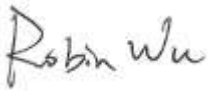
MEASUREMENT REPORT

FCC PART 15.247 WLAN 802.11 b/g/n

FCC ID:	CFS8DLWLE200N2
APPLICANT:	Honeywell International Inc.
Application Type:	Certification
Product:	WIRELESS-BGN 2X2 NETWORK MINI PCIE ADAPTER
Model No.:	WLE200N2
Brand Name:	Honeywell
FCC Classification:	Digital Transmission System (DTS)
FCC Rule Part(s):	Part 15.247
Test Procedure(s):	ANSI C63.10-2009 KDB 558074 D01v03r01, KDB 662911 D01v02r01
Test Date:	February 07 ~ 17, 2014

Reviewed By : 
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Revision History

Report No.	Version	Description	Issue Date
1405RSU01001	Rev. 01	Initial report	05-19-2014

§2.1033 General Information

Applicant:	Honeywell International Inc.
Applicant Address:	2 Corporate Center Drive, Melville, NY 11747-3265 USA
Manufacturer:	Honeywell International Inc.
Manufacturer Address:	2 Corporate Center Drive, Melville, NY 11747-3265 USA
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
MRT FCC Registration No.:	809388
FCC Rule Part(s):	Part 15.247
FCC ID:	CFS8DLWLE200N2
Model Name:	WLE200N2
Test Device Serial No.:	N/A ☐ Production ☒ Pre-Production ☐ Engineering
FCC Classification:	Digital Transmission System (DTS)
Date(s) of Test:	February 07 ~ 12, 2014
Test Report S/N:	1405RSU01001

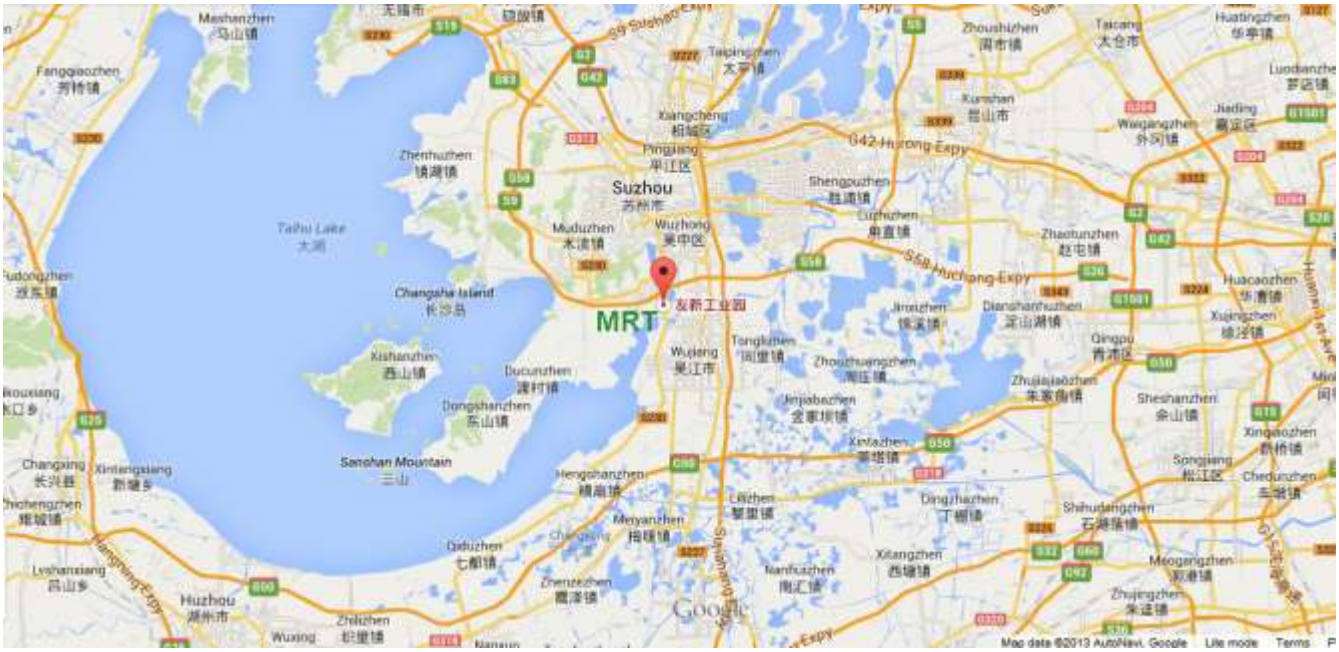
1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2009 on September 30, 2013.



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	WIRELESS-BGN 2X2 NETWORK MINI PCIE ADAPTER
Model No.	WLE200N2
Frequency Range	802.11b/g/n: 2412 ~ 2462 MHz
Maximum Output Power	**802.11b/g/n:** 802.11b: 18.12dBm 802.11g: 23.34dBm 802.11n-HT20: 26.90dBm 802.11n-HT40: 26.87dBm
Type of Modulation	802.11b: DSSS 802.11g/n: OFDM

2.2. Description of Available Antennas

Frequency Band (GHz)	Type	Model No.	Antenna Gain (dBi)
2.4 ~ 2.5	Dual Band Omni Directional Antenna	SAA04-22008A	4.5
2.4 ~ 2.5	Omni Directional Antenna	WD12020124G	2.0

Note: The antenna (yellow marker) was used in this test report.

2.3. Frequency / Channel Opreation

Channel for 802.11b/g/n-HT20

Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz
04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz
10	2457 MHz	11	2462 MHz	N/A	N/A

Channel for 802.11n-HT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
03	2422 MHz	04	2427 MHz	05	2432 MHz
06	2437 MHz	07	2442 MHz	08	2447 MHz
09	2452 MHz	N/A	N/A	N/A	N/A

2.4. Device Capabilities

This device contains the following capabilities:

802.11b/g/n WLAN (DTS)

Note: 2.4GHz WLAN (DTS) operation is possible in 20MHz and 40MHz channel bandwidths. The maximum achievable duty cycles for all modes were determined based on measurements performed on a spectrum analyzer in zero-span mode with RBW = 8MHz, VBW = 50MHz, and detector = peak per the guidance of Section 6.0 b) of KDB 558074 D01v03r01. The RBW and VBW were both greater than 50/T, where T is the minimum transmission duration, and the number of sweep points across T was greater than 100. The duty cycles are as follows:

- 802.11b – 99.74%
- 802.11g 20MHz Bandwidth – 98.43%
- 802.11n 20MHz Bandwidth – 98.12%
- 802.11n 40MHz Bandwidth – 96.09%

2.5. Test Configuration

The WIRELESS-BGN 2X2 NETWORK MINI PCIE ADAPTER FCC ID: CFS8DLWLE200N2 was tested per the guidance of KDB 558074 D01v03r01. ANSI C63.10-2009 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

2.6. Test Software

The test utility software used during testing was ART Version 2.1.

Power Parameter Value of the test software setting:

Test Mode	Test Channel	Chain 0	Chain 1	Test Mode	Test Channel	Chain 0	Chain 1	Chain 0+1
802.11b	2412	16	16	n-HT20	2412	12	13	12.5
	2437	16	16		2437	16	16	16
	2462	16	16		2462	12.5	10.5	10
802.11g	2412	13	13.5	n-HT40	2422	9.5	11	10
	2437	16	16		2437	16	16	16
	2462	13	12		2452	11	11	9

2.7. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.8. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the trade name and FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.

3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Testing Unlicensed Wireless Devices (ANSI C63.10-2009), and the guidance provided in KDB 558074 D01v03r01 were used in the measurement of the **WIRELESS-BGN 2X2 NETWORK MINI PCIE ADAPTER FCC ID: CFS8DLWLE200N2.**

Deviation from measurement procedure…….....None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, 50Ω/50uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions is used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2009 at Clause 4.3.

Line conducted emissions test results are shown in Section 7.7.

3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GH absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. An MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable.
For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 0.8 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.
Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB Beamwidth of horn antenna, the horn antenna should be always directed to the EUT when rising height.

4. ANTENNA REQUIREMENTS

Excerpt from §15.203 of the FCC Rules/Regulations:

"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can 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 antenna of the **WIRELESS-BGN 2X2 NETWORK MINI PCIE ADAPTER** is permanently attached.
- There are no provisions for connection to an external antenna.

Conclusion:

The **WIRELESS-BGN 2X2 NETWORK MINI PCIE ADAPTER FCC ID: CFS8DLWLE200N2** unit complies with the requirement of §15.203.

5. TEST EQUIPMENT CALIBRATION DATA

Conducted Emissions

Instrument	Manufacturer	Type No.	Serial No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	101209	1 year	2014/11/08
Two-Line V-Network	R&S	ENV216	101683	1 year	2014/11/08
Two-Line V-Network	R&S	ENV216	101684	1 year	2014/11/08
Temperature/ Meter Humidity	Anymetre	TH101B	SR2-01	1 year	2014/11/15

Radiated Emission

Instrument	Manufacturer	Type No.	Serial No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9010A	MY5144016A	1 year	2015/01/04
Preamplifier	MRT	AP01G18	1310002	1 year	2014/10/07
Loop Antenna	Schwarzbeck	FMZB1519	1519-041	1 year	2014/11/24
TRILOG Antenna	Schwarzbeck	VULB9162	9162-047	1 year	2014/11/24
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1167	1 year	2014/11/24
Broadband Horn Antenna	Schwarzbeck	BBHA9170	9170-549	1 year	2014/12/11
Temperature/Humidity Meter	Anymetre	TH101B	AC1-01	1 year	2014/11/15

Conducted Test Equipment

Instrument	Manufacturer	Type No.	Serial No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9010A	MY5144016A	1 year	2015/01/04
Power Sensor	Agilent	U2021XA	MY52450003	1 year	2014/12/14
Temperature/Humidity Meter	Anymetre	TH101B	TR3-01	1 year	2014/11/15

6. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

AC Conducted Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 150kHz~30MHz: ± 3.46dB
Radiated Emission Measurement
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)): 9kHz ~ 1GHz: ± 4.18dB 1GHz ~ 25GHz: ± 4.76dB

7. TEST RESULT

7.1. Summary

Company Name: **Honeywell Security Group**

FCC ID: **CFS8DLWLE200N2**

FCC Classification: **Digital Transmission System (DTS)**

Data Rate(s) Tested: **1Mbps ~ 11Mbps (b); 6Mbps ~ 54Mbps (g);**
13.0/14.4Mbps ~ 130.0/144.0Mbps (n-HT20MHz BW);
27.0/30.0Mbps ~ 270.0/300.0Mbps (n-HT40MHz BW);

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.247(a)(2)	6dB Bandwidth	≥ 500kHz	Conducted	Pass	Section 7.2
15.247(b)(3)	Output Power	≤ 1Watt		Pass	Section 7.3
15.247(e)	Power Spectral Density	≤ 8dBm / 3kHz Band		Pass	Section 7.4
15.247(d)	Band Edge / Out-of-Band Emissions	≥ 20dBc(Peak)		Pass	Section 7.5
15.205 15.209	General Field Strength Limits (Restricted Bands and Radiated Emission Limits)	Emissions in restricted bands must meet the radiated limits detailed in 15.209	Radiated	Pass	Section 7.6
15.207	AC Conducted Emissions 150kHz - 30MHz	< FCC 15.207 limits	Line Conducted	Pass	Section 7.7

Notes:

1) All modes of operation and data rates were investigated. The test results shown in the following sections represent the worst case emissions.
2) The analyzer plots shown in this section were all taken with a correction table loaded into the analyzer. The correction table was used to account for the losses of the cables and attenuators used as part of the system to connect the EUT to the analyzer at all frequencies of interest.
3) All antenna port conducted emissions testing was performed on a test bench with the antenna port of the EUT connected to the spectrum analyzer through calibrated cables and attenuators.

7.2. 6dB Bandwidth Measurement

7.2.1. Test Limit

The minimum 6dB bandwidth shall be at least 500 kHz.

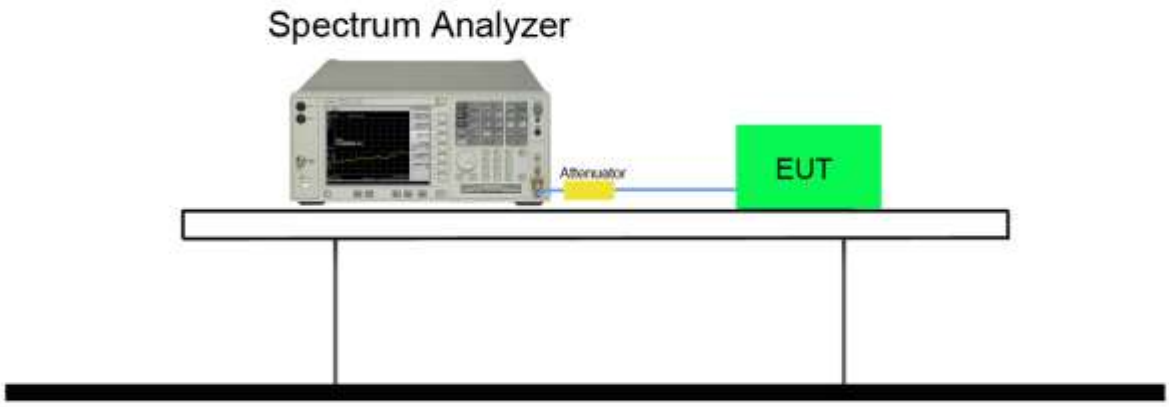
7.2.2. Test Procedure used

KDB 558074 D01v03r01 – Section 8.2 Option 2

7.2.3. Test Setting

1. The Spectrum's automatic bandwidth measurement capability was used to perform the 6dB bandwidth measurement. The "X" dB bandwidth parameter was set to X = 6. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. Set RBW = 100 kHz
3. VBW ≥ 3 × RBW
4. Detector = Peak
5. Trace mode = max hold
6. Sweep = auto couple
7. Allow the trace was allowed to stabilize

7.2.4. Test Setup



7.2.5. Test Result

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	99% Bandwidth (MHz)	Result
Chain 0							
802.11b	1	01	2412	10.12	≥0.5	14.07	Pass
802.11b	1	06	2437	10.12	≥0.5	14.07	Pass
802.11b	1	11	2462	10.11	≥0.5	14.08	Pass
Chain 1							
802.11b	1	01	2412	10.11	≥0.5	14.04	Pass
802.11b	1	06	2437	10.11	≥0.5	14.04	Pass
802.11b	1	11	2462	10.11	≥0.5	14.04	Pass

802.11b 6dB Bandwidth - Chain 0

Channel 01 (2412MHz)

Channel 06 (2437MHz)

Channel 11 (2462MHz)

802.11b 6dB Bandwidth - Chain 1	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	99% Bandwidth (MHz)	Result
Chain 0							
802.11g	6	01	2412	16.40	≥0.5	16.62	Pass
802.11g	6	06	2437	16.42	≥0.5	16.77	Pass
802.11g	6	11	2462	16.42	≥0.5	16.64	Pass
Chain 1							
802.11g	6	01	2412	16.40	≥0.5	16.63	Pass
802.11g	6	06	2437	16.44	≥0.5	16.74	Pass
802.11g	6	11	2462	16.42	≥0.5	16.61	Pass

802.11g 6dB Bandwidth – Chain 0

Channel 01 (2412MHz)

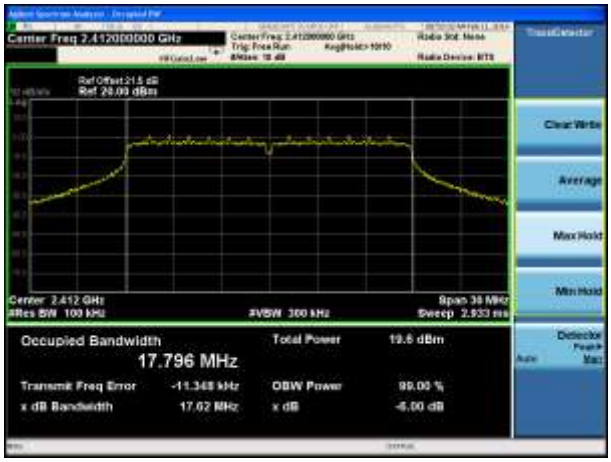
Channel 06 (2437MHz)

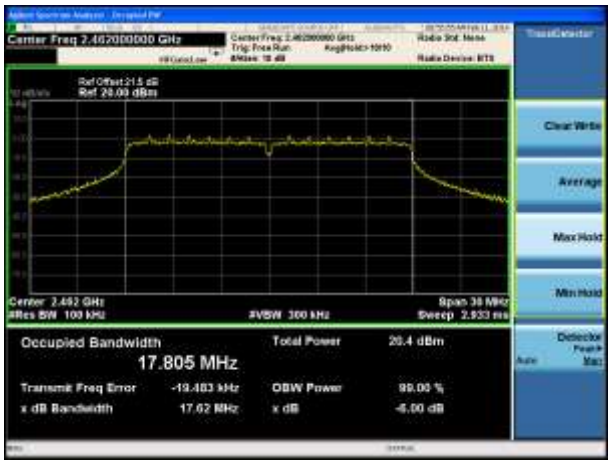
Channel 11 (2462MHz)

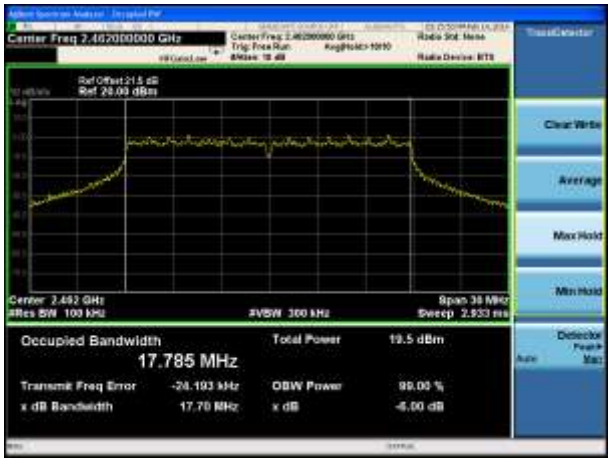
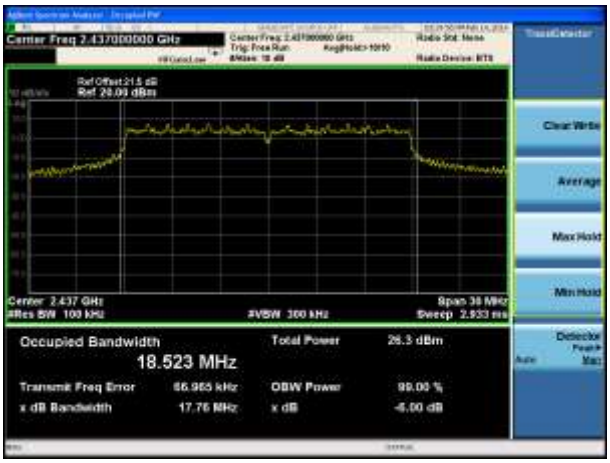
802.11g 6dB Bandwidth – Chain 1	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

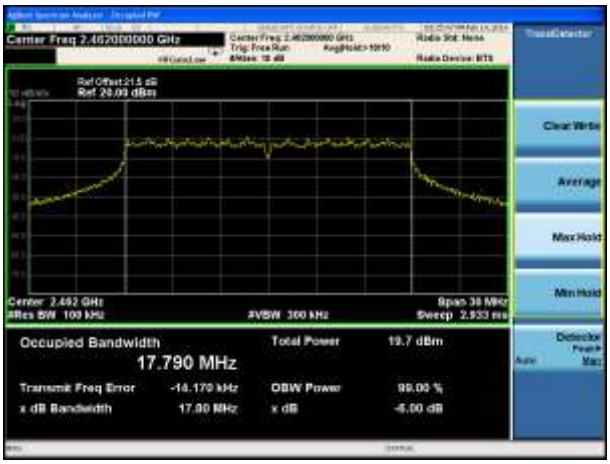
Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	99% Bandwidth (MHz)	Result
Chain 0							
802.11n-HT20	6.5/7.2	01	2412	17.62	≥0.5	17.80	Pass
802.11n-HT20	6.5/7.2	06	2437	17.63	≥0.5	17.87	Pass
802.11n-HT20	6.5/7.2	11	2462	17.62	≥0.5	17.81	Pass
Chain 1							
802.11n-HT20	6.5/7.2	01	2412	17.64	≥0.5	17.82	Pass
802.11n-HT20	6.5/7.2	06	2437	17.64	≥0.5	17.88	Pass
802.11n-HT20	6.5/7.2	11	2462	17.63	≥0.5	17.80	Pass
Chain 0 / Chain 0 + 1							
802.11n-HT20	13.0/14.4	01	2412	17.70	≥0.5	17.78	Pass
802.11n-HT20	13.0/14.4	06	2437	17.71	≥0.5	17.87	Pass
802.11n-HT20	13.0/14.4	11	2462	17.70	≥0.5	17.79	Pass
Chain 1 / Chain 0 + 1							
802.11n-HT20	13.0/14.4	01	2412	17.77	≥0.5	17.82	Pass
802.11n-HT20	13.0/14.4	06	2437	17.76	≥0.5	17.52	Pass
802.11n-HT20	13.0/14.4	11	2462	17.80	≥0.5	17.79	Pass

802.11n-HT20 6dB Bandwidth – Chain 0

Channel 01 (2412MHz)	Channel 06 (2437MHz)
	

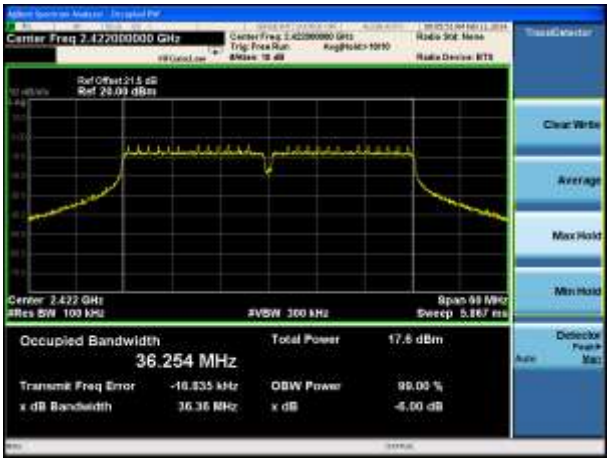
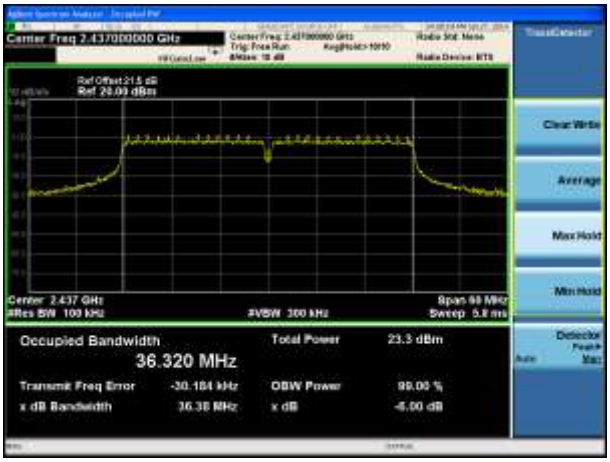
Channel 11 (2462MHz)	
	
802.11n-HT20 6dB Bandwidth – Chain 1	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

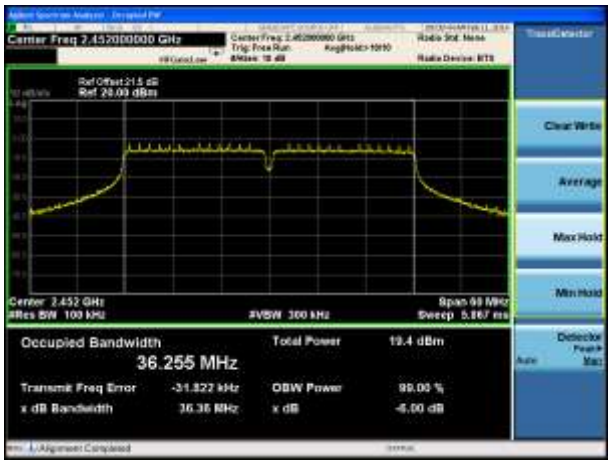
802.11n-HT20 6dB Bandwidth – Chain 0 / Chain 0 + 1	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	
802.11n-HT20 6dB Bandwidth – Chain 1 / Chain 0 + 1	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	

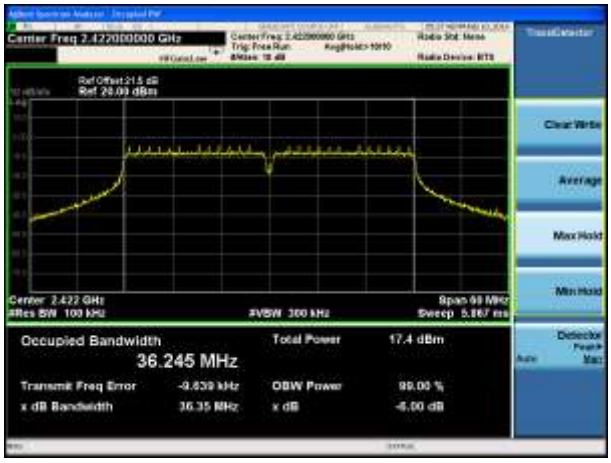
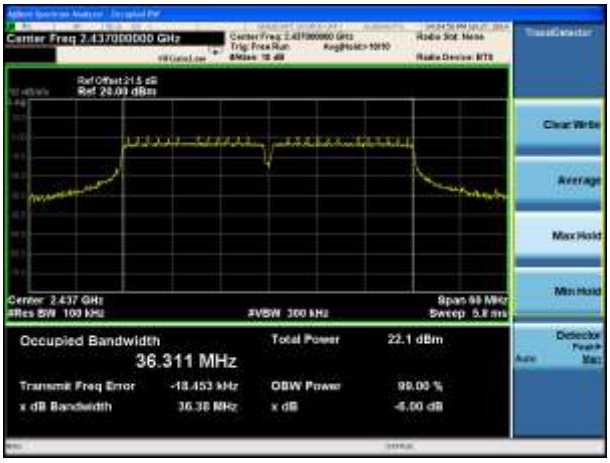
Channel 11 (2462MHz)	
	

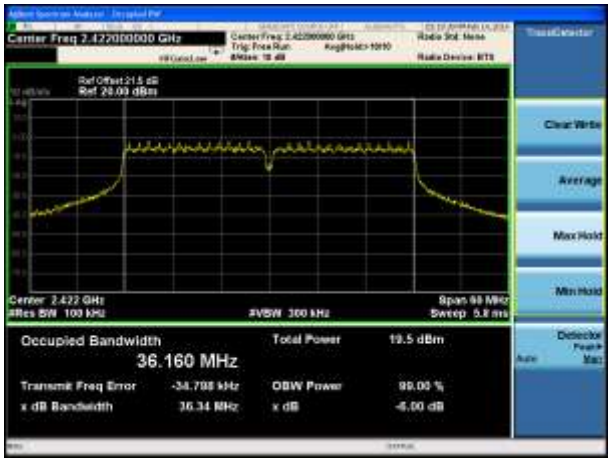
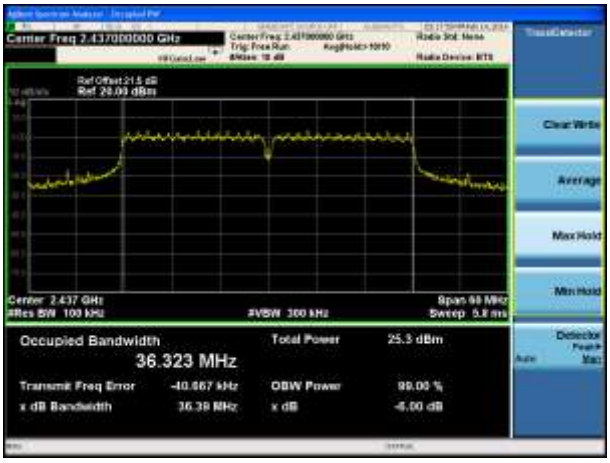
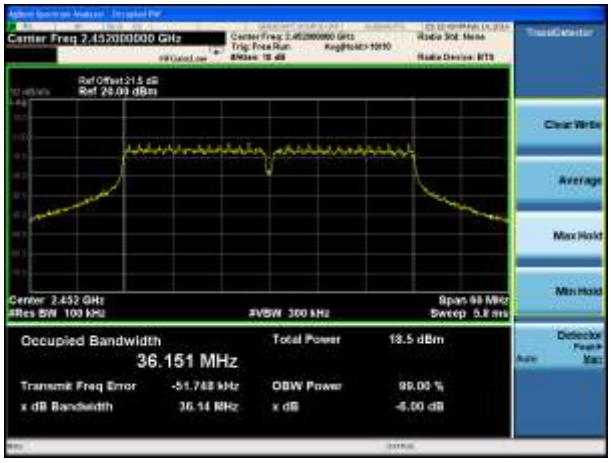
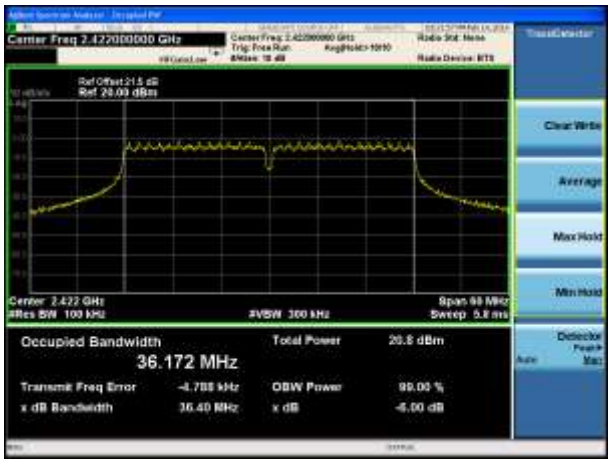
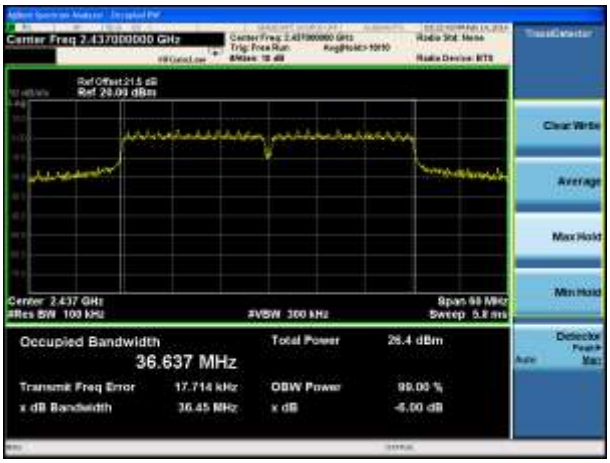
Test Mode	Data Rate (Mbps)	Channel No.	Frequency (MHz)	6dB Bandwidth (MHz)	Limit (MHz)	99% Bandwidth (MHz)	Result
Chain 0							
802.11n-HT40	13.5/15.0	03	2422	36.36	≥0.5	36.25	Pass
802.11n-HT40	13.5/15.0	06	2437	36.38	≥0.5	36.32	Pass
802.11n-HT40	13.5/15.0	09	2452	36.36	≥0.5	36.26	Pass
Chain 1							
802.11n-HT40	13.5/15.0	03	2422	36.35	≥0.5	36.25	Pass
802.11n-HT40	13.5/15.0	06	2437	36.38	≥0.5	36.31	Pass
802.11n-HT40	13.5/15.0	09	2452	36.34	≥0.5	36.23	Pass
Chain 0 / Chain 0 + 1							
802.11n-HT40	27.0/30.0	03	2422	36.34	≥0.5	36.16	Pass
802.11n-HT40	27.0/30.0	06	2437	36.39	≥0.5	36.32	Pass
802.11n-HT40	27.0/30.0	09	2452	36.14	≥0.5	36.15	Pass
Chain 1 / Chain 0 + 1							
802.11n-HT40	27.0/30.0	03	2422	36.40	≥0.5	36.17	Pass
802.11n-HT40	27.0/30.0	06	2437	36.45	≥0.5	36.64	Pass
802.11n-HT40	27.0/30.0	09	2452	36.38	≥0.5	36.16	Pass

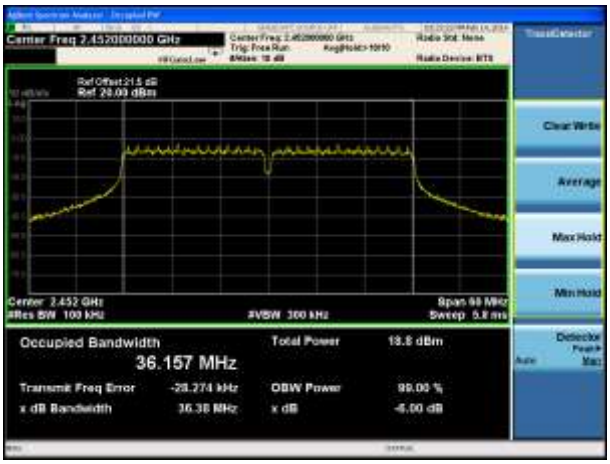
802.11n-HT40 6dB Bandwidth – Chain 0

Channel 03 (2422MHz)	Channel 06 (2437MHz)
	

Channel 09 (2452MHz)	
	

802.11n-HT40 6dB Bandwidth – Chain 1	
Channel 03 (2422MHz)	**Channel 06 (2437MHz)**
	
Channel 09 (2452MHz)	
	

802.11n-HT40 6dB Bandwidth – Chain 0 / Chain 0 + 1	
Channel 03 (2422MHz)	**Channel 06 (2437MHz)**
	
Channel 09 (2452MHz)	
	
802.11n-HT40 6dB Bandwidth – Chain 1 / Chain 0 + 1	
Channel 03 (2422MHz)	**Channel 06 (2437MHz)**
	

Channel 09 (2452MHz)	
	

7.3. Output Power Measurement

7.3.1. Test Limit

systems employing digital modulation techniques operating in the bands 2400-2483.5 MHz and 5725-5850 MHz, the maximum peak conducted output power shall not exceed 1 W, the e.i.r.p. shall not exceed 4 W.

7.3.2. Test Procedure Used

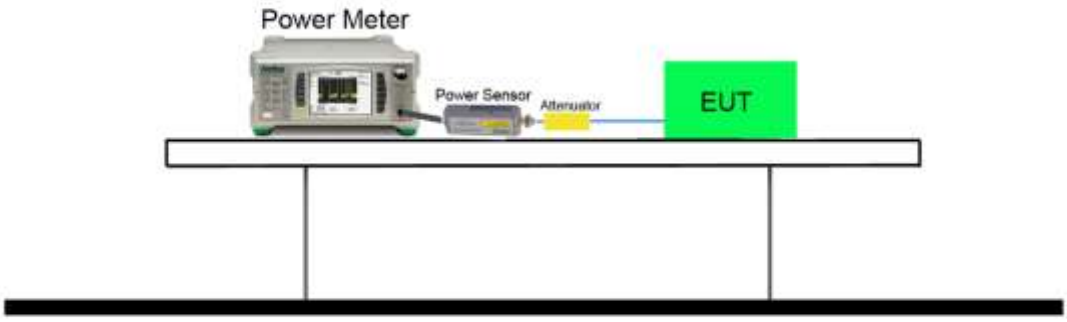
KDB 558074 D01v03r01 - Section 9.1.3 PKPM1 Peak Power Method (for signals with BW ≤ 50MHz)

7.3.3. Test Setting

Method PKPM1 (Peak Power Measurement of Signals with DTS BW ≤ 50MHz)

Peak power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The pulse sensor employs a VBW = 50MHz so this method was only used for signals whose DTS bandwidth was less than or equal to 50MHz.

7.3.4. Test Setup



7.3.5. Test Result

Power output test was verified over all data rates of each mode shown as below, and then choose the maximum power output (yellow marker) for final test of each Channel.

MCS Index for 802.11n	N_{Tx}			Data Rate (Mbps)			
		b	g	20MHz Bandwidth		40MHz Bandwidth	
				800ns GI	400ns GI	800ns GI	400ns GI
0	1	1	6	6.5	7.2	13.5	15.0
1	1	2	9	13.0	14.4	27.0	30.0
2	1	5.5	12	19.5	21.7	40.5	45.0
3	1	11	18	26.0	28.9	54.0	60.0
4	1	--	24	39.0	43.3	81.0	90.0
5	1	--	36	52.0	57.8	108.0	120.0
6	1	--	48	58.5	65.0	121.5	135.0
7	1	--	54	65.0	72.2	135.0	150.0
8	2	1	6	13.0	14.4	27.0	30.0
9	2	2	9	26.0	28.9	54.0	60.0
10	2	5.5	12	39.0	43.3	81.0	90.0
11	2	11	18	52.0	57.8	108.0	120.0
12	2	--	24	78.0	86.7	162.0	180.0
13	2	--	36	104.0	115.6	216.0	240.0
14	2	--	48	117.0	130.0	243.0	270.0
15	2	--	54	130.0	144.0	270.0	300.0

Output power at various data rates for Chain 0

Test Mode	Bandwidth	Channel	Frequency (MHz)	Data Rate (Mbps)	Peak Power (dBm)
802.11b	20	6	2437	1	18.12
				5.5	18.03
				11	17.95
802.11g	20	6	2437	6	23.34
				24	23.15
				54	23.01
802.11n	20	6	2437	6.5 (MCS0)	23.61
				39 (MCS4)	23.50
				65 (MCS7)	23.22
802.11n	40	6	2437	13.5 (MCS0)	23.28
				81 (MCS4)	23.16
				135 (MCS7)	23.07

Test Mode	N_{Tx}	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Chain 0 Peak Power (dBm)	Chain 1 Peak Power (dBm)	Total Peak Power (dBm)	Limit (dBm)	E.I.R.P (dBm)	E.I.R.P Limit (dBm)	Result
b	1	1	1	2412	17.93	--	17.93	≤30	22.43	≤36	Pass
b	1	1	6	2437	18.12	--	18.12	≤30	22.62	≤36	Pass
b	1	1	11	2462	18.10	--	18.10	≤30	22.60	≤36	Pass
b	1	1	1	2412	--	18.02	18.02	≤30	22.52	≤36	Pass
b	1	1	6	2437	--	17.34	17.34	≤30	21.84	≤36	Pass
b	1	1	11	2462	--	16.62	16.62	≤30	21.12	≤36	Pass
g	1	6	1	2412	21.16	--	21.16	≤30	25.66	≤36	Pass
g	1	6	6	2437	23.34	--	23.34	≤30	27.84	≤36	Pass
g	1	6	11	2462	21.58	--	21.58	≤30	26.08	≤36	Pass
g	1	6	1	2412	--	21.26	21.26	≤30	25.76	≤36	Pass
g	1	6	6	2437	--	22.51	22.51	≤30	27.01	≤36	Pass
g	1	6	11	2462	--	19.81	19.81	≤30	24.31	≤36	Pass
n-HT20	1	6.5	1	2412	20.34	--	20.34	≤30	24.84	≤36	Pass
n-HT20	1	6.5	6	2437	23.61	--	23.61	≤30	28.11	≤36	Pass
n-HT20	1	6.5	11	2462	21.25	--	21.25	≤30	25.75	≤36	Pass
n-HT20	1	6.5	1	2412	--	20.76	20.76	≤30	25.26	≤36	Pass
n-HT20	1	6.5	6	2437	--	22.39	22.39	≤30	26.89	≤36	Pass
n-HT20	1	6.5	11	2462	--	18.25	18.25	≤30	22.75	≤36	Pass
n-HT20	2	13.0	1	2412	21.60	22.24	24.94	≤30	29.44	≤36	Pass
n-HT20	2	13.0	6	2437	23.70	24.07	26.90	≤30	31.40	≤36	Pass
n-HT20	2	13.0	11	2462	19.87	19.80	22.85	≤30	27.35	≤36	Pass
n-HT40	1	13.5	3	2422	18.07	--	18.07	≤30	22.57	≤36	Pass
n-HT40	1	13.5	6	2437	23.28	--	23.28	≤30	27.78	≤36	Pass
n-HT40	1	13.5	9	2452	19.90	--	19.90	≤30	24.40	≤36	Pass
n-HT40	1	13.5	3	2422	--	18.12	18.12	≤30	22.62	≤36	Pass
n-HT40	1	13.5	6	2437	--	22.76	22.76	≤30	27.26	≤36	Pass
n-HT40	1	13.5	9	2452	--	18.37	18.37	≤30	22.87	≤36	Pass
n-HT40	2	27.0	3	2422	18.76	19.83	22.34	≤30	26.84	≤36	Pass
n-HT40	2	27.0	6	2437	23.87	23.84	26.87	≤30	31.37	≤36	Pass
n-HT40	2	27.0	9	2452	18.27	18.52	21.41	≤30	25.91	≤36	Pass

Note: The E.I.R.P power = Peak Power + Antenna Gain.

Test Result of Average Output Power (Reporting Only)

Test Mode	N_{Tx}	Data Rate (Mbps)	Channel No.	Freq. (MHz)	Chain 0 Average Power (dBm)	Chain 1 Average Power (dBm)	Total Average Power (dBm)	Limit (dBm)	Result
b	1	1	1	2412	15.54	--	15.54	≤30	Pass
b	1	1	6	2437	15.84	--	15.84	≤30	Pass
b	1	1	11	2462	16.33	--	16.33	≤30	Pass
b	1	1	1	2412	--	15.70	15.70	≤30	Pass
b	1	1	6	2437	--	15.01	15.01	≤30	Pass
b	1	1	11	2462	--	14.35	14.35	≤30	Pass
g	1	6	1	2412	13.30	--	13.30	≤30	Pass
g	1	6	6	2437	15.82	--	15.82	≤30	Pass
g	1	6	11	2462	13.61	--	13.61	≤30	Pass
g	1	6	1	2412	--	13.50	13.50	≤30	Pass
g	1	6	6	2437	--	15.12	15.12	≤30	Pass
g	1	6	11	2462	--	11.18	11.18	≤30	Pass
n-HT20	1	6.5	1	2412	12.44	--	12.44	≤30	Pass
n-HT20	1	6.5	6	2437	16.15	--	16.15	≤30	Pass
n-HT20	1	6.5	11	2462	13.36	--	13.36	≤30	Pass
n-HT20	1	6.5	1	2412	--	13.12	13.12	≤30	Pass
n-HT20	1	6.5	6	2437	--	15.02	15.02	≤30	Pass
n-HT20	1	6.5	11	2462	--	9.81	9.81	≤30	Pass
n-HT20	2	13.0	1	2412	13.64	15.40	17.62	≤30	Pass
n-HT20	2	13.0	6	2437	16.65	17.94	20.35	≤30	Pass
n-HT20	2	13.0	11	2462	11.46	11.74	14.61	≤30	Pass
n-HT40	1	13.5	3	2422	10.08	--	10.08	≤30	Pass
n-HT40	1	13.5	6	2437	15.87	--	15.87	≤30	Pass
n-HT40	1	13.5	9	2452	11.87	--	11.87	≤30	Pass
n-HT40	1	13.5	3	2422	--	10.56	10.56	≤30	Pass
n-HT40	1	13.5	6	2437	--	14.57	14.57	≤30	Pass
n-HT40	1	13.5	9	2452	--	10.02	10.02	≤30	Pass
n-HT40	2	27.0	3	2422	10.85	12.48	14.75	≤30	Pass
n-HT40	2	27.0	6	2437	16.92	17.85	20.42	≤30	Pass
n-HT40	2	27.0	9	2452	10.12	10.65	13.40	≤30	Pass

7.4. Power Spectral Density Measurement

7.4.1. Test Limit

The maximum permissible power spectral density is 8 dBm in any 3 kHz band.

As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. If multiple modes of operation are possible (e.g., alternative modulation methods), the maximum conducted output power is the highest total transmit power occurring in any mode.

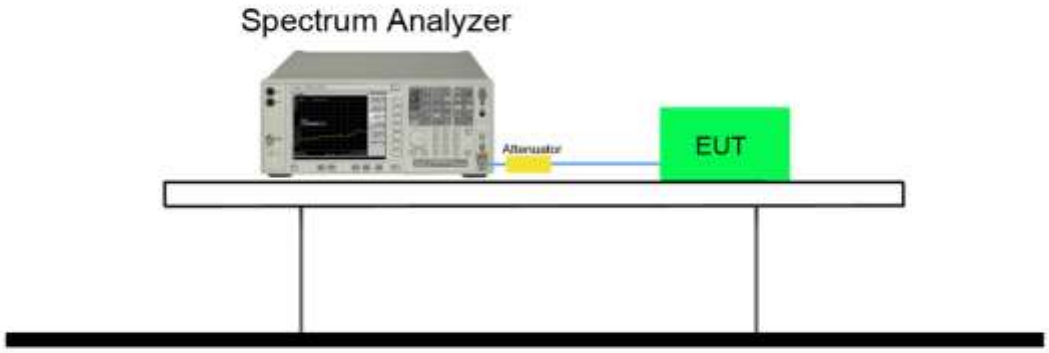
7.4.2. Test Procedure Used

KDB 558074 D01v03r01 - Section 10.2 Method PKPSD

7.4.3. Test Setting

1. Analyzer was set to the center frequency of the DTS Channel under investigation
2. Span = 1.5 times the DTS Channel bandwidth
3. RBW = 100kHz
4. VBW = 300kHz
5. Detector = peak
6. Sweep time = auto couple
7. Trace mode = max hold
8. Trace was allowed to stabilize

7.4.4. Test Setup

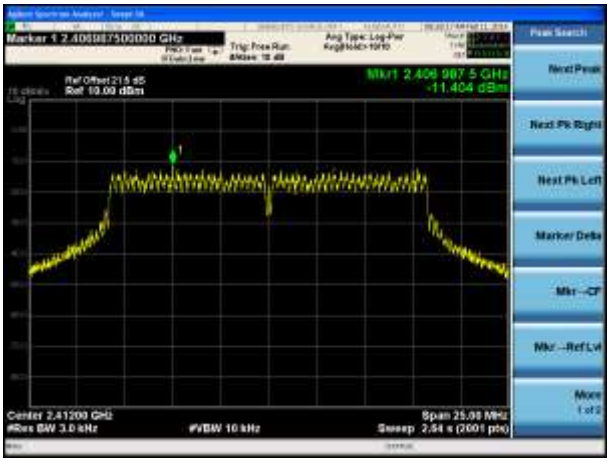
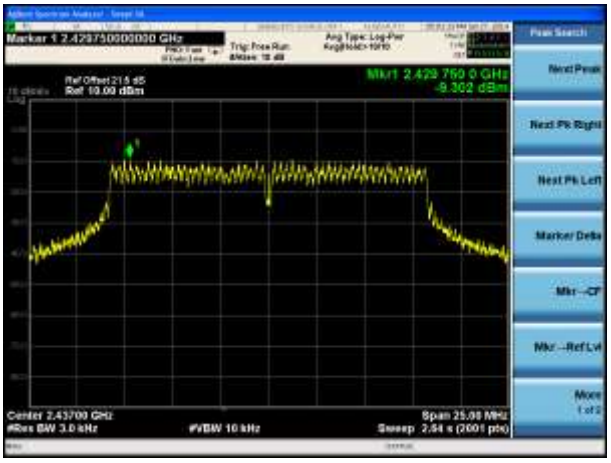


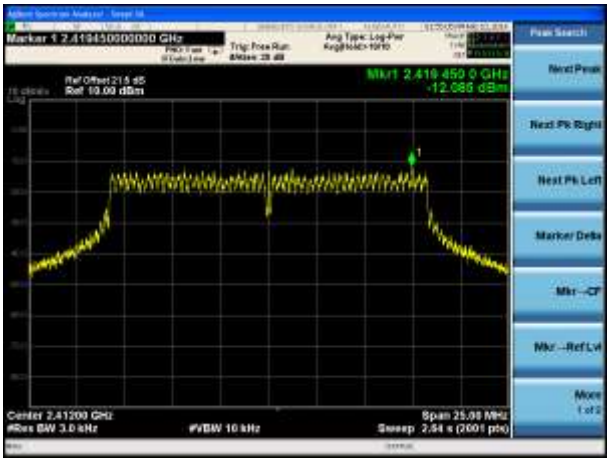
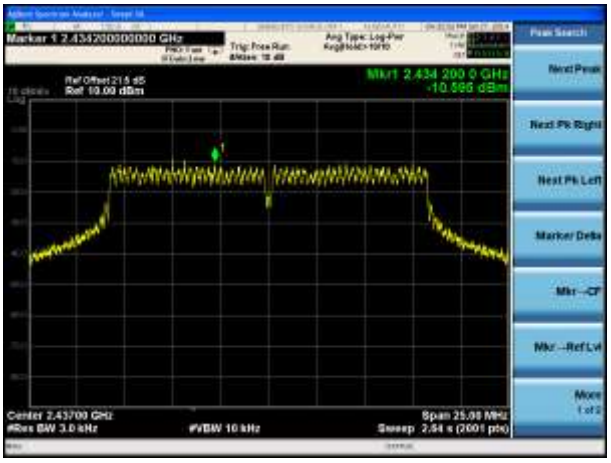
7.4.5. Test Result

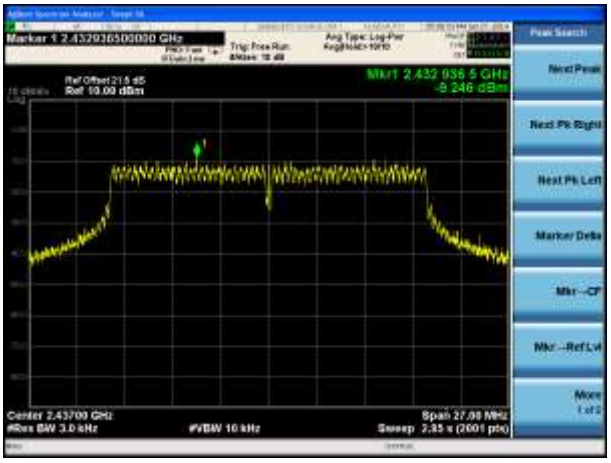
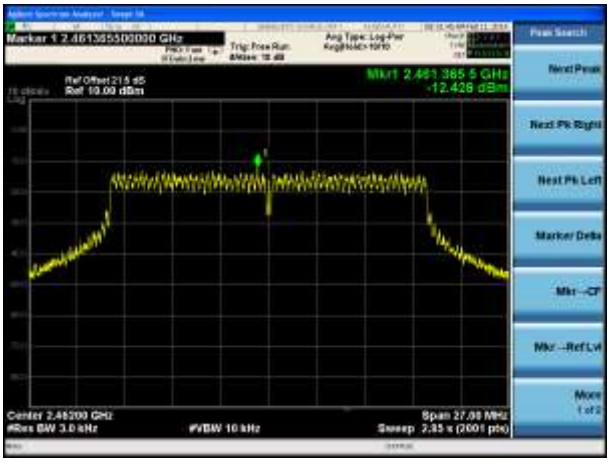
Test Mode	N_{Tx}	Data Rate (Mbps)	Channel No.	Frequency (MHz)	Chain 0 PSD (dBm)	Chain 1 PSD (dBm)	Total PSD (dBm)	Limit (dBm / 3kHz)	Result
11b	1	1	1	2412	-6.959	--	-6.959	≤8.0	Pass
11b	1	1	6	2437	-7.536	--	-7.536	≤8.0	Pass
11b	1	1	11	2462	-7.004	--	-7.004	≤8.0	Pass
11b	1	1	1	2412	--	-8.475	-8.475	≤8.0	Pass
11b	1	1	6	2437	--	-8.741	-8.741	≤8.0	Pass
11b	1	1	11	2462	--	-9.582	-9.582	≤8.0	Pass
11g	1	6	1	2412	-11.404	--	-11.404	≤8.0	Pass
11g	1	6	6	2437	-9.302	--	-9.302	≤8.0	Pass
11g	1	6	11	2462	-12.015	--	-12.015	≤8.0	Pass
11g	1	6	1	2412	--	-12.085	-12.085	≤8.0	Pass
11g	1	6	6	2437	--	-10.595	-10.595	≤8.0	Pass
11g	1	6	11	2462	--	-15.037	-15.037	≤8.0	Pass
11n-HT20	1	6.5	1	2412	-13.091	--	-13.091	≤8.0	Pass
11n-HT20	1	6.5	6	2437	-9.246	--	-9.246	≤8.0	Pass
11n-HT20	1	6.5	11	2462	-12.428	--	-12.428	≤8.0	Pass
11n-HT20	1	6.5	1	2412	--	-12.981	-12.981	≤8.0	Pass
11n-HT20	1	6.5	6	2437	--	-10.384	-10.384	≤8.0	Pass
11n-HT20	1	6.5	11	2462	--	-16.462	-16.462	≤8.0	Pass
11n-HT20	2	13.0	1	2412	-11.904	-9.401	-7.460	≤8.0	Pass
11n-HT20	2	13.0	6	2437	-8.035	-7.417	-4.700	≤8.0	Pass
11n-HT20	2	13.0	11	2462	-13.505	-13.400	-10.44	≤8.0	Pass
11n-HT40	1	13.5	3	2422	-17.973	--	-17.973	≤8.0	Pass
11n-HT40	1	13.5	6	2437	-12.035	--	-12.035	≤8.0	Pass
11n-HT40	1	13.5	9	2452	-15.337	--	-15.337	≤8.0	Pass
11n-HT40	1	13.5	3	2422	--	-17.211	-17.211	≤8.0	Pass
11n-HT40	1	13.5	6	2437	--	-13.145	-13.145	≤8.0	Pass
11n-HT40	1	13.5	9	2452	--	-18.579	-18.579	≤8.0	Pass
11n-HT40	2	27.0	3	2422	-17.076	-16.096	-13.55	≤8.0	Pass
11n-HT40	2	27.0	6	2437	-11.150	-9.232	-7.080	≤8.0	Pass
11n-HT40	2	27.0	9	2452	-17.948	-17.408	-14.66	≤8.0	Pass

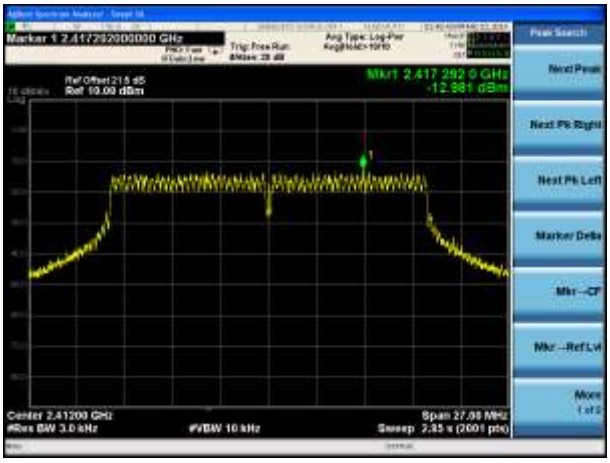
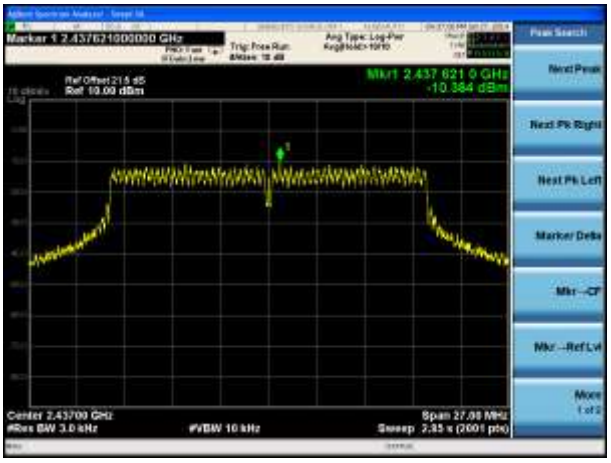
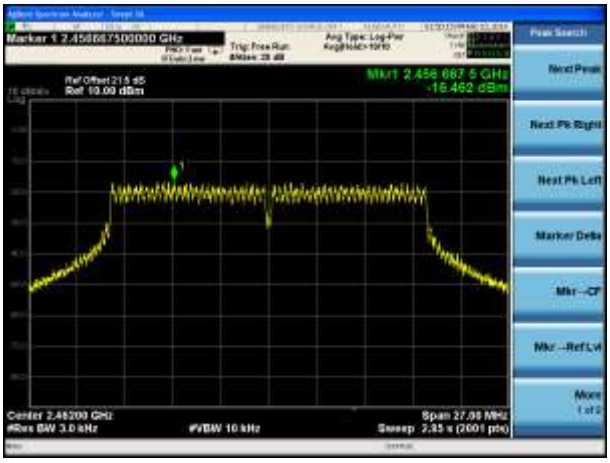
802.11b PSD – Chain 0	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

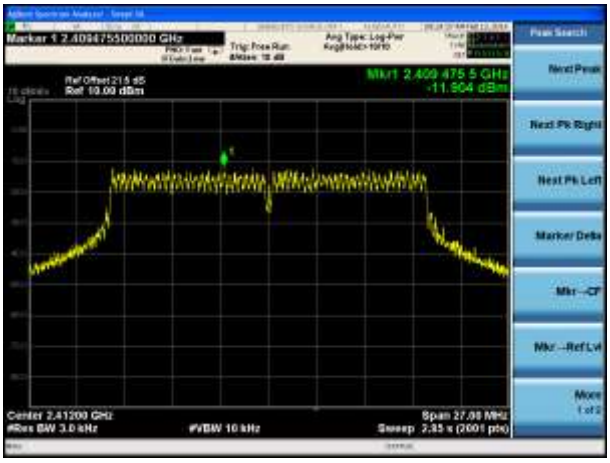
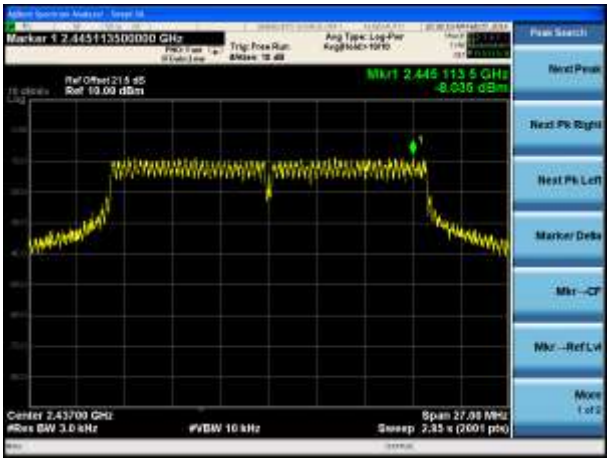
802.11b PSD – Chain 1	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

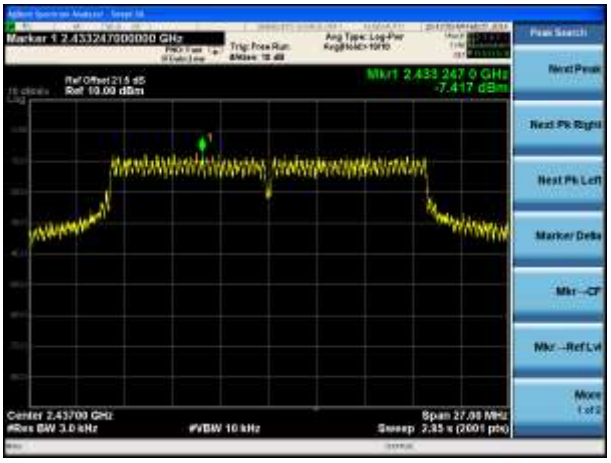
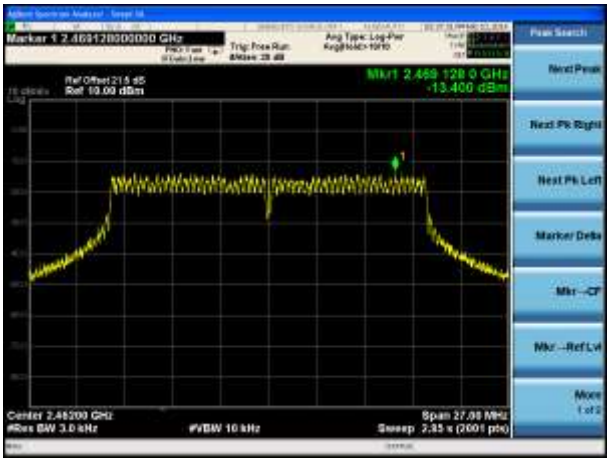
802.11g PSD – Chain 0	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

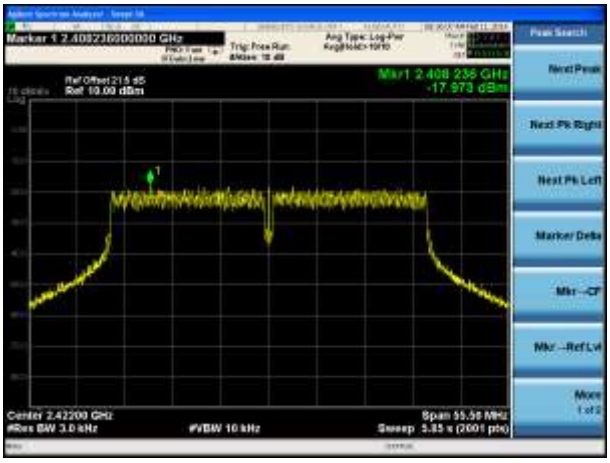
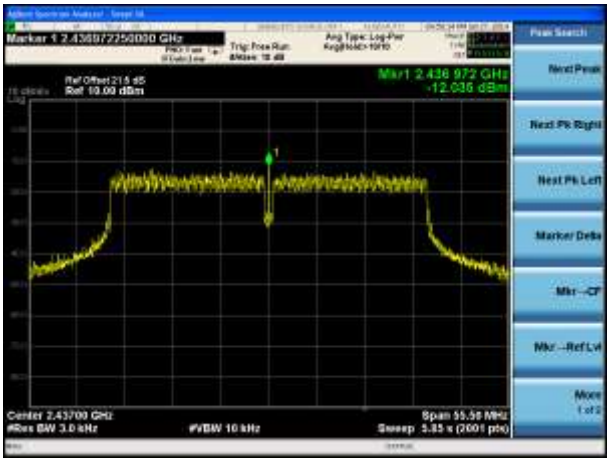
802.11g PSD – Chain 1	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

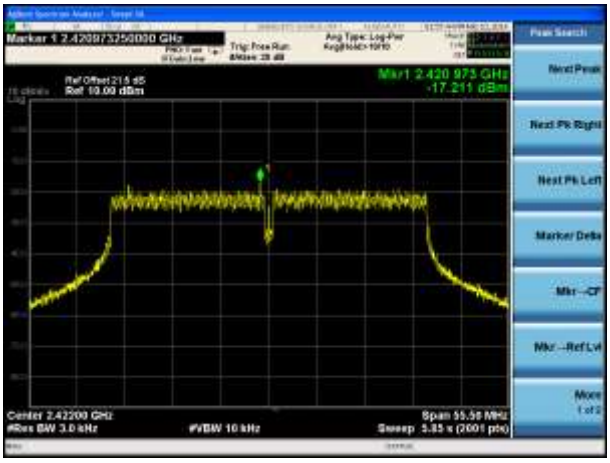
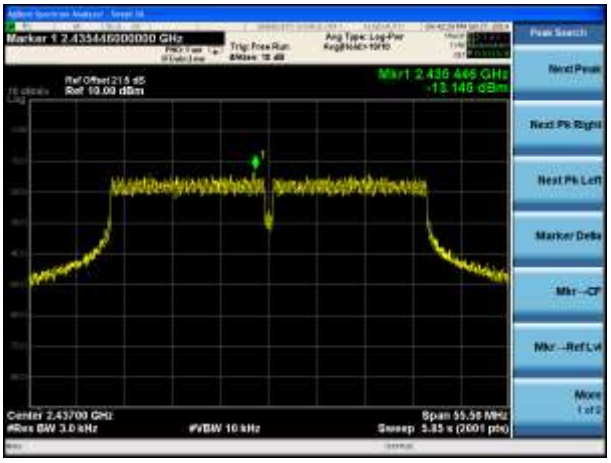
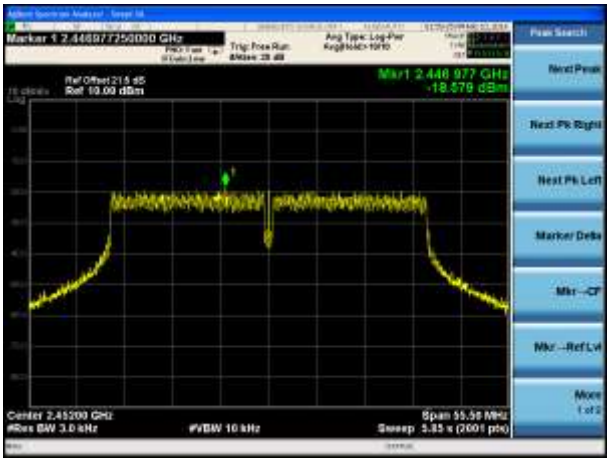
802.11n-HT20 PSD – Chain 0	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

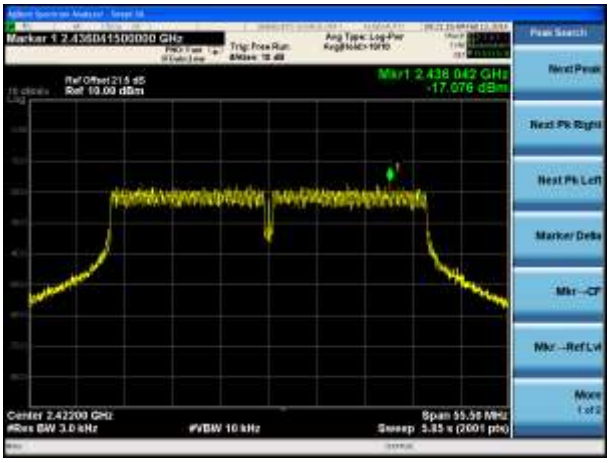
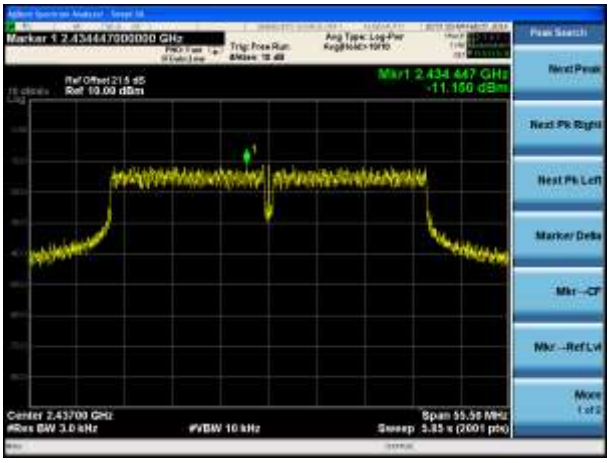
802.11n-HT20 PSD – Chain 1	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

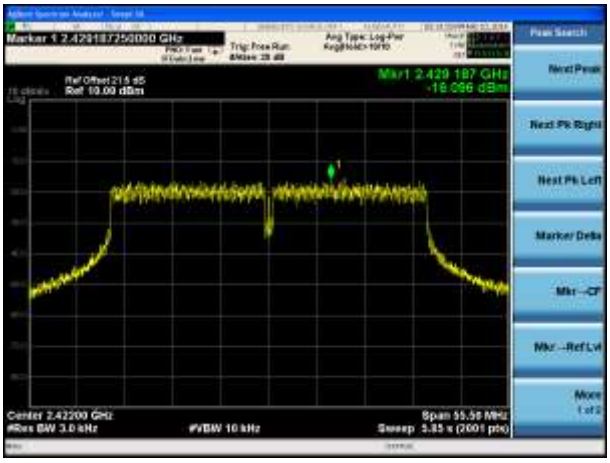
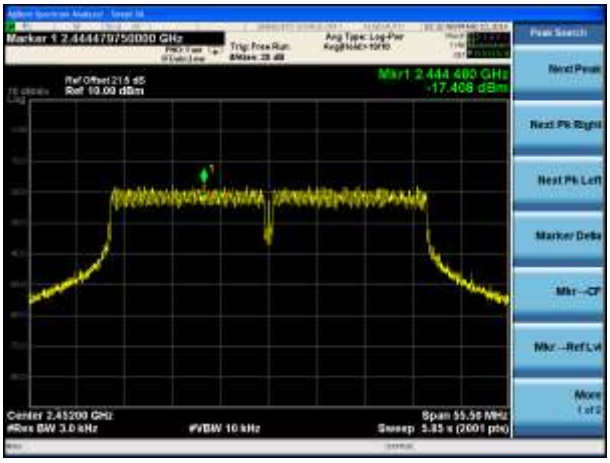
802.11n-HT20 PSD – Chain 0 / Chain 0 + 1	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

802.11n-HT20 PSD – Chain 1 / Chain 0 + 1	
Channel 01 (2412MHz)	**Channel 06 (2437MHz)**
	
Channel 11 (2462MHz)	
	

802.11n-HT40 PSD – Chain 0	
Channel 03 (2422MHz)	**Channel 06 (2437MHz)**
	
Channel 09 (2452MHz)	
	

802.11n-HT40 PSD – Chain 1	
Channel 03 (2422MHz)	**Channel 06 (2437MHz)**
	
Channel 09 (2452MHz)	
	

802.11n-HT40 PSD – Chain 0 / Chain 0 + 1	
Channel 03 (2422MHz)	**Channel 06 (2437MHz)**
	
Channel 09 (2452MHz)	
	

802.11n-HT40 PSD – Chain 1 / Chain 0 + 1	
Channel 03 (2422MHz)	**Channel 06 (2437MHz)**
	
Channel 09 (2452MHz)	
	

7.5. Conducted Band Edge and Out-of-Band Emissions

7.5.1. Test Limit

The limit for out-of-band spurious emissions at the band edge is 20dB below the fundamental emission level, as determined from the in-band power measurement of the DTS channel performed in a 100kHz bandwidth per the PSD procedure.

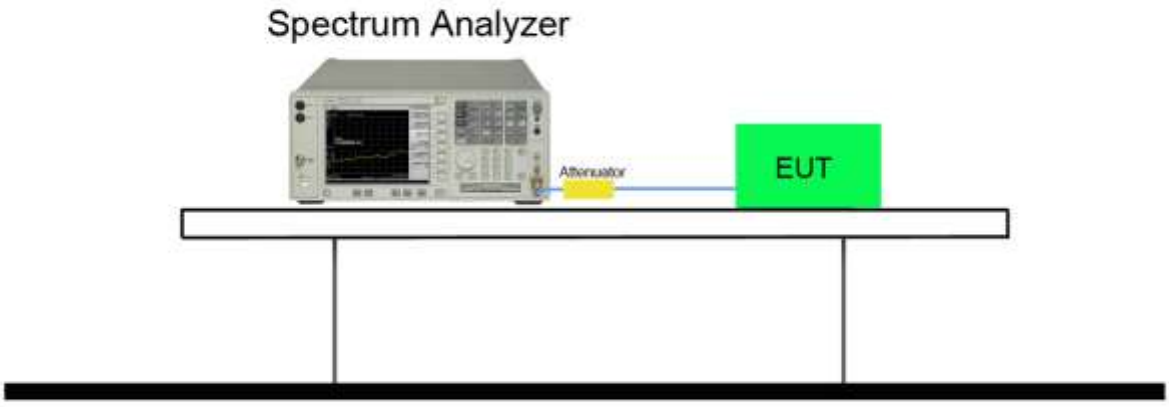
7.5.2. Test Procedure Used

KDB 558074 D01v03r01 – Section 11.3

7.5.3. Test Settitng

1. RBW = 100kHz
2. VBW = 300kHz
3. Detector = Peak
4. Trace mode = max hold
5. Sweep time = auto couple
6. The trace was allowed to stabilize

7.5.4. Test Setup



7.5.5. Test Result

Test Mode	Data Rate	Channel No.	Frequency (MHz)	Limit	Result
802.11b	1Mbps	01	2412	20dBc	Pass
802.11b	1Mbps	06	2437	20dBc	Pass
802.11b	1Mbps	11	2462	20dBc	Pass

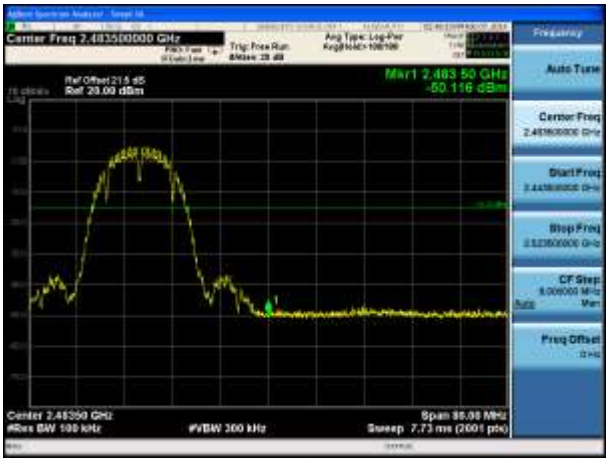
802.11b Out-of-Band Emissions – Chain 0	
Channel 01 (2412MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 3GHz	Spurious Emission 2GHz ~ 25GHz
	

Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Channel 11 (2462MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

802.11b Out-of-Band Emissions – Chain 1	
Channel 01 (2412MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 3GHz	Spurious Emission 2GHz ~ 25GHz
	

Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Channel 11 (2462MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

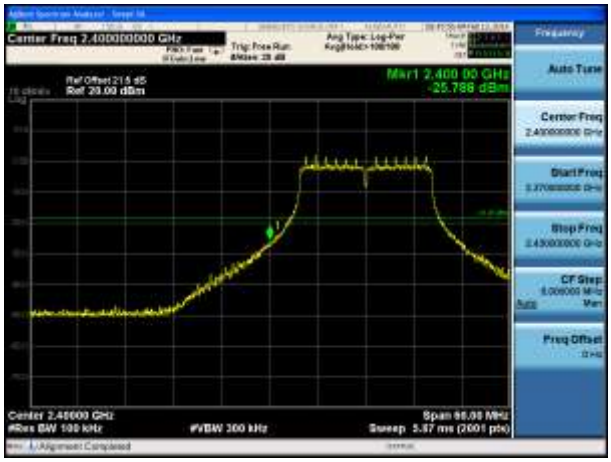
Test Mode	Data Rate	Channel No.	Frequency (MHz)	Limit	Result
802.11g	6Mbps	01	2412	20dBc	Pass
802.11g	6Mbps	06	2437	20dBc	Pass
802.11g	6Mbps	11	2462	20dBc	Pass

802.11g Out-of-Band Emissions – Chain 0

Channel 01 (2412MHz)

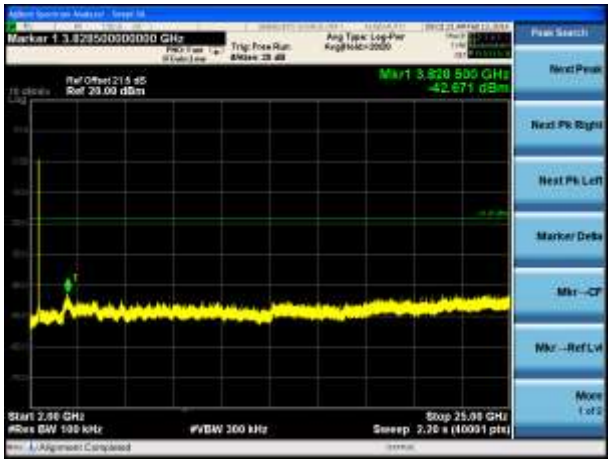
100kHz PSD reference Level

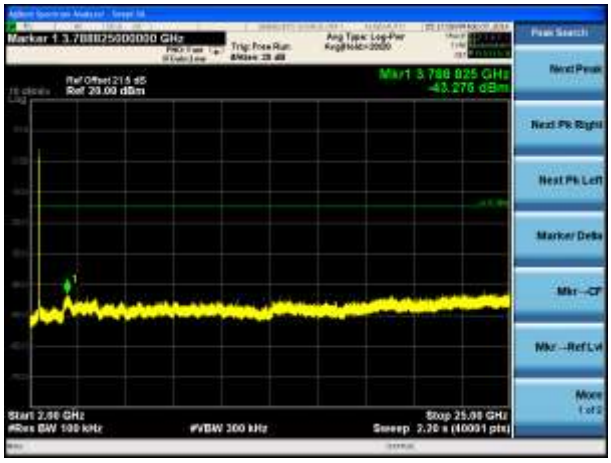
Low Band Edge

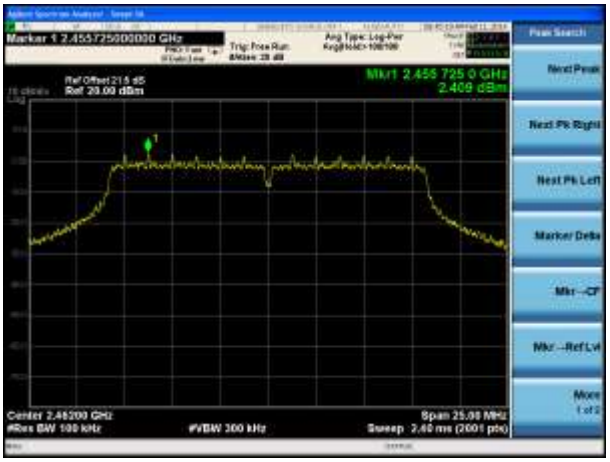


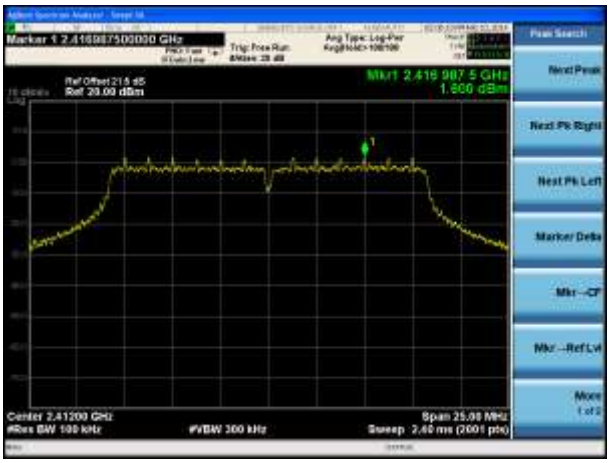
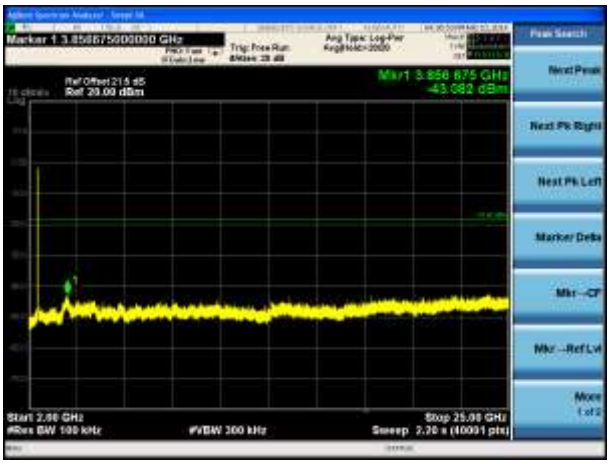
Spurious Emission 30MHz ~ 3GHz

Spurious Emission 2GHz ~ 25GHz

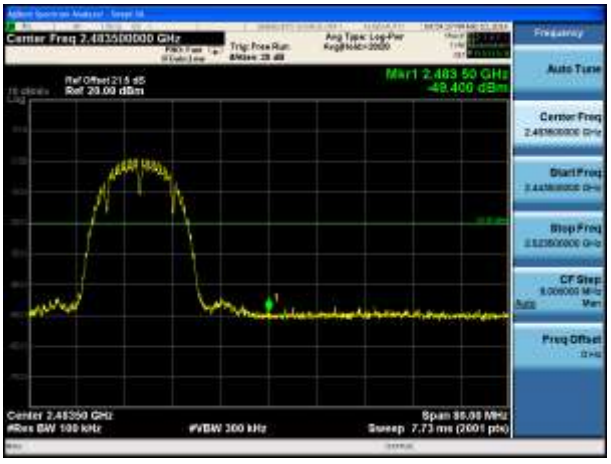


Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Channel 11 (2462MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

802.11g Out-of-Band Emissions – Chain 1	
Channel 01 (2412MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 3GHz	Spurious Emission 2GHz ~ 25GHz
	

Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

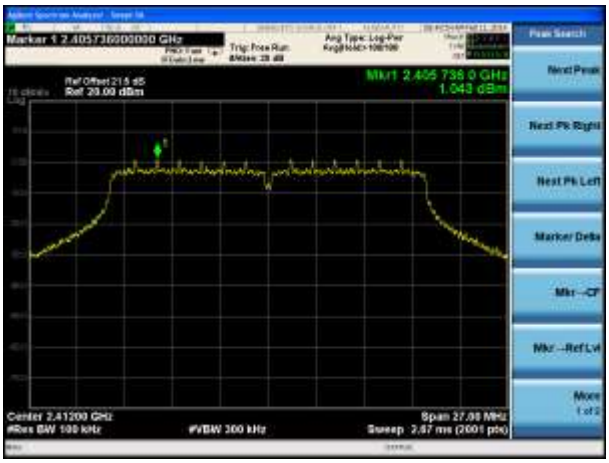
Channel 11 (2462MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Test Mode	N_{Tx}	Data Rate	Channel No.	Frequency (MHz)	Limit	Result
802.11n-HT20	1	6.5Mbps	01	2412	20dBc	Pass
802.11n-HT20	1	6.5Mbps	06	2437	20dBc	Pass
802.11n-HT20	1	6.5Mbps	11	2462	20dBc	Pass
802.11n-HT20	2	13Mbps	01	2412	20dBc	Pass
802.11n-HT20	2	13Mbps	06	2437	20dBc	Pass
802.11n-HT20	2	13Mbps	11	2462	20dBc	Pass

802.11n-HT20 Out-of-Band Emissions – Chain 0

Channel 01 (2412MHz)

100kHz PSD reference Level

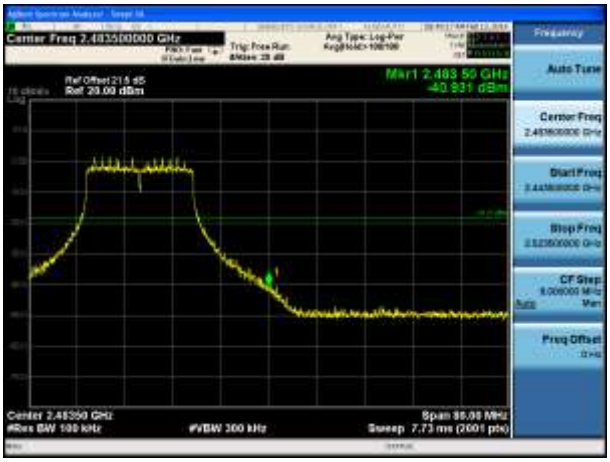
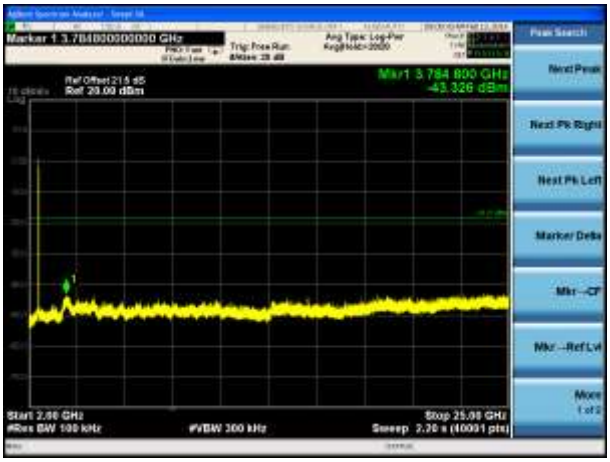


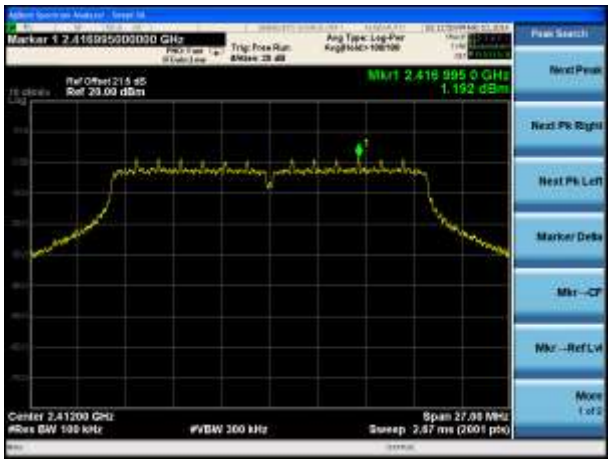
Low Band Edge

Spurious Emission 30MHz ~ 3GHz

Spurious Emission 2GHz ~ 25GHz

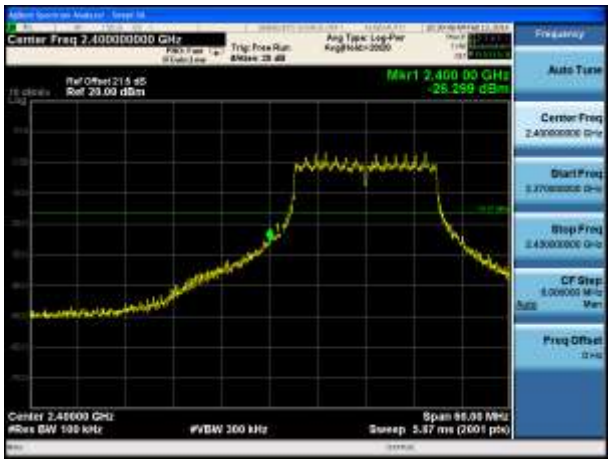
Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Channel 11 (2462MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

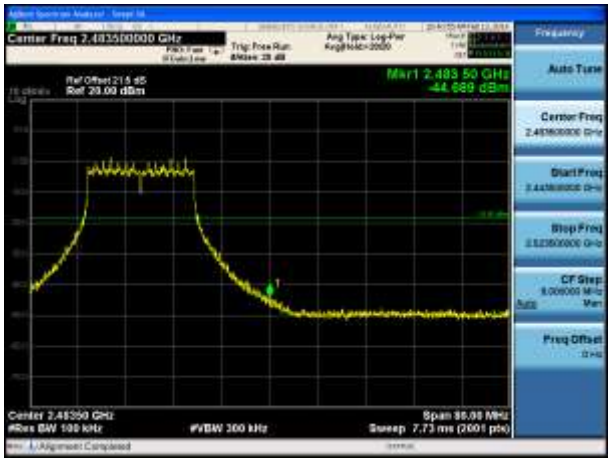
802.11n-HT20 Out-of-Band Emissions – Chain 1	
Channel 01 (2412MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 3GHz	Spurious Emission 2GHz ~ 25GHz
	

Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

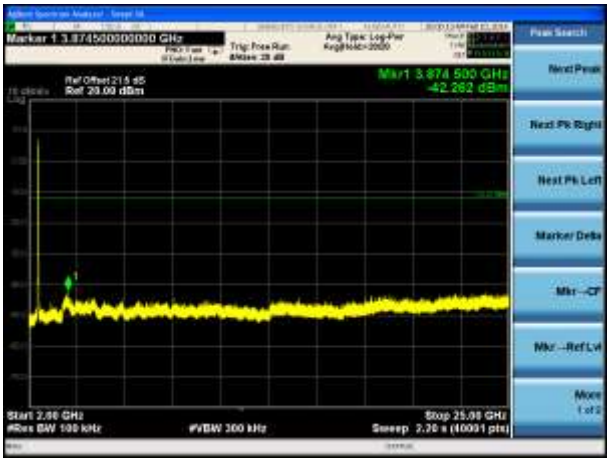
Channel 11 (2462MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

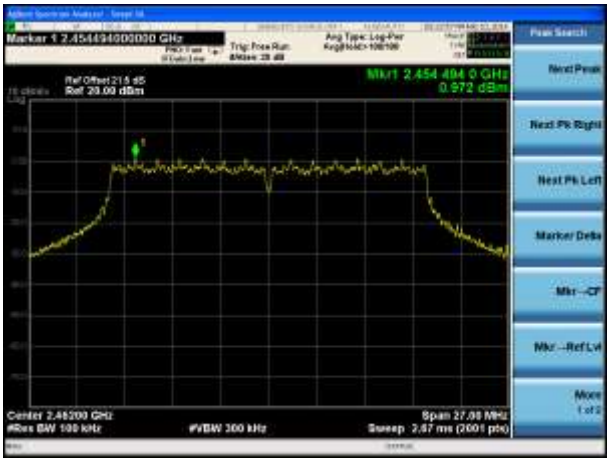
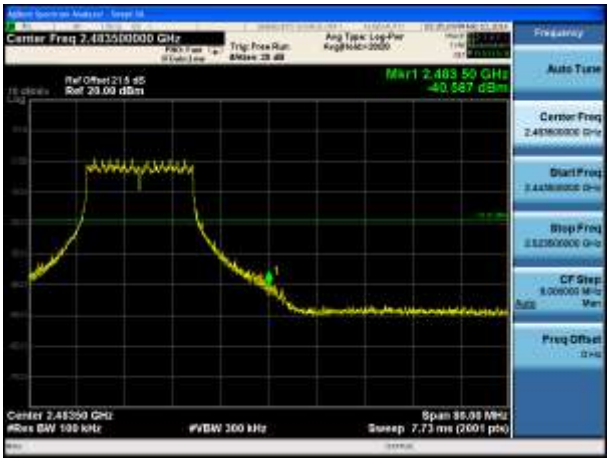
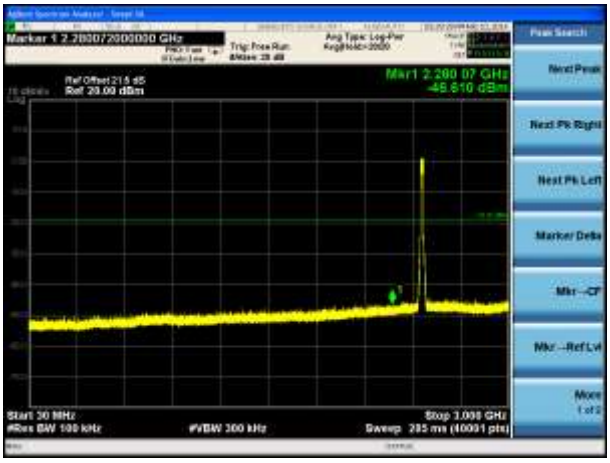
802.11n-HT20 Out-of-Band Emissions – Chain 0 / Chain 0 + 1	
Channel 01 (2412MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 3GHz	Spurious Emission 2GHz ~ 25GHz
	

Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Channel 11 (2462MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

802.11n-HT20 Out-of-Band Emissions – Chain 1 / Chain 0 + 1	
Channel 01 (2412MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 3GHz	Spurious Emission 2GHz ~ 25GHz
	

Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Channel 11 (2462MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Test Mode	N_{Tx}	Data Rate	Channel No.	Frequency (MHz)	Limit	Result
802.11n-HT40	1	13.5Mbps	03	2422	20dBc	Pass
802.11n-HT40	1	13.5Mbps	06	2437	20dBc	Pass
802.11n-HT40	1	13.5Mbps	09	2452	20dBc	Pass
802.11n-HT40	2	27Mbps	03	2422	20dBc	Pass
802.11n-HT40	2	27Mbps	06	2437	20dBc	Pass
802.11n-HT40	2	27Mbps	09	2452	20dBc	Pass

802.11n-HT40 Out-of-Band Emissions – Chain 0

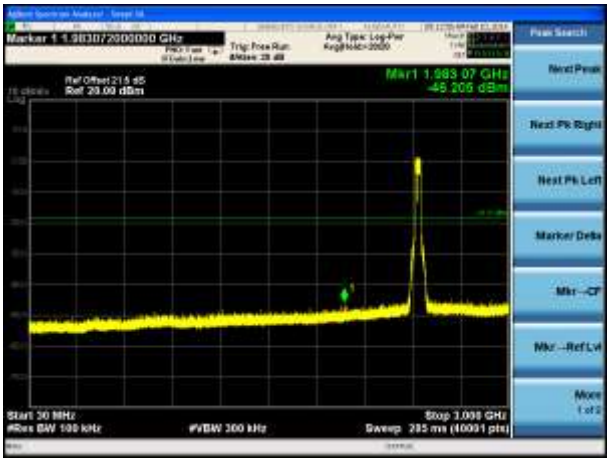
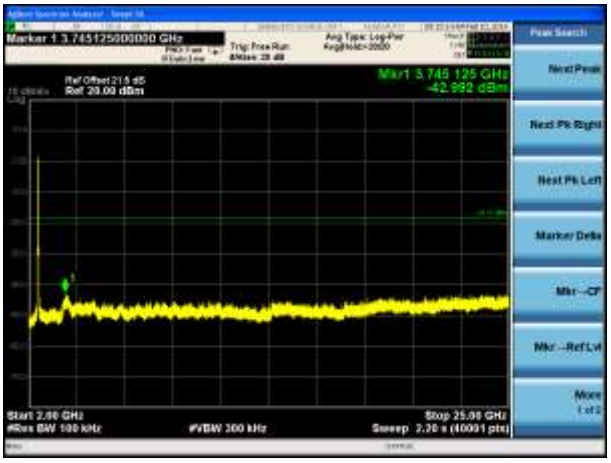
Channel 03 (2422MHz)

100kHz PSD reference Level

Low Band Edge

Spurious Emission 30MHz ~ 3GHz

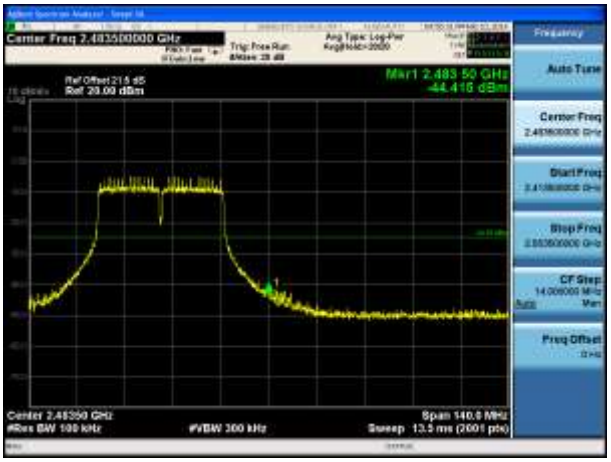
Spurious Emission 2GHz ~ 25GHz

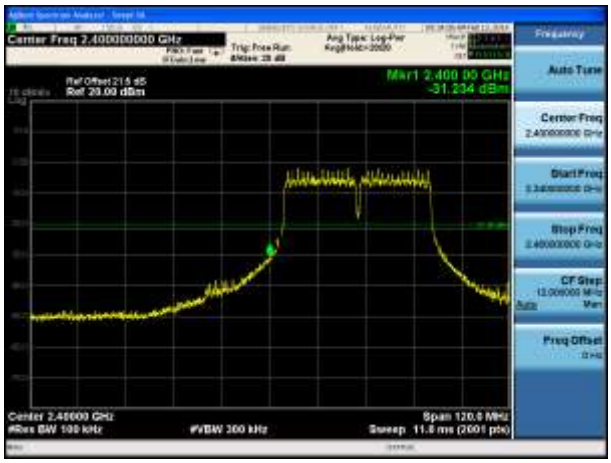
Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Channel 09 (2452MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

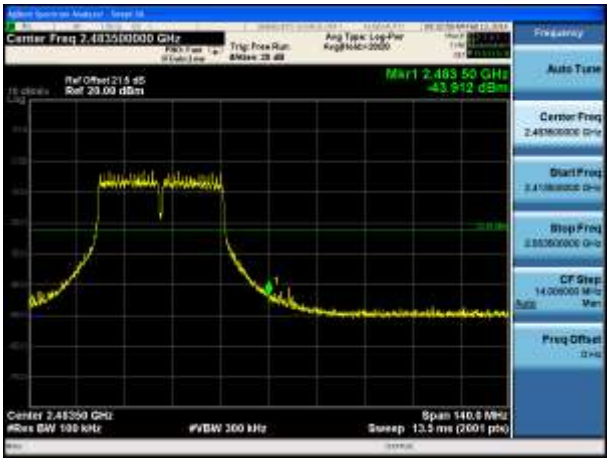
802.11n-HT40 Out-of-Band Emissions – Chain 1	
Channel 03 (2422MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 3GHz	Spurious Emission 2GHz ~ 25GHz
	

Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Channel 09 (2452MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

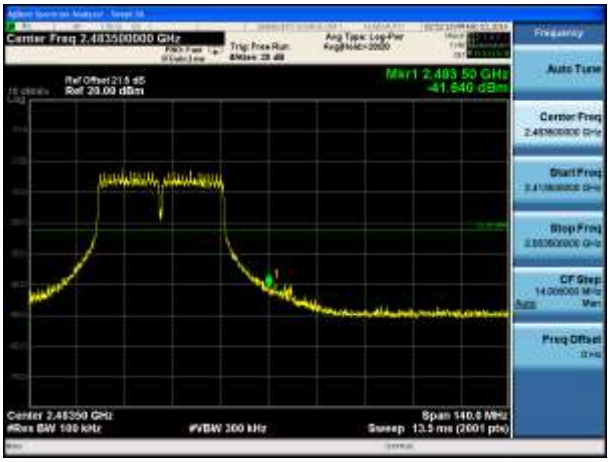
802.11n-HT40 Out-of-Band Emissions – Chain 0 / Chain 0 + 1	
Channel 03 (2422MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 3GHz	Spurious Emission 2GHz ~ 25GHz
	

Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Channel 09 (2452MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

802.11n-HT40 Out-of-Band Emissions – Chain 1 / Chain 0 + 1	
Channel 03 (2422MHz)	
100kHz PSD reference Level	Low Band Edge
	
Spurious Emission 30MHz ~ 3GHz	Spurious Emission 2GHz ~ 25GHz
	

Channel 06 (2437MHz)	
100kHz PSD reference Level	
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**
	

Channel 09 (2452MHz)	
100kHz PSD reference Level	**High Band Edge**
	
Spurious Emission 30MHz ~ 3GHz	**Spurious Emission 2GHz ~ 25GHz**