



802.11b

802.11g

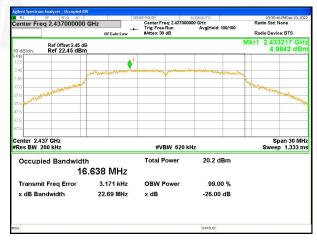
Lowest channel



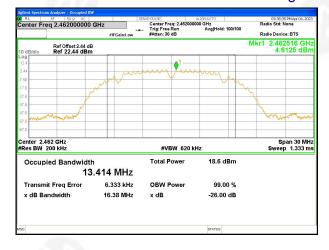


Middle channel





Highest channel



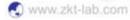


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802.11n20

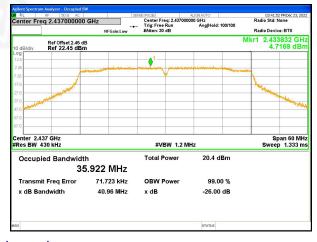
802.11n40 Lowest channel



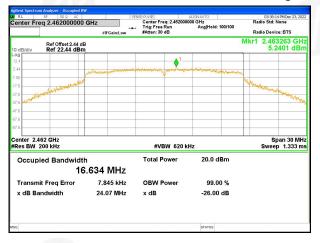


Middle channel





Highest channel





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Antenna 1

	-6dB Occupy Bandwidth (MHz)					
Test CH	802.11b	802.11g	802.11n(HT20)	802.11n(HT 40)	Limit(KHz)	Result
Lowest	10.09	15.03	13.77	31.39		
Middle	10.09	14.66	15.02	28.2	>500	Pass
Highest	10.08	16.29	15.09	33.81		

(4)	99% Occupy Bandwidth (MHz)					
Test CH	802.11b	802.11g	802.11n(HT20)	802.11n(HT 40)	Limit(KHz)	Result
Lowest	13.354	16.648	16.588	35.948		
Middle	13.397	16.604	16.632	35.96	>500	Pass
Highest	13.405	16.584	16.628	35.936		

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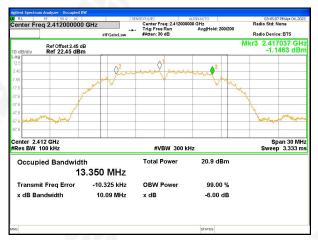




Test plot as follows:

802.11b 802.11g

Lowest channel



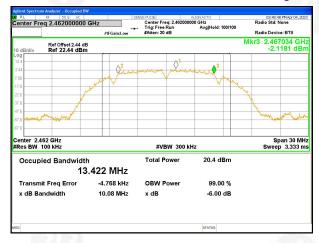


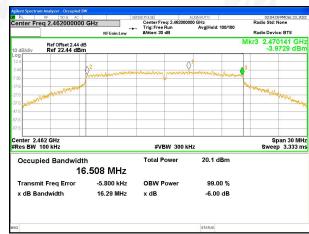
Middle channel





Highest channel





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802.11n20

802.11n40 Lowest channel



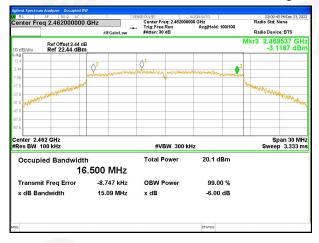


Middle channel





Highest channel





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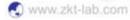
1/F, No. 101, Building B, No. 6, Tangwei Community Industrial Avenue, Fuhai Street, Bao'an District, Shenzhen, China

+86-755-2233 6688







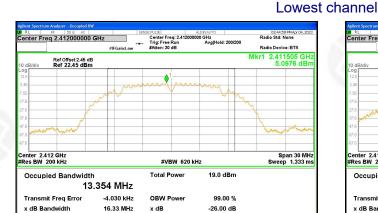






802.11b

802.11g



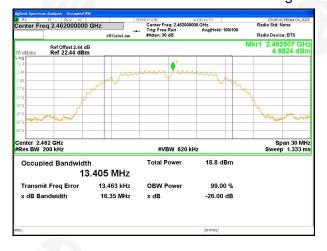


Middle channel





Highest channel





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802.11n20

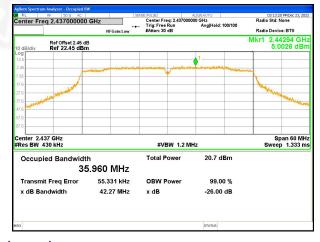
802.11n40 Lowest channel



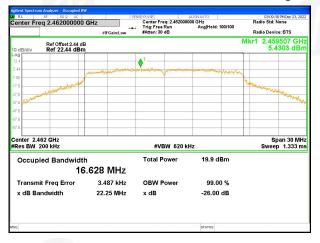


Middle channel





Highest channel



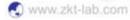


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8.PEAK OUTPUT POWER TEST

Test Requirement:	FCC Part15 C Section 15.247 (b)(3)	
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02	
	KDB 662911 D01 Multiple Transmitter Output v02r01	

8.1 APPLIED PROCEDURES/LIMIT

	FCC Part15 (15.247) , Subpart C				
Section	Test Item Limit Frequency Range (MHz) Result				
45 047/b)/0)	Peak Output Power(SISO)	1 watt or 30dBm	2400 2492 5	PASS	
15.247(b)(3)	Peak Output Power(MIMO)	28dBm	2400-2483.5	PASS	

Note:For 802.11n(MIMO), 30dBm-(8dBi-6dBi)=28dBm

8.2 TEST PROCEDURE

a. The EUT was directly connected to the Power meter

8.3 DEVIATION FROM STANDARD

No deviation.

8.4 TEST SETUP

EUT	POWER	METER
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8.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

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8.6 TEST RESULT

Temperature :	26℃	Relative Humidity:	54%
Pressure :	101kPa	Test Voltage :	AC 120V/60Hz

Operation	СН	Peak Output Power (dBm)			
mode	OH	ANT0	ANT1	Total	
	Low	12.11	12.62	1	
802.11b	Middle	14.31	14.56	1	
	High	14.17	14.18	/	
	Low	12.14	12.61	/	
802.11g	Middle	14.32	14.56	/	
	High	14.19	14.12	/	
	Low	12.12	12.64	15.40	
802.11n(HT20)	Middle	14.3	14.55	17.44	
	High	14.18	14.13	17.17	
	Low	14.34	14.33	17.35	
802.11n(HT40)	Middle	14.74	14.99	17.88	
	High	13.98	13.99	17.00	

Directional Gain Calculations for In-Band Measurements

- a) Basic methodology with N_{ANT} transmit antennas, each with the same directional gain G_{ANT} dBi, being driven by N_{ANT} transmitter outputs of equal power. Directional gain is to be computed as follows:
- (i) If any transmit signals are correlated with each other,

Directional gain = G_{ANT} + 10 log(N_{ANT}) dBi

(ii) If all transmit signals are completely uncorrelated with each other,

Directional gain = G_{ANT}

802.11b/g is SISO(transmit signals are completely uncorrelated), 802.11n is MIMO(transmit

signals are correlated)

Note: EIRP=Peak Output Power+Directional gain















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9. CONDUCTED BAND EDGE AND SPURIOUS EMISSION

Test Requirement:	FCC Part15 C Section 15.247 (d)
Test Method:	KDB558074 D0115.247 Meas Guidancev05r02

9.1 APPLICABLE STANDARD

in any 100 kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in§15.205(a), must also comply with the radiated emission limits specified in15.209(a).

9.2 TEST PROCEDURE

Using the following spectrum analyzer setting:

- A) Set the RBW = 100KHz.
- B) Set the VBW = 300KHz.
- C) Sweep time = auto couple.
- D) Detector function = peak.
- E) Trace mode = max hold.
- F) Allow trace to fully stabilize.

9.3 DEVIATION FROM STANDARD

No deviation.

9.4 TEST SETUP



9.5 EUT OPERATION CONDITIONS

The EUT tested system was configured as the statements of 2.4 Unless otherwise a special operating condition is specified in the follows during the testing.

9.6 TEST RESULTS

Note: The limit for 802.11n20/40 mode should be reduced by the additional 3dB (10*log(2)=3dB).

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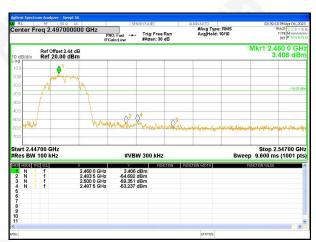


Test plot as follows: Antenna 0

Test mode:802.11b

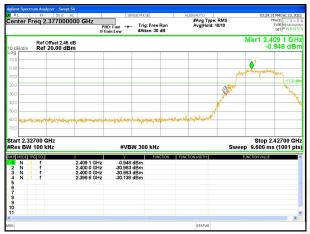


Lowest channel

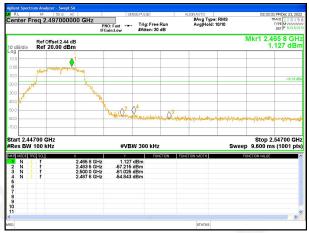


Highest channel

Test mode:802.11g



Lowest channel



Highest channel

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