



Test Report

AIR-AP1852 and 1832 Series

FCC ID: LDK102095

IC: 2461B-102095

Also Covers:

AIR-AP1852y-U XK9

AIR-AP1832y-U XK9

AIR-AP1852y-z-K9

AIR-AP1832y-z-K9

y =E (External Antenna) or I (Internal Antenna)

z=A,B,D,N,Z,T

2400-2483.5 MHz

Against the following Specifications:

CFR47 Part 15.247

RSS210

Cisco Systems

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San Jose, CA 95134

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Approved by:

A handwritten signature in blue ink, appearing to read "Jim Nicholson".

Jim Nicholson
Technical Leader, Engineering



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Section 1: Overview

1.1 Test Summary

The samples were assessed against the tests under the requirements of the following specifications:

Emission	Immunity
CFR47 Part 15.247 RSS210	N/A

The specifications listed above represent actual tests performed to demonstrate compliance against the specifications and basic standards listed on the front cover of this report. This list is not a one to one match to the front cover for one or more of the following reasons.

1. Basic standards call up many different test phenomena specifications such as the 61000-4-X series. The basic standards define which elements and levels shall be applied from these specifications and as such it is not appropriate to list the individual specifications on the front cover.
2. A Standard listed on the front cover may be required in a particular country but is not appropriate for the particular technologies included in the equipment under test. E.g. You cannot test a DC product to the mains Harmonics requirements in EN61000-3-2.
3. Test results against a particular standard or specification may be included in a different test report. Where appropriate, Cisco may have substituted a later revision of a basic standard to those referenced in the specification on the front sheet of this test report. This decision was based upon improved test methodology and repeatability and/or where the newer revision represented a more stringent test.
4. Where relevant, testing has been carried out to the requirements of both EN and IEC Specifications. This was possible because of the similarities of the test methods involved and the Cisco EMC test procedures.
5. Testing may have been performed to an equivalent test that satisfies the requirements of the standards and specifications listed on the front cover of the report.
6. Where radiated emissions testing has been performed to EN55022/CISPR22 the additional requirements of VCCI: V- 3/2006.04, EN55022: 1994 +A1/2 and CAN/CSA- CISPR 22-02 have also been evaluated unless otherwise stated.
7. Testing to the requirements of CFR47 Part 15 was performed against the CISPR22 limits. The results are therefore deemed satisfactory evidence of compliance with Industry Canada Interference Causing Equipment Standard ICES-003.
8. Where assessment has been performed to CISPR24, all the applicable test requirements may have not been covered. Refer to the results section for the tests performed.

Notes:

- 1) Where a specification listed on the front cover of this report has deviations from the basic standards listed above, the additional technical requirements of the specification were also assessed.
- 2) Where appropriate, Cisco may have substituted a later revision of a basic standard to those referenced in the specification on the front sheet of this test report. This decision was based upon improved test methodology and repeatability and/or where the newer revision represented a more stringent test.
- 3) Where relevant, testing has been carried out to the requirements of both EN and IEC Specifications. This was possible because of the similarities of the test methods involved and the Cisco EMC test procedures.



Section 2: Assessment Information

2.1 General

This report contains an assessment of an apparatus against Electromagnetic Compatibility Standards based upon tests carried out on the samples submitted. The testing was performed by and for the use of Cisco systems Inc:

With regard to this assessment, the following points should be noted:

- a) The results contained in this report relate only to the items tested and were obtained in the period between the date of the initial assessment and the date of issue of the report. Manufactured products will not necessarily give identical results due to production and measurement tolerances.
- b) The apparatus was set up and exercised using the configuration and modes of operation defined in this report only.
- c) Where relevant, the apparatus was only assessed using the susceptibility criteria defined in this report and the Test Assessment Plan (TAP).
- d) All testing was performed under the following environmental conditions:
 - Temperature 15°C to 35°C (54°F to 95°F)
 - Atmospheric Pressure 860mbar to 1060mbar (25.4" to 31.3")
 - Humidity 10% to 75*%

*[Where applicable] For ESD testing the humidity limits used were 30% to 60% and for EFT/B tests the humidity limits used were 25% to 75%.
- e) All AC testing was performed at one or more of the following supply voltages:
 - 110V 60 Hz (+/-20%)
 - 220V 50 Hz (+/-20%)

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2.2 Date of testing

03-March-2015

2.3 Report Issue Date

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2.4 Testing facilities

This assessment was performed by:

Testing Laboratory

Cisco Systems, Inc.,	Cisco Systems, Inc.
4125 Highlander Parkway	170 West Tasman Drive
Richfield, OH 44286	San Jose, CA 95134
USA	USA

All conducted testing performed in Richfield, OH using “accredited calibration” test equipment

Test Engineers

John Liscio

2.5 Equipment Assessed (EUT)

AIR-AP1852 Series



2.6 EUT Description

The AIR-AP1852 Series Cisco Aironet 802.11ac Dual Band Access Points support the following modes of operation. The modes are further defined in the radio Theory of Operation. The modes included in this report represent the worst case data for all modes. Data is recorded at the lowest supported data rate for each mode

This report covers operation on channel 1-11

- Legacy CCK, One Antenna, 1 to 11 Mbps
- Legacy CCK, Two Antennas, 1 to 11 Mbps
- Legacy CCK, Three Antennas, 1 to 11 Mbps

- 6 to 54 Mbps, One Antenna,
- 6 to 54 Mbps, Two Antennas,
- 6 to 54 Mbps, Three Antennas,

- 6 to 54 Mbps Beam Forming, Two Antennas,
- 6 to 54 Mbps Beam Forming, Three Antennas,

- HT/VHT20, One Antenna, M0 to M7, M0.0 to M9.0
- HT/VHT20, Two Antennas, M0 to M7, M0.0 to M9.0
- HT/VHT20, Three Antennas, M0 to M7, M0.0 to M9.0
- HT/VHT20, Two Antennas, M8 to M15, M0.0 to M9.0
- HT/VHT20, Three Antennas, M8 to M23, M0.0 to M9.0

- HT/VHT20 Beam Forming, Two Antennas, M0 to M7, M0.0 to M9.0
- HT/VHT20 Beam Forming, Three Antennas, M0 to M7, M0.0 to M9.0
- HT/VHT20 Beam Forming, Two Antennas, M8 to M15, M0.0 to M9.0
- HT/VHT20 Beam Forming, Three Antennas, M8 to M23, M0.0 to M9.0

- HT/VHT20 STBC, Two Antennas, M0 to M7
- HT/VHT20 STBC, Three Antennas, M0 to M7

The following antennas are supported by this product series.
The data included in this report represent the worst case data for all antennas.

Frequency	Part Number	Antenna Type	Antenna Gain (dBi)
2.4 / 5 GHz	AIR-ANT2524DB-R	Dual-resonant black dipole	2 / 4
	AIR-ANT2524DW-R	Dual-resonant white dipole	2 / 4
	AIR-ANT2524DG-R	Dual-resonant gray dipole	2 / 4
	AIR-ANT2524V4C-R	Dual-resonant ceiling mount omni (4-pack)	2 / 4
	AIR-ANT2535SDW-R	Dual-resonant "stubby" monopole	3 / 5
	Internal	Omni	3 / 5
	AIR-ANT2544V4M-R	Dual-resonant omni (4-pack)	4 / 4
	AIR-ANT2566D4M-R	Dual-resonant "directional" antenna (4-pack)	6 / 6
	AIR-ANT2566P4W-R	Dual-resonant "directional" antenna (4-pack)	6 / 6



Section 3: Sample Details

Note: Each sample was evaluated to ensure that its condition was suitable to be used as a test sample prior to the commencement of testing. Please also refer to the "Justification for worst Case test Configuration" section of this report for further details on the selection of EUT samples.

3.1 Sample Details

Sample No.	Equipment Details	Part Number	Manufacturer	Hardware Rev.	Firmware Rev.	Software Rev.	Serial Number
S01	AIR-AP1852 Series		Cisco Systems	NA	NA	NA	KWC1904 02MZ
S02	AIR-PWR-B	341-0306-02	Cisco Systems	NA	NA	NA	

3.2 System Details

System #	Description	Samples
1	EUT	S01, S02

3.3 Mode of Operation Details

Mode#	Description	Comments
1	Continuous Transmitting	Continuous Transmitting >= 98% duty cycle

All tests in this report were performed as described in ANSI C63.10, FCC KDB 662911 D01 and KDB 558074 D01 Meas Guidance v03r02

**Appendix A: Emission Test Results****Testing Laboratory:** Cisco Systems, Inc., 4125 Highlander Parkway, Richfield, OH, USA**Target Maximum Channel Power**

The following table details the maximum supported Total Channel Power for all operating modes.

Operating Mode	Maximum Channel Power (dBm EIRP)		
	Frequency (MHz)		
	2412	2437	2462
Legacy CCK, 1 to 11 Mbps	27	27	27
6 to 54 Mbps	25	28	26
6 to 54 Mbps Beam Forming	27	32	29
HT/VHT20, M0 to M23, M0 to M9 1-3ss	24	28	26
HT/VHT20 Beam Forming, M0 to M23, M0 to M9 1-3ss	25	32	29
HT/VHT20 STBC, M0 to M7	23	27	25



6dB Bandwidth

15.247 / RSS-210 A8.2: Systems using digital modulation techniques may operate in the 2400-2483.5MHz band. The minimum 6 dB bandwidth shall be at least 500 kHz.

Connect the antenna port(s) to the spectrum analyzer input. Using the spectrum analyzer Channel Bandwidth mode, configure the spectrum analyzer as shown below (enter all losses between the transmitter output and the spectrum analyzer).

Center Frequency:	Frequency from table below
Span:	2 x Nominal Bandwidth (e.g. 40MHz for a 20MHz channel)
Reference Level:	20 dBm
Attenuation:	10 dB
Sweep Time:	5 s
Resolution Bandwidth:	100 kHz
Video Bandwidth:	100 kHz
X dB Bandwidth:	6 dB
Detector:	Peak
Trace:	Single

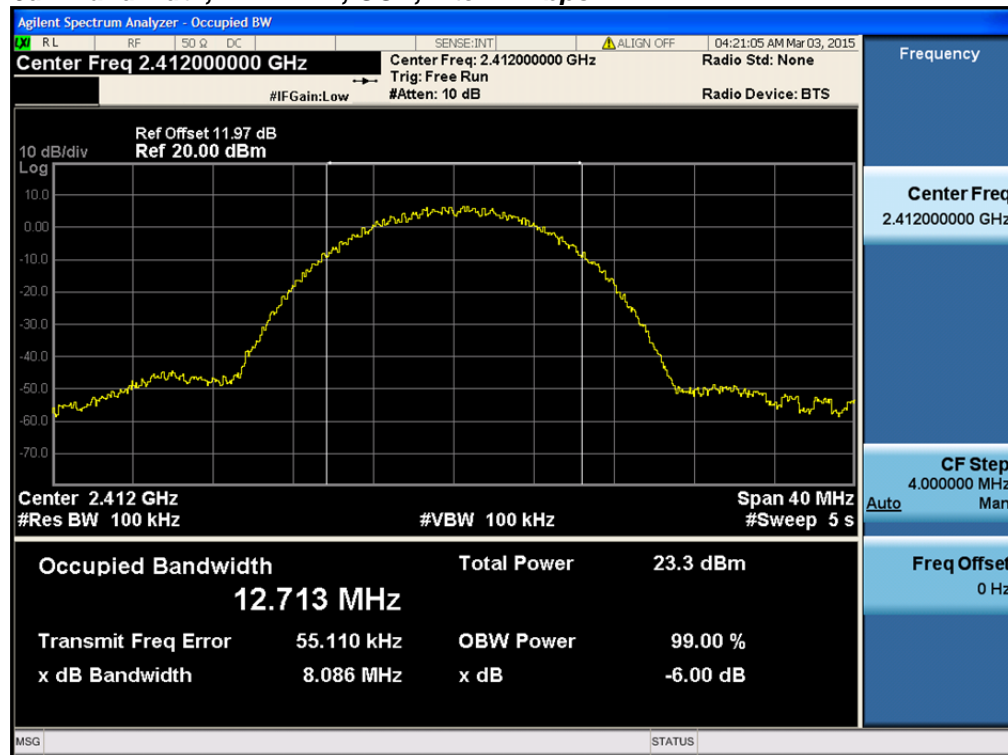
Place the radio in continuous transmit mode. View the transmitter waveform on the spectrum analyzer, and record the pertinent measurements:



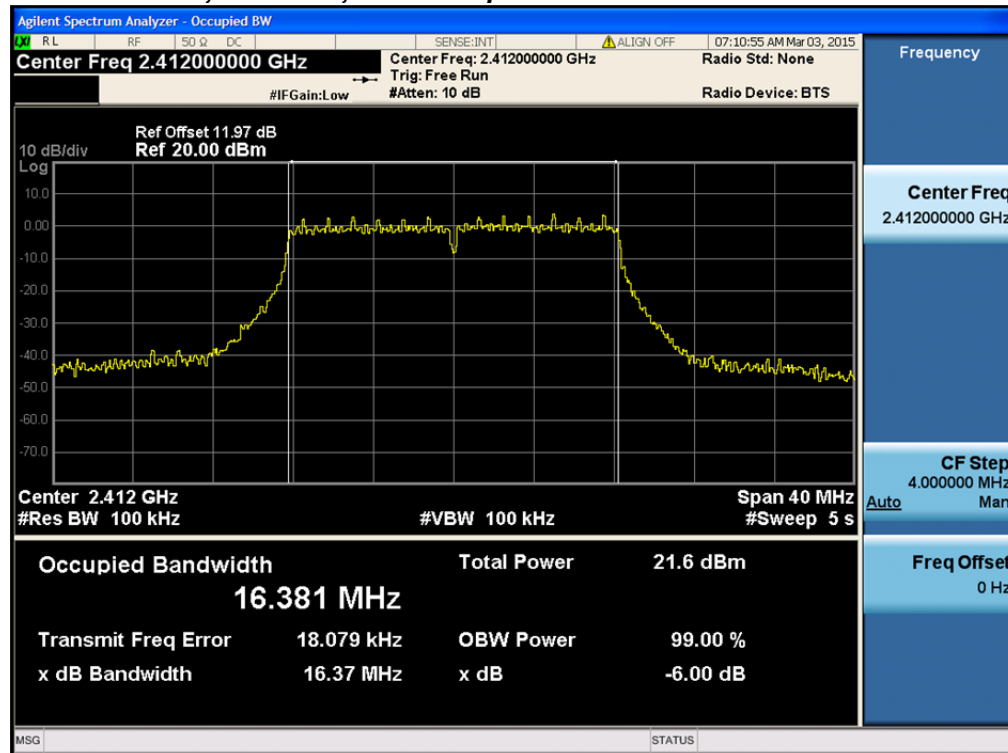
Frequency (MHz)	Mode	Data Rate (Mbps)	6dB BW (MHz)	Limit (kHz)	Margin (MHz)
2412	CCK, 1 to 11 Mbps	11	8.1	>500	7.6
	6 to 54 Mbps	6	16.4	>500	15.9
	HT/VHT20, M0 to M23, M0 to M9 1-3ss	m0	17.2	>500	16.7
2437	CCK, 1 to 11 Mbps	11	7.1	>500	6.6
	6 to 54 Mbps	6	16.4	>500	15.9
	HT/VHT20, M0 to M23, M0 to M9 1-3ss	m0	17.6	>500	17.1
2462	CCK, 1 to 11 Mbps	11	7.8	>500	7.3
	6 to 54 Mbps	6	16.4	>500	15.9
	HT/VHT20, M0 to M23, M0 to M9 1-3ss	m0	17.6	>500	17.1



6dB Bandwidth, 2412 MHz, CCK, 1 to 11 Mbps

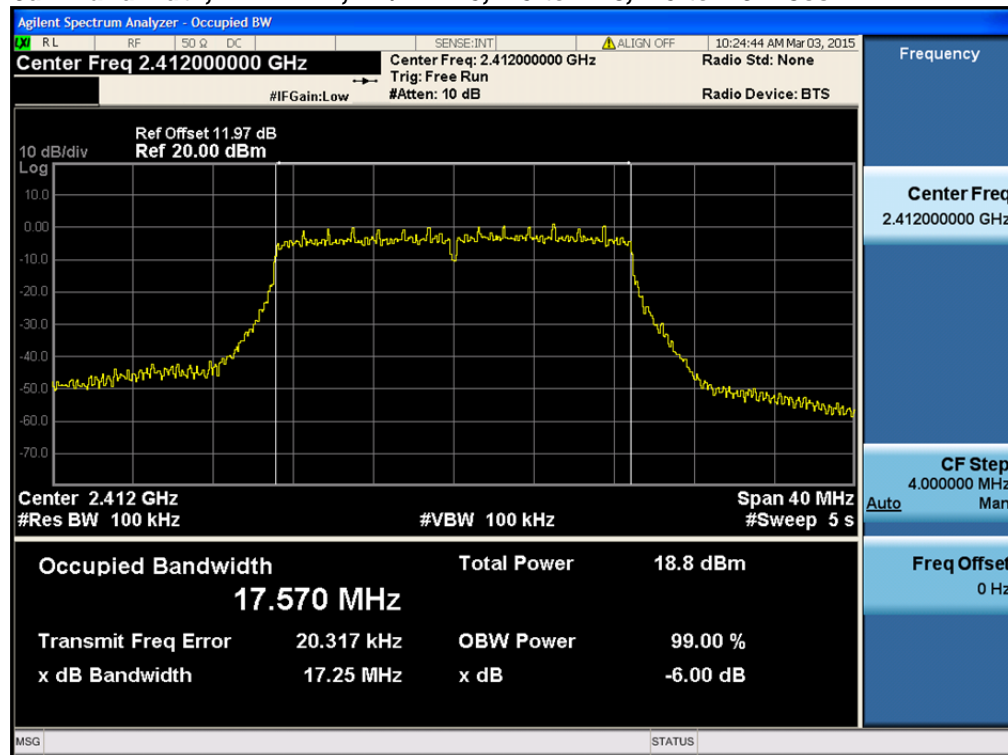


6dB Bandwidth, 2412 MHz, 6 to 54 Mbps

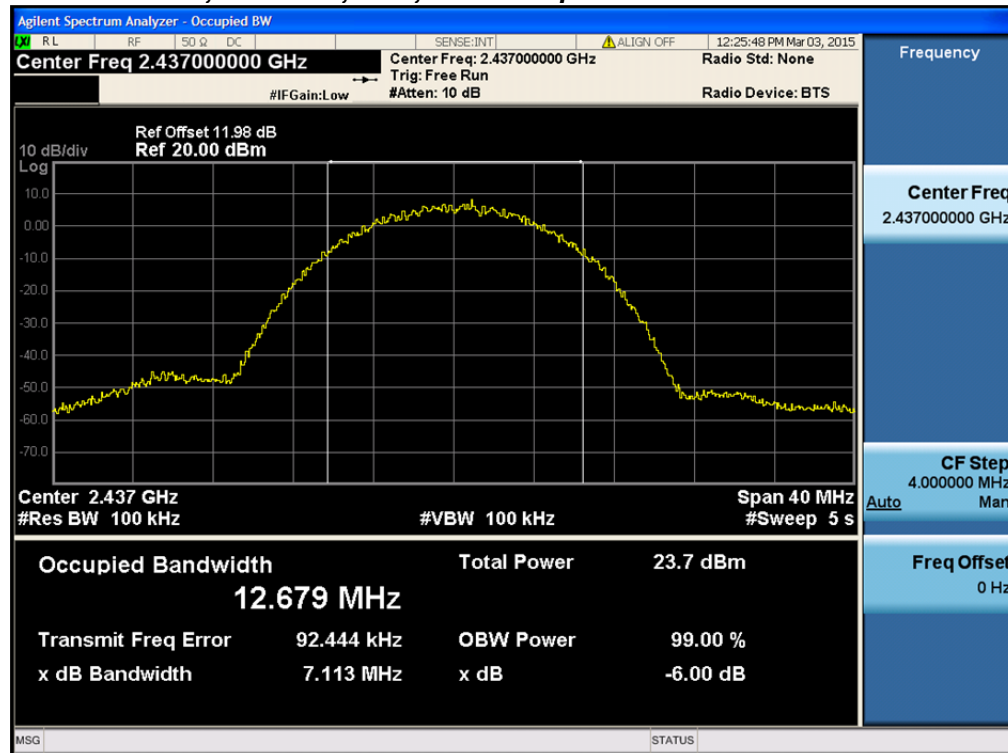




6dB Bandwidth, 2412 MHz, HT/VHT20, M0 to M23, M0 to M9 1-3ss

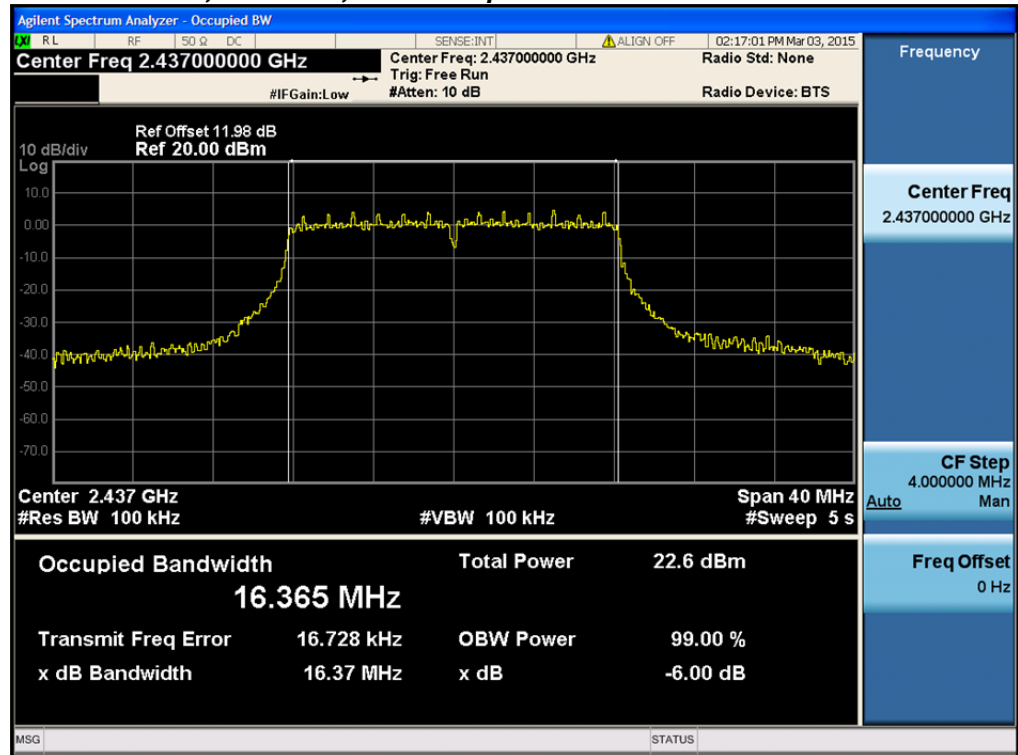


6dB Bandwidth, 2437 MHz, CCK, 1 to 11 Mbps

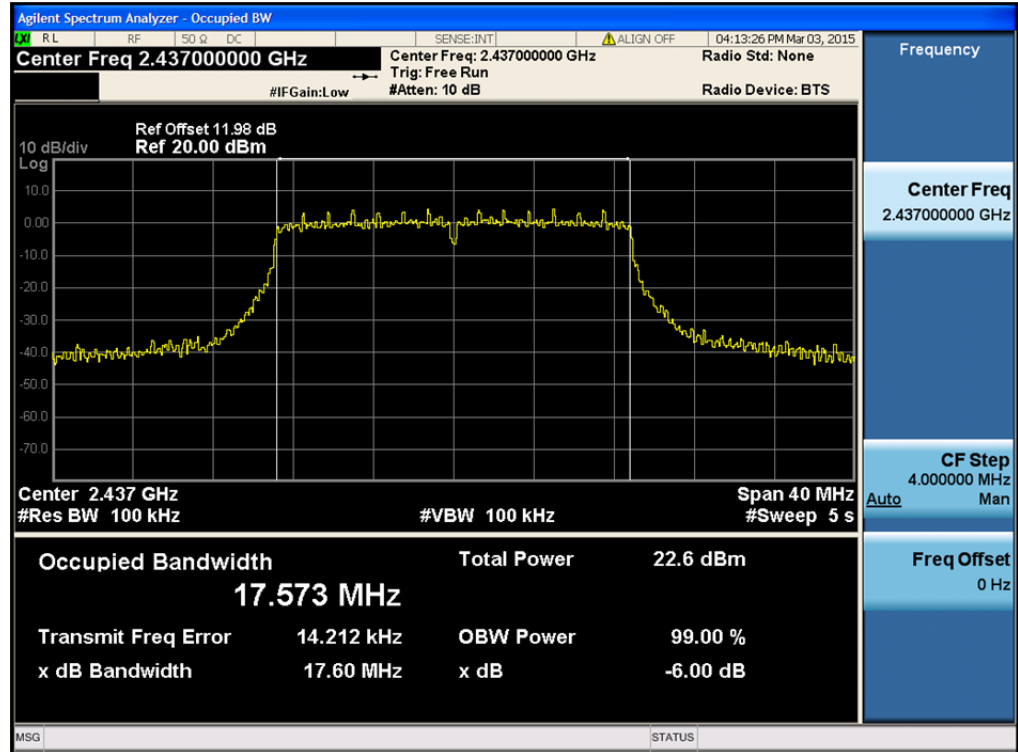




6dB Bandwidth, 2437 MHz, 6 to 54 Mbps

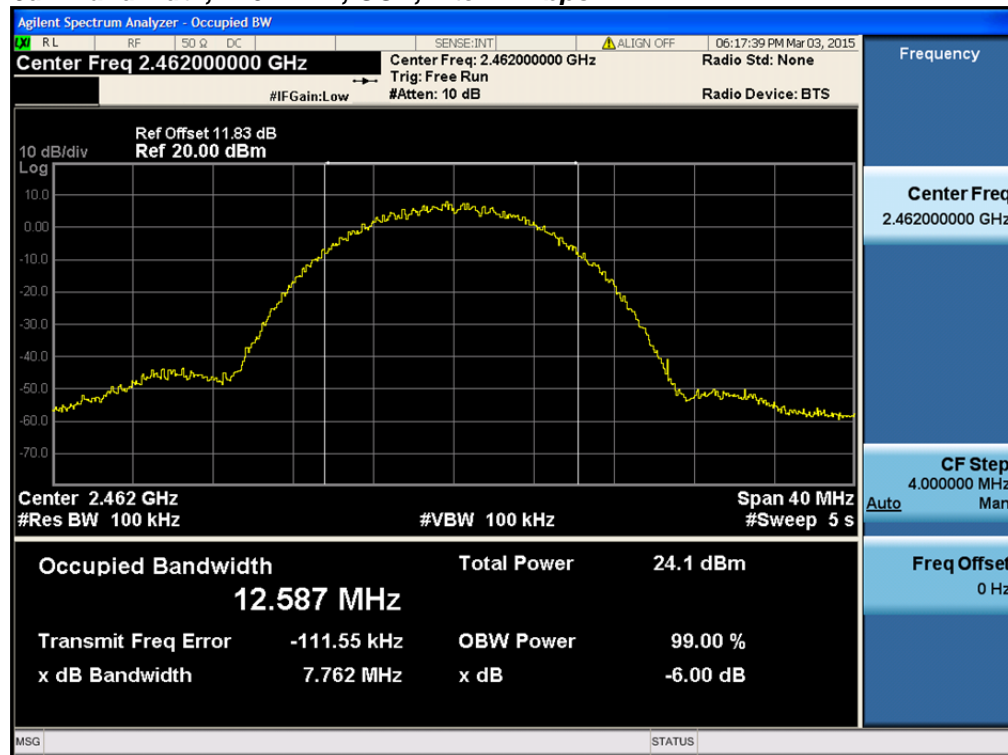


6dB Bandwidth, 2437 MHz, HT/VHT20, M0 to M23, M0 to M9 1-3ss

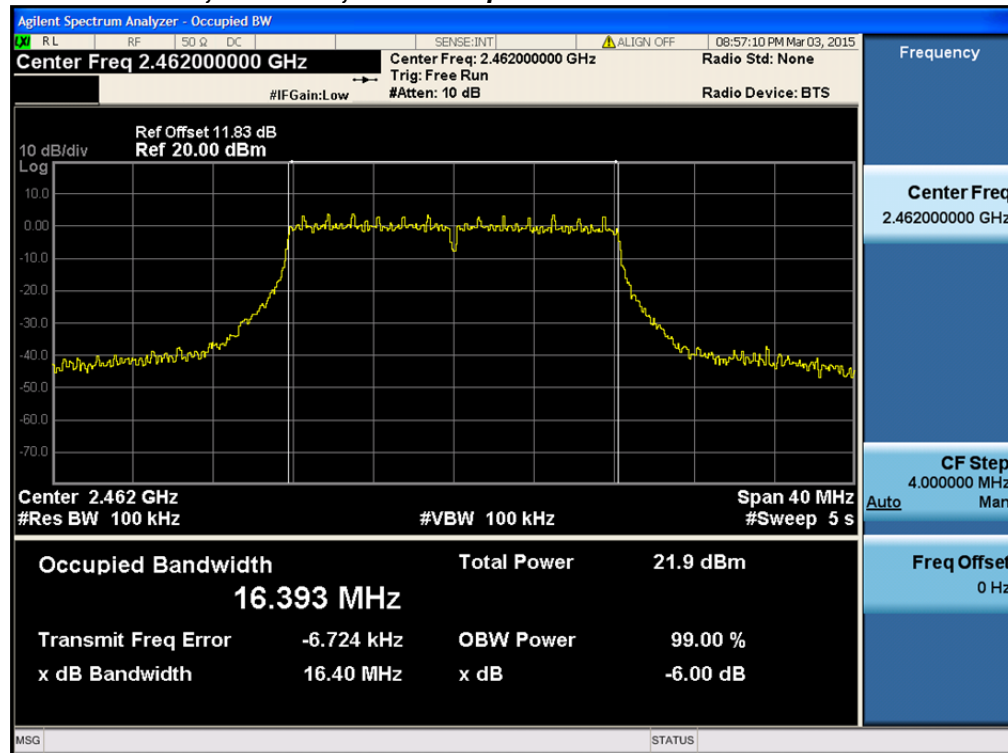




6dB Bandwidth, 2462 MHz, CCK, 1 to 11 Mbps

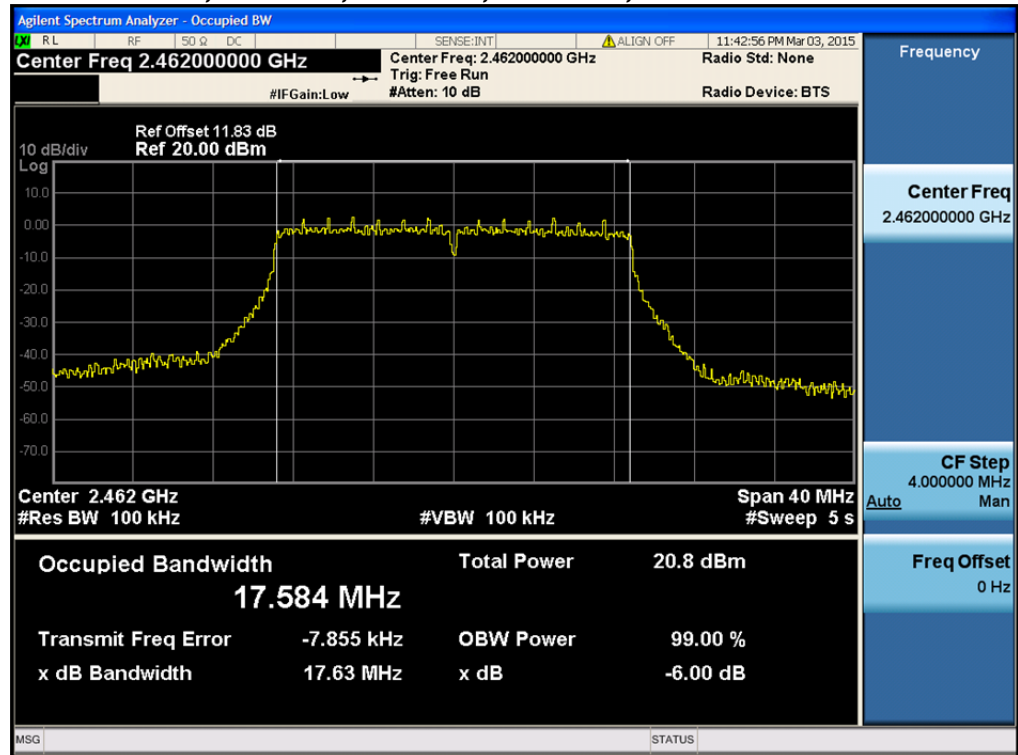


6dB Bandwidth, 2462 MHz, 6 to 54 Mbps





6dB Bandwidth, 2462 MHz, HT/VHT20, M0 to M23, M0 to M9 1-3ss





99% and 26dB Bandwidth

Connect the antenna port(s) to the spectrum analyzer input. Using the spectrum analyzer Channel Bandwidth mode, configure the spectrum analyzer as shown below (enter all losses between the transmitter output and the spectrum analyzer).

Center Frequency:	Frequency from table below
Span:	2 x Nominal Bandwidth (e.g. 40MHz for a 20MHz channel)
Reference Level:	20 dBm
Attenuation:	10 dB
Sweep Time:	5 s
Resolution Bandwidth:	1%-3% of 26 dB Bandwidth
Video Bandwidth:	≥Resolution Bandwidth
X dB Bandwidth:	26 dB
Detector:	Peak
Trace:	Single

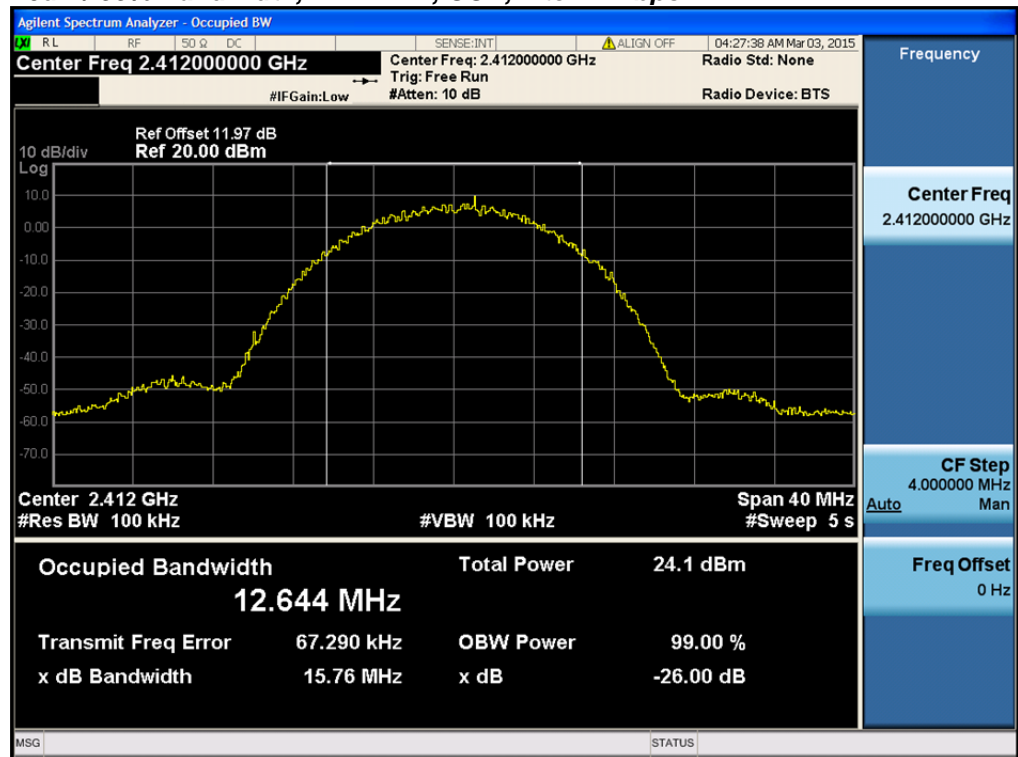
Place the radio in continuous transmit mode. View the transmitter waveform on the spectrum analyzer, and record the pertinent measurements:



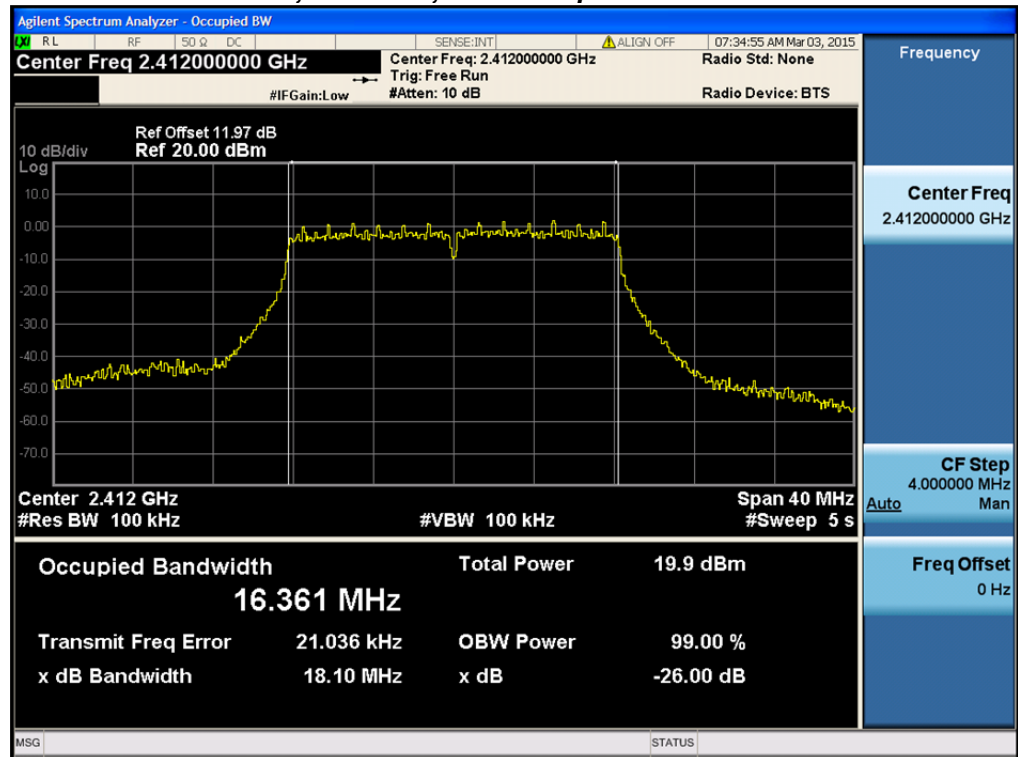
Frequency (MHz)	Mode	Data Rate (Mbps)	26dB BW (MHz)	99% BW (MHz)
2412	CCK, 1 to 11 Mbps	11	15.8	12.6
	6 to 54 Mbps	6	18.1	16.4
	HT/VHT20, M0 to M23, M0 to M9 1-3ss	m0	18.9	17.6
2437	CCK, 1 to 11 Mbps	11	16.2	12.6
	6 to 54 Mbps	6	18.3	16.4
	HT/VHT20, M0 to M23, M0 to M9 1-3ss	m0	19.4	17.6
2462	CCK, 1 to 11 Mbps	11	16.1	12.7
	6 to 54 Mbps	6	18.2	16.4
	HT/VHT20, M0 to M23, M0 to M9 1-3ss	m0	19.2	17.6



26dB / 99% Bandwidth, 2412 MHz, CCK, 1 to 11 Mbps

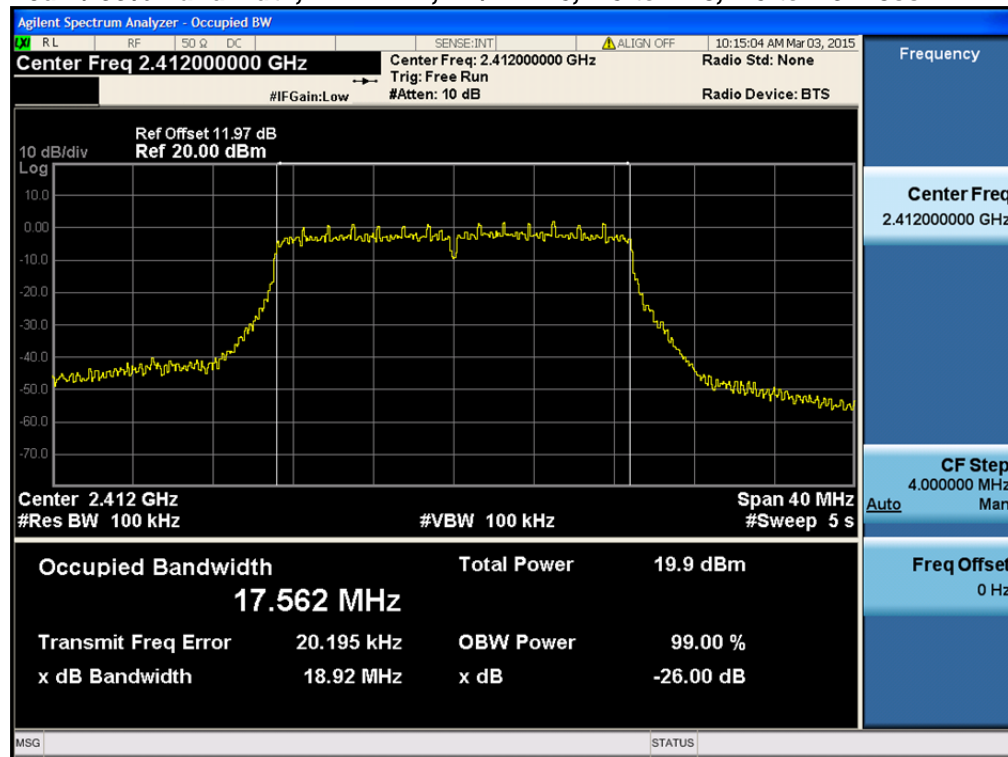


26dB / 99% Bandwidth, 2412 MHz, 6 to 54 Mbps

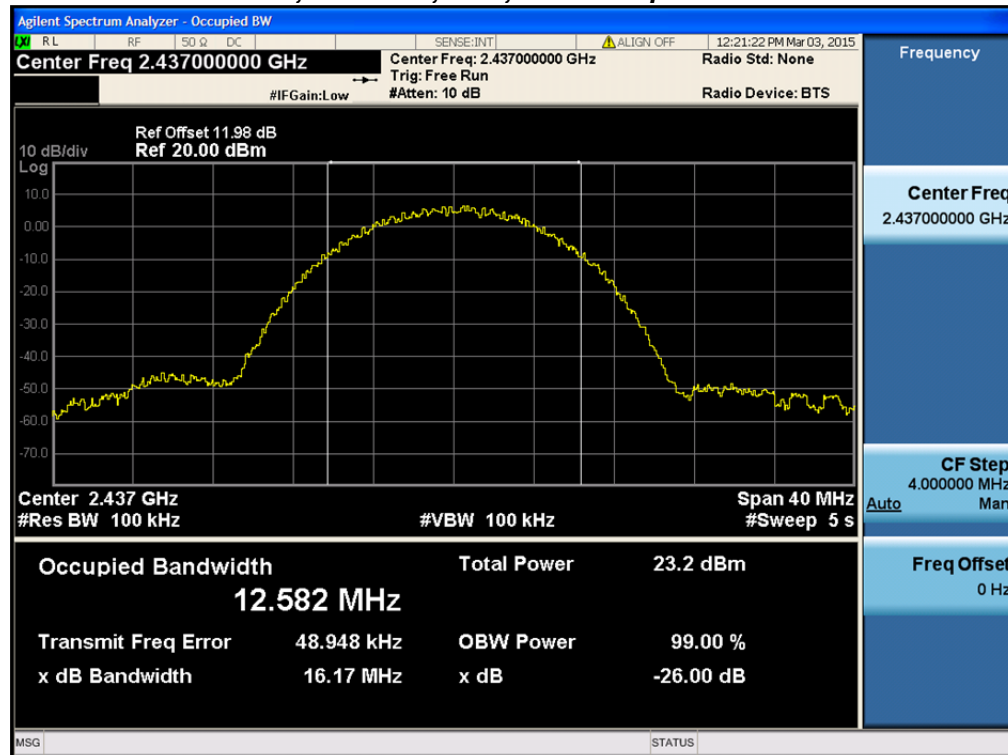




26dB / 99% Bandwidth, 2412 MHz, HT/VHT20, M0 to M23, M0 to M9 1-3ss

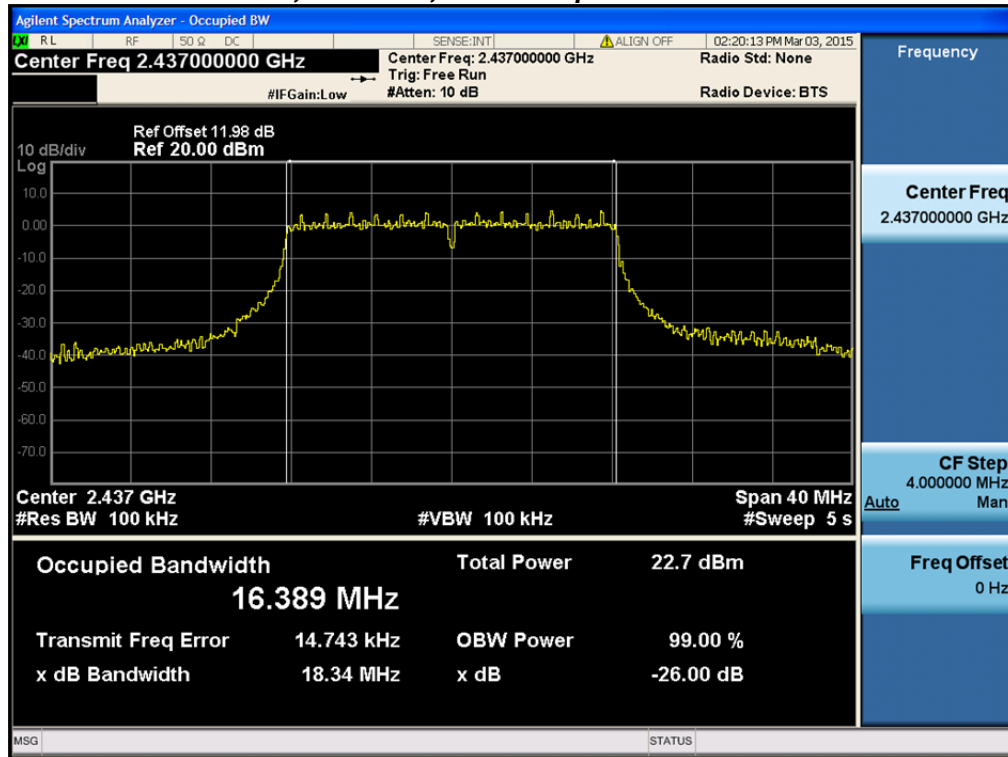


26dB / 99% Bandwidth, 2437 MHz, CCK, 1 to 11 Mbps

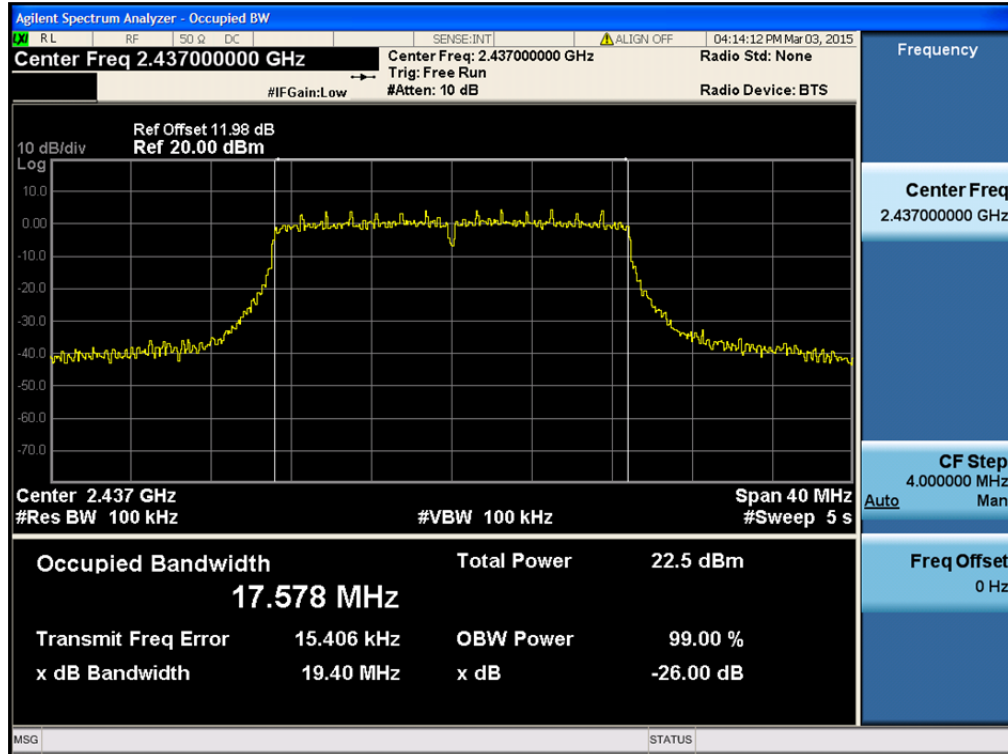




26dB / 99% Bandwidth, 2437 MHz, 6 to 54 Mbps

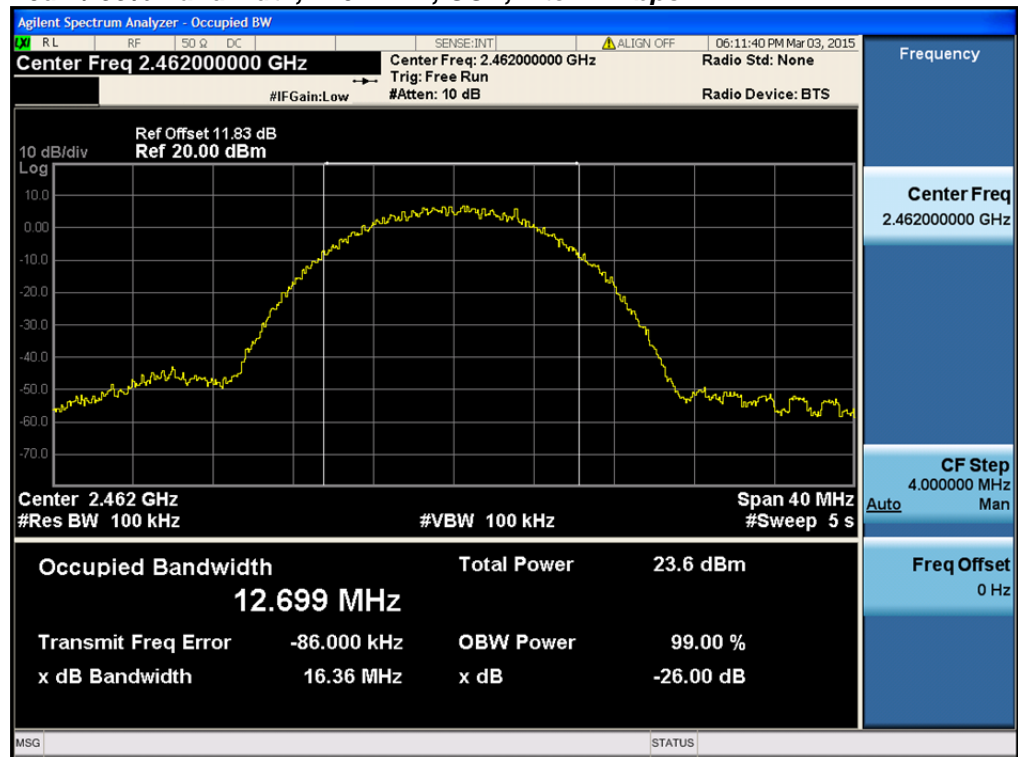


26dB / 99% Bandwidth, 2437 MHz, HT/VHT20, M0 to M23, M0 to M9 1-3ss

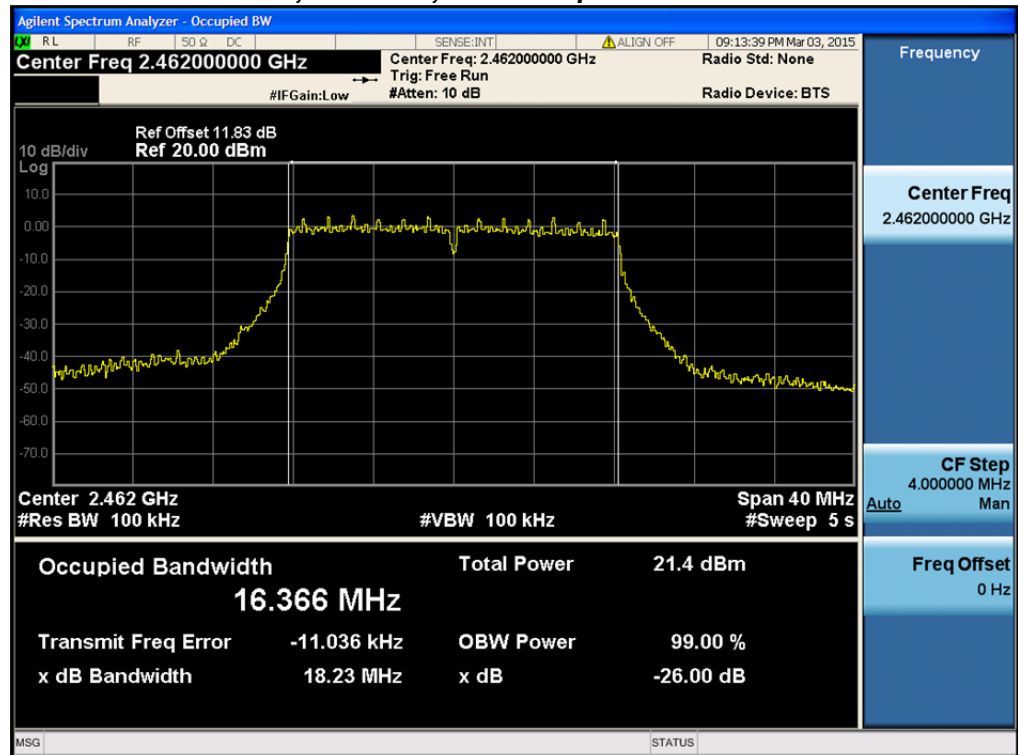




26dB / 99% Bandwidth, 2462 MHz, CCK, 1 to 11 Mbps

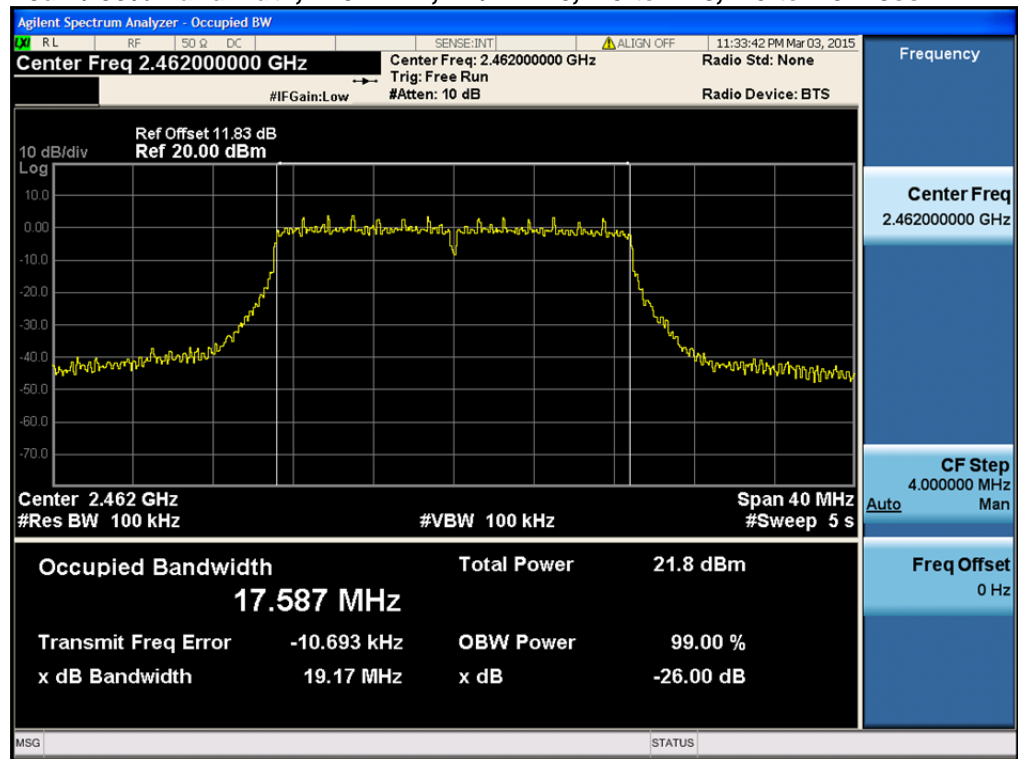


26dB / 99% Bandwidth, 2462 MHz, 6 to 54 Mbps





26dB / 99% Bandwidth, 2462 MHz, HT/VHT20, M0 to M23, M0 to M9 1-3ss





Peak Output Power

15.247 / RSS-210 A8.4: The maximum conducted output power of the intentional radiator for systems using digital modulation in the 2400-2483.5 MHz band shall not exceed 1 Watt (30dBm). If transmitting antennas of directional gain greater than 6 dBi are used, the maximum conducted output power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

The maximum supported antenna gain is 6dBi. The peak correlated gain for each mode is listed in the table below.

Connect the antenna port(s) to the spectrum analyzer input. Place the radio in continuous transmit mode. Configure the spectrum analyzer as shown below.

Enable "Channel Power" function of analyzer	
Center Frequency:	Frequency from table below
Span:	20 MHz (must be greater than 26dB bandwidth, adjust as necessary)
Ref Level Offset:	Correct for attenuator and cable loss.
Reference Level:	20 dBm
Attenuation:	20 dB
Sweep Time:	100ms, Single sweep
Resolution Bandwidth:	1 MHz
Video Bandwidth:	3 MHz
Detector:	Sample
Trace:	Trace Average 100 traces in Power Averaging Mode
Integration BW:	=26 dB BW from 26 dB Bandwidth Data

After averaging 100 traces of the transmitter waveform on the spectrum analyzer, record the spectrum analyzer Channel Power.

The "measure-and-sum technique" is used for measuring in-band transmit power of a device. In the measure-and-sum approach, the conducted emission level is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically to determine the total emission level from the device. Summing is performed in linear power units.



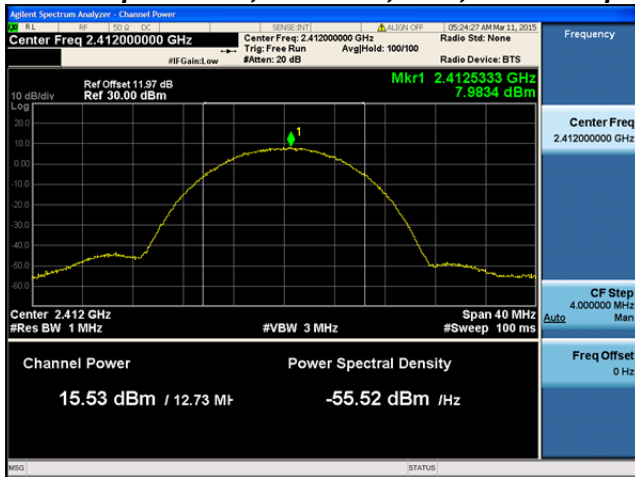
Frequency (MHz)	Mode	Tx Paths	Correlated Antenna Gain (dBi)	Tx 1 Max Power (dBm)	Tx 2 Max Power (dBm)	Tx 3 Max Power (dBm)	Total Tx Channel Power (dBm EIRP)	Limit (dBm EIRP)	Margin (dB)
2412	CCK, 1 to 11 Mbps	1	6	15.5			21.5	36.0	14.5
	CCK, 1 to 11 Mbps	2	6	15.5	15.8		24.7	36.0	11.3
	CCK, 1 to 11 Mbps	3	6	15.5	15.8	16.1	26.6	36.0	9.4
	6 to 54 Mbps	1	6	14.5			20.5	36.0	15.5
	6 to 54 Mbps	2	6	13.6	13.8		22.7	36.0	13.3
	6 to 54 Mbps	3	6	12.6	12.7	13.2	23.6	36.0	12.4
	6 to 54 Mbps Beam Forming	2	9	12.6	12.7		24.7	36.0	11.3
	6 to 54 Mbps Beam Forming	3	11	11.5	11.7	12.2	27.4	36.0	8.6
	HT/VHT20, M0 to M7, M0 to M9 1ss	1	6	13.7			19.7	36.0	16.3
	HT/VHT20, M0 to M7, M0 to M9 1ss	2	6	12.7	12.9		21.8	36.0	14.2
	HT/VHT20, M0 to M7, M0 to M9 1ss	3	6	11.6	11.9	12.3	22.7	36.0	13.3
	HT/VHT20, M8 to M15, M0 to M9 2ss	2	6	12.7	12.9		21.8	36.0	14.2
	HT/VHT20, M8 to M15, M0 to M9 2ss	3	6	11.6	11.9	12.3	22.7	36.0	13.3
	HT/VHT20, M16 to M23, M0 to M9 3ss	3	6	11.6	11.9	12.3	22.7	36.0	13.3
	HT/VHT20 Beam Forming, M0 to M7, M0 to M9 1ss	2	9	11.6	11.9		23.8	36.0	12.2
	HT/VHT20 Beam Forming, M0 to M7, M0 to M9 1ss	3	11	9.5	9.8	10.2	25.4	36.0	10.6
	HT/VHT20 Beam Forming, M8 to M15, M0 to M9 2ss	2	6	12.7	12.9		21.8	36.0	14.2
	HT/VHT20 Beam Forming, M8 to M15, M0 to M9 2ss	3	8	11.6	11.9	12.3	24.5	36.0	11.5
	HT/VHT20 Beam Forming, M16 to M23, M0 to M9 3ss	3	6	11.6	11.9	12.3	22.7	36.0	13.3
	HT/VHT20 STBC, M0 to M7	2	6	12.7	12.9		21.8	36.0	14.2
HT/VHT20 STBC, M0 to M7	3	6	11.6	11.9	12.3	22.7	36.0	13.3	
2437	CCK, 1 to 11 Mbps	1	6	15.7			21.7	36.0	14.3
	CCK, 1 to 11 Mbps	2	6	15.7	15.8		24.8	36.0	11.2
	CCK, 1 to 11 Mbps	3	6	15.7	15.8	16.0	26.6	36.0	9.4
	6 to 54 Mbps	1	6	15.7			21.7	36.0	14.3
	6 to 54 Mbps	2	6	15.7	15.9		24.8	36.0	11.2
	6 to 54 Mbps	3	6	15.7	15.9	16.2	26.7	36.0	9.3
	6 to 54 Mbps Beam Forming	2	9	15.7	15.9		27.8	36.0	8.2
	6 to 54 Mbps Beam Forming	3	11	15.7	15.9	16.2	31.5	36.0	4.5
	HT/VHT20, M0 to M7, M0 to M9 1ss	1	6	15.9			21.9	36.0	14.1
	HT/VHT20, M0 to M7, M0 to M9 1ss	2	6	15.9	15.9		24.9	36.0	11.1
	HT/VHT20, M0 to M7, M0 to M9 1ss	3	6	15.9	15.9	16.3	26.8	36.0	9.2
	HT/VHT20, M8 to M15, M0 to M9 2ss	2	6	15.9	15.9		24.9	36.0	11.1



	HT/VHT20, M8 to M15, M0 to M9 2ss	3	6	15.9	15.9	16.3	26.8	36.0	9.2
	HT/VHT20, M16 to M23, M0 to M9 3ss	3	6	15.9	15.9	16.3	26.8	36.0	9.2
	HT/VHT20 Beam Forming, M0 to M7, M0 to M9 1ss	2	9	15.9	15.9		27.9	36.0	8.1
	HT/VHT20 Beam Forming, M0 to M7, M0 to M9 1ss	3	11	15.9	15.9	16.3	31.6	36.0	4.4
	HT/VHT20 Beam Forming, M8 to M15, M0 to M9 2ss	2	6	15.9	15.9		24.9	36.0	11.1
	HT/VHT20 Beam Forming, M8 to M15, M0 to M9 2ss	3	8	15.9	15.9	16.3	28.6	36.0	7.4
	HT/VHT20 Beam Forming, M16 to M23, M0 to M9 3ss	3	6	15.9	15.9	16.3	26.8	36.0	9.2
	HT/VHT20 STBC, M0 to M7	2	6	15.9	15.9		24.9	36.0	11.1
	HT/VHT20 STBC, M0 to M7	3	6	15.9	15.9	16.3	26.8	36.0	9.2
2462	CCK, 1 to 11 Mbps	1	6	15.9			21.9	36.0	14.1
	CCK, 1 to 11 Mbps	2	6	15.9	16.0		25.0	36.0	11.0
	CCK, 1 to 11 Mbps	3	6	15.9	16.0	16.3	26.8	36.0	9.2
	6 to 54 Mbps	1	6	14.9			20.9	36.0	15.1
	6 to 54 Mbps	2	6	13.8	14.0		22.9	36.0	13.1
	6 to 54 Mbps	3	6	13.8	14.0	14.2	24.8	36.0	11.2
	6 to 54 Mbps Beam Forming	2	9	13.8	14.0		25.9	36.0	10.1
	6 to 54 Mbps Beam Forming	3	11	12.7	13.0	13.3	28.6	36.0	7.4
	HT/VHT20, M0 to M7, M0 to M9 1ss	1	6	14.9			20.9	36.0	15.1
	HT/VHT20, M0 to M7, M0 to M9 1ss	2	6	13.9	14.0		23.0	36.0	13.0
	HT/VHT20, M0 to M7, M0 to M9 1ss	3	6	13.9	14.0	14.4	24.9	36.0	11.1
	HT/VHT20, M8 to M15, M0 to M9 2ss	2	6	13.9	14.0		23.0	36.0	13.0
	HT/VHT20, M8 to M15, M0 to M9 2ss	3	6	13.9	14.0	14.4	24.9	36.0	11.1
	HT/VHT20, M16 to M23, M0 to M9 3ss	3	6	13.9	14.0	14.4	24.9	36.0	11.1
	HT/VHT20 Beam Forming, M0 to M7, M0 to M9 1ss	2	9	13.9	14.0		26.0	36.0	10.0
	HT/VHT20 Beam Forming, M0 to M7, M0 to M9 1ss	3	11	12.9	13.1	13.3	28.7	36.0	7.3
	HT/VHT20 Beam Forming, M8 to M15, M0 to M9 2ss	2	6	13.9	14.0		23.0	36.0	13.0
	HT/VHT20 Beam Forming, M8 to M15, M0 to M9 2ss	3	8	13.9	14.0	14.4	26.7	36.0	9.3
	HT/VHT20 Beam Forming, M16 to M23, M0 to M9 3ss	3	6	13.9	14.0	14.4	24.9	36.0	11.1
	HT/VHT20 STBC, M0 to M7	2	6	13.9	14.0		23.0	36.0	13.0
HT/VHT20 STBC, M0 to M7	3	6	13.9	14.0	14.4	24.9	36.0	11.1	



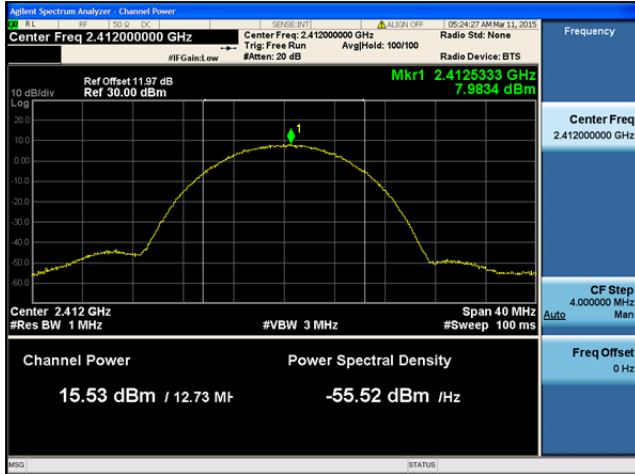
Peak Output Power, 2412 MHz, CCK, 1 to 11 Mbps



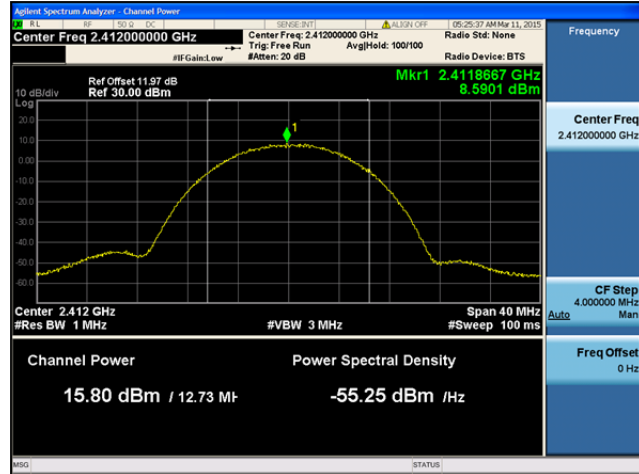
Antenna A



Peak Output Power, 2412 MHz, CCK, 1 to 11 Mbps



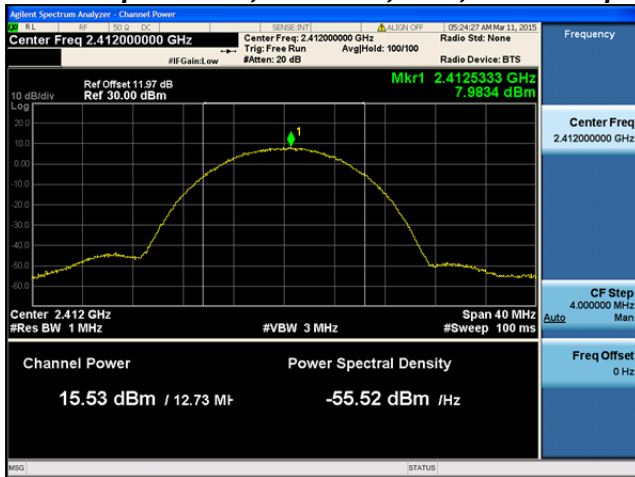
Antenna A



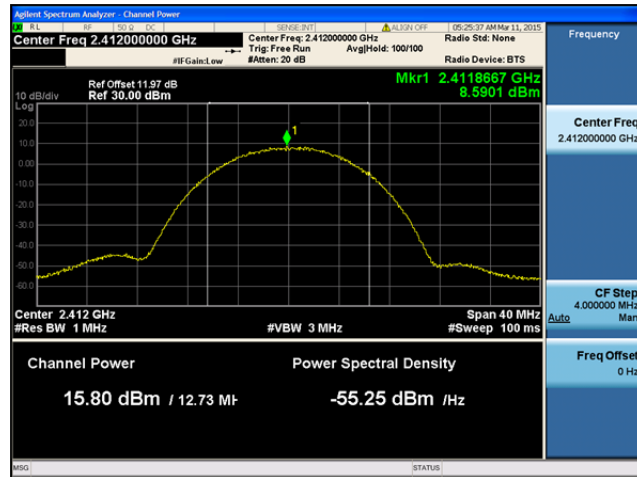
Antenna B



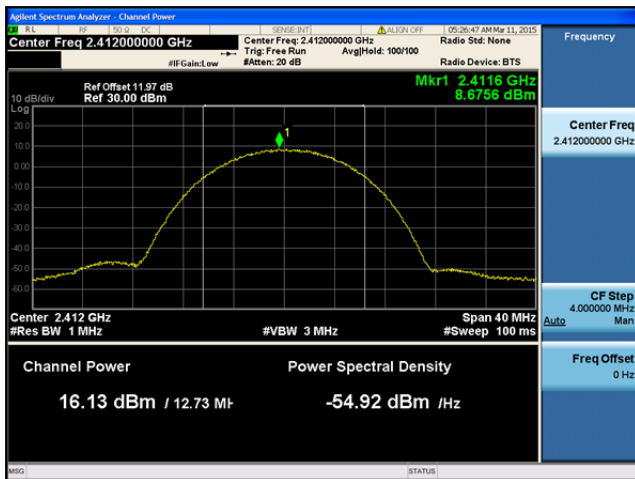
Peak Output Power, 2412 MHz, CCK, 1 to 11 Mbps



Antenna A



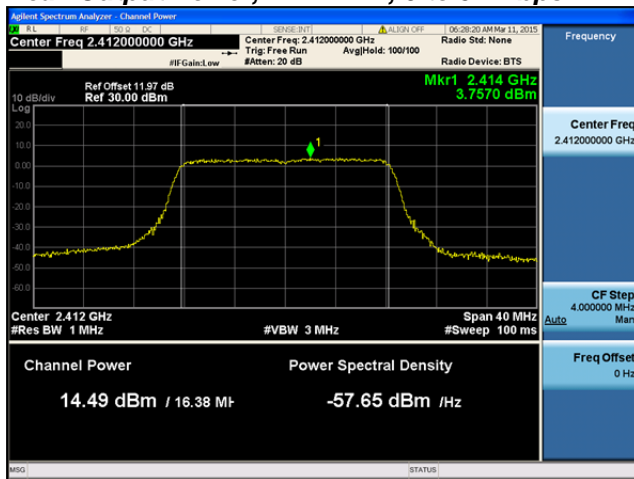
Antenna B



Antenna C



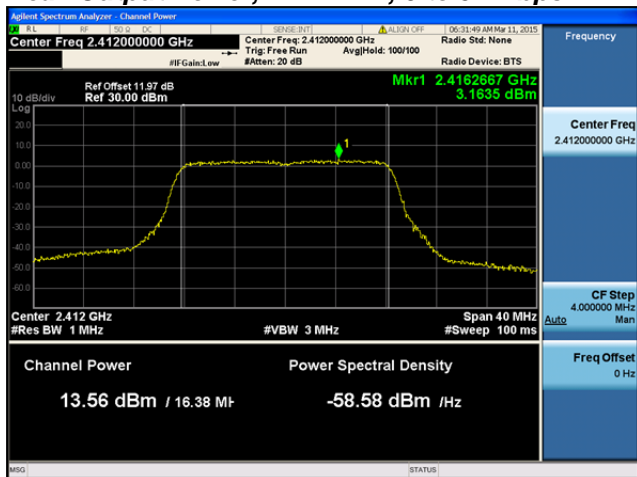
Peak Output Power, 2412 MHz, 6 to 54 Mbps



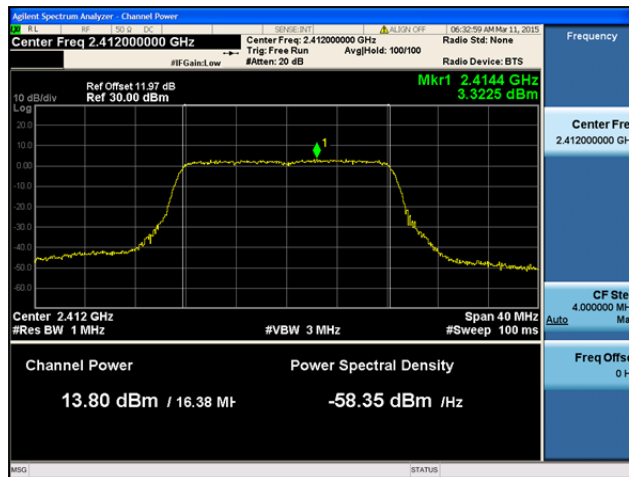
Antenna A



Peak Output Power, 2412 MHz, 6 to 54 Mbps



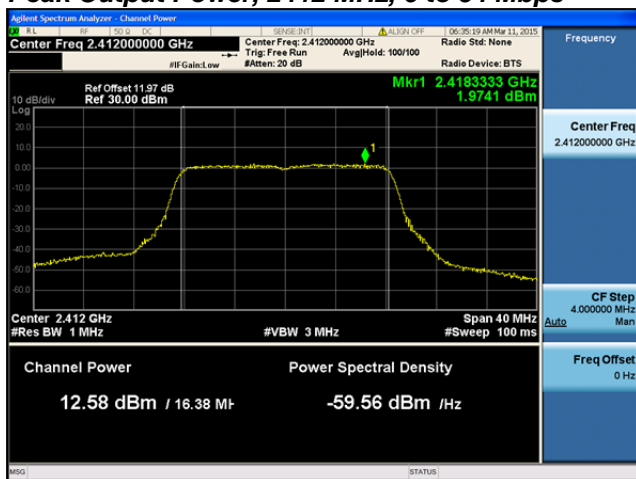
Antenna A



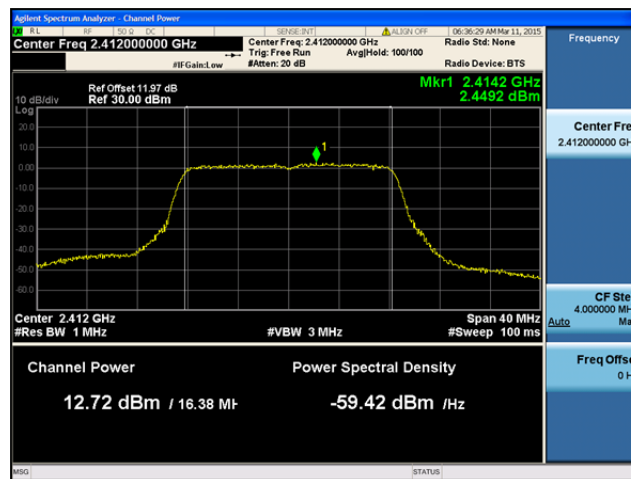
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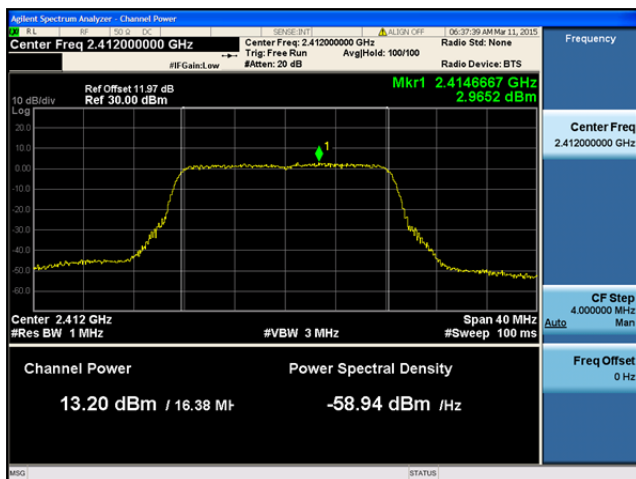
Peak Output Power, 2412 MHz, 6 to 54 Mbps



Antenna A



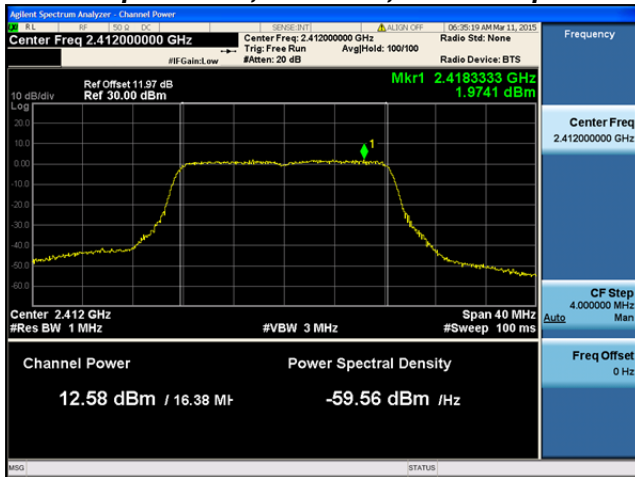
Antenna B



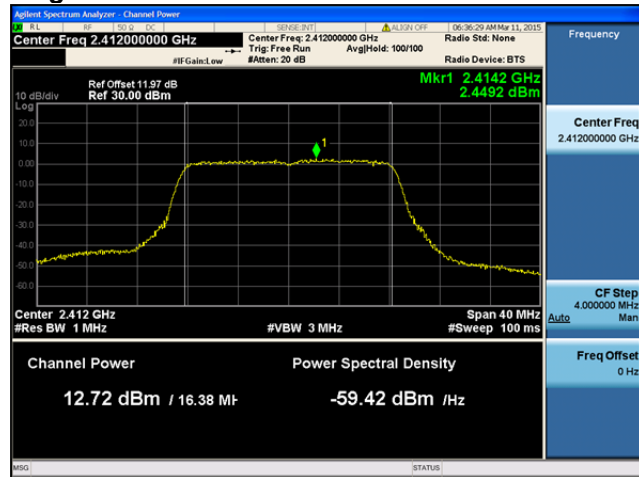
Antenna C



Peak Output Power, 2412 MHz, 6 to 54 Mbps Beam Forming



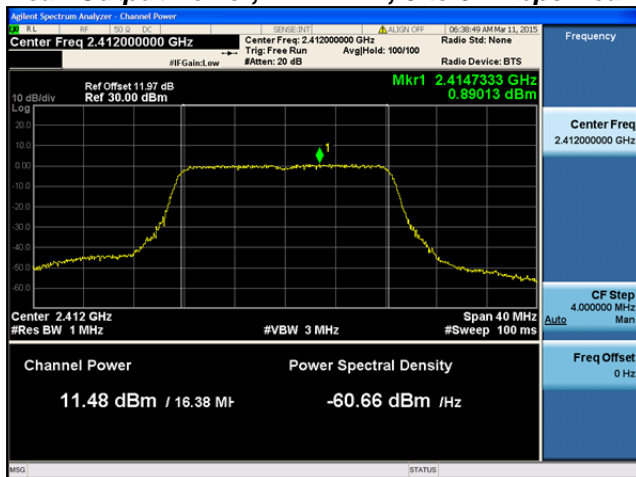
Antenna A



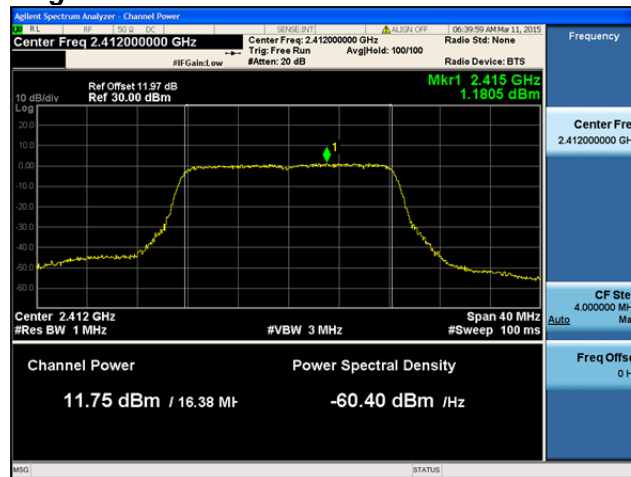
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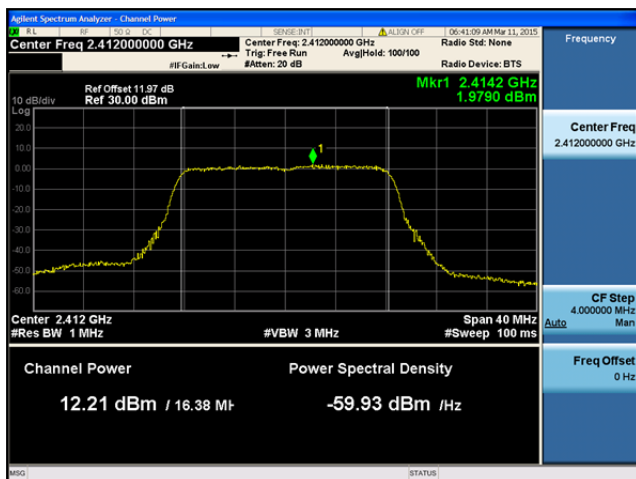
Peak Output Power, 2412 MHz, 6 to 54 Mbps Beam Forming



Antenna A



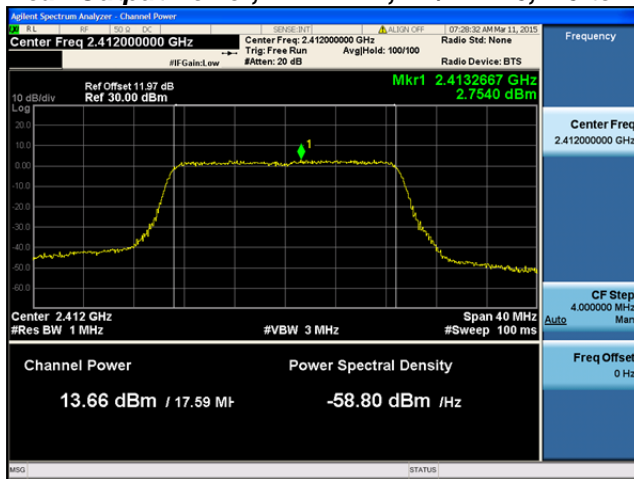
Antenna B



Antenna C



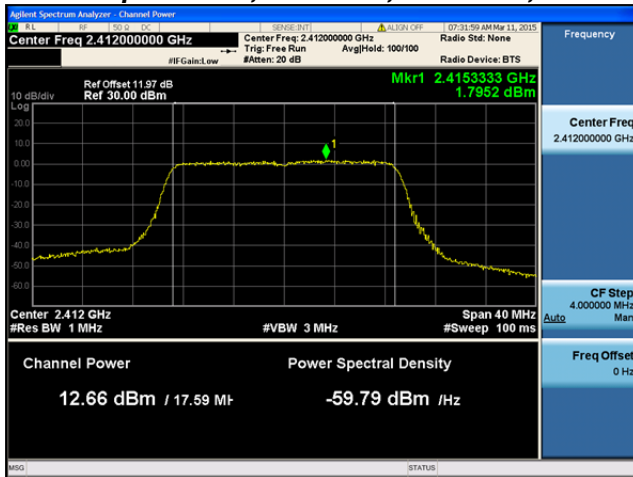
Peak Output Power, 2412 MHz, HT/VHT20, M0 to M7, M0 to M9 1ss



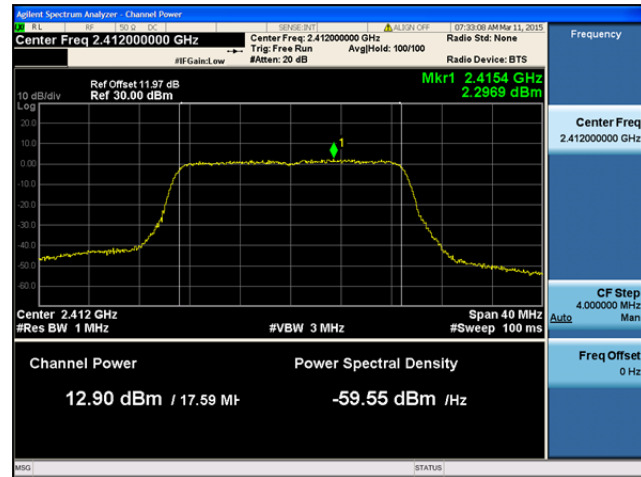
Antenna A



Peak Output Power, 2412 MHz, HT/VHT20, M0 to M7, M0 to M9 1ss



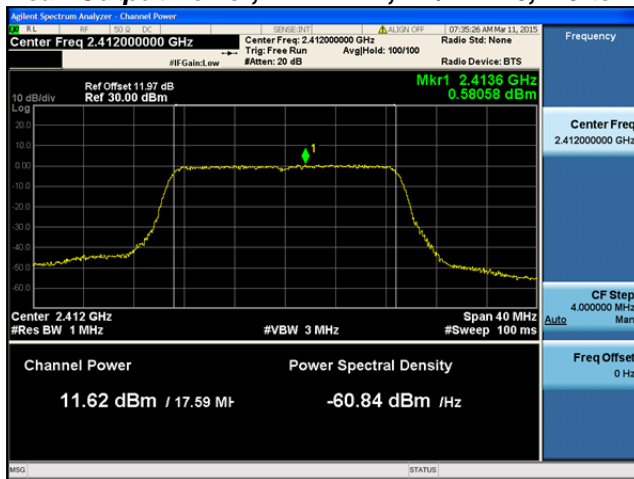
Antenna A



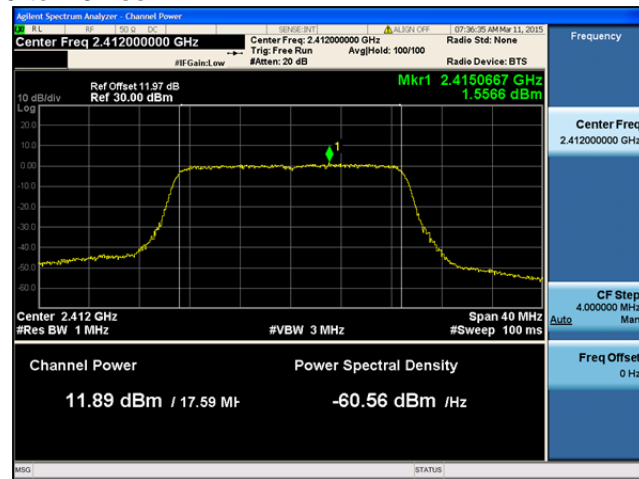
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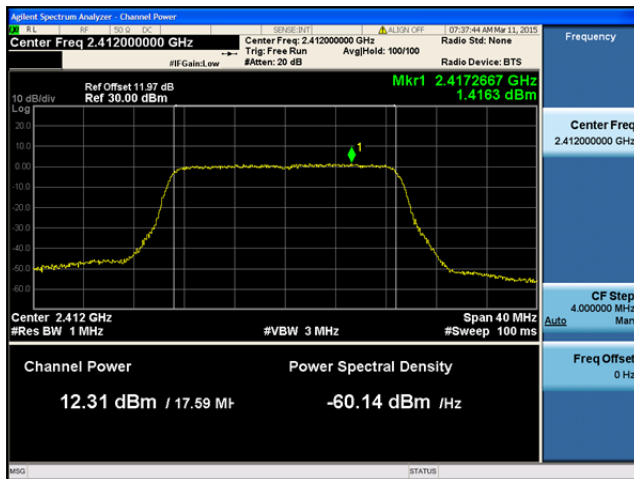
Peak Output Power, 2412 MHz, HT/VHT20, M0 to M7, M0 to M9 1ss



Antenna A



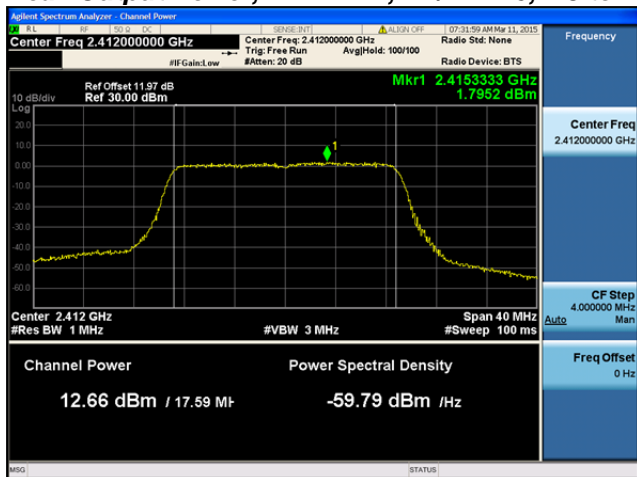
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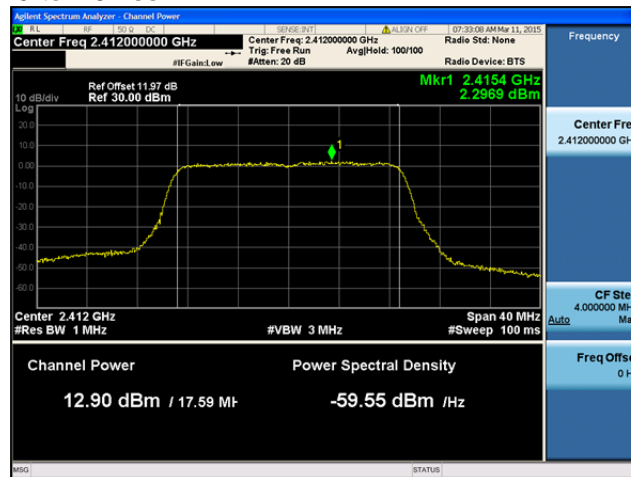
Antenna C



Peak Output Power, 2412 MHz, HT/VHT20, M8 to M15, M0 to M9 2ss



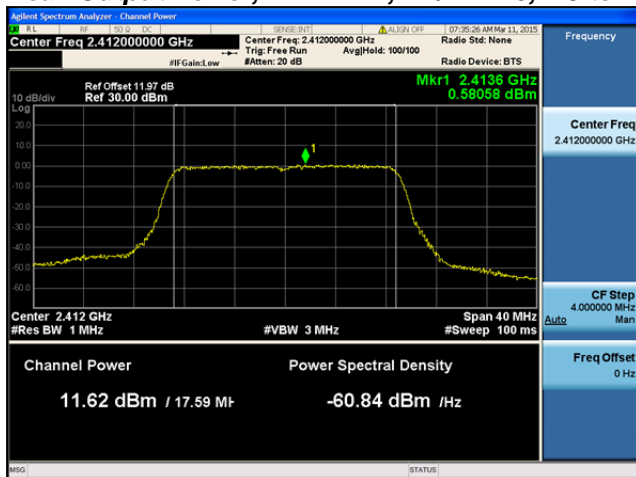
Antenna A



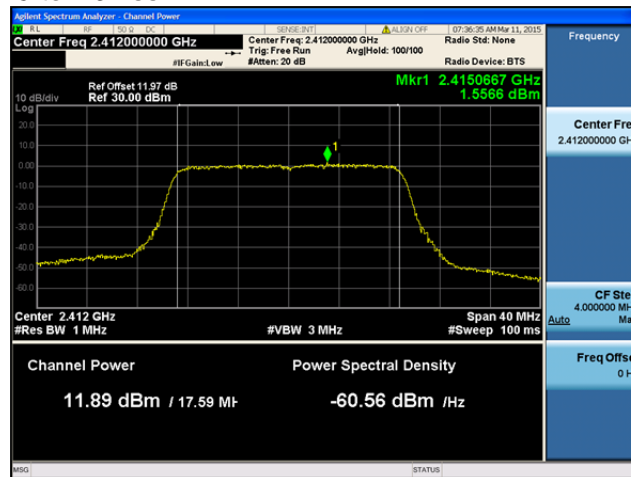
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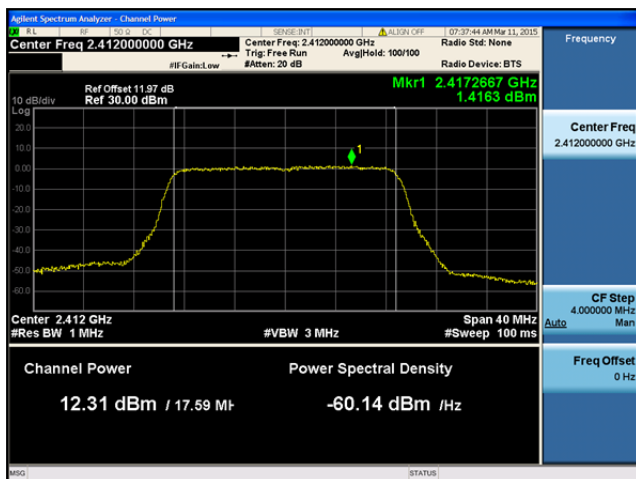
Peak Output Power, 2412 MHz, HT/VHT20, M8 to M15, M0 to M9 2ss



Antenna A



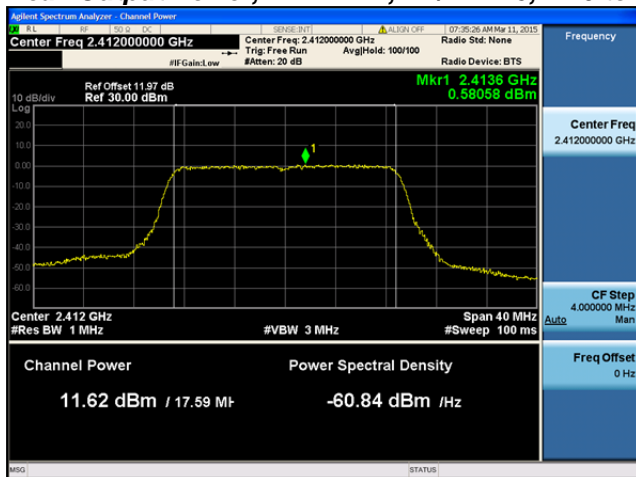
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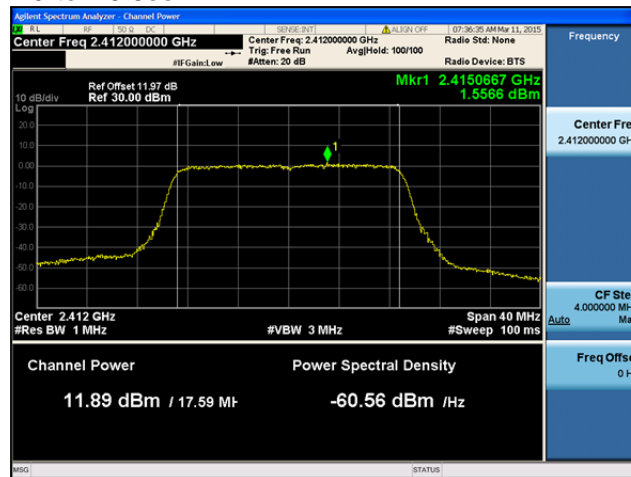
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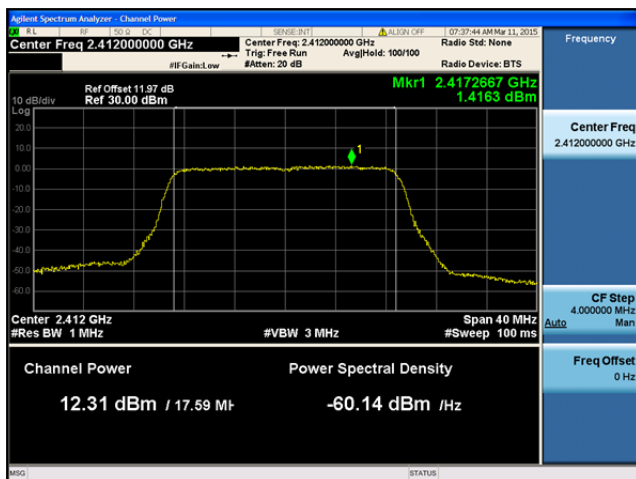
Peak Output Power, 2412 MHz, HT/VHT20, M16 to M23, M0 to M9 3ss



Antenna A



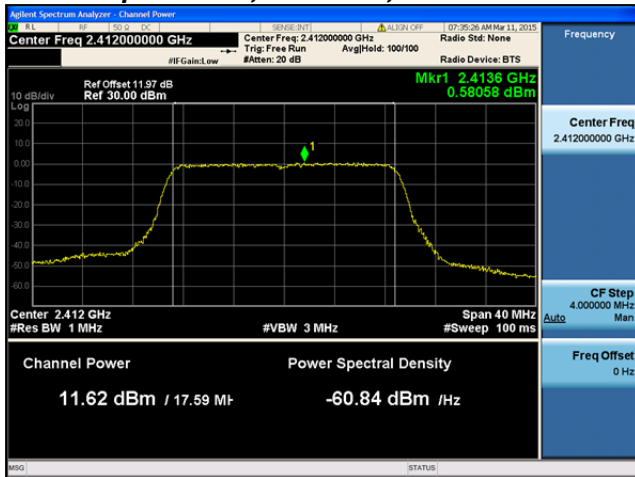
Antenna B



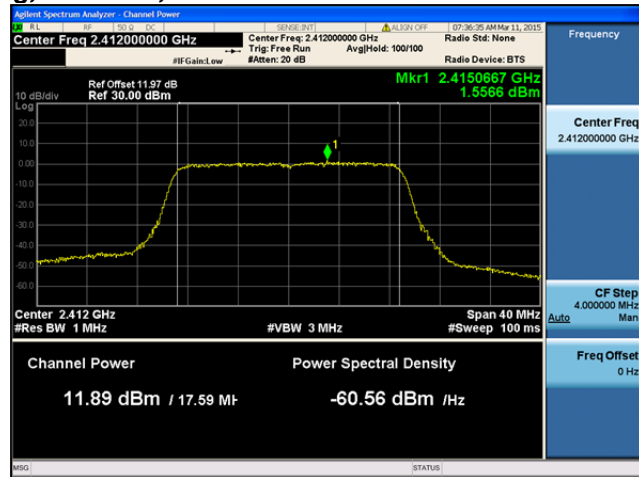
Antenna C



Peak Output Power, 2412 MHz, HT/VHT20 Beam Forming, M0 to M7, M0 to M9 1ss



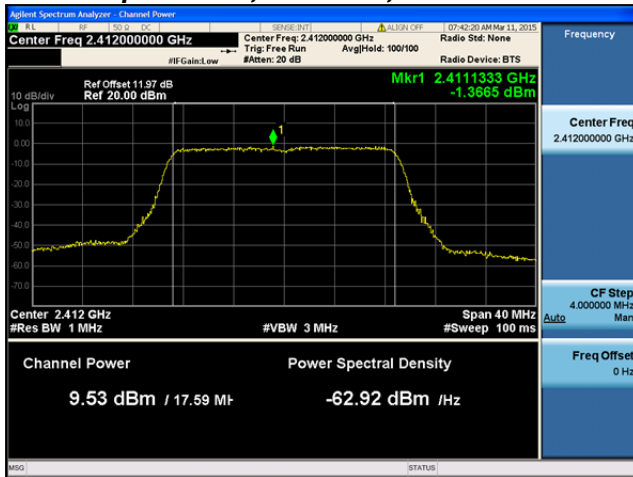
Antenna A



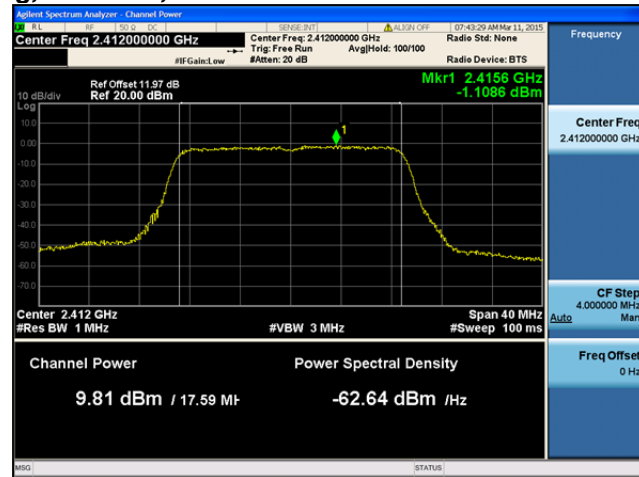
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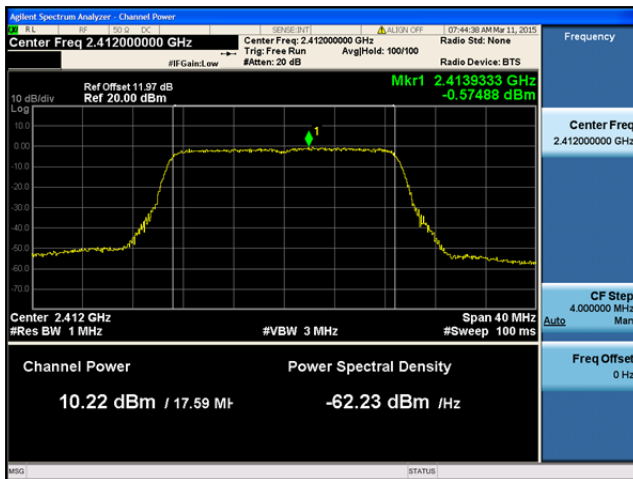
Peak Output Power, 2412 MHz, HT/VHT20 Beam Forming, M0 to M7, M0 to M9 1ss



Antenna A



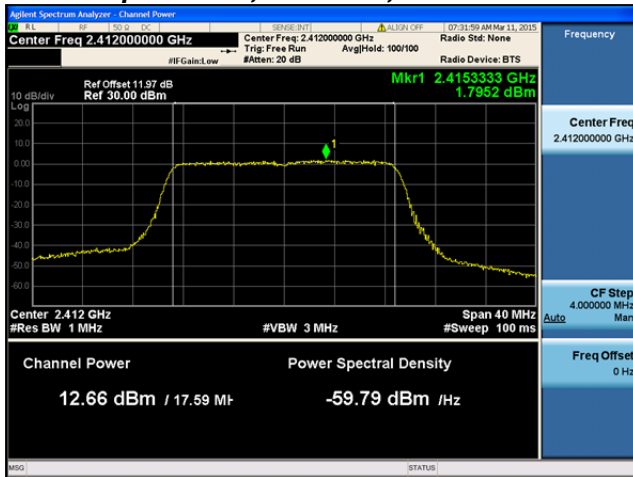
Antenna B



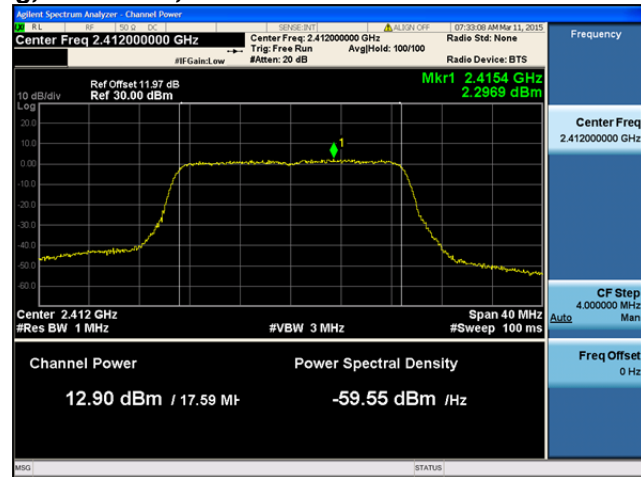
Antenna C



Peak Output Power, 2412 MHz, HT/VHT20 Beam Forming, M8 to M15, M0 to M9 2ss



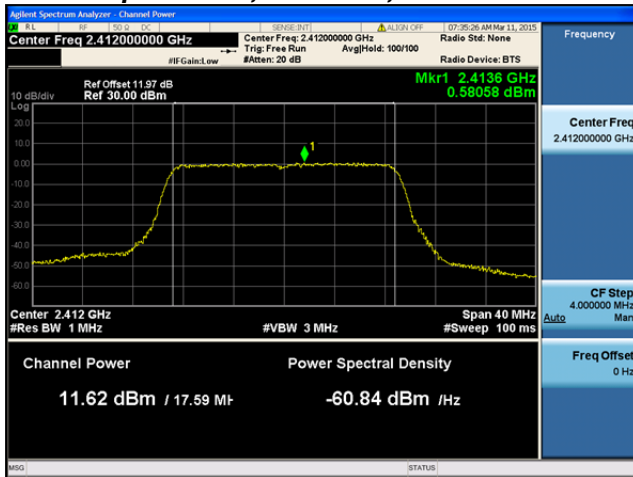
Antenna A



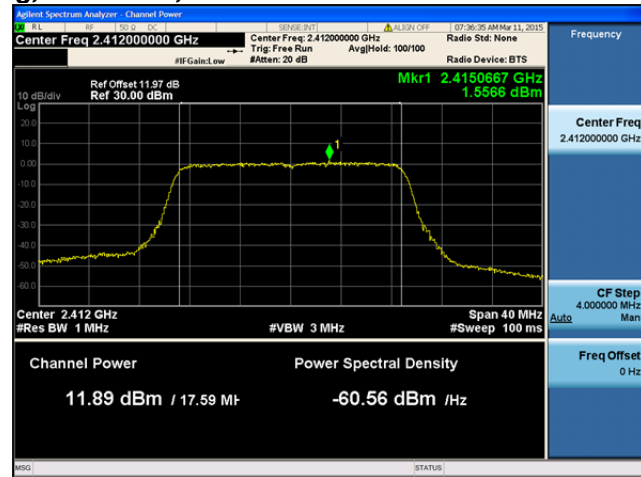
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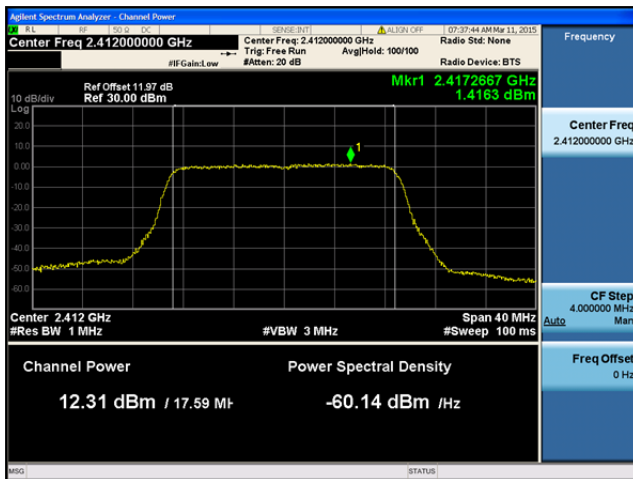
Peak Output Power, 2412 MHz, HT/VHT20 Beam Forming, M8 to M15, M0 to M9 2ss



Antenna A



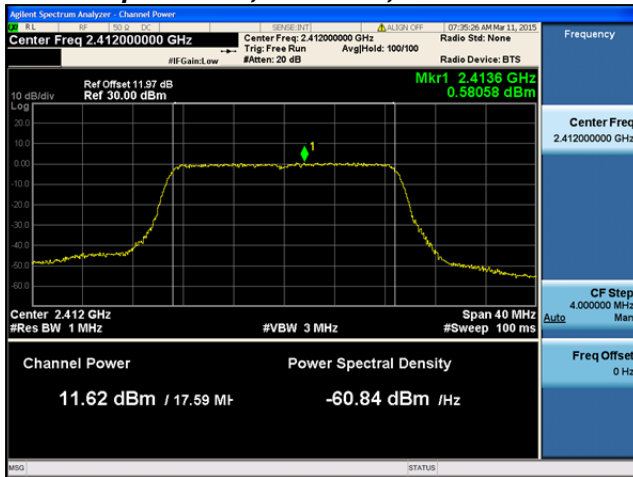
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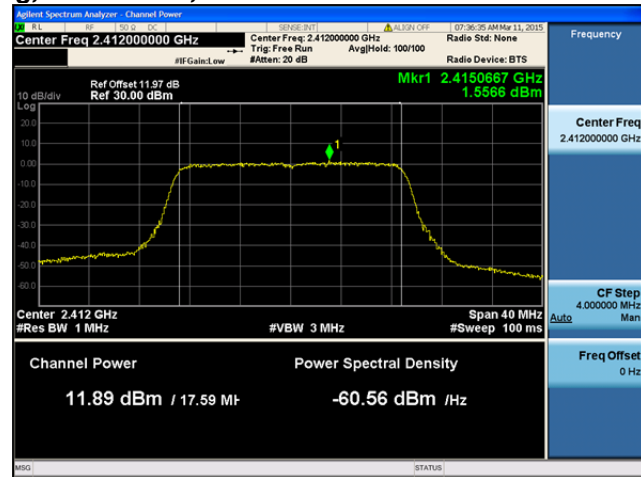
Antenna C



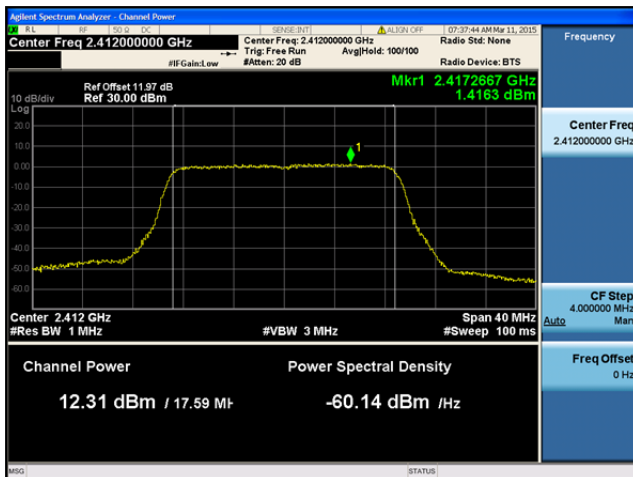
Peak Output Power, 2412 MHz, HT/VHT20 Beam Forming, M16 to M23, M0 to M9 3ss



Antenna A



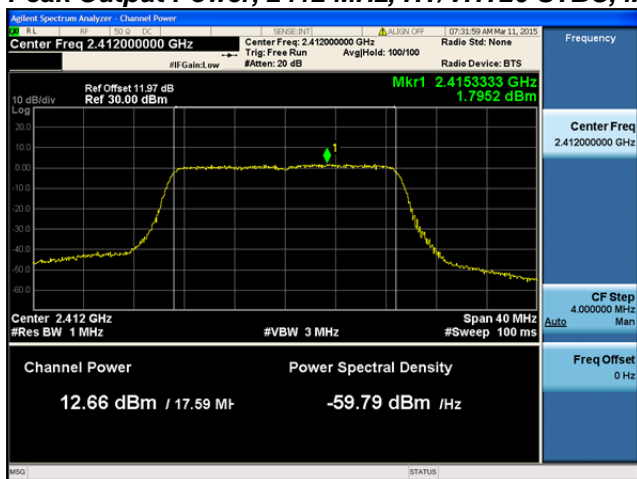
Antenna B



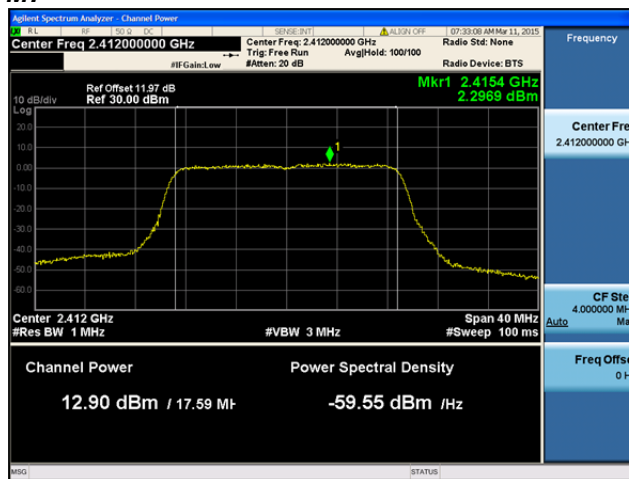
Antenna C



Peak Output Power, 2412 MHz, HT/VHT20 STBC, M0 to M7



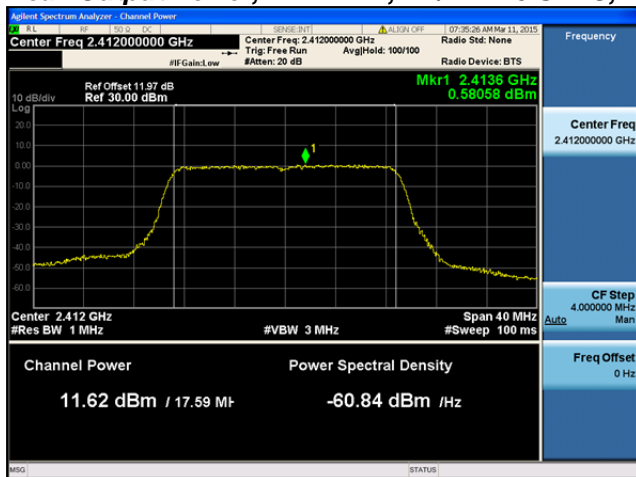
Antenna A



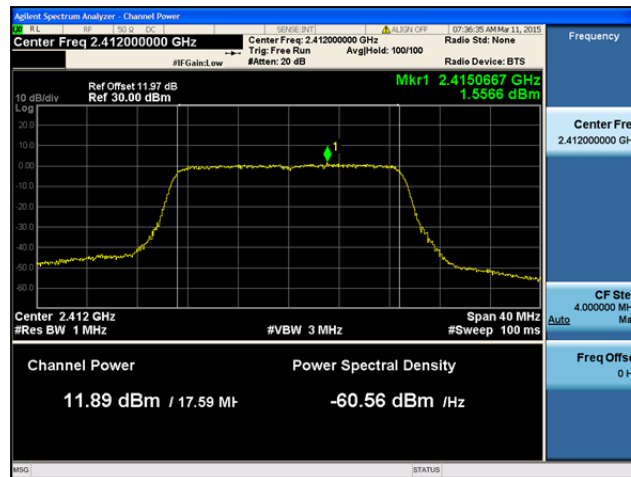
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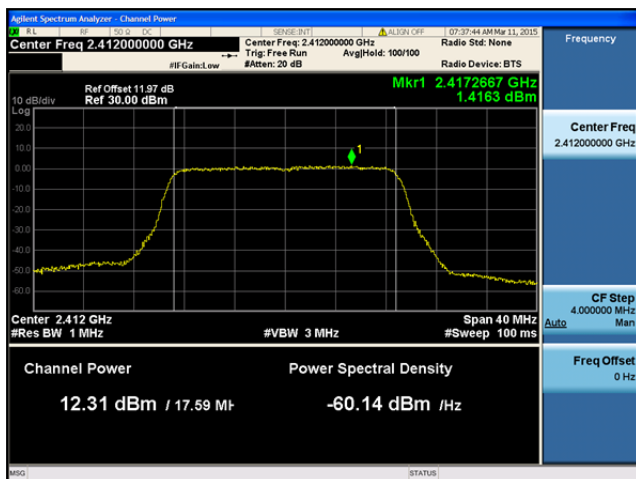
Peak Output Power, 2412 MHz, HT/VHT20 STBC, M0 to M7



Antenna A



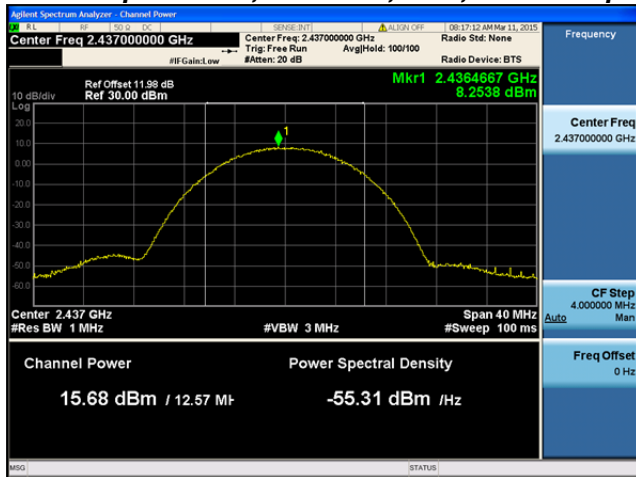
Antenna B



Antenna C



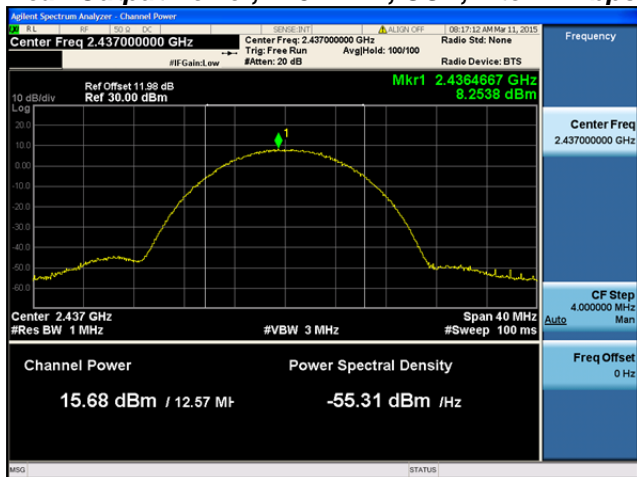
Peak Output Power, 2437 MHz, CCK, 1 to 11 Mbps



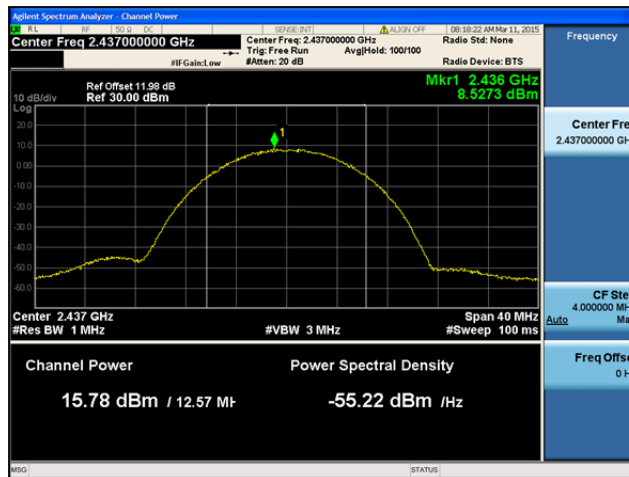
Antenna A



Peak Output Power, 2437 MHz, CCK, 1 to 11 Mbps



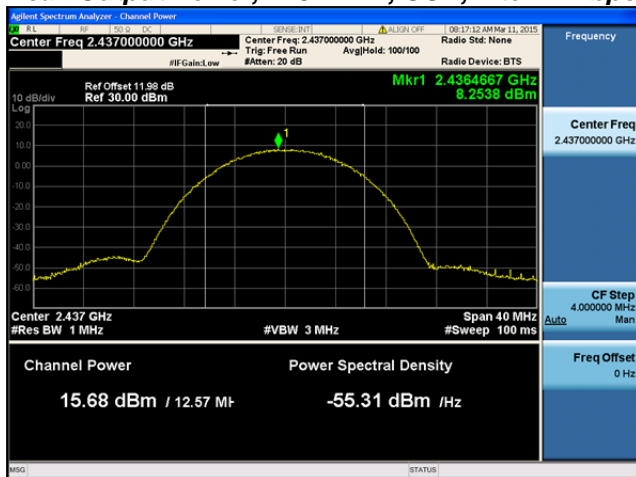
Antenna A



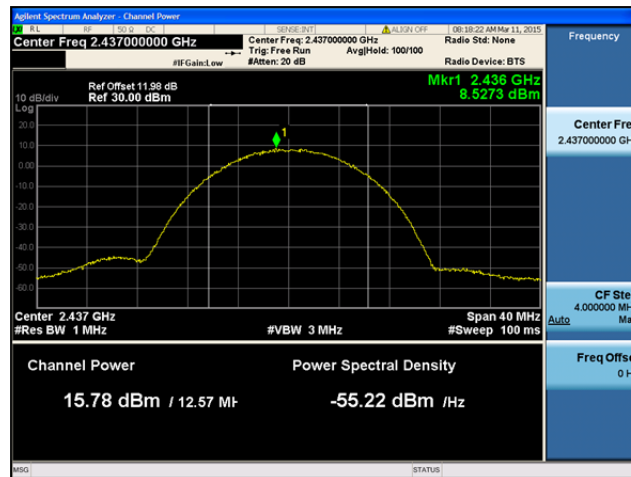
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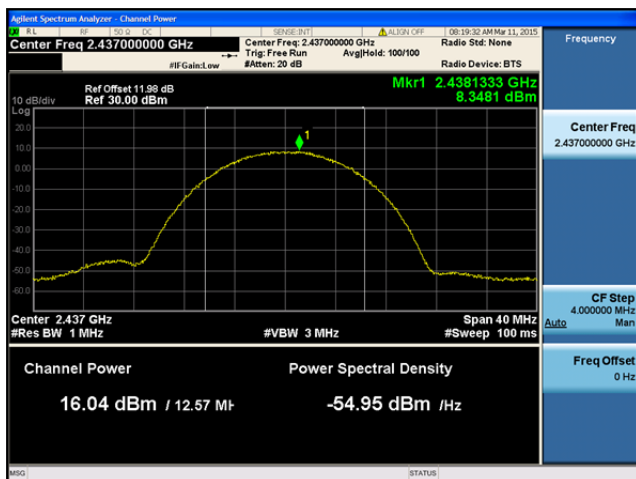
Peak Output Power, 2437 MHz, CCK, 1 to 11 Mbps



Antenna A



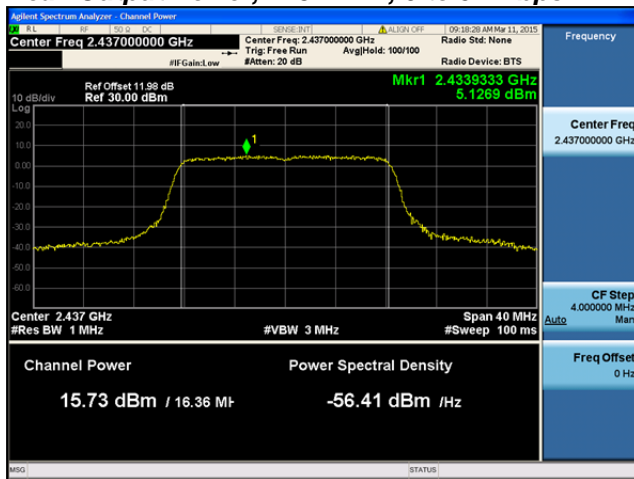
Antenna B



Antenna C



Peak Output Power, 2437 MHz, 6 to 54 Mbps



Antenna A