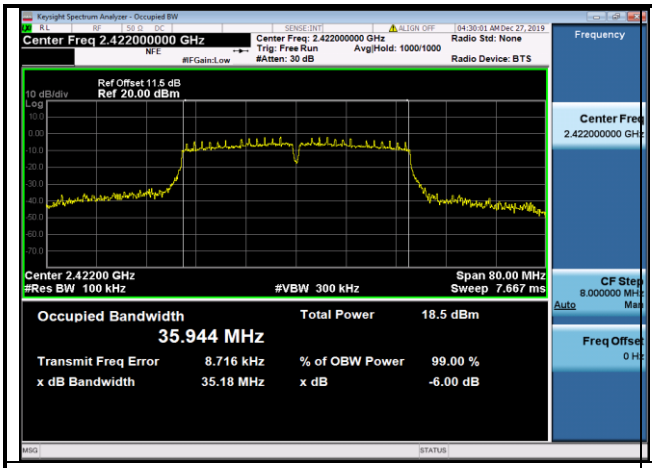
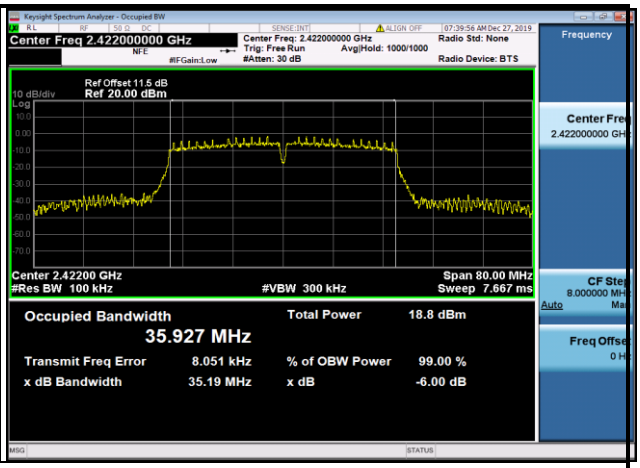
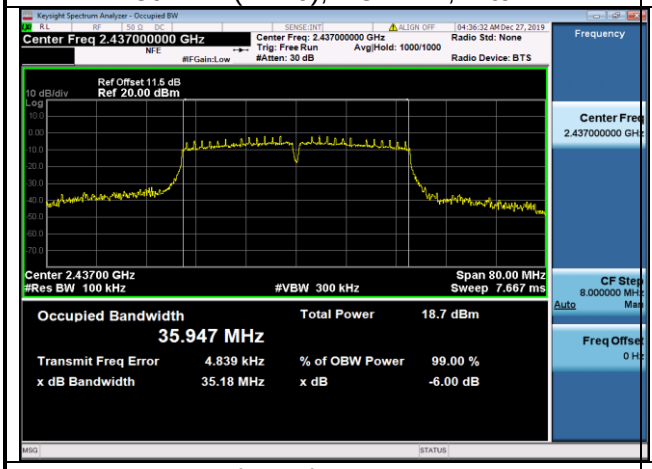
TEST REPORT



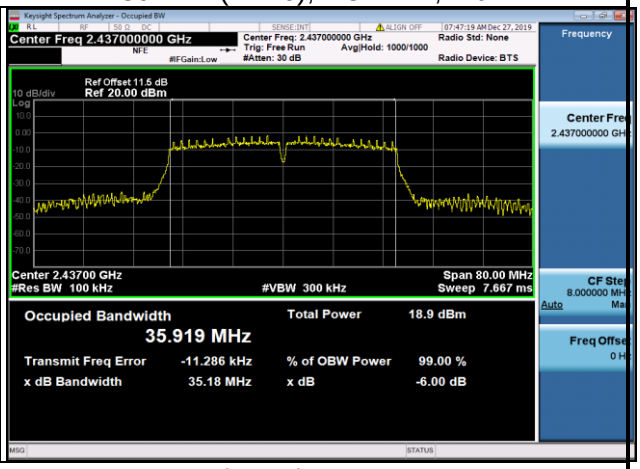
802.11n(HT40),2437MHz,Ant0



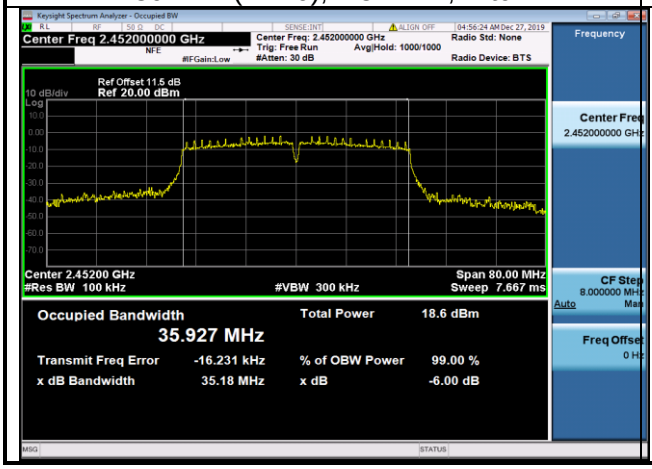
802.11n(HT40),2437MHz,Ant1

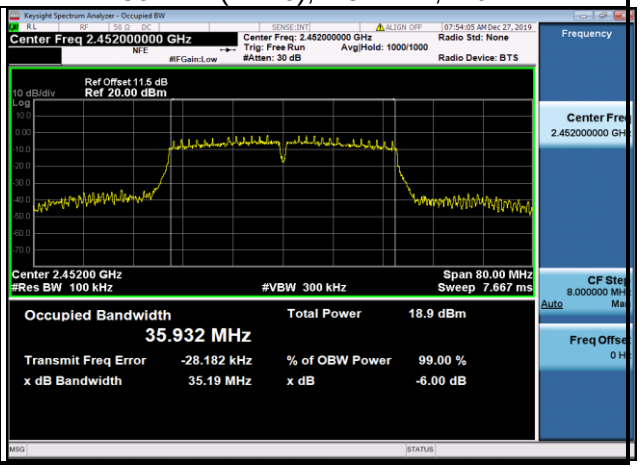


802.11n(HT40),2452MHz,Ant0



802.11n(HT40),2452MHz,Ant1





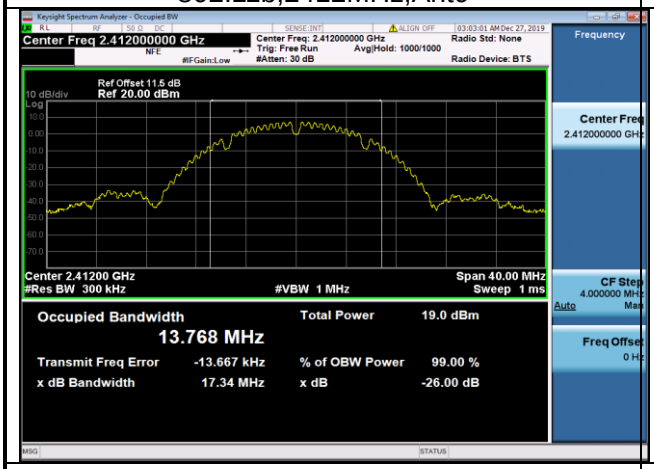
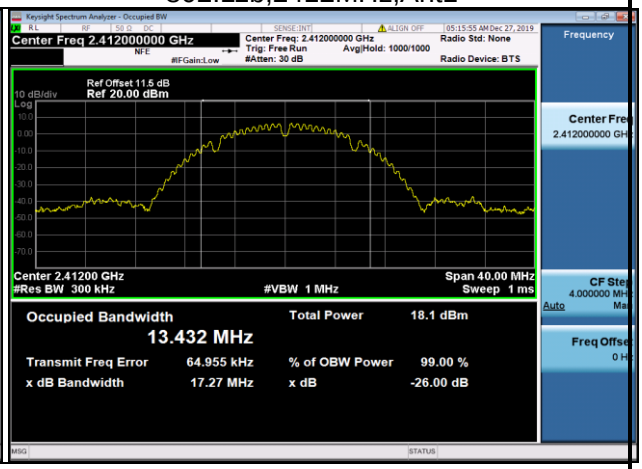
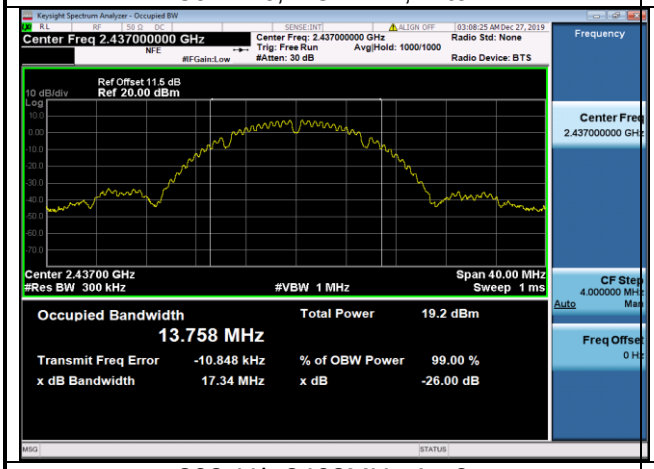
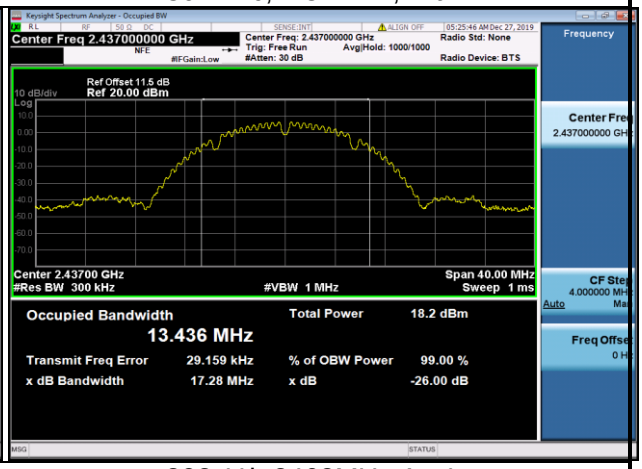
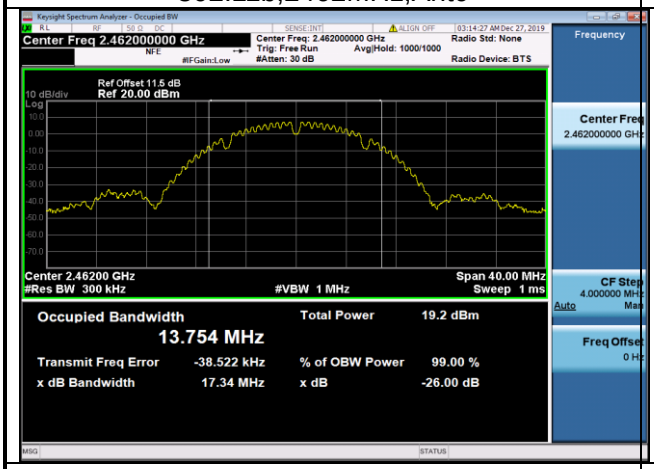
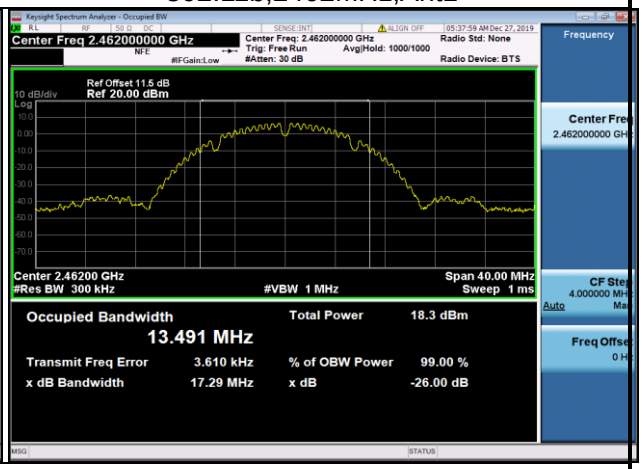
3. Occupied Bandwidth

3.1 Test Data

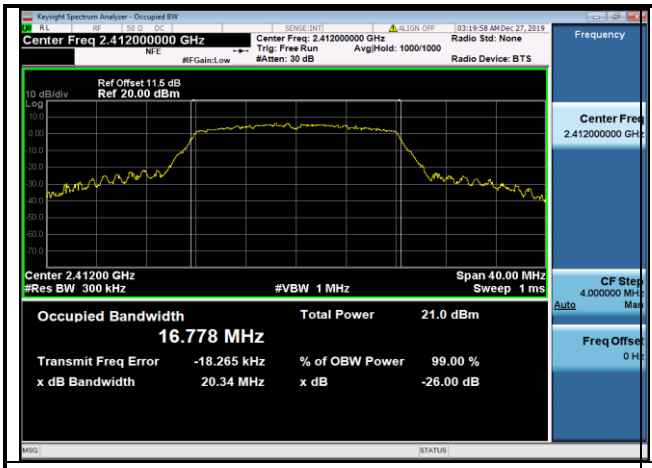
WLAN 99% Occupied Bandwidth				
Mode	Test Frequency (MHz)	Ant	99% Occupied Bandwidth (MHz)	Result
802.11b	2412	Ant0	13.768	Pass
802.11b	2412	Ant1	13.432	Pass
802.11b	2437	Ant0	13.758	Pass
802.11b	2437	Ant1	13.436	Pass
802.11b	2462	Ant0	13.754	Pass
802.11b	2462	Ant1	13.491	Pass
802.11g	2412	Ant0	16.778	Pass
802.11g	2412	Ant1	16.734	Pass
802.11g	2437	Ant0	16.780	Pass
802.11g	2437	Ant1	16.743	Pass
802.11g	2462	Ant0	16.780	Pass
802.11g	2462	Ant1	16.746	Pass
802.11n (HT20)	2412	Ant0	17.701	Pass
802.11n (HT20)	2412	Ant1	17.661	Pass
802.11n (HT20)	2437	Ant0	17.682	Pass
802.11n (HT20)	2437	Ant1	17.659	Pass
802.11n (HT20)	2462	Ant0	17.717	Pass
802.11n (HT20)	2462	Ant1	17.663	Pass
802.11n (HT40)	2422	Ant0	36.571	Pass
802.11n (HT40)	2422	Ant1	36.317	Pass
802.11n (HT40)	2437	Ant0	36.539	Pass
802.11n (HT40)	2437	Ant1	36.357	Pass
802.11n (HT40)	2452	Ant0	36.559	Pass
802.11n (HT40)	2452	Ant1	36.419	Pass

3.2 Test Plots

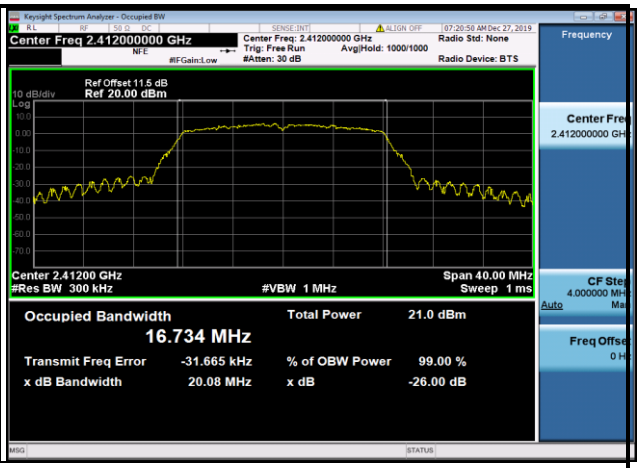
TEST REPORT

802.11b,2412MHz,Ant0	802.11b,2412MHz,Ant1
	
802.11b,2437MHz,Ant0	802.11b,2437MHz,Ant1
	
802.11b,2462MHz,Ant0	802.11b,2462MHz,Ant1
	
802.11g,2412MHz,Ant0	802.11g,2412MHz,Ant1

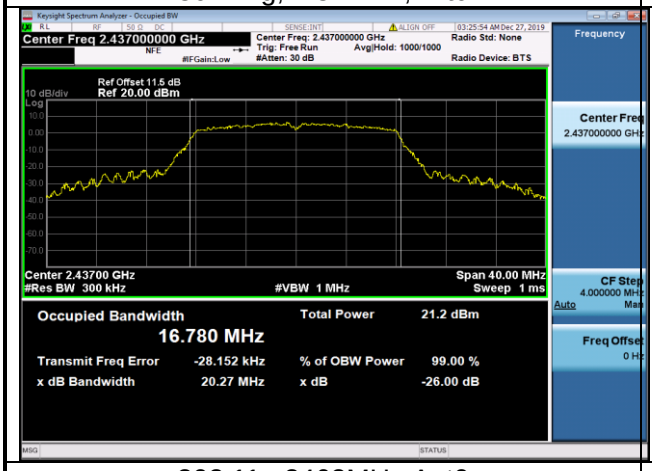
TEST REPORT



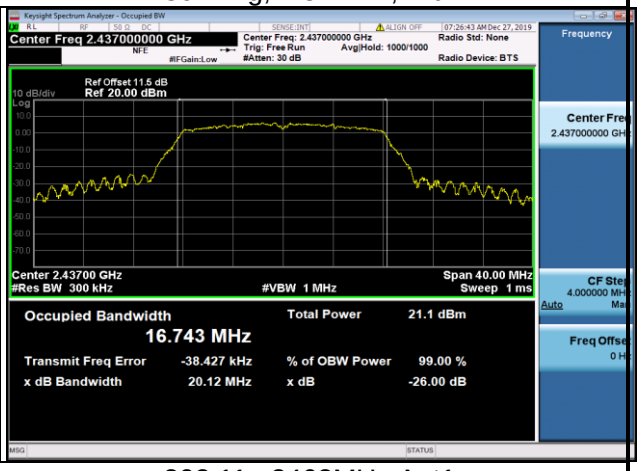
802.11g,2437MHz,Ant0



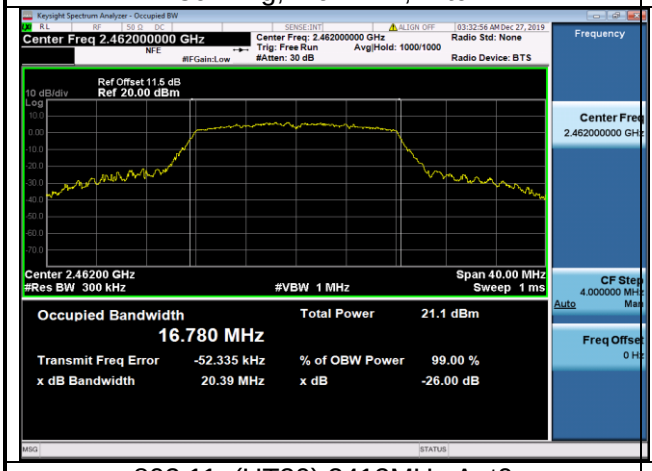
802.11g,2437MHz,Ant1



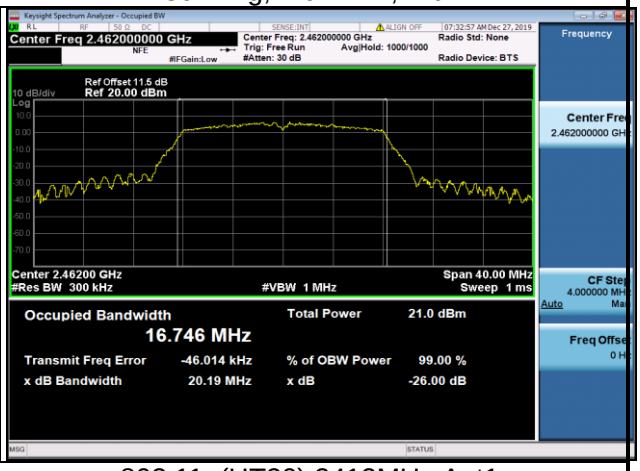
802.11g,2462MHz,Ant0



802.11g,2462MHz,Ant1

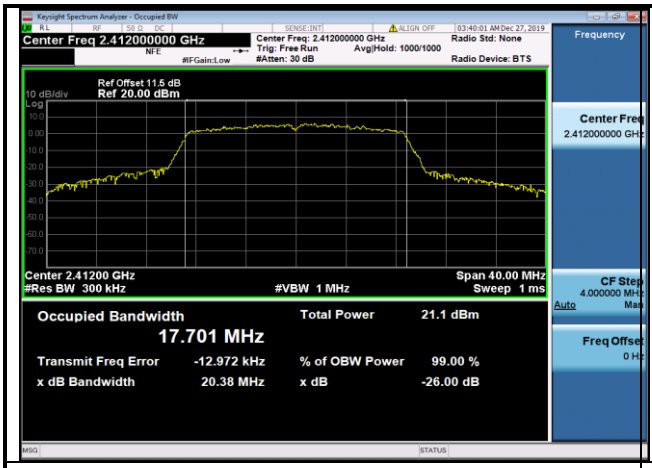


802.11n(HT20),2412MHz,Ant0

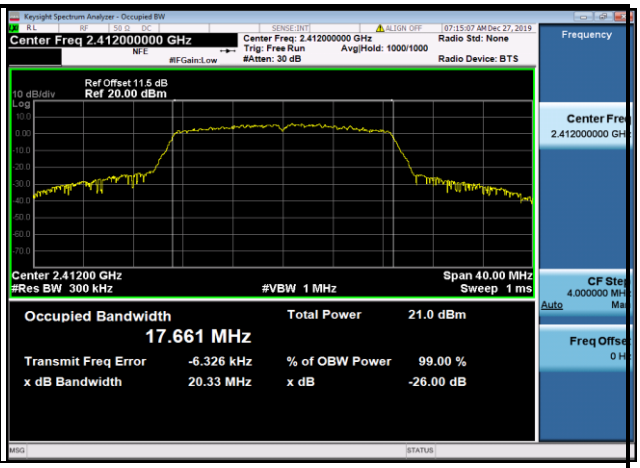


802.11n(HT20),2412MHz,Ant1

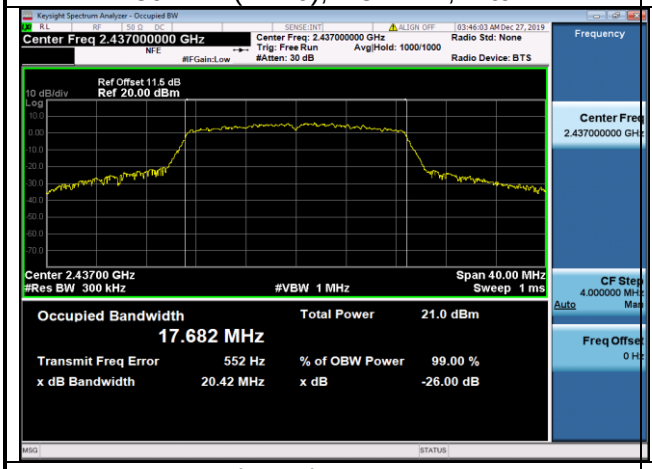
TEST REPORT



802.11n(HT20),2437MHz,Ant0

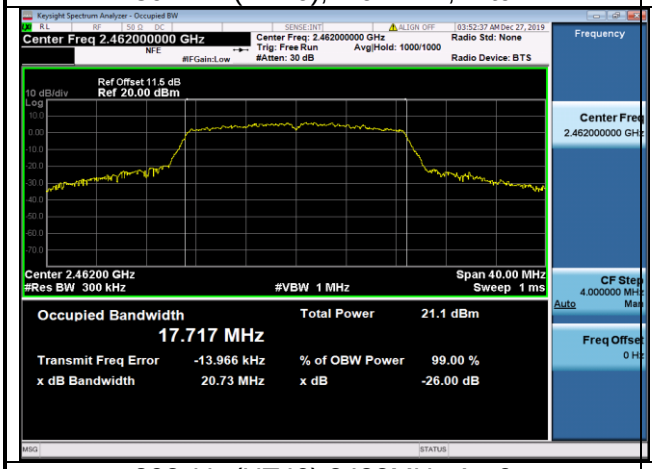


802.11n(HT20),2437MHz,Ant1

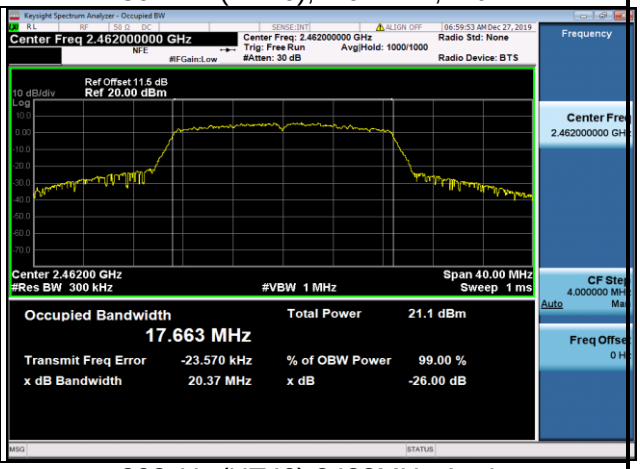


802.11n(HT20),2462MHz,Ant0

802.11n(HT20),2462MHz,Ant1

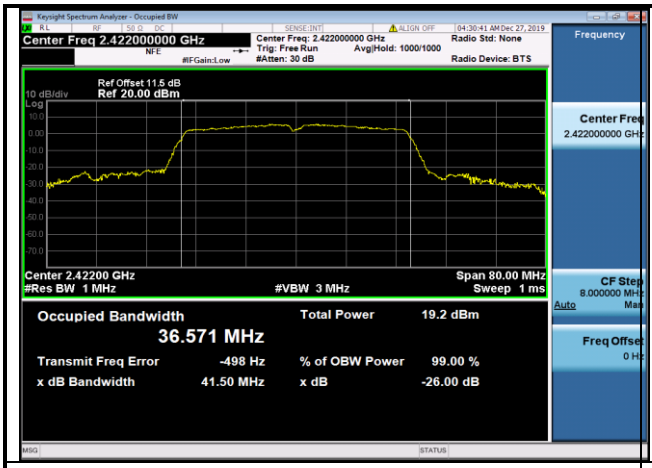


802.11n(HT40),2422MHz,Ant0

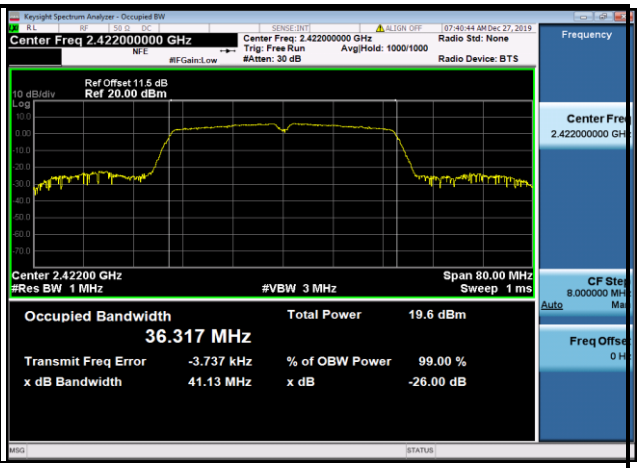


802.11n(HT40),2422MHz,Ant1

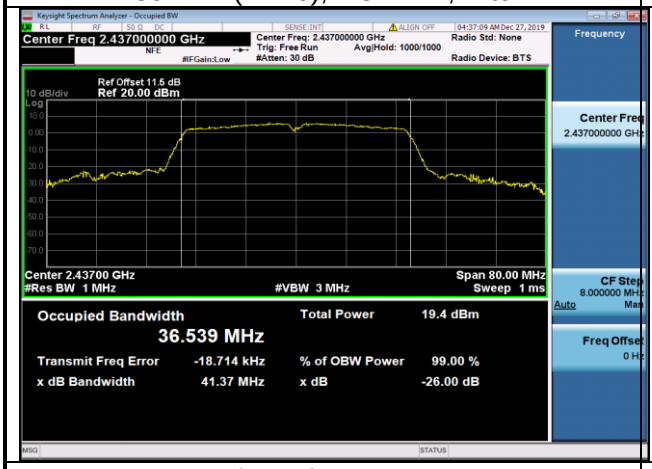
TEST REPORT



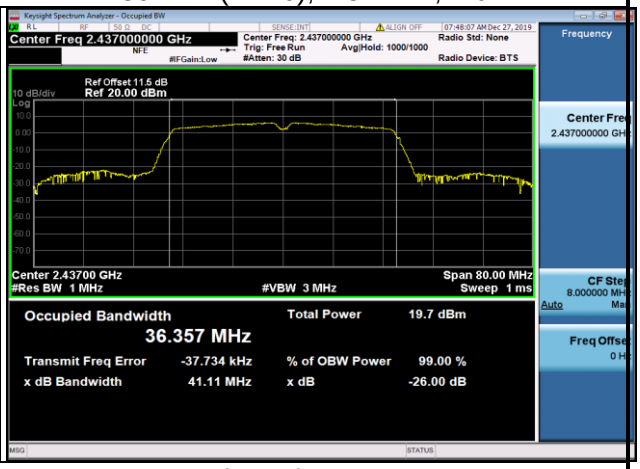
802.11n(HT40),2437MHz,Ant0



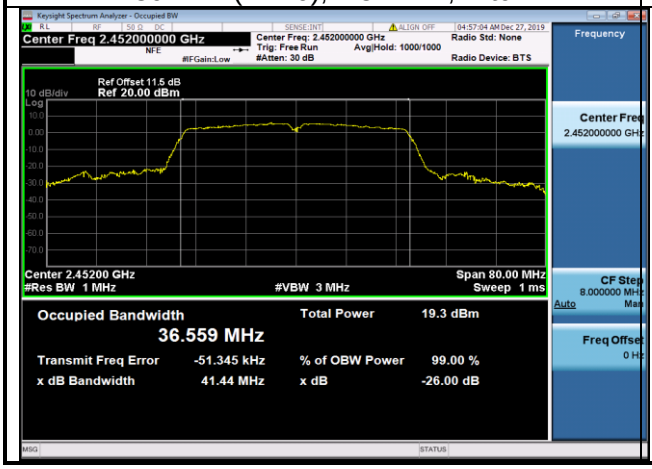
802.11n(HT40),2437MHz,Ant1

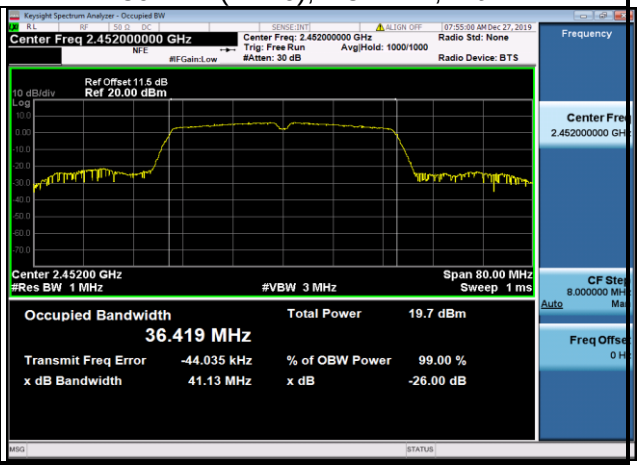


802.11n(HT40),2452MHz,Ant0



802.11n(HT40),2452MHz,Ant1





4. Maximum conducted output power and e.i.r.p

4.1 Test Data

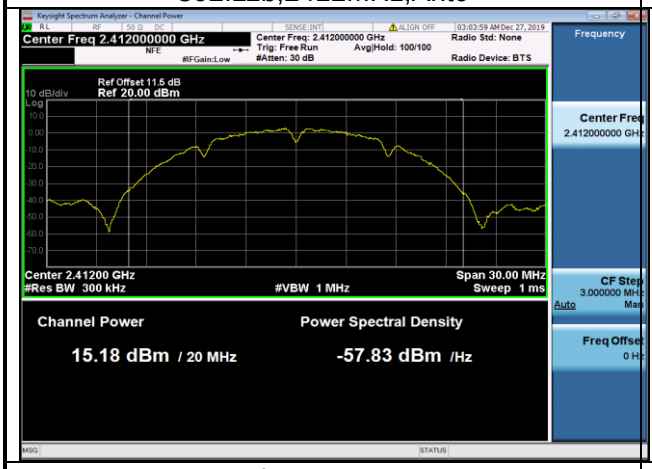
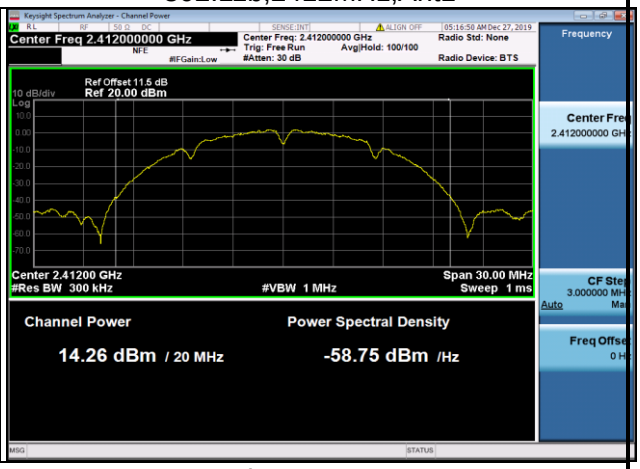
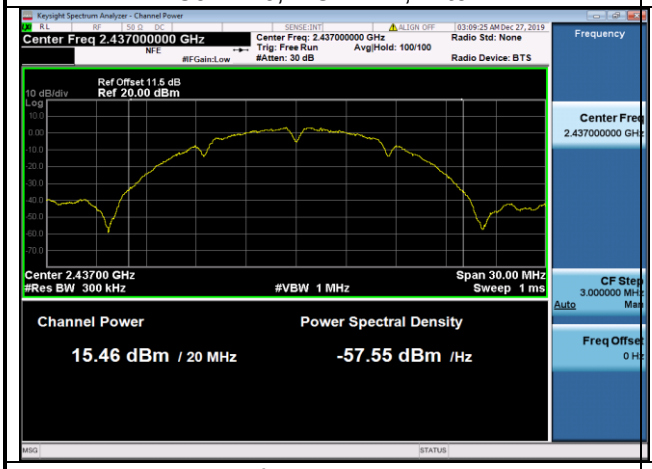
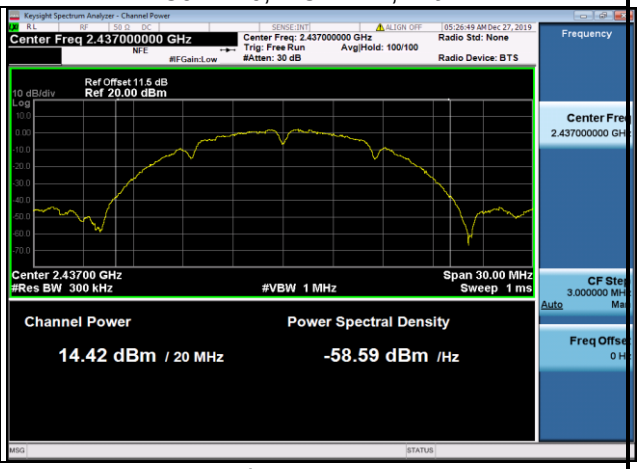
	WLAN AVGSA Output Power							
Mode	Test Frequency (MHz)	Ant	Duty Cycle Factor (dB)	Max Power (dBm)	Max or Total power	Limit (dBm)	EIRP (dBm)	Result
802.11b	2412	Ant0	0.00	15.18	15.18	30	15.98	Pass
802.11b	2412	Ant1	0.00	14.26	14.26	30	14.91	Pass
802.11b	2437	Ant0	0.00	15.46	15.46	30	16.26	Pass
802.11b	2437	Ant1	0.00	14.42	14.42	30	15.07	Pass
802.11b	2462	Ant0	0.00	15.40	15.40	30	16.20	Pass
802.11b	2462	Ant1	0.00	14.50	14.50	30	15.15	Pass
802.11g	2412	Ant0	0.12	14.37	14.37	30	15.17	Pass
802.11g	2412	Ant1	0.12	14.42	14.42	30	15.07	Pass
802.11g	2437	Ant0	0.09	14.50	14.50	30	15.30	Pass
802.11g	2437	Ant1	0.09	14.44	14.44	30	15.09	Pass
802.11g	2462	Ant0	0.12	14.45	14.45	30	15.25	Pass
802.11g	2462	Ant1	0.12	14.38	14.38	30	15.03	Pass
802.11n (HT20)	2412	Ant0	0.10	14.23	17.24	30	17.97	Pass
802.11n (HT20)	2412	Ant1	0.10	14.22				
802.11n (HT20)	2437	Ant0	0.10	14.17	17.26	30	17.99	Pass
802.11n (HT20)	2437	Ant1	0.10	14.32				
802.11n (HT20)	2462	Ant0	0.10	14.36	17.32	30	18.05	Pass
802.11n (HT20)	2462	Ant1	0.10	14.25				
802.11n (HT40)	2422	Ant0	0.36	11.29	14.59	30	15.32	Pass
802.11n (HT40)	2422	Ant1	0.26	11.85				
802.11n (HT40)	2437	Ant0	0.36	11.47	14.66	30	15.39	Pass
802.11n (HT40)	2437	Ant1	0.20	11.83				
802.11n (HT40)	2452	Ant0	0.36	11.67	14.76	30	15.49	Pass
802.11n (HT40)	2452	Ant1	0.20	11.83				

TEST REPORT

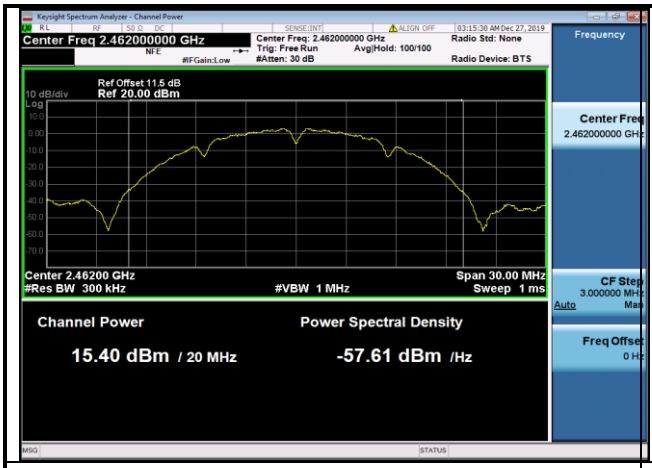
The max EIRP is caculated as below:

	WLAN AVGSA Output Power							
Mode	Test Frequency (MHz)	Ant	Duty Cycle Factor (dB)	Max Power (dBm)	Max or Total power	EIRP (dBm)	EIRP (W)	Result
802.11n (HT20)	2462	Ant0	0.10	14.36	17.32	18.05	0.064	Pass
802.11n (HT20)	2462	Ant1	0.10	14.25				

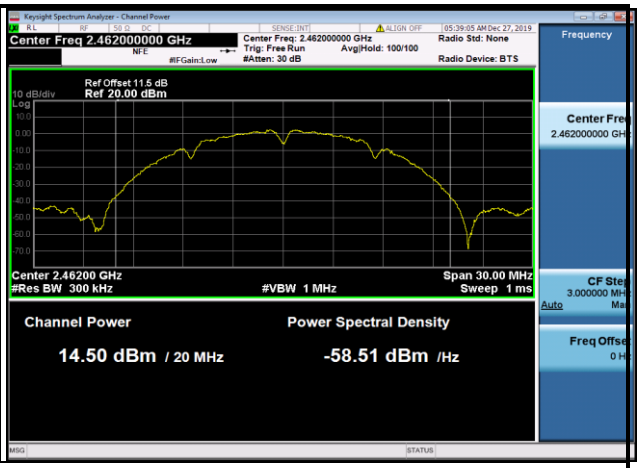
4.2 Test Plots

802.11b,2412MHz,Ant0	802.11b,2412MHz,Ant1
	
802.11b,2437MHz,Ant0	802.11b,2437MHz,Ant1
	
802.11b,2462MHz,Ant0	802.11b,2462MHz,Ant1

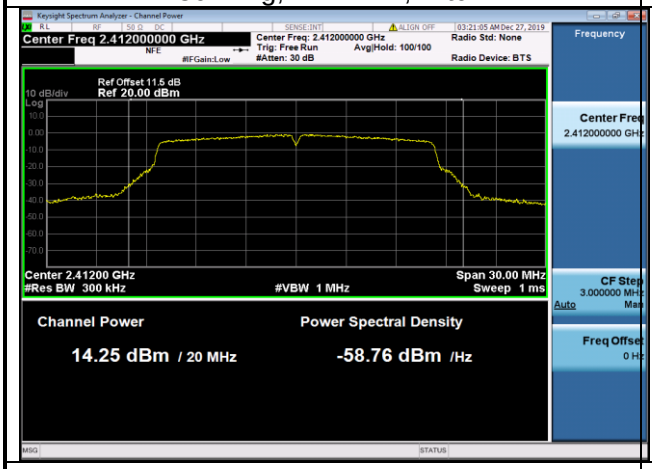
TEST REPORT



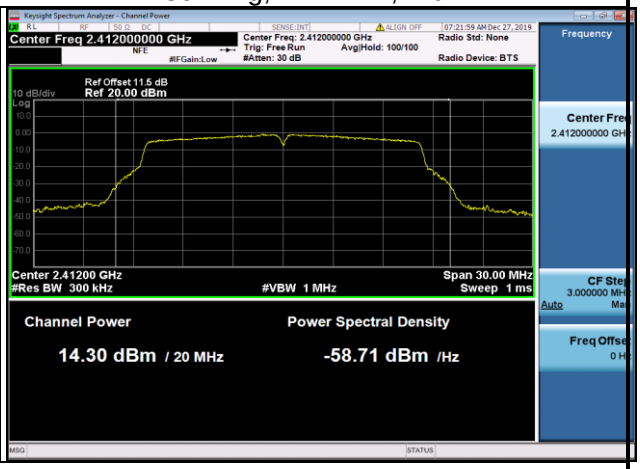
802.11g,2412MHz,Ant0



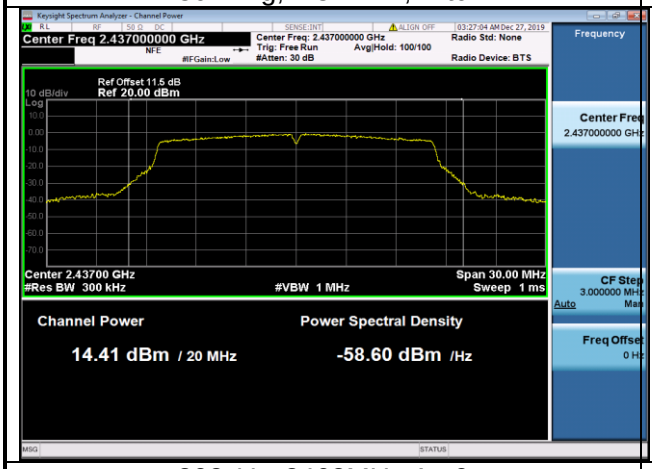
802.11g,2412MHz,Ant1



802.11g,2437MHz,Ant0



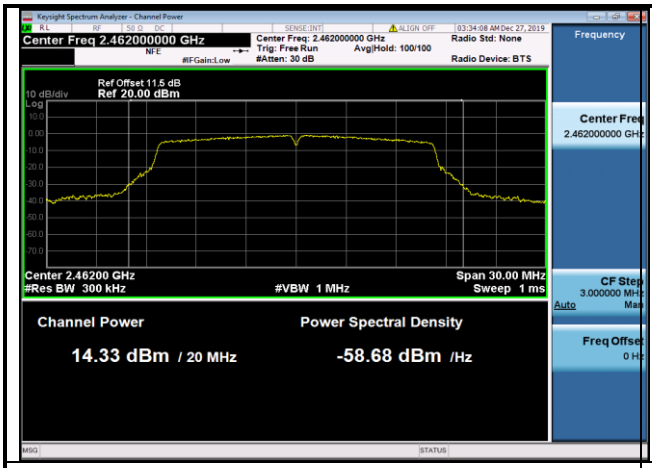
802.11g,2437MHz,Ant1



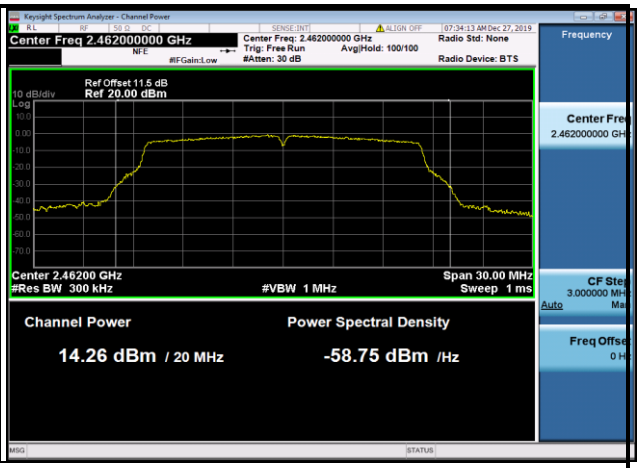
802.11g,2462MHz,Ant0

802.11g,2462MHz,Ant1

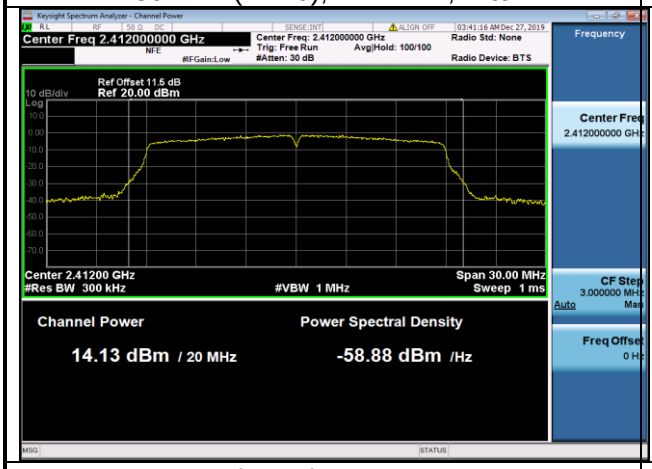
TEST REPORT



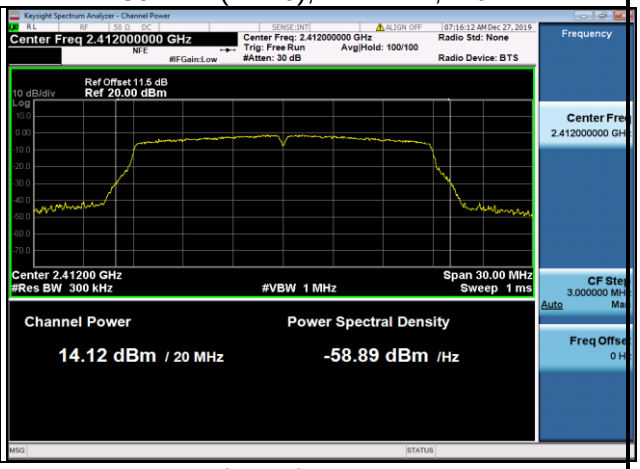
802.11n(HT20),2412MHz,Ant0



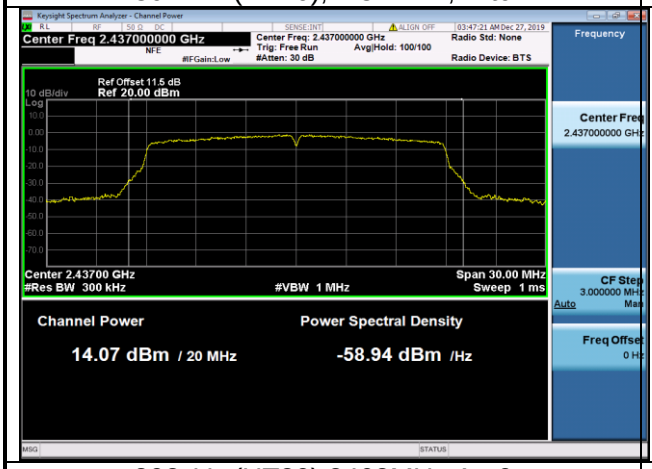
802.11n(HT20),2412MHz,Ant1



802.11n(HT20),2437MHz,Ant0



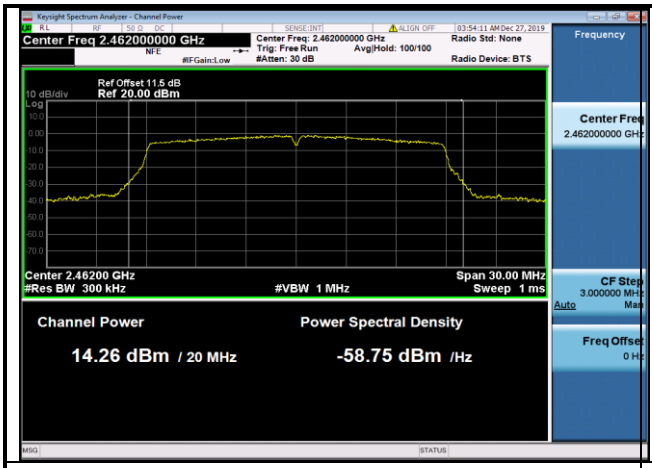
802.11n(HT20),2437MHz,Ant1



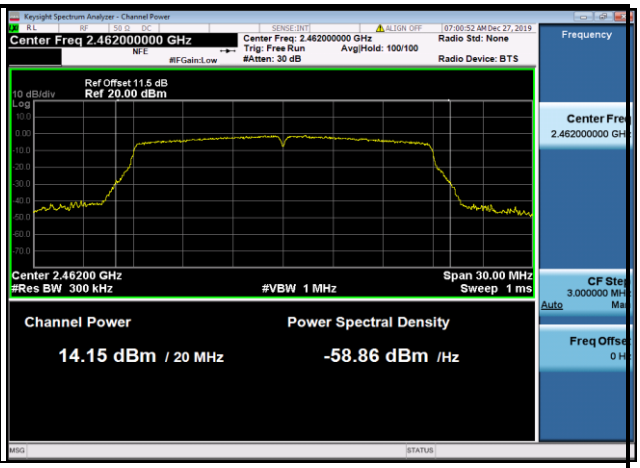
802.11n(HT20),2462MHz,Ant0

802.11n(HT20),2462MHz,Ant1

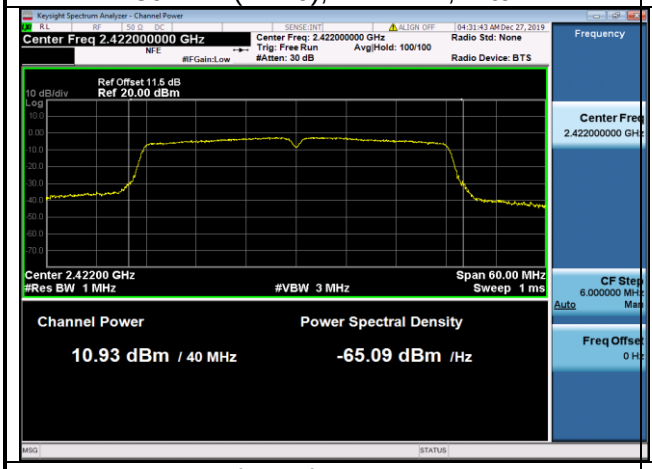
TEST REPORT



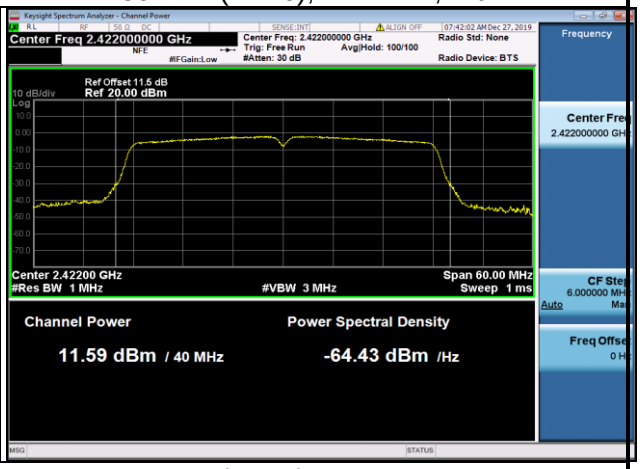
802.11n(HT40),2422MHz,Ant0



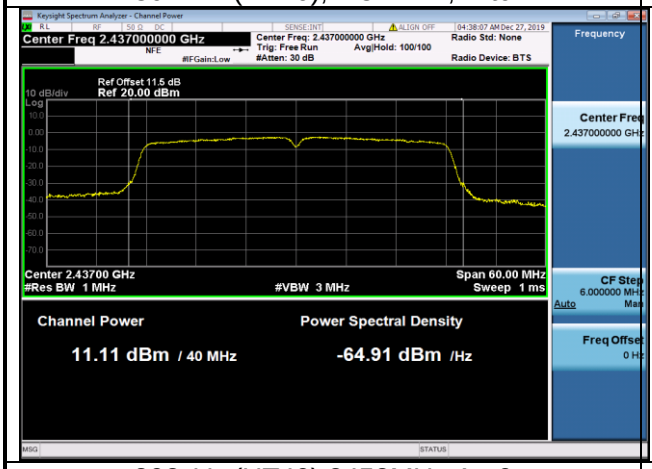
802.11n(HT40),2422MHz,Ant1



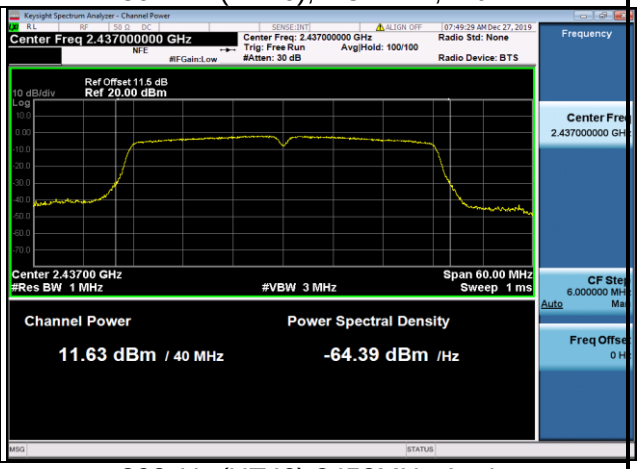
802.11n(HT40),2437MHz,Ant0



802.11n(HT40),2437MHz,Ant1



802.11n(HT40),2452MHz,Ant0



802.11n(HT40),2452MHz,Ant1

TEST REPORT


Keysight Spectrum Analyzer - Channel Power
Center Freq 2.452000000 GHz
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 11.5 dB
10 dB/div
Ref 20.00 dBm
Center 2.45200 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 60.00 MHz
Sweep 1 ms
Channel Power
11.31 dBm / 40 MHz
Power Spectral Density
-64.71 dBm /Hz
Keysight Spectrum Analyzer - Channel Power
Center Freq 2.452000000 GHz
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold: 100/100
#Atten: 30 dB
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 11.5 dB
10 dB/div
Ref 20.00 dBm
Center 2.45200 GHz
#Res BW 1 MHz
#VBW 3 MHz
Span 60.00 MHz
Sweep 1 ms
Channel Power
11.63 dBm / 40 MHz
Power Spectral Density
-64.39 dBm /Hz

5. Power spectrum density

5.1 Test Data

WLAN AVGSA Power Spectral Density							
Mode	Test Frequency (MHz)	Ant	Duty Cycle Factor (dB)	PSD (dBm)	RBW (kHz)	Limit (dBm)	Result
802.11b	2412	Ant0	0.00	-1.500	100	8	Pass
802.11b	2412	Ant1	0.00	-2.618	100	8	Pass
802.11b	2437	Ant0	0.00	-1.204	100	8	Pass
802.11b	2437	Ant1	0.00	-2.391	100	8	Pass
802.11b	2462	Ant0	0.00	-0.905	100	8	Pass
802.11b	2462	Ant1	0.00	-1.999	100	8	Pass
802.11g	2412	Ant0	0.12	-4.523	100	8	Pass
802.11g	2412	Ant1	0.12	-4.616	100	8	Pass
802.11g	2437	Ant0	0.09	-3.762	100	8	Pass
802.11g	2437	Ant1	0.09	-4.537	100	8	Pass
802.11g	2462	Ant0	0.12	-4.248	100	8	Pass
802.11g	2462	Ant1	0.12	-4.281	100	8	Pass
802.11n (HT20)	2412	Ant0	0.10	-4.716	100	8	Pass
802.11n (HT20)	2412	Ant1	0.10	-4.710	100	8	Pass
802.11n (HT20)	2437	Ant0	0.10	-4.727	100	8	Pass
802.11n (HT20)	2437	Ant1	0.10	-4.713	100	8	Pass
802.11n (HT20)	2462	Ant0	0.10	-4.715	100	8	Pass
802.11n (HT20)	2462	Ant1	0.10	-4.484	100	8	Pass
802.11n (HT40)	2422	Ant0	0.36	-10.315	100	8	Pass
802.11n (HT40)	2422	Ant1	0.26	-10.377	100	8	Pass
802.11n (HT40)	2437	Ant0	0.36	-10.342	100	8	Pass
802.11n (HT40)	2437	Ant1	0.20	-10.603	100	8	Pass
802.11n (HT40)	2452	Ant0	0.36	-10.322	100	8	Pass
802.11n (HT40)	2452	Ant1	0.20	-10.435	100	8	Pass