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## FCC RADIO TEST REPORT

Applicant's company	Zebra Technologies, Corp.
Applicant Address	1 Zebra Plaza Holtsville, NY 11742 USA
FCC ID	UZ7CDR2G
Manufacturer's company	Wistron NeWeb Corporation
Manufacturer Address	20 Park Avenue II, Hsinchu Science Park, Hsinchu 308 Taiwan

Product Name	802.11 b/g/n radio module
Brand Name	ZEBRA
Model No.	CDR2G
Test Rule	47 CFR FCC Part 15 Subpart C § 15.247
Test Freq. Range	2400 ~ 2483.5MHz
Received Date	Feb. 12, 2015
Final Test Date	Dec. 13, 2015
Submission Type	Original Equipment

### Statement

Test result included in this report is for the IEEE 802.11n and IEEE 802.11b/g of the product.

The test result in this report refers exclusively to the presented test model / sample.

Without written approval of SPORTON International Inc., the test report shall not be reproduced except in full.

The measurements and test results shown in this test report were made in accordance with the procedures and found in compliance with the limit given in ANSI C63.10-2013, 47 CFR FCC Part 15 Subpart C, KDB558074 D01 v03r03 and KDB 662911 D01 v02r01.

The test equipment used to perform the test is calibrated and traceable to NML/ROC.



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### History of This Test Report

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FR592302	Rev. 01	Initial issue of report	Jan. 29, 2016

## 1. VERIFICATION OF COMPLIANCE

Product Name : 802.11 b/g/n radio module  
Brand Name : ZEBRA  
Model No. : CDR2G  
Applicant : Zebra Technologies, Corp.  
Test Rule Part(s) : 47 CFR FCC Part 15 Subpart C § 15.247

Sporton International as requested by the applicant to evaluate the EMC performance of the product sample received on Feb. 12, 2015 would like to declare that the tested sample has been evaluated and found to be in compliance with the tested rule parts. The data recorded as well as the test configuration specified is true and accurate for showing the sample's EMC nature.



Sam Chen

SPORTON INTERNATIONAL INC.

## 2. SUMMARY OF THE TEST RESULT

Applied Standard: 47 CFR FCC Part 15 Subpart C				
Part	Rule Section	Description of Test	Result	Under Limit
4.1	15.207	AC Power Line Conducted Emissions	Complies	14.10 dB
4.2	15.247(b)(3)	Maximum Conducted Output Power	Complies	0.09 dB
4.3	15.247(e)	Power Spectral Density	Complies	0.18 dB
4.4	15.247(a)(2)	6dB Spectrum Bandwidth	Complies	-
4.5	15.247(d)	Radiated Emissions	Complies	3.69 dB
4.6	15.247(d)	Band Edge Emissions	Complies	1.00 dB
4.7	15.203	Antenna Requirements	Complies	-

### 3. GENERAL INFORMATION

#### 3.1. Product Details

Items	Description
Product Type	WLAN (1TX, 2TX, 3TX, 4TX / 4RX)
Radio Type	Intentional Transceiver
Power Type	From host system
Modulation	IEEE 802.11b: DSSS IEEE 802.11g: OFDM IEEE 802.11n: see the below table
Data Modulation	IEEE 802.11b: DSSS (BPSK / QPSK / CCK) IEEE 802.11g/n: OFDM (BPSK / QPSK / 16QAM / 64QAM)
Data Rate (Mbps)	IEEE 802.11b: DSSS (1/ 2/ 5.5/11) IEEE 802.11g: OFDM (6/9/12/18/24/36/48/54) IEEE 802.11n: see the below table
Frequency Range	2400 ~ 2483.5MHz
Channel Number	11 for 20MHz bandwidth ; 7 for 40MHz bandwidth
Channel Band Width (99%)	<p><b>For Non-Beamforming Mode</b></p> <p><b>Mode 1 (Set 3 Dipole antenna)</b></p> <p><b>1TX:</b> IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.50 MHz IEEE 802.11n MCS0 (HT20): 17.71 MHz IEEE 802.11n MCS0 (HT40): 37.05 MHz</p> <p><b>2TX:</b> IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.24 MHz IEEE 802.11n MCS0 (HT20): 17.54 MHz IEEE 802.11n MCS0 (HT40): 36.90 MHz</p> <p><b>3TX:</b> IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.85 MHz IEEE 802.11n MCS0 (HT20): 17.45 MHz IEEE 802.11n MCS0 (HT40): 35.89 MHz</p> <p><b>4TX:</b> IEEE 802.11b: 10.51 MHz IEEE 802.11g: 15.80 MHz IEEE 802.11n MCS0 (HT20): 17.11 MHz IEEE 802.11n MCS0 (HT40): 36.76 MHz</p>

	<p><b>Mode 2 (Set 5 Polarized Dipole antenna)</b></p> <p><b>1TX:</b> IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.67 MHz IEEE 802.11n MCS0 (HT20): 17.71 MHz IEEE 802.11n MCS0 (HT40): 36.90 MHz</p> <p><b>2TX:</b> IEEE 802.11b: 10.59 MHz IEEE 802.11g: 16.58 MHz IEEE 802.11n MCS0 (HT20): 17.54 MHz IEEE 802.11n MCS0 (HT40): 37.05 MHz</p> <p><b>3TX:</b> IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.85 MHz IEEE 802.11n MCS0 (HT20): 17.45 MHz IEEE 802.11n MCS0 (HT40): 35.89 MHz</p> <p><b>4TX:</b> IEEE 802.11b: 10.59 MHz IEEE 802.11g: 15.63 MHz IEEE 802.11n MCS0 (HT20): 17.11 MHz IEEE 802.11n MCS0 (HT40): 37.05 MHz</p> <p><b>Mode 3 (Set 6 Panel antenna)</b></p> <p><b>1TX:</b> IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.67 MHz IEEE 802.11n MCS0 (HT20): 17.88 MHz IEEE 802.11n MCS0 (HT40): 37.05 MHz</p> <p><b>2TX:</b> IEEE 802.11b: 10.59 MHz IEEE 802.11g: 16.58 MHz IEEE 802.11n MCS0 (HT20): 17.54 MHz IEEE 802.11n MCS0 (HT40): 37.05 MHz</p> <p><b>3TX:</b> IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.85 MHz IEEE 802.11n MCS0 (HT20): 17.45 MHz IEEE 802.11n MCS0 (HT40): 36.03 MHz</p> <p><b>4TX:</b> IEEE 802.11b: 10.59 MHz IEEE 802.11g: 15.63 MHz IEEE 802.11n MCS0 (HT20): 17.11 MHz IEEE 802.11n MCS0 (HT40): 36.90 MHz</p>
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	<p><b>Mode 4 (Set 7 Polarized Panel antenna)</b></p> <p><b>1TX:</b></p> <p>IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.67 MHz IEEE 802.11n MCS0 (HT20): 17.89 MHz IEEE 802.11n MCS0 (HT40): 37.05 MHz</p> <p><b>2TX:</b></p> <p>IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.15 MHz IEEE 802.11n MCS0 (HT20): 17.54 MHz IEEE 802.11n MCS0 (HT40): 37.19 MHz</p> <p><b>3TX:</b></p> <p>IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.85 MHz IEEE 802.11n MCS0 (HT20): 17.45 MHz IEEE 802.11n MCS0 (HT40): 35.89 MHz</p> <p><b>4TX:</b></p> <p>IEEE 802.11b: 10.59 MHz IEEE 802.11g: 15.63 MHz IEEE 802.11n MCS0 (HT20): 17.11 MHz IEEE 802.11n MCS0 (HT40): 36.90 MHz</p> <p><b>Mode 5 (Set 8 Patch antenna)</b></p> <p><b>1TX:</b></p> <p>IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.67 MHz IEEE 802.11n MCS0 (HT20): 17.89 MHz IEEE 802.11n MCS0 (HT40): 37.05 MHz</p> <p><b>2TX:</b></p> <p>IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.15 MHz IEEE 802.11n MCS0 (HT20): 17.54 MHz IEEE 802.11n MCS0 (HT40): 37.19 MHz</p> <p><b>3TX:</b></p> <p>IEEE 802.11b: 10.51 MHz IEEE 802.11g: 16.85 MHz IEEE 802.11n MCS0 (HT20): 17.45 MHz IEEE 802.11n MCS0 (HT40): 36.18 MHz</p> <p><b>4TX:</b></p> <p>IEEE 802.11b: 10.59 MHz IEEE 802.11g: 15.63 MHz IEEE 802.11n MCS0 (HT20): 17.11 MHz IEEE 802.11n MCS0 (HT40): 36.90 MHz</p>
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	<p><b>Mode 6 (Set 9 Monopole antenna)</b></p> <p><b>1TX:</b></p> <p>IEEE 802.11b: 10.51 MHz        IEEE 802.11g: 16.67 MHz        IEEE 802.11n MCS0 (HT20): 17.80 MHz        IEEE 802.11n MCS0 (HT40): 37.05 MHz</p> <p><b>2TX:</b></p> <p>IEEE 802.11b: 10.59 MHz        IEEE 802.11g: 16.58 MHz        IEEE 802.11n MCS0 (HT20): 17.54 MHz        IEEE 802.11n MCS0 (HT40): 37.05 MHz</p> <p><b>3TX:</b></p> <p>IEEE 802.11b: 10.51 MHz        IEEE 802.11g: 16.85 MHz        IEEE 802.11n MCS0 (HT20): 17.45 MHz        IEEE 802.11n MCS0 (HT40): 35.89 MHz</p> <p><b>4TX:</b></p> <p>IEEE 802.11b: 10.59 MHz        IEEE 802.11g: 15.63 MHz        IEEE 802.11n MCS0 (HT20): 17.11 MHz        IEEE 802.11n MCS0 (HT40): 36.76 MHz</p>
<p>Maximum Conducted Output Power</p>	<p><b>For Non-Beamforming Mode</b></p> <p><b>Mode 1 (Set 3 Dipole antenna)</b></p> <p><b>1TX:</b></p> <p>IEEE 802.11b: 20.96 dBm        IEEE 802.11g: 20.79 dBm        IEEE 802.11n MCS0 (HT20): 20.93 dBm        IEEE 802.11n MCS0 (HT40): 17.36 dBm</p> <p><b>2TX:</b></p> <p>IEEE 802.11b: 23.80 dBm        IEEE 802.11g: 23.69 dBm        IEEE 802.11n MCS0 (HT20): 23.44 dBm        IEEE 802.11n MCS0 (HT40): 19.91 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11b: 25.23 dBm        IEEE 802.11g: 25.23 dBm        IEEE 802.11n MCS0 (HT20): 25.45 dBm        IEEE 802.11n MCS0 (HT40): 20.75 dBm</p>

	<p><b>4TX:</b></p> <p>IEEE 802.11b: 26.64 dBm IEEE 802.11g: 26.69 dBm IEEE 802.11n MCS0 (HT20): 26.74 dBm IEEE 802.11n MCS0 (HT40): 21.90 dBm</p> <p><b>Mode 2 (Set 5 Polarized Dipole antenna)</b></p> <p><b>1TX:</b></p> <p>IEEE 802.11b: 20.96 dBm IEEE 802.11g: 20.79 dBm IEEE 802.11n MCS0 (HT20): 20.93 dBm IEEE 802.11n MCS0 (HT40): 17.36 dBm</p> <p><b>2TX:</b></p> <p>IEEE 802.11b: 23.75 dBm IEEE 802.11g: 23.81 dBm IEEE 802.11n MCS0 (HT20): 23.48 dBm IEEE 802.11n MCS0 (HT40): 19.12 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11b: 25.23 dBm IEEE 802.11g: 25.23 dBm IEEE 802.11n MCS0 (HT20): 25.45 dBm IEEE 802.11n MCS0 (HT40): 20.93 dBm</p> <p><b>4TX:</b></p> <p>IEEE 802.11b: 26.64 dBm IEEE 802.11g: 26.69 dBm IEEE 802.11n MCS0 (HT20): 26.74 dBm IEEE 802.11n MCS0 (HT40): 21.92 dBm</p> <p><b>Mode 3 (Set 6 Panel antenna)</b></p> <p><b>1TX:</b></p> <p>IEEE 802.11b: 20.96 dBm IEEE 802.11g: 20.79 dBm IEEE 802.11n MCS0 (HT20): 20.93 dBm IEEE 802.11n MCS0 (HT40): 17.36 dBm</p> <p><b>2TX:</b></p> <p>IEEE 802.11b: 23.75 dBm IEEE 802.11g: 23.81 dBm IEEE 802.11n MCS0 (HT20): 23.48 dBm IEEE 802.11n MCS0 (HT40): 19.54 dBm</p>
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	<p><b>3TX:</b></p> <p>IEEE 802.11b: 25.23 dBm IEEE 802.11g: 25.23 dBm IEEE 802.11n MCS0 (HT20): 25.45 dBm IEEE 802.11n MCS0 (HT40): 19.85 dBm</p> <p><b>4TX:</b></p> <p>IEEE 802.11b: 26.48 dBm IEEE 802.11g: 26.69 dBm IEEE 802.11n MCS0 (HT20): 26.74 dBm IEEE 802.11n MCS0 (HT40): 20.95 dBm</p> <p><b>Mode 4 (Set 7 Polarized Panel antenna)</b></p> <p><b>1TX:</b></p> <p>IEEE 802.11b: 20.96 dBm IEEE 802.11g: 20.79 dBm IEEE 802.11n MCS0 (HT20): 20.93 dBm IEEE 802.11n MCS0 (HT40): 17.76 dBm</p> <p><b>2TX:</b></p> <p>IEEE 802.11b: 23.80 dBm IEEE 802.11g: 23.69 dBm IEEE 802.11n MCS0 (HT20): 23.44 dBm IEEE 802.11n MCS0 (HT40): 19.46 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11b: 25.23 dBm IEEE 802.11g: 25.23 dBm IEEE 802.11n MCS0 (HT20): 25.45 dBm IEEE 802.11n MCS0 (HT40): 20.25 dBm</p> <p><b>4TX:</b></p> <p>IEEE 802.11b: 26.64 dBm IEEE 802.11g: 26.69 dBm IEEE 802.11n MCS0 (HT20): 26.74 dBm IEEE 802.11n MCS0 (HT40): 21.81 dBm</p> <p><b>Mode 5 (Set 8 Patch antenna)</b></p> <p><b>1TX:</b></p> <p>IEEE 802.11b: 20.96 dBm IEEE 802.11g: 20.79 dBm IEEE 802.11n MCS0 (HT20): 20.93 dBm IEEE 802.11n MCS0 (HT40): 17.76 dBm</p>
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	<p><b>2TX:</b></p> <p>IEEE 802.11b: 23.80 dBm</p> <p>IEEE 802.11g: 23.80 dBm</p> <p>IEEE 802.11n MCS0 (HT20): 23.44 dBm</p> <p>IEEE 802.11n MCS0 (HT40): 19.46 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11b: 25.23 dBm</p> <p>IEEE 802.11g: 25.23 dBm</p> <p>IEEE 802.11n MCS0 (HT20): 25.45 dBm</p> <p>IEEE 802.11n MCS0 (HT40): 20.57 dBm</p> <p><b>4TX:</b></p> <p>IEEE 802.11b: 26.64 dBm</p> <p>IEEE 802.11g: 26.69 dBm</p> <p>IEEE 802.11n MCS0 (HT20): 26.74 dBm</p> <p>IEEE 802.11n MCS0 (HT40): 21.21 dBm</p> <p><b>Mode 6 (Set 9 Monopole antenna)</b></p> <p><b>1TX:</b></p> <p>IEEE 802.11b: 20.96 dBm</p> <p>IEEE 802.11g: 20.79 dBm</p> <p>IEEE 802.11n MCS0 (HT20): 20.93 dBm</p> <p>IEEE 802.11n MCS0 (HT40): 17.36 dBm</p> <p><b>2TX:</b></p> <p>IEEE 802.11b: 23.75 dBm</p> <p>IEEE 802.11g: 23.81 dBm</p> <p>IEEE 802.11n MCS0 (HT20): 23.48 dBm</p> <p>IEEE 802.11n MCS0 (HT40): 19.54 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11b: 25.23 dBm</p> <p>IEEE 802.11g: 25.23 dBm</p> <p>IEEE 802.11n MCS0 (HT20): 25.45 dBm</p> <p>IEEE 802.11n MCS0 (HT40): 20.81 dBm</p> <p><b>4TX:</b></p> <p>IEEE 802.11b: 26.64 dBm</p> <p>IEEE 802.11g: 26.69 dBm</p> <p>IEEE 802.11n MCS0 (HT20): 26.74 dBm</p> <p>IEEE 802.11n MCS0 (HT40): 21.81 dBm</p>
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	<p><b>For Beamforming Mode</b></p> <p><b>Mode 1 (Set 3 Dipole antenna)</b></p> <p><b>2TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 23.44 dBm        IEEE 802.11n MCS0 (HT40): 19.34 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 25.45 dBm        IEEE 802.11n MCS0 (HT40): 20.24 dBm</p> <p><b>4TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 25.71 dBm        IEEE 802.11n MCS0 (HT40): 21.38 dBm</p> <p><b>Mode 2 (Set 5 Polarized Dipole antenna)</b></p> <p><b>2TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 23.38 dBm        IEEE 802.11n MCS0 (HT40): 19.09 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 25.45 dBm        IEEE 802.11n MCS0 (HT40): 20.59 dBm</p> <p><b>4TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 26.74 dBm        IEEE 802.11n MCS0 (HT40): 21.21 dBm</p> <p><b>Mode 3 (Set 6 Panel antenna)</b></p> <p><b>2TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 23.44 dBm        IEEE 802.11n MCS0 (HT40): 18.20 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 25.45 dBm        IEEE 802.11n MCS0 (HT40): 19.14 dBm</p> <p><b>4TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 25.71 dBm        IEEE 802.11n MCS0 (HT40): 20.95 dBm</p> <p><b>Mode 4 (Set 7 Polarized Panel antenna)</b></p> <p><b>2TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 23.64 dBm        IEEE 802.11n MCS0 (HT40): 20.15 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 25.45 dBm        IEEE 802.11n MCS0 (HT40): 20.99 dBm</p>
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	<p><b>4TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 26.46 dBm IEEE 802.11n MCS0 (HT40): 21.81 dBm</p> <p><b>Mode 5 (Set 8 Patch antenna)</b></p> <p><b>2TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 23.44 dBm IEEE 802.11n MCS0 (HT40): 19.46 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 25.45 dBm IEEE 802.11n MCS0 (HT40): 20.57 dBm</p> <p><b>4TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 25.89 dBm IEEE 802.11n MCS0 (HT40): 21.21 dBm</p> <p><b>Mode 6 (Set 9 Monopole antenna)</b></p> <p><b>2TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 23.44 dBm IEEE 802.11n MCS0 (HT40): 19.34 dBm</p> <p><b>3TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 25.45 dBm IEEE 802.11n MCS0 (HT40): 20.24 dBm</p> <p><b>4TX:</b></p> <p>IEEE 802.11n MCS0 (HT20): 25.71 dBm IEEE 802.11n MCS0 (HT40): 21.81 dBm</p>
Carrier Frequencies	Please refer to section 3.4
Antenna	Please refer to section 3.3

Items	Description	
Beamforming Function	<input checked="" type="checkbox"/> With beamforming	<input type="checkbox"/> Without beamforming

Note: The product has beamforming function for 802.11n.

**Antenna and Band width**

Antenna	Single (TX)		Two (TX)		Three (TX)		Four (TX)	
	20 MHz	40 MHz	20 MHz	40 MHz	20 MHz	40 MHz	20 MHz	40 MHz
Band width Mode								
IEEE 802.11b	V	X	V	X	V	X	V	X
IEEE 802.11g	V	X	V	X	V	X	V	X
IEEE 802.11n	V	V	V	V	V	V	V	V

**IEEE 11n Spec.**

Protocol	Number of Transmit Chains (NTX)	Data Rate / MCS
802.11n (HT20)	1, 2, 3, 4	MCS 0-7, MCS 0-15, MCS 0-23, MCS 0-31
802.11n (HT40)	1, 2, 3, 4	MCS 0-7, MCS 0-15, MCS 0-23, MCS 0-31
Note 1: IEEE Std. 802.11n modulation consists of HT20 and HT40 (HT: High Throughput). Then EUT supports HT20 and HT40. Note 2: Modulation modes consist of below configuration: HT20/HT40: IEEE 802.11n		

**3.2. Accessories**

N/A

### 3.3. Table for Filed Antenna

Set	Ant.	Brand	Model Name (Part Number)	Polarity	Antenna Type	Connector	Indoor/Outdoor
1	1	ZEBRA	ML-2452-HPAG4A6-01	-	Dipole	N-Type male	Indoor/Outdoor
2	2	ZEBRA	ML-2452-APAG2A1-01	-		RP-SMA male	Indoor
3	3	ZEBRA	ML-2452-HPA6-01	-		N-TYPE male	Indoor/Outdoor
4	4	ZEBRA	ML-2452-APA2-01	-		RP-SMA male	Indoor
5	5 (1A)	ZEBRA	ML-2452-HPAG4A6-01	(V)	Polarized Dipole	N-TYPE male	Indoor/Outdoor
	5 (1B)	ZEBRA	ML-2499-HPA6H-01	(H)		N-TYPE male	Indoor/Outdoor
6	6	ZEBRA	ML-2452-PNA5-01R	-	Panel	N-TYPE male	Indoor/Outdoor
7	7	ZEBRA	ML-2452-SEC5M4-N36	-	Polarized Panel	RP-SMA male	Indoor/Outdoor
8	8	ZEBRA	ML-2452-PTA4M4-036	-	Patch	RP-SMA male	Indoor
9	9	ZEBRA	CEDAR-INT-ANT	-	Monopole	U.FL	Indoor/Outdoor

Note1:

Set	Ant.	Antenna Gain (dBi)	Cable Loss (dB)	True Gain (dBi)
1	1	4	1.47	2.53
2	2	2.7	1.47	1.23
3	3	5.3	1.47	3.83
4	4	3.17	1.47	1.70
5	5 (1A)	4	1.47	2.53
	5 (1B)	5.4	1.47	3.93
6	6	5.5	1.47	4.03
7	7	6.92	1.47	5.45
8	8	5	1.47	3.53

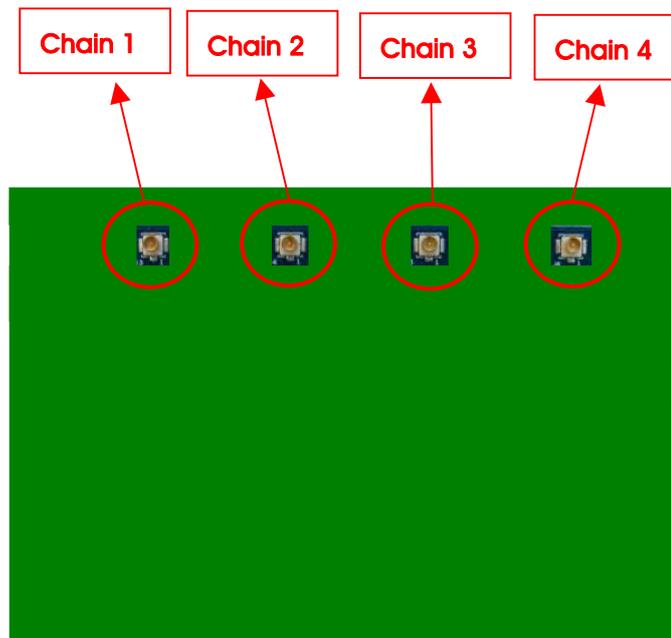
Set	Ant.	Antenna Gain (dBi)			
		Chain 1	Chain 2	Chain 3	Chain 4
9	9	5.2	3.7	3.2	4.5

Note2:

There are 9 set antennas in the antenna table list. Besides, only set 3, 5, 6, 7, 8 and 9 were selected to perform the test and written in this report due to they have the highest gains from each different types of antenna.

For IEEE 802.11b/g/n						
Mode	BF	Non BF	Chain 1	Chain 2	Chain 3	Chain 4
For 1TX	-	V	TX/RX	RX	RX	RX
For 2TX-Type 1 (Worst case for Mode 1, Mode 4 and Mode 5)	-	V	TX/RX	TX/RX	RX	RX
For 2TX-Type 2 (Worst case for Mode 2, Mode 3 and Mode 6)	-	V	TX/RX	RX	TX/RX	RX
For 2TX	V	-	TX/RX	TX/RX	RX	RX
For 3TX	V	V	TX/RX	TX/RX	RX	RX
For 4TX	V	V	TX/RX	TX/RX	TX/RX	TX/RX
For IEEE 802.11a/n/ac						
Mode	BF	Non BF	Chain 1	Chain 2	Chain 3	Chain 4
For 1RX	-	V	-	-	-	RX

Note: BF = Beamforming ; Non-BF = Non Beamforming



### 3.4. Table for Carrier Frequencies

There are two bandwidth systems.

For 20MHz bandwidth systems, use Channel 1~Channel 11.

For 40MHz bandwidth systems, use Channel 3~Channel 9.

Frequency Band	Channel No.	Frequency	Channel No.	Frequency
2400~2483.5MHz	1	2412 MHz	7	2442 MHz
	2	2417 MHz	8	2447 MHz
	3	2422 MHz	9	2452 MHz
	4	2427 MHz	10	2457 MHz
	5	2432 MHz	11	2462 MHz
	6	2437 MHz	-	-

### 3.5. Table for Test Modes

Preliminary tests were performed in different data rate to find the worst radiated emission. The data rate shown in the table below is the worst-case rate with respect to the specific test item. Investigation has been done on all the possible configurations for searching the worst cases. The following table is a list of the test modes shown in this test report.

Test Items	Mode	Data Rate	Channel	Chain
AC Power Line Conducted Emissions	CTX	-	-	-
Maximum Conducted Output Power	<b>For Non-Beamforming Mode</b>			
	11b/CCK	1 Mbps	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	11g/BPSK	6 Mbps	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	11n HT20	MCS0	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	11n HT40	MCS0	3/6/9	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	<b>For Beamforming Mode</b>			
	11n HT20	MCS0	1/6/11	1+2 1+2+3 1+2+3+4
	11n HT40	MCS0	3/6/9	1+2 1+2+3 1+2+3+4
	Power Spectral Density	<b>For Non-Beamforming Mode</b>		
11b/CCK		1 Mbps	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4

	11g/BPSK	6 Mbps	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	11n HT20	MCS0	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	11n HT40	MCS0	3/6/9	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	<b>For Beamforming Mode</b>			
	11n HT20	MCS0	1/6/11	1+2 1+2+3 1+2+3+4
	11n HT40	MCS0	3/6/9	1+2 1+2+3 1+2+3+4
6dB Spectrum Bandwidth	<b>For Non-Beamforming Mode</b>			
	11b/CCK	1 Mbps	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	11g/BPSK	6 Mbps	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	11n HT20	MCS0	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4

	11n HT40	MCS0	3/6/9	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
Radiated Emissions 9kHz~1GHz	CTX	-	-	-
Radiated Emissions 1GHz~10 <sup>th</sup> Harmonic	<b>For Non-Beamforming Mode</b>			
	11b/CCK	1 Mbps	1/6/11	1+2+3+4
	11g/BPSK	6 Mbps	1/6/11	1+2+3+4
	11n HT20	MCS0	1/6/11	1+2+3+4
	11n HT40	MCS0	3/6/9	1+2+3+4
Band Edge Emissions	<b>For Non-Beamforming Mode</b>			
	11b/CCK	1 Mbps	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	11g/BPSK	6 Mbps	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	11n HT20	MCS0	1/6/11	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	11n HT40	MCS0	3/6/9	1 1+2 ( For Mode 1, 4, 5) 1+3 ( For Mode 2, 3, 6) 1+2+3 1+2+3+4
	<b>For Beamforming Mode</b>			
	11n HT20	MCS0	1/6/11	1+2 1+2+3 1+2+3+4
	11n HT40	MCS0	3/6/9	1+2 1+2+3 1+2+3+4

Note1:

EUT supports two modes as below. Mode: 4TX(Regular data) is covered by Mode: 3TX+1TX(Sensor).

Mode	RF configuration	2.4G			2.4G/5G	Support (Y/N)
		Chain 1	Chain 2	Chain 3	Chain 4	Y
1	4TX (Regular data)	V	V	V	V (2.4G regular data)	Y
2	3TX(2G)+1RX(2G/5G) Chain1~3 leverage data from Mode 1	V	V	V	V (2G/5G sensor)	Y

Note2: There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 802.11n. Beamforming mode and non-beamforming mode has been test and record in this test report for Maximum Conducted Output Power, Power Spectral Density and Band Edge Emissions tests.

Note3: There are two modes of EUT, one is beamforming mode, and the other is non-beamforming mode for 802.11n. After evaluating, non-beamforming mode had been evaluated to be the worst case, so it was selected to record in this test report for 6dB Spectrum Bandwidth and Radiated Emissions 1GHz~10<sup>th</sup> Harmonic tests.

Note4: All the specification of test configurations and test modes were based on customer's request

The following test modes were performed for all tests:

Conducted Emission test		
Mode	EUT	Set 7
1	•	•

Radiated Emission below 1GHz test			
The EUT was performed at Y axis and Z axis position for Radiated emission above 1GHz test, and the worst case was found at Z axis. So the measurement will follow this same test configuration. Only the higher gain antenna "Set 7" was tested.			
Mode	EUT	Z axis	Set 7
1	•	•	•

**Radiated Emission above 1GHz test**

The EUT can only be placed in Y axis for Mode 1 ~ Mode 2.

The EUT was performed at Y axis and Z axis position, and the worst case was found at Z axis. So the measurement will follow this same test configuration for Mode 3 ~ Mode 6

Mode	Non BF	BF	1TX	2TX	3TX	4TX	EUT in Y axis	EUT in Z axis	Set in Y axis	Set in Z axis	Set 3	Set 5 (1A)	Set 5 (1B)	Set 6	Set 7	Set 8	Set 9
1	●	-	●	●	●	-	●	-	●	-	●	-	-	-	-	-	-
1	-	●	-	●	●	-	●	-	●	-	●	-	-	-	-	-	-
1	●	●	-	-	-	●	●	-	● Set 3	● Set 9	●*3	-	-	-	-	-	●*1
2	●	-	●	-	-	-	●	-	●	-	-	●	-	-	-	-	-
2	●	-	-	●	-	-	●	-	●	-	-	●*2	-	-	-	-	-
2	-	●	-	●	-	-	●	-	●	-	-	●*1	●*1	-	-	-	-
2	●	●	-	-	●	-	●	-	●	-	-	●*2	●*1	-	-	-	-
2	●	●	-	-	-	●	●	-	● Set 5	● Set 9	-	●*2	●*1	-	-	-	●*1
3	●	-	●	●	●	-	-	●	●	-	-	-	-	●	-	-	-
3	-	●	-	●	●	-	-	●	●	-	-	-	-	●	-	-	-
3	●	●	-	-	-	●	-	●	● Set 6	● Set 9	-	-	-	●*3	-	-	●*1
4	●	-	●	●	●	-	-	●	●	-	-	-	-	-	●	-	-
4	-	●	-	●	●	-	-	●	●	-	-	-	-	-	●	-	-
4	●	●	-	-	-	●	-	●	● Set 7	● Set 9	-	-	-	-	●*3	-	●*1
5	●	-	●	●	●	-	-	●	●	-	-	-	-	-	-	●	-
5	-	●	-	●	●	-	-	●	●	-	-	-	-	-	-	●	-
5	●	●	-	-	-	●	-	●	● Set 8	● Set 9	-	-	-	-	-	●*3	●*1
6	●	-	●	●	●	●	-	●	-	●	-	-	-	-	-	-	●
6	-	●	-	●	●	●	-	●	-	●	-	-	-	-	-	-	●

### 3.6. Table for Testing Locations

Test Site Location				
Address:	No.8, Lane 724, Bo-ai St., Jhubei City, Hsinchu County 302, Taiwan, R.O.C.			
TEL:	886-3-656-9065			
FAX:	886-3-656-9085			
Test Site No.	Site Category	Location	FCC Reg. No.	IC File No.
03CH01-CB	SAC	Hsin Chu	262045	IC 4086D
CO01-CB	Conduction	Hsin Chu	262045	IC 4086D
TH01-CB	OVEN Room	Hsin Chu	-	-

Open Area Test Site (OATS); Semi Anechoic Chamber (SAC).

### 3.7. Table for Supporting Units

For Test Site No: 03CH01-CB (For Below 1GHz and Above 1GHz / For Non-Beamforming Mode)

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E4300	DoC
PoE	Symbol	APSBIA5-2P3-ATR	N/A
Fixture	Bplus	P22S-P22F	N/A

For Test Site No: 03CH01-CB (For Above 1GHz / For Beamforming Mode)

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E4300	DoC
Notebook	DELL	E4300	DoC
Client Device	Cedar	AP-8532	N/A
PoE	Symbol	APSBIA5-2P3-ATR	N/A
Fixture	Bplus	P22S-P22F	N/A

For Test Site No: CO01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E6430	DoC
PoE	Symbol	APSBIA5-2P3-ATR	N/A
Fixture	Bplus	P22S-P22F	N/A

For Test Site No: TH01-CB

Support Unit	Brand	Model	FCC ID
Notebook	DELL	E4300	DoC
PoE	Symbol	APSBIA5-2P3-ATR	N/A
Fixture	Bplus	P22S-P22F	N/A

### 3.8. Table for Parameters of Test Software Setting

During testing, Channel and Power Controlling Software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product.

#### For Non-Beamforming Mode

##### Mode 1 (Set 3 Dipole antenna / 3.83dBi / 1TX)

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	85	85	85	-	-	-
802.11g	70	80	68	-	-	-
802.11n MCS0 HT20	70	80	68	-	-	-
802.11n MCS0 HT40	-	-	-	63	66	59

##### Mode 1 (Set 3 Dipole antenna / 3.83dBi / 2TX)

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	83	83	83	-	-	-
802.11g	65	77	62	-	-	-
802.11n MCS0 HT20	64	77	61	-	-	-
802.11n MCS0 HT40	-	-	-	59	63	53

##### Mode 1 (Set 3 Dipole antenna / 3.83dBi / 3TX)

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	83	-	-	-
802.11g	62	77	59	-	-	-
802.11n MCS0 HT20	61	78	60	-	-	-
802.11n MCS0 HT40	-	-	-	58	59	52

**Mode 1 (Set 3 Dipole antenna / 3.83dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	80	-	-	-
802.11g	57	77	59	-	-	-
802.11n MCS0 HT20	58	78	61	-	-	-
802.11n MCS0 HT40	-	-	-	56	58	51

**Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi\*1 / 1TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	85	85	85	-	-	-
802.11g	74	80	73	-	-	-
802.11n MCS0 HT20	70	80	69	-	-	-
802.11n MCS0 HT40	-	-	-	63	66	60

**Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi\*2 / 2TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	84	84	85	-	-	-
802.11g	68	77	66	-	-	-
802.11n MCS0 HT20	67	77	64	-	-	-
802.11n MCS0 HT40	-	-	-	58	60	55

**Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi\*2, (1B)3.93dBi\*1 / 3TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	83	-	-	-
802.11g	64	77	65	-	-	-
802.11n MCS0 HT20	64	78	64	-	-	-
802.11n MCS0 HT40	-	-	-	58	59	54

**Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi\*2, (1B)3.93dBi\*1 + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	84	-	-	-
802.11g	67	77	64	-	-	-
802.11n MCS0 HT20	63	78	64	-	-	-
802.11n MCS0 HT40	-	-	-	51	59	52

**Mode 3 (Set 6 Panel antenna / 4.03dBi / 1TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	85	85	85	-	-	-
802.11g	65	80	68	-	-	-
802.11n MCS0 HT20	66	80	67	-	-	-
802.11n MCS0 HT40	-	-	-	60	66	58

**Mode 3 (Set 6 Panel antenna / 4.03dBi / 2TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	84	84	85	-	-	-
802.11g	61	77	65	-	-	-
802.11n MCS0 HT20	61	77	62	-	-	-
802.11n MCS0 HT40	-	-	-	53	61	54

**Mode 3 (Set 6 Panel antenna / 4.03dBi / 3TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	83	-	-	-
802.11g	62	77	60	-	-	-
802.11n MCS0 HT20	61	78	61	-	-	-
802.11n MCS0 HT40	-	-	-	53	55	50

**Mode 3 (Set 6 Panel antenna / 4.03dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	81	83	84	-	-	-
802.11g	60	77	60	-	-	-
802.11n MCS0 HT20	58	78	56	-	-	-
802.11n MCS0 HT40	-	-	-	48	55	49

**Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 1TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	85	85	85	-	-	-
802.11g	70	80	72	-	-	-
802.11n MCS0 HT20	68	80	69	-	-	-
802.11n MCS0 HT40	-	-	-	61	67	61

**Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 2TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	83	83	83	-	-	-
802.11g	65	77	65	-	-	-
802.11n MCS0 HT20	64	77	65	-	-	-
802.11n MCS0 HT40	-	-	-	55	62	56

**Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 3TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	83	-	-	-
802.11g	60	77	65	-	-	-
802.11n MCS0 HT20	59	78	60	-	-	-
802.11n MCS0 HT40	-	-	-	48	56	53

**Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	84	-	-	-
802.11g	60	77	62	-	-	-
802.11n MCS0 HT20	61	78	61	-	-	-
802.11n MCS0 HT40	-	-	-	51	58	53

**Mode 5 (Set 8 Patch antenna / 3.53dBi / 1TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	85	85	85	-	-	-
802.11g	70	80	73	-	-	-
802.11n MCS0 HT20	68	80	72	-	-	-
802.11n MCS0 HT40	-	-	-	62	67	62

**Mode 5 (Set 8 Patch antenna / 3.53dBi / 2TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	83	83	83	-	-	-
802.11g	64	77	68	-	-	-
802.11n MCS0 HT20	66	77	68	-	-	-
802.11n MCS0 HT40	-	-	-	60	62	61

**Mode 5 (Set 8 Patch antenna / 3.53dBi / 3TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	83	-	-	-
802.11g	62	77	65	-	-	-
802.11n MCS0 HT20	64	78	66	-	-	-
802.11n MCS0 HT40	-	-	-	55	58	54

**Mode 5 (Set 8 Patch antenna / 3.53dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	84	-	-	-
802.11g	61	77	65	-	-	-
802.11n MCS0 HT20	64	78	64	-	-	-
802.11n MCS0 HT40	-	-	-	54	57	54

**Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi / 1TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	85	85	85	-	-	-
802.11g	67	80	71	-	-	-
802.11n MCS0 HT20	66	80	70	-	-	-
802.11n MCS0 HT40	-	-	-	58	66	63

**Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 3: 3.2dBi / 2TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	84	84	85	-	-	-
802.11g	65	77	68	-	-	-
802.11n MCS0 HT20	63	77	66	-	-	-
802.11n MCS0 HT40	-	-	-	56	61	58

**Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi / 3TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	83	-	-	-
802.11g	65	77	65	-	-	-
802.11n MCS0 HT20	63	78	65	-	-	-
802.11n MCS0 HT40	-	-	-	56	59	52

Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi , Chain 4: 4.5dBi / 4TX)

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11b	82	83	84	-	-	-
802.11g	63	77	63	-	-	-
802.11n MCS0 HT20	62	78	61	-	-	-
802.11n MCS0 HT40	-	-	-	55	58	51

For Beamforming Mode

Mode 1 (Set 3 Dipole antenna / 3.83dBi / 2TX)

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	64	77	61	-	-	-
802.11n MCS0 HT40	-	-	-	57	61	53

Mode 1 (Set 3 Dipole antenna / 3.83dBi / 3TX)

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	61	78	60	-	-	-
802.11n MCS0 HT40	-	-	-	56	54	52

Mode 1 (Set 3 Dipole antenna / 3.83dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	58	74	61	-	-	-
802.11n MCS0 HT40	-	-	-	56	56	51

**Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi\*1, (1B)3.93dBi \*1 / 2TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	67	77	64	-	-	-
802.11n MCS0 HT40	-	-	-	58	60	55

**Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi, (1B)3.93dBi / 3TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	64	78	64	-	-	-
802.11n MCS0 HT40	-	-	-	58	58	51

**Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi\*2, (1B)3.93dBi\*1 + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	62	78	61	-	-	-
802.11n MCS0 HT40	-	-	-	51	57	50

**Mode 3 (Set 6 Panel antenna / 4.03dBi / 2TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	58	77	60	-	-	-
802.11n MCS0 HT40	-	-	-	51	57	55

**Mode 3 (Set 6 Panel antenna / 4.03dBi / 3TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	54	78	59	-	-	-
802.11n MCS0 HT40	-	-	-	44	52	50

**Mode 3 (Set 6 Panel antenna / 4.03dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	56	74	58	-	-	-
802.11n MCS0 HT40	-	-	-	48	55	51

**Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 2TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	63	78	64	-	-	-
802.11n MCS0 HT40	-	-	-	59	64	55

**Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 3TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	59	78	60	-	-	-
802.11n MCS0 HT40	-	-	-	57	60	52

**Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	57	77	61	-	-	-
802.11n MCS0 HT40	-	-	-	51	58	53

**Mode 5 (Set 8 Patch antenna / 3.53dBi / 2TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	66	77	66	-	-	-
802.11n MCS0 HT40	-	-	-	59	62	60

**Mode 5 (Set 8 Patch antenna / 3.53dBi / 3TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	63	78	62	-	-	-
802.11n MCS0 HT40	-	-	-	55	58	54

**Mode 5 (Set 8 Patch antenna / 3.53dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	62	75	61	-	-	-
802.11n MCS0 HT40	-	-	-	54	57	54

**Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi / 2TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	63	77	66	-	-	-
802.11n MCS0 HT40	-	-	-	56	61	57

**Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi / 3TX)**

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	61	78	62	-	-	-
802.11n MCS0 HT40	-	-	-	52	57	49

Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi , Chain 4: 4.5dBi / 4TX)

Test Software Version	DoS					
Mode	Test Frequency (MHz)					
	NCB: 20MHz			NCB: 40MHz		
	2412 MHz	2437 MHz	2462 MHz	2422 MHz	2437 MHz	2452 MHz
802.11n MCS0 HT20	62	74	59	-	-	-
802.11n MCS0 HT40	-	-	-	52	58	49

### 3.9. EUT Operation during Test

For Non-Beamforming Mode:

The EUT was programmed to be in continuously transmitting mode.

For Beamforming Mode:

For Conducted Mode:

The EUT was programmed to be in continuously transmitting mode.

For Radiated Mode:

During the test, the following programs under WIN XP were executed.

The program was executed as follows:

1. During the test, the EUT operation to normal function.
2. Executed command fixed test channel under DOS.
3. Executed "Lantest.exe " to link with the remote workstation to receive and transmit packet by Client Device and transmit duty cycle no less 98%

### 3.10. Duty Cycle

For Non-Beamforming Mode

For 1TX

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	1.000	1.000	100.00%	0.00	0.01
802.11g	2.060	2.090	98.56%	0.06	0.01
802.11n MCS0 HT20	1.925	1.950	98.72%	0.06	0.01
802.11n MCS0 HT40	0.933	0.968	96.38%	0.16	1.07

For 2TX

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	1.000	1.000	100.00%	0.00	0.01
802.11g	2.060	2.099	98.14%	0.08	0.01
802.11n MCS0 HT20	1.925	1.960	98.21%	0.08	0.01
802.11n MCS0 HT40	0.932	0.969	96.18%	0.17	1.07

For 3TX

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	1.000	1.000	100.00%	0.00	0.01
802.11g	2.059	2.080	98.99%	0.04	0.01
802.11n MCS0 HT20	1.911	1.944	98.30%	0.07	0.01
802.11n MCS0 HT40	0.940	0.966	97.31%	0.12	1.06

For 4TX

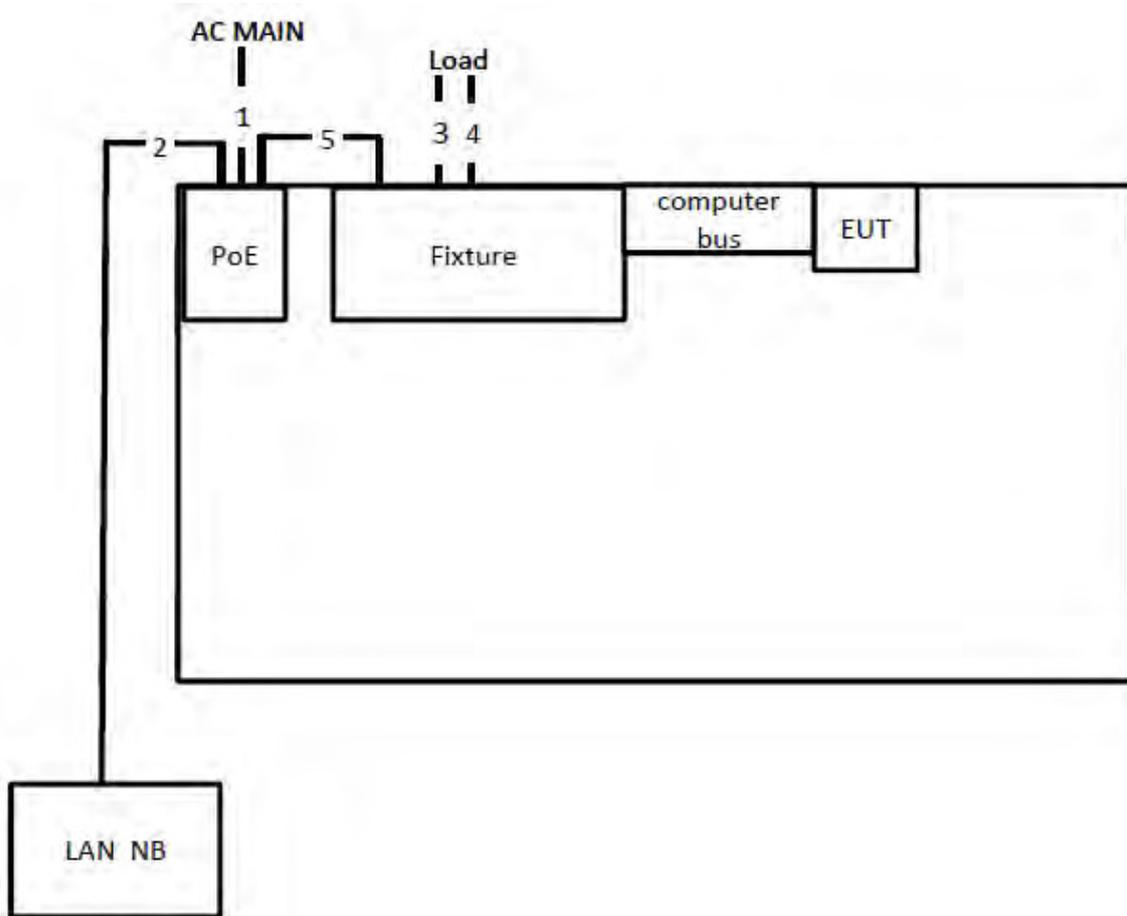
Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11b	1.000	1.000	100.00%	0.00	0.01
802.11g	2.055	2.093	98.18%	0.08	0.01
802.11n MCS0 HT20	1.920	1.950	98.46%	0.07	0.01
802.11n MCS0 HT40	0.939	0.966	97.20%	0.12	1.06

**For Beamforming Mode****For 2TX, 3TX, 4TX**

Mode	On Time (ms)	On+Off Time (ms)	Duty Cycle (%)	Duty Factor (dB)	1/T Minimum VBW (kHz)
802.11n MCS0 HT20	3.784	4.136	91.49%	0.39	0.26
802.11n MCS0 HT40	4.584	4.992	91.83%	0.37	0.22

### 3.11. Test Configurations

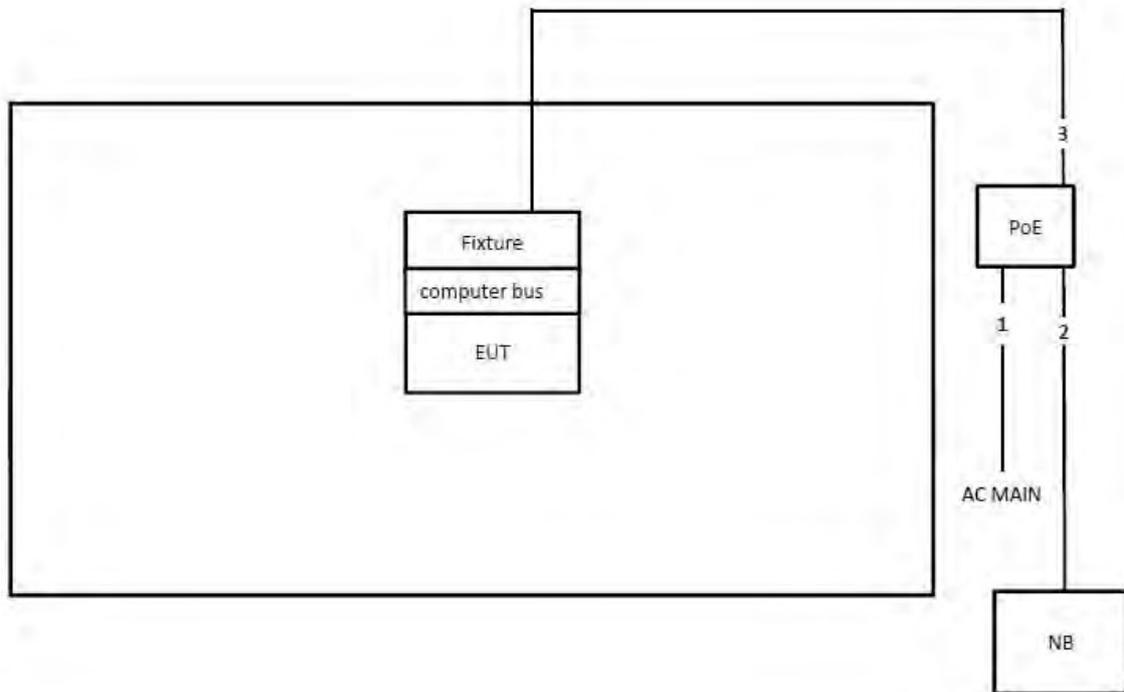
#### 3.11.1. AC Power Line Conduction Emissions Test Configuration



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m
4	Console cable	No	1.5m
5	RJ-45 cable	No	1.5m

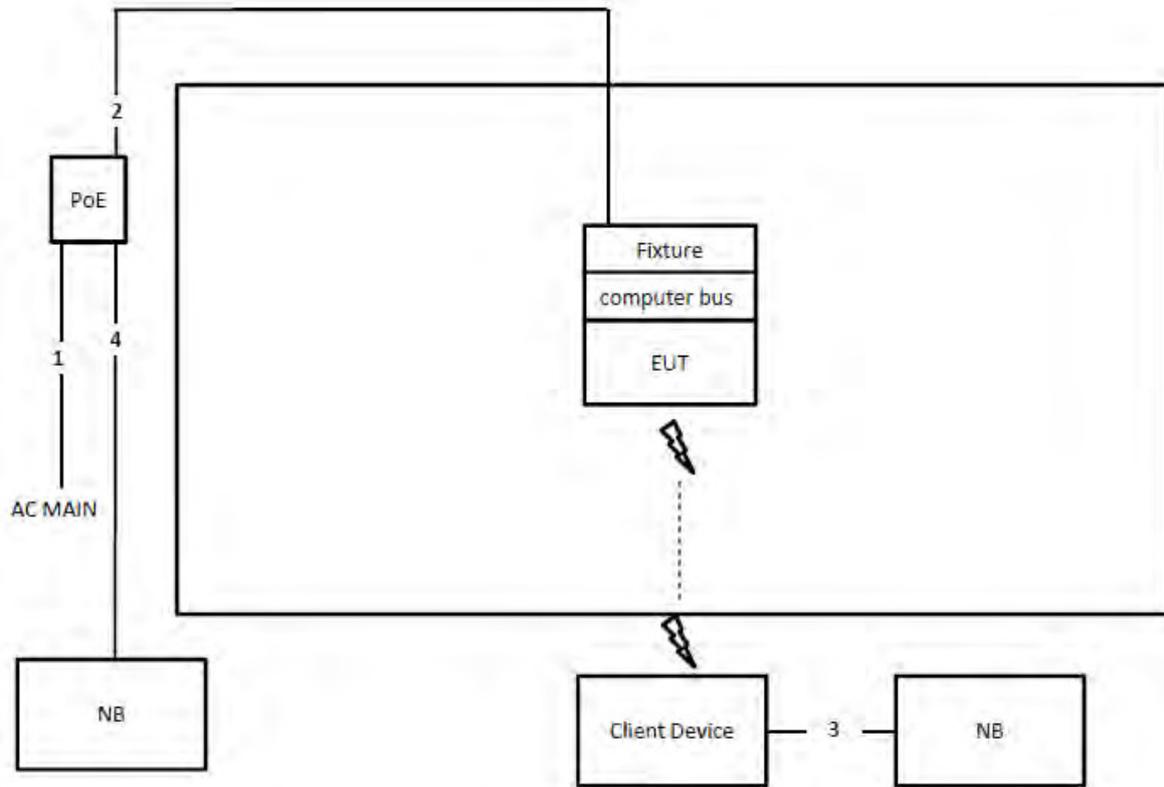
### 3.11.2. Radiation Emissions Test Configuration

Test Configuration: 30MHz~1GHz and above 1GHz / For Non-Beamforming Mode



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	1.5m
3	RJ-45 cable	No	10m

Test Configuration: above 1GHz / For Beamforming Mode



Item	Connection	Shielded	Length
1	Power cable	No	1.8m
2	RJ-45 cable	No	10m
3	RJ-45 cable	No	1.5m
4	RJ-45 cable	No	1.5m

## 4. TEST RESULT

### 4.1. AC Power Line Conducted Emissions Measurement

#### 4.1.1. Limit

For this product which is designed to be connected to the AC power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed below limits table.

Frequency (MHz)	QP Limit (dBuV)	AV Limit (dBuV)
0.15~0.5	66~56	56~46
0.5~5	56	46
5~30	60	50

#### 4.1.2. Measuring Instruments and Setting

Please refer to section 5 of equipments list in this report. The following table is the setting of the receiver.

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

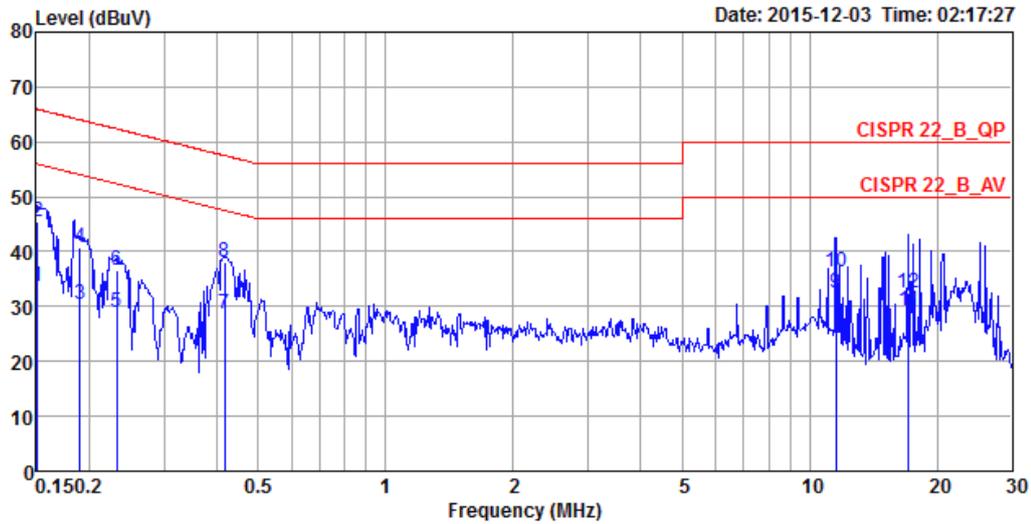
#### 4.1.3. Test Procedures

1. Configure the EUT according to ANSI C63.10. The EUT or host of EUT has to be placed 0.4 meter far from the conducting wall of the shielding room and at least 80 centimeters from any other grounded conducting surface.
2. Connect EUT or host of EUT to the power mains through a line impedance stabilization network (LISN).
3. All the support units are connected to the other LISNs. The LISN should provide 50uH/50ohms coupling impedance.
4. The frequency range from 150 kHz to 30 MHz was searched.
5. Set the test-receiver system to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
6. The measurement has to be done between each power line and ground at the power terminal.



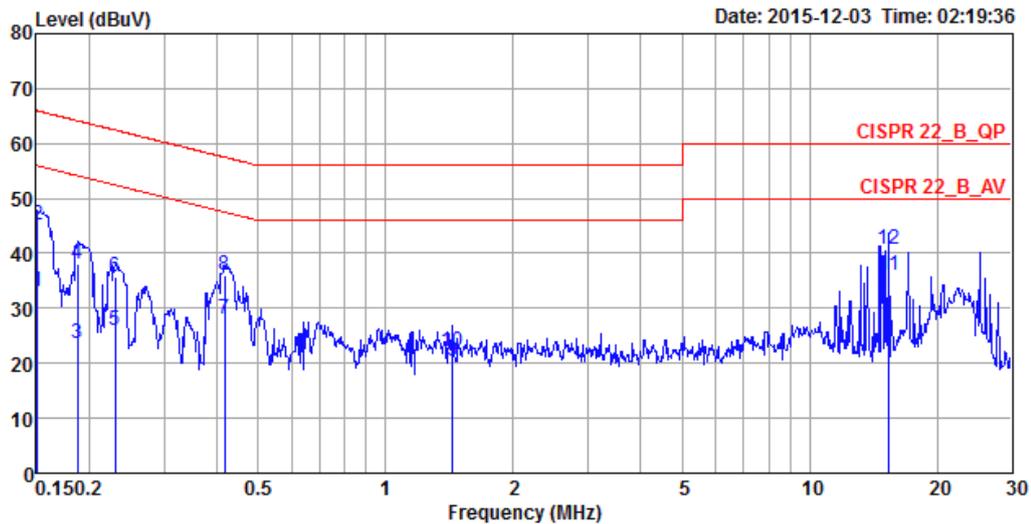
4.1.7. Results of AC Power Line Conducted Emissions Measurement

Temperature	25°C	Humidity	59%
Test Engineer	Da Deng	Phase	Line
Configuration	CTX		



	Freq	Level	Over Limit	Limit Line	Read Level	LISM Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1508	33.63	-22.33	55.96	23.68	9.93	0.02	LINE	Average
2	0.1508	45.53	-20.43	65.96	35.58	9.93	0.02	LINE	QP
3	0.1904	30.52	-23.50	54.02	20.57	9.93	0.02	LINE	Average
4	0.1904	40.71	-23.31	64.02	30.76	9.93	0.02	LINE	QP
5	0.2316	28.91	-23.48	52.39	18.95	9.93	0.03	LINE	Average
6	0.2316	36.60	-25.79	62.39	26.64	9.93	0.03	LINE	QP
7	0.4171	28.60	-18.91	47.51	18.63	9.93	0.04	LINE	Average
8	0.4171	37.95	-19.56	57.51	27.98	9.93	0.04	LINE	QP
9	11.5414	32.59	-17.41	50.00	22.11	10.23	0.25	LINE	Average
10	11.5414	36.30	-23.70	60.00	25.82	10.23	0.25	LINE	QP
11	17.1085	29.33	-20.67	50.00	18.69	10.38	0.26	LINE	Average
12	17.1085	32.38	-27.62	60.00	21.74	10.38	0.26	LINE	QP

Temperature	25°C	Humidity	59%
Test Engineer	Da Deng	Phase	Neutral
Configuration	CTX		



	Freq	Level	Over Limit	Limit Line	Read Level	LISN Factor	Cable Loss	Pol/Phase	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	dB		
1	0.1508	33.10	-22.86	55.96	23.30	9.78	0.02	NEUTRAL	Average
2	0.1508	45.18	-20.78	65.96	35.38	9.78	0.02	NEUTRAL	QP
3	0.1874	23.65	-30.50	54.15	13.84	9.79	0.02	NEUTRAL	Average
4	0.1874	38.11	-26.04	64.15	28.30	9.79	0.02	NEUTRAL	QP
5	0.2304	25.91	-26.53	52.44	16.09	9.79	0.03	NEUTRAL	Average
6	0.2304	35.68	-26.76	62.44	25.86	9.79	0.03	NEUTRAL	QP
7	0.4171	27.92	-19.59	47.51	18.09	9.79	0.04	NEUTRAL	Average
8	0.4171	36.15	-21.36	57.51	26.32	9.79	0.04	NEUTRAL	QP
9	1.4409	20.50	-25.50	46.00	10.61	9.83	0.06	NEUTRAL	Average
10	1.4409	22.14	-33.86	56.00	12.25	9.83	0.06	NEUTRAL	QP
11	15.3883	35.90	-14.10	50.00	25.52	10.12	0.26	NEUTRAL	Average
12	15.3883	40.79	-19.21	60.00	30.41	10.12	0.26	NEUTRAL	QP

Note:

Level = Read Level + LISN Factor + Cable Loss.

## 4.2. Maximum Conducted Output Power Measurement

### 4.2.1. Limit

The limit for output power is 30dBm.

### 4.2.2. Measuring Instruments and Setting

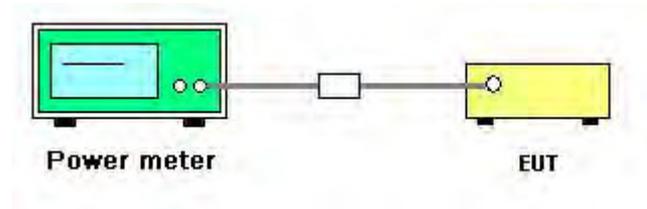
Please refer to section 5 of equipments list in this report. The following table is the setting of the power meter.

Power Meter Parameter	Setting
Bandwidth	50MHz bandwidth is greater than the EUT emission bandwidth
Detector	Average

### 4.2.3. Test Procedures

1. Test procedures refer KDB558074 D01 v03r03 section 9.2.3.2 Measurement using a power meter (PM).
2. Multiple antenna systems was performed in accordance with KDB 662911 D01 v02r01 Emissions Testing of Transmitters with Multiple Outputs in the Same Band.
3. This procedure provides an alternative for determining the RMS output power using a broadband RF average power meter with a thermocouple detector.

### 4.2.4. Test Setup Layout



### 4.2.5. Test Deviation

There is no deviation with the original standard.

### 4.2.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

#### 4.2.7. Test Result of Maximum Conducted Output Power

##### For Non-Beamforming Mode

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi / 1TX)		

Mode	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1		
802.11b	2412 MHz	20.96	30.00	Complies
	2437 MHz	20.87	30.00	Complies
	2462 MHz	20.74	30.00	Complies
802.11g	2412 MHz	18.30	30.00	Complies
	2437 MHz	20.79	30.00	Complies
	2462 MHz	18.19	30.00	Complies
802.11n MCS0 HT20	2412 MHz	18.53	30.00	Complies
	2437 MHz	20.93	30.00	Complies
	2462 MHz	17.95	30.00	Complies
802.11n MCS0 HT40	2422 MHz	16.83	30.00	Complies
	2437 MHz	17.36	30.00	Complies
	2452 MHz	16.01	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 2	Total		
802.11b	2412 MHz	20.69	20.88	23.80	30.00	Complies
	2437 MHz	20.32	20.75	23.55	30.00	Complies
	2462 MHz	20.29	20.71	23.52	30.00	Complies
802.11g	2412 MHz	17.17	18.10	20.67	30.00	Complies
	2437 MHz	20.45	20.89	23.69	30.00	Complies
	2462 MHz	16.26	16.81	19.55	30.00	Complies
802.11n MCS0 HT20	2412 MHz	17.01	17.32	20.18	30.00	Complies
	2437 MHz	20.11	20.72	23.44	30.00	Complies
	2462 MHz	15.98	16.54	19.28	30.00	Complies
802.11n MCS0 HT40	2422 MHz	16.33	16.25	19.30	30.00	Complies
	2437 MHz	16.59	17.18	19.91	30.00	Complies
	2452 MHz	13.92	14.84	17.41	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	20.01	20.79	20.53	25.23	30.00	Complies
	2437 MHz	20.15	20.76	20.33	25.19	30.00	Complies
	2462 MHz	20.06	20.72	20.21	25.11	30.00	Complies
802.11g	2412 MHz	16.31	16.93	16.74	21.44	30.00	Complies
	2437 MHz	20.15	20.72	20.49	25.23	30.00	Complies
	2462 MHz	15.39	15.86	15.96	20.51	30.00	Complies
802.11n MCS0 HT20	2412 MHz	16.06	16.81	16.52	21.25	30.00	Complies
	2437 MHz	20.43	20.91	20.68	25.45	30.00	Complies
	2462 MHz	15.49	15.97	16.08	20.63	30.00	Complies
802.11n MCS0 HT40	2422 MHz	15.47	16.01	16.11	20.64	30.00	Complies
	2437 MHz	15.61	16.17	16.14	20.75	30.00	Complies
	2452 MHz	14.02	14.32	14.28	18.98	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	20.16	20.95	20.61	20.72	26.64	30.00	Complies
	2437 MHz	20.06	20.52	20.48	20.75	26.48	30.00	Complies
	2462 MHz	20.14	20.78	20.17	20.43	26.41	30.00	Complies
802.11g	2412 MHz	15.27	15.70	15.75	15.64	21.61	30.00	Complies
	2437 MHz	20.18	20.85	20.64	20.96	26.69	30.00	Complies
	2462 MHz	15.54	16.08	16.10	15.63	21.87	30.00	Complies
802.11n MCS0 HT20	2412 MHz	15.15	15.96	15.85	15.76	21.71	30.00	Complies
	2437 MHz	20.33	20.81	20.75	20.95	26.74	30.00	Complies
	2462 MHz	15.87	16.26	15.99	16.29	22.13	30.00	Complies
802.11n MCS0 HT40	2422 MHz	15.05	15.37	15.42	15.06	21.25	30.00	Complies
	2437 MHz	15.78	15.94	15.97	15.81	21.90	30.00	Complies
	2452 MHz	14.01	14.08	14.19	14.01	20.09	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi *1 / 1TX)		

Mode	Frequency	Conducted Power (dBm)		Max. Limit (dBm)	Result
		Chain 1			
802.11b	2412 MHz	20.96		30.00	Complies
	2437 MHz	20.87		30.00	Complies
	2462 MHz	20.74		30.00	Complies
802.11g	2412 MHz	19.44		30.00	Complies
	2437 MHz	20.79		30.00	Complies
	2462 MHz	18.82		30.00	Complies
802.11n MCS0 HT20	2412 MHz	18.31		30.00	Complies
	2437 MHz	20.93		30.00	Complies
	2462 MHz	18.24		30.00	Complies
802.11n MCS0 HT40	2422 MHz	16.92		30.00	Complies
	2437 MHz	17.36		30.00	Complies
	2452 MHz	15.87		30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*2 / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 3	Total		
802.11b	2412 MHz	20.66	20.78	23.73	30.00	Complies
	2437 MHz	20.51	20.85	23.69	30.00	Complies
	2462 MHz	20.58	20.89	23.75	30.00	Complies
802.11g	2412 MHz	18.40	18.74	21.58	30.00	Complies
	2437 MHz	20.69	20.91	23.81	30.00	Complies
	2462 MHz	17.17	17.78	20.50	30.00	Complies
802.11n MCS0 HT20	2412 MHz	17.71	17.94	20.84	30.00	Complies
	2437 MHz	20.18	20.74	23.48	30.00	Complies
	2462 MHz	16.59	16.93	19.77	30.00	Complies
802.11n MCS0 HT40	2422 MHz	15.85	15.88	18.88	30.00	Complies
	2437 MHz	15.96	16.25	19.12	30.00	Complies
	2452 MHz	14.78	15.24	18.03	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*2, (1B)3.93dBi*1 / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	20.01	20.79	20.53	25.23	30.00	Complies
	2437 MHz	20.15	20.76	20.33	25.19	30.00	Complies
	2462 MHz	20.06	20.72	20.21	25.11	30.00	Complies
802.11g	2412 MHz	16.61	17.04	16.84	21.60	30.00	Complies
	2437 MHz	20.15	20.72	20.49	25.23	30.00	Complies
	2462 MHz	15.92	16.95	16.98	21.42	30.00	Complies
802.11n MCS0 HT20	2412 MHz	16.95	16.98	16.87	21.70	30.00	Complies
	2437 MHz	20.43	20.91	20.68	25.45	30.00	Complies
	2462 MHz	16.34	16.84	16.98	21.50	30.00	Complies
802.11n MCS0 HT40	2422 MHz	15.29	16.25	15.86	20.59	30.00	Complies
	2437 MHz	15.85	16.40	16.20	20.93	30.00	Complies
	2452 MHz	14.24	14.89	14.76	19.41	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*2, (1B)3.93dBi*1 + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	20.16	20.95	20.61	20.72	26.64	30.00	Complies
	2437 MHz	20.06	20.52	20.48	20.75	26.48	30.00	Complies
	2462 MHz	20.14	20.78	20.17	20.43	26.41	30.00	Complies
802.11g	2412 MHz	17.70	18.75	18.24	18.15	24.25	30.00	Complies
	2437 MHz	20.18	20.85	20.64	20.96	26.69	30.00	Complies
	2462 MHz	16.84	16.96	17.04	17.12	23.01	30.00	Complies
802.11n MCS0 HT20	2412 MHz	16.56	16.63	16.64	16.13	22.52	30.00	Complies
	2437 MHz	20.33	20.81	20.75	20.95	26.74	30.00	Complies
	2462 MHz	16.41	16.87	16.43	16.56	22.59	30.00	Complies
802.11n MCS0 HT40	2422 MHz	13.67	14.50	13.78	13.65	19.94	30.00	Complies
	2437 MHz	15.62	16.01	16.02	15.92	21.92	30.00	Complies
	2452 MHz	13.69	14.13	14.13	14.36	20.10	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi / 1TX)		

Mode	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1		
802.11b	2412 MHz	20.96	30.00	Complies
	2437 MHz	20.87	30.00	Complies
	2462 MHz	20.74	30.00	Complies
802.11g	2412 MHz	17.37	30.00	Complies
	2437 MHz	20.79	30.00	Complies
	2462 MHz	18.19	30.00	Complies
802.11n MCS0 HT20	2412 MHz	17.42	30.00	Complies
	2437 MHz	20.93	30.00	Complies
	2462 MHz	18.01	30.00	Complies
802.11n MCS0 HT40	2422 MHz	16.36	30.00	Complies
	2437 MHz	17.36	30.00	Complies
	2452 MHz	15.65	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 3	Total		
802.11b	2412 MHz	20.66	20.78	23.73	30.00	Complies
	2437 MHz	20.51	20.85	23.69	30.00	Complies
	2462 MHz	20.58	20.89	23.75	30.00	Complies
802.11g	2412 MHz	16.48	16.64	19.57	30.00	Complies
	2437 MHz	20.69	20.91	23.81	30.00	Complies
	2462 MHz	17.13	17.68	20.42	30.00	Complies
802.11n MCS0 HT20	2412 MHz	16.31	16.61	19.47	30.00	Complies
	2437 MHz	20.18	20.74	23.48	30.00	Complies
	2462 MHz	16.01	16.83	19.45	30.00	Complies
802.11n MCS0 HT40	2422 MHz	14.41	14.78	17.61	30.00	Complies
	2437 MHz	16.31	16.73	19.54	30.00	Complies
	2452 MHz	14.74	15.01	17.89	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	20.01	20.79	20.53	25.23	30.00	Complies
	2437 MHz	20.15	20.76	20.33	25.19	30.00	Complies
	2462 MHz	20.06	20.72	20.21	25.11	30.00	Complies
802.11g	2412 MHz	16.31	16.93	16.74	21.44	30.00	Complies
	2437 MHz	20.15	20.72	20.49	25.23	30.00	Complies
	2462 MHz	15.89	16.37	16.23	20.94	30.00	Complies
802.11n MCS0 HT20	2412 MHz	16.06	16.81	16.52	21.25	30.00	Complies
	2437 MHz	20.43	20.91	20.68	25.45	30.00	Complies
	2462 MHz	15.93	16.67	16.36	21.10	30.00	Complies
802.11n MCS0 HT40	2422 MHz	14.28	14.77	14.69	19.36	30.00	Complies
	2437 MHz	14.83	15.13	15.26	19.85	30.00	Complies
	2452 MHz	13.54	14.13	13.79	18.60	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	19.75	19.95	19.72	20.06	25.89	30.00	Complies
	2437 MHz	20.06	20.52	20.48	20.75	26.48	30.00	Complies
	2462 MHz	20.14	20.78	20.17	20.43	26.41	30.00	Complies
802.11g	2412 MHz	16.14	16.42	16.28	16.31	22.31	30.00	Complies
	2437 MHz	20.18	20.85	20.64	20.96	26.69	30.00	Complies
	2462 MHz	16.01	16.14	16.03	16.02	22.07	30.00	Complies
802.11n MCS0 HT20	2412 MHz	15.15	15.96	15.85	15.76	21.71	30.00	Complies
	2437 MHz	20.33	20.81	20.75	20.95	26.74	30.00	Complies
	2462 MHz	14.59	14.83	14.85	14.96	20.83	30.00	Complies
802.11n MCS0 HT40	2422 MHz	13.06	13.25	13.33	13.65	19.35	30.00	Complies
	2437 MHz	14.73	15.03	15.13	14.83	20.95	30.00	Complies
	2452 MHz	13.31	13.42	13.51	13.60	19.48	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 1TX)		

Mode	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1		
802.11b	2412 MHz	20.96	30.00	Complies
	2437 MHz	20.87	30.00	Complies
	2462 MHz	20.74	30.00	Complies
802.11g	2412 MHz	18.44	30.00	Complies
	2437 MHz	20.79	30.00	Complies
	2462 MHz	18.71	30.00	Complies
802.11n MCS0 HT20	2412 MHz	17.81	30.00	Complies
	2437 MHz	20.93	30.00	Complies
	2462 MHz	18.24	30.00	Complies
802.11n MCS0 HT40	2422 MHz	16.76	30.00	Complies
	2437 MHz	17.76	30.00	Complies
	2452 MHz	16.53	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 2	Total		
802.11b	2412 MHz	20.69	20.88	23.80	30.00	Complies
	2437 MHz	20.32	20.75	23.55	30.00	Complies
	2462 MHz	20.29	20.71	23.52	30.00	Complies
802.11g	2412 MHz	17.02	17.03	20.04	30.00	Complies
	2437 MHz	20.45	20.89	23.69	30.00	Complies
	2462 MHz	16.89	17.13	20.02	30.00	Complies
802.11n MCS0 HT20	2412 MHz	17.15	17.13	20.15	30.00	Complies
	2437 MHz	20.11	20.72	23.44	30.00	Complies
	2462 MHz	16.83	17.38	20.12	30.00	Complies
802.11n MCS0 HT40	2422 MHz	14.90	15.56	18.25	30.00	Complies
	2437 MHz	16.65	16.23	19.46	30.00	Complies
	2452 MHz	14.73	15.38	18.08	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	20.01	20.79	20.53	25.23	30.00	Complies
	2437 MHz	20.15	20.76	20.33	25.19	30.00	Complies
	2462 MHz	20.06	20.72	20.21	25.11	30.00	Complies
802.11g	2412 MHz	15.93	16.43	16.62	21.11	30.00	Complies
	2437 MHz	20.15	20.72	20.49	25.23	30.00	Complies
	2462 MHz	15.92	16.95	16.98	21.42	30.00	Complies
802.11n MCS0 HT20	2412 MHz	15.58	16.72	16.31	21.00	30.00	Complies
	2437 MHz	20.43	20.91	20.68	25.45	30.00	Complies
	2462 MHz	15.61	16.08	16.12	20.71	30.00	Complies
802.11n MCS0 HT40	2422 MHz	13.11	13.56	13.66	18.22	30.00	Complies
	2437 MHz	15.38	15.77	15.26	20.25	30.00	Complies
	2452 MHz	13.96	14.73	14.39	19.14	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	20.16	20.95	20.61	20.72	26.64	30.00	Complies
	2437 MHz	20.06	20.52	20.48	20.75	26.48	30.00	Complies
	2462 MHz	20.14	20.78	20.17	20.43	26.41	30.00	Complies
802.11g	2412 MHz	16.14	16.42	16.28	16.31	22.31	30.00	Complies
	2437 MHz	20.18	20.85	20.64	20.96	26.69	30.00	Complies
	2462 MHz	16.42	16.96	16.52	16.69	22.67	30.00	Complies
802.11n MCS0 HT20	2412 MHz	15.85	16.75	16.73	16.43	22.48	30.00	Complies
	2437 MHz	20.33	20.81	20.75	20.95	26.74	30.00	Complies
	2462 MHz	15.89	16.33	16.16	16.13	22.15	30.00	Complies
802.11n MCS0 HT40	2422 MHz	13.67	14.50	13.78	13.65	19.94	30.00	Complies
	2437 MHz	15.43	16.19	15.72	15.80	21.81	30.00	Complies
	2452 MHz	13.72	14.55	14.34	14.58	20.33	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi / 1TX)		

Mode	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1		
802.11b	2412 MHz	20.96	30.00	Complies
	2437 MHz	20.87	30.00	Complies
	2462 MHz	20.74	30.00	Complies
802.11g	2412 MHz	18.46	30.00	Complies
	2437 MHz	20.79	30.00	Complies
	2462 MHz	18.82	30.00	Complies
802.11n MCS0 HT20	2412 MHz	17.81	30.00	Complies
	2437 MHz	20.93	30.00	Complies
	2462 MHz	18.98	30.00	Complies
802.11n MCS0 HT40	2422 MHz	16.57	30.00	Complies
	2437 MHz	17.76	30.00	Complies
	2452 MHz	16.38	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 2	Total		
802.11b	2412 MHz	20.69	20.88	23.80	30.00	Complies
	2437 MHz	20.32	20.75	23.55	30.00	Complies
	2462 MHz	20.29	20.71	23.52	30.00	Complies
802.11g	2412 MHz	16.81	16.98	19.91	30.00	Complies
	2437 MHz	20.69	20.89	23.80	30.00	Complies
	2462 MHz	17.65	17.98	20.83	30.00	Complies
802.11n MCS0 HT20	2412 MHz	17.32	17.54	20.44	30.00	Complies
	2437 MHz	20.11	20.72	23.44	30.00	Complies
	2462 MHz	17.72	17.98	20.86	30.00	Complies
802.11n MCS0 HT40	2422 MHz	15.87	15.98	18.94	30.00	Complies
	2437 MHz	16.65	16.23	19.46	30.00	Complies
	2452 MHz	15.05	16.81	19.03	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	20.01	20.79	20.53	25.23	30.00	Complies
	2437 MHz	20.15	20.76	20.33	25.19	30.00	Complies
	2462 MHz	20.06	20.72	20.21	25.11	30.00	Complies
802.11g	2412 MHz	16.31	16.93	16.74	21.44	30.00	Complies
	2437 MHz	20.15	20.72	20.49	25.23	30.00	Complies
	2462 MHz	15.92	16.95	16.98	21.42	30.00	Complies
802.11n MCS0 HT20	2412 MHz	16.95	16.98	16.87	21.70	30.00	Complies
	2437 MHz	20.43	20.91	20.68	25.45	30.00	Complies
	2462 MHz	17.04	17.54	17.53	22.15	30.00	Complies
802.11n MCS0 HT40	2422 MHz	14.89	14.99	14.98	19.72	30.00	Complies
	2437 MHz	15.54	15.87	15.97	20.57	30.00	Complies
	2452 MHz	14.24	14.89	14.76	19.41	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	20.16	20.95	20.61	20.72	26.64	30.00	Complies
	2437 MHz	20.06	20.52	20.48	20.75	26.48	30.00	Complies
	2462 MHz	20.14	20.78	20.17	20.43	26.41	30.00	Complies
802.11g	2412 MHz	16.34	16.76	16.77	16.76	22.68	30.00	Complies
	2437 MHz	20.18	20.85	20.64	20.96	26.69	30.00	Complies
	2462 MHz	16.84	16.76	16.78	16.89	22.84	30.00	Complies
802.11n MCS0 HT20	2412 MHz	16.65	16.73	16.68	16.76	22.73	30.00	Complies
	2437 MHz	20.33	20.81	20.75	20.95	26.74	30.00	Complies
	2462 MHz	16.41	16.87	16.43	16.56	22.59	30.00	Complies
802.11n MCS0 HT40	2422 MHz	13.79	14.76	13.89	13.98	20.14	30.00	Complies
	2437 MHz	15.23	15.12	14.96	15.43	21.21	30.00	Complies
	2452 MHz	14.76	14.21	13.81	14.87	20.45	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi / 1TX)		

Mode	Frequency	Conducted Power (dBm)	Max. Limit (dBm)	Result
		Chain 1		
802.11b	2412 MHz	20.96	30.00	Complies
	2437 MHz	20.87	30.00	Complies
	2462 MHz	20.74	30.00	Complies
802.11g	2412 MHz	17.74	30.00	Complies
	2437 MHz	20.79	30.00	Complies
	2462 MHz	18.56	30.00	Complies
802.11n MCS0 HT20	2412 MHz	17.42	30.00	Complies
	2437 MHz	20.93	30.00	Complies
	2462 MHz	18.01	30.00	Complies
802.11n MCS0 HT40	2422 MHz	15.87	30.00	Complies
	2437 MHz	17.36	30.00	Complies
	2452 MHz	16.83	30.00	Complies



<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 3: 3.2dBi / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 3	Total		
802.11b	2412 MHz	20.66	20.78	23.73	30.00	Complies
	2437 MHz	20.51	20.85	23.69	30.00	Complies
	2462 MHz	20.58	20.89	23.75	30.00	Complies
802.11g	2412 MHz	17.74	17.69	20.73	30.00	Complies
	2437 MHz	20.69	20.91	23.81	30.00	Complies
	2462 MHz	17.79	18.02	20.92	30.00	Complies
802.11n MCS0 HT20	2412 MHz	16.65	16.89	19.78	30.00	Complies
	2437 MHz	20.18	20.74	23.48	30.00	Complies
	2462 MHz	16.91	17.65	20.31	30.00	Complies
802.11n MCS0 HT40	2422 MHz	14.93	15.57	18.27	30.00	Complies
	2437 MHz	16.31	16.73	19.54	30.00	Complies
	2452 MHz	15.61	15.66	18.65	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	20.01	20.79	20.53	25.23	30.00	Complies
	2437 MHz	20.15	20.76	20.33	25.19	30.00	Complies
	2462 MHz	20.06	20.72	20.21	25.11	30.00	Complies
802.11g	2412 MHz	17.15	18.20	17.95	22.56	30.00	Complies
	2437 MHz	20.15	20.72	20.49	25.23	30.00	Complies
	2462 MHz	15.92	16.95	16.98	21.42	30.00	Complies
802.11n MCS0 HT20	2412 MHz	16.53	16.78	16.67	21.43	30.00	Complies
	2437 MHz	20.43	20.91	20.68	25.45	30.00	Complies
	2462 MHz	17.01	17.36	17.13	21.94	30.00	Complies
802.11n MCS0 HT40	2422 MHz	15.03	15.73	15.62	20.24	30.00	Complies
	2437 MHz	15.77	16.35	15.98	20.81	30.00	Complies
	2452 MHz	13.64	14.31	14.28	18.86	30.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi , Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	20.16	20.95	20.61	20.72	26.64	30.00	Complies
	2437 MHz	20.06	20.52	20.48	20.75	26.48	30.00	Complies
	2462 MHz	20.14	20.78	20.17	20.43	26.41	30.00	Complies
802.11g	2412 MHz	16.51	17.71	17.17	16.96	23.13	30.00	Complies
	2437 MHz	20.18	20.85	20.64	20.96	26.69	30.00	Complies
	2462 MHz	16.31	16.73	16.55	16.71	22.60	30.00	Complies
802.11n MCS0 HT20	2412 MHz	16.79	16.43	16.23	16.34	22.47	30.00	Complies
	2437 MHz	20.33	20.81	20.75	20.95	26.74	30.00	Complies
	2462 MHz	15.89	16.33	16.16	16.13	22.15	30.00	Complies
802.11n MCS0 HT40	2422 MHz	13.98	14.99	14.01	14.13	20.32	30.00	Complies
	2437 MHz	15.43	16.19	15.72	15.80	21.81	30.00	Complies
	2452 MHz	13.56	14.06	13.95	13.73	19.85	30.00	Complies

## For Beamforming Mode

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	17.01	17.32	20.18	29.16	Complies
	2437 MHz	20.11	20.72	23.44	29.16	Complies
	2462 MHz	15.98	16.54	19.28	29.16	Complies
802.11n MCS0 HT40	2422 MHz	15.83	15.79	18.82	29.16	Complies
	2437 MHz	16.02	16.62	19.34	29.16	Complies
	2452 MHz	13.92	14.84	17.41	29.16	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 6.84\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (6.84 - 6) = 29.16\text{dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	16.06	16.81	16.52	21.25	27.40	Complies
	2437 MHz	20.43	20.91	20.68	25.45	27.40	Complies
	2462 MHz	15.49	15.97	16.08	20.63	27.40	Complies
802.11n MCS0 HT40	2422 MHz	15.03	15.73	15.62	20.24	27.40	Complies
	2437 MHz	14.39	14.92	14.89	19.51	27.40	Complies
	2452 MHz	14.02	14.32	14.28	18.98	27.40	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.60\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (8.60 - 6) = 27.40\text{dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	15.15	15.96	15.85	15.76	21.71	25.98	Complies
	2437 MHz	19.33	19.82	19.72	19.87	25.71	25.98	Complies
	2462 MHz	15.87	16.26	15.99	16.29	22.13	25.98	Complies
802.11n MCS0 HT40	2422 MHz	15.05	15.37	15.42	15.06	21.25	25.98	Complies
	2437 MHz	15.21	15.43	15.47	15.32	21.38	25.98	Complies
	2452 MHz	14.01	14.08	14.19	14.01	20.09	25.98	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.02\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (10.2 - 6) = 25.98\text{dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*1, (1B)3.93dBi *1 / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	17.71	17.64	20.69	30.00	Complies
	2437 MHz	20.11	20.62	23.38	30.00	Complies
	2462 MHz	16.58	16.85	19.73	30.00	Complies
802.11n MCS0 HT40	2422 MHz	15.83	15.76	18.81	30.00	Complies
	2437 MHz	15.92	16.23	19.09	30.00	Complies
	2452 MHz	14.51	14.87	17.70	30.00	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 3.93\text{dBi} < 6\text{dBi}$ , so the limit doesn't reduce.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*2, (1B)3.93dBi*1 / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	16.95	16.98	16.87	21.70	30.00	Complies
	2437 MHz	20.43	20.91	20.68	25.45	30.00	Complies
	2462 MHz	16.34	16.84	16.98	21.50	30.00	Complies
802.11n MCS0 HT40	2422 MHz	15.29	16.25	15.86	20.59	30.00	Complies
	2437 MHz	15.54	15.87	15.97	20.57	30.00	Complies
	2452 MHz	13.51	14.06	14.01	18.64	30.00	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.34\text{dBi} < 6\text{dBi}$ , so the limit doesn't reduce.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*2, (1B)3.93dBi*1 + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	16.69	16.33	16.13	16.24	22.37	28.43	Complies
	2437 MHz	20.33	20.81	20.75	20.95	26.74	28.43	Complies
	2462 MHz	15.89	16.33	16.16	16.13	22.15	28.43	Complies
802.11n MCS0 HT40	2422 MHz	13.67	14.5	13.78	13.65	19.94	28.43	Complies
	2437 MHz	15.23	15.12	14.96	15.43	21.21	28.43	Complies
	2452 MHz	13.39	13.87	13.84	14.36	19.90	28.43	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.57\text{dBi} > 6\text{dBi}$ , So Limit = 30-(7.57-6)=28.43dBm.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	15.63	15.84	18.75	28.96	Complies
	2437 MHz	20.11	20.72	23.44	28.96	Complies
	2462 MHz	15.69	16.24	18.98	28.96	Complies
802.11n MCS0 HT40	2422 MHz	13.91	14.52	17.24	28.96	Complies
	2437 MHz	15.32	15.06	18.20	28.96	Complies
	2452 MHz	14.54	15.09	17.83	28.96	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (7.04 - 6) = 28.96\text{dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	14.23	15.13	14.69	19.47	27.20	Complies
	2437 MHz	20.43	20.91	20.68	25.45	27.20	Complies
	2462 MHz	15.42	16.13	15.84	20.58	27.20	Complies
802.11n MCS0 HT40	2422 MHz	12.07	12.51	12.39	17.10	27.20	Complies
	2437 MHz	14.14	14.41	14.54	19.14	27.20	Complies
	2452 MHz	13.54	14.13	13.79	18.60	27.20	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.80\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (8.80 - 6) = 27.20\text{dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	14.63	15.43	15.37	15.21	21.19	25.83	Complies
	2437 MHz	19.33	19.82	19.72	19.87	25.71	25.83	Complies
	2462 MHz	15.09	15.34	15.38	15.47	21.34	25.83	Complies
802.11n MCS0 HT40	2422 MHz	13.06	13.25	13.33	13.65	19.35	25.83	Complies
	2437 MHz	14.73	15.03	15.13	14.83	20.95	25.83	Complies
	2452 MHz	14.01	14.08	14.19	14.01	20.09	25.83	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.17\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (10.17 - 6) = 25.83\text{dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	16.72	17.11	19.93	30.00	Complies
	2437 MHz	20.31	20.92	23.64	30.00	Complies
	2462 MHz	16.59	16.93	19.77	30.00	Complies
802.11n MCS0 HT40	2422 MHz	16.33	16.25	19.30	30.00	Complies
	2437 MHz	16.83	17.42	20.15	30.00	Complies
	2452 MHz	14.51	14.87	17.70	30.00	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.45\text{dBi} < 6\text{dBi}$ , so the limit doesn't reduce.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	15.58	16.72	16.31	21.00	28.79	Complies
	2437 MHz	20.43	20.91	20.68	25.45	28.79	Complies
	2462 MHz	15.61	16.08	16.12	20.71	28.79	Complies
802.11n MCS0 HT40	2422 MHz	15.22	15.73	15.92	20.40	28.79	Complies
	2437 MHz	15.83	16.42	16.39	20.99	28.79	Complies
	2452 MHz	14.02	14.32	14.28	18.98	28.79	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.21 \text{ dBi} > 6 \text{ dBi}$ , So Limit =  $30 - (7.21 - 6) = 28.79 \text{ dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	15.32	15.68	15.62	15.35	21.52	26.66	Complies
	2437 MHz	20.12	20.47	20.43	20.71	26.46	26.66	Complies
	2462 MHz	15.89	16.33	16.16	16.13	22.15	26.66	Complies
802.11n MCS0 HT40	2422 MHz	13.67	14.50	13.78	13.65	19.94	26.66	Complies
	2437 MHz	15.43	16.19	15.72	15.80	21.81	26.66	Complies
	2452 MHz	13.72	14.55	14.34	14.58	20.33	26.66	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.34\text{dBi} > 6\text{dBi}$ , So Limit = 30-(9.34-6)=26.66dBm.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	17.32	17.54	20.44	29.46	Complies
	2437 MHz	20.11	20.72	23.44	29.46	Complies
	2462 MHz	17.24	17.96	20.63	29.46	Complies
802.11n MCS0 HT40	2422 MHz	15.67	15.74	18.72	29.46	Complies
	2437 MHz	16.65	16.23	19.46	29.46	Complies
	2452 MHz	14.76	15.59	18.21	29.46	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 6.54\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (6.54 - 6) = 29.46\text{dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	16.53	16.78	16.67	21.43	27.70	Complies
	2437 MHz	20.43	20.91	20.68	25.45	27.70	Complies
	2462 MHz	16.21	16.47	16.53	21.18	27.70	Complies
802.11n MCS0 HT40	2422 MHz	14.89	14.99	14.98	19.72	27.70	Complies
	2437 MHz	15.54	15.87	15.97	20.57	27.70	Complies
	2452 MHz	14.24	14.89	14.76	19.41	27.70	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.30\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (8.30 - 6) = 27.70\text{dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	16.79	16.43	16.23	16.34	22.47	26.20	Complies
	2437 MHz	19.58	20.12	19.91	19.84	25.89	26.20	Complies
	2462 MHz	15.88	16.23	15.82	16.01	22.01	26.20	Complies
802.11n MCS0 HT40	2422 MHz	13.79	14.76	13.89	13.98	20.14	26.20	Complies
	2437 MHz	15.23	15.12	14.96	15.43	21.21	26.20	Complies
	2452 MHz	14.76	14.21	13.81	14.87	20.45	26.20	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.80\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (9.80 - 6) = 26.20\text{dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi / 2TX)		

Mode	Frequency	Conducted Power (dBm)			Max. Limit (dBm)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	16.72	17.11	19.93	28.51	Complies
	2437 MHz	20.11	20.72	23.44	28.51	Complies
	2462 MHz	17.24	17.96	20.63	28.51	Complies
802.11n MCS0 HT40	2422 MHz	15.49	15.47	18.49	28.51	Complies
	2437 MHz	16.02	16.62	19.34	28.51	Complies
	2452 MHz	15.14	15.59	18.38	28.51	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.49\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (7.49 - 6) = 28.51\text{dBm}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi / 3TX)		

Mode	Frequency	Conducted Power (dBm)				Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	16.06	16.51	16.22	21.04	27.15	Complies
	2437 MHz	20.43	20.91	20.68	25.45	27.15	Complies
	2462 MHz	16.21	16.47	16.53	21.18	27.15	Complies
802.11n MCS0 HT40	2422 MHz	14.21	14.43	14.51	19.16	27.15	Complies
	2437 MHz	15.21	15.53	15.64	20.24	27.15	Complies
	2452 MHz	13.01	13.54	13.52	18.13	27.15	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.85\text{dBi} > 6\text{dBi}$ , So Limit = 30-(8.85-6)=27.15dBm.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi , Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Conducted Power (dBm)					Max. Limit (dBm)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	16.79	16.43	16.23	16.34	22.47	25.80	Complies
	2437 MHz	19.33	19.82	19.72	19.87	25.71	25.80	Complies
	2462 MHz	15.31	15.83	15.64	15.69	21.64	25.80	Complies
802.11n MCS0 HT40	2422 MHz	13.48	13.66	13.76	14.02	19.76	25.80	Complies
	2437 MHz	15.43	16.19	15.72	15.8	21.81	25.80	Complies
	2452 MHz	13.31	13.42	13.51	13.6	19.48	25.80	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.20\text{dBi} > 6\text{dBi}$ , So Limit =  $30 - (10.20 - 6) = 25.80\text{dBm}$ .

### 4.3. Power Spectral Density Measurement

#### 4.3.1. Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

#### 4.3.2. Measuring Instruments and Setting

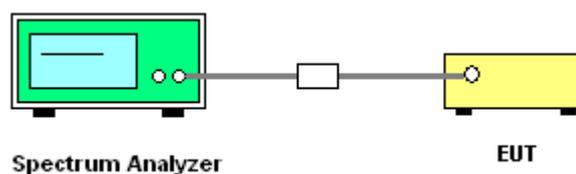
Please refer to section 5 of equipments list in this report. The following table is the setting of the spectrum analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	Set the span to 1.5 times the DTS channel bandwidth.
RBW	$3 \text{ kHz} \leq \text{RBW} \leq 100\text{kHz}$
VBW	$\geq 3 \times \text{RBW}$
Detector	Peak
Trace	Max Hold
Sweep Time	Auto couple

#### 4.3.3. Test Procedures

1. Test was performed in accordance with KDB558074 D01 v03r03 for Performing Compliance Measurements on Digital Transmission Systems (DTS) - section 10.2 Method PKPSD (peak PSD) and KDB 662911 D01 v02r01 section In-Band Power Spectral Density (PSD) Measurements option (b) Measure and sum spectral maximal across the outputs.
2. Use this procedure when the maximum conducted output power in the fundamental emission is used to demonstrate compliance. The EUT must be configured to transmit continuously at full power over the measurement duration.
3. Ensure that the number of measurement points in the sweep  $\geq 2 \times \text{span}/\text{RBW}$  (use of a greater number of measurement points than this minimum requirement is recommended).
4. Use the peak marker function to determine the maximum level in any 3 kHz band segment within the fundamental EBW.
5. The resulting PSD level must be  $\leq 8 \text{ dBm}$ .

#### 4.3.4. Test Setup Layout



#### 4.3.5. Test Deviation

There is no deviation with the original standard.

#### 4.3.6. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

#### 4.3.7. Test Result of Power Spectral Density

##### For Non-Beamforming Mode

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi / 1TX)		

Mode	Frequency	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)	Result
		Chain 1		
802.11b	2412 MHz	-3.42	8.00	Complies
	2437 MHz	-4.63	8.00	Complies
	2462 MHz	-3.54	8.00	Complies
802.11g	2412 MHz	-6.23	8.00	Complies
	2437 MHz	-5.07	8.00	Complies
	2462 MHz	-8.90	8.00	Complies
802.11n MCS0 HT20	2412 MHz	-7.61	8.00	Complies
	2437 MHz	-6.50	8.00	Complies
	2462 MHz	-8.26	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-11.16	8.00	Complies
	2437 MHz	-12.86	8.00	Complies
	2452 MHz	-15.19	8.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Total		
802.11b	2412 MHz	-3.23	-2.95	-0.08	7.16	Complies
	2437 MHz	-4.80	-2.23	-0.32	7.16	Complies
	2462 MHz	-4.09	-4.22	-1.14	7.16	Complies
802.11g	2412 MHz	-8.28	-9.08	-5.65	7.16	Complies
	2437 MHz	-6.35	-6.78	-3.55	7.16	Complies
	2462 MHz	-10.39	-9.50	-6.91	7.16	Complies
802.11n MCS0 HT20	2412 MHz	-9.06	-8.94	-5.99	7.16	Complies
	2437 MHz	-7.23	-6.86	-4.03	7.16	Complies
	2462 MHz	-11.66	-10.88	-8.24	7.16	Complies
802.11n MCS0 HT40	2422 MHz	-14.44	-13.98	-11.19	7.16	Complies
	2437 MHz	-13.83	-13.97	-10.89	7.16	Complies
	2452 MHz	-15.51	-17.22	-13.27	7.16	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 6.84\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (6.84 - 6) = 7.16\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	-3.73	-2.94	-3.50	1.39	5.40	Complies
	2437 MHz	-4.66	-4.68	-4.99	0.00	5.40	Complies
	2462 MHz	-4.63	-3.58	-1.44	1.76	5.40	Complies
802.11g	2412 MHz	-10.99	-7.79	-9.35	-4.41	5.40	Complies
	2437 MHz	-7.45	-6.89	-6.39	-2.12	5.40	Complies
	2462 MHz	-12.02	-11.26	-10.35	-6.38	5.40	Complies
802.11n MCS0 HT20	2412 MHz	-10.86	-9.65	-10.14	-5.42	5.40	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	5.40	Complies
	2462 MHz	-11.21	-10.40	-11.57	-6.26	5.40	Complies
802.11n MCS0 HT40	2422 MHz	-12.68	-15.01	-15.85	-9.53	5.40	Complies
	2437 MHz	-14.98	-14.95	-14.83	-10.15	5.40	Complies
	2452 MHz	-17.33	-16.14	-15.36	-11.43	5.40	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.60\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (8.60 - 6) = 5.40\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	-4.25	-5.44	-4.27	-3.91	1.59	3.98	Complies
	2437 MHz	-4.95	-4.78	-4.90	-4.59	1.22	3.98	Complies
	2462 MHz	-5.27	-5.49	-6.03	-4.88	0.62	3.98	Complies
802.11g	2412 MHz	-11.12	-10.38	-10.92	-1.64	-0.29	3.98	Complies
	2437 MHz	-7.93	-4.59	-5.85	-6.34	0.00	3.98	Complies
	2462 MHz	-13.08	-11.12	-10.59	-10.57	-5.21	3.98	Complies
802.11n MCS0 HT20	2412 MHz	-11.92	-11.07	-9.96	-11.37	-5.00	3.98	Complies
	2437 MHz	-6.85	-6.83	-7.49	-6.84	-0.97	3.98	Complies
	2462 MHz	-12.10	-9.29	-9.26	-11.13	-4.26	3.98	Complies
802.11n MCS0 HT40	2422 MHz	-15.74	-16.37	-16.05	-14.95	-9.72	3.98	Complies
	2437 MHz	-17.23	-14.22	-14.66	-14.64	-9.02	3.98	Complies
	2452 MHz	-17.94	-17.00	-15.47	-16.86	-10.71	3.98	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.02\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (10.02 - 6) = 3.98\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi *1 / 1TX)		

Mode	Frequency	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)	Result
		Chain 1		
802.11b	2412 MHz	-3.42	8.00	Complies
	2437 MHz	-4.63	8.00	Complies
	2462 MHz	-3.54	8.00	Complies
802.11g	2412 MHz	-4.64	8.00	Complies
	2437 MHz	-5.07	8.00	Complies
	2462 MHz	-4.92	8.00	Complies
802.11n MCS0 HT20	2412 MHz	-7.61	8.00	Complies
	2437 MHz	-6.50	8.00	Complies
	2462 MHz	-7.08	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-11.16	8.00	Complies
	2437 MHz	-12.86	8.00	Complies
	2452 MHz	-13.67	8.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*2 / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 3	Total		
802.11b	2412 MHz	-1.89	-1.64	1.25	8.00	Complies
	2437 MHz	-2.26	-1.65	1.07	8.00	Complies
	2462 MHz	-2.31	-1.36	1.20	8.00	Complies
802.11g	2412 MHz	-8.53	-7.49	-4.97	8.00	Complies
	2437 MHz	-4.08	-4.81	-1.42	8.00	Complies
	2462 MHz	-8.24	-8.32	-5.27	8.00	Complies
802.11n MCS0 HT20	2412 MHz	-9.01	-6.81	-4.76	8.00	Complies
	2437 MHz	-5.17	-4.53	-1.83	8.00	Complies
	2462 MHz	-10.09	-9.59	-6.82	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-15.71	-13.70	-11.58	8.00	Complies
	2437 MHz	-13.35	-14.85	-11.03	8.00	Complies
	2452 MHz	-16.25	-15.00	-12.57	8.00	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 3.93\text{dBi} < 6\text{dBi}$ , so the limit doesn't reduce.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*2, (1B)3.93dBi*1 / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	-3.73	-2.94	-3.50	1.39	8.00	Complies
	2437 MHz	-4.66	-4.68	-4.99	0.00	8.00	Complies
	2462 MHz	-4.63	-3.58	-1.44	1.76	8.00	Complies
802.11g	2412 MHz	-8.92	-6.40	-8.40	-2.99	8.00	Complies
	2437 MHz	-7.45	-6.89	-6.39	-2.12	8.00	Complies
	2462 MHz	-7.84	-5.56	-6.26	-1.68	8.00	Complies
802.11n MCS0 HT20	2412 MHz	-8.16	-6.79	-7.32	-2.62	8.00	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	8.00	Complies
	2462 MHz	-9.85	-9.26	-7.77	-4.10	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-12.68	-15.01	-15.85	-9.53	8.00	Complies
	2437 MHz	-14.98	-14.95	-14.83	-10.15	8.00	Complies
	2452 MHz	-13.47	-13.70	-14.36	-9.06	8.00	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.34\text{dBi} < 6\text{dBi}$ , so the limit doesn't reduce.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*2, (1B)3.93dBi*1 + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	-4.25	-5.44	-4.27	-3.91	1.59	6.43	Complies
	2437 MHz	-4.95	-4.78	-4.90	-4.59	1.22	6.43	Complies
	2462 MHz	-2.79	-2.74	-2.19	-2.11	3.57	6.43	Complies
802.11g	2412 MHz	-8.87	-9.46	-7.88	-8.22	-2.54	6.43	Complies
	2437 MHz	-7.93	-4.59	-5.85	-6.34	0.00	6.43	Complies
	2462 MHz	-10.30	-7.33	-9.47	-9.24	-2.92	6.43	Complies
802.11n MCS0 HT20	2412 MHz	-10.57	-8.88	-9.54	-9.00	-3.43	6.43	Complies
	2437 MHz	-6.85	-6.83	-7.49	-6.84	-0.97	6.43	Complies
	2462 MHz	-7.87	-6.53	-6.91	-7.91	-1.24	6.43	Complies
802.11n MCS0 HT40	2422 MHz	-17.21	-14.46	-15.89	-13.75	-9.11	6.43	Complies
	2437 MHz	-14.93	-14.85	-13.72	-14.27	-8.39	6.43	Complies
	2452 MHz	-16.65	-16.28	-16.03	-15.20	-9.99	6.43	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.57\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (7.57 - 6) = 6.43\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi / 1TX)		

Mode	Frequency	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)	Result
		Chain 1		
802.11b	2412 MHz	-3.42	8.00	Complies
	2437 MHz	-4.63	8.00	Complies
	2462 MHz	-3.54	8.00	Complies
802.11g	2412 MHz	-6.96	8.00	Complies
	2437 MHz	-5.07	8.00	Complies
	2462 MHz	-7.60	8.00	Complies
802.11n MCS0 HT20	2412 MHz	-7.70	8.00	Complies
	2437 MHz	-6.50	8.00	Complies
	2462 MHz	-6.95	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-12.51	8.00	Complies
	2437 MHz	-12.86	8.00	Complies
	2452 MHz	-14.21	8.00	Complies

Temperature	25°C	Humidity	46%
Test Engineer	Lucas Huang	Test Date	Oct. 29, 2015 ~ Oct. 30, 2015
Test Mode	Mode 3 (Set 6 Panel antenna / 4.03dBi / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 3	Total		
802.11b	2412 MHz	-1.89	-1.64	1.25	6.96	Complies
	2437 MHz	-2.26	-1.65	1.07	6.96	Complies
	2462 MHz	-2.31	-1.36	1.20	6.96	Complies
802.11g	2412 MHz	-8.46	-8.67	-5.55	6.96	Complies
	2437 MHz	-4.08	-4.81	-1.42	6.96	Complies
	2462 MHz	-8.02	-7.06	-4.50	6.96	Complies
802.11n MCS0 HT20	2412 MHz	-8.59	-8.45	-5.51	6.96	Complies
	2437 MHz	-5.17	-4.53	-1.83	6.96	Complies
	2462 MHz	-9.81	-7.64	-5.58	6.96	Complies
802.11n MCS0 HT40	2422 MHz	-14.83	-14.24	-11.51	6.96	Complies
	2437 MHz	-12.62	-11.72	-9.14	6.96	Complies
	2452 MHz	-13.60	-12.58	-10.05	6.96	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (7.04 - 6) = 6.96\text{dBm}/3\text{kHz}$ .

Temperature	25°C	Humidity	46%
Test Engineer	Lucas Huang	Test Date	Oct. 29, 2015 ~ Oct. 30, 2015
Test Mode	Mode 3 (Set 6 Panel antenna / 4.03dBi / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	-3.73	-2.94	-3.50	1.39	5.20	Complies
	2437 MHz	-4.66	-4.68	-4.99	0.00	5.20	Complies
	2462 MHz	-4.63	-3.58	-1.44	1.76	5.20	Complies
802.11g	2412 MHz	-10.99	-7.79	-9.35	-4.41	5.20	Complies
	2437 MHz	-7.45	-6.89	-6.39	-2.12	5.20	Complies
	2462 MHz	-8.87	-7.11	-7.85	-3.11	5.20	Complies
802.11n MCS0 HT20	2412 MHz	-10.86	-9.65	-10.14	-5.42	5.20	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	5.20	Complies
	2462 MHz	-9.52	-7.42	-8.11	-3.49	5.20	Complies
802.11n MCS0 HT40	2422 MHz	-15.22	-13.92	-14.68	-9.80	5.20	Complies
	2437 MHz	-13.92	-13.15	-13.90	-8.87	5.20	Complies
	2452 MHz	-15.92	-14.15	-14.53	-10.03	5.20	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.80\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (8.80 - 6) = 5.20\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	-2.48	-2.21	-2.31	-2.47	3.65	3.83	Complies
	2437 MHz	-4.95	-4.78	-4.90	-4.59	1.22	3.83	Complies
	2462 MHz	-2.79	-2.74	-2.19	-2.11	3.57	3.83	Complies
802.11g	2412 MHz	-9.18	-7.15	-7.90	-8.87	-2.18	3.83	Complies
	2437 MHz	-7.93	-4.59	-5.85	-6.34	0.00	3.83	Complies
	2462 MHz	-9.54	-8.68	-8.47	-8.82	-2.84	3.83	Complies
802.11n MCS0 HT20	2412 MHz	-11.92	-11.07	-9.96	-11.37	-5.00	3.83	Complies
	2437 MHz	-6.85	-6.83	-7.49	-6.84	-0.97	3.83	Complies
	2462 MHz	-9.27	-8.99	-9.80	-9.53	-3.37	3.83	Complies
802.11n MCS0 HT40	2422 MHz	-15.78	-14.48	-15.88	-15.80	-9.42	3.83	Complies
	2437 MHz	-13.65	-13.74	-13.83	-14.16	-7.82	3.83	Complies
	2452 MHz	-15.37	-14.54	-14.94	-15.48	-9.05	3.83	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.17\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (10.17 - 6) = 3.83\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 1TX)		

Mode	Frequency	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)	Result
		Chain 1		
802.11b	2412 MHz	-3.42	8.00	Complies
	2437 MHz	-4.63	8.00	Complies
	2462 MHz	-3.54	8.00	Complies
802.11g	2412 MHz	-6.23	8.00	Complies
	2437 MHz	-5.07	8.00	Complies
	2462 MHz	-6.00	8.00	Complies
802.11n MCS0 HT20	2412 MHz	-6.35	8.00	Complies
	2437 MHz	-6.50	8.00	Complies
	2462 MHz	-6.26	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-12.14	8.00	Complies
	2437 MHz	-10.96	8.00	Complies
	2452 MHz	-13.38	8.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Total		
802.11b	2412 MHz	-3.23	-2.95	-0.08	8.00	Complies
	2437 MHz	-4.80	-2.23	-0.32	8.00	Complies
	2462 MHz	-4.09	-4.22	-1.14	8.00	Complies
802.11g	2412 MHz	-8.28	-9.08	-5.65	8.00	Complies
	2437 MHz	-6.35	-6.78	-3.55	8.00	Complies
	2462 MHz	-10.39	-8.62	-6.41	8.00	Complies
802.11n MCS0 HT20	2412 MHz	-9.06	-8.94	-5.99	8.00	Complies
	2437 MHz	-7.23	-6.86	-4.03	8.00	Complies
	2462 MHz	-8.88	-9.24	-6.05	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-16.68	-14.84	-12.65	8.00	Complies
	2437 MHz	-11.91	-11.26	-8.56	8.00	Complies
	2452 MHz	-15.43	-15.67	-12.54	8.00	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.45dBi < 6dBi$ , so the limit doesn't reduce.

Temperature	25°C	Humidity	46%
Test Engineer	Lucas Huang	Test Date	Oct. 29, 2015 ~ Oct. 31, 2015
Test Mode	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	-3.73	-2.94	-3.50	1.39	6.79	Complies
	2437 MHz	-4.66	-4.68	-4.99	0.00	6.79	Complies
	2462 MHz	-4.63	-3.58	-1.44	1.76	6.79	Complies
802.11g	2412 MHz	-11.48	-10.13	-8.86	-5.26	6.79	Complies
	2437 MHz	-7.45	-6.89	-6.39	-2.12	6.79	Complies
	2462 MHz	-7.84	-5.56	-6.26	-1.68	6.79	Complies
802.11n MCS0 HT20	2412 MHz	-10.67	-9.53	-11.63	-5.75	6.79	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	6.79	Complies
	2462 MHz	-11.21	-10.40	-11.57	-6.26	6.79	Complies
802.11n MCS0 HT40	2422 MHz	-17.23	-17.24	-17.58	-12.58	6.79	Complies
	2437 MHz	-16.14	-14.27	-15.46	-10.45	6.79	Complies
	2452 MHz	-14.31	-15.61	-15.18	-10.23	6.79	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.21 \text{ dBi} > 6 \text{ dBi}$ , So Limit =  $8 - (7.21 - 6) = 6.79 \text{ dBm/3kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	-4.25	-5.44	-4.27	-3.91	1.59	4.66	Complies
	2437 MHz	-4.95	-4.78	-4.90	-4.59	1.22	4.66	Complies
	2462 MHz	-2.79	-2.74	-2.19	-2.11	3.57	4.66	Complies
802.11g	2412 MHz	-9.18	-7.15	-7.90	-8.87	-2.18	4.66	Complies
	2437 MHz	-7.93	-4.59	-5.85	-6.34	0.00	4.66	Complies
	2462 MHz	-11.91	-10.83	-7.98	-9.73	-3.84	4.66	Complies
802.11n MCS0 HT20	2412 MHz	-10.49	-11.41	-9.73	-11.03	-4.60	4.66	Complies
	2437 MHz	-6.85	-6.83	-7.49	-6.84	-0.97	4.66	Complies
	2462 MHz	-12.10	-9.29	-9.26	-11.13	-4.26	4.66	Complies
802.11n MCS0 HT40	2422 MHz	-17.21	-14.46	-15.89	-13.75	-9.11	4.66	Complies
	2437 MHz	-17.23	-14.22	-14.66	-14.64	-9.02	4.66	Complies
	2452 MHz	-16.23	-14.17	-16.22	-16.07	-9.56	4.66	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.34\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (9.34 - 6) = 4.66\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi / 1TX)		

Mode	Frequency	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)	Result
		Chain 1		
802.11b	2412 MHz	-3.42	8.00	Complies
	2437 MHz	-4.63	8.00	Complies
	2462 MHz	-3.54	8.00	Complies
802.11g	2412 MHz	-6.23	8.00	Complies
	2437 MHz	-5.07	8.00	Complies
	2462 MHz	-4.92	8.00	Complies
802.11n MCS0 HT20	2412 MHz	-6.35	8.00	Complies
	2437 MHz	-6.50	8.00	Complies
	2462 MHz	-6.26	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-11.49	8.00	Complies
	2437 MHz	-10.96	8.00	Complies
	2452 MHz	-11.96	8.00	Complies

Temperature	25°C	Humidity	46%
Test Engineer	Lucas Huang	Test Date	Oct. 29, 2015 ~ Oct. 30, 2015
Test Mode	Mode 5 (Set 8 Patch antenna / 3.53dBi / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Total		
802.11b	2412 MHz	-3.23	-2.95	-0.08	7.46	Complies
	2437 MHz	-4.80	-2.23	-0.32	7.46	Complies
	2462 MHz	-4.09	-4.22	-1.14	7.46	Complies
802.11g	2412 MHz	-7.57	-5.99	-3.70	7.46	Complies
	2437 MHz	-6.35	-6.78	-3.55	7.46	Complies
	2462 MHz	-7.32	-6.06	-3.63	7.46	Complies
802.11n MCS0 HT20	2412 MHz	-6.86	-5.86	-3.32	7.46	Complies
	2437 MHz	-7.23	-6.86	-4.03	7.46	Complies
	2462 MHz	-7.21	-6.07	-3.59	7.46	Complies
802.11n MCS0 HT40	2422 MHz	-11.73	-11.81	-8.76	7.46	Complies
	2437 MHz	-11.91	-11.26	-8.56	7.46	Complies
	2452 MHz	-12.67	-11.33	-8.94	7.46	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 6.54\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (6.54 - 6) = 7.46\text{dBm}/3\text{kHz}$ .

Temperature	25°C	Humidity	46%
Test Engineer	Lucas Huang	Test Date	Oct. 29, 2015 ~ Oct. 30, 2015
Test Mode	Mode 5 (Set 8 Patch antenna / 3.53dBi / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	-3.73	-2.94	-3.50	1.39	5.70	Complies
	2437 MHz	-4.66	-4.68	-4.99	0.00	5.70	Complies
	2462 MHz	-4.63	-3.58	-1.44	1.76	5.70	Complies
802.11g	2412 MHz	-10.99	-7.79	-9.35	-4.41	5.70	Complies
	2437 MHz	-7.45	-6.89	-6.39	-2.12	5.70	Complies
	2462 MHz	-7.84	-5.56	-6.26	-1.68	5.70	Complies
802.11n MCS0 HT20	2412 MHz	-8.16	-6.79	-7.32	-2.62	5.70	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	5.70	Complies
	2462 MHz	-8.08	-6.59	-6.27	-2.14	5.70	Complies
802.11n MCS0 HT40	2422 MHz	-14.45	-13.34	-13.42	-8.94	5.70	Complies
	2437 MHz	-12.44	-12.68	-12.44	-7.75	5.70	Complies
	2452 MHz	-13.47	-13.70	-14.36	-9.06	5.70	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.30\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (8.30 - 6) = 5.70\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 30, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	-4.25	-5.44	-4.27	-3.91	1.59	4.20	Complies
	2437 MHz	-4.95	-4.78	-4.90	-4.59	1.22	4.20	Complies
	2462 MHz	-2.79	-2.74	-2.19	-2.11	3.57	4.20	Complies
802.11g	2412 MHz	-8.39	-7.36	-7.41	-7.10	-1.52	4.20	Complies
	2437 MHz	-7.93	-4.59	-5.85	-6.34	0.00	4.20	Complies
	2462 MHz	-7.81	-5.70	-6.03	-7.35	-0.61	4.20	Complies
802.11n MCS0 HT20	2412 MHz	-8.25	-7.09	-7.93	-7.38	-1.62	4.20	Complies
	2437 MHz	-6.85	-6.83	-7.49	-6.84	-0.97	4.20	Complies
	2462 MHz	-7.87	-6.53	-6.91	-7.91	-1.24	4.20	Complies
802.11n MCS0 HT40	2422 MHz	-13.89	-12.16	-14.21	-13.54	-7.36	4.20	Complies
	2437 MHz	-13.95	-10.90	-13.23	-12.72	-6.53	4.20	Complies
	2452 MHz	-14.63	-13.49	-13.50	-13.33	-7.69	4.20	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.80\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (9.80 - 6) = 4.20\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi / 1TX)		

Mode	Frequency	Power Density (dBm/3kHz)	Power Density Limit (dBm/3kHz)	Result
		Chain 1		
802.11b	2412 MHz	-3.42	8.00	Complies
	2437 MHz	-4.63	8.00	Complies
	2462 MHz	-3.54	8.00	Complies
802.11g	2412 MHz	-7.90	8.00	Complies
	2437 MHz	-5.07	8.00	Complies
	2462 MHz	-7.30	8.00	Complies
802.11n MCS0 HT20	2412 MHz	-7.99	8.00	Complies
	2437 MHz	-6.50	8.00	Complies
	2462 MHz	-8.09	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-14.65	8.00	Complies
	2437 MHz	-12.86	8.00	Complies
	2452 MHz	-14.64	8.00	Complies

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 3: 3.2dBi / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 3	Total		
802.11b	2412 MHz	-1.89	-1.64	1.25	6.73	Complies
	2437 MHz	-2.26	-1.65	1.07	6.73	Complies
	2462 MHz	-2.31	-1.36	1.20	6.73	Complies
802.11g	2412 MHz	-8.69	-8.19	-5.42	6.73	Complies
	2437 MHz	-4.08	-4.81	-1.42	6.73	Complies
	2462 MHz	-7.51	-9.17	-5.25	6.73	Complies
802.11n MCS0 HT20	2412 MHz	-9.63	-9.88	-6.74	6.73	Complies
	2437 MHz	-5.17	-4.53	-1.83	6.73	Complies
	2462 MHz	-8.70	-7.91	-5.28	6.73	Complies
802.11n MCS0 HT40	2422 MHz	-16.43	-14.65	-12.44	6.73	Complies
	2437 MHz	-12.62	-11.72	-9.14	6.73	Complies
	2452 MHz	-14.10	-15.62	-11.78	6.73	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.27\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (7.27 - 6) = 6.73\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11b	2412 MHz	-3.73	-2.94	-3.50	1.39	5.15	Complies
	2437 MHz	-4.66	-4.68	-4.99	0.00	5.15	Complies
	2462 MHz	-4.63	-5.38	-1.44	1.31	5.15	Complies
802.11g	2412 MHz	-8.67	-8.07	-9.00	-3.79	5.15	Complies
	2437 MHz	-7.45	-6.89	-6.39	-2.12	5.15	Complies
	2462 MHz	-7.84	-5.56	-6.26	-1.68	5.15	Complies
802.11n MCS0 HT20	2412 MHz	-9.47	-11.14	-9.42	-5.17	5.15	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	5.15	Complies
	2462 MHz	-10.58	-8.50	-8.33	-4.25	5.15	Complies
802.11n MCS0 HT40	2422 MHz	-14.70	-13.45	-13.56	-9.10	5.15	Complies
	2437 MHz	-14.98	-14.95	-14.83	-10.15	5.15	Complies
	2452 MHz	-17.33	-16.14	-15.36	-11.43	5.15	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.85\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (8.85 - 6) = 5.15\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 29, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi , Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11b	2412 MHz	-4.25	-5.44	-4.27	-3.91	1.59	3.80	Complies
	2437 MHz	-4.95	-4.78	-4.90	-4.59	1.22	3.80	Complies
	2462 MHz	-2.79	-2.74	-2.19	-2.11	3.57	3.80	Complies
802.11g	2412 MHz	-10.02	-8.70	-8.87	-8.77	-3.04	3.80	Complies
	2437 MHz	-7.93	-4.59	-5.85	-6.34	0.00	3.80	Complies
	2462 MHz	-9.66	-8.21	-8.31	-7.70	-2.39	3.80	Complies
802.11n MCS0 HT20	2412 MHz	-10.93	-8.34	-9.80	-9.34	-3.48	3.80	Complies
	2437 MHz	-6.85	-6.83	-7.49	-6.84	-0.97	3.80	Complies
	2462 MHz	-12.10	-9.29	-9.26	-11.13	-4.26	3.80	Complies
802.11n MCS0 HT40	2422 MHz	-16.08	-16.50	-15.34	-15.95	-9.93	3.80	Complies
	2437 MHz	-17.23	-14.22	-14.66	-14.64	-9.02	3.80	Complies
	2452 MHz	-17.94	-17.00	-15.47	-16.86	-10.71	3.80	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.20\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (10.20 - 6) = 3.80\text{dBm}/3\text{kHz}$ .

## For Beamforming Mode

Temperature	25°C	Humidity	46%
Test Engineer	Lucas Huang	Test Date	Oct. 30, 2015 ~ Oct. 31, 2015
Test Mode	Mode 1 (Set 3 Dipole antenna / 3.83dBi / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	-9.06	-8.94	-5.99	7.16	Complies
	2437 MHz	-7.23	-6.86	-4.03	7.16	Complies
	2462 MHz	-11.66	-10.88	-8.24	7.16	Complies
802.11n MCS0 HT40	2422 MHz	-13.92	-14.52	-11.20	7.16	Complies
	2437 MHz	-14.93	-14.42	-11.66	7.16	Complies
	2452 MHz	-15.51	-17.22	-13.27	7.16	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 6.84\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (6.84 - 6) = 7.16\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	-10.86	-9.65	-10.14	-5.42	5.40	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	5.40	Complies
	2462 MHz	-11.21	-10.40	-11.57	-6.26	5.40	Complies
802.11n MCS0 HT40	2422 MHz	-14.70	-13.45	-13.56	-9.10	5.40	Complies
	2437 MHz	-16.68	-14.51	-14.94	-10.51	5.40	Complies
	2452 MHz	-17.33	-16.14	-15.36	-11.43	5.40	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.60\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (8.60 - 6) = 5.40\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 1 (Set 3 Dipole antenna / 3.83dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	-11.92	-11.07	-9.96	-11.37	-5.00	3.98	Complies
	2437 MHz	-8.33	-6.63	-7.28	-6.87	-1.21	3.98	Complies
	2462 MHz	-12.10	-9.29	-9.26	-11.13	-4.26	3.98	Complies
802.11n MCS0 HT40	2422 MHz	-15.74	-16.37	-16.05	-14.95	-9.72	3.98	Complies
	2437 MHz	-15.00	-15.17	-16.12	-14.99	-9.28	3.98	Complies
	2452 MHz	-17.94	-17.00	-15.47	-16.86	-10.71	3.98	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.02\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (10.02 - 6) = 3.98\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*1, (1B)3.93dBi *1 / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	-10.26	-7.99	-5.97	8.00	Complies
	2437 MHz	-7.23	-6.86	-4.03	8.00	Complies
	2462 MHz	-7.92	-8.81	-5.33	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-15.07	-14.82	-11.93	8.00	Complies
	2437 MHz	-14.40	-15.91	-12.08	8.00	Complies
	2452 MHz	-16.71	-15.11	-12.83	8.00	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 3.93dBi < 6dBi$ , so the limit doesn't reduce.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*2, (1B)3.93dBi*1 / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	-8.16	-6.79	-7.32	-2.62	8.00	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	8.00	Complies
	2462 MHz	-9.85	-9.26	-7.77	-4.10	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-12.68	-15.01	-15.85	-9.53	8.00	Complies
	2437 MHz	-12.44	-12.68	-12.44	-7.75	8.00	Complies
	2452 MHz	-16.49	-15.87	-15.23	-11.06	8.00	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.34dBi < 6dBi$ , so the limit doesn't reduce.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi*2, (1B)3.93dBi*1 + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	-10.93	-8.34	-9.80	-9.34	-3.48	6.43	Complies
	2437 MHz	-6.85	-6.83	-7.49	-6.84	-0.97	6.43	Complies
	2462 MHz	-12.10	-9.29	-9.26	-11.13	-4.26	6.43	Complies
802.11n MCS0 HT40	2422 MHz	-17.21	-14.46	-15.89	-13.75	-9.11	6.43	Complies
	2437 MHz	-13.95	-10.90	-13.23	-12.72	-6.53	6.43	Complies
	2452 MHz	-17.01	-16.80	-16.44	-16.97	-10.78	6.43	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.57\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (7.57 - 6) = 6.43\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	-10.76	-11.68	-8.19	6.96	Complies
	2437 MHz	-7.23	-6.86	-4.03	6.96	Complies
	2462 MHz	-11.75	-11.08	-8.39	6.96	Complies
802.11n MCS0 HT40	2422 MHz	-16.85	-18.18	-14.45	6.96	Complies
	2437 MHz	-14.99	-14.05	-11.48	6.96	Complies
	2452 MHz	-16.71	-15.11	-12.83	6.96	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.04\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (7.04 - 6) = 6.96\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	-11.94	-11.88	-12.71	-7.39	5.20	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	5.20	Complies
	2462 MHz	-11.24	-10.41	-11.79	-6.34	5.20	Complies
802.11n MCS0 HT40	2422 MHz	-19.74	-18.73	-18.35	-14.13	5.20	Complies
	2437 MHz	-19.17	-16.67	-16.82	-12.64	5.20	Complies
	2452 MHz	-15.92	-14.15	-14.53	-10.03	5.20	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.80dBi > 6dBi$ , So Limit =  $8 - (8.80 - 6) = 5.20dBm/3kHz$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 3 (Set 6 Panel antenna / 4.03dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	-11.00	-11.00	-10.58	-11.80	-5.05	3.83	Complies
	2437 MHz	-8.33	-6.63	-7.28	-6.87	-1.21	3.83	Complies
	2462 MHz	-12.19	-11.37	-11.73	-11.28	-5.61	3.83	Complies
802.11n MCS0 HT40	2422 MHz	-15.78	-14.48	-15.88	-15.80	-9.42	3.83	Complies
	2437 MHz	-13.65	-13.74	-13.83	-14.16	-7.82	3.83	Complies
	2452 MHz	-17.94	-17.00	-15.47	-16.86	-10.71	3.83	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.17\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (10.17 - 6) = 3.83\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	-10.27	-9.47	-6.84	8.00	Complies
	2437 MHz	-7.23	-6.86	-4.03	8.00	Complies
	2462 MHz	-7.92	-8.81	-5.33	8.00	Complies
802.11n MCS0 HT40	2422 MHz	-14.44	-13.98	-11.19	8.00	Complies
	2437 MHz	-14.66	-12.79	-10.61	8.00	Complies
	2452 MHz	-16.71	-15.11	-12.83	8.00	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 5.45dBi < 6dBi$ , so the limit doesn't reduce.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	-10.67	-9.53	-11.63	-5.75	6.79	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	6.79	Complies
	2462 MHz	-11.21	-10.40	-11.57	-6.26	6.79	Complies
802.11n MCS0 HT40	2422 MHz	-16.43	-15.04	-14.42	-10.45	6.79	Complies
	2437 MHz	-14.23	-14.12	-15.51	-9.80	6.79	Complies
	2452 MHz	-17.33	-16.14	-15.36	-11.43	6.79	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.21 \text{ dBi} > 6 \text{ dBi}$ , So Limit =  $8 - (7.21 - 6) = 6.79 \text{ dBm/3kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 4 (Set 7 Polarized Panel antenna / 5.45dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	-10.14	-9.79	-10.97	-11.09	-4.44	4.66	Complies
	2437 MHz	-6.85	-6.83	-7.49	-6.84	-0.97	4.66	Complies
	2462 MHz	-12.10	-9.29	-9.26	-11.13	-4.26	4.66	Complies
802.11n MCS0 HT40	2422 MHz	-17.21	-14.46	-15.89	-13.75	-9.11	4.66	Complies
	2437 MHz	-17.23	-14.22	-14.66	-14.64	-9.02	4.66	Complies
	2452 MHz	-16.23	-14.17	-16.22	-16.07	-9.56	4.66	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.34\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (9.34 - 6) = 4.66\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	-6.86	-5.86	-3.32	7.46	Complies
	2437 MHz	-7.23	-6.86	-4.03	7.46	Complies
	2462 MHz	-9.48	-8.21	-5.79	7.46	Complies
802.11n MCS0 HT40	2422 MHz	-14.44	-13.98	-11.19	7.46	Complies
	2437 MHz	-11.91	-11.26	-8.56	7.46	Complies
	2452 MHz	-12.40	-14.37	-10.26	7.46	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 6.54dBi > 6dBi$ , So Limit =  $8 - (6.54 - 6) = 7.46dBm/3kHz$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	-9.47	-11.14	-9.42	-5.17	5.70	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	5.70	Complies
	2462 MHz	-11.25	-9.07	-10.76	-5.48	5.70	Complies
802.11n MCS0 HT40	2422 MHz	-14.45	-13.34	-13.42	-8.94	5.70	Complies
	2437 MHz	-12.44	-12.68	-12.44	-7.75	5.70	Complies
	2452 MHz	-13.47	-13.70	-14.36	-9.06	5.70	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.30\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (8.30 - 6) = 5.70\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Oct. 31, 2015
<b>Test Mode</b>	Mode 5 (Set 8 Patch antenna / 3.53dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	-10.93	-8.34	-9.80	-9.34	-3.48	4.20	Complies
	2437 MHz	-8.87	-6.34	-7.30	-6.09	-1.00	4.20	Complies
	2462 MHz	-7.87	-6.53	-6.91	-7.91	-1.24	4.20	Complies
802.11n MCS0 HT40	2422 MHz	-13.89	-12.16	-14.21	-13.54	-7.36	4.20	Complies
	2437 MHz	-13.95	-10.90	-13.23	-12.72	-6.53	4.20	Complies
	2452 MHz	-14.63	-13.49	-13.50	-13.33	-7.69	4.20	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 9.80\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (9.80 - 6) = 4.20\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi / 2TX)		

Mode	Frequency	Power Density (dBm/3kHz)			Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Total		
802.11n MCS0 HT20	2412 MHz	-10.27	-9.47	-6.84	6.51	Complies
	2437 MHz	-7.23	-6.86	-4.03	6.51	Complies
	2462 MHz	-9.48	-8.21	-5.79	6.51	Complies
802.11n MCS0 HT40	2422 MHz	-15.12	-15.15	-12.12	6.51	Complies
	2437 MHz	-14.93	-14.42	-11.66	6.51	Complies
	2452 MHz	-16.05	-13.17	-11.37	6.51	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 7.49\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (7.49 - 6) = 6.51$  dBm/3kHz.

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi / 3TX)		

Mode	Frequency	Power Density (dBm/3kHz)				Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Total		
802.11n MCS0 HT20	2412 MHz	-10.86	-9.65	-10.14	-5.42	5.15	Complies
	2437 MHz	-5.18	-6.58	-6.65	-1.31	5.15	Complies
	2462 MHz	-11.25	-9.07	-10.76	-5.48	5.15	Complies
802.11n MCS0 HT40	2422 MHz	-16.72	-13.72	-16.16	-10.56	5.15	Complies
	2437 MHz	-16.48	-14.72	-13.46	-9.94	5.15	Complies
	2452 MHz	-18.87	-16.96	-15.86	-12.29	5.15	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 8.85\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (8.85 - 6) = 5.15\text{dBm}/3\text{kHz}$ .

<b>Temperature</b>	25°C	<b>Humidity</b>	46%
<b>Test Engineer</b>	Lucas Huang	<b>Test Date</b>	Oct. 30, 2015 ~ Nov. 01, 2015
<b>Test Mode</b>	Mode 6 (Set 9 Monopole antenna / Chain 1:5.2dBi, Chain 2: 3.7dBi , Chain 3: 3.2dBi , Chain 4: 4.5dBi / 4TX)		

Mode	Frequency	Power Density (dBm/3kHz)					Power Density Limit (dBm/3kHz)	Result
		Chain 1	Chain 2	Chain 3	Chain 4	Total		
802.11n MCS0 HT20	2412 MHz	-10.93	-8.34	-9.80	-9.34	-3.48	3.80	Complies
	2437 MHz	-8.33	-6.63	-7.28	-6.87	-1.21	3.80	Complies
	2462 MHz	-11.77	-11.03	-11.47	-9.57	-4.85	3.80	Complies
802.11n MCS0 HT40	2422 MHz	-17.72	-15.35	-16.50	-15.25	-10.07	3.80	Complies
	2437 MHz	-17.23	-14.22	-14.66	-14.64	-9.02	3.80	Complies
	2452 MHz	-15.37	-14.54	-14.94	-15.48	-9.05	3.80	Complies

Note:  $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right] = 10.20\text{dBi} > 6\text{dBi}$ , So Limit =  $8 - (10.20 - 6) = 3.80\text{dBm}/3\text{kHz}$ .

Note: All the test values were listed in the report.

For plots, only the channel with worse result was shown.

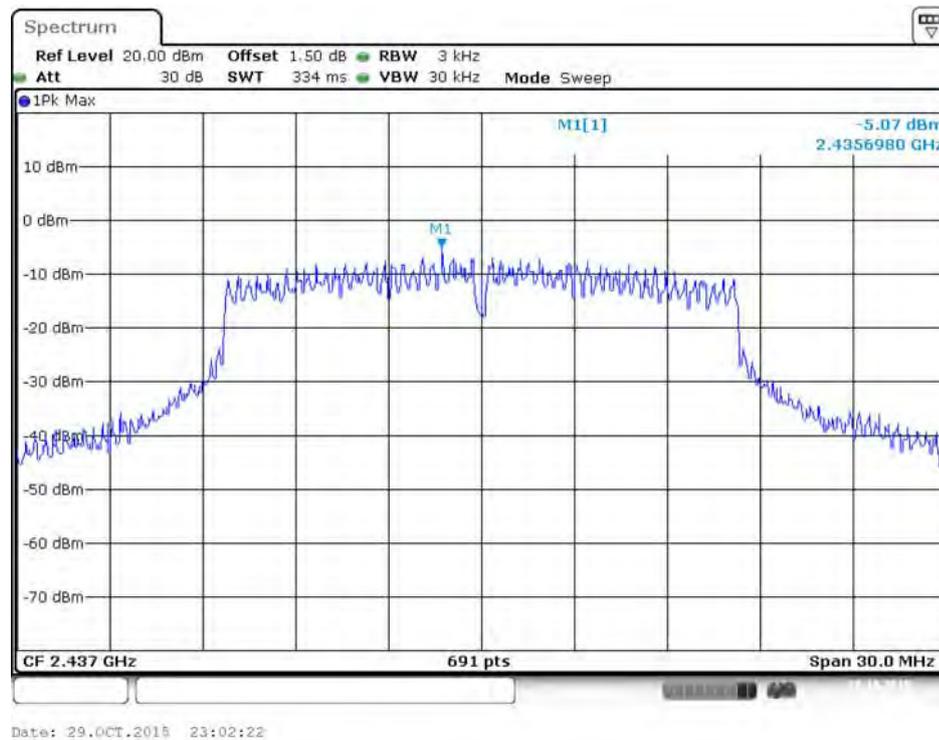
**For Non-Beamforming Mode**

**Mode 1 (Set 3 Dipole antenna / 3.83dBi / 1TX)**

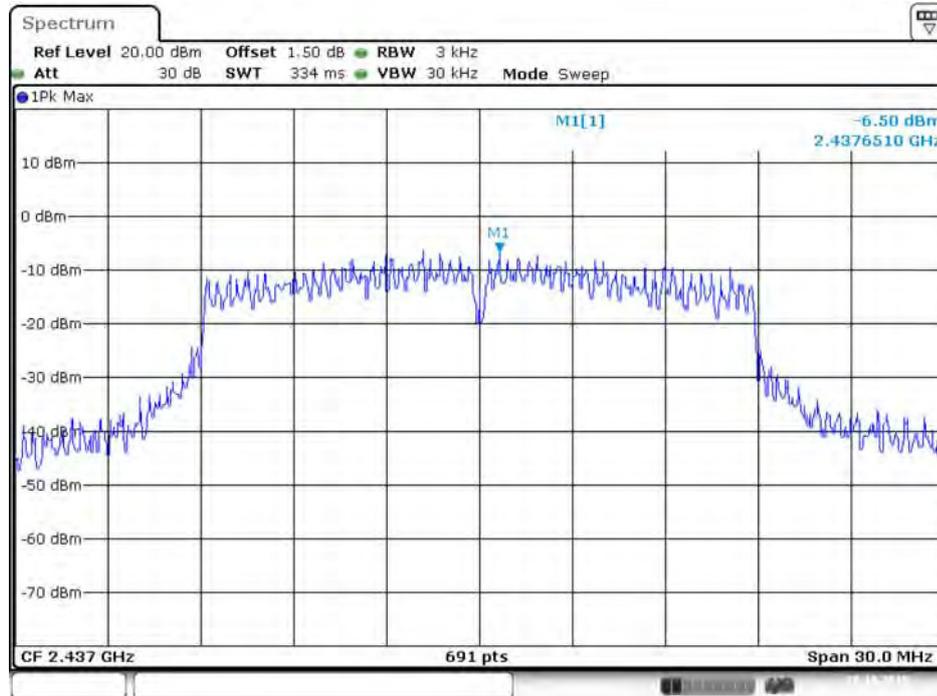
**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1**

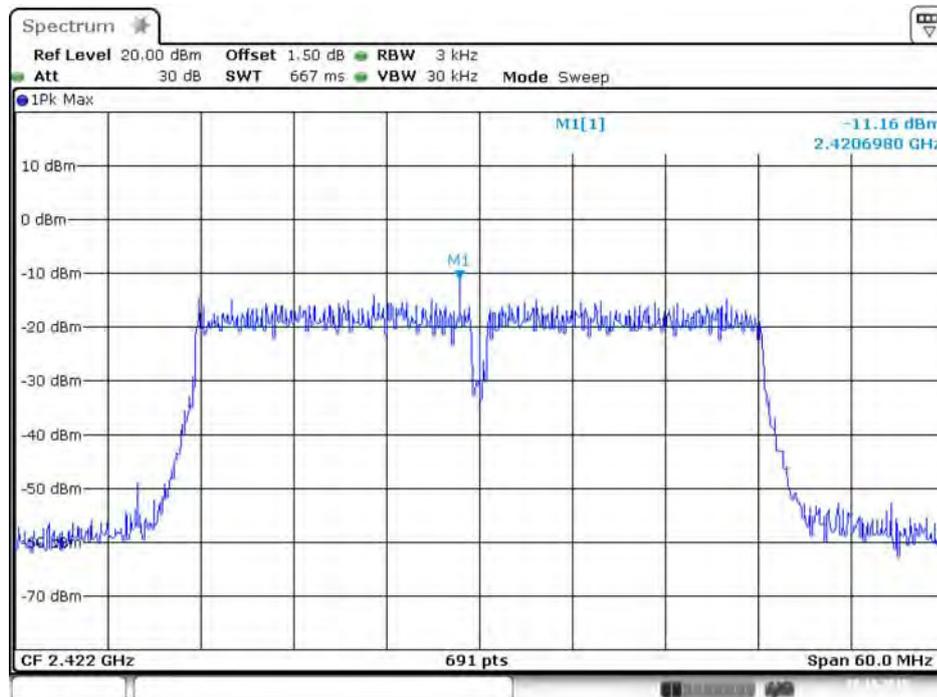


**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



Date: 29.OCT.2015 23:04:11

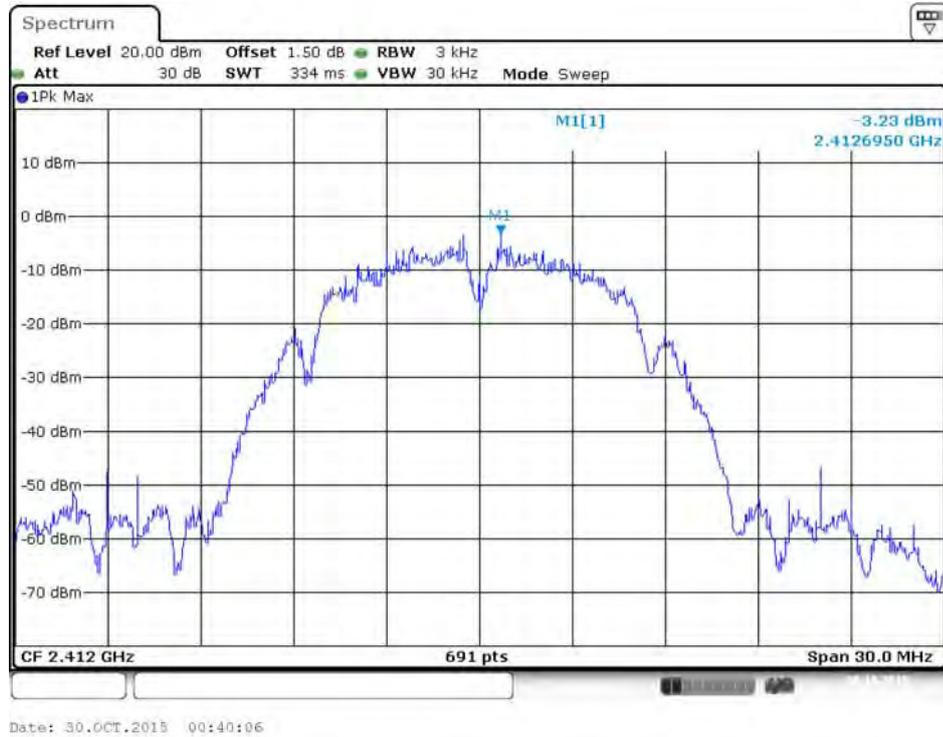
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2422 MHz / Chain 1**



Date: 29.OCT.2015 23:05:03

Mode 1 (Set 3 Dipole antenna / 3.83dBi / 2TX)

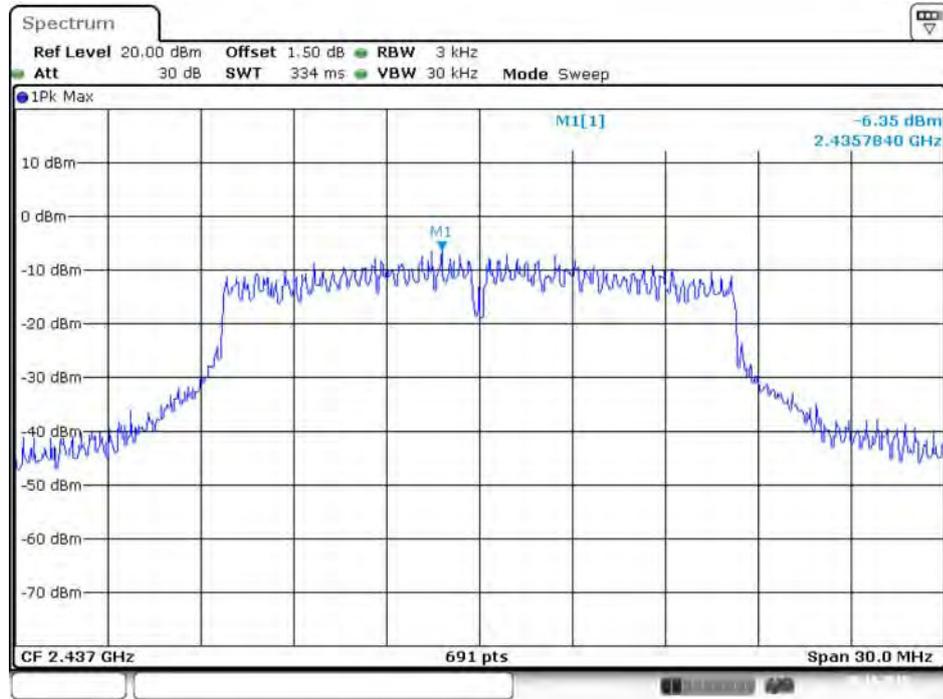
Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 1



Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 2

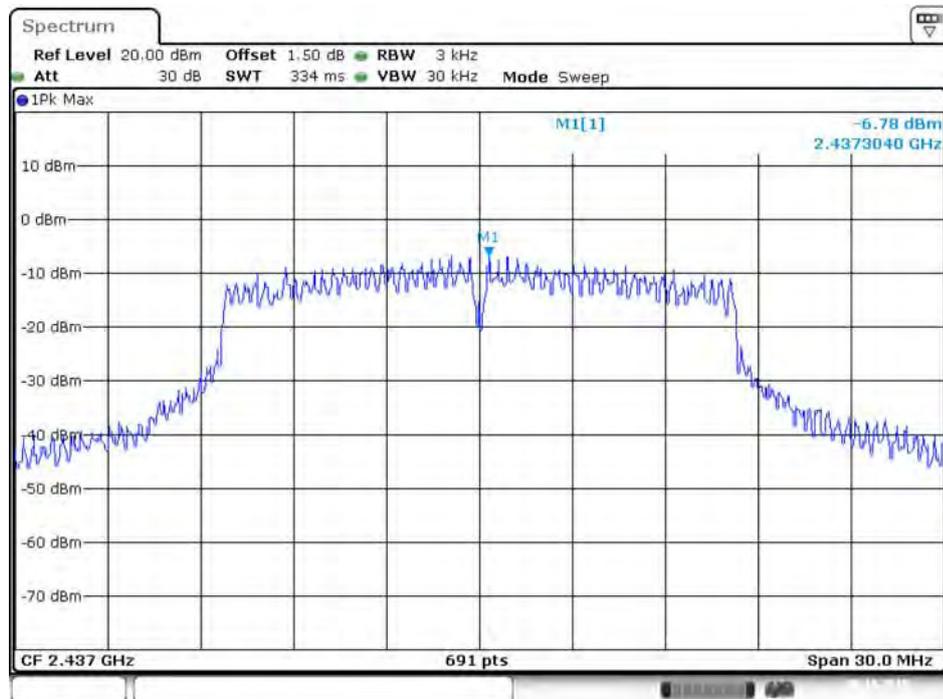


Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1



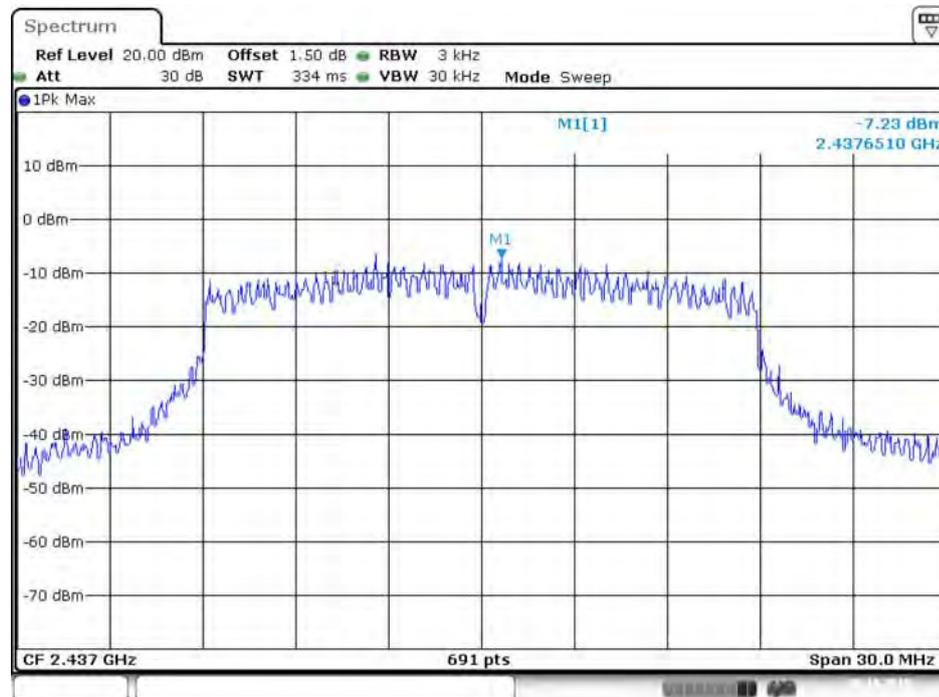
Date: 30.OCT.2015 00:43:36

Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 2



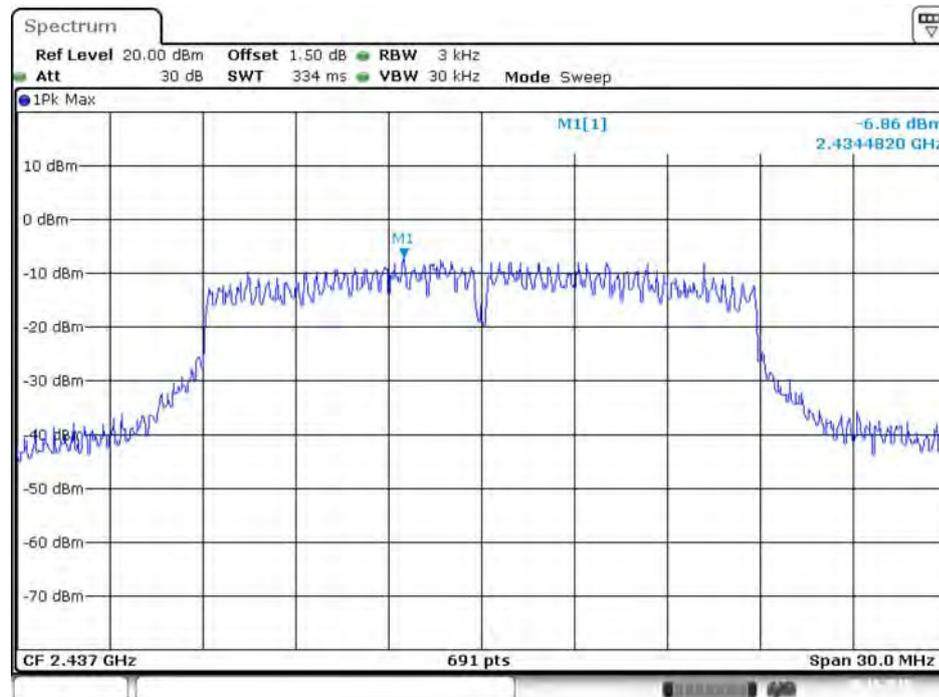
Date: 30.OCT.2015 00:43:51

Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1



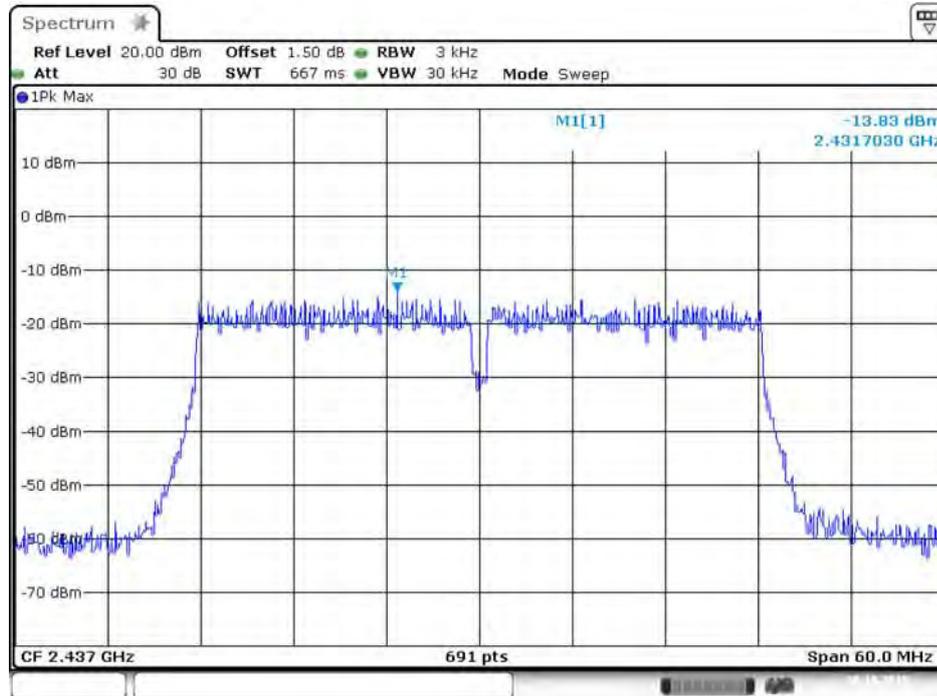
Date: 30.OCT.2015 00:46:10

Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 2



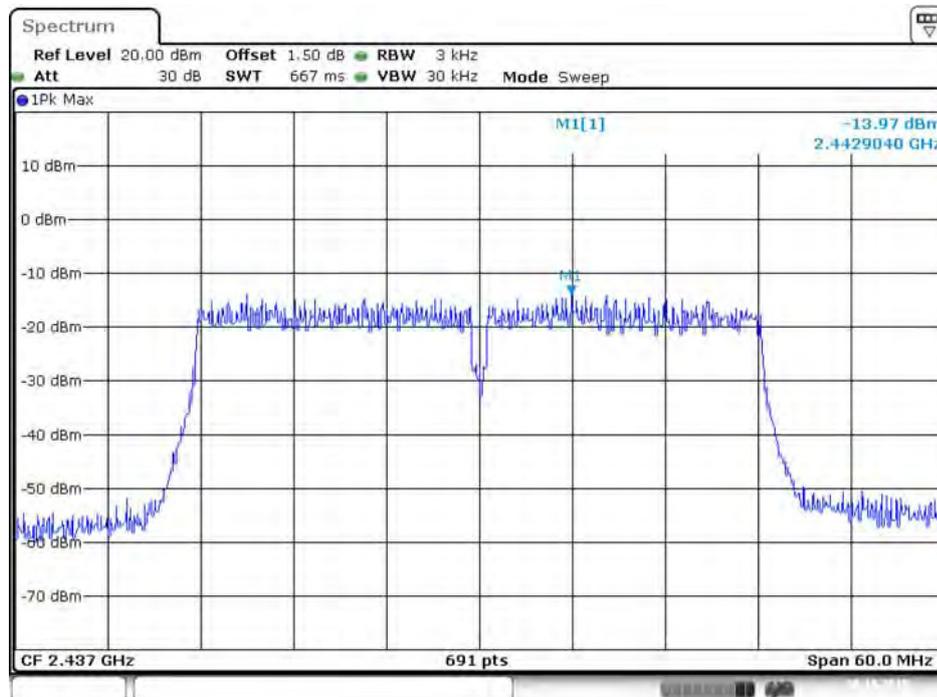
Date: 30.OCT.2015 00:46:25

Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 1



Date: 30.OCT.2015 00:48:30

Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 2



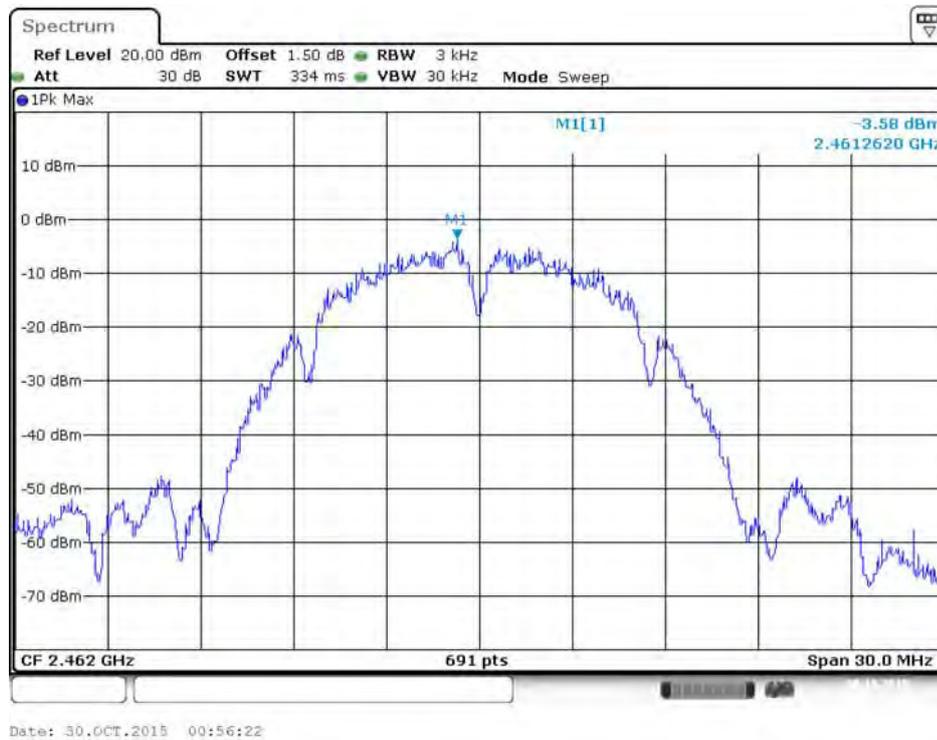
Date: 30.OCT.2015 00:48:47

Mode 1 (Set 3 Dipole antenna / 3.83dBi / 3TX)

Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 1



Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 2

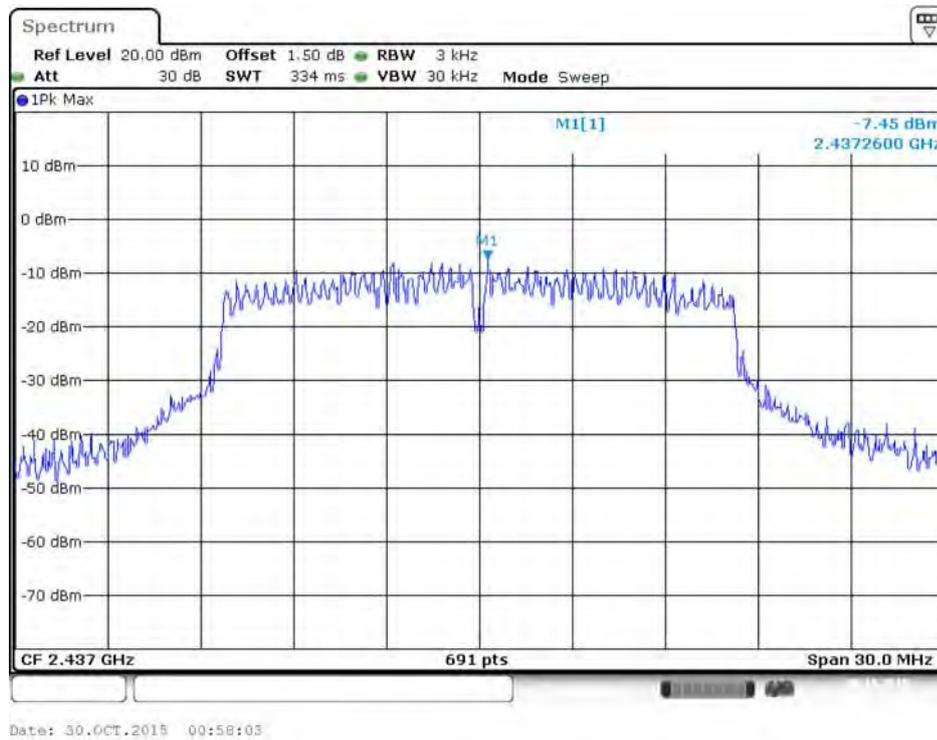


### Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 3

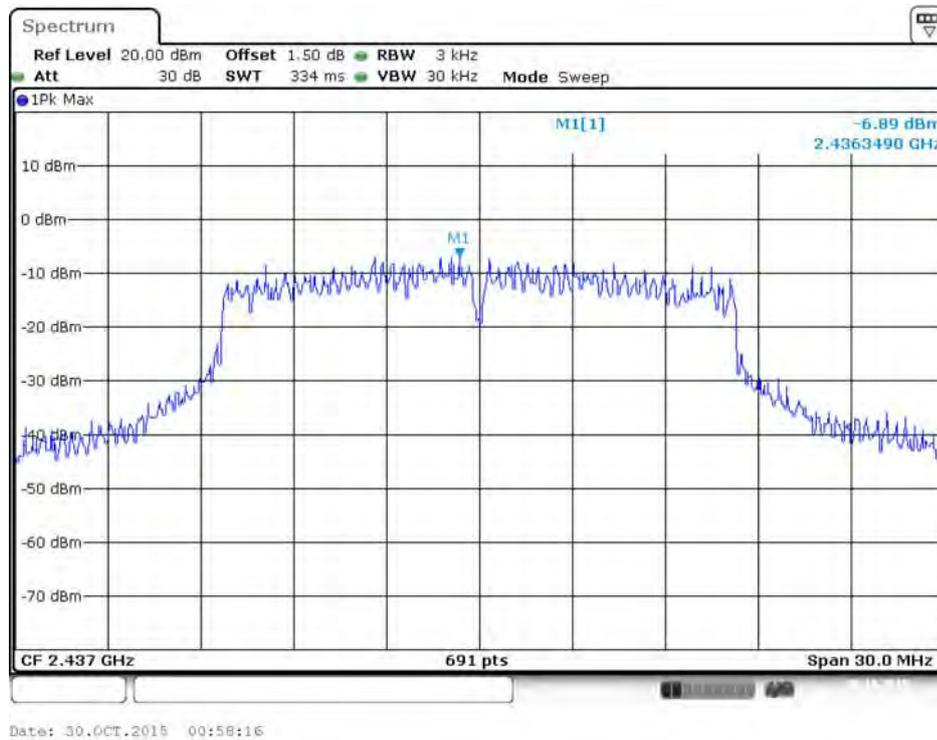


Date: 30.OCT.2015 00:56:36

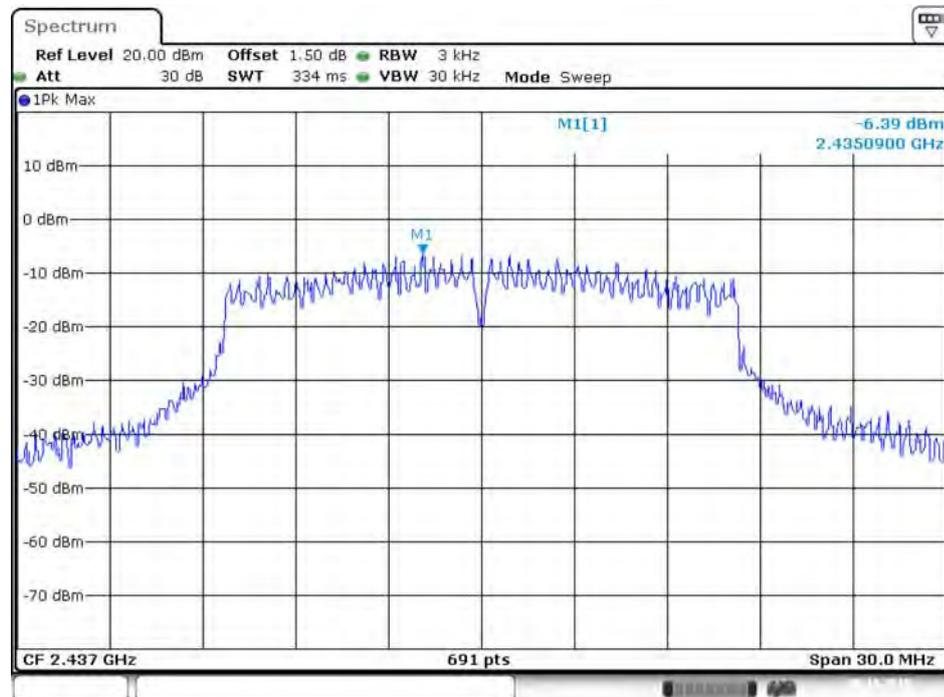
**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 2**

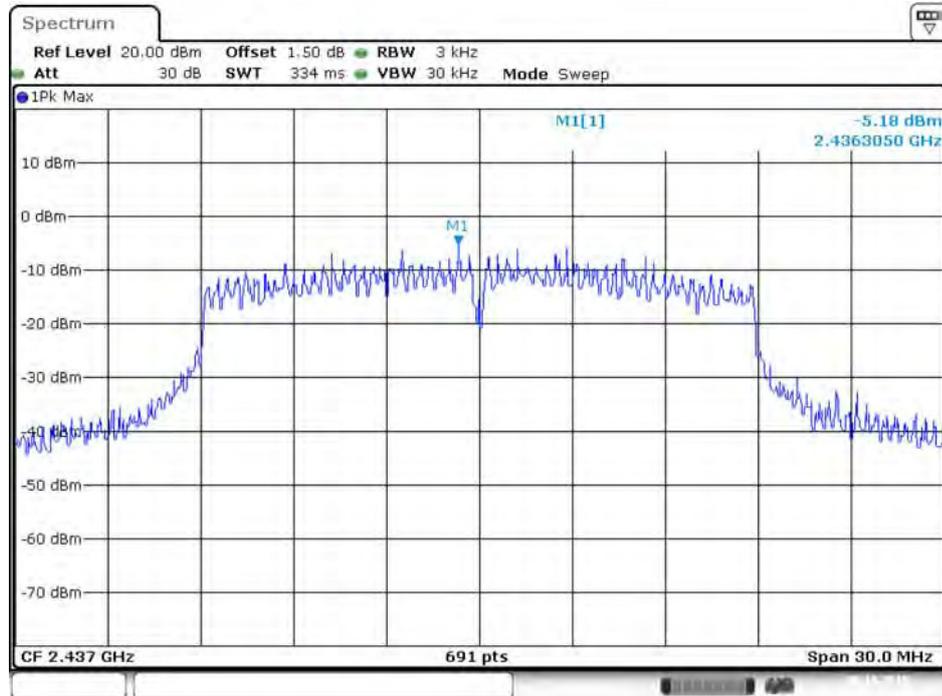


### Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 3



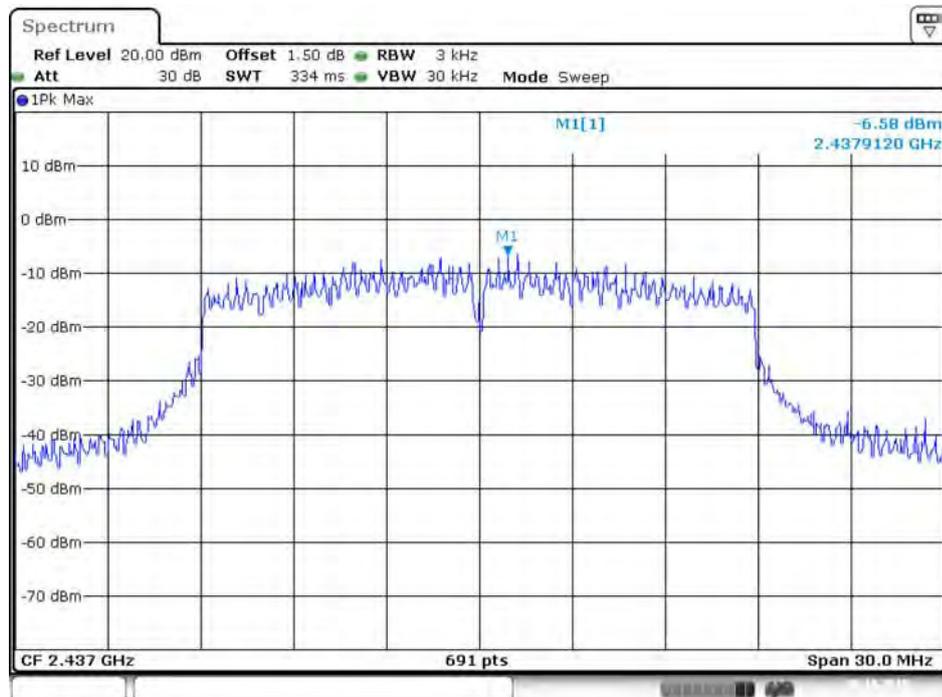
Date: 30.OCT.2015 00:58:30

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



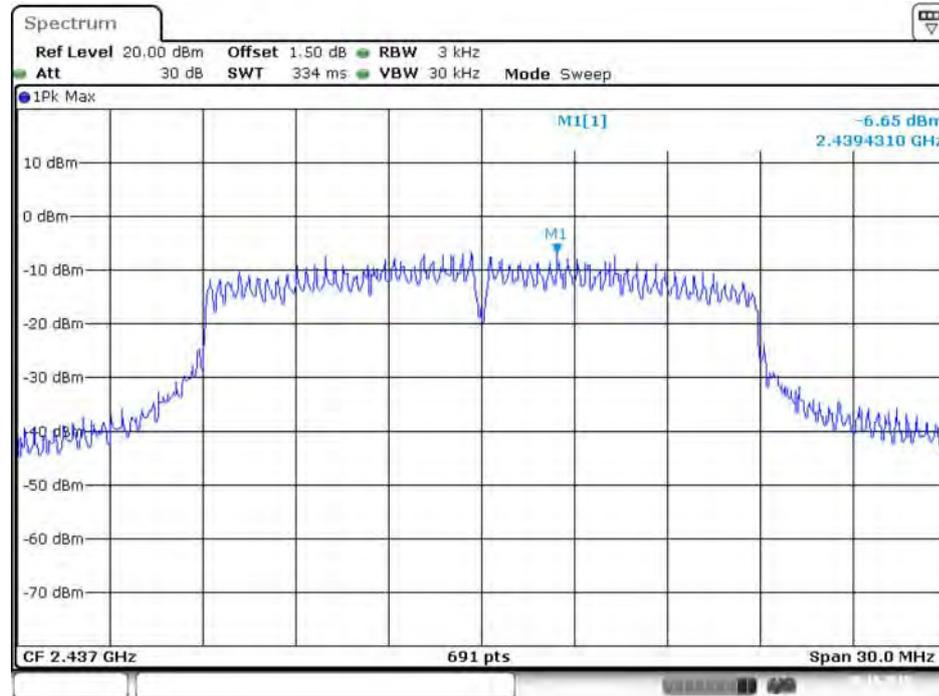
Date: 30.OCT.2015 01:03:10

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 2**



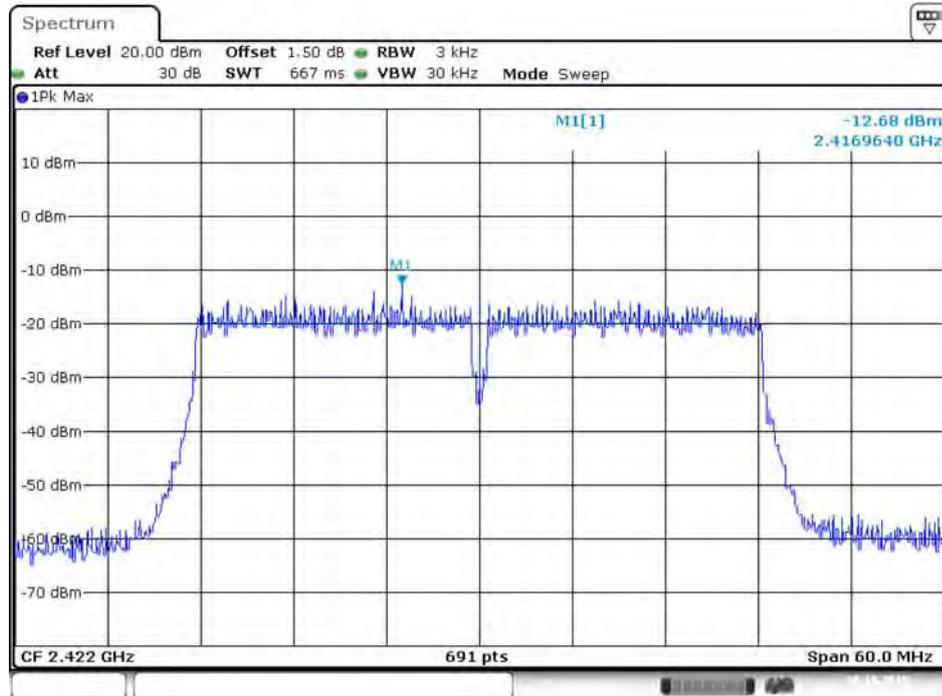
Date: 30.OCT.2015 01:03:22

### Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 3



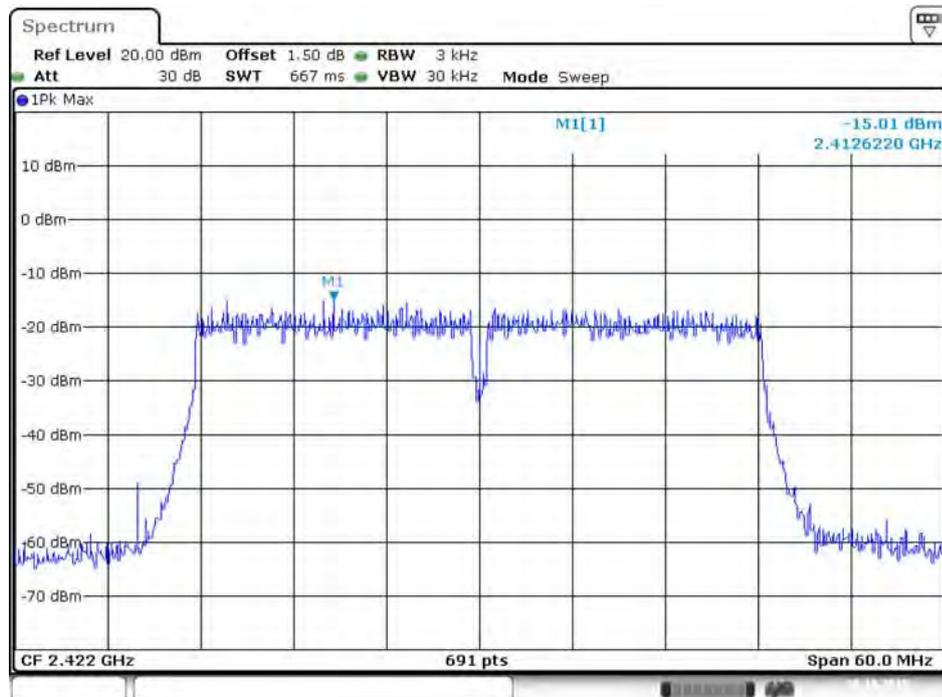
Date: 30.OCT.2015 01:03:34

Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2422 MHz / Chain 1



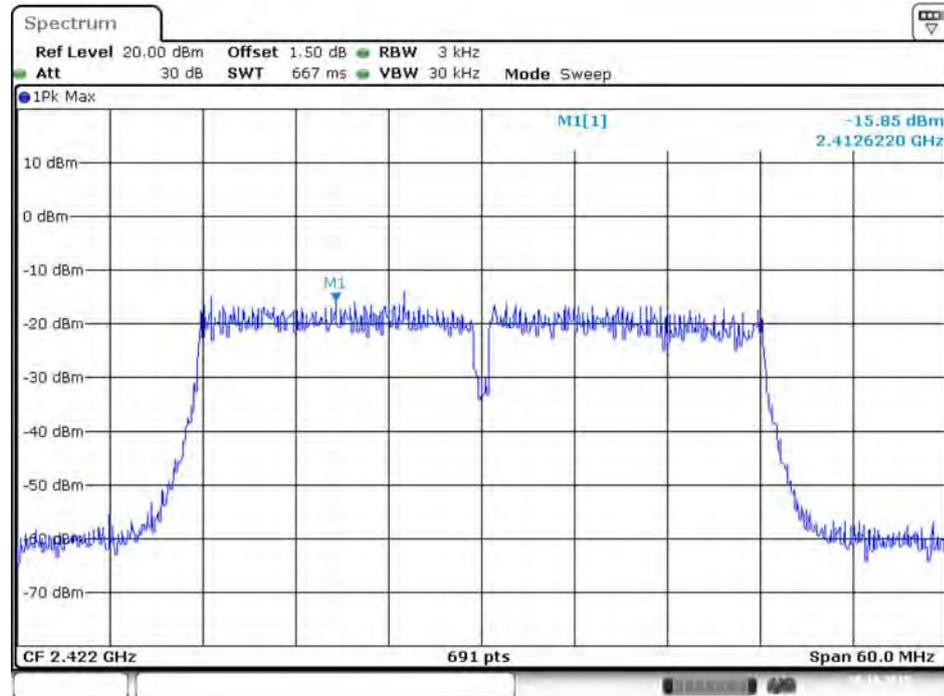
Date: 30.OCT.2015 01:05:41

Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2422 MHz / Chain 2



Date: 30.OCT.2015 01:05:30

### Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2422 MHz / Chain 3



Date: 30.OCT.2015 01:05:19

**Mode 1 (Set 3 Dipole antenna / 3.83dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**  
**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 1**



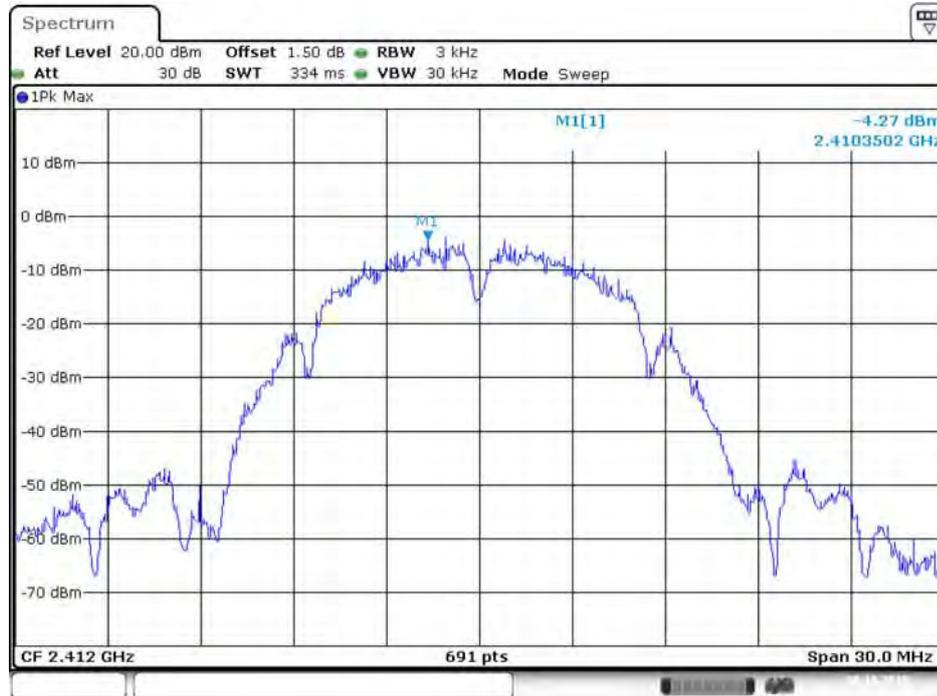
Date: 30.OCT.2015 01:42:52

**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 2**



Date: 30.OCT.2015 01:43:06

**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 3**



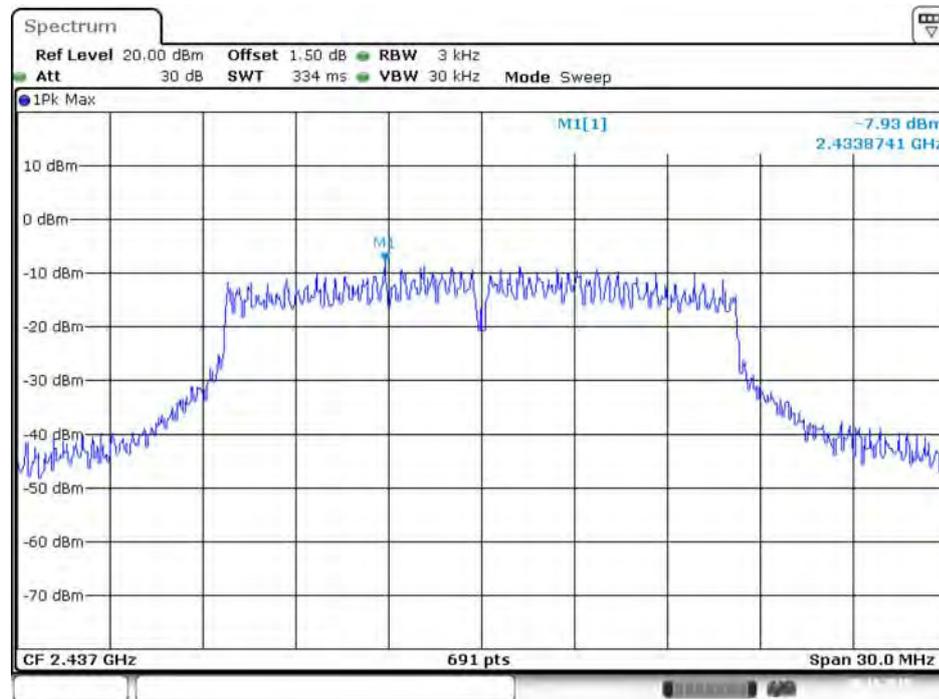
Date: 30.OCT.2015 01:43:17

**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 4**



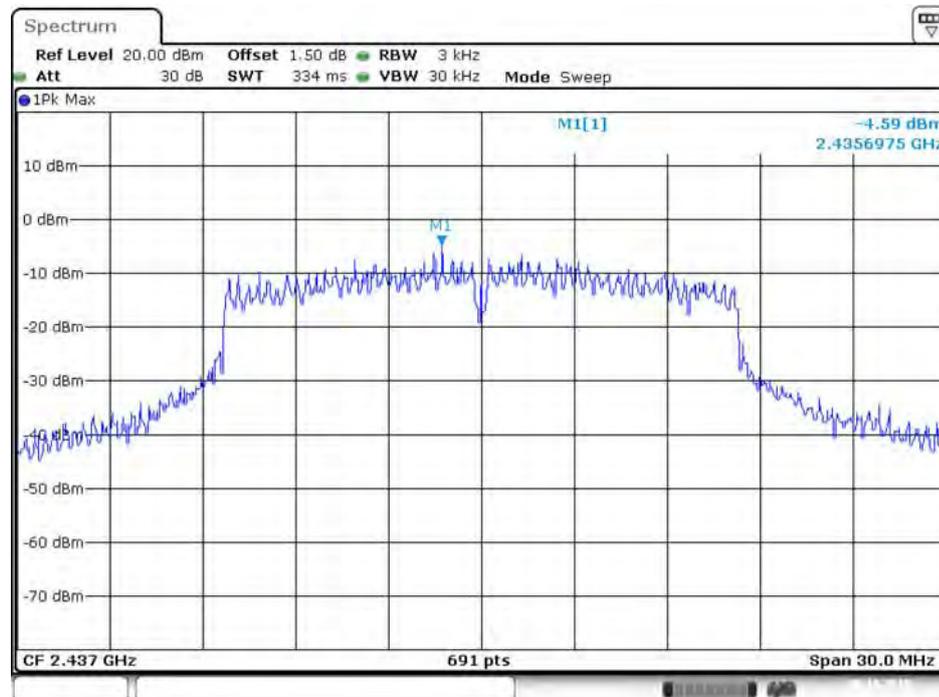
Date: 30.OCT.2015 01:43:29

**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1**



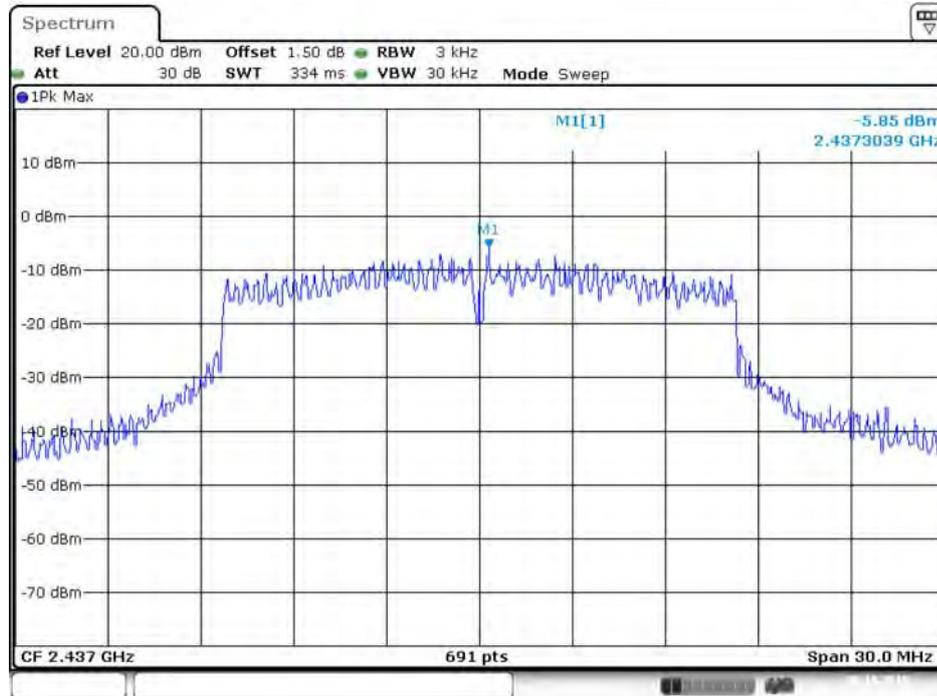
Date: 30.OCT.2015 01:47:56

**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 2**



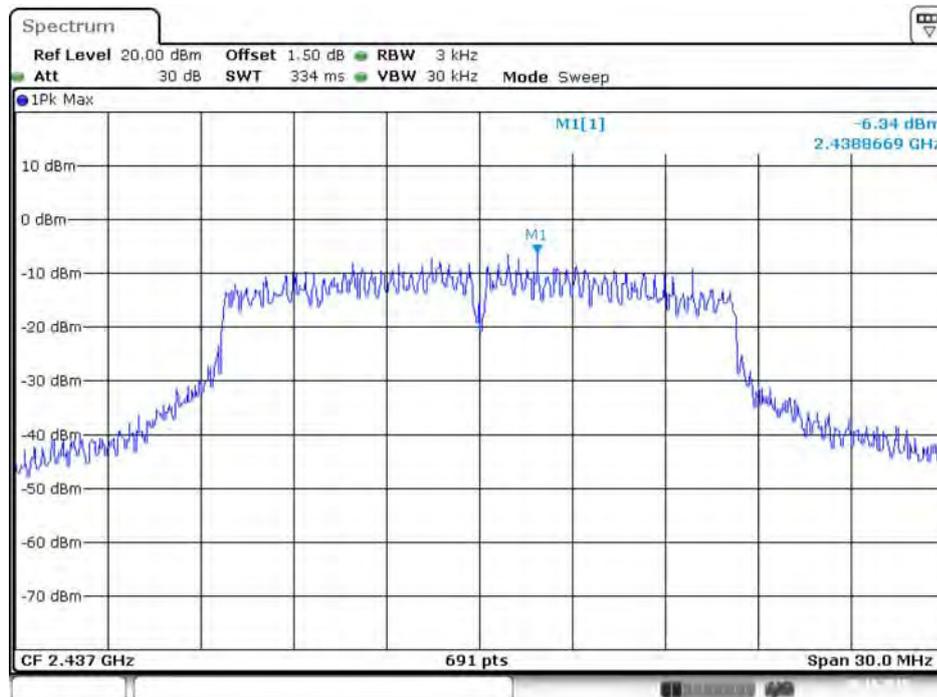
Date: 30.OCT.2015 01:48:07

**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 3**



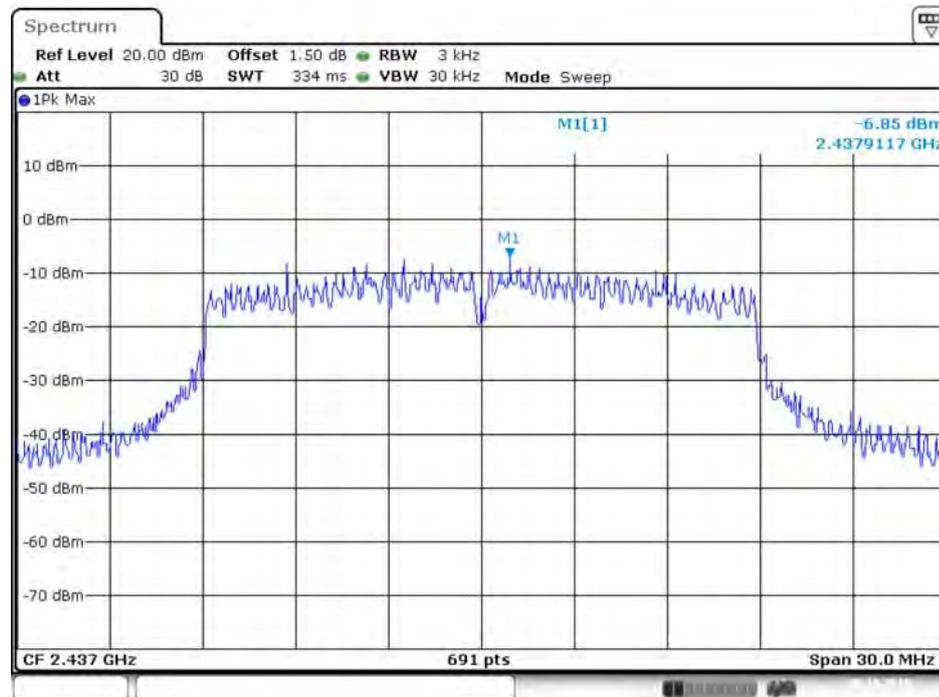
Date: 30.OCT.2015 01:48:19

**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 4**



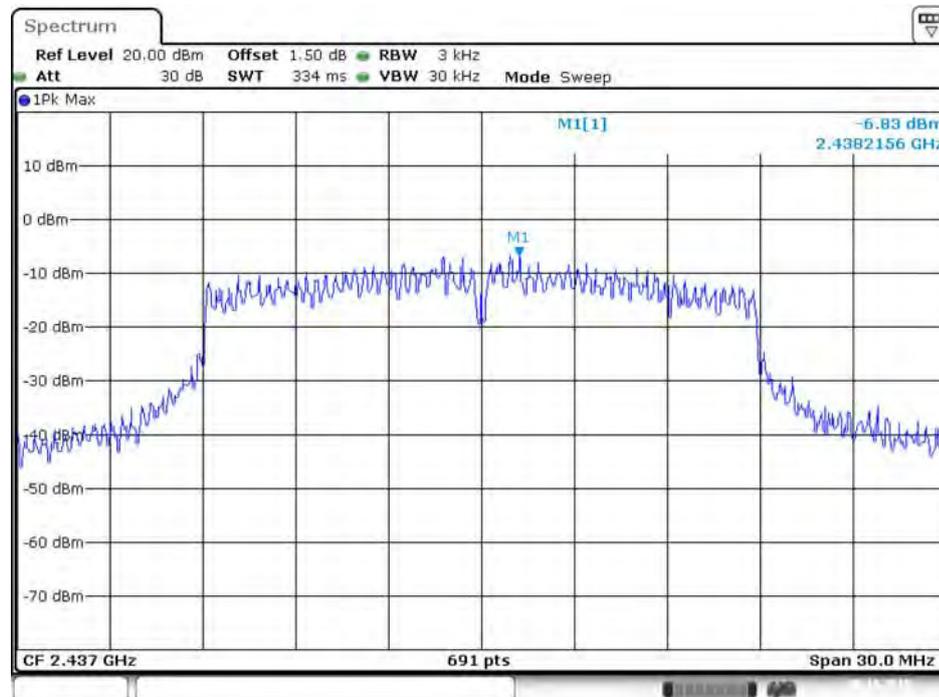
Date: 30.OCT.2015 01:48:32

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



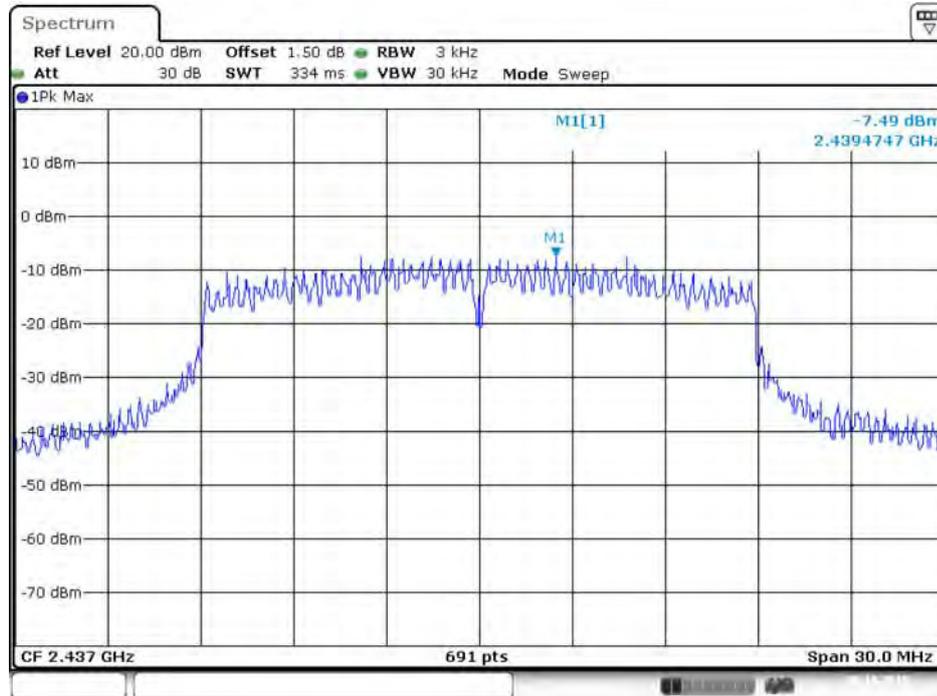
Date: 30.OCT.2015 01:51:21

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 2**



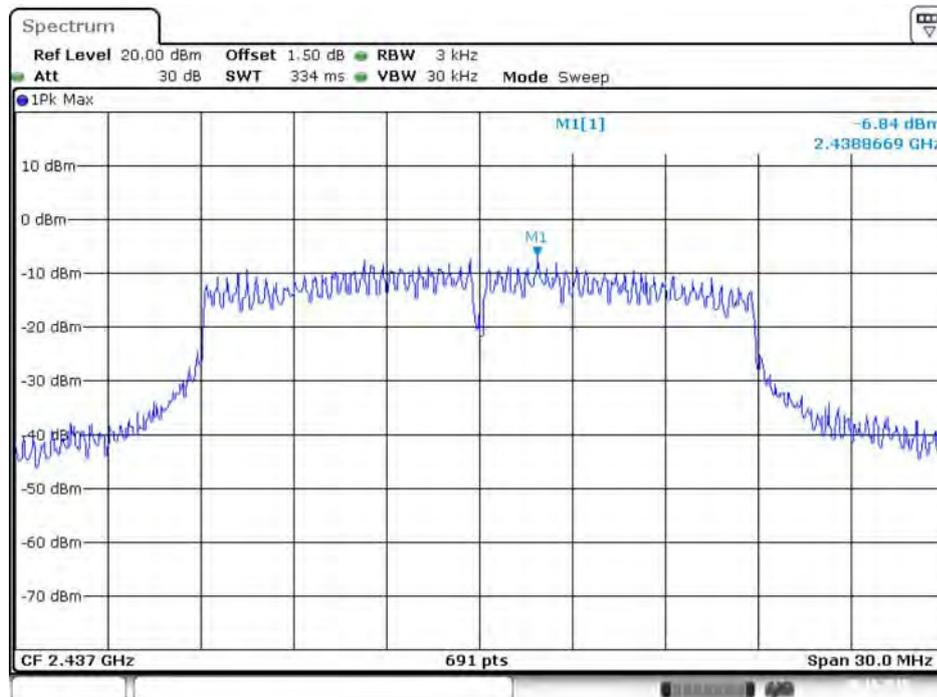
Date: 30.OCT.2015 01:51:32

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 3**



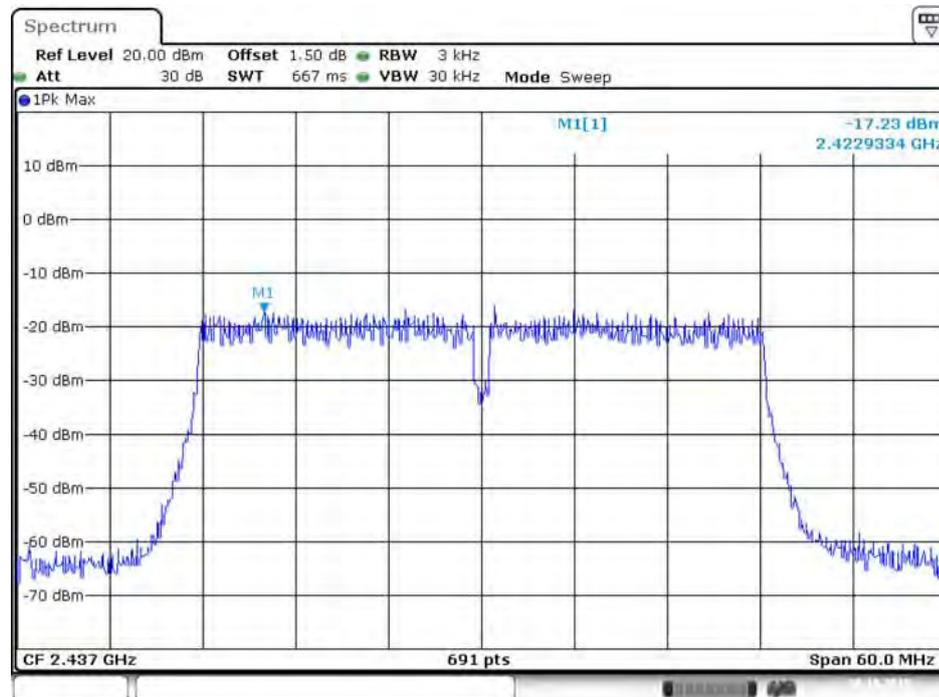
Date: 30.OCT.2015 01:51:46

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 4**



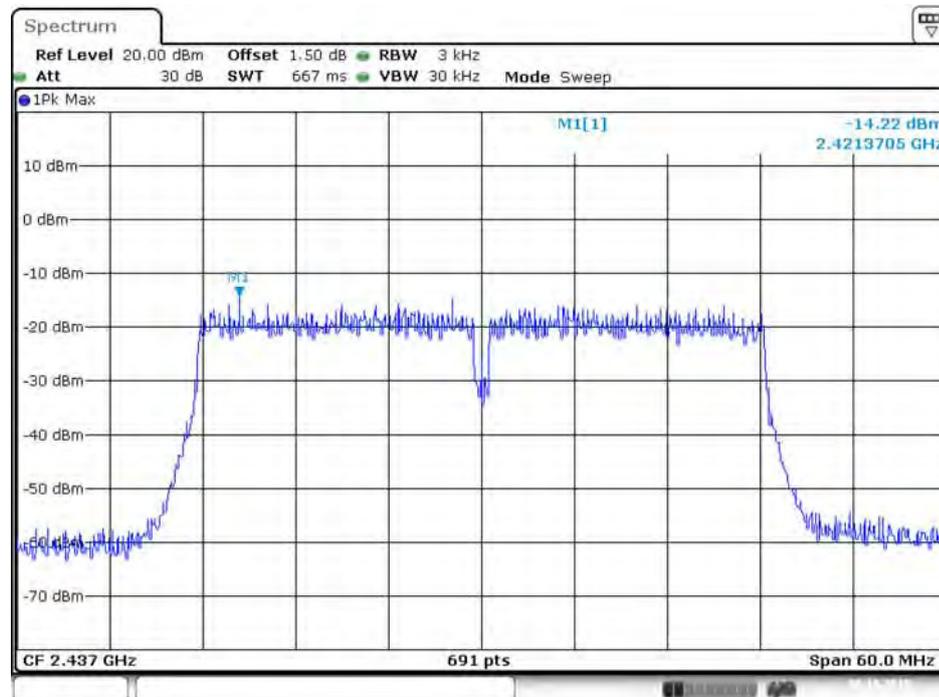
Date: 30.OCT.2015 01:52:00

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 1**



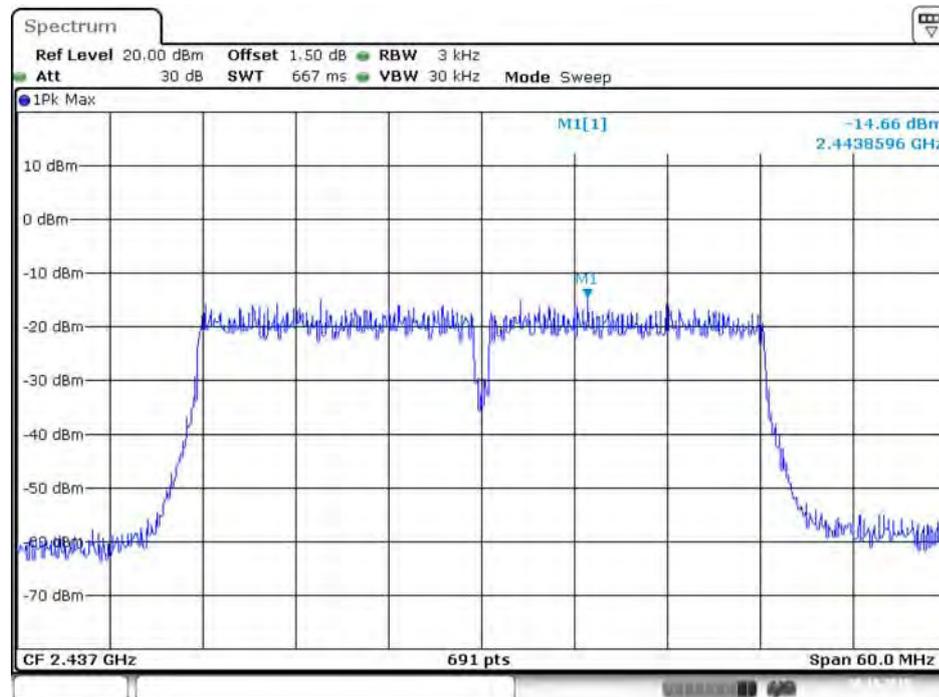
Date: 30.OCT.2015 01:55:16

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 2**



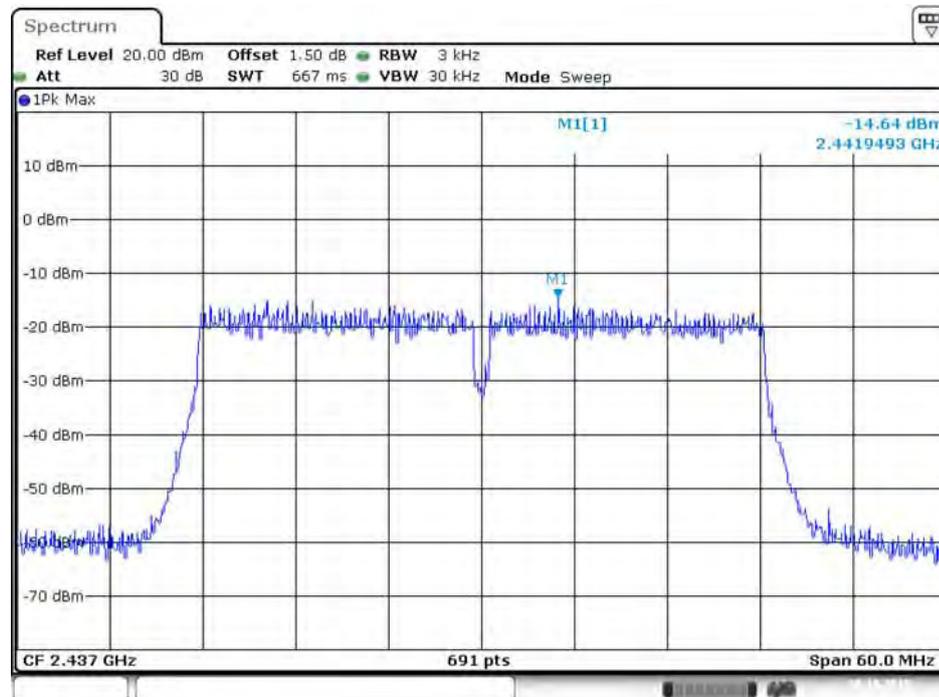
Date: 30.OCT.2015 01:55:26

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 3**



Date: 30.OCT.2015 01:55:43

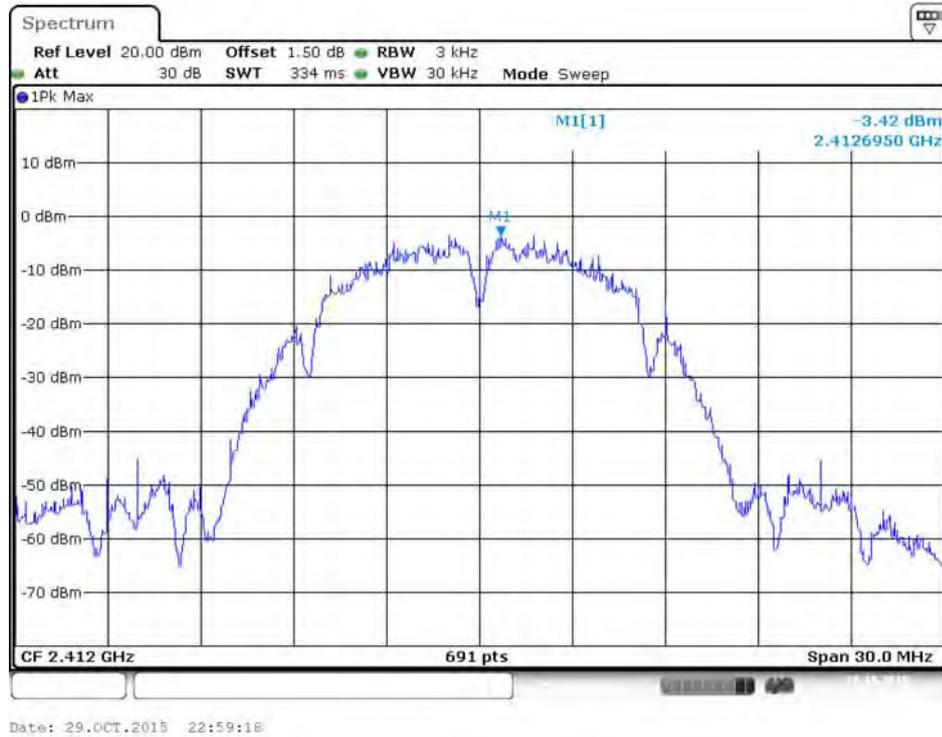
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 4**



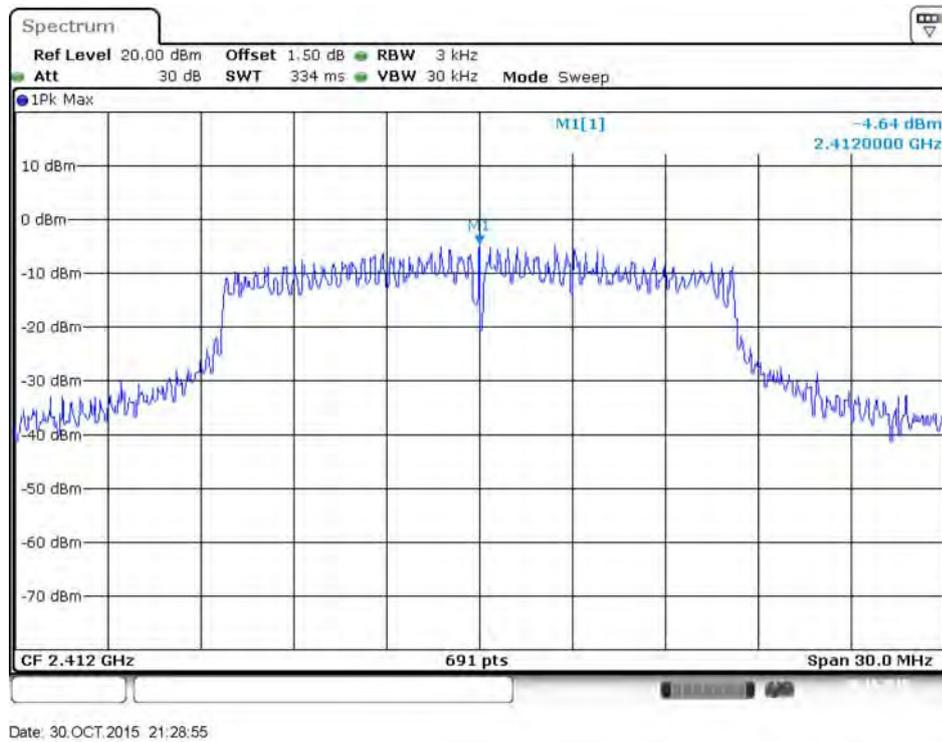
Date: 30.OCT.2015 01:55:56

Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi \*1 / 1TX)

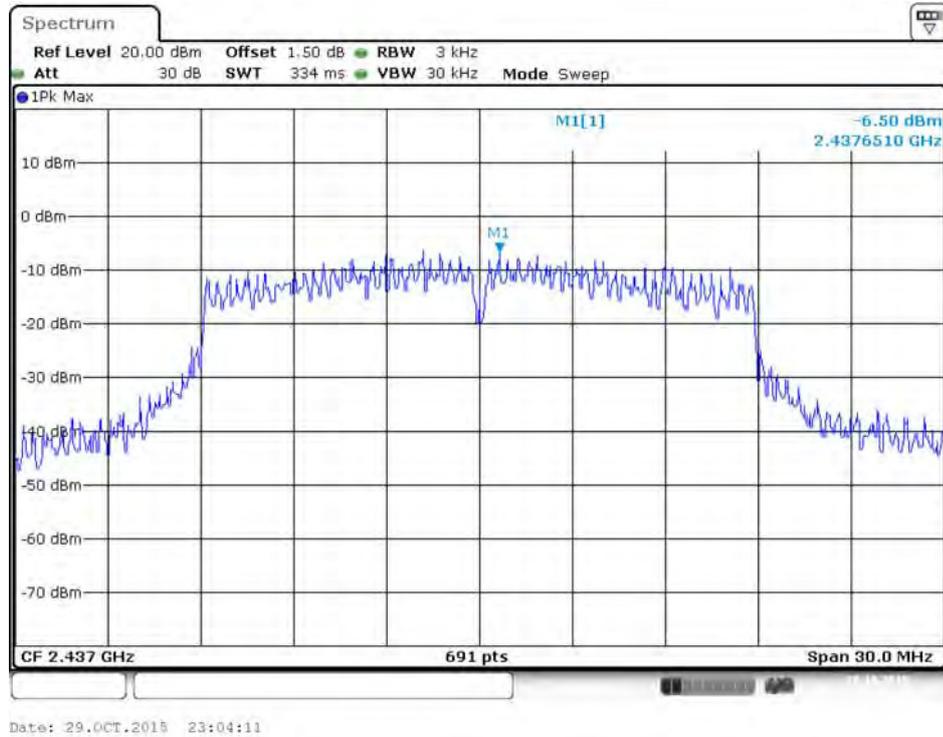
Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 1



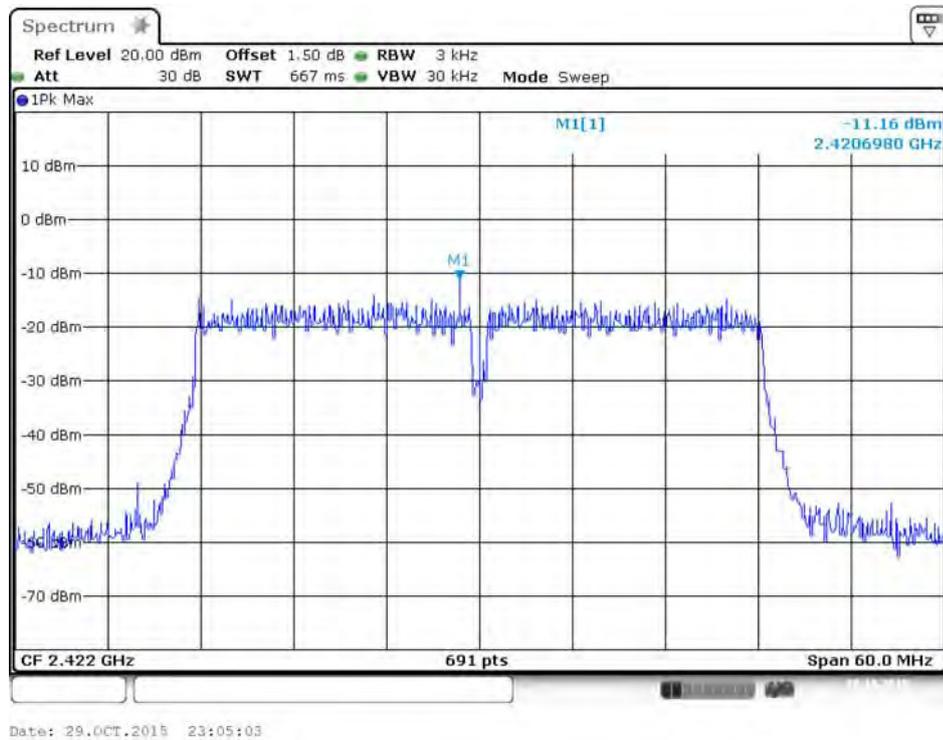
Power Density Plot on Configuration IEEE 802.11g / 2412 MHz / Chain 1



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2422 MHz / Chain 1**

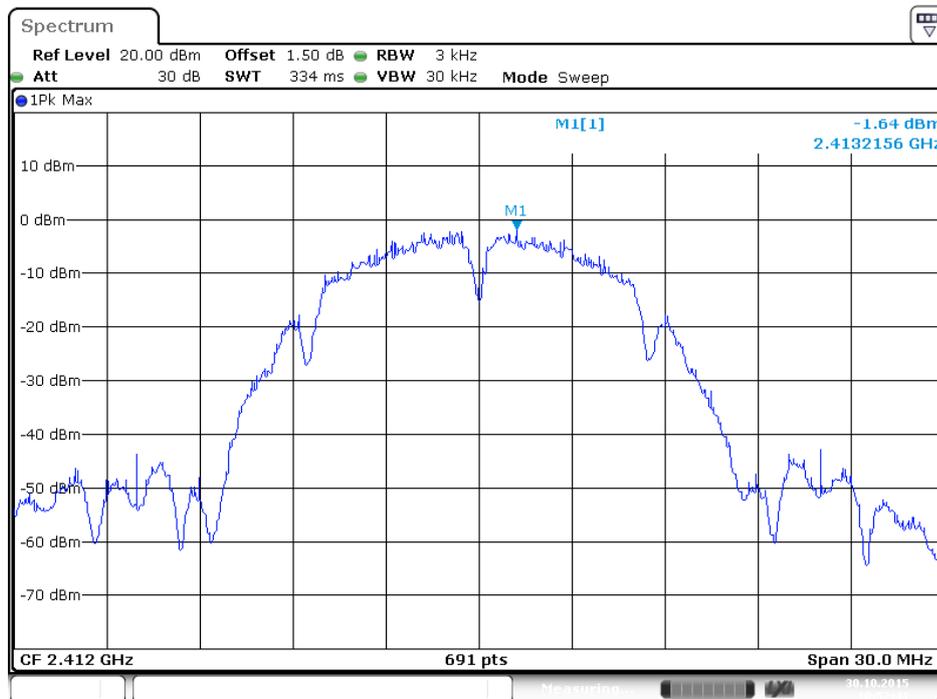


**Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi\*2 / 2TX)**

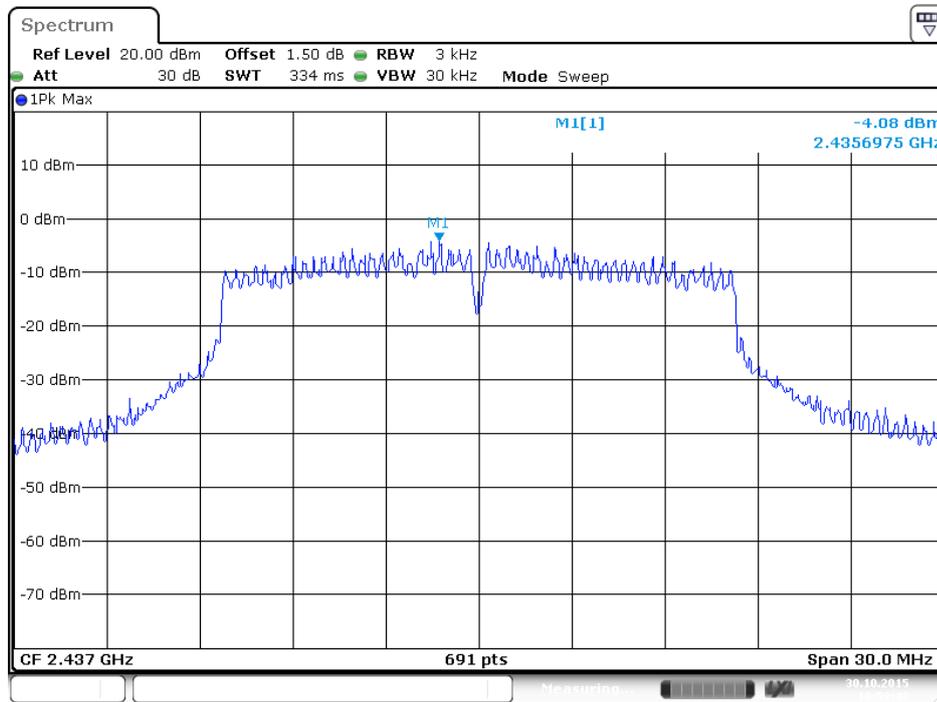
**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 1**



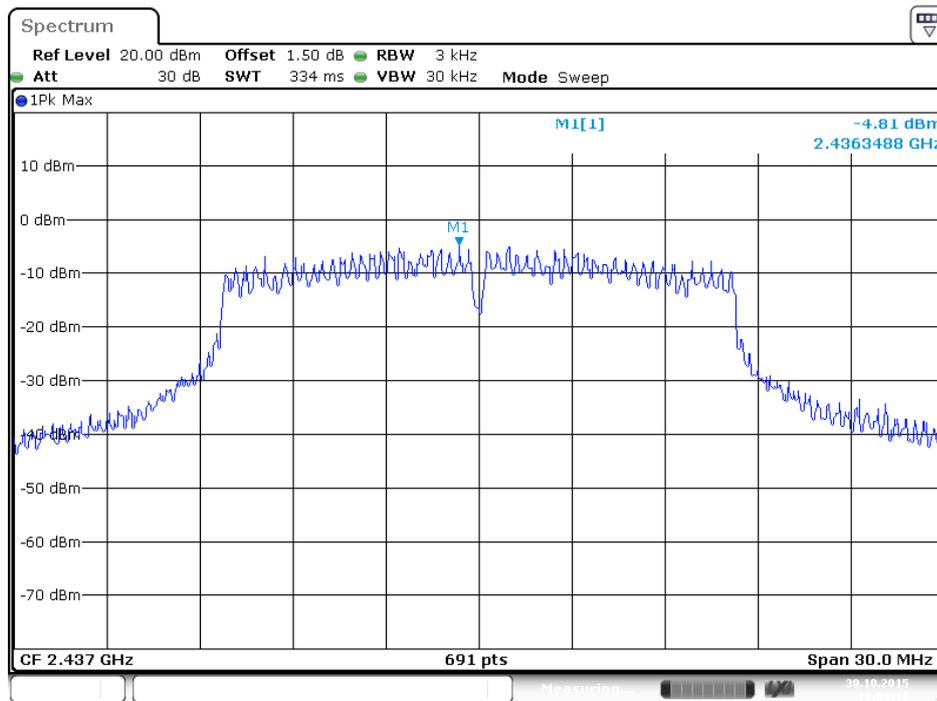
**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 3**



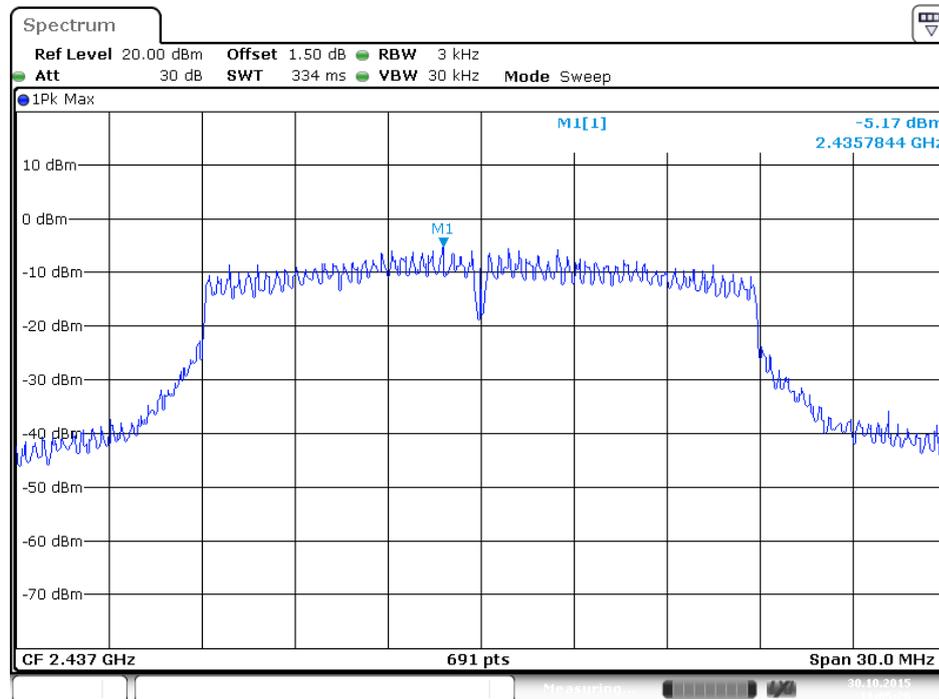
**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1**



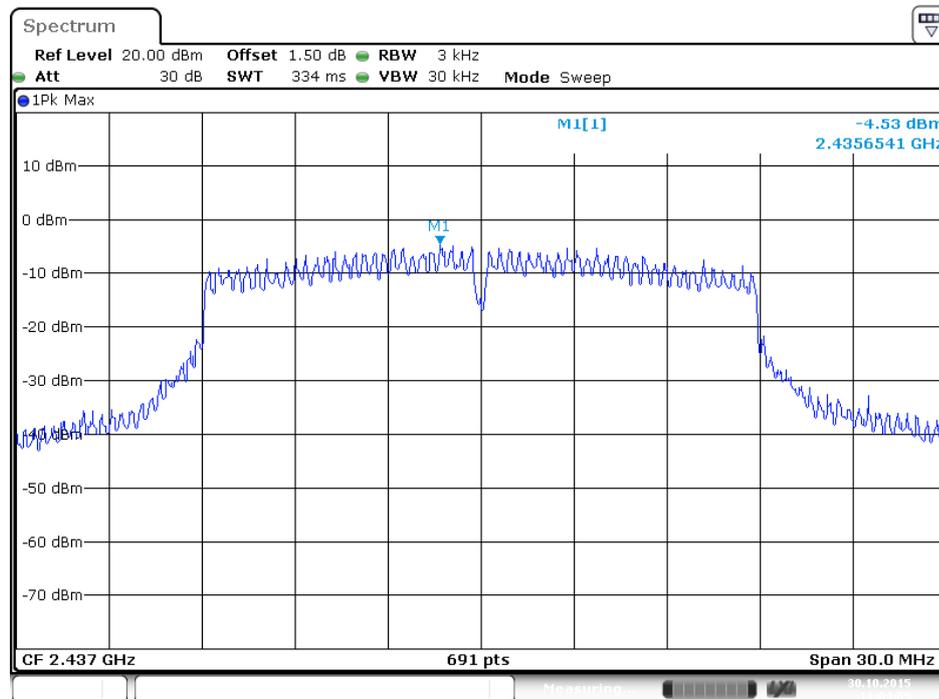
**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 3**



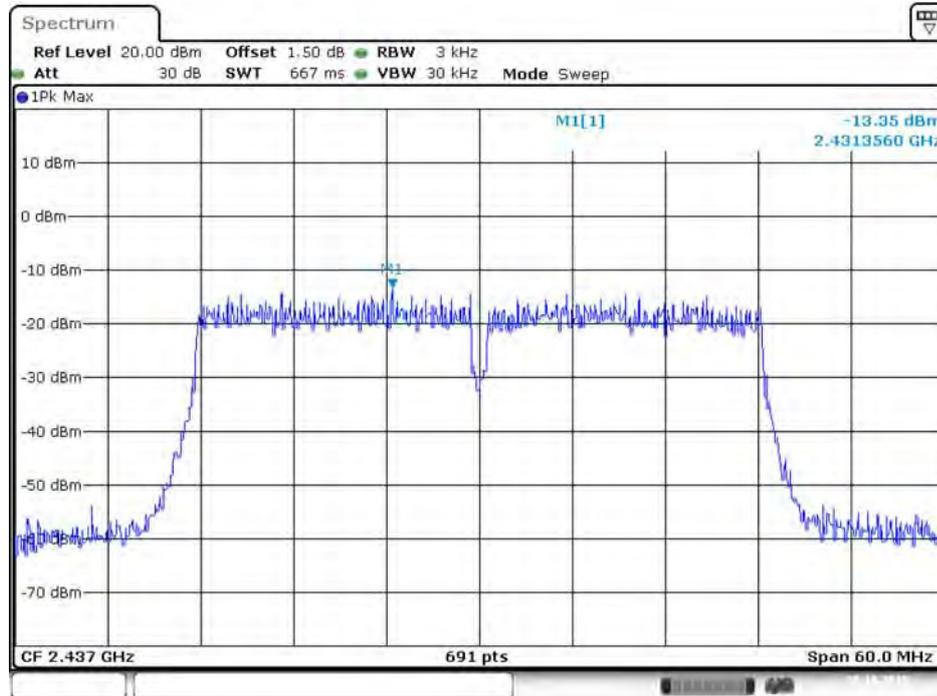
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 3**

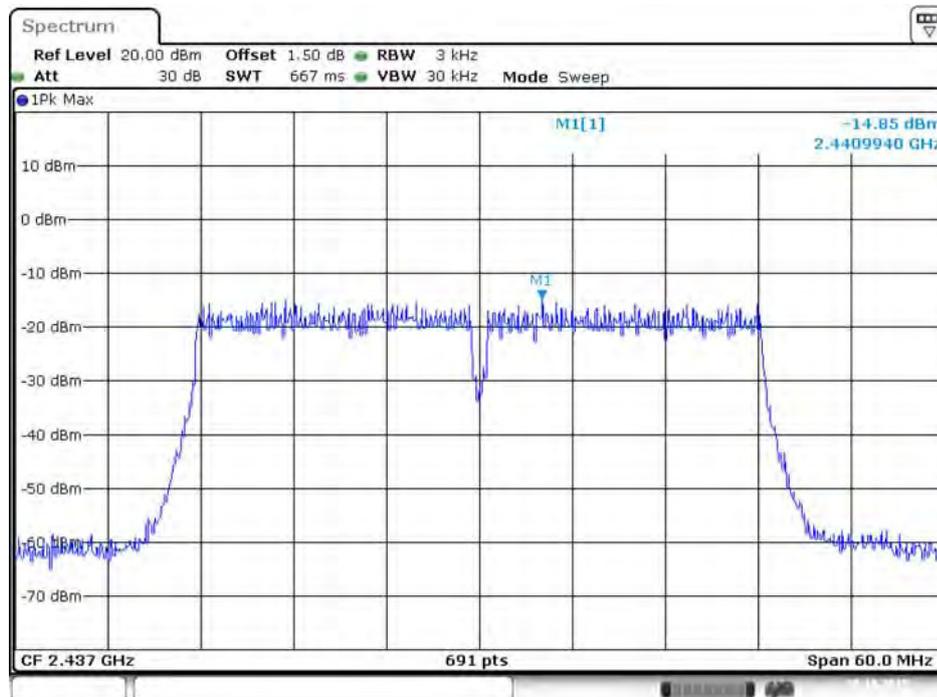


**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 1**



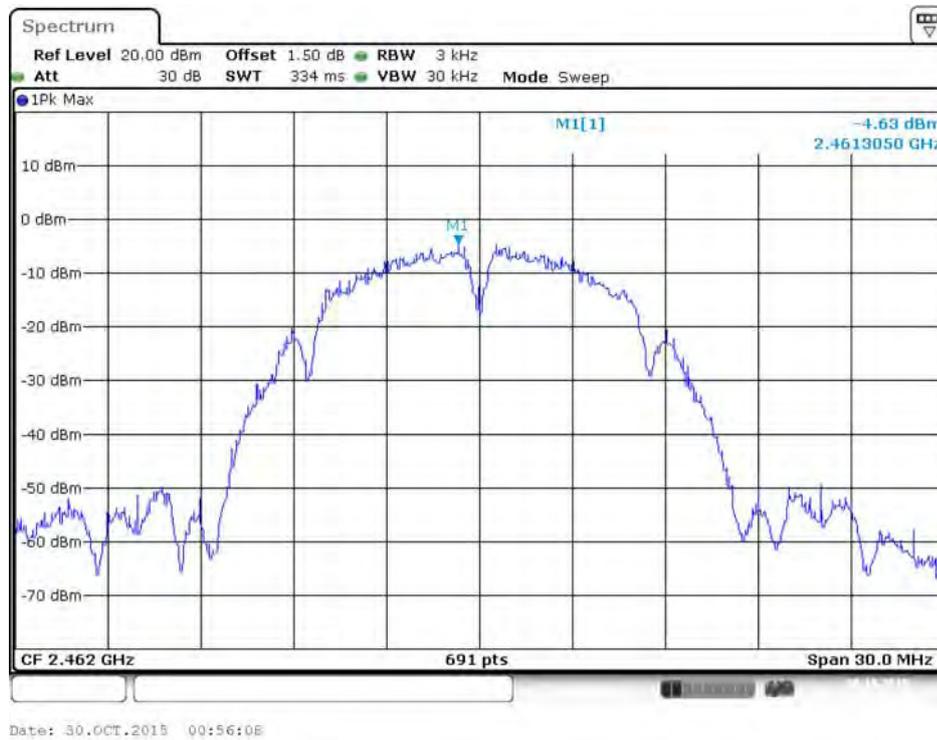
Date: 30.OCT.2015 21:38:49

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 3**

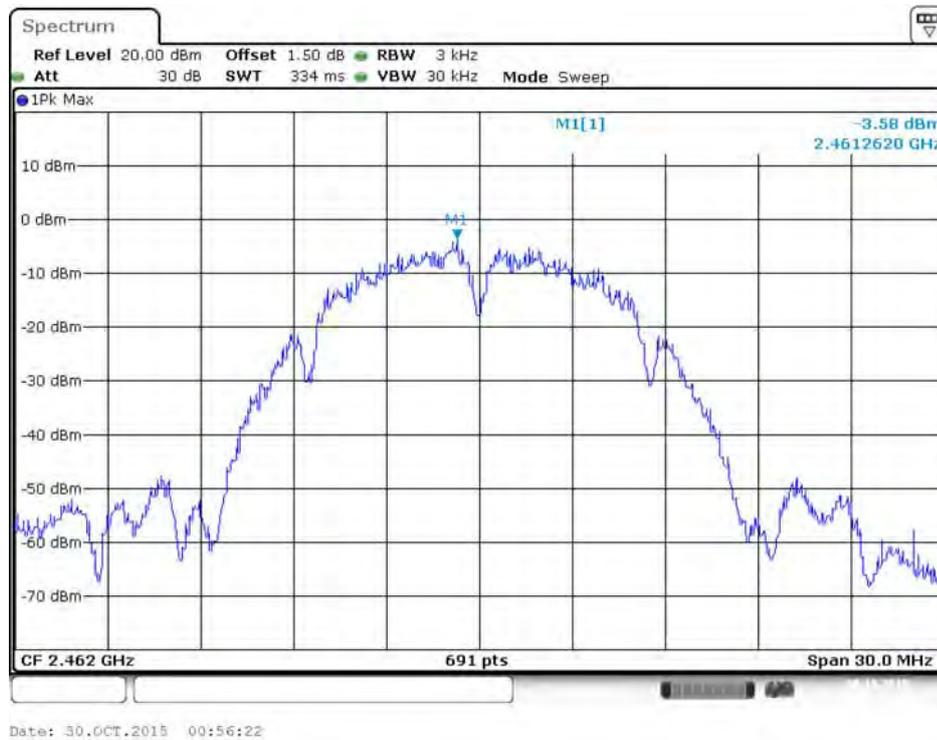


Date: 30.OCT.2015 21:39:05

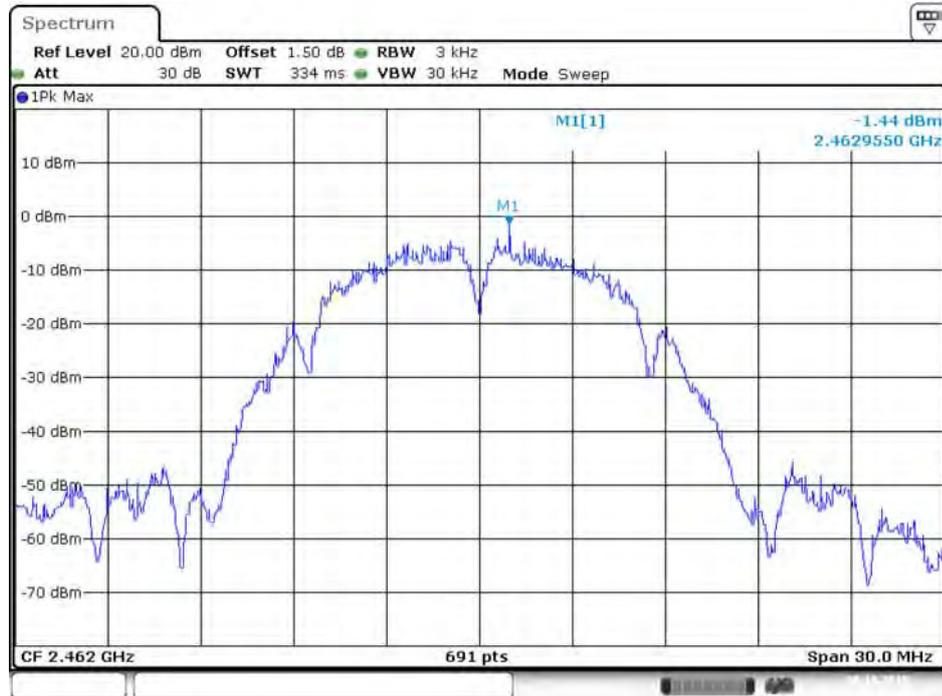
**Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi\*2, (1B)3.93dBi\*1 / 3TX)**  
**Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 2**

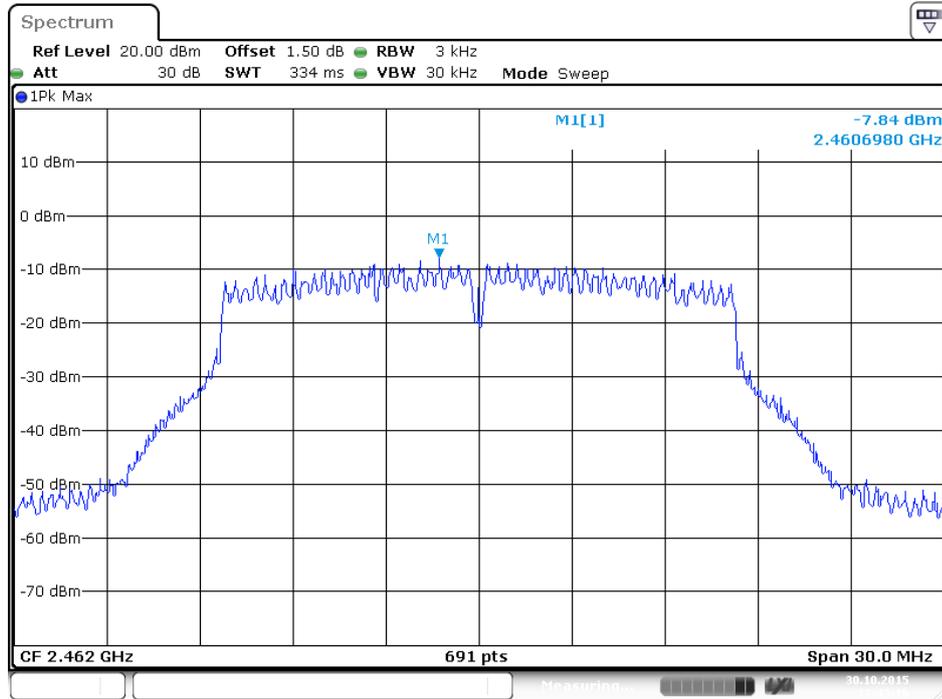


Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 3

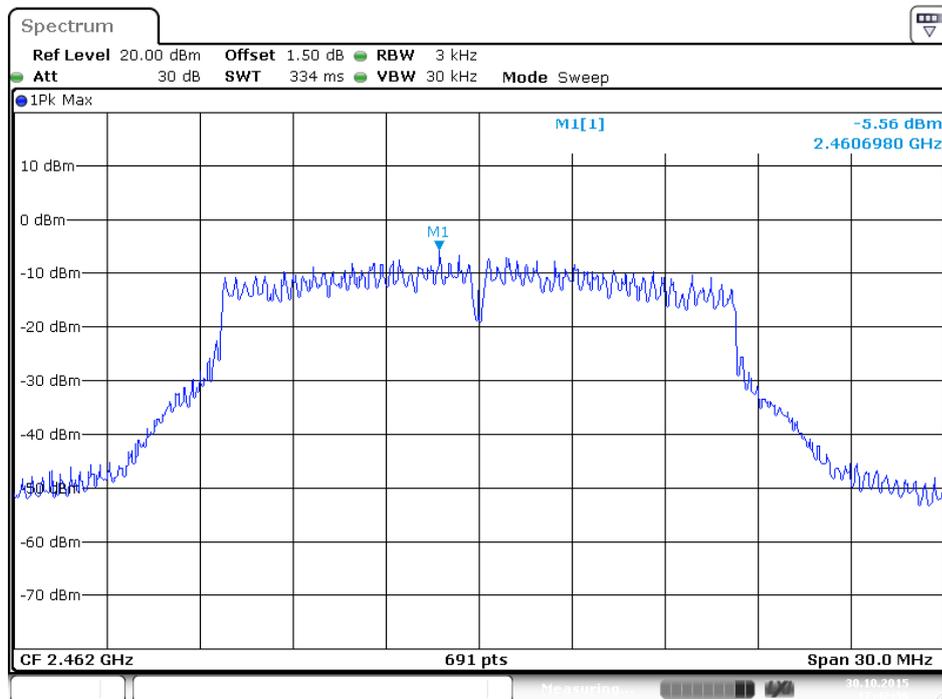


Date: 30.OCT.2015 00:56:36

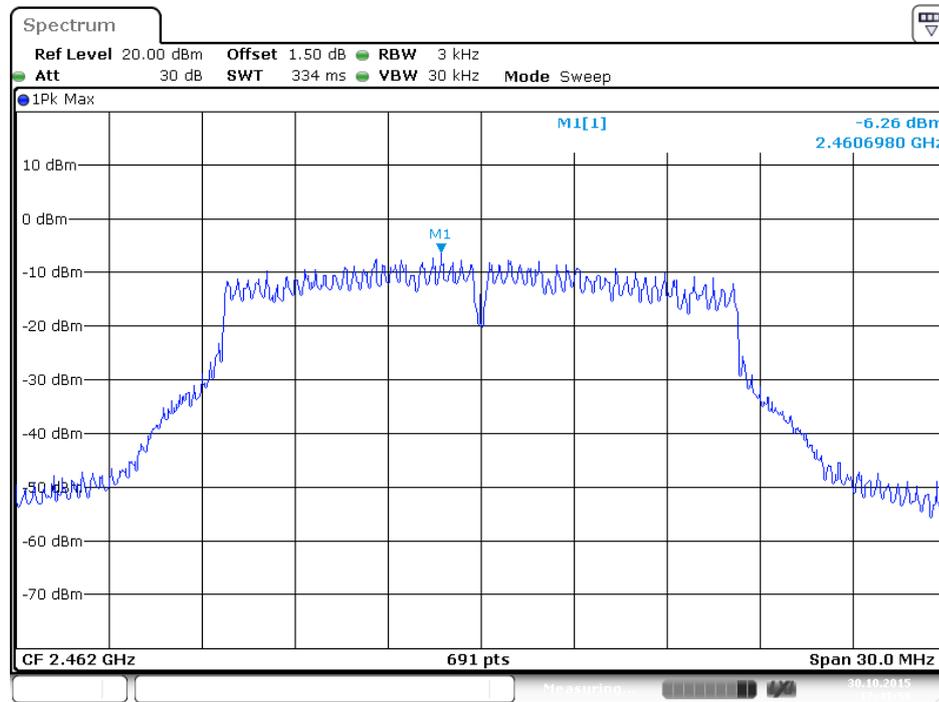
**Power Density Plot on Configuration IEEE 802.11g / 2462 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11g / 2462 MHz / Chain 2**

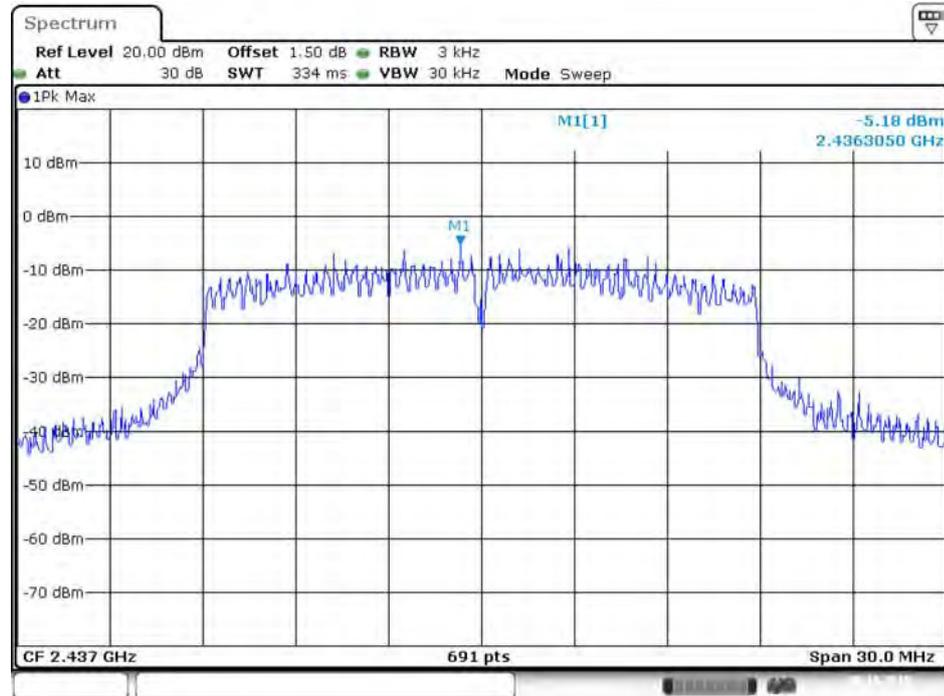


Power Density Plot on Configuration IEEE 802.11g / 2462 MHz / Chain 3



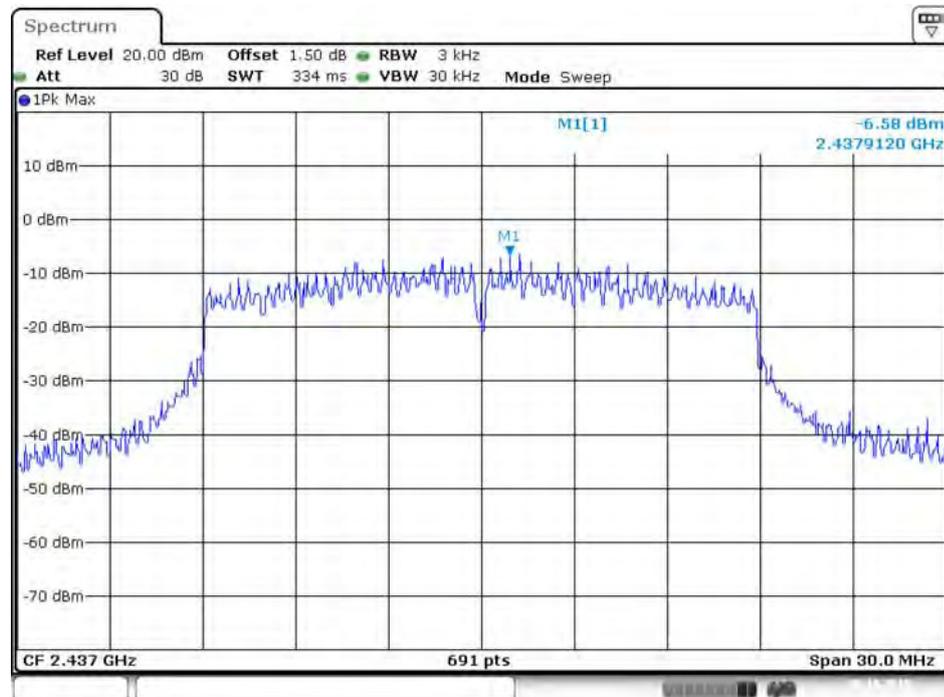
Date: 30.OCT.2015 17:41:59

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



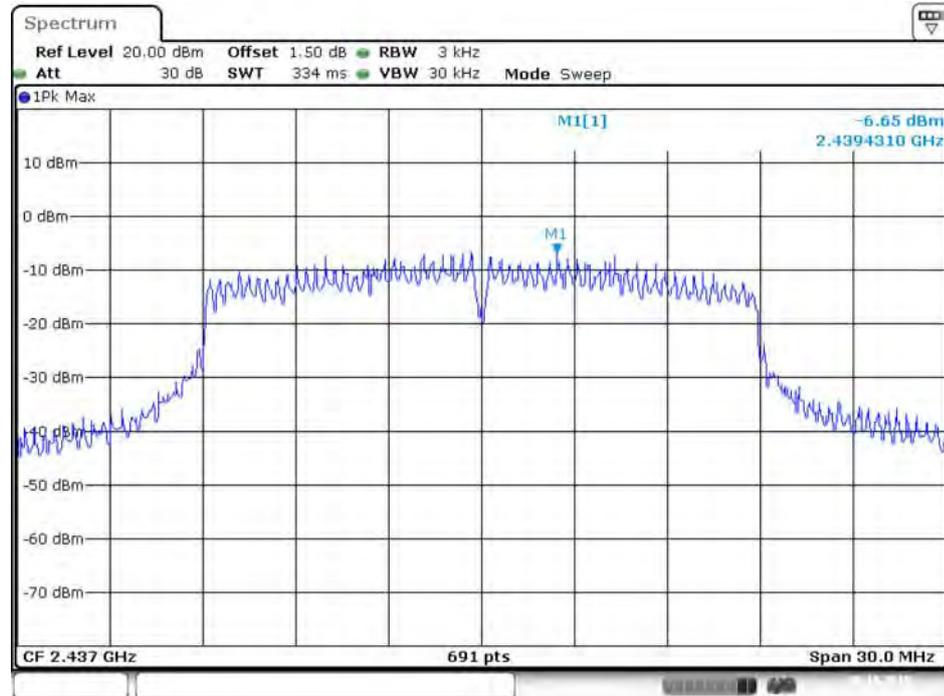
Date: 30.OCT.2015 01:03:10

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 2**



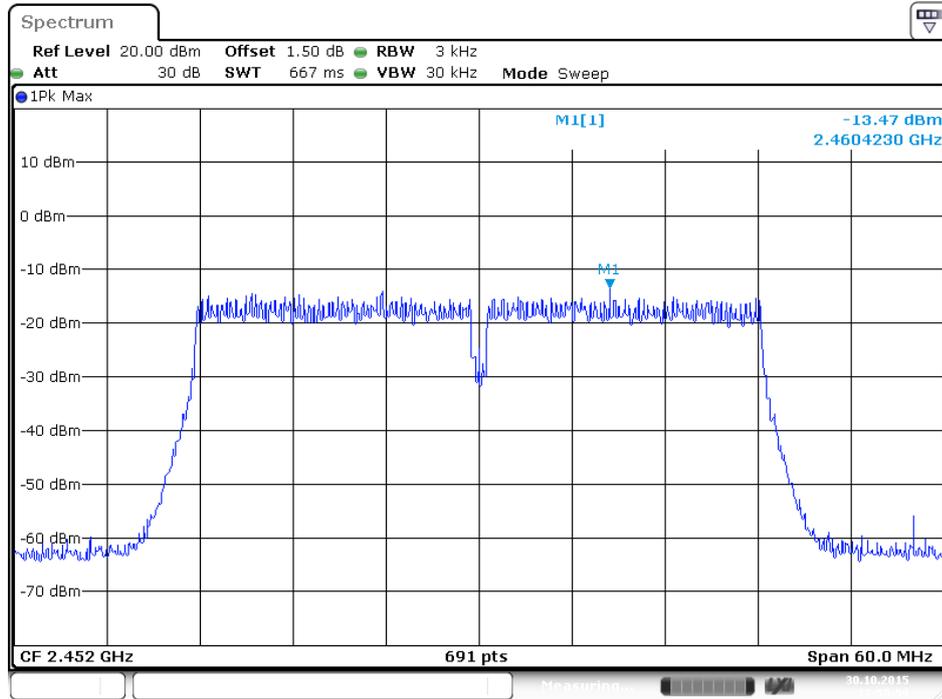
Date: 30.OCT.2015 01:03:22

### Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 3

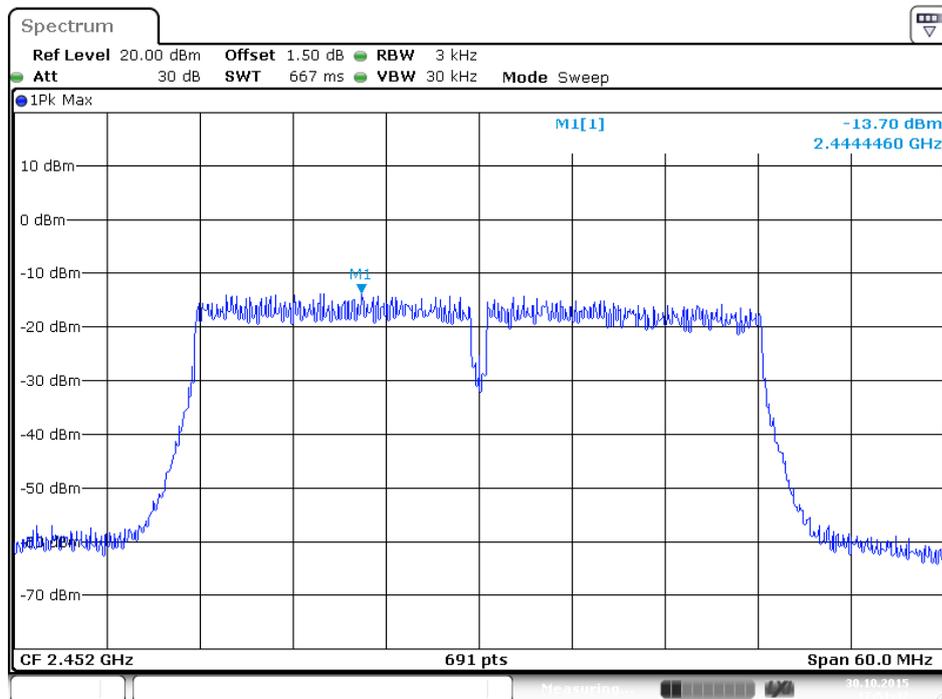


Date: 30.OCT.2015 01:03:34

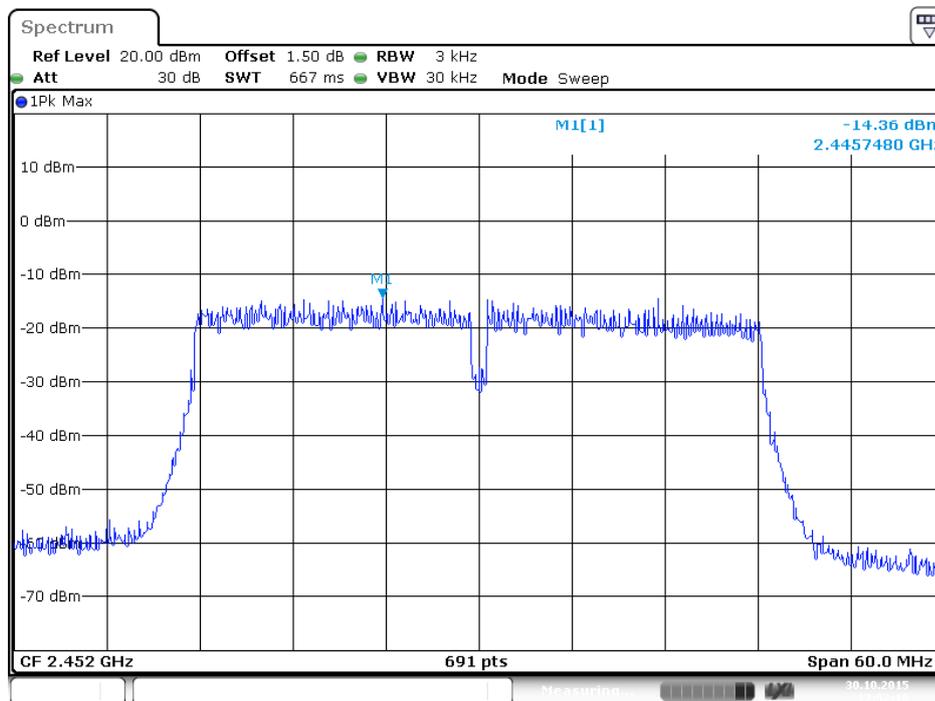
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2452 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2452 MHz / Chain 2**



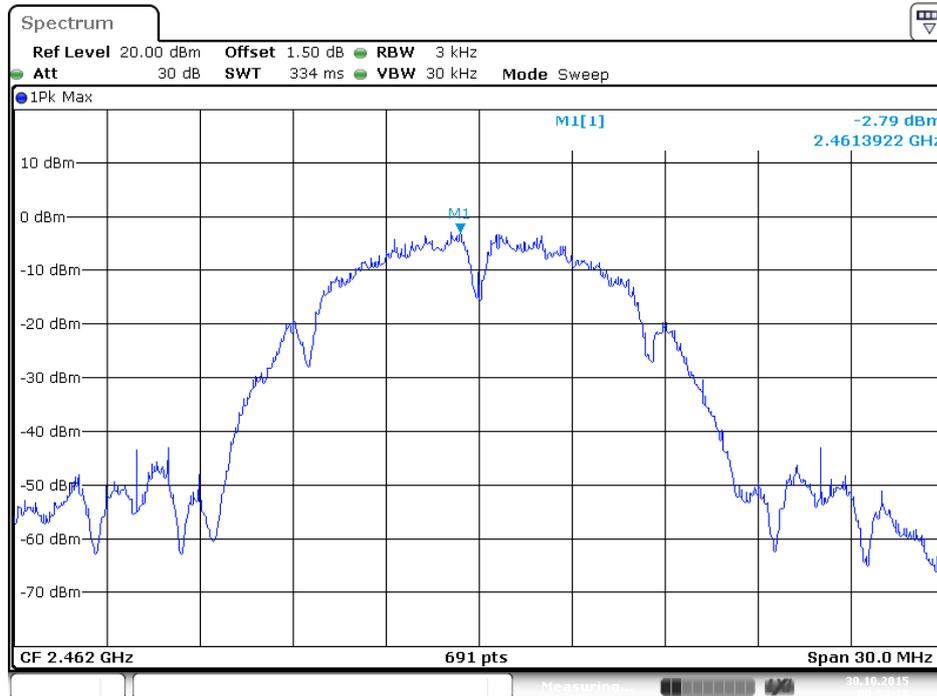
Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2452 MHz / Chain 3



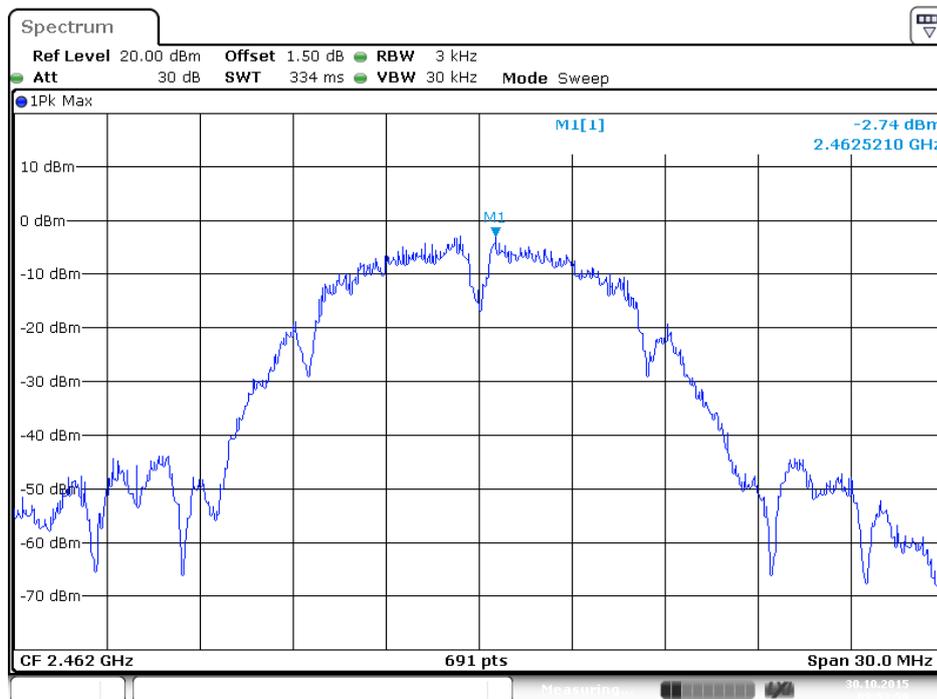
Date: 30.OCT.2015 17:52:17

Mode 2 (Set 5 Polarized Dipole antenna / (1A)2.53dBi\*2, (1B)3.93dBi\*1 + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)

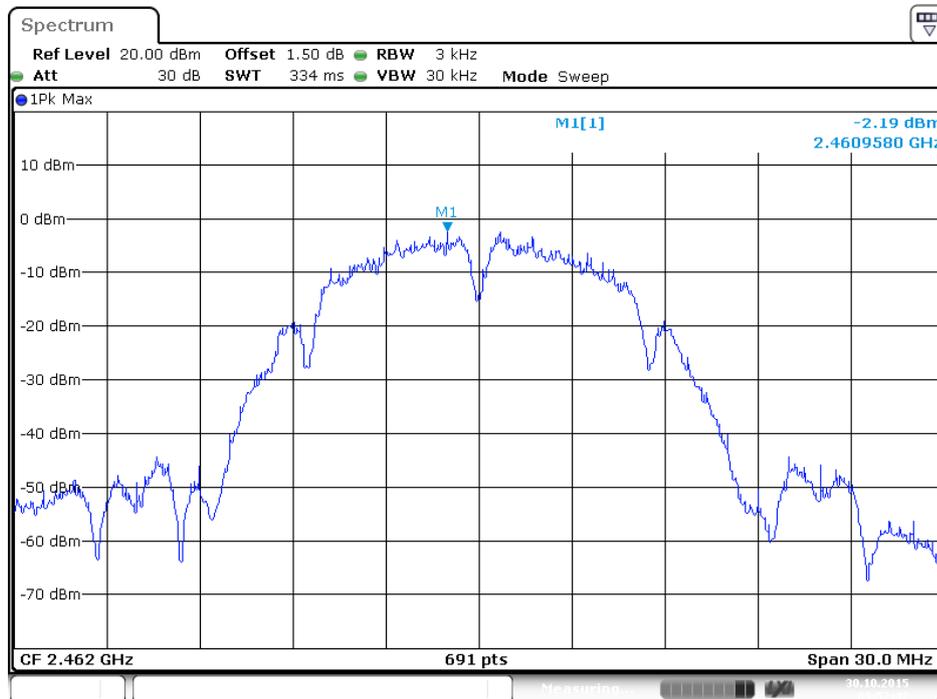
Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 1



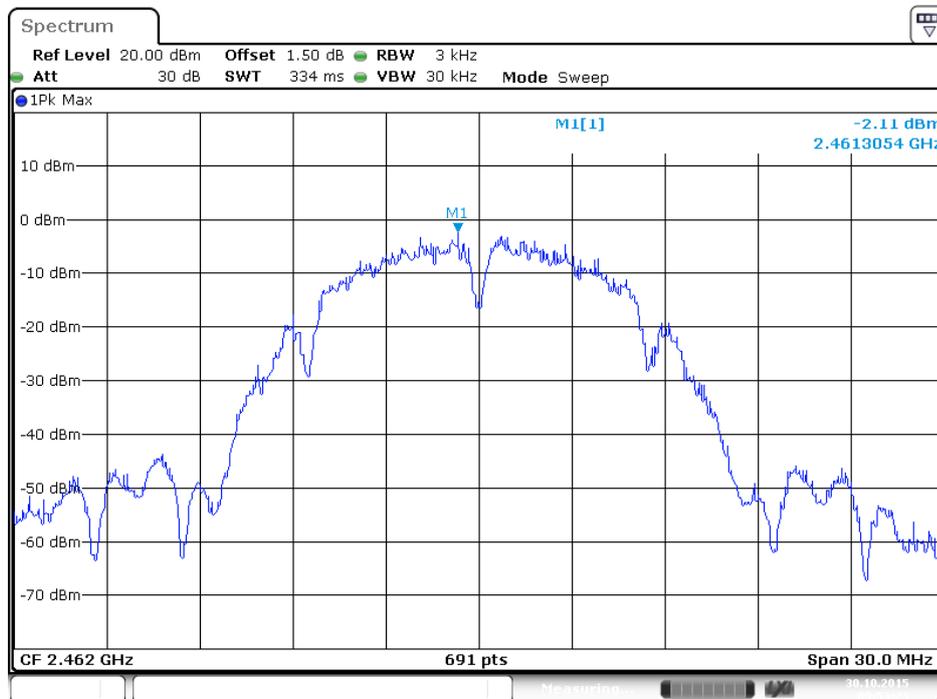
Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 2



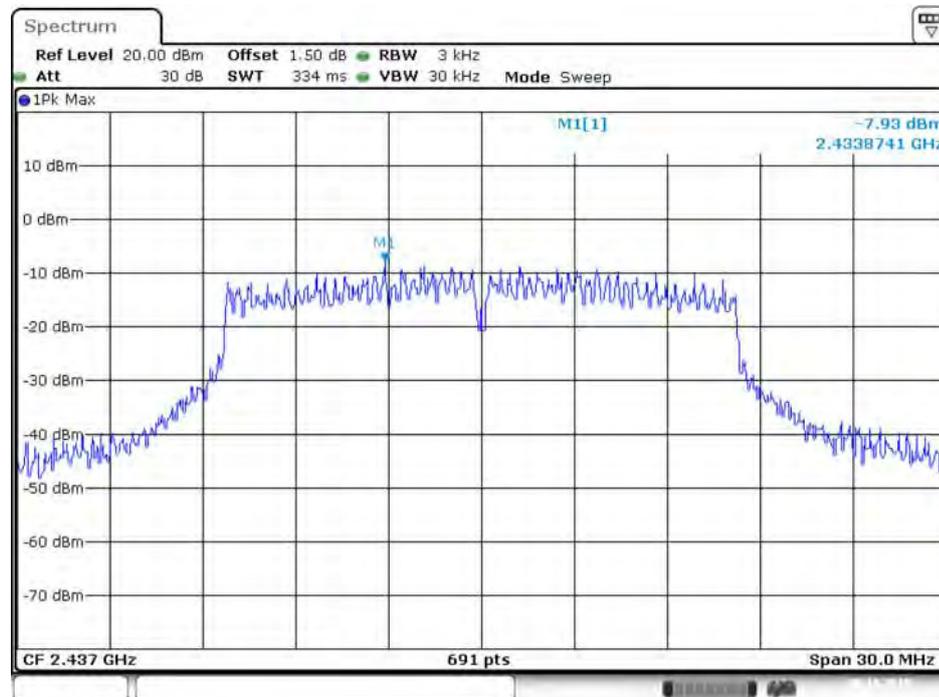
**Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 3**



**Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 4**

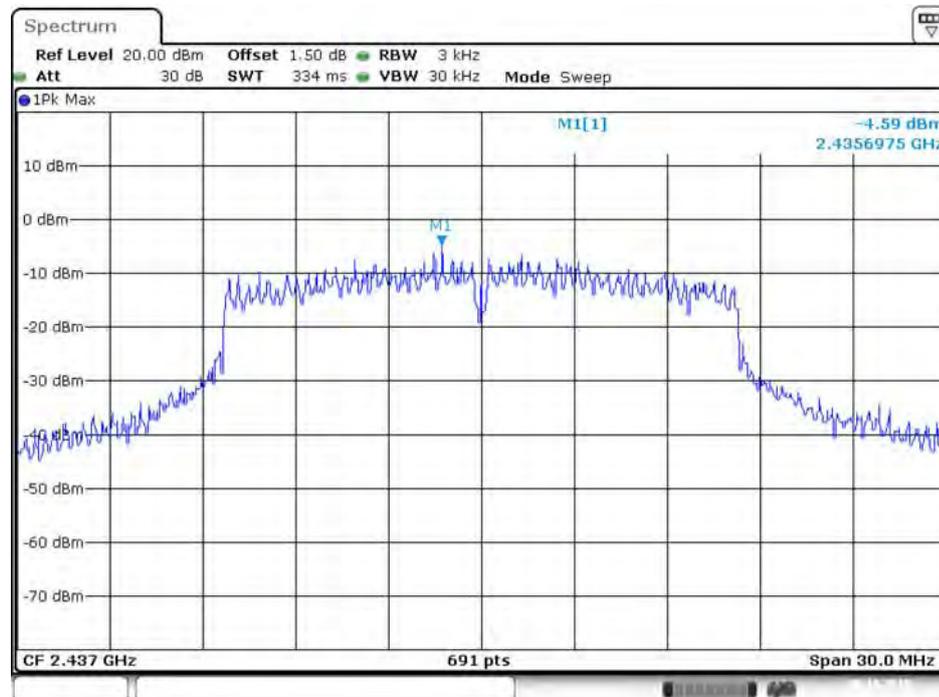


Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1



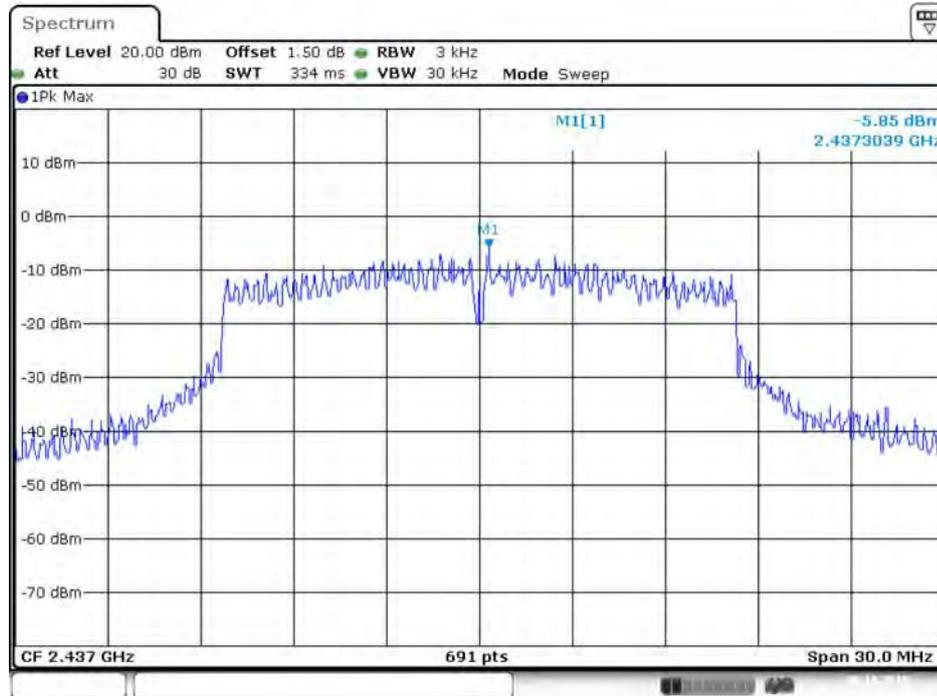
Date: 30.OCT.2015 01:47:56

Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 2



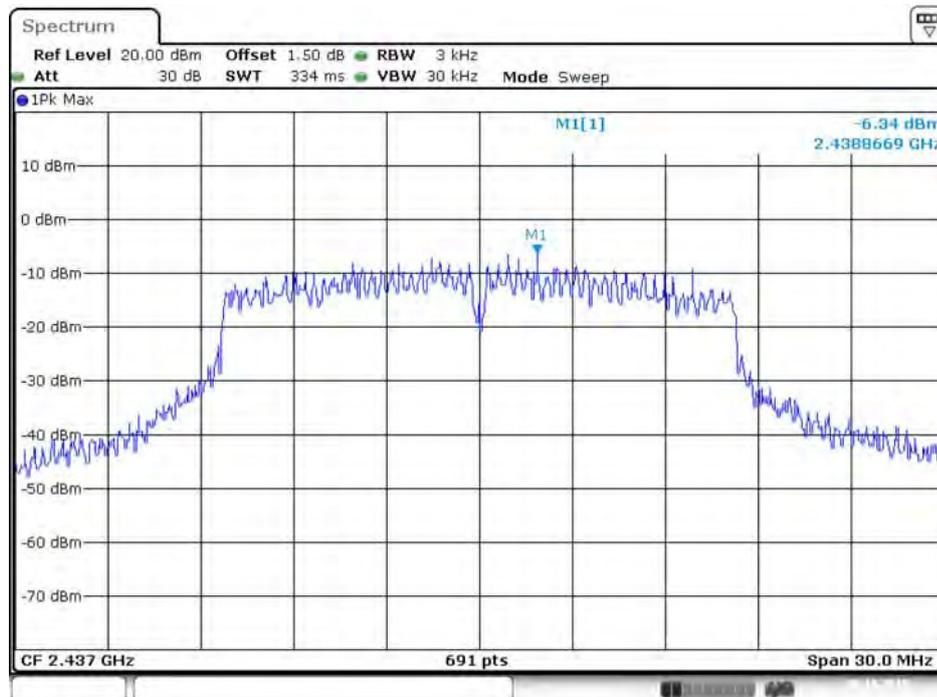
Date: 30.OCT.2015 01:48:07

**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 3**



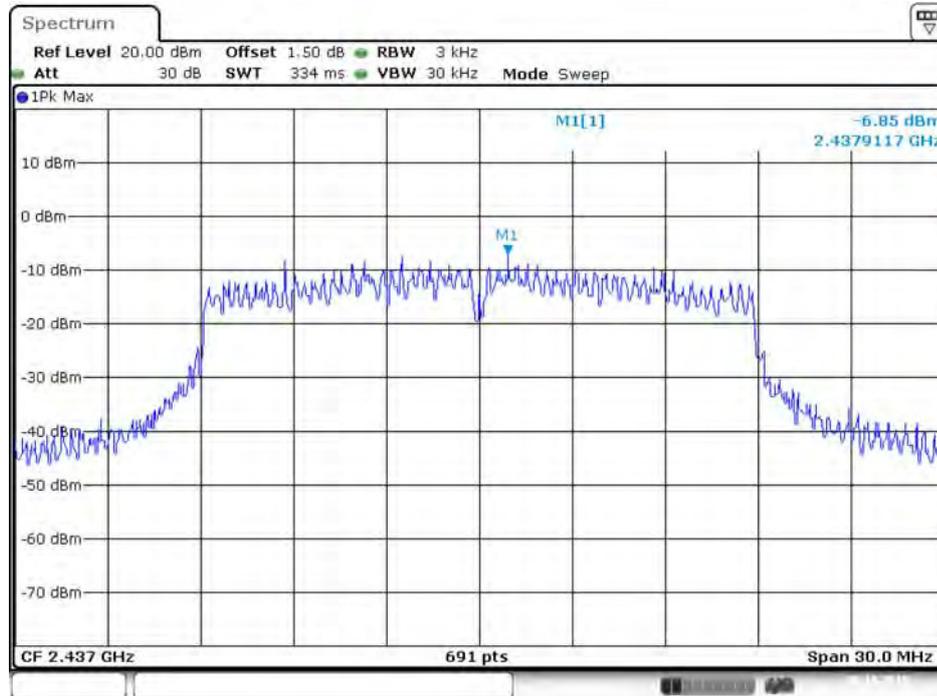
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**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 4**



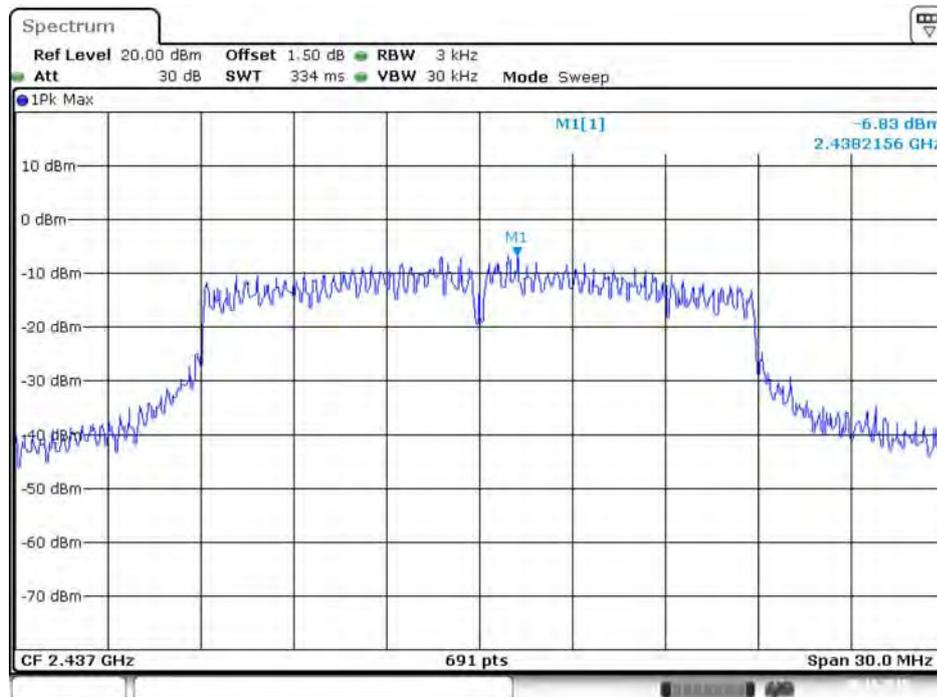
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**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**

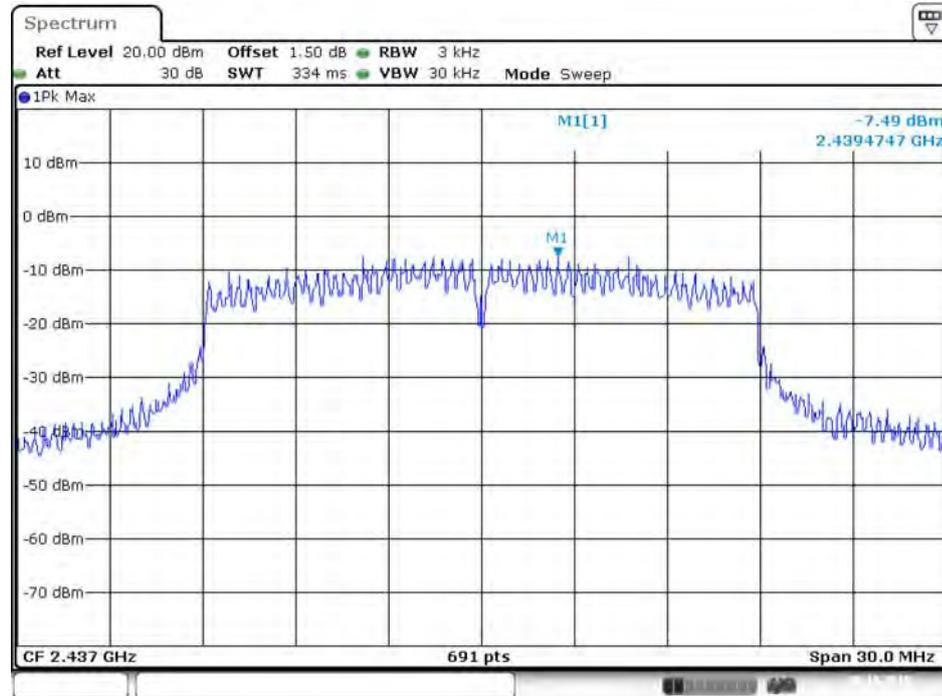


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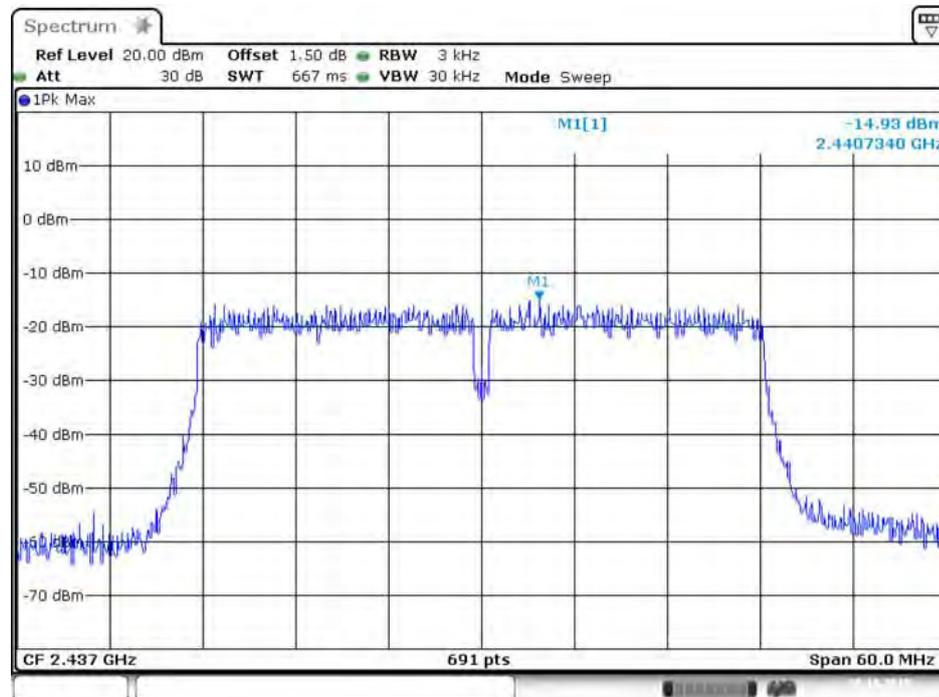
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 2**



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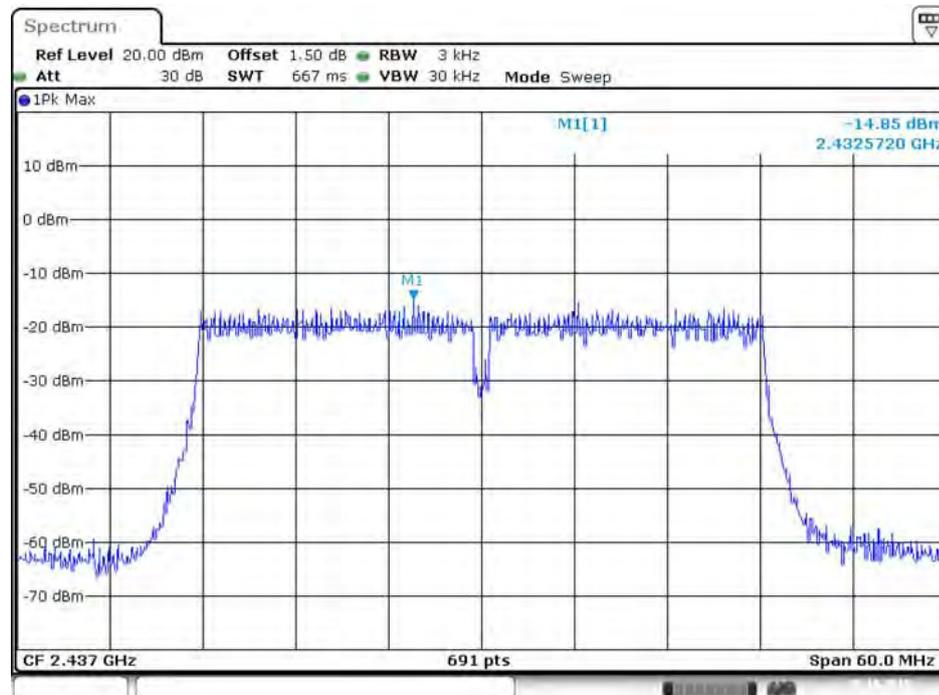
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 3****Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 4**

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 1**



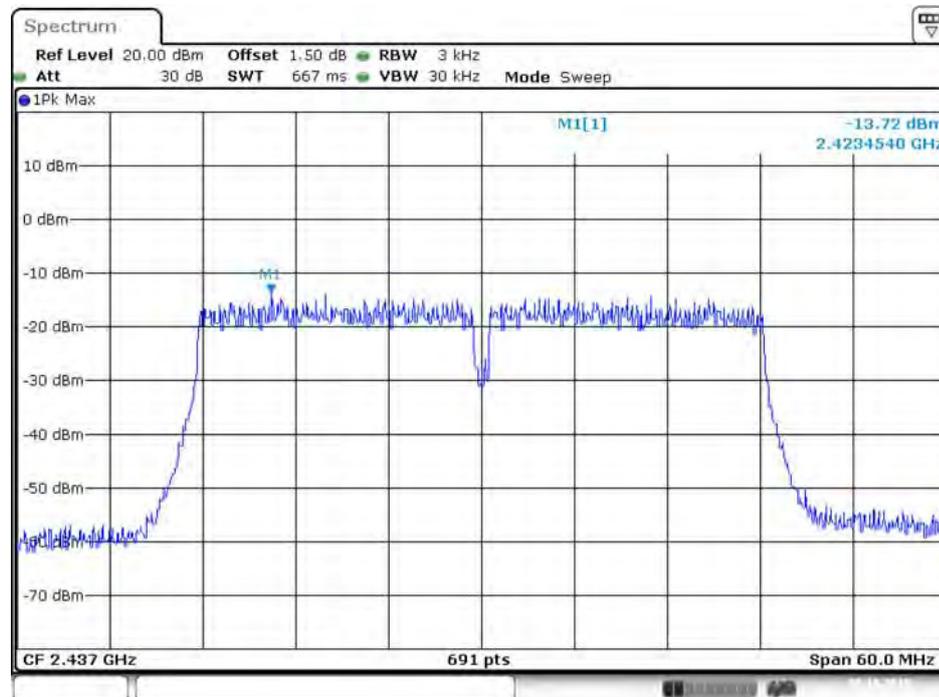
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**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 2**



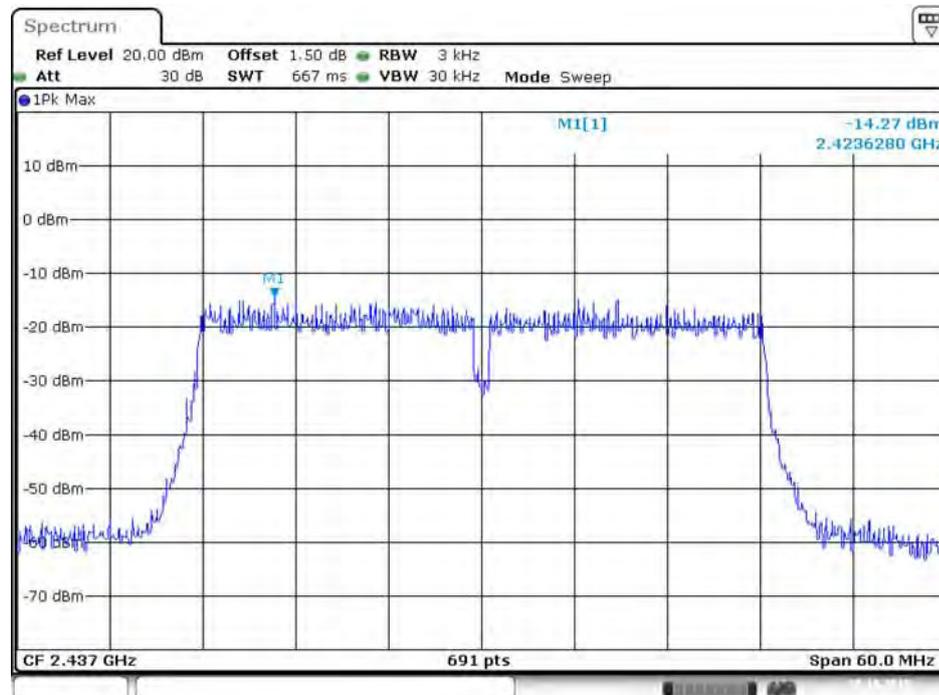
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**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 3**



Date: 30.OCT.2015 21:57:31

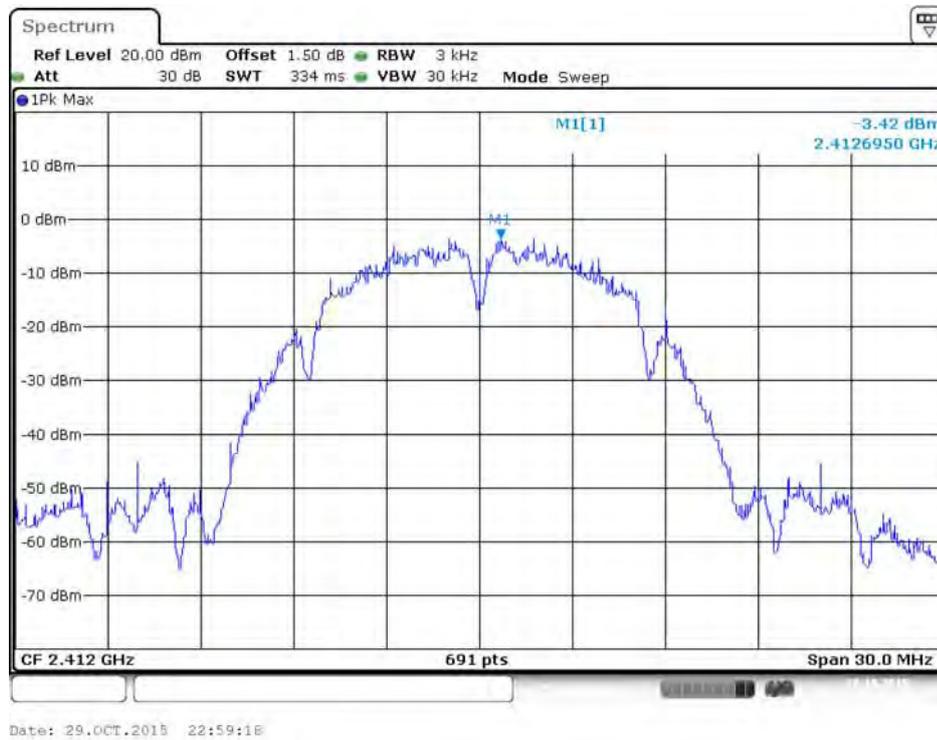
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 4**



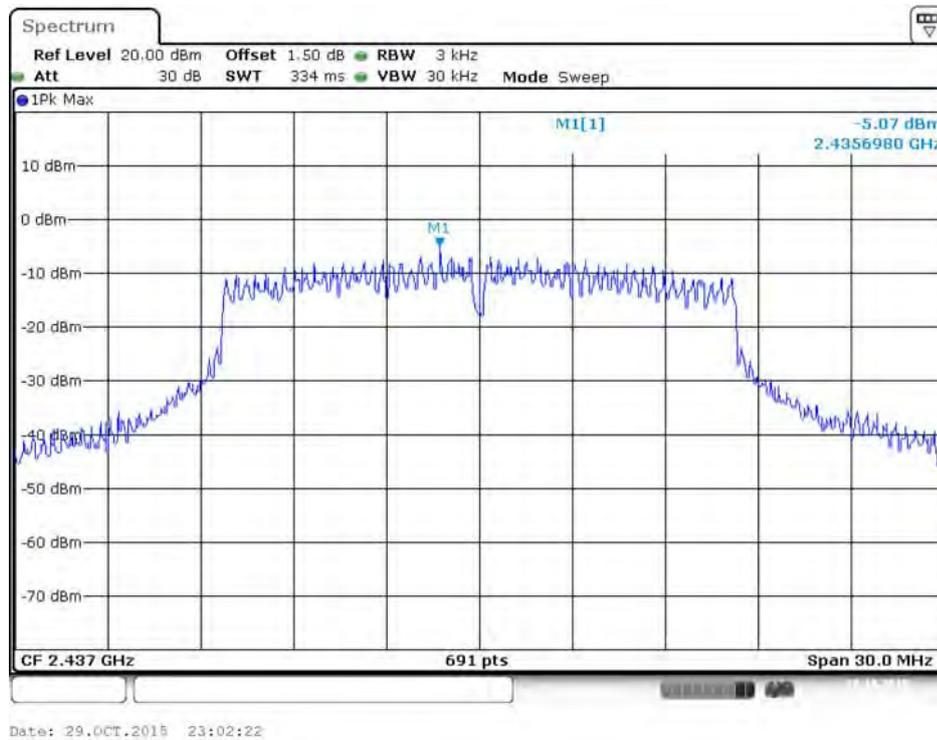
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**Mode 3 (Set 6 Panel antenna / 4.03dBi / 1TX)**

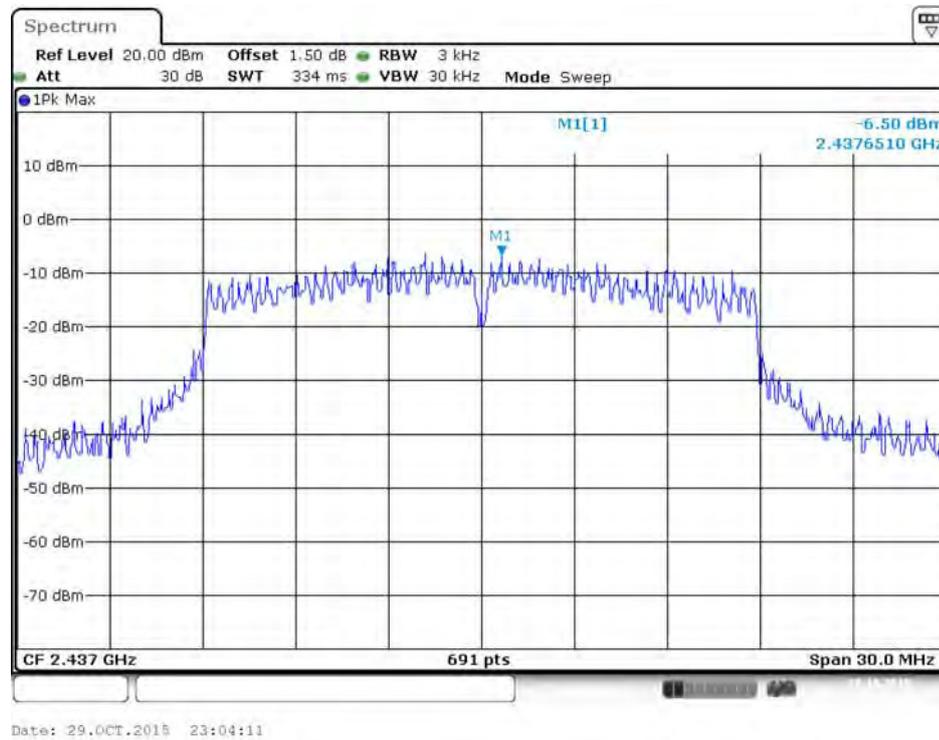
**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 1**



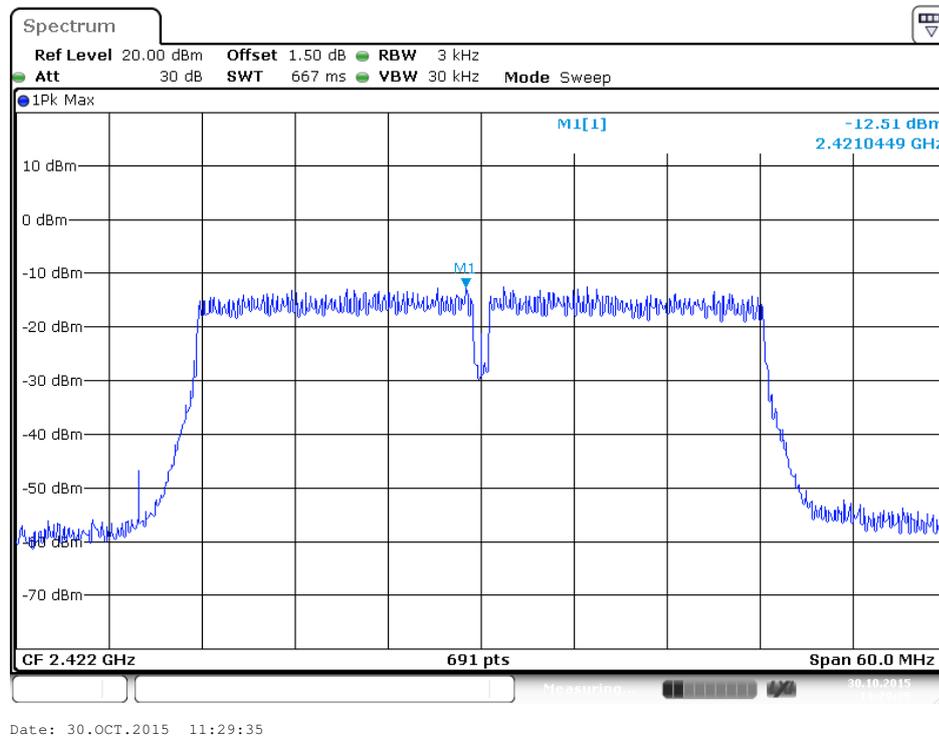
**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2422 MHz / Chain 1**

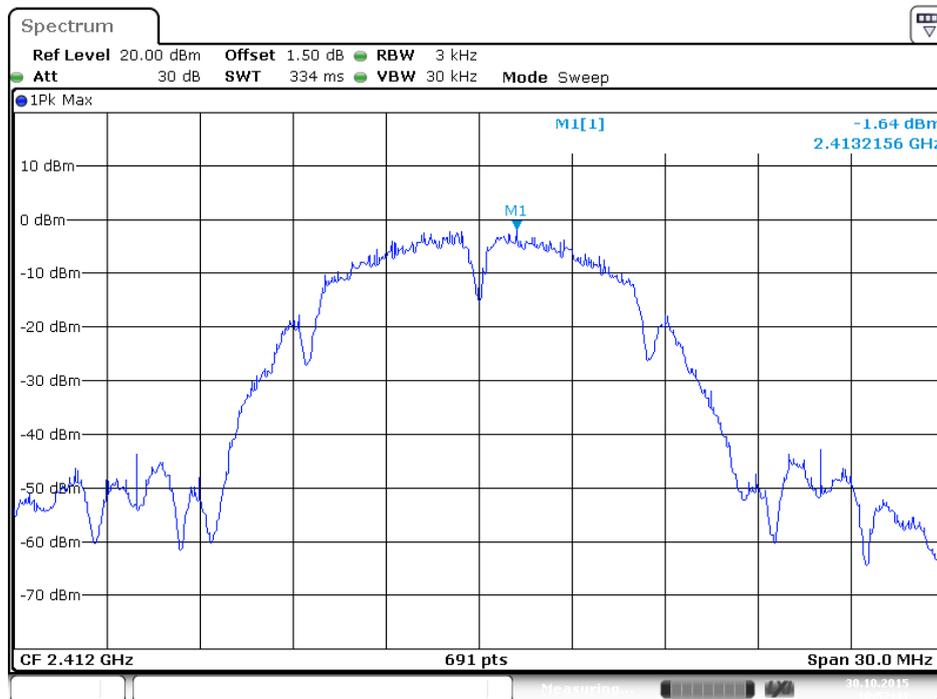


**Mode 3 (Set 6 Panel antenna / 4.03dBi / 2TX)**

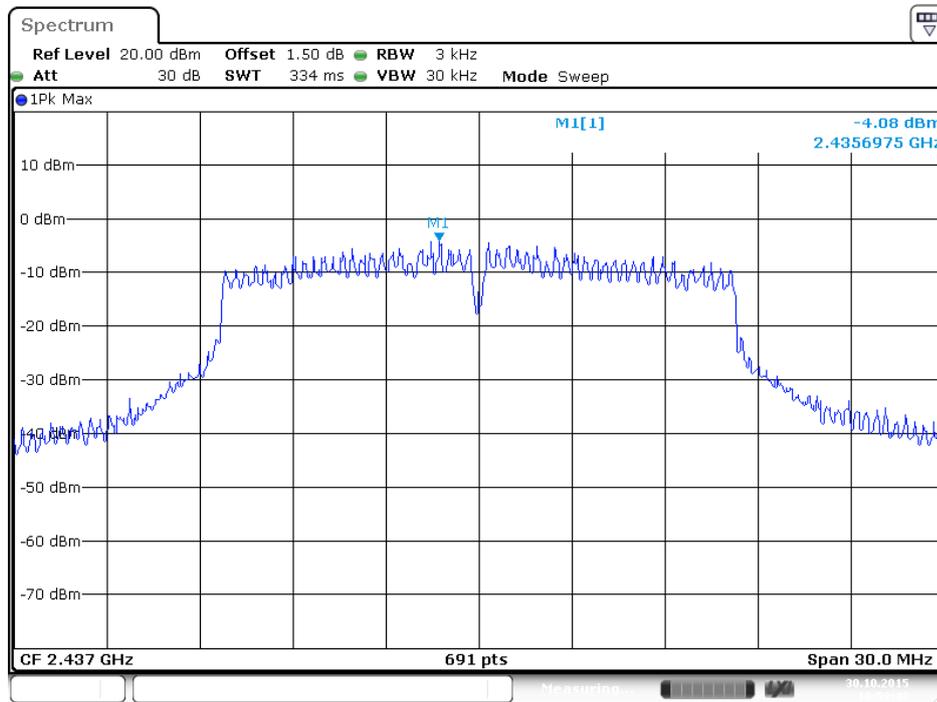
**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 1**



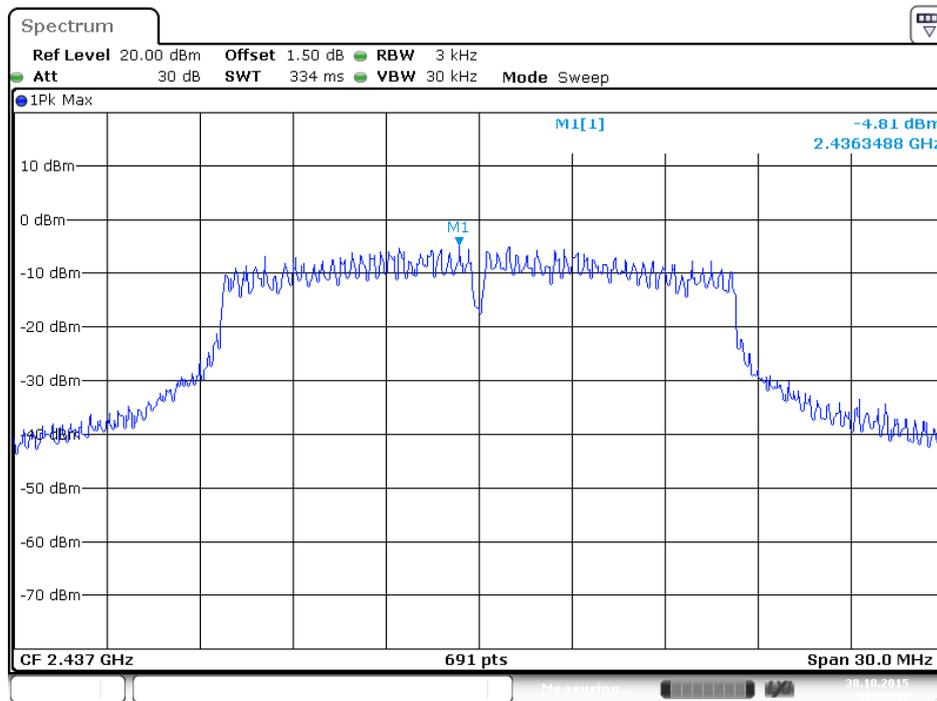
**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 3**



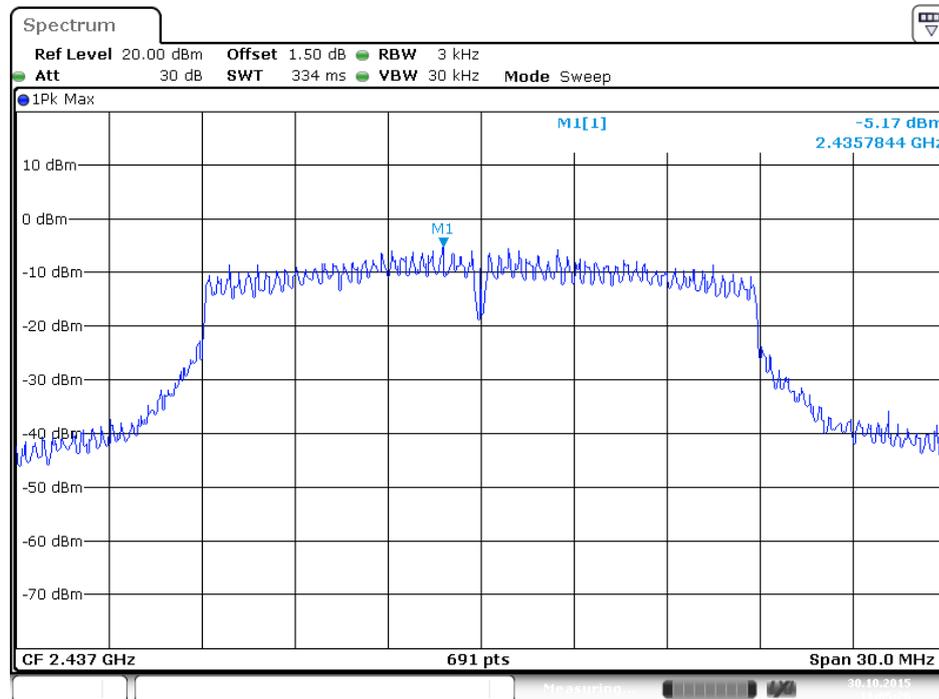
**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1**



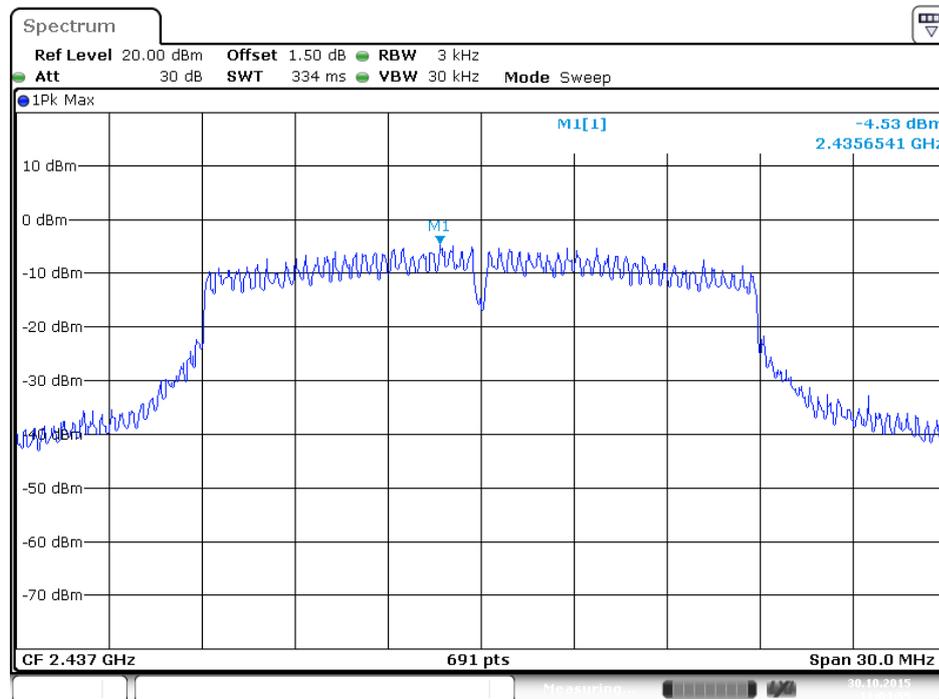
**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 3**



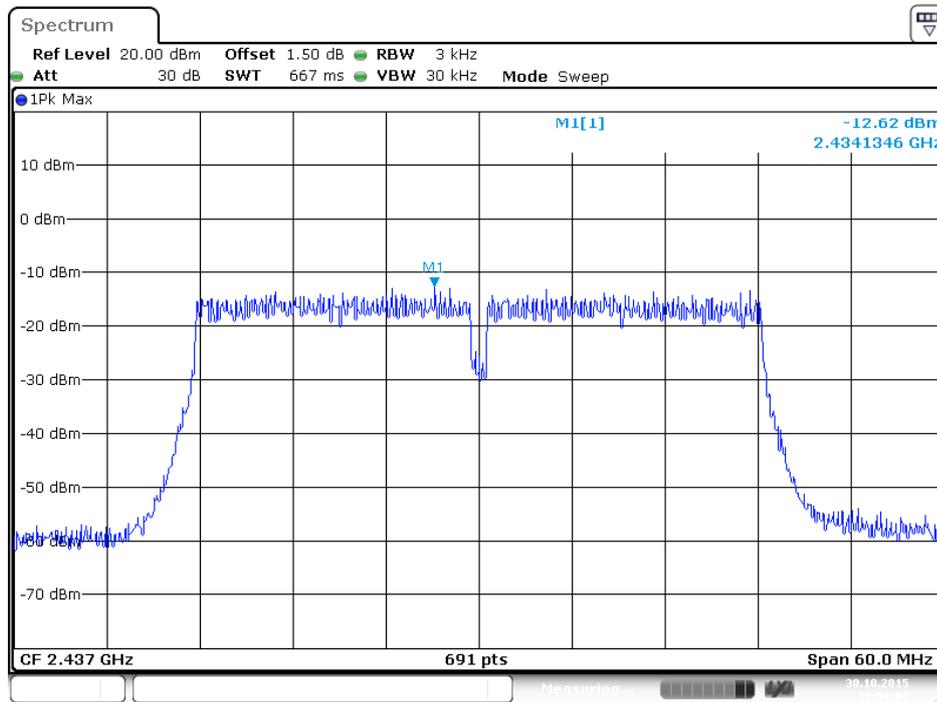
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



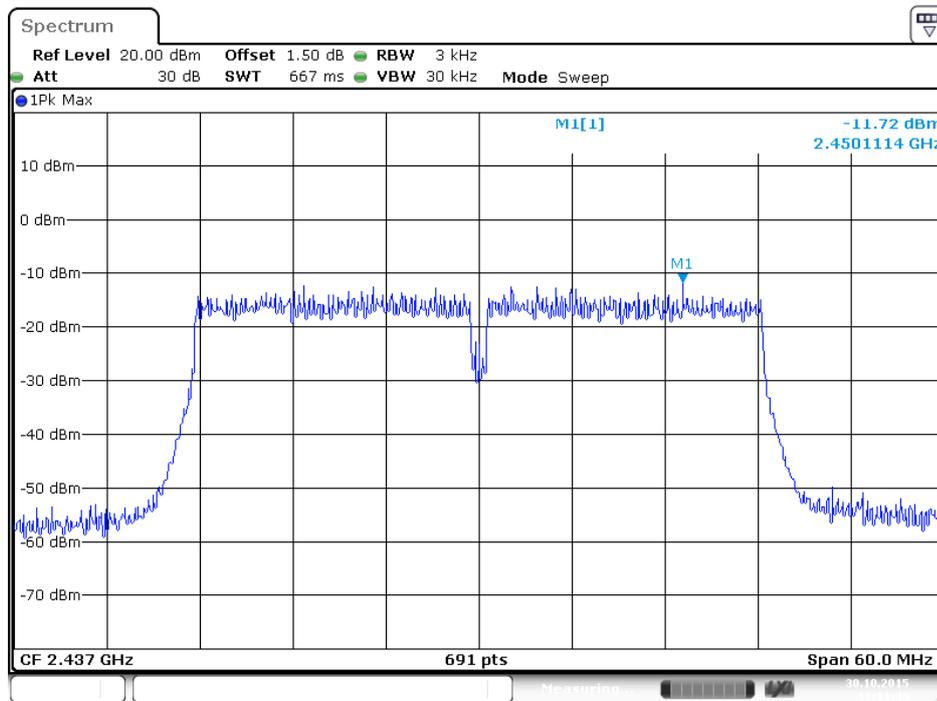
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 3**



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 1**

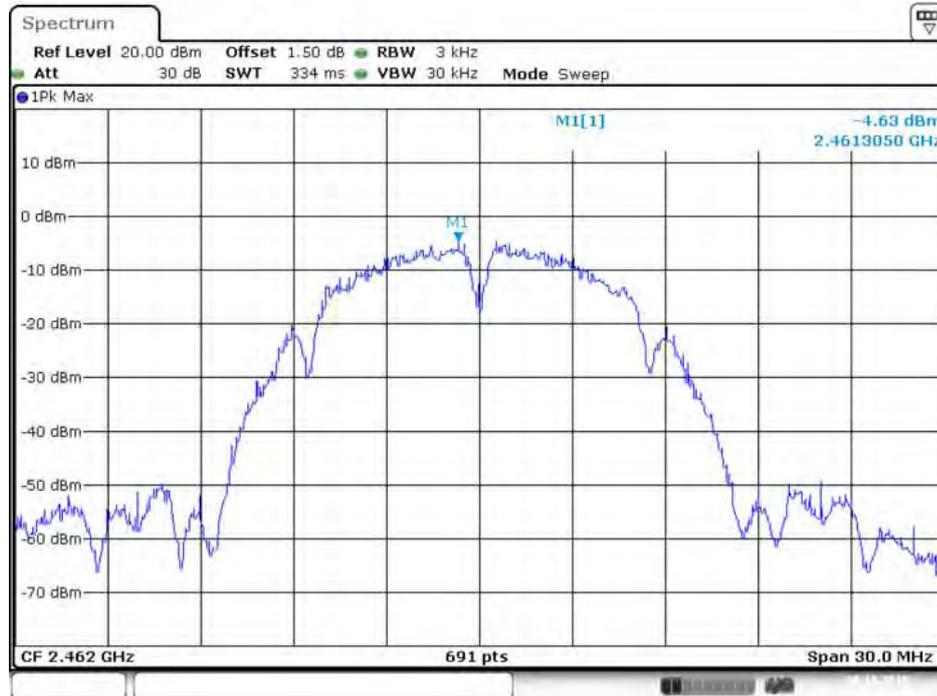


**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 3**



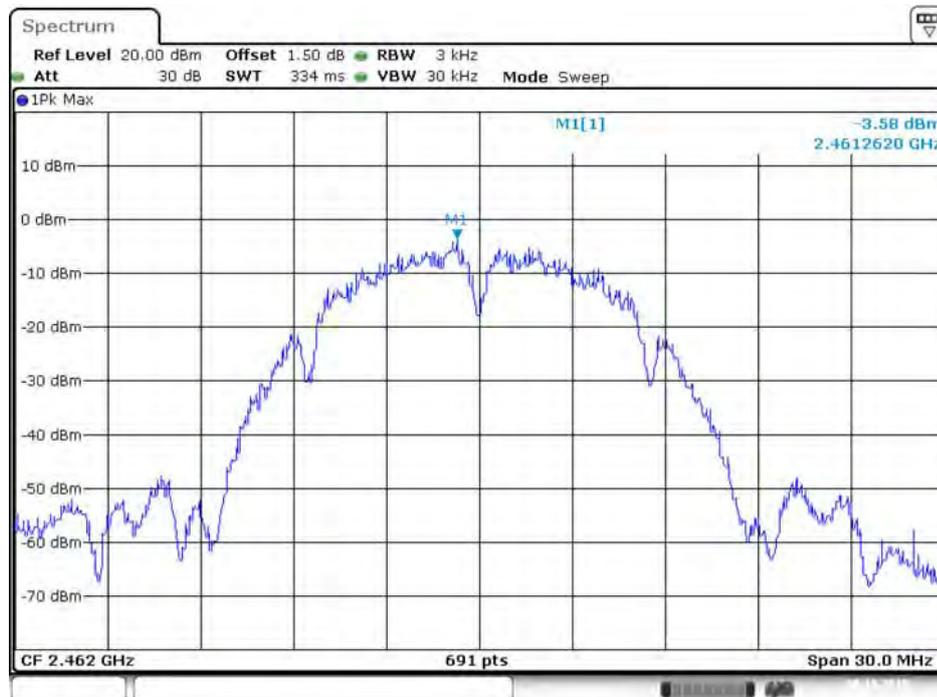
**Mode 3 (Set 6 Panel antenna / 4.03dBi / 3TX)**

**Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 1**



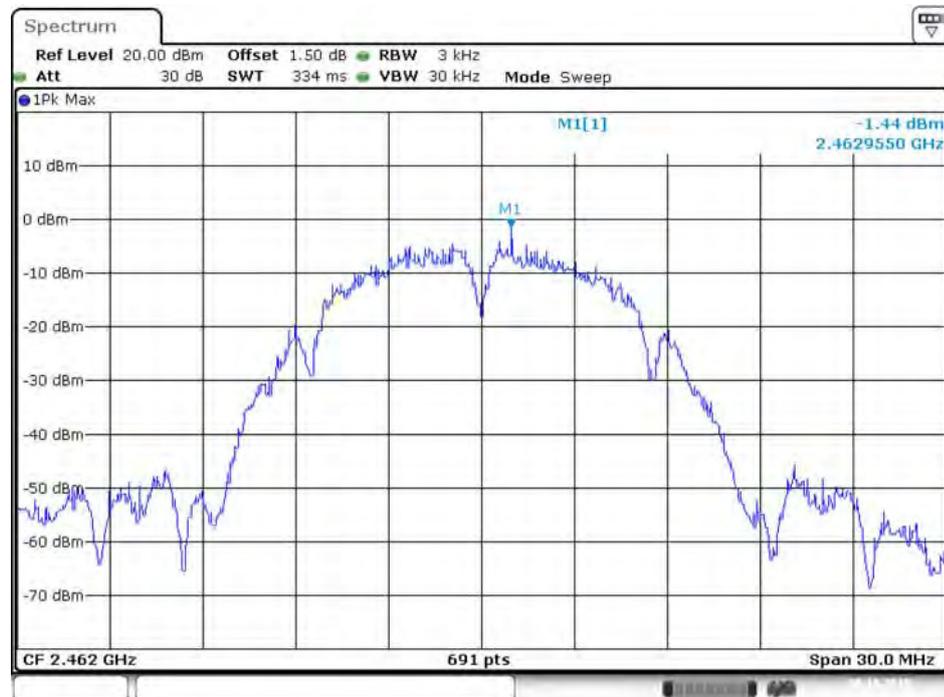
Date: 30.OCT.2015 00:56:08

**Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 2**

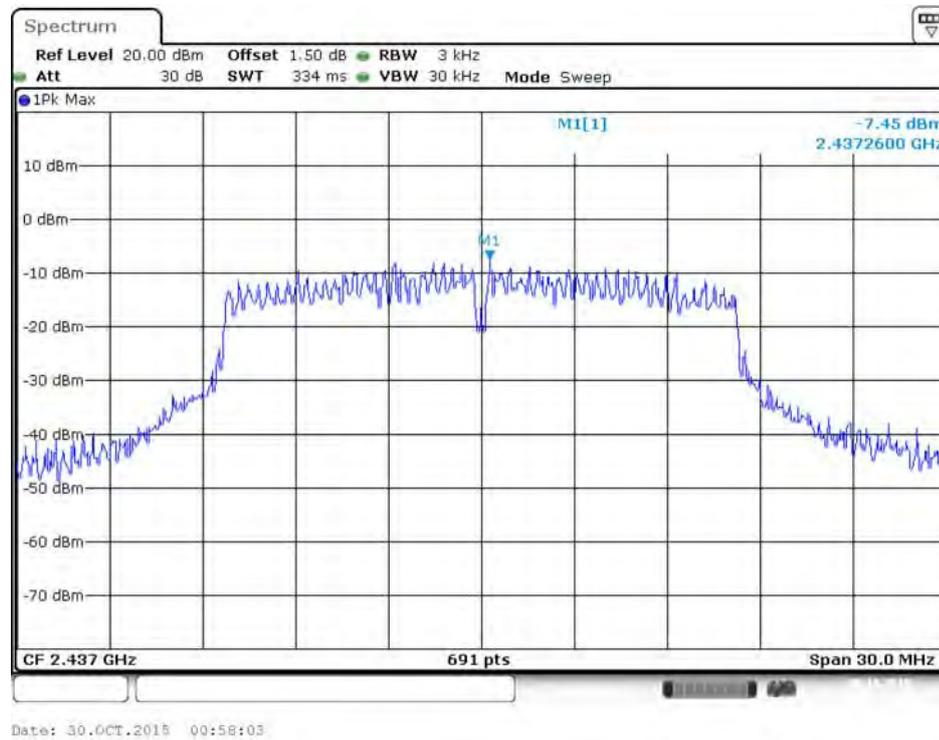


Date: 30.OCT.2015 00:56:22

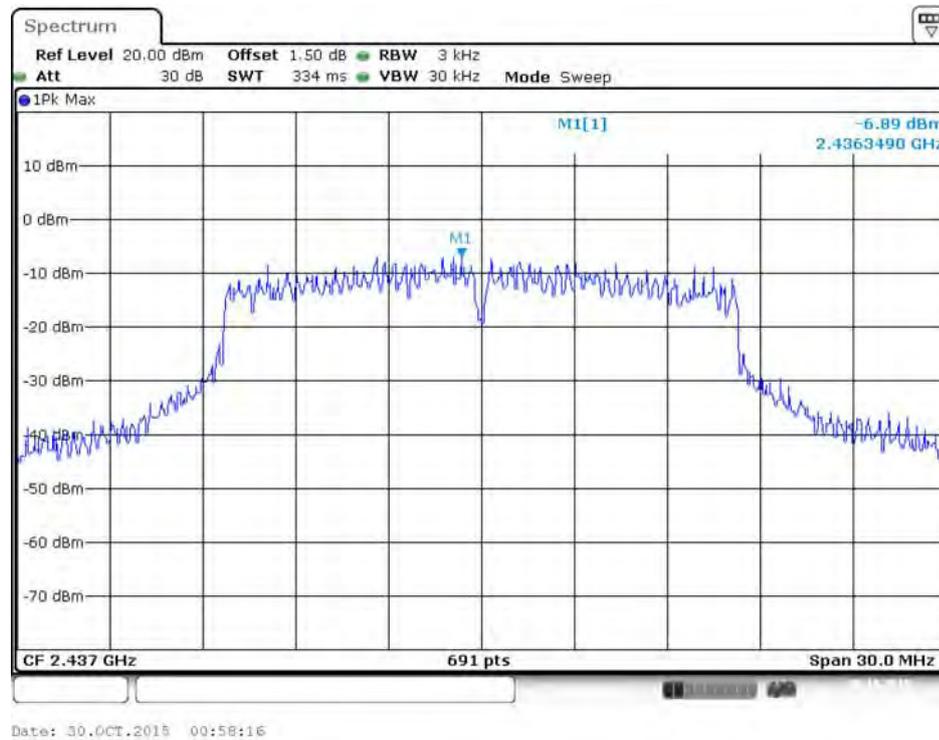
### Power Density Plot on Configuration IEEE 802.11b / 2462 MHz / Chain 3



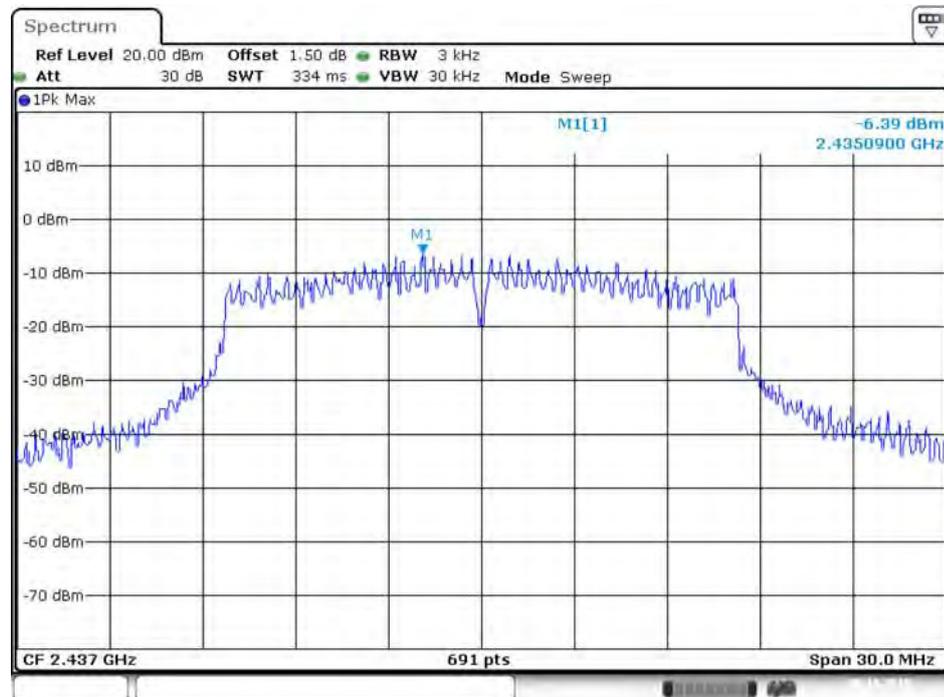
**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 2**

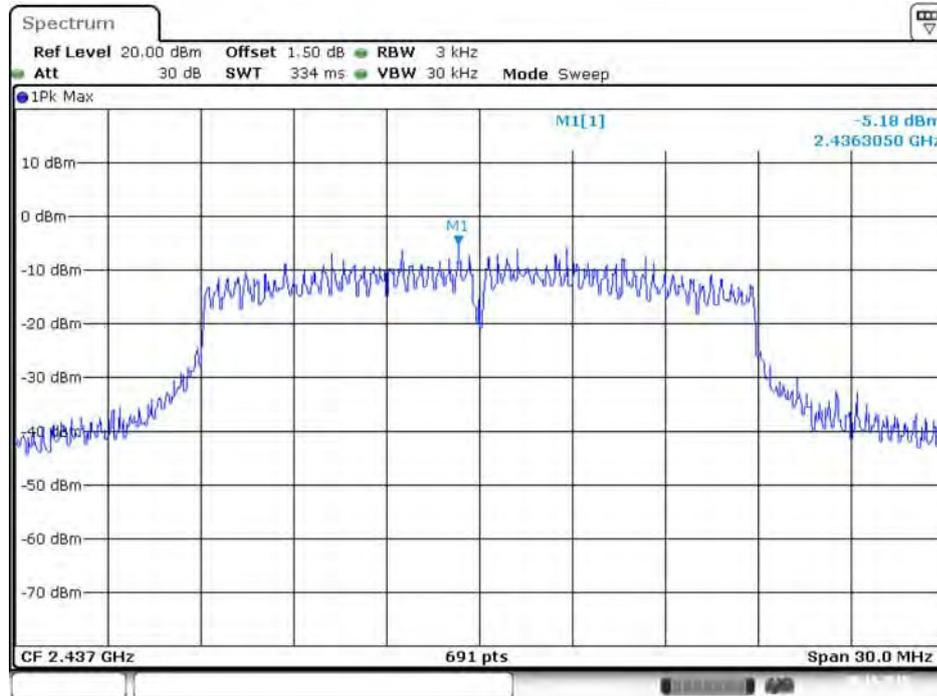


### Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 3



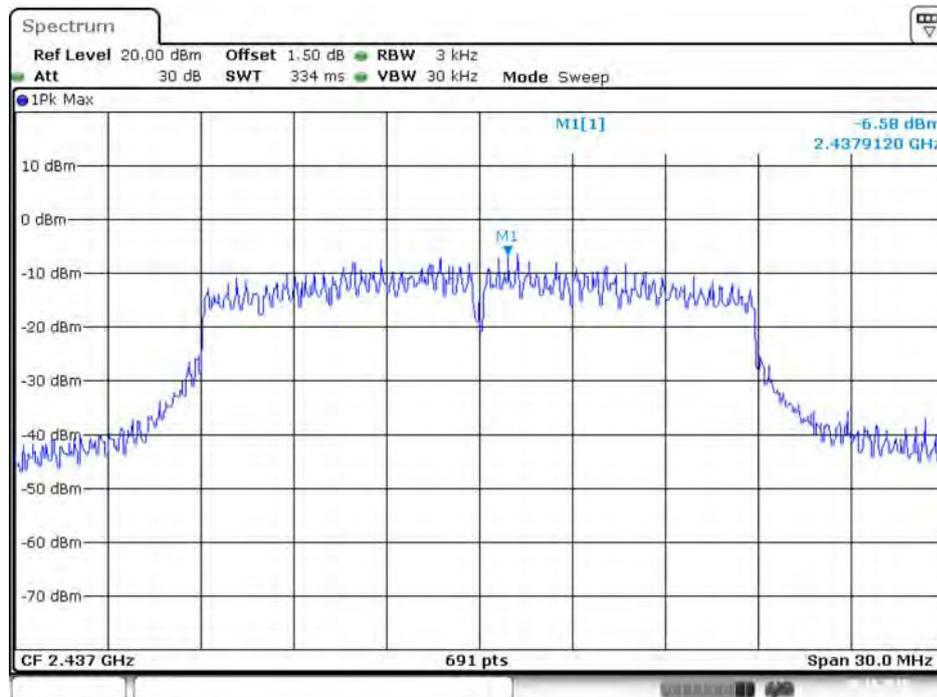
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**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



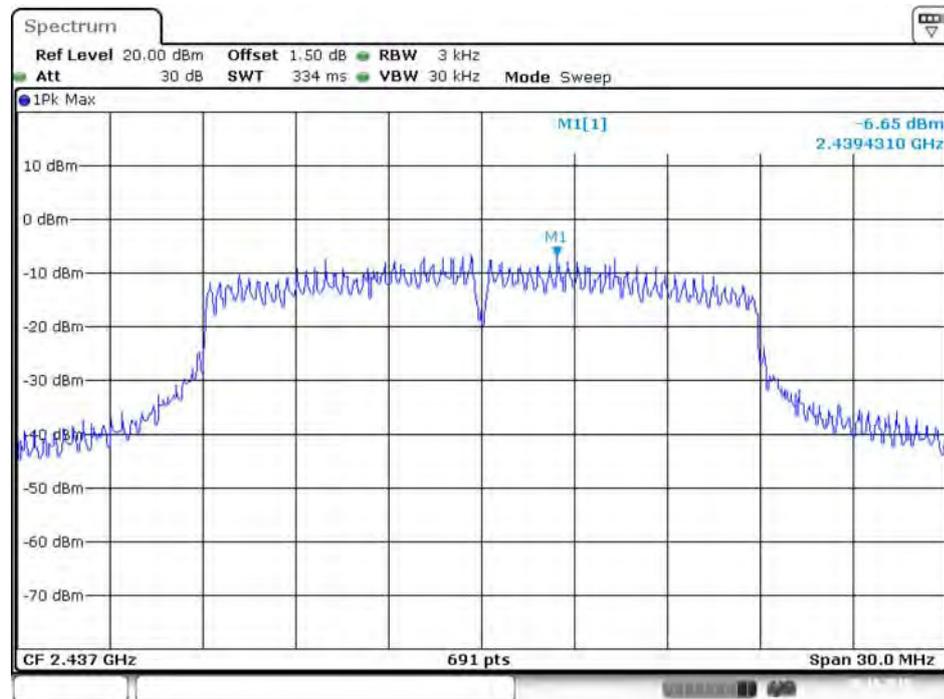
Date: 30.OCT.2015 01:03:10

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 2**



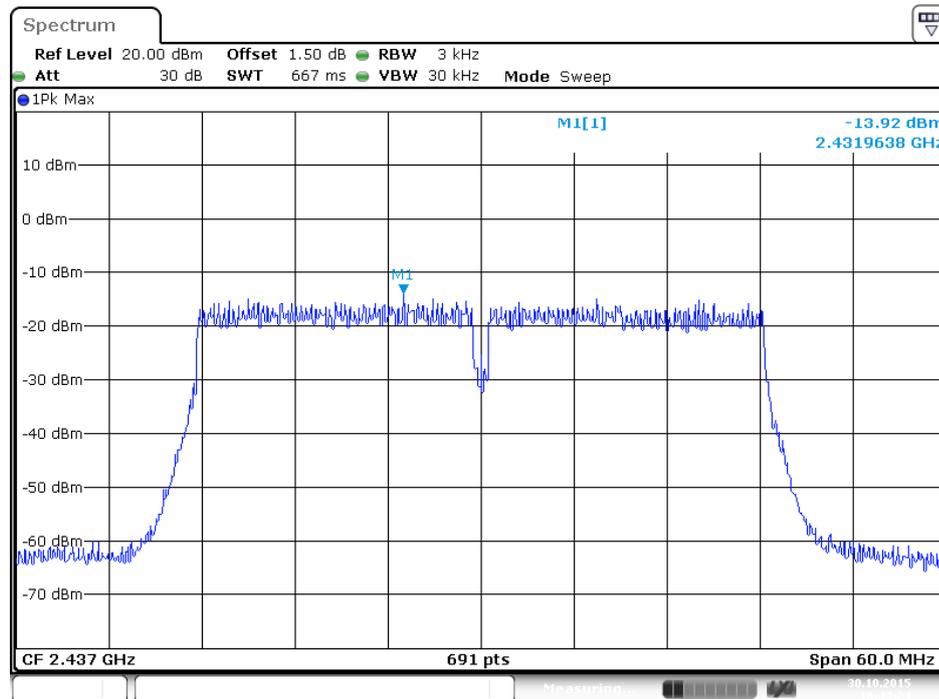
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### Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 3

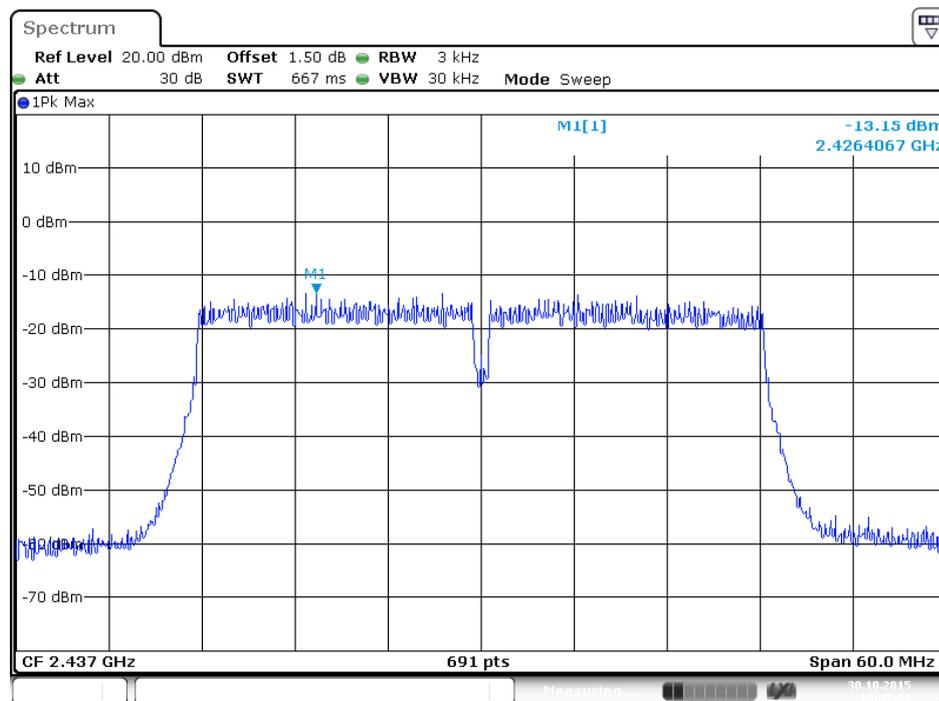


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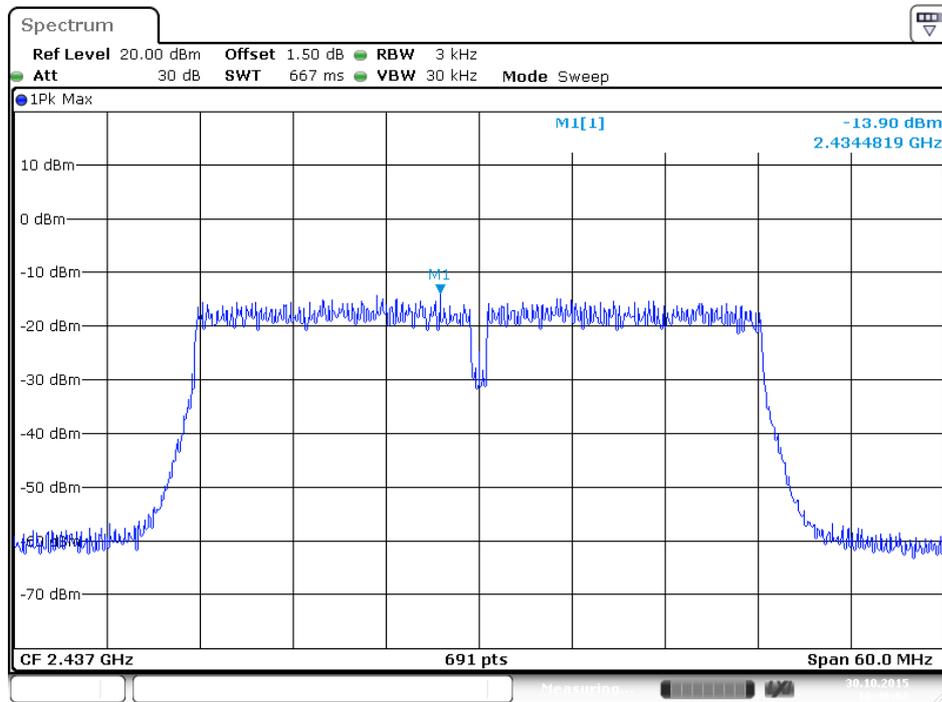
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 2**

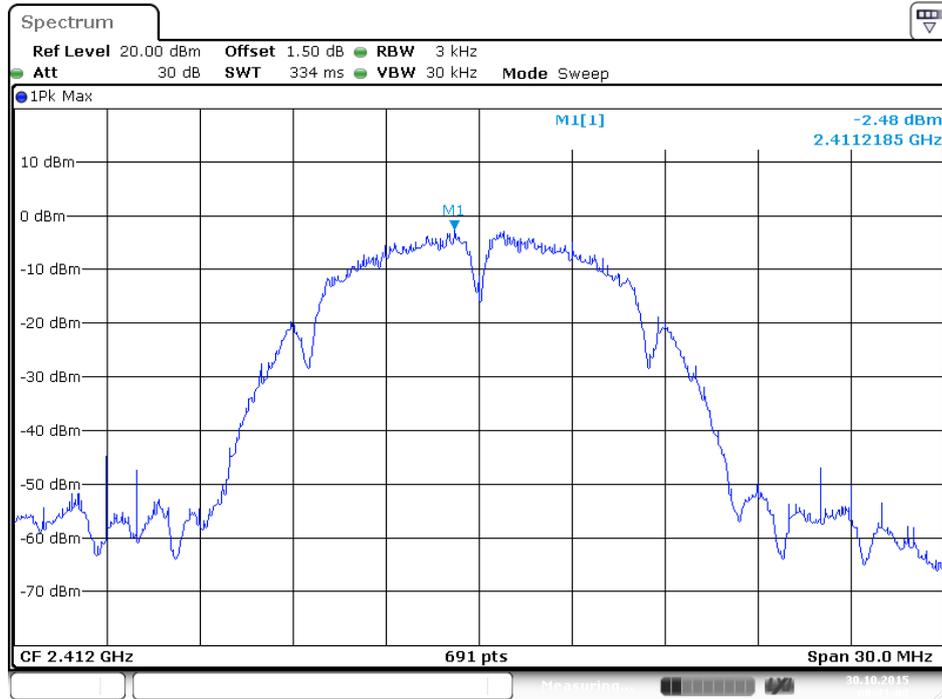


Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 3

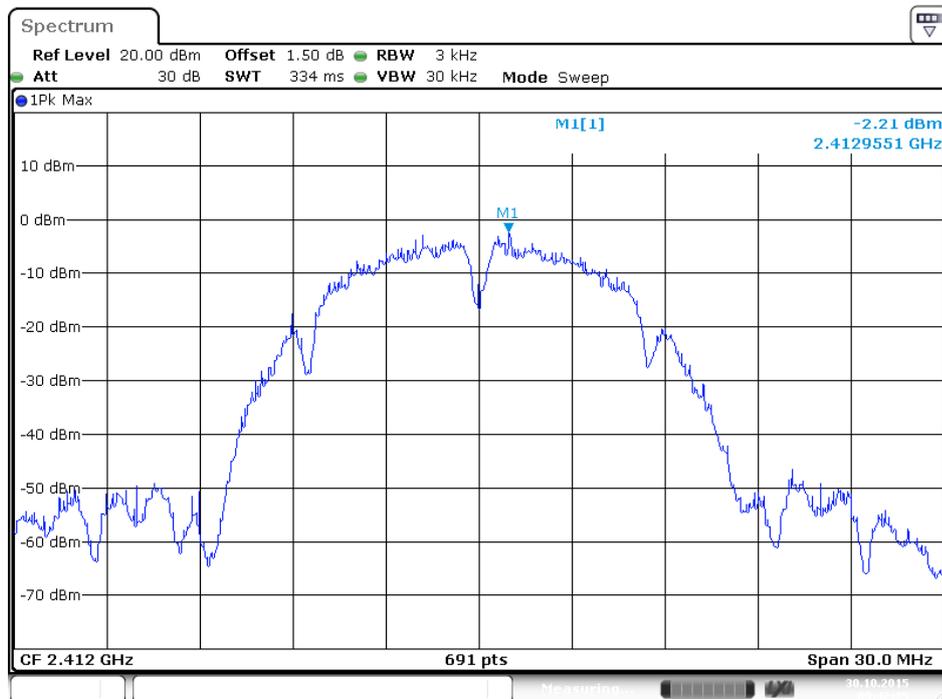


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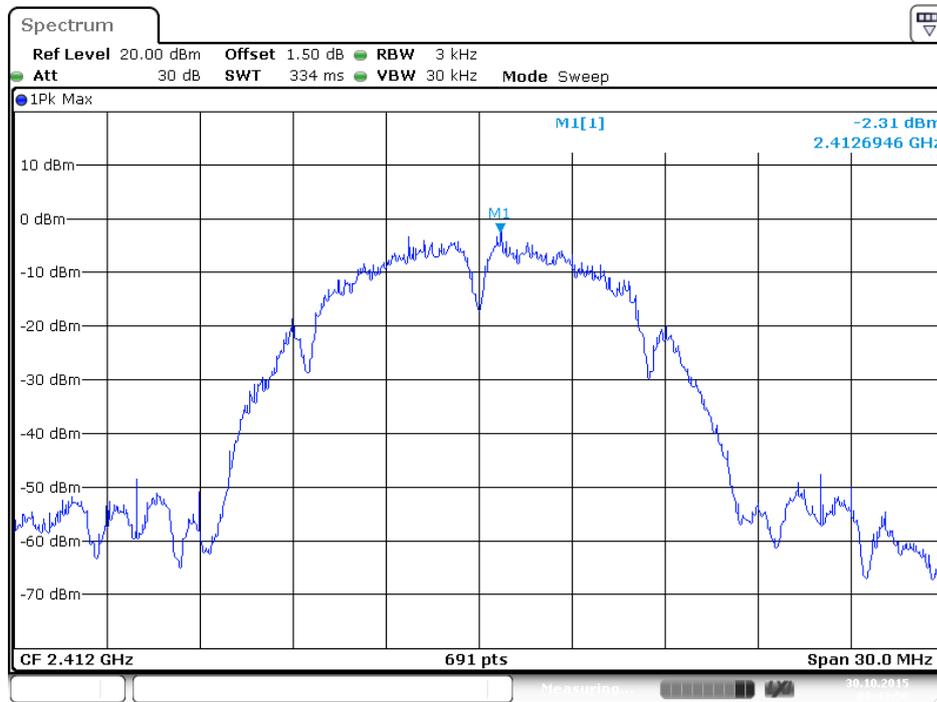
**Mode 3 (Set 6 Panel antenna / 4.03dBi + Set 9 Monopole antenna / Chain 4: 4.5dBi / 4TX)**  
**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 1**



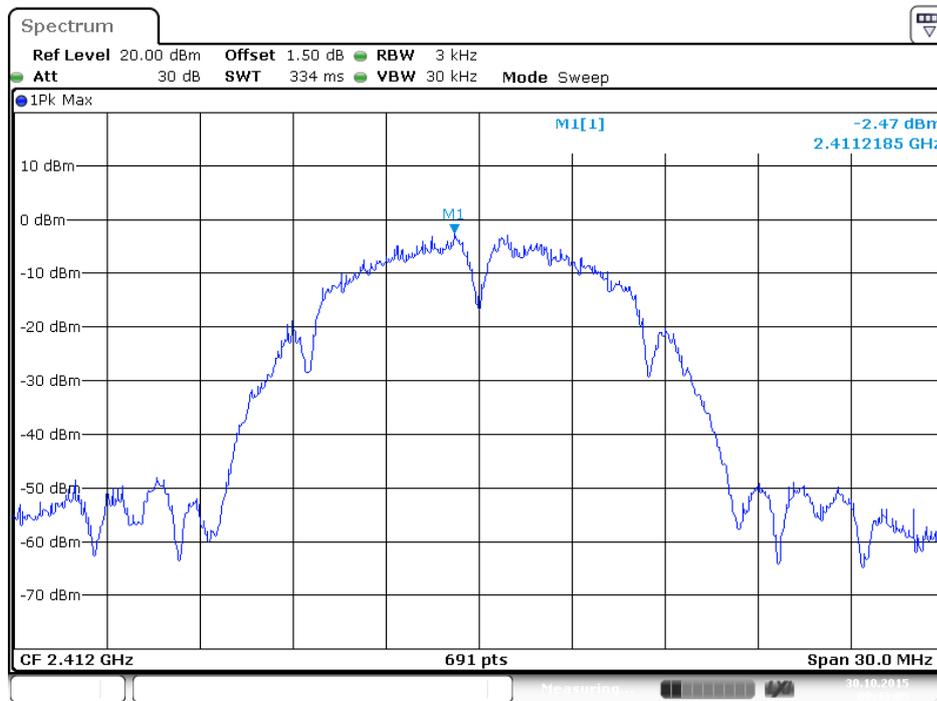
**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 2**



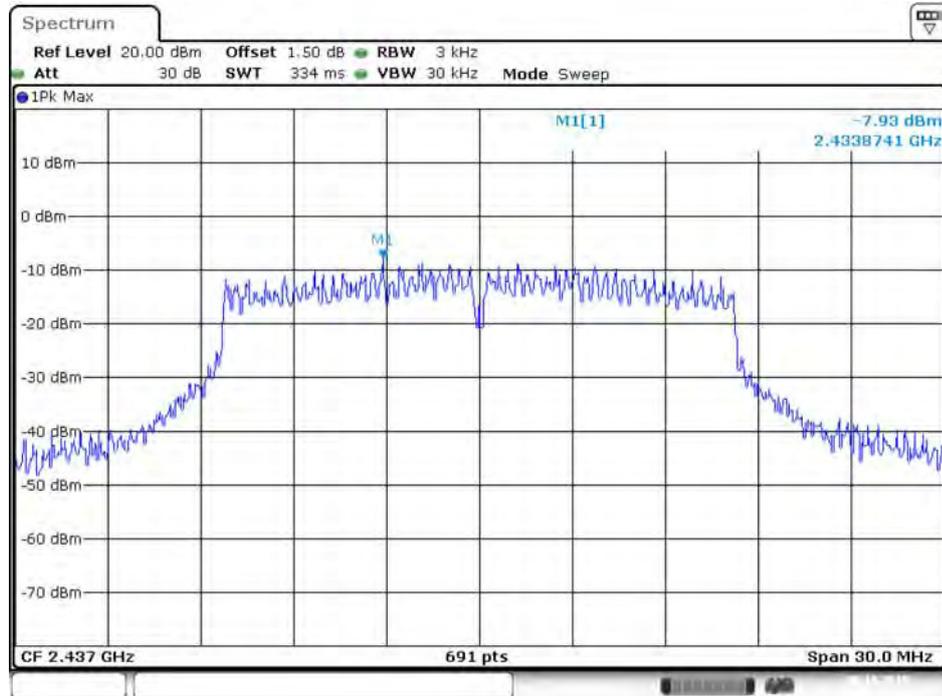
**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 3**



**Power Density Plot on Configuration IEEE 802.11b / 2412 MHz / Chain 4**

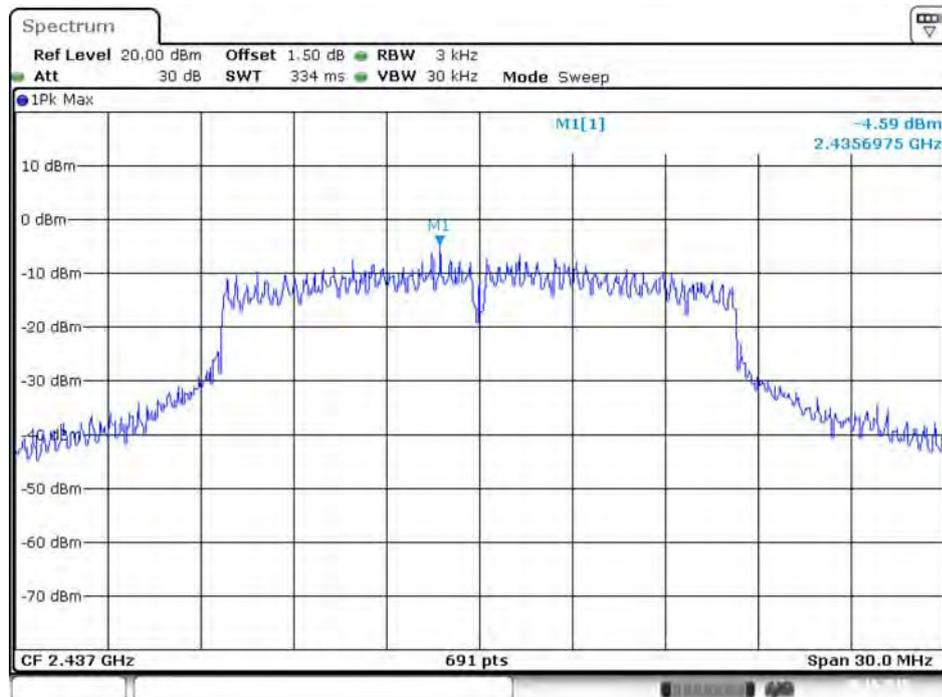


**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 1**



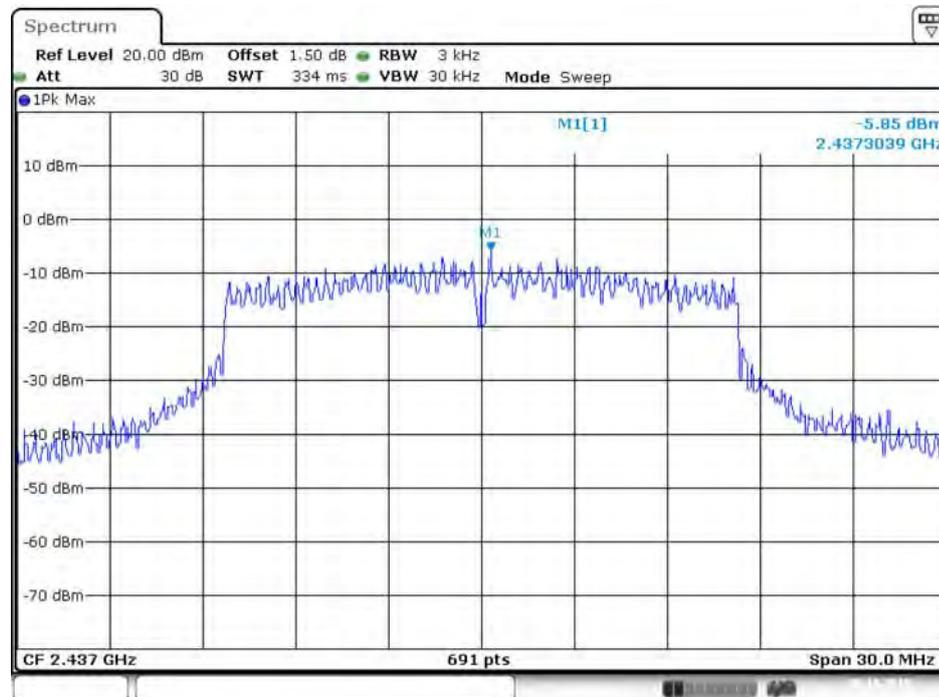
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**Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 2**



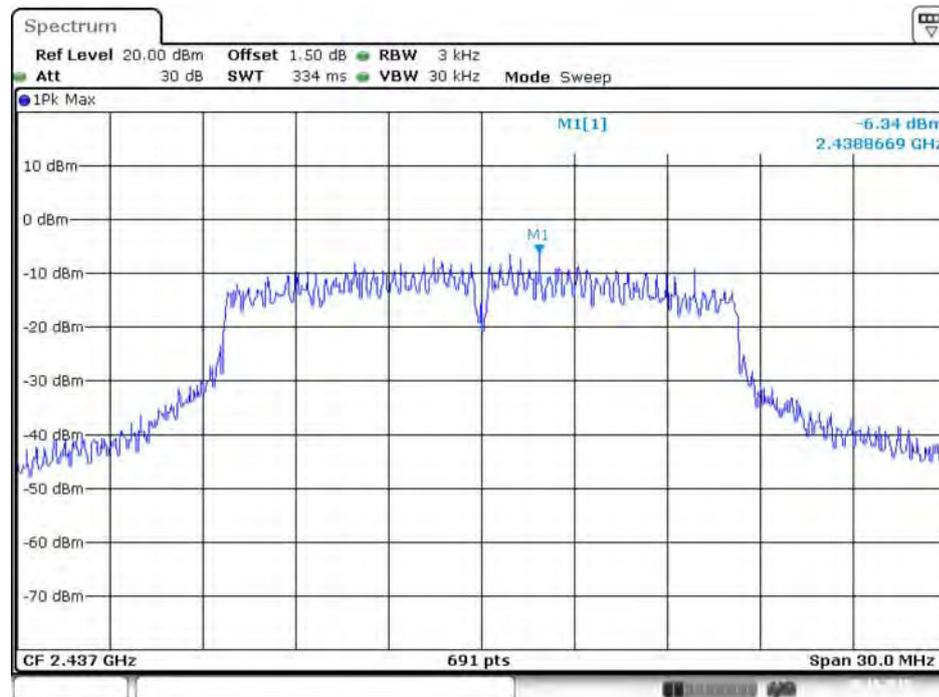
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Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 3



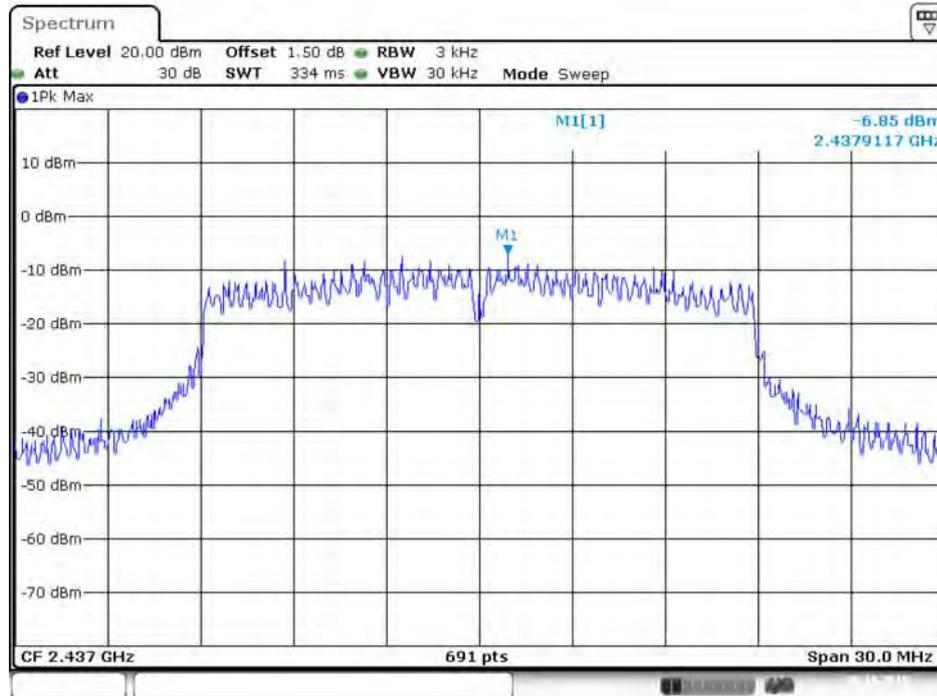
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Power Density Plot on Configuration IEEE 802.11g / 2437 MHz / Chain 4



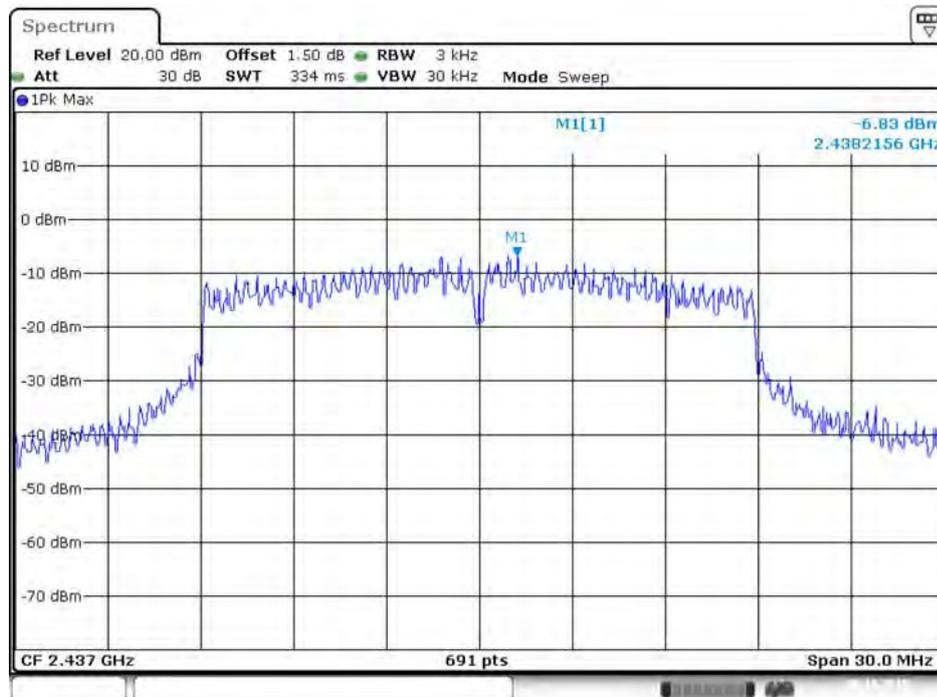
Date: 30.OCT.2015 01:48:32

**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 1**



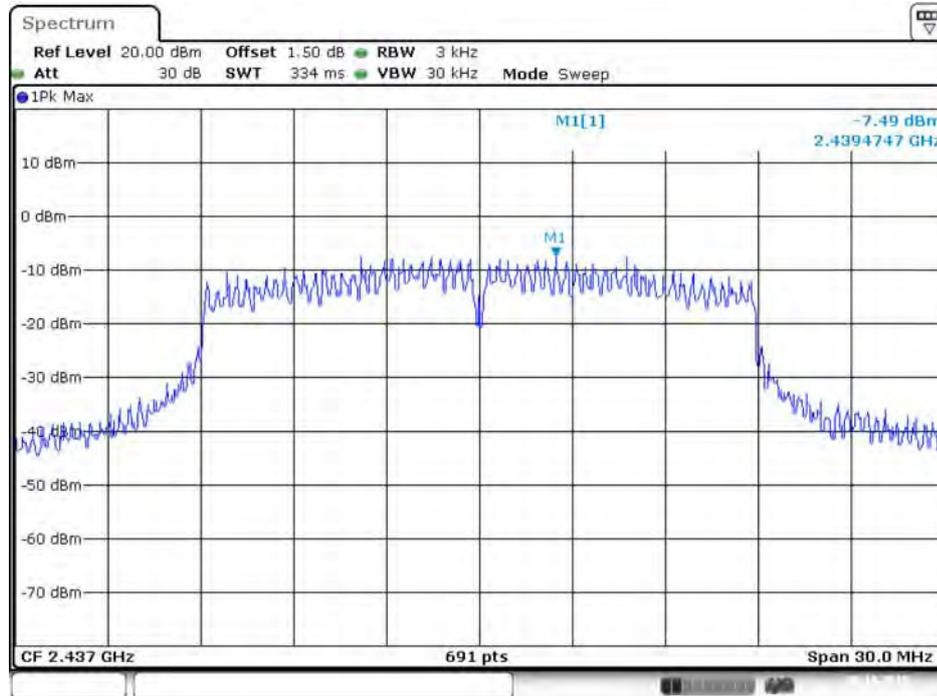
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**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 2**



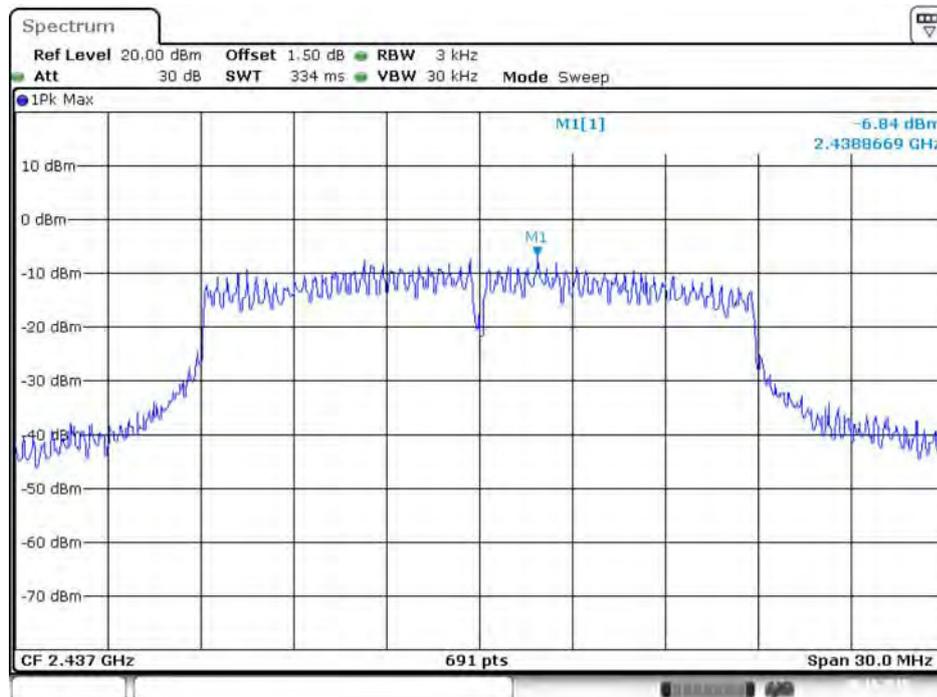
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**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 3**



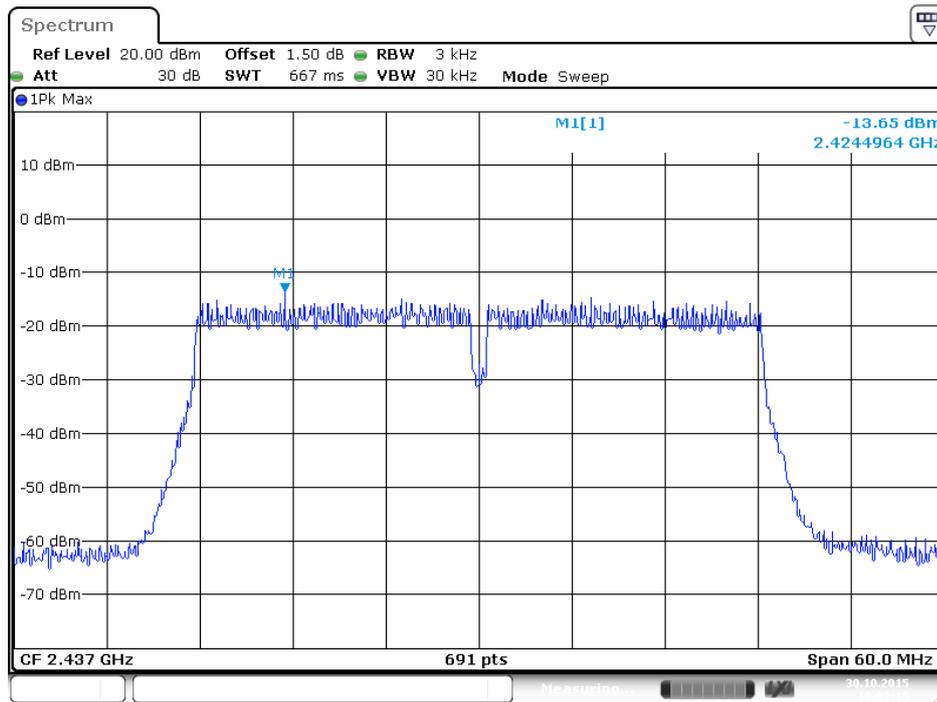
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**Power Density Plot on Configuration IEEE 802.11n MCS0 HT20 / 2437 MHz / Chain 4**

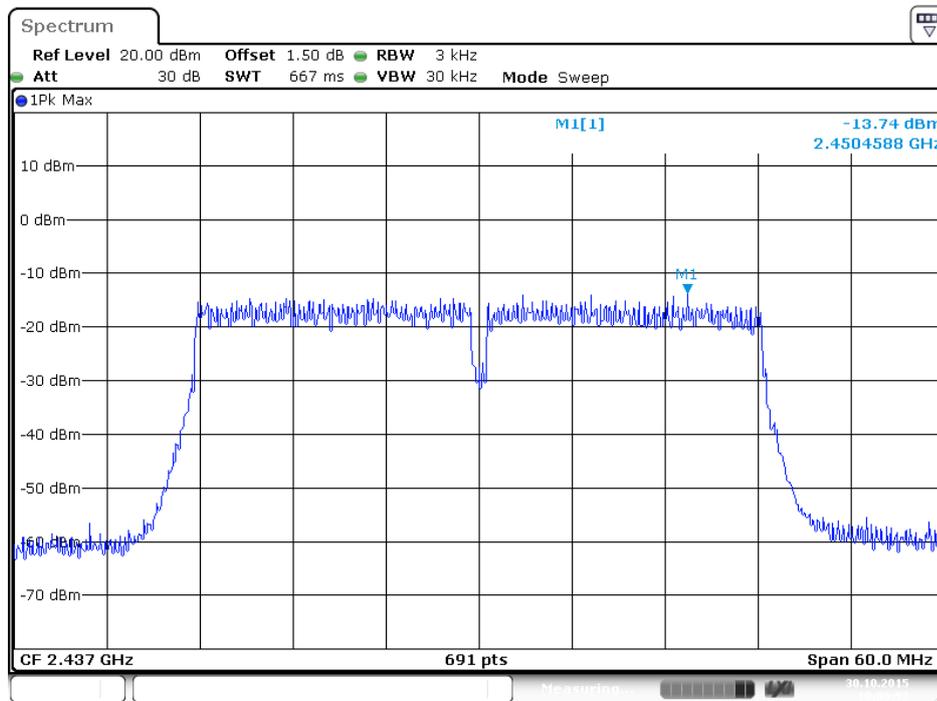


Date: 30.OCT.2015 01:52:00

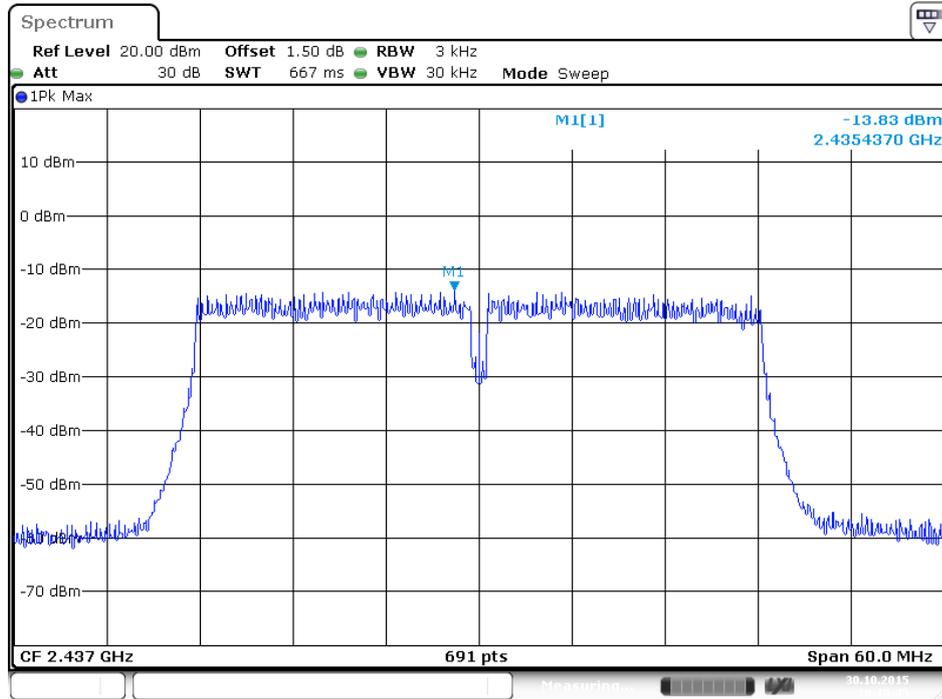
**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 1**



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 2**



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 3**



**Power Density Plot on Configuration IEEE 802.11n MCS0 HT40 / 2437 MHz / Chain 4**

