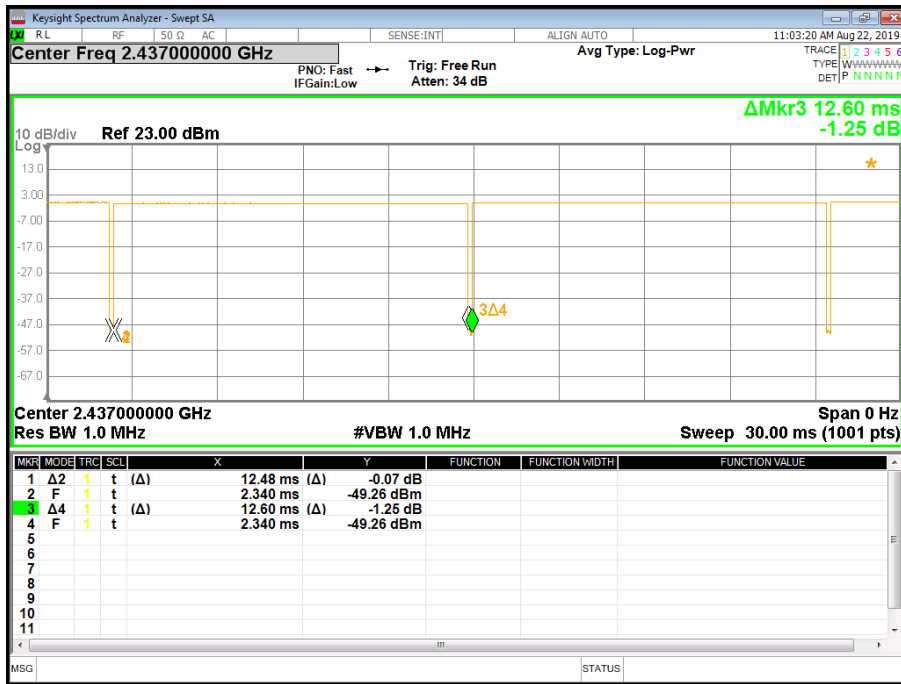
Ant_A	Mode	Ton(ms)	Tp(ms)	Duty cycle(%)	Duty cycle factor
2.4G	b	12.480	12.600	99.05%	0.04
	g	2.075	2.240	92.63%	0.33
	n20	1.750	1.920	91.15%	0.40
	n40	0.864	1.044	82.76%	0.82

Ant_B	Mode	Ton(ms)	Tp(ms)	Duty cycle(%)	Duty cycle factor
2.4G	b	12.510	12.630	99.05%	0.04
	g	2.076	2.244	92.51%	0.34
	n20	1.766	2.010	87.86%	0.56
	n40	0.861	1.044	82.47%	0.84

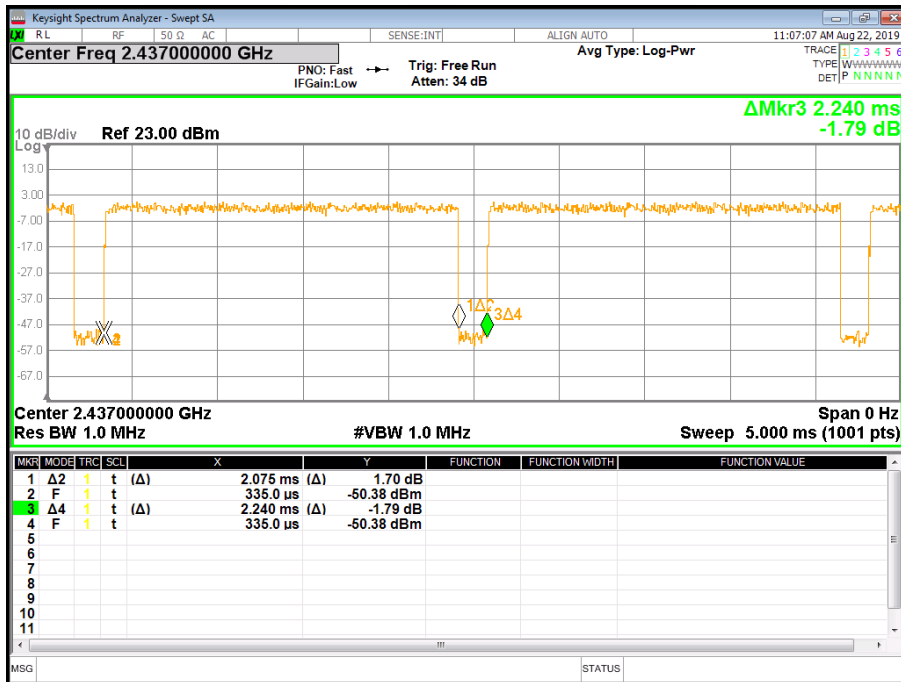
NOTE: Antenna A Power> Antenna B Power, Both antenna A and B have been test, only show the worst data of Antenna A



Ant. A
802.11b

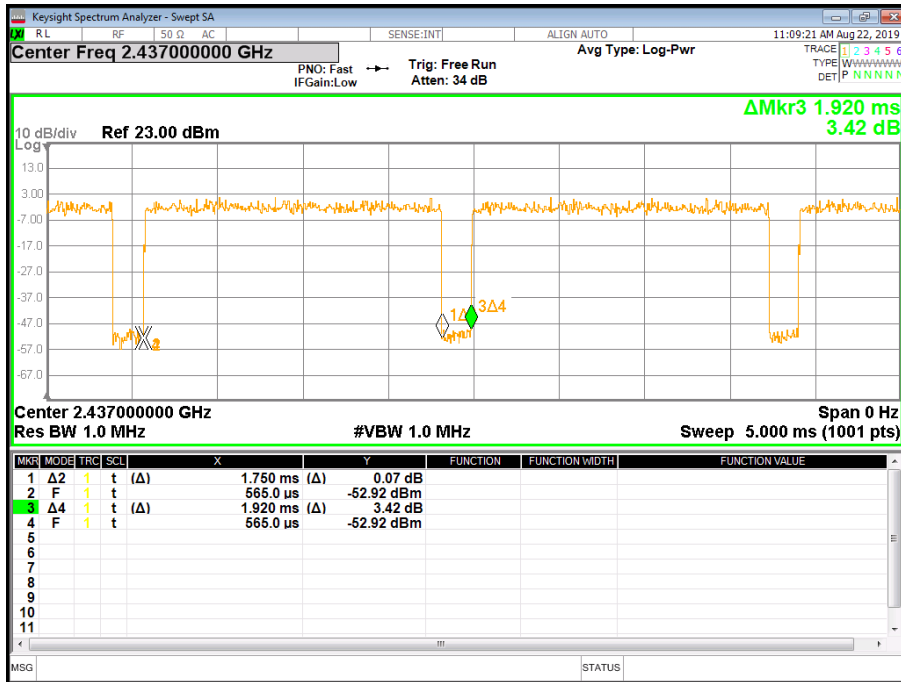


802.11g

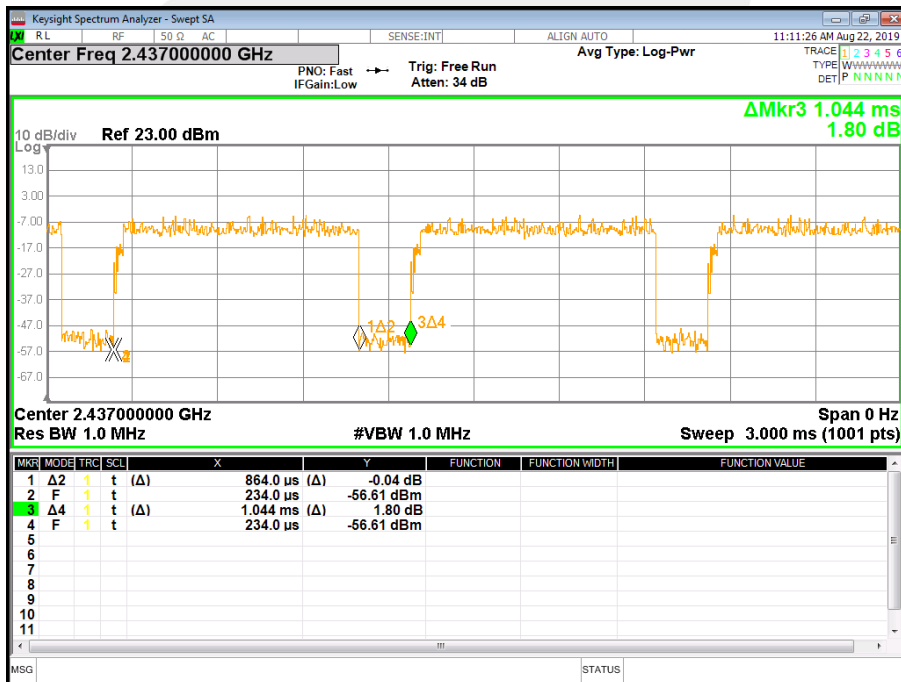




802.11n HT20



802.11n HT40





8. ANTENNA REQUIREMENT

8.1 STANDARD REQUIREMENT

15.203 requirement: For intentional device, according to 15.203: 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.

8.2 EUT ANTENNA

The EUT antenna interface is an externally threaded inner needle antenna. It comply with the standard requirement.





APPENDIX-PHOTOS OF TEST SETUP

Note: See test photos in setup photo document for the actual connections between Product and support equipment.

※※※※END OF THE REPORT※※※※

