Test of Aruba Networks APIN0204, APIN0205

To: FCC 47 CFR Part 15.247 & IC RSS-210

Test Report Serial No.: ARUB170-U3 Rev A

TEST REPORT

FROM

Test of Aruba Networks APIN0204, APIN0205

to

To FCC 47 CFR Part 15.247 & IC RSS-210

Test Report Serial No.: ARUB170-U3 Rev A

Note: this report contains data with regard to the 2400-2483.5 MHz and 5725-5850 MHz operational modes of the Aruba Networks APIN0204 and APIN0205 Wireless Access Point. Test data for the non-DFS Bands 5,150 - 5,250 is reported in MiCOM Labs ARUB170-U6 and 5,250 – 5,350 and 5,470–5,725 MHz data reported in MiCOM Labs test report ARUB170-U8

This report supersedes: NONE

Applicant: Aruba Networks
1344 Crossman Avenue
Sunnyvale
California 94089, USA

Product Function: Wireless LAN Access Point

Copy No: pdf Issue Date: 4th May 2014

This Test Report is Issued Under the Authority of;

MiCOM Labs, Inc.
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TESTING CERT #2381.01

MiCOM Labs is an ISO 17025 Accredited Testing Laboratory

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ACCREDITATION, LISTINGS & RECOGNITION

TESTING ACCREDITATION

MiCOM Labs, Inc. is an accredited Electrical testing laboratory per the international standard EN ISO/IEC 17025. The company is accredited by the American Association for Laboratory Accreditation (A2LA) www.a2la.org test laboratory number 2381.01. MiCOM Labs test schedule is available at the following URL; http://www.a2la.org/scopepdf/2381-01.pdf


American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

MICOM LABS

Pleasanton, CA

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 28th day of February 2014.

President & CEO
For the Accreditation Council
Certificate Number 2381.01
Valid to November 30, 2015

For the tests or types of tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.

RECOGNITION

MiCOM Labs, Inc has widely recognized Electrical testing capabilities. Our international recognition includes Conformity Assessment Body designation by APEC MRA** countries. Our test reports are widely accepted for global type approvals.

Country	Recognition Body	Status	Phase	Identification No.
USA	Federal Communications Commission (FCC)	TCB	-	US0159 Listing #: 102167
Canada	Industry Canada (IC)	FCB	APEC MRA 2	US0159 Listing #: 4143A-2
Japan	MIC (Ministry of Internal Affairs and Communication)	CAB	APEC MRA 2	RCB 210
	VCCI	--	--	A-0012
Europe	European Commission	NB	EU MRA	NB 2280
Australia	Australian Communications and Media Authority (ACMA)	CAB	APEC MRA 1	US0159
Hong Kong	Office of the Telecommunication Authority (OFTA)	CAB	APEC MRA 1	
Korea	Ministry of Information and Communication Radio Research Laboratory (RRL)	CAB	APEC MRA 1	
Singapore	Infocomm Development Authority (IDA)	CAB	APEC MRA 1	
Taiwan	National Communications Commission (NCC) Bureau of Standards, Metrology and Inspection (BSMI)	CAB	APEC MRA 1	
Vietnam	Ministry of Communication (MIC)	CAB	APEC MRA 1	

**APEC MRA – Asia Pacific Economic Community Mutual Recognition Agreement.
Is a recognition agreement under which test lab is accredited to regulatory standards of the APEC member countries.
Phase I - recognition for product testing
Phase II – recognition for both product testing and certification
N/A – Not Applicable

**EU MRA – European Union Mutual Recognition Agreement.
Is a recognition agreement under which test lab is accredited to regulatory standards of the EU member countries.

**NB – Notified Body

PRODUCT CERTIFICATION

MiCOM Labs, Inc. is an accredited Product Certification Body per the international standard EN ISO/IEC 17065. The company is accredited by the American Association for Laboratory Accreditation (A2LA) www.a2la.org test laboratory number 2381.02. MiCOM Labs test schedule is available at the following URL; http://www.a2la.org/scopepdf/2381-02.pdf

United States of America – Telecommunication Certification Body (TCB)
TCB Identifier – US0159

Industry Canada – Certification Body
CAB Identifier – US0159

Europe – Notified Body
Notified Body Identifier - 2280

Japan – Recognized Certification Body (RCB)
RCB Identifier - 210

DOCUMENT HISTORY

Document History		
Revision	Date	Comments
Draft		
Rev A	4th May 2014	Initial release.

TEST RESULT CERTIFICATE

Manufacturer:	Aruba Networks 1344 Crossman Avenue Sunnyvale California 94089, USA	Tested By:	MiCOM Labs, Inc. 575 Boulder Court Pleasanton California, 94566, USA
EUT:	802.11a/b/g/n/ac Wireless LAN Access Point	Telephone:	+1 925 462 0304
Model(s):	APIN0204, APIN0205	Fax:	+1 925 462 0306
S/N's:	APIN0204: CM000392 APIN0205: CM000141		
Test Date(s):	17th February - 4th May 2014	Website:	www.micomlabs.com

STANDARD(S)	TEST RESULTS
FCC 47 CFR Part 15.247 & IC RSS-210	EQUIPMENT COMPLIES

MiCOM Labs, Inc. tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report.

Notes:

1. This document reports conditions under which testing was conducted and the results of testing performed.
2. Details of test methods used have been recorded and kept on file by the laboratory.
3. Test results apply only to the item(s) tested.

TESTING CERT #2381.01

Approved & Released for MiCOM Labs, Inc. by:

Graeme Grieve
Quality Manager MiCOM Labs,

Gordon Hurst
President & CEO MiCOM Labs, Inc.

1. REFERENCES AND MEASUREMENT UNCERTAINTY

1.1. Normative References

REF.	PUBLICATION	YEAR	TITLE
i.	FCC 47 CFR Part 15, Subpart C	2010	Title 47: Telecommunication PART 15—RADIO FREQUENCY DEVICES Subpart C—Intentional Radiators
ii.	RSS-210 Annex 8	2010	Radio Standards Specification 210, Issue 8, Low-power License-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment
iii.	FCC OET KDB 662911	4th April 2011	Emissions Testing of Transmitters with Multiple Outputs in the Same Band
iv.	DA 00-705	2000	FCC DA 00-705 "Filing and Measurement Guidelines for Frequency Hopping Spread Spectrum Systems" released March 30, 2000
v.	RSS-GEN	2010	Radio Standards Specification-Gen, Issue 3, General Requirements and Information for the Certification of Radiocommunication Equipment
vi.	FCC 47 CFR Part 15, Subpart B	2010	47 CFR Part 15, SubPart B; Unintentional Radiators
vii.	ICES-003	2004	Spectrum Management and Telecommunications Policy Interference-Causing Equipment Standard Digital Apparatus; Issue 4
viii.	ANSI C63.4	2009	American National Standards for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz
ix.	CISPR 22/ EN 55022	2008 2006+A1:2007	Limits and Methods of Measurements of Radio Disturbance Characteristics of Information Technology Equipment
x.	M 3003	Edition 1 Dec. 1997	Expression of Uncertainty and Confidence in Measurements
xi.	LAB34	Edition 1 Aug 2002	The expression of uncertainty in EMC Testing
xii.	ETSI TR 100 028	2001	Parts 1 and 2 Electromagnetic compatibility and Radio Spectrum Matters (ERM); Uncertainties in the measurement of mobile radio equipment characteristics
xiii.	A2LA	July 2012	Reference to A2LA Accreditation Status – A2LA Advertising Policy

1.2. Test and Uncertainty Procedures

Conducted and radiated emission measurements were conducted in accordance with American National Standards Institute ANSI C63.4, listed in the Normative References section of this report.

Measurement uncertainty figures are calculated in accordance with ETSI TR 100 028 Parts 1 and 2.

Measurement uncertainties stated are based on a standard uncertainty multiplied by a coverage factor k = 2, providing a level of confidence of approximately 95 % in accordance with UKAS document M 3003 listed in the Normative References section of this report.

2. PRODUCT DETAILS AND TEST CONFIGURATIONS

2.1. Technical Details

Details	Description
Purpose:	Test of the Aruba Networks APIN0204, APIN0205 to FCC Part 15.247 and Industry Canada RSS-210 regulations.
Applicant:	Aruba Networks 1344 Crossman Avenue, Sunnyvale, California 94089, USA
Manufacturer:	As applicant.
Laboratory performing the tests:	MiCOM Labs, Inc. 575 Boulder Court, Pleasanton, California 94566 USA
Test report reference number:	ARUB170-U3 Rev A
Date EUT received:	10th January 2013
Standard(s) applied:	FCC 47 CFR Part 15.247 & IC RSS-210
Dates of test (from - to):	17th February - 4th May 2014
No of Units Tested:	Two APIN0204 and APIN0205
Type of Equipment:	802.11a/b/g/n/ac Wireless Access Point 2x2 Spatial Multiplexing MIMO configuration
Manufacturers Trade Name:	Wireless Access Point
Model(s):	APIN0204, APIN0205
Location for use:	Indoor only
Declared Frequency Range(s):	2400 - 2483.5 MHz; 5725 - 5850 MHz
Hardware Rev	Version P2
Software Rev	armv7nsrd_0127
Type of Modulation:	Per 802.11 –CCK, BPSK, QPSK, DSSS, OFDM
EUT Modes of Operation:	Legacy 802.11a/b/g/n/ac
Declared Nominal Average Output Power:	2.4 GHz Operation 802.11b/g/n: +22 dBm 5 GHz Operation 802.11a/n/ac: +23 dB m
System Beam Forming:	APIN0204, APIN0205 has no capability for antenna beam forming
Transmit/Receive Operation:	Time Division Duplex
Rated Input Voltage and Current:	POE 56 Vdc 350 mA 12 Vdc 1.5 A
Operating Temperature Range:	Declared range 0° to +40°.
ITU Emission Designator:	2400 – 2483.5 MHz 802.11b 11M9G1D 2400 – 2483.5 MHz 802.11g 16M6D1D 2400 – 2483.5 MHz 802.11n – HT-20 17M7D1D 2400 – 2483.5 MHz 802.11n – HT-40 36M4D1D 5725 – 5850 MHz 802.11a 17M9D1D 5725 – 5850 MHz 802.11n – HT-20 18M8D1D 5725 – 5850 MHz 802.11n – HT-40 54M2D1D 5725 – 5850 MHz 802.11VHT-80 77M9D1D
Equipment Dimensions:	150mmx150mmx40mm
Weight:	3 lbs
Primary function of equipment:	Wireless Access Point for transmitting data and voice.

2.2. Scope of Test Program

Aruba Networks APIN0204, APIN0205 Wireless Access Point

The scope of the test program was to test the Aruba Networks APIN0204, APIN0205, 2x2 Spatial Multiplexing MIMO configurations in the frequency ranges 2400 - 2483.5 MHz and 5725 – 5850 MHz for compliance against FCC 47 CFR Part 15.247 and Industry Canada RSS-210 specifications.

Model Identification
APIN0204: External Antenna (Reverse SMA)
APIN0205: Integral Antenna

APIN0204 and APIN0205 Operational Modes
Client did not provide software capability for the following operational modes and claimed these were covered under 802.11n HT-20 and 802.11n HT-40.

i).. VHT-20
ii)..VHT-40

FCC OET KDB Implementation
This test program implements the following FCC KDB – 662911 4/4/2011;
Emissions Testing of Transmitters with Multiple Outputs in the Same Band

The KDB document provides guidance for measurements of conducted output emissions of devices that employ a single transmitter with multiple outputs in the same band, with the outputs occupying the same or overlapping frequency ranges. It applies to EMC compliance measurements on devices that transmit on multiple antennas simultaneously in the same or overlapping frequency ranges through a coordinated process. Examples include, but are not limited to, devices employing beam forming or multiple-input and multiple-output (MIMO.) This guidance applies to both licensed and unlicensed devices wherever the FCC rules call for conducted output measurements. Guidance is provided for in-band, out-of-band and spurious emission measurements.

This guidance does not apply to the multiple transmitters included in a composite device, such as a device that combines an 802.11 modem with a cell phone in one enclosure with each driving its own antenna.

Aruba Networks Inc
APIN0204 External Antenna 802.11 a/b/g/n/ac Wireless Access Point

Aruba Networks Inc
APIN0205 Integral Antenna 802.11 a/b/g/n/ac Wireless Access Point

Aruba Networks Inc
802.11 a/b/g/n/ac Wireless Access Point (Rear)

2.3. Equipment Model(s) and Serial Number(s)

Type (EUT/ Support)	Equipment Description (Including Brand Name)	Mfr	Model No.	Serial No.
EUT	Wireless LAN Access Point	Aruba Networks	APIN0204	CM000392
EUT	Wireless LAN Access Point (Integral Antenna)	Aruba Networks	APIN0205	CM000141
Support	Laptop PC	IBM	Thinkpad	None

2.4. Antenna Details

3. APIN0204 External Antennas

Model	Type	Gain	Freq. Band	Note
		dBi	MHz	
AP-ANT-1B	Omni	3.8	2400 - 2500	
		5.8	4900 - 5875	
AP-ANT-13B	Omni	4.4	2400 - 2500	
		3.3	4900 - 5900	
AP-ANT-16	Omni	3.9	2400 - 2500	
		4.7	4900 - 5900	
AP-ANT-17	Directional 120degr.	6.0	2400 - 2500	
		5.0	4900 - 5875	
AP-ANT-18	Directional 60degr.	7.5	2400 - 2500	
		7.5	5150 - 5875	
AP-ANT-19	Omni	3.0	2400 - 2500	
		6.0	5150 - 5875	
AP-ANT-20	Omni	2.0	2400 - 2500	
		2.0	5150 - 5875	

APIN0205 Integral Antennas

Model	Type	Gain	Freq. Band	Note
		dBi	MHz	
metal sheet	Omni	4.0	2400 - 2500	
metal sheet	Omni	4.5	5150 - 5875	

3.1. Cabling and I/O Ports

Number and type of I/O ports

1. 10/100/1000 Ethernet (POE)
2. Console - Serial maintenance terminal
3. 12 Vdc, jack connector
4. RF Antenna Connectors (x3) – Reverse SMA (APIN0204 Only)

3.2. Test Configurations

Testing was performed to determine the highest power level versus bit rate. The variant with the highest power was used to exercise the product.

Operational Mode(s) (802.11a/b/g/n/ac)	Variant	Data Rate with Highest Power	Frequencies (MHz)
2.4 GHz			
b	Legacy	1 MBit/s	2,412 2,437 2,462
g	Legacy	6 MBit/s	
n	HT-20	6.5 (MCS 0)	
	HT-40	13.5 (MCS 0)	2,422 2,437 2,452
5.8 GHz			
a	Legacy	6 MBit/s	5,745 5,785 5,825
n	HT-20	6.5 (MCS 0)	
	HT-40	13.5 (MCS 0)	5,755 5,795
ac	ac-40	13.5 (MCS 0)	
	ac-80	29.3 (MCS 0)	5,775

Legacy – data rates for 802.11abg products

Results for the above configurations are provided in this report

.

Antenna Test Configurations for Radiated Emissions

Results for the following configurations are provided in this report.

Radiated emissions testing was performed for all possible configurations on the integral antenna, the table below identifies all radiated testing completed on the device.

2,400 – 2483.5 MHz

15.247	
802.11b,g, 802.11n HT-20	SE 2412
	SE 2437
	SE 2462
	BE 2390
	BE 2483.5
802.11n HT-40	SE 2412
	SE 2437
	SE 2462
	BE 2390
	BE 2483.5

5,725 – 5850 MHz

15.247	
802.11a 802.11n HT-20	a SE 5745
	a SE 5785
	a SE 5825
802.11n HT-40	SE 5755
	SE 5795
	BE 5460
802.11ac-80	SE 5775
	BE 5460

KEY;-

SE – Spurious Emission
BE – Band-Edge

3.3. Equipment Modifications

The following modifications were required to bring the equipment into compliance:

1. NONE

3.4. Deviations from the Test Standard

The following deviations from the test standard were required in order to complete the test program:

1. NONE

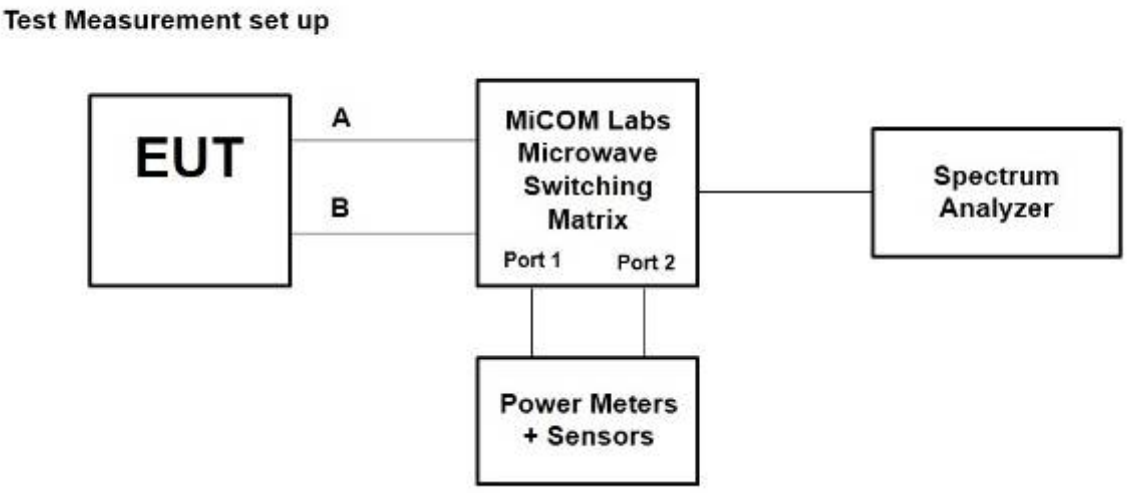
4. TEST EQUIPMENT CONFIGURATION(S)

4.1. Conducted RF Emission Test Set-up

The following tests were performed using the conducted test set-up shown in the diagram below.

1. Section 6.1.1.1. 6 dB and 99% Bandwidth
2. Section 6.1.1.2. Peak Output Power
3. Section 6.1.1.3. Power Spectral Density
4. Section 6.1.1.4. Conducted Spurious Emissions

Conducted Test Set-Up Pictorial Representation

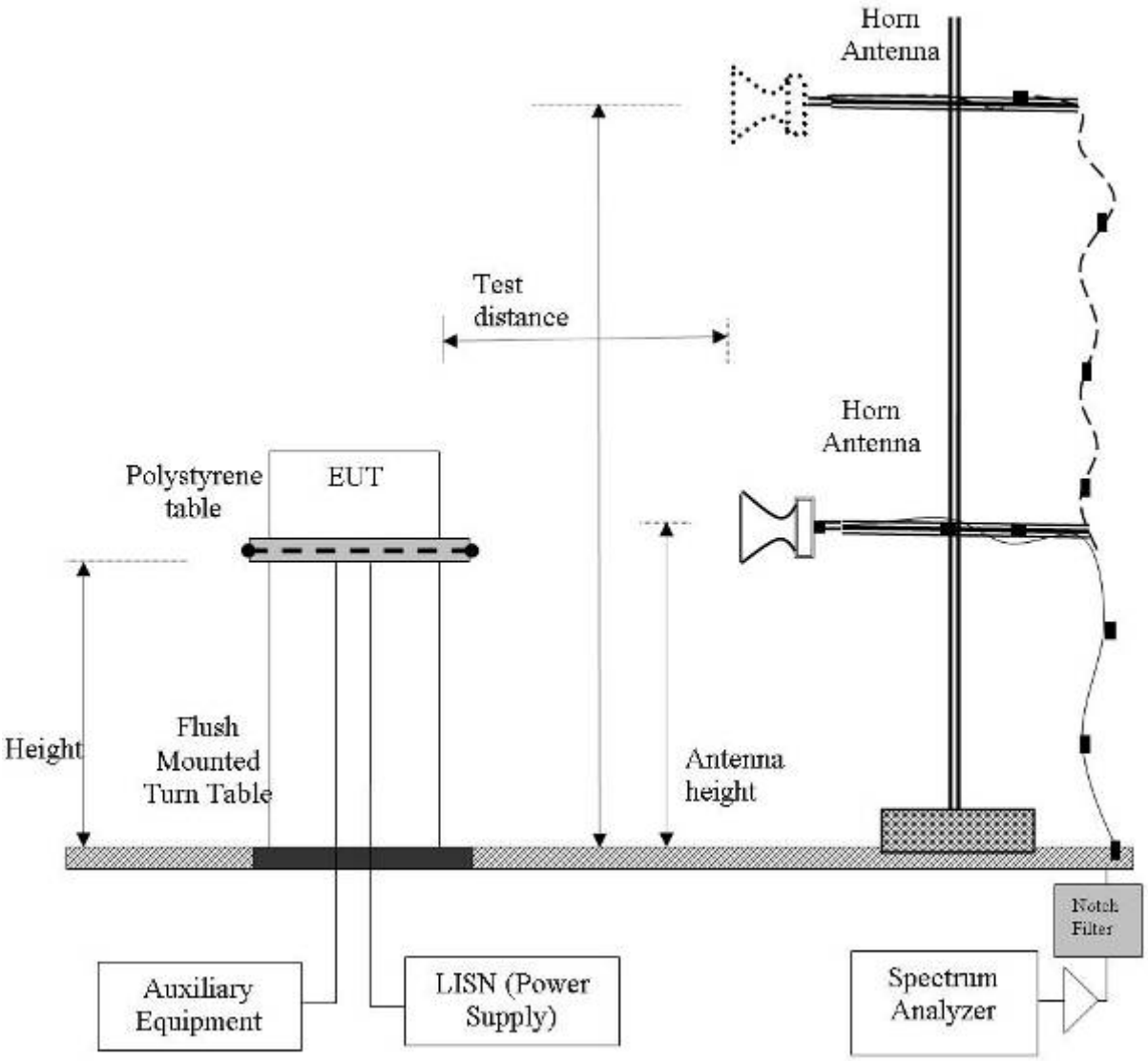


Conducted Test Measurement Setup

4.2. Radiated Spurious Emission Test Set-up > 1 GHz

The following tests were performed using the conducted test set-up shown in the diagram below.

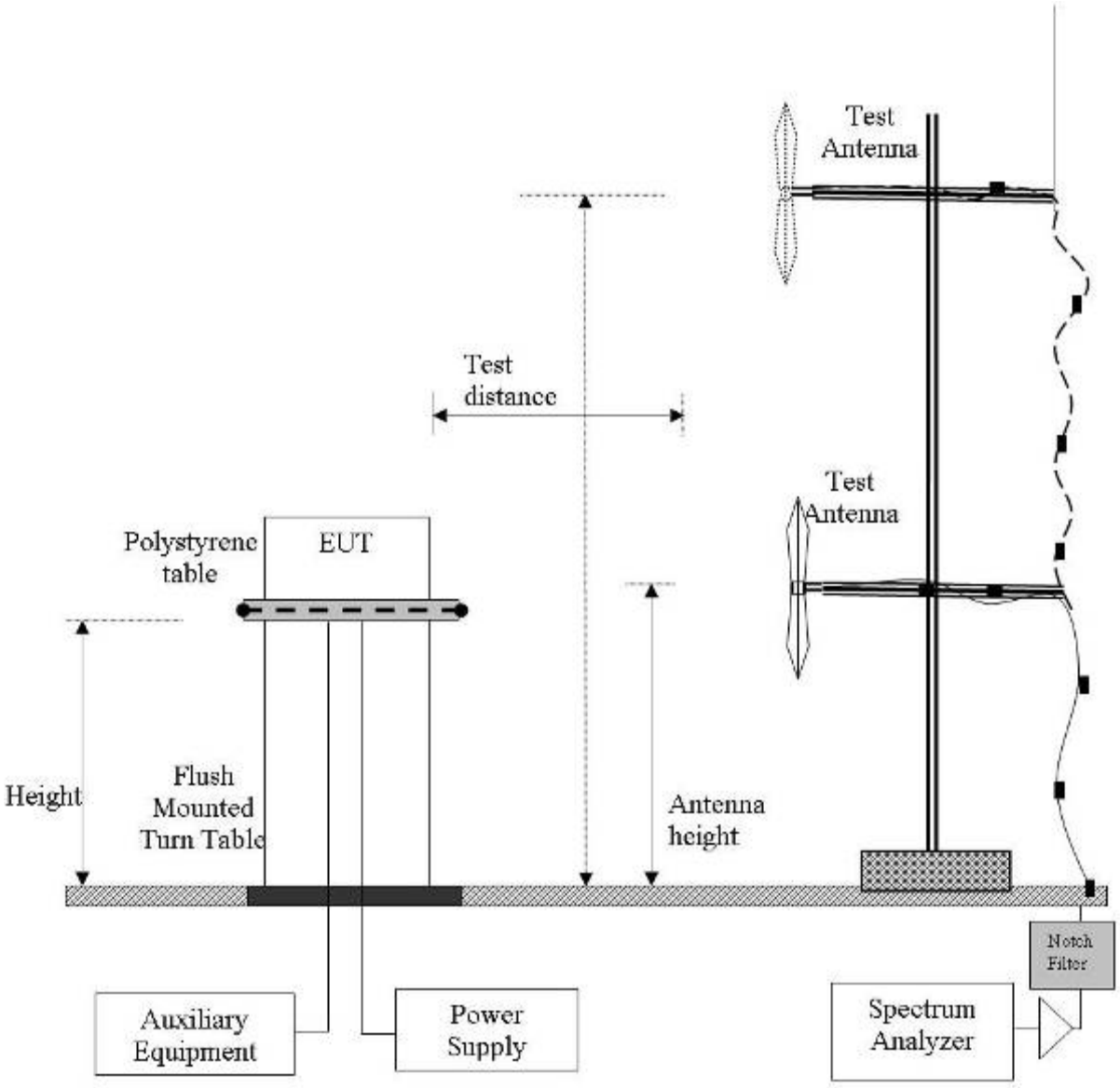
Radiated Emission Measurement Setup – Above 1 GHz



4.3. Digital Emissions Test Set-up (0.03 – 1 GHz)

The following tests were performed using the conducted test set-up shown in the diagram below.

Digital Emission Measurement Setup – Below 1 GHz

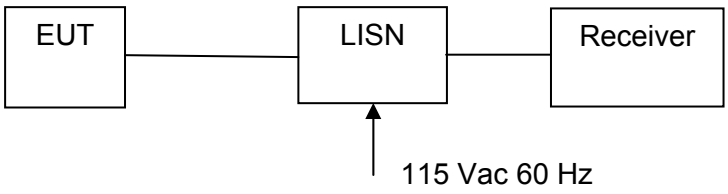


4.4. ac Wireline Emission Test Set-up

The following tests were performed using the conducted test set-up shown in the diagram below.

1. Section 5.1.3 ac Wireline Conducted Emissions

Test Measurement Set up



Measurement set up for AC Wireline Conducted Emissions Test

5. TEST SUMMARY

List of Measurements

The following table represents the list of measurements required under the **FCC CFR47 Part 15.247** and **Industry Canada RSS-210** and **Industry Canada RSS-Gen.**

Section(s)	Test Items	Description	Condition	Result	Test Report Section
15.247(a)(2) **A8.2(1)** **4.4**	6 dB and 99 % Bandwidths	≥500 kHz	Conducted	Complies	5.1.1.1
15.247(b)(3) **15.31(e)** **A8.4(4)**	Peak Output Power Voltage Variation	Shall not exceed 1W Variation of supply voltage 85 % -115 %	Conducted	Complies	5.1.1.2
15.247(e) **A8.2**	Peak Power Spectral Density	Shall not be greater than +8 dBm in any 3 kHz band	Conducted	Complies	5.1.1.3
15.247(d) **15.205 /** **15.209** **A8.5** **2.2** **4.7**	Spurious Emissions (30MHz - 26 GHz b/g and 30 MHz – 40 GHz a)	The radiated emission in any 100 kHz of out-band shall be at least 20 dB below the highest in-band spectral density	Conducted	Complies	5.1.1.4

List of Measurements (continued)

The following table represents the list of measurements required under the **FCC CFR47 Part 15.247, Industry Canada RSS-210,** and **Industry Canada RSS-Gen.**

Section(s)	Test Items	Description	Condition	Result	Test Report Section
15.247(d) **15.205 /** **15.209** **A8.5** **2.2** **2.6** **4.7**	Radiated Emissions	Restricted Bands	Radiated	Complies	5.1.2
	Transmitter Radiated Spurious Emissions	Emissions above 1 GHz		Complies	
	Radiated Band Edge	Band-edge results Peak Emissions		Complies	
15.205 / **15.209** **2.2**	Radiated Spurious Emissions	Emissions <1 GHz (30M-1 GHz)	Radiated	Complies	*5.1.2.4*
15.207 **7.2.2**	AC Wireline Conducted Emissions 150 kHz–30 MHz	Conducted Emissions	Conducted	N/A EUT is POE powered - not shipped with equipment	*5.1.3*

Note 1: *Test results reported in this document relate only to the items tested*
Note 2: *The required tests demonstrated compliance as per client declaration of test configuration, monitoring methodology and associated pass/fail criteria*
Note 3: *Section 3.7 Equipment Modifications highlights the equipment modifications that were required to bring the product into compliance with the above test matrix*

6. TEST RESULTS

6.1. Device Characteristics

6.1.1. Conducted Testing

6.1.1.1. 6 dB and 99 % Bandwidth

Conducted Test Conditions for 6 dB and 99% Bandwidth			
Standard:	FCC CFR 47:15.247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	6 dB and 99 % Bandwidth	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (a)(2)	**Pressure (mBars):**	999 - 1001
Reference Document(s):	KDB 558074 - D01 DTS Measurement Guidance v01: Section 5.1 Emission Bandwidth		

Test Procedure for 6 dB and 99% Bandwidth Measurement
The bandwidth at 6 dB and 99 % was measured with a spectrum analyzer connected to the antenna terminal, while EUT is operating in transmission mode at the appropriate center frequency.

Equipment Configuration for 6 dB & 99% Bandwidth			
Variant:	802.11b	**Duty Cycle (%):**	100
Data Rate:	1 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	CCK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	KHz	MHz
2412.0	9.138	8.657	--	--	9.138	8.657	≥500.0	-8.16
2437.0	8.657	8.257	--	--	8.657	8.257	≥500.0	-7.76
2462.0	8.657	8.657	--	--	8.657	8.657	≥500.0	-8.16

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
2412.0	11.864	11.623	--	--	11.864		
2437.0	11.623	11.463	--	--	11.623		
2462.0	11.623	11.463	--	--	11.623		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	802.11g	**Duty Cycle (%):**	100
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	KHz	MHz
2412.0	16.513	16.513	--	--	16.513	16.513	≥500.0	-16.01
2437.0	16.513	16.513	--	--	16.513	16.513	≥500.0	-16.01
2462.0	16.513	16.593	--	--	16.593	16.513	≥500.0	-16.01

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
2412.0	16.513	16.513	--	--	16.513		
2437.0	16.593	16.513	--	--	16.593		
2462.0	16.513	16.593	--	--	16.593		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	802.11n HT-20	**Duty Cycle (%):**	93
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	KHz	MHz
2412.0	17.715	17.796	--	--	17.796	17.715	≥500.0	-17.22
2437.0	17.715	17.796	--	--	17.796	17.715	≥500.0	-17.22
2462.0	17.555	17.796	--	--	17.796	17.555	≥500.0	-17.06

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
2412.0	17.715	17.635	--	--	17.715		
2437.0	17.715	17.715	--	--	17.715		
2462.0	17.715	17.715	--	--	17.715		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	802.11n HT-40	**Duty Cycle (%):**	90
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	KHz	MHz
2422.0	36.553	36.072	--	--	36.553	36.072	≥500.0	-35.57
2437.0	36.713	36.713	--	--	36.713	36.713	≥500.0	-36.21
2452.0	36.713	36.713	--	--	36.713	36.713	≥500.0	-36.21

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
2422.0	36.393	36.232	--	--	36.393		
2437.0	36.393	36.393	--	--	36.393		
2452.0	36.393	36.393	--	--	36.393		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	802.11a	**Duty Cycle (%):**	98
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	KHz	MHz
5745.0	16.513	16.513	--	--	16.513	16.513	≥500.0	-16.01
5785.0	16.513	16.513	--	--	16.513	16.513	≥500.0	-16.01
5825.0	16.513	16.513	--	--	16.513	16.513	≥500.0	-16.01

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
5745.0	17.475	16.834	--	--	17.475		
5785.0	17.876	16.994	--	--	17.876		
5825.0	17.796	16.914	--	--	17.796		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 6 dB & 99% Bandwidth			
Variant:	802.11ac-80	**Duty Cycle (%):**	91
Data Rate:	29.3 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:	No software version given however, on boot we were given product number 41365		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	KHz	MHz
5775.0	76.313	76.313	--	--	76.313	76.313	≥500.0	-75.81

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
5775.0	77.916	76.313	--	--	77.916		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 6 dB & 99% Bandwidth			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	KHz	MHz
5745.0	17.715	17.715	--	--	17.715	17.715	≥500.0	-17.22
5785.0	17.715	17.715	--	--	17.715	17.715	≥500.0	-17.22
5825.0	17.715	17.715	--	--	17.715	17.715	≥500.0	-17.22

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
5745.0	18.517	17.956	--	--	18.517		
5785.0	18.838	17.956	--	--	18.838		
5825.0	18.677	18.036	--	--	18.677		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for 6 dB & 99% Bandwidth

Variant:	802.11n HT-40	**Duty Cycle (%):**	90
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:	No software version given however, on boot we were given product number 41365		

Test Measurement Results

Test Frequency	Measured 6 dB Bandwidth (MHz) Port(s)				6 dB Bandwidth (MHz)		Limit	Lowest Margin
MHz	a	b	c	d	Highest	Lowest	KHz	MHz
5755.0	36.713	36.713	--	--	36.713	36.713	≥500.0	-36.21
5795.0	36.713	36.713	--	--	36.713	36.713	≥500.0	-36.21

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)		
MHz	a	b	c	d			
5755.0	37.836	36.553	--	--	37.836		
5795.0	54.188	45.852	--	--	54.188		

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Specification

Limits

§15.247 (a)(2) & RSS-210 §A8.2(1)
The minimum 6 dB bandwidth shall be at least 500 kHz.

§ IC RSS-Gen 4.4.1 Occupied Bandwidth When an occupied bandwidth value is not specified in the applicable RSS, the transmitted signal bandwidth to be reported is to be its 99% emission bandwidth, as calculated or measured.

§ IC RSS-Gen 4.4.2 6 dB Bandwidth Where indicated, the 6 dB bandwidth is measured at the points when the spectral density of the signal is 6 dB down from the in –band spectral density of the modulated signal, with the transmitter modulated by a representative signal.

Traceability

Test Equipment Used
0158, 0287, 0252, 0313, 0314, 0070, 0116, 0117

6.1.1.2. Peak Output Power

Conducted Test Conditions for Fundamental Emission Output Power			
Standard:	FCC CFR 47:15.247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Emission Output Power	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (a)(2)	**Pressure (mBars):**	999 - 1001
Reference Document(s):	KDB 558074 - D01 DTS Measurement Guidance v01: Section 5.2 Fundamental Emission Output Power KDB 662911 was implemented for In-band power measurements. The measure and sum technique was implemented in all cases.		

Test Procedure for Fundamental Emission Output Power Measurement
The transmitter terminal of EUT was connected to the input of the spectrum analyzer set to measure peak power. The resolution filter bandwidth was set to 6 dB, peak detector selected and the analyzer built-in power function was used to integrate peak power over the 20 dB bandwidth.

Supporting Information
Calculated Power = A + G + 10 log (1/x) dBm
A = Total Power [10 Log10 ($10^{a/10}$ + $10^{b/10}$ + $10^{c/10}$ + $10^{d/10}$)], G = Antenna Gain,
x = Duty Cycle

15.247 (c) Operation with directional antenna gains greater than 6 dBi.
If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Uncorrelated Operation

2.4 GHz Uncorrelated Operation (MIMO)

Antenna	Gain	Max. Allowable Conducted Peak Power (dBm)		Maximum EIRP
(dB)	(dBi)	Uncorrelated	Max. Power Per Chain	(dBm)
Integral	2.0	+30.0	+26.99	+32.0

5.8 GHz Uncorrelated Operation (MIMO)

Antenna	Gain	Max. Allowable Conducted Peak Power (dBm)		Maximum EIRP
(dB)	(dBi)	Uncorrelated	Max. Power Per Chain	(dBm)
Integral	2.0	+30.0	+26.99	+32.0

Correlated Operation

2.4 GHz Correlated Operation (Non-MIMO i.e. Legacy)

Antenna	Gain dBi	Antenna Gain Increase V's No. Antenna Ports		Total Gain	Max. Allowable Conducted Peak Power	Maximum EIRP
(dB)		Ports	dB	dBi	∑ (dBm)	(dBm)
Integral	2.0	2	3.01	5.01	+30.0	+32.0

5.8 GHz Correlated Operation (Non-MIMO i.e. Legacy)

Antenna	Gain dBi	Antenna Gain Increase V's No. Antenna Ports		Total Gain	Max. Allowable Conducted Peak Power	Maximum EIRP
(dB)		Ports	dB	dBi	∑ (dBm)	(dBm)
Integral	2.0	2	3.01	5.01	+30.0	+32.0

Equipment Configuration for Average Output Power			
Variant:	802.11b	**Duty Cycle (%):**	100.0
Data Rate:	1 Mbit/s	**Antenna Gain (dBi):**	2.00
Modulation:	CCK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dBm	
2412.0	18.29	18.39	--	--	21.35	30.00	-8.65	19.00
2437.0	18.24	18.16	--	--	21.21	30.00	-8.79	19.00
2462.0	17.88	17.84	--	--	20.87	30.00	-9.13	19.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Average Output Power			
Variant:	802.11g	**Duty Cycle (%):**	100.0
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dBm	
2412.0	18.13	18.15	--	--	21.15	30.00	-8.85	19.00
2437.0	17.90	17.99	--	--	20.96	30.00	-9.04	19.00
2462.0	17.55	17.65	--	--	20.61	30.00	-9.39	19.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Average Output Power

Variant:	802.11n HT-20	**Duty Cycle (%):**	93.0
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dBm	
2412.0	18.22	18.11	--	--	21.17	30.00	-8.83	19.00
2437.0	18.30	18.12	--	--	21.22	30.00	-8.78	19.00
2462.0	17.56	17.81	--	--	18.69	30.00	-11.31	19.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Average Output Power

Variant:	802.11n HT-40	**Duty Cycle (%):**	89.7
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dBm	
2422.0	18.61	18.63	--	--	21.63	30.00	-8.37	19.00
2437.0	18.47	18.52	--	--	21.51	30.00	-8.49	19.00
2452.0	18.36	18.11	--	--	21.25	30.00	-8.75	19.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Average Output Power

Variant:	802.11a	**Duty Cycle (%):**	98.0
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dBm	
5745.0	19.10	19.05	--	--	22.08	30.00	-7.92	19.00
5785.0	19.10	19.05	--	--	22.08	30.00	-7.92	19.00
5825.0	19.21	19.16	--	--	22.19	30.00	-7.81	19.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Average Output Power

Variant:	802.11ac-80	**Duty Cycle (%):**	91.0
Data Rate:	29.3 Mbit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:	No software version given however, on boot we were given product number 41365		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dBm	
5775.0	19.02	18.68	--	--	21.86	30.00	-8.14	19.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Average Output Power

Variant:	802.11n HT-20	**Duty Cycle (%):**	94.3
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dBm	
5745.0	19.08	18.98	--	--	22.05	30.00	-7.95	19.00
5785.0	18.97	18.90	--	--	21.95	30.00	-8.05	19.00
5825.0	19.10	19.10	--	--	22.12	30.00	-7.88	19.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Average Output Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	90.0
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	2.00
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:	No software version given however, on boot we were given product number 41365		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power Σ Port(s)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	dBm	dBm	dBm	
5755.0	19.22	19.04	--	--	22.14	30.00	-7.86	19.00
5795.0	21.17	21.00	--	--	24.09	30.00	-5.91	19.00

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 MEASURING RF OUTPUT POWER
Measurement Uncertainty:	±1.33 dB

Antenna Type V's Power Setting

The following **Antenna Types V's Power Setting** tables consolidates the results of all tests performed on the APIN0204 and APIN0205 to finalize the power setting for each antenna's tested;

Integral Antenna (APIN0205)

Channel	2.4 GHz				5.8 GHz			
	b	g	HT-20	HT-40	a	HT-20	HT-40	ac-80
Low	19	17	17	17	19	19	19	19
Mid	19	19	19	19	19	19	19	19
High	19	17	17	17	19	19	19	19

Antenna AP-ANT-1B (APIN0204)

Channel	2.4 GHz				5.8 GHz			
	b	g	HT-20	HT-40	a	HT-20	HT-40	ac-80
Low	19	17	19	17	19	19	19	19
Mid	19	19	19	19	19	19	19	19
High	19	18	18	16	19	19	19	19

Antenna AP-ANT-13B (APIN0204)

Channel	2.4 GHz				5.8 GHz			
	b	g	HT-20	HT-40	a	HT-20	HT-40	ac-80
Low	19	17	17	17	19	19	19	19
Mid	19	19	19	19	19	19	19	19
High	19	19	17	16	19	19	19	19

Antenna AP-ANT-16 (APIN0204)

Channel	2.4 GHz				5.8 GHz			
	b	g	HT-20	HT-40	a	HT-20	HT-40	ac-80
Low	19	16	16	13	19	19	19	19
Mid	19	19	19	19	19	19	19	19
High	19	17	17	16	19	19	19	19

Antenna AP-ANT-18 (APIN0204)

Channel	2.4 GHz				5.8 GHz			
	b	g	HT-20	HT-40	a	HT-20	HT-40	ac-80
Low	19	15	16	12	19	19	19	19
Mid	19	19	19	19	19	19	19	19
High	19	17	17	16	19	19	19	19

Antenna AP-ANT-19 (APIN0204)

Channel	2.4 GHz				5.8 GHz			
	b	g	HT-20	HT-40	a	HT-20	HT-40	ac-80
Low	19	18	18	18	19	19	19	19
Mid	19	19	19	19	19	19	19	19
High	19	17	17	16	19	19	19	19

Specification

Limits

§15.247 (b) The maximum peak output power of the intentional radiator shall not exceed the following:

§15.247 (b) (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz bands: 1.0 watt.

15.247 (b) (4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

15.247 (c) Operation with directional antenna gains greater than 6 dBi.

(1) Fixed point-to-point operation:

(i) Systems operating in the 2400–2483.5 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6 dBi.

(ii) Systems operating in the 5725–5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted output power.

§15.31 (e) For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

§ RSS-210 A8.4(4) For systems employing digital modulation techniques operating in the 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz bands the maximum peak conducted power shall not exceed 1 watt.

Traceability

Method	Test Equipment Used
Measurements were made per work instruction WI-01 'Measuring RF Output Power'	0158, 0287, 0252, 0313, 0314, 0070, 0116, 0117

6.1.1.3. Power Spectral Density

Conducted Test Conditions for Power Spectral Density			
Standard:	FCC CFR 47:15.247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Power Spectral Density	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (e)	**Pressure (mBars):**	999 - 1001
Reference Document(s):	KDB 558074 - D01 DTS Measurement Guidance v01: Section 5.3 Maximum Power Spectral Density Level in the Emission Bandwidth		

Test Procedure for Power Spectral Density

The transmitter output was connected to a spectrum analyzer and the maximum level in a 3 kHz bandwidth was measured. A peak value was found over the full emission bandwidth and the frequency span reduced to obtain enhanced resolution. Sweep time ≥ span / 3 kHz with video averaging turned off. The Peak Power Spectral Density is the highest level found across the emission in a 3 kHz resolution bandwidth.

Supporting Information

Calculated Power = A + 10 log (1/x) dBm

A = Total Power Spectral Density [10 Log10 ($10^{a/10}$ + $10^{b/10}$ + $10^{c/10}$ + $10^{d/10}$)]

x = Duty Cycle

Limit Line: KDB 662911 was implemented for In-band power spectral density (PSD) measurements - Option (2) measure and subtract 10 log (N) dB from the limit for devices with multiple RF ports

Equipment Configuration for Power Spectral Density - Average			
Variant:	802.11b	**Duty Cycle (%):**	100
Data Rate:	1 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	CCK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm)				Calculated Total Power Spectral Density		Limit	Margin
	Port(s)				dBm			
MHz	a	b	c	d	Σ Port(s) per 30kHz RBW	Conversion to 3 kHz RBW	dBm	dB
2412.0	-0.699	-0.070	--	--	2.637	-7.363	8.00	-15.36
2437.0	-0.685	0.010	--	--	2.687	-7.313	8.00	-15.31
2462.0	-0.057	-1.246	--	--	2.399	-7.601	8.00	-15.60

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density - Average			
Variant:	802.11g	**Duty Cycle (%):**	100
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm)				Calculated Total Power Spectral Density		Limit	Margin
	Port(s)				dBm			
MHz	a	b	c	d	Σ Port(s) per 30kHz RBW	Conversion to 3 kHz RBW	dBm	dB
2412.0	-6.111	-5.680	--	--	-2.880	-12.880	8.00	-20.88
2437.0	-3.717	-4.047	--	--	-0.869	-10.869	8.00	-18.87
2462.0	-6.023	-6.386	--	--	-3.190	-13.190	8.00	-21.19

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density - Average			
Variant:	802.11n HT-20	**Duty Cycle (%):**	93
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm)				Calculated Total Power Spectral Density		Limit	Margin
	Port(s)				dBm			
MHz	a	b	c	d	Σ Port(s) per 30kHz RBW	Conversion to 3 kHz RBW	dBm	dB
2412.0	-5.936	-5.635	--	--	-2.773	-12.773	8.00	-20.77
2437.0	-4.154	-3.816	--	--	-0.971	-10.971	8.00	-18.97
2462.0	-6.179	-6.889	--	--	-3.509	-13.509	8.00	-21.51

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density - Average			
Variant:	802.11n HT-40	**Duty Cycle (%):**	90
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm)				Calculated Total Power Spectral Density		Limit	Margin
	Port(s)				dBm			
MHz	a	b	c	d	Σ Port(s) per 30kHz RBW	Conversion to 3 kHz RBW	dBm	dB
2422.0	-8.300	-7.380	--	--	-4.805	-14.805	8.00	-22.81
2437.0	-8.233	-7.946	--	--	-5.077	-15.077	8.00	-23.08
2452.0	-8.408	-8.718	--	--	-5.550	-15.550	8.00	-23.55

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density - Average			
Variant:	802.11a	**Duty Cycle (%):**	98
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm)				Calculated Total Power Spectral Density		Limit	Margin
	Port(s)				dBm			
MHz	a	b	c	d	Σ Port(s) per 30kHz RBW	Conversion to 3 kHz RBW	dBm	dB
5745.0	-2.690	-3.023	--	--	0.157	-9.843	8.00	-17.84
5785.0	-2.868	-3.052	--	--	0.051	-9.949	8.00	-17.95
5825.0	-2.832	-3.263	--	--	-0.032	-10.032	8.00	-18.03

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density - Average			
Variant:	802.11ac-80	**Duty Cycle (%):**	91
Data Rate:	29.3 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm)				Calculated Total Power Spectral Density		Limit	Margin
	Port(s)				dBm			
MHz	a	b	c	d	Σ Port(s) per 30kHz RBW	Conversion to 3 kHz RBW	dBm	dB
5775.0	-12.525	-12.679	--	--	-9.591	-19.591	8.00	-27.59

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density - Average			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm)				Calculated Total Power Spectral Density		Limit	Margin
	Port(s)				dBm			
MHz	a	b	c	d	Σ Port(s) per 30kHz RBW	Conversion to 3 kHz RBW	dBm	dB
5745.0	-3.107	-2.835	--	--	0.041	-9.959	8.00	-17.96
5785.0	-3.074	-3.203	--	--	-0.128	-10.128	8.00	-18.13
5825.0	-3.395	-3.252	--	--	-0.313	-10.313	8.00	-18.31

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Power Spectral Density - Average			
Variant:	802.11n HT-40	**Duty Cycle (%):**	90
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm)				Calculated Total Power Spectral Density		Limit	Margin
	Port(s)				dBm			
MHz	a	b	c	d	Σ Port(s) per 30kHz RBW	Conversion to 3 kHz RBW	dBm	dB
5755.0	-6.957	-7.513	--	--	-4.216	-14.216	8.00	-22.22
5795.0	-5.208	-5.213	--	--	-2.200	-12.200	8.00	-20.20

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 MEASURING RF SPECTRUM MASK
Measurement Uncertainty:	±2.81 dB

Note: click the links in the above matrix to view the graphical image (plot).

Specification
Peak Power Spectral Density Limits

§15.247(e) 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 **RSS-210** §**A8.2(2)** The transmitter power spectral density (into the antenna) shall not be greater than +8 dBm in any 3 kHz band during any time interval of continuous transmission or over 1.0 second if the transmission exceeds 1.0 second duration.

Traceability

Method	Test Equipment Used
Measurements were made per work instruction WI-01 'Measuring RF Output Power'	0158, 0287, 0252, 0313, 0314, 0070, 0116, 0117

6.1.1.4. Conducted Spurious Emissions

Conducted Test Conditions for Transmitter Conducted Spurious and Band-Edge Emissions			
Standard:	FCC CFR 47:15.247	**Ambient Temp. (ºC):**	24.0 - 27.5
Test Heading:	Max Unwanted Emission Levels	**Rel. Humidity (%):**	32 - 45
Standard Section(s):	15.247 (d)	**Pressure (mBars):**	999 - 1001
Reference Document(s):	KDB 558074 - D01 DTS Measurement Guidance v01: Section 5.4 Maximum Unwanted Emission Levels		

Test Procedure for Transmitter Conducted Spurious and Band-Edge Emissions Measurement
Transmitter Conducted Spurious and Band-Edge emissions were measured at a limit of 20 dB below the highest in-band spectral density measured with a spectrum analyzer connected to the antenna terminal. Measurements were made while EUT was operating in transmit mode of operation at the appropriate centre frequency closest to the band-edge. Emissions were maximized during the measurement and limits derived from the peak spectral power and drawn on each plot.

Equipment Configuration for Conducted Low Band-Edge Emissions - Average			
Variant:	802.11b	**Duty Cycle (%):**	100
Data Rate:	1 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	CCK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	2412.0 MHz
Band-Edge Frequency:	2400.0 MHz
Test Frequency Range:	2350.0 - 2422.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-55.78	-29.13	2404.40	--	--	-4.400
b	-53.44	-28.65	2404.50	--	--	-4.500

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted Low Band-Edge Emissions - Average			
Variant:	802.11g	**Duty Cycle (%):**	100
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	2412.0 MHz
Band-Edge Frequency:	2400.0 MHz
Test Frequency Range:	2350.0 - 2422.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-44.50	-34.87	2401.80	--	--	-1.800
b	-45.32	-34.61	2401.90	--	--	-1.900

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted Low Band-Edge Emissions - Average

Variant:	802.11n HT-20	**Duty Cycle (%):**	93
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	2412.0 MHz
Band-Edge Frequency:	2400.0 MHz
Test Frequency Range:	2350.0 - 2422.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-44.50	-35.33	2401.70	--	--	-1.700
b	-45.32	-34.89	2401.80	--	--	-1.800

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted Low Band-Edge Emissions - Average

Variant:	802.11n HT-40	**Duty Cycle (%):**	90
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	2422.0 MHz
Band-Edge Frequency:	2400.0 MHz
Test Frequency Range:	2292.0 - 2442.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-38.78	-36.51	2401.70	--	--	-1.700
b	-40.46	-36.29	2402.30	--	--	-2.300

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted Low Band-Edge Emissions - Average

Variant:	802.11a	**Duty Cycle (%):**	98
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	5745.0 MHz
Band-Edge Frequency:	5725.0 MHz
Test Frequency Range:	5683.0 - 5755.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-36.20	-31.54	5727.20	--	--	-2.200
b	-37.80	-31.61	5729.30	--	--	-4.300

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted Low Band-Edge Emissions - Average			
Variant:	802.11ac-80	**Duty Cycle (%):**	91
Data Rate:	29.3 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:	No software version given however, on boot we were given product number 41365		

Test Measurement Results

Channel Frequency:	5775.0 MHz
Band-Edge Frequency:	5725.0 MHz
Test Frequency Range:	5600.0 - 5900.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-35.70	-31.61	5735.90	--	--	-10.900
b	-37.90	-31.61	5735.90	--	--	-10.900

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted Low Band-Edge Emissions - Average

Variant:	802.11n HT-20	**Duty Cycle (%):**	94
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	5745.0 MHz
Band-Edge Frequency:	5725.0 MHz
Test Frequency Range:	5683.0 - 5755.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-34.64	-32.19	5726.70	--	--	-1.700
b	-37.02	-32.35	5729.60	--	--	-4.600

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted Low Band-Edge Emissions - Average

Variant:	802.11n HT-40	**Duty Cycle (%):**	90
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:	No software version given however, on boot we were given product number 41365		

Test Measurement Results

Channel Frequency:	5755.0 MHz
Band-Edge Frequency:	5725.0 MHz
Test Frequency Range:	5625.0 - 5775.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M1 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-32.58	-31.61	5726.60	--	--	-1.600
b	-35.82	-31.61	5735.30	--	--	-10.300

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted High Band-Edge Emissions - Average

Variant:	802.11b	**Duty Cycle (%):**	100
Data Rate:	1 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	CCK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	2462.0 MHz
Band-Edge Frequency:	2483.5 MHz
Test Frequency Range:	2452.0 - 2524.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M3 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-57.76	-29.23	2469.70	--	--	-13.800
b	-62.22	-29.50	2469.60	--	--	-13.900

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted High Band-Edge Emissions - Average			
Variant:	802.11g	**Duty Cycle (%):**	100
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	2462.0 MHz
Band-Edge Frequency:	2483.5 MHz
Test Frequency Range:	2452.0 - 2524.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M3 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-54.67	-35.07	2472.30	--	--	-11.200
b	-57.36	-35.22	2472.30	--	--	-11.200

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted High Band-Edge Emissions - Average

Variant:	802.11n HT-20	**Duty Cycle (%):**	93
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	2462.0 MHz					
Band-Edge Frequency:	2483.5 MHz					
Test Frequency Range:	2452.0 - 2524.0 MHz					
Port(s)	**Band-Edge Markers and Limit**			**Amended Limit**		**Margin**
	M3 Amplitude (dBm)	**Plot Limit (dBm)**	**M2 Frequency (MHz)**	**Amplitude (dBm)**	**M2A Frequency (MHz)**	**(MHz)**
a	-53.84	-35.60	2472.30	--	--	-11.200
b	-58.70	-36.03	2472.50	--	--	-11.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted High Band-Edge Emissions - Average			
Variant:	802.11n HT-40	**Duty Cycle (%):**	90
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	2452.0 MHz
Band-Edge Frequency:	2483.5 MHz
Test Frequency Range:	2432.0 - 2582.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M3 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-39.70	-36.67	2473.20	--	--	-10.300
b	-41.60	-37.05	2472.30	--	--	-11.200

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted High Band-Edge Emissions - Average

Variant:	802.11a	**Duty Cycle (%):**	98
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	5825.0 MHz
Band-Edge Frequency:	5850.0 MHz
Test Frequency Range:	5815.0 - 5887.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M3 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-44.72	-31.65	5843.60	--	--	-6.400
b	-45.36	-31.62	5841.70	--	--	-8.300

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted High Band-Edge Emissions - Average

Variant:	802.11n HT-20	**Duty Cycle (%):**	94
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Channel Frequency:	5825.0 MHz
Band-Edge Frequency:	5850.0 MHz
Test Frequency Range:	5815.0 - 5887.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M3 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-42.87	-32.42	5843.90	--	--	-6.100
b	-44.02	-32.38	5842.00	--	--	-8.000

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Conducted High Band-Edge Emissions - Average			
Variant:	802.11n HT-40	**Duty Cycle (%):**	90
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:	No software version given however, on boot we were given product number 41365		

Test Measurement Results

Channel Frequency:	5795.0 MHz
Band-Edge Frequency:	5850.0 MHz
Test Frequency Range:	5775.0 - 5925.0 MHz

Port(s)	Band-Edge Markers and Limit			Amended Limit		Margin
	M3 Amplitude (dBm)	Plot Limit (dBm)	M2 Frequency (MHz)	Amplitude (dBm)	M2A Frequency (MHz)	(MHz)
a	-40.54	-33.92	5841.70	--	--	-8.300
b	-43.13	-33.79	5838.10	--	--	-11.900

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Transmitter Conducted Spurious Emissions			
Variant:	802.11b	**Duty Cycle (%):**	100
Data Rate:	1 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	CCK	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Frequency Range	Transmitter Conducted Spurious Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
2412.0	30.0 - 26000.0	-70.002	-45.62	-68.663	-45.58	--	--	--	--
2437.0	30.0 - 26000.0	-68.663	-45.37	-68.663	-45.79	--	--	--	--
2462.0	30.0 - 26000.0	-70.002	-46.17	-68.663	-46.13	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Transmitter Conducted Spurious Emissions			
Variant:	802.11g	**Duty Cycle (%):**	100
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Frequency Range	Transmitter Conducted Spurious Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
2412.0	30.0 - 26000.0	-70.002	-46.49	-68.663	-46.51	--	--	--	--
2437.0	30.0 - 26000.0	-70.002	-43.58	-68.663	-44.03	--	--	--	--
2462.0	30.0 - 26000.0	-70.002	-46.41	-68.663	-46.40	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Transmitter Conducted Spurious Emissions			
Variant:	802.11n HT-20	**Duty Cycle (%):**	93
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Frequency Range	Transmitter Conducted Spurious Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
2412.0	30.0 - 26000.0	-70.002	-46.75	-68.663	-46.67	--	--	--	--
2437.0	30.0 - 26000.0	-70.002	-43.53	-68.663	-44.13	--	--	--	--
2462.0	30.0 - 26000.0	-70.002	-46.30	-68.663	-46.67	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Transmitter Conducted Spurious Emissions			
Variant:	802.11n HT-40	**Duty Cycle (%):**	90
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Frequency Range	Transmitter Conducted Spurious Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
2422.0	30.0 - 26000.0	-70.002	-45.44	-68.663	-45.38	--	--	--	--
2437.0	30.0 - 26000.0	-68.663	-41.11	-70.002	-41.31	--	--	--	--
2452.0	30.0 - 26000.0	-70.002	-41.23	-68.663	-41.55	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Transmitter Conducted Spurious Emissions

Variant:	802.11a	**Duty Cycle (%):**	98
Data Rate:	6 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Frequency Range	Transmitter Conducted Spurious Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
5745.0	30.0 - 26000.0	-62.643	-46.41	-62.643	-46.63	--	--	--	--
5785.0	30.0 - 26000.0	-61.483	-42.52	-60.956	-42.78	--	--	--	--
5825.0	30.0 - 26000.0	-62.044	-42.37	-61.483	-42.65	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Transmitter Conducted Spurious Emissions			
Variant:	802.11ac-80	**Duty Cycle (%):**	91
Data Rate:	29.3 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:	No software version given however, on boot we were given product number 41365		

Test Measurement Results

Test Frequency	Frequency Range	Transmitter Conducted Spurious Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
5775.0	30.0 - 26000.0	-65.565	-40.66	-65.565	-40.91	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Transmitter Conducted Spurious Emissions			
Variant:	802.11n HT-20	**Duty Cycle (%):**	94
Data Rate:	6.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	SB
Engineering Test Notes:	No software version found however, build number on AP boot 41365		

Test Measurement Results

Test Frequency	Frequency Range	Transmitter Conducted Spurious Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
5745.0	30.0 - 26000.0	-62.044	-46.64	-62.044	-47.07	--	--	--	--
5785.0	30.0 - 26000.0	-61.483	-42.57	-61.483	-43.20	--	--	--	--
5825.0	30.0 - 26000.0	-62.044	-42.46	-61.483	-42.45	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Equipment Configuration for Transmitter Conducted Spurious Emissions			
Variant:	802.11n HT-40	**Duty Cycle (%):**	90
Data Rate:	13.5 Mbit/s	**Antenna Gain (dBi):**	Not Applicable
Modulation:	OFDM	**Beam Forming Gain (Y):**	Not Applicable
TPC:	Not Applicable	**Tested By:**	AH
Engineering Test Notes:	No software version given however, on boot we were given product number 41365		

Test Measurement Results

Test Frequency	Frequency Range	Transmitter Conducted Spurious Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	SE	Limit	SE	Limit	SE	Limit	SE	Limit
5755.0	30.0 - 26000.0	-64.737	-41.43	-64.737	-41.61	--	--	--	--
5795.0	30.0 - 26000.0	-64.737	-42.96	-65.565	-43.48	--	--	--	--

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-05 MEASUREMENT OF SPURIOUS EMISSIONS
Measurement Uncertainty:	≤40 GHz ±2.37 dB, > 40 GHz ±4.6 dB

Note: click the links in the above matrix to view the graphical image (plot).

Specification

Limits Band-Edge

Lower Limit Band-edge	Upper Limit Band-edge	Limit below highest level of desired power
2,400 MHz	2,483.5 MHz	≥ 20 dB
5725 MHz	5850 MHz	

§15.247(d) and RSS-210 §A8.5 In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

§15.247(d)
If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section §15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(a)).

RSS-210 §A8.5 If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under section A8.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Tables 2 and 3 is not required. In addition, radiated emissions which fall in the restricted bands of Table 1 must also comply with the radiated emission limits specified in Tables 2 and 3.

RSS-Gen §4.7
The search for unwanted emissions shall be from the lowest frequency internally generated or used in the device (local oscillator, intermediate of carrier frequency), or from 30 MHz , whichever is the lowest frequency, to the 5th harmonic of the highest frequency generated without exceeding 40 GHz.

Laboratory Measurement Uncertainty for Conducted Spurious Emissions

Measurement uncertainty	±2.37 dB

Traceability

Method	Test Equipment Used
Measurements were made per work instruction WI-05 'Measurement of Spurious Emissions'	0088, 0158, 0287, 0252, 0313, 0314, 0070, 0116, 0117.

6.1.2. Radiated Emission Testing

Transmitter Radiated Spurious Emissions (above 1 GHz); Peak Field Strength Measurements; and Radiated Band Edge Measurements – Restricted Bands

FCC, Part 15 Subpart C §15.247(d) 15.205; 15.209
Industry Canada RSS-210 §A8.5, §2.2, §2.6
Industry Canada RSS-Gen §4.7

Test Procedure

Radiated emissions above 1 GHz are measured in the anechoic chamber at a 3-meter distance on every azimuth in both horizontal and vertical polarities. The emissions are recorded and maximized as a function of azimuth by rotation through 360° with a spectrum analyzer in peak hold mode. Depending on the frequency band spanned a notch filter and waveguide filter was used to remove the fundamental frequency. The highest emissions relative to the limit are listed for each frequency spanned.

All measurements on any frequency or frequencies over 1 MHz are based on the use of measurement instrumentation employing an average detector function. All measurements above 1 GHz were performed using a minimum resolution bandwidth of 1 MHz.

Operational Modes

Operational mode(s) tested for spurious emissions were the modes which delivered maximum spectral density 802.11b and 802.11a.

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. All factors are included in the reported data.

FS = R + AF + CORR - FO

where: FS = Field Strength
R = Measured Spectrum analyzer Input Amplitude
AF = Antenna Factor
CORR = Correction Factor = CL – AG + NFL
CL = Cable Loss
AG = Amplifier Gain
FO = Distance Falloff Factor
NFL = Notch Filter Loss or Waveguide Loss

For example:
Given receiver input reading of 51.5 dBμV; Antenna Factor of 8.5 dB; Cable Loss of 1.3 dB; Falloff Factor of 0 dB, an Amplifier Gain of 26 dB and Notch Filter Loss of 1 dB. The Field Strength of the measured emission is:

FS = 51.5 + 8.5 + 1.3 - 26.0 +1 = 36.3 dBμV/m

Conversion between dBμV/m (or dBμV) and μV/m (or μV) are done as:

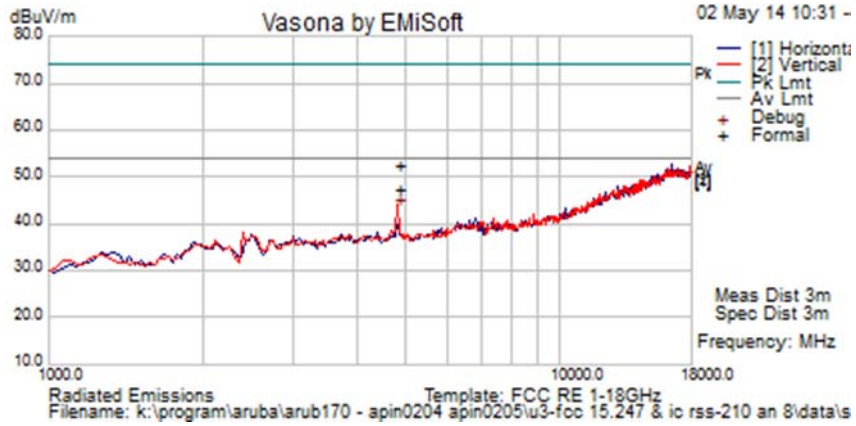
Level (dBμV/m) = 20 * Log (level (μV/m))

40 dBμV/m = 100 μV/m
48 dBμV/m = 250 μV/m

NOTE: KDB 662911 was implemented for Out-of-Band measurements. Where necessary Option (2) Measure and add 10 log (N) dB was implemented

6.1.2.1. Integral antenna – Spurious and Band-Edge Emissions

Test Freq.	2412 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	Integral	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000141		
Test Notes 2	EUT Position Horizontal; POE;		

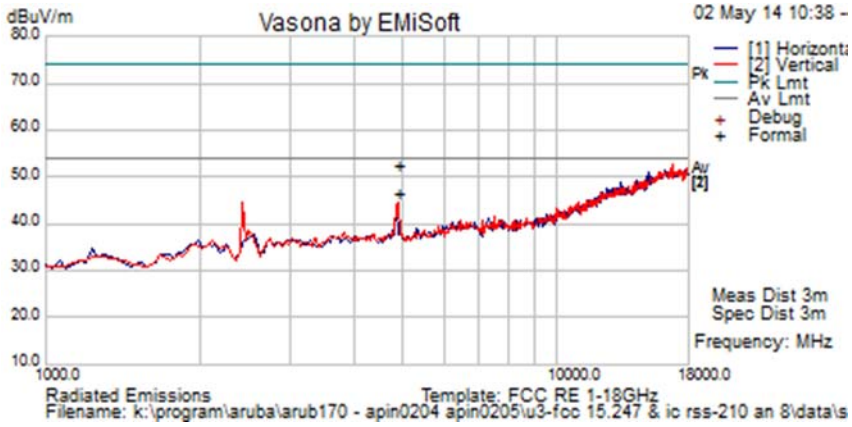


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4824.066	49.3	5.7	-2.3	52.7	Peak Max	V	176	57	74.0	-21.3	Pass	
4824.066	44.1	5.7	-2.3	47.4	Average Max	V	176	57	54.0	-6.6	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	2437 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	Integral	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000141		
Test Notes 2	EUT Position Horizontal; POE;		

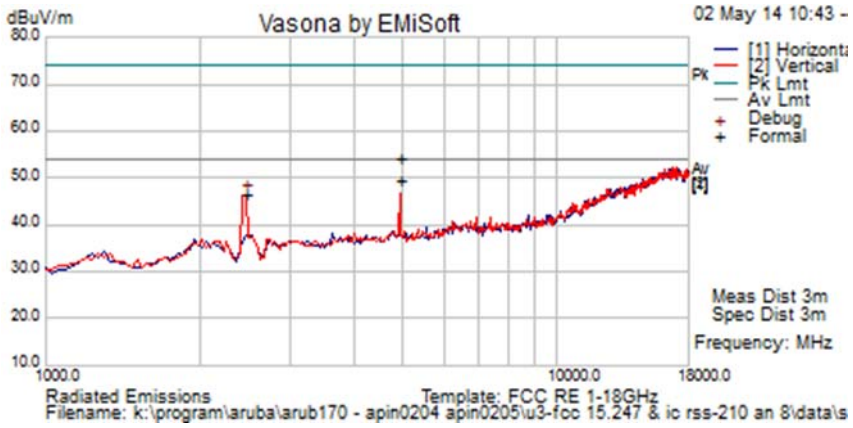


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4874.079	49.1	5.7	-2.3	52.5	Peak Max	V	178	0	74.0	-21.5	Pass	
4874.079	43.0	5.7	-2.3	46.4	Average Max	V	178	0	54.0	-7.6	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	2462 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	Integral	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000141		
Test Notes 2	EUT Position Horizontal; POE;		

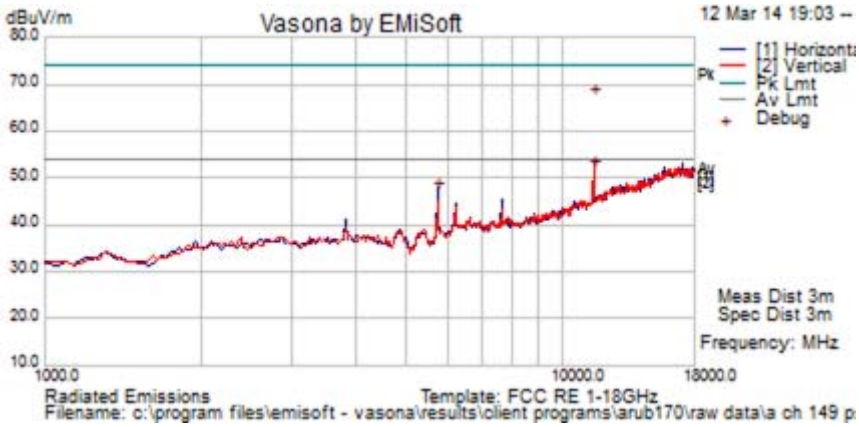


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4924.023	51.0	5.7	-2.5	54.3	Peak Max	V	156	149	74.0	-19.7	Pass	
4924.023	46.0	5.7	-2.5	49.3	Average Max	V	156	149	54.0	-4.7	Pass	
2451.120	47.6	4.0	-5.2	46.4	Peak [Scan]	V	98	-1	54	-7.6	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5745 MHz (ch149)	**Engineer**	JMH
Variant	802.11a; 6 Mbit/s	**Temp (ºC)**	19
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	30
Power Setting	19	**Press. (mBars)**	1002
Antenna	Integral	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000141		
Test Notes 2	EUT mounted vertically on test table, all ports terminated and active. Unit is power via POE		

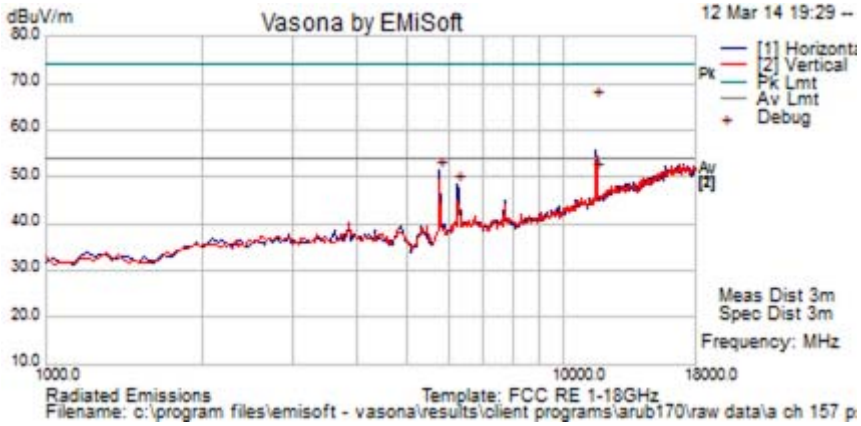


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11488.759	53.1	9.4	4.7	67.2	Peak Max	V	99	313	74	-6.8	Pass	RB
11488.759	37.5	9.4	4.7	51.6	Average Max	V	99	313	54	-2.4	Pass	RB
5738.872	42.7	6.3	-1.9	47.1	Peak [Scan]	H						FUND

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	NRB = Non-Restricted Band. Limit = 68.23 dBuV/m; RB = Restricted Band. Limits per 15.205

Test Freq.	5785 MHz (ch157)	**Engineer**	JMH
Variant	802.11a; 6 Mbit/s	**Temp (ºC)**	19
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	30
Power Setting	19	**Press. (mBars)**	1002
Antenna	Integral	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000141		
Test Notes 2	EUT mounted vertically on test table, all ports terminated and active. Unit is power via POE		

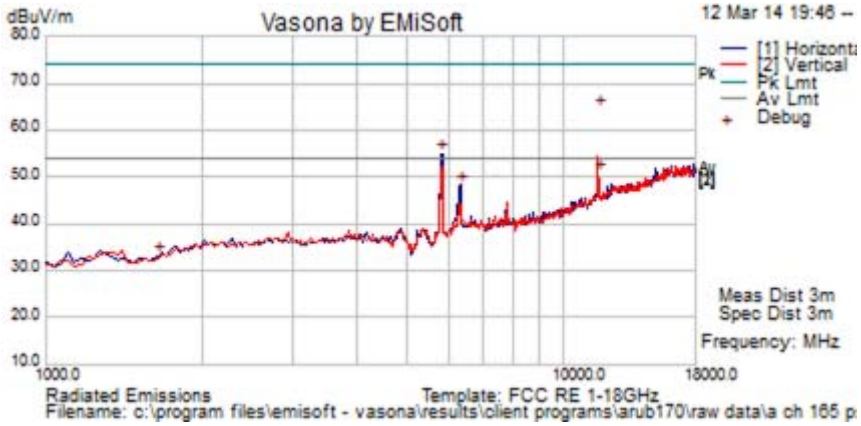


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11568.762	52.2	9.4	4.8	66.4	Peak Max	H	142	288	74	-7.6	Pass	RB
11568.762	36.4	9.4	4.8	50.7	Average Max	H	142	288	54	-3.3	Pass	RB
5769.539	46.9	6.3	-1.8	51.4	Peak [Scan]							FUND
6246.493	42.3	6.6	-0.6	48.3	Peak [Scan]	H						NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	NRB = Non-Restricted Band. Limit = 68.23 dBuV/m; RB = Restricted Band. Limits per 15.205

Test Freq.	5825 MHz (ch165)	**Engineer**	JMH
Variant	802.11a; 6 Mbit/s	**Temp (ºC)**	19
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	30
Power Setting	19	**Press. (mBars)**	1002
Antenna	Integral	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000141		
Test Notes 2	EUT mounted vertically on test table, all ports terminated and active. Unit is power via POE		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11655.051	50.1	9.4	5.0	64.5	Peak Max	V	115	308	74	-9.5	Pass	RB
11655.051	36.5	9.4	5.0	50.9	Average Max	V	115	308	54	-3.1	Pass	RB
5803.607	50.4	6.3	-1.8	54.9	Peak [Scan]							FUND
6314.629	42.2	6.6	-0.6	48.3	Peak [Scan]	H						NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	NRB = Non-Restricted Band. Limit = 68.23 dBuV/m; RB = Restricted Band. Limits per 15.205

Band-Edge Integral Antenna

Peak Limit 74.0 dBµV/m, Average Limit 54.0 dBµV/m

2.4 GHz Frequency Band

	Restricted Band 2390 MHz			Restricted Band 2483.5 MHz		
	dBµV/m		Power Setting	dBµV/m		Power Setting
Operational Mode	Peak	Average		Peak	Average	
b	54.21	43.23	19.0	50.02	37.52	19.0
g	73.70	53.62	17.0	71.08	48.20	17.0
n HT-20	73.90	51.85	17.0	72.72	49.85	17.0
n HT-40	70.90	52.02	17.0	70.20	50.37	17.0

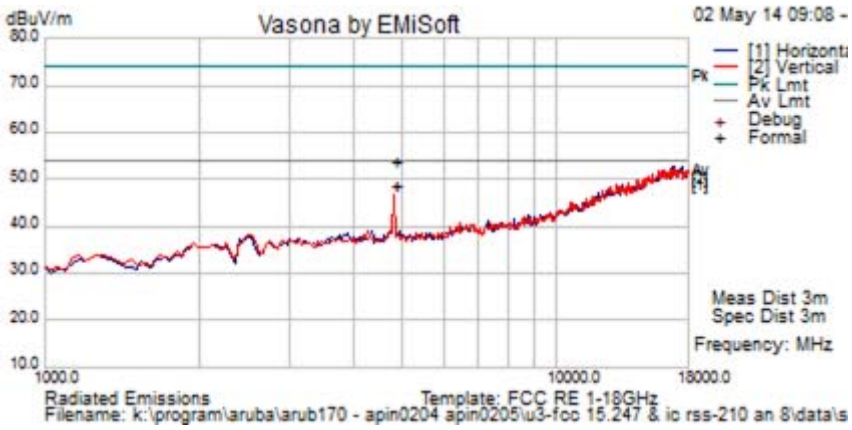
5.8 GHz Frequency Band

	Restricted Band 5460 MHz		
Operational Mode	Peak	Average	Power Setting
a	63.50	53.70	19.0
n HT-20	63.77	53.65	19.0
n HT-40	67.86	53.27	19.0
ac-80	67.64	53.11	19.0

All band-edge plots are kept on file by the laboratory

6.1.2.2. AP-ANT-1B – Spurious and Band-Edge Emissions

Test Freq.	2412 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 1B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Vertical; Antenna Position 45 degrees; POE;		

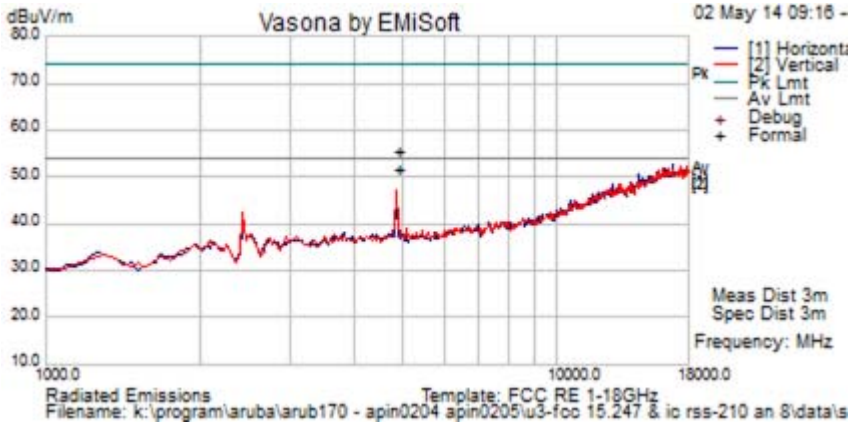


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4824.288	50.3	5.7	-2.3	53.6	Peak Max	V	99	230	74.0	-20.4	Pass	
4824.288	45.3	5.7	-2.3	48.7	Average Max	V	99	230	54.0	-5.3	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	2437 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 1B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Vertical; Antenna Position 45 degrees; POE;		

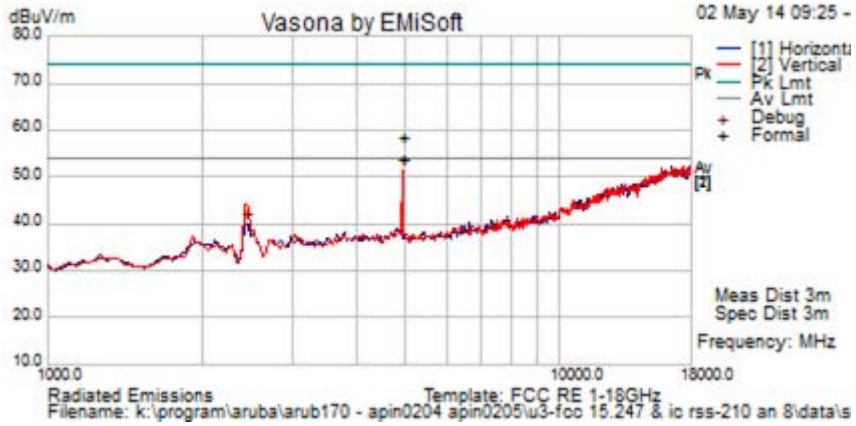


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4874.028	52.2	5.7	-2.3	55.6	Peak Max	V	99	221	74.0	-18.4	Pass	
4874.028	48.2	5.7	-2.3	51.6	Average Max	V	99	221	54.0	-2.4	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	2462 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 1B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Vertical; Antenna Position 45 degrees; POE;		

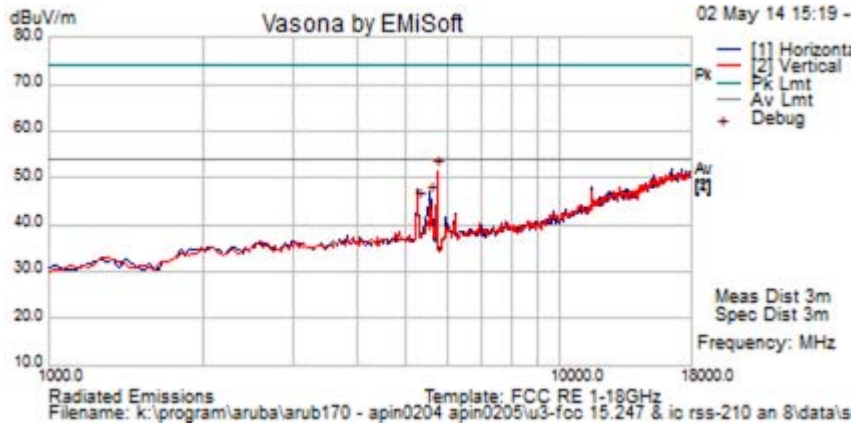


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4923.925	55.4	5.7	-2.5	58.7	Peak Max	V	100	227	74.0	-15.3	Pass	
4923.875	50.5	5.7	-2.5	53.8	Average Max	V	100	227	54.0	-0.2	Pass	
2446.284	41.1	4.0	-5.2	39.9	Peak [Scan]	V	98					FUND

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5745 MHz	**Engineer**	SB
Variant	802.11a; 6.5 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 1B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Vertical; Antenna Position 45 degrees; POE;		

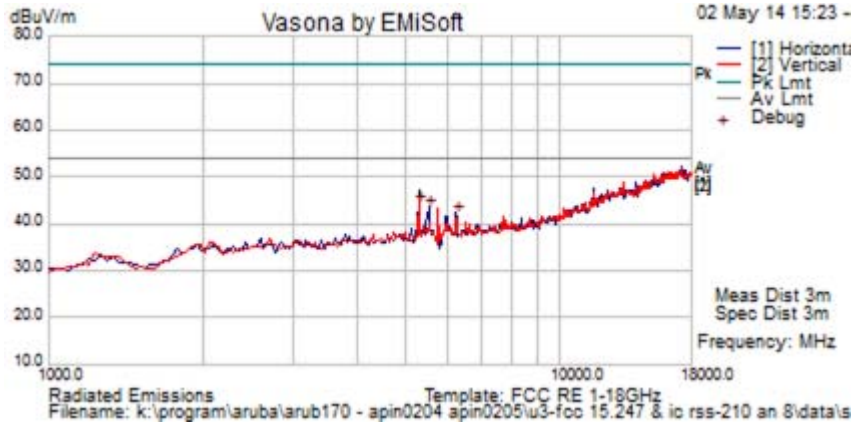


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5735.471	47.3	6.2	-1.9	51.6	Peak [Scan]	V	100					FUND
5266.982	41.2	5.9	-2.2	45.0	Peak [Scan]	V	98					NRB
5557.276	42.2	6.1	-2.1	46.2	Peak [Scan]	V	98					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5785 MHz	**Engineer**	SB
Variant	802.11a; 6.5 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 1B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Vertical; Antenna Position 45 degrees; POE;		

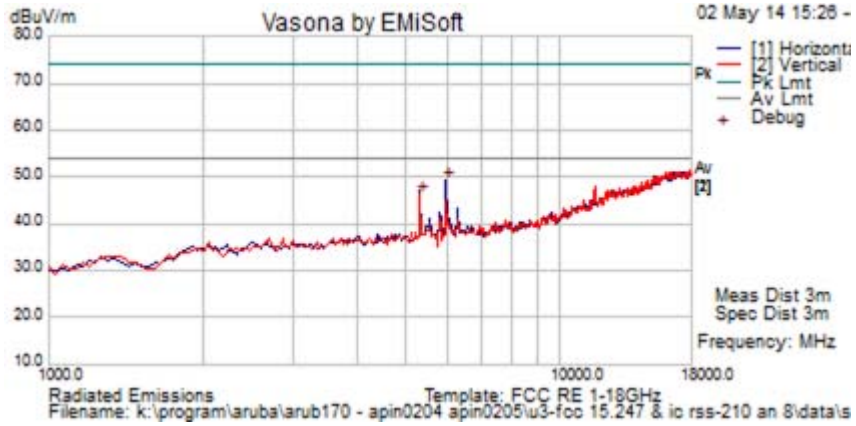


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5304.741	39.9	6.0	-2.0	43.8	Peak [Scan]	V	98					NRB
5521.818	39.2	6.1	-2.1	43.2	Peak [Scan]	V	98					NRB
6265.777	36.0	6.6	-0.6	42.0	Peak [Scan]	V	98					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5825 MHz	**Engineer**	SB
Variant	802.11a; 6.5 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 1B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Vertical; Antenna Position 45 degrees; POE;		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5973.948	44.1	6.4	-1.3	49.3	Peak [Scan]	H	100					NRB
5323.638	42.1	6.0	-2.0	46.1	Peak [Scan]	V	98					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band-Edge Antenna AP-ANT-1B

Peak Limit 74.0 dBµV/m, Average Limit 54.0 dBµV/m

2.4 GHz Frequency Band

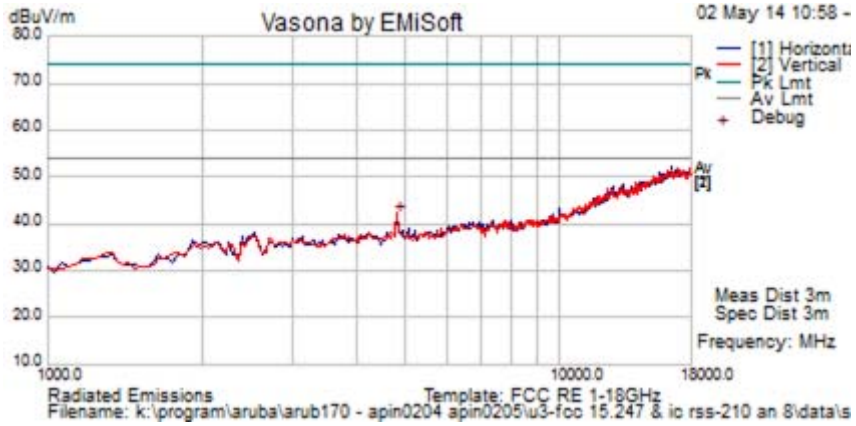
	Restricted Band 2390 MHz			Restricted Band 2483.5 MHz		
	dBµV/m		Power Setting	dBµV/m		Power Setting
Operational Mode	Peak	Average		Peak	Average	
b	49.26	38.68	19	51.98	39.08	19
g	71.41	52.78	19	72.57	51.12	18
n HT-20	73.17	53.78	19	72.38	52.25	18
n HT-40	68.65	52.90	17	69.80	50.26	16

5.8 GHz Frequency Band

	Restricted Band 5460 MHz		
Operational Mode	Peak	Average	Power Setting
a	55.81	42.40	21
n HT-20	53.06	39.21	21
n HT-40	52.50	39.21	21
ac-80	53.58	40.46	21

6.1.2.3. AP-ANT-13B – Spurious and Band-Edge Emissions

Test Freq.	2412 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 13B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal POE;		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4818.892	38.6	5.7	-2.3	48.0	Peak [Scan]	V	98	-1	54.0	-6.0	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

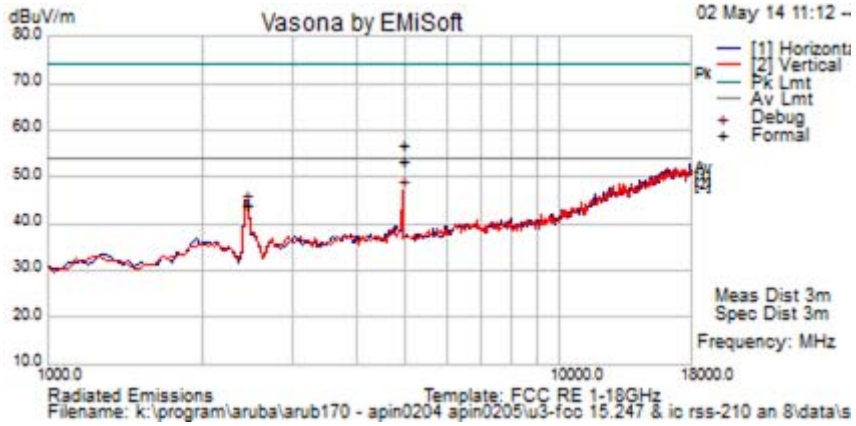
Test Freq.	2437 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 13B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal POE;		

Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4874.009	51.0	5.7	-2.3	54.4	Peak Max	V	103	40	74.0	-19.6	Pass	
4874.009	47.1	5.7	-2.3	50.5	Average Max	V	103	40	54.0	-3.5	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	2462 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 13B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal POE;		

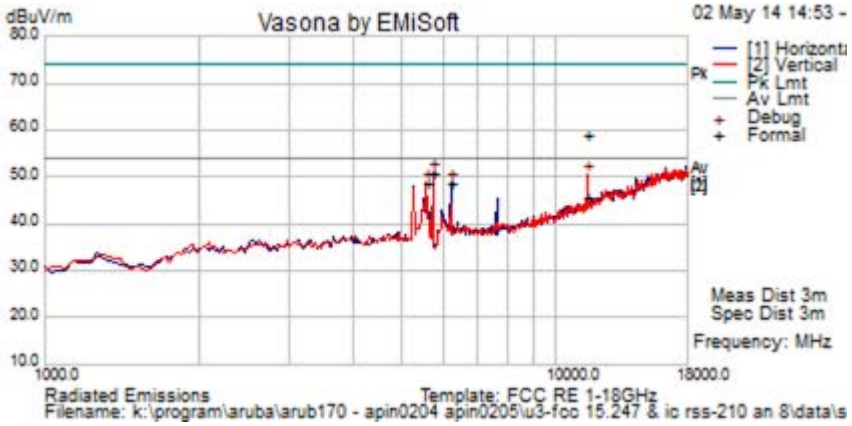


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4924.018	53.3	5.7	-2.5	56.6	Peak Max	V	102	45	74.0	-17.4	Pass	
4924.018	50.1	5.7	-2.5	53.4	Average Max	V	102	45	54.0	-0.6	Pass	
2437.390	45.4	4.0	-5.3	44.1	Peak [Scan]	V	102					FUND

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5745 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 13B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal POE;		

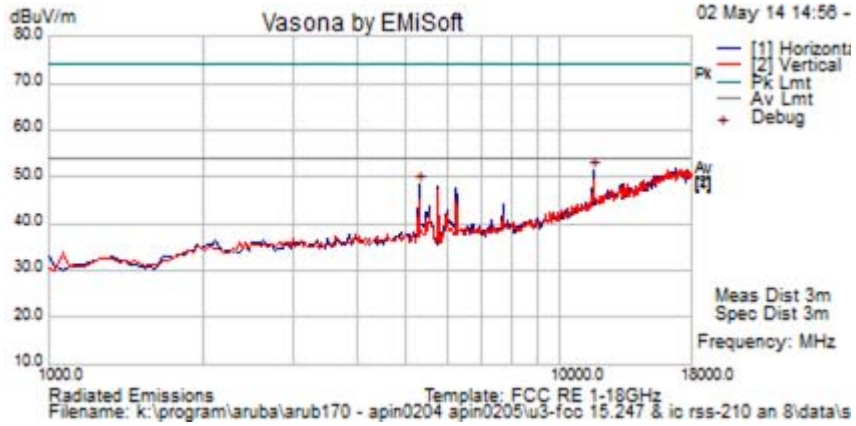


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11492.986	44.8	9.4	4.7	58.9	Peak Max	V	111	-1	74.0	-15.1	Pass	RB
11492.986	31.5	9.4	4.7	45.6	Average Max	V	111	-1	54.0	-8.4	Pass	RB
5735.471	46.5	6.2	-1.9	50.9	Peak [Scan]	V	100					FUND
5565.130	44.8	6.1	-2.1	48.8	Peak [Scan]	V	100					NRB
6212.425	42.8	6.6	-0.6	48.7	Peak [Scan]	H	100					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5785 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 13B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal POE;		

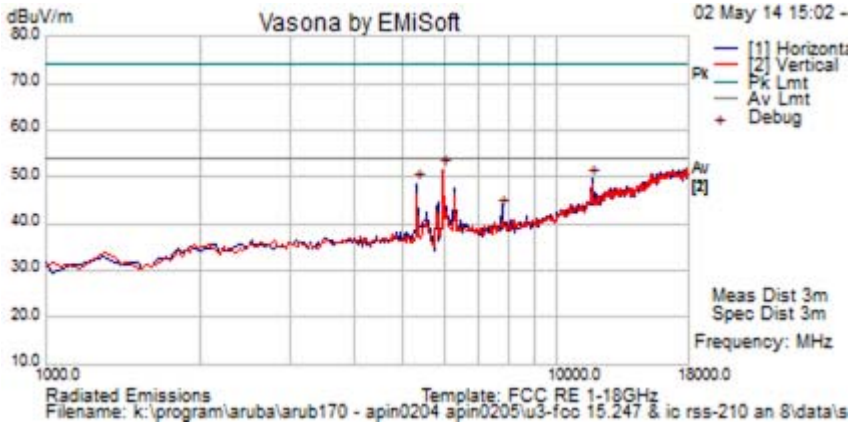


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11561.122	44.8	9.4	4.7	58.9	Peak Max	V	111	-1	74.0	-15.1	Pass	RB
11561.122	31.5	9.4	4.7	45.6	Average Max	V	111	-1	54.0	-8.4	Pass	RB
5292.58517	44.6	6.0	-2.1	48.4	Peak [Scan]	H	100					NRB
5565.130	44.8	6.1	-2.1	48.8	Peak [Scan]	V	100					NRB
6212.425	42.8	6.6	-0.6	48.7	Peak [Scan]	H	100					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5825 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 13B	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal POE;		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11665.559	44.8	9.4	4.7	58.9	Peak Max	V	111	-1	74.0	-15.1	Pass	RB
11665.559	31.5	9.4	4.7	45.6	Average Max	V	111	-1	54.0	-8.4	Pass	RB
7784.890	35.2	7.5	0.6	43.2	Peak [Scan]	V	98					NRB
5973.948	46.4	6.4	-1.3	51.5	Peak [Scan]	V	100					NRB
5326.65331	44.5	6.0	-1.9	48.6	Peak [Scan]	H	100					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band-Edge Antenna AP-ANT-13B

Peak Limit 74.0 dBµV/m, Average Limit 54.0 dBµV/m

2.4 GHz Frequency Band

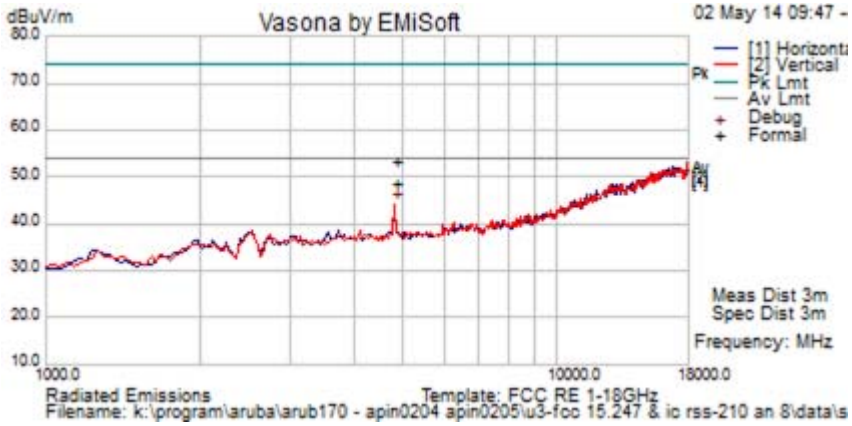
	Restricted Band 2390 MHz			Restricted Band 2483.5 MHz		
	dBµV/m		Power Setting	dBµV/m		Power Setting
Operational Mode	Peak	Average		Peak	Average	
b	50.87	38.68	19	52.44	41.43	19
g	72.99	53.41	17	70.67	51.56	19
n HT-20	69.77	52.72	17	69.73	47.45	17
n HT-40	65.98	52.90	17	69.47	50.09	16

5.8 GHz Frequency Band

	Restricted Band 5460 MHz		
Operational Mode	Peak	Average	Power Setting
a	55.28	42.86	19
n HT-20	53.50	40.43	19
n HT-40	53.20	40.43	19
ac-80	53.65	40.43	19

6.1.2.4. AP-ANT-16 – Spurious and Band-Edge Emissions

Test Freq.	2412 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 16	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

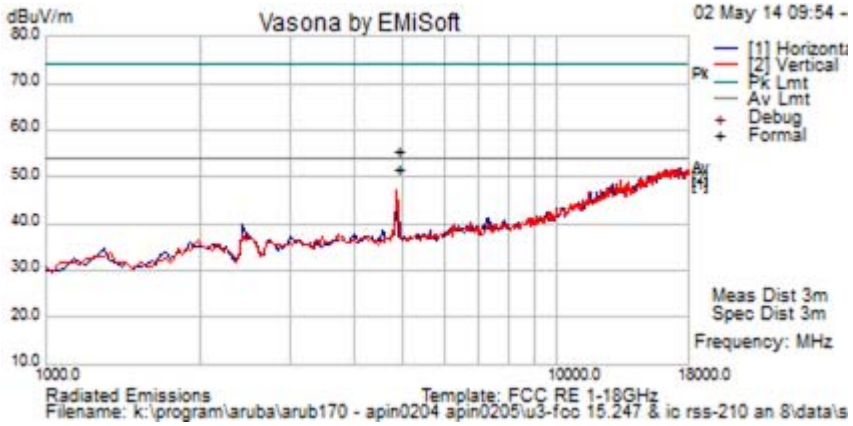


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4824.088	50.0	5.7	-2.3	53.4	Peak Max	V	102	35	74.0	-20.6	Pass	
4824.088	45.4	5.7	-2.3	48.8	Average Max	V	102	35	54.0	-5.3	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	2437 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 16	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

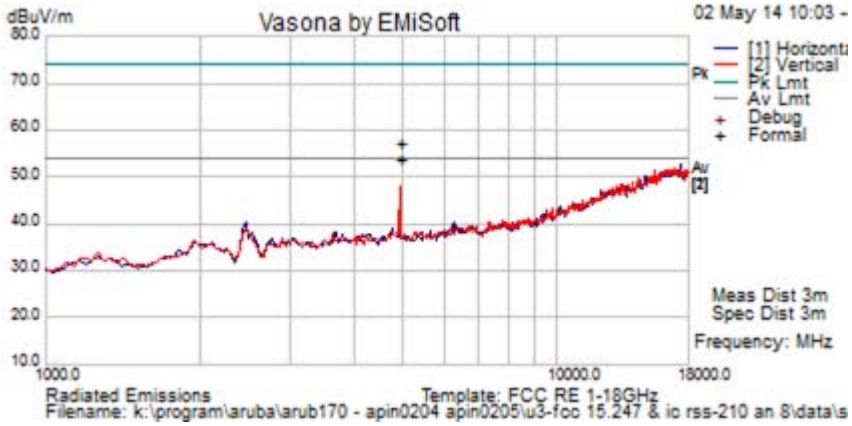


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4873.900	52.0	5.7	-2.3	55.4	Peak Max	V	100	34	74.0	-18.6	Pass	
4873.9	48.2	5.7	-2.3	51.6	Average Max	V	100	34	54.0	-2.4	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	2462 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 16	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

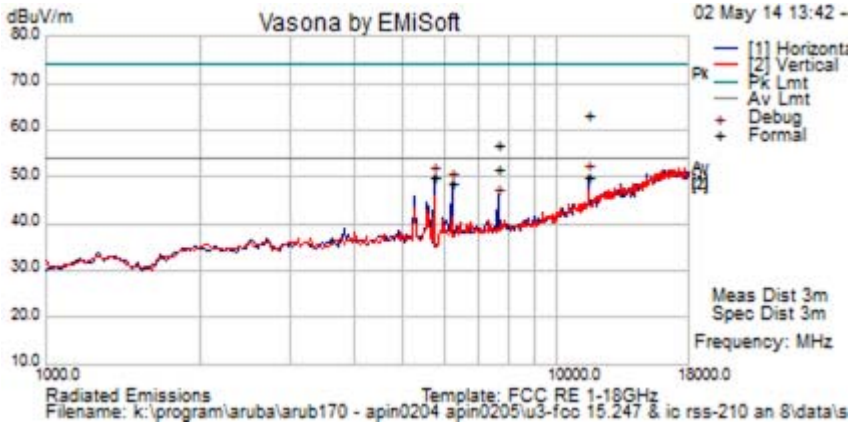


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4923.963	54.0	5.7	-2.5	57.2	Peak Max	V	99	42	74.0	-16.8	Pass	
4923.963	50.7	5.7	-2.5	54.0	Average Max	V	99	42	54.0	0.0	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5745 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 16	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

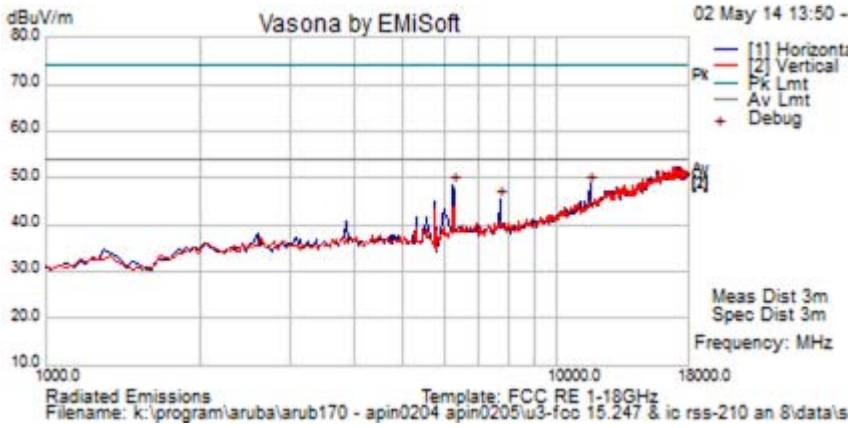


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11492.986	49.0	9.4	4.7	63.1	Peak Max	H	108	45	74.0	-10.9	Pass	RB
7659.991	49.3	7.4	0.2	56.9	Peak Max	H	120	314	74.0	-17.1	Pass	RB
11492.986	35.8	9.4	4.7	50.0	Average Max	H	108	45	54	-4.1	Pass	RB
7659.991	44.2	7.4	0.2	51.8	Average Max	H	120	314	54	-2.2	Pass	RB
5735.471	45.6	6.2	-1.9	50.0	Peak [Scan]	H	100					FUND
6212.425	42.8	6.6	-0.6	48.7	Peak [Scan]	H	100					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5785 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 16	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

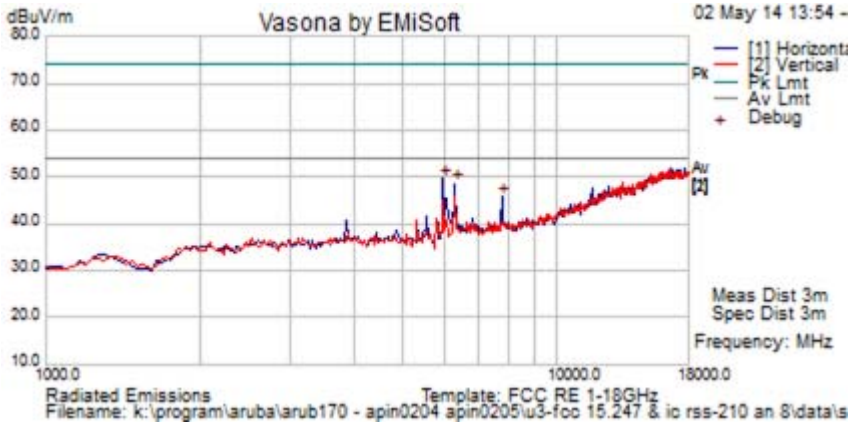


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11557.057	49.0	9.4	4.7	63.1	Peak Max	H	108	45	74.0	-10.9	Pass	RB
7713.142	49.3	7.4	0.2	56.9	Peak Max	H	120	314	74.0	-17.1	Pass	RB
11557.057	35.8	9.4	4.7	50.0	Average Max	H	108	45	54	-4.1	Pass	RB
7713.142	44.2	7.4	0.2	51.8	Average Max	H	120	314	54	-2.2	Pass	RB
6246.493	42.3	6.6	-0.6	48.3	Peak [Scan]	H	100					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5825 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 16	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5973.948	44.6	6.4	-1.3	49.7	Peak [Scan]	H	100					FUND
6314.62926	42.5	6.6	-0.6	48.6	Peak [Scan]	H	100					NRB
7780.441	37.8	7.5	0.6	45.8	Peak [Scan]	H	100					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Antenna AP-ANT-16

Peak Limit 74.0 dBµV/m, Average Limit 54.0 dBµV/m

2.4 GHz Frequency Band

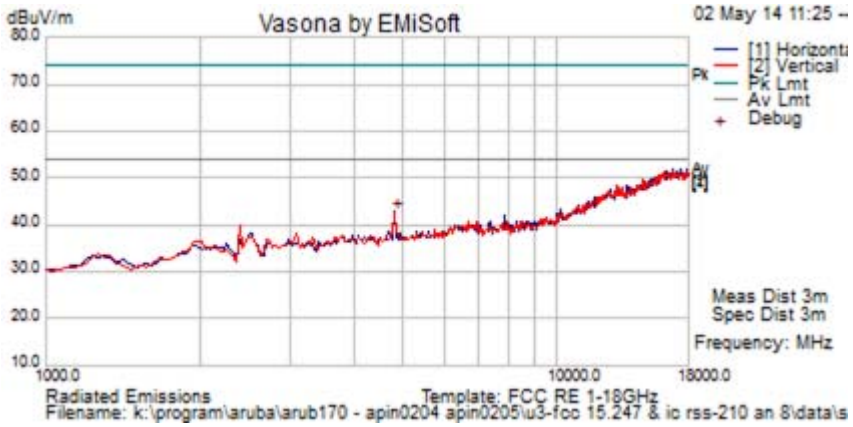
	Restricted Band 2390 MHz			Restricted Band 2483.5 MHz		
	dBµV/m		Power Setting	dBµV/m		Power Setting
Operational Mode	Peak	Average		Peak	Average	
b	54.00	41.96	19	54.26	43.16	19
g	72.21	53.04	16	70.52	48.52	17
n HT-20	68.78	52.31	16	71.61	50.49	17
n HT-40	67.28	53.86	13	72.38	52.96	16

5.8 GHz Frequency Band

	Restricted Band 5460 MHz		
Operational Mode	Peak	Average	Power Setting
a	55.64	42.86	21
n HT-20	53.12	39.81	21
n HT-40	52.62	39.81	21
ac-80	53.12	39.81	21

6.1.2.5. AP-ANT-18 – Spurious and Band-Edge Emissions

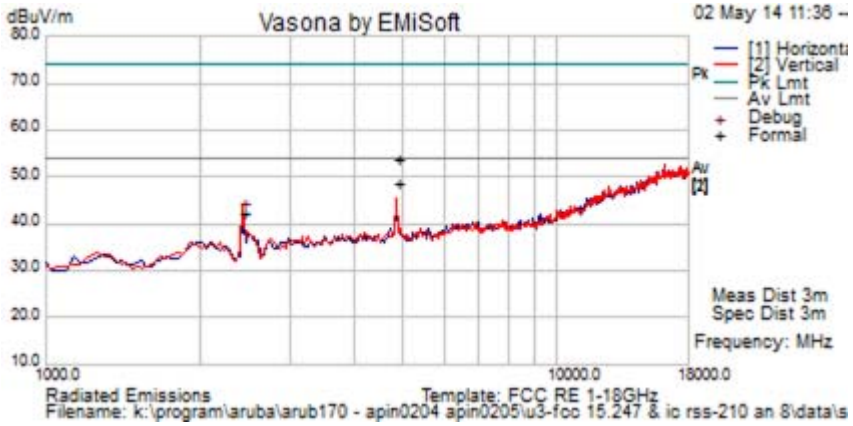
Test Freq.	2412 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 18	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4824.050	48.8	5.7	-2.3	52.1	Peak Max	H	174	84	74.0	-21.9	Pass	
4824.05	42.4	5.7	-2.3	45.7	Average Max	H	174	84	54.0	-8.3	Pass	
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission											
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak											

Test Freq.	2437 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 18	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

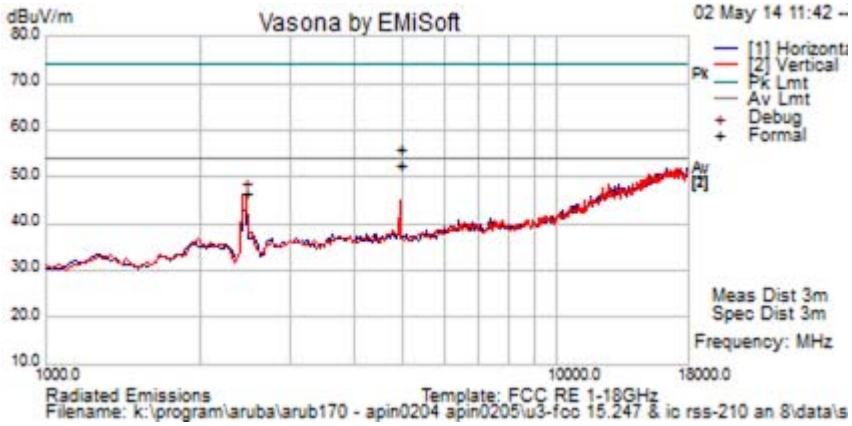


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4873.918	50.3	5.7	-2.3	53.7	Peak Max	H	142	86	74.0	-20.3	Pass	
4873.918	45.3	5.7	-2.3	48.7	Average Max	H	142	86	54.0	-5.3	Pass	
2431.975	43.5	3.9	-5.3	42.1	Peak [Scan]	V	98					FUND

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	2462 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 18	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

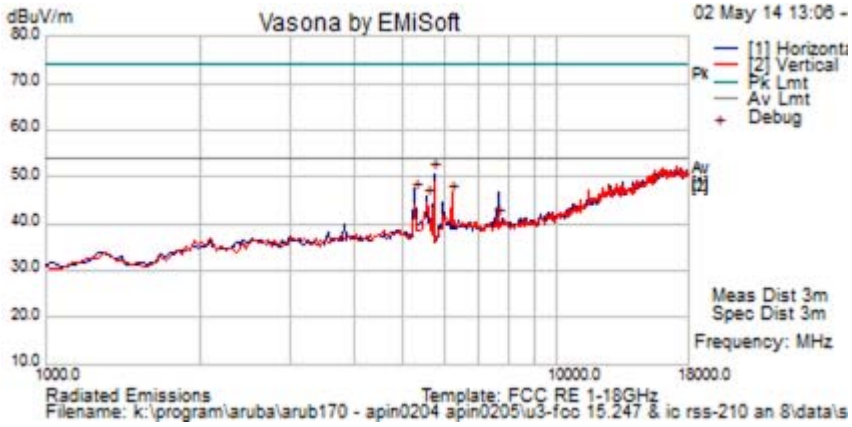


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4924.059	52.5	5.7	-2.5	55.8	Peak Max	H	191	84	74.0	-18.2	Pass	
4924.059	49.1	5.7	-2.5	52.4	Average Max	H	191	84	54.0	-1.6	Pass	
2449.179	47.6	4.0	-5.2	46.4	Peak [Scan]	V						FUND

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5745 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 18	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

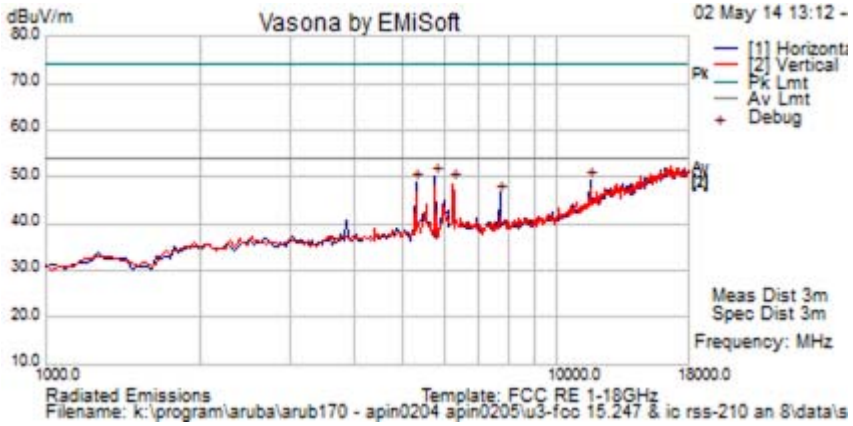


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5735.471	46.3	6.2	-1.9	50.6	Peak [Scan]	H	100					FUND
7659.887	33.5	7.4	0.2	47.1	Peak [Scan]	V	98	-1	54.0	-6.9	Pass	RB
5263.947	42.6	5.9	-2.2	52.3	Peak [Scan]	H	98					NRB
6214.095	40.0	6.6	-0.6	51.9	Peak [Scan]	H	98					NRB
5562.706	41.4	6.1	-2.1	51.4	Peak [Scan]	H	98					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5785 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 18	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

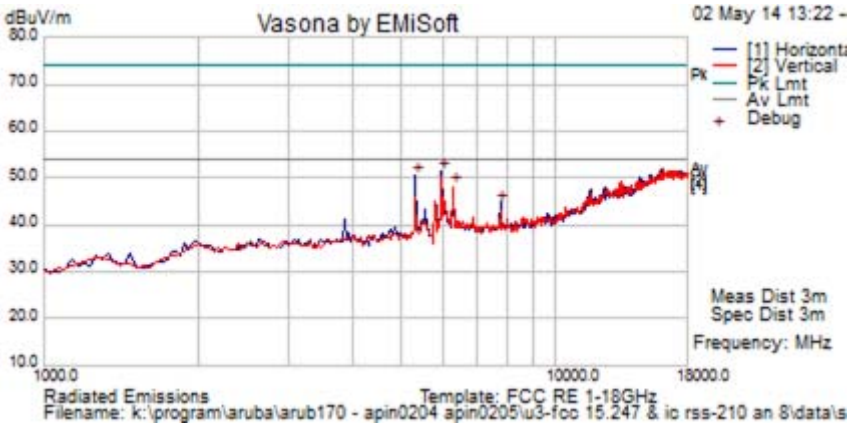


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11568.828	43.4	9.4	4.8	57.7	Peak Max	H	112	110	74.0	-16.3	Pass	RB
7713.216	47.7	7.4	0.4	55.6	Peak Max	H	113	310	74.0	-18.5	Pass	RB
11568.828	29.8	9.4	4.8	44.1	Average Max	H	112	110	54	-10.0	Pass	RB
7713.216	40.9	7.4	0.4	48.7	Average Max	H	113	310	54	-5.3	Pass	RB
5769.539	45.7	6.3	-1.8	50.2	Peak [Scan]	H	100					FUND
5292.585	45.0	6.0	-2.1	48.8	Peak [Scan]	H	100					NRB
6246.493	42.6	6.6	-0.6	48.6	Peak [Scan]	V	100					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5825 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 18	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5973.948	46.2	6.4	-1.3	51.3	Peak [Scan]	H	100					FUND
5326.65331	46.3	6.0	-1.9	50.4	Peak [Scan]	H	100					NRB
6314.629	42.1	6.6	-0.6	48.1	Peak [Scan]	V	100					NRB
7783.453	36.5	7.5	0.6	44.5	Peak [Scan]	H	98					NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Antenna AP-ANT-18

Peak Limit 74.0 dBµV/m, Average Limit 54.0 dBµV/m

2.4 GHz Frequency Band

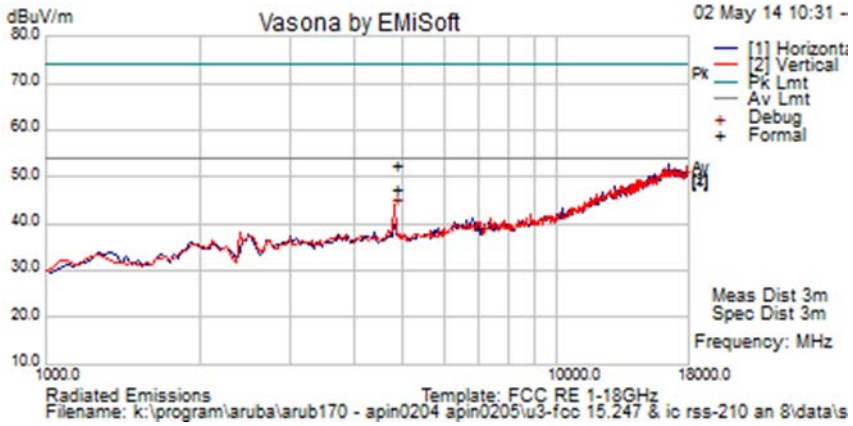
	Restricted Band 2390 MHz			Restricted Band 2483.5 MHz		
	dBµV/m		Power Setting	dBµV/m		Power Setting
Operational Mode	Peak	Average		Peak	Average	
b	57.29	46.45	19	55.14	42.90	19
g	48.26	36.22	15	73.43	51.20	17
n HT-20	69.12	52.56	16	72.91	50.60	17
n HT-40	68.08	53.86	12	72.62	52.18	16

5.8 GHz Frequency Band

	Restricted Band 5460 MHz		
Operational Mode	Peak	Average	Power Setting
a	55.93	43.12	19
n HT-20	53.03	38.84	19
n HT-40	51.85	38.84	19
ac-80	53.12	39.34	19

6.1.2.6. AP-ANT-19 – Spurious and Band-Edge Emissions

Test Freq.	2412 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 19	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

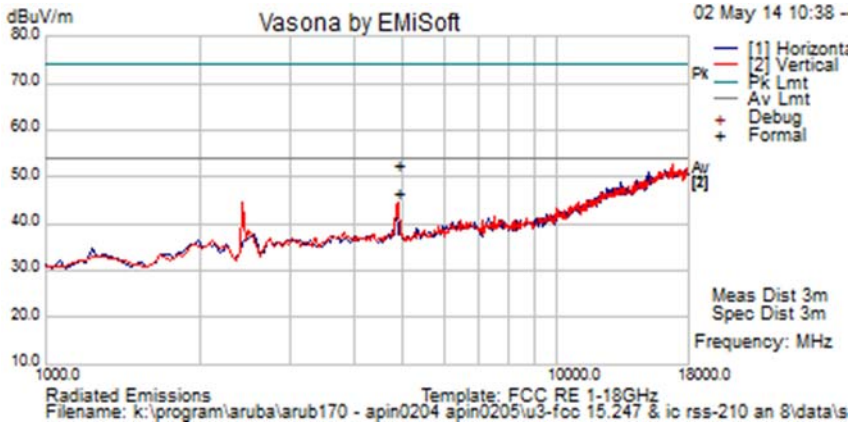


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4824.066	49.3	5.7	-2.3	52.7	Peak Max	V	176	57	74.0	-21.3	Pass	
4824.066	44.1	5.7	-2.3	47.4	Average Max	V	176	57	54.0	-6.6	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	2437 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 19	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

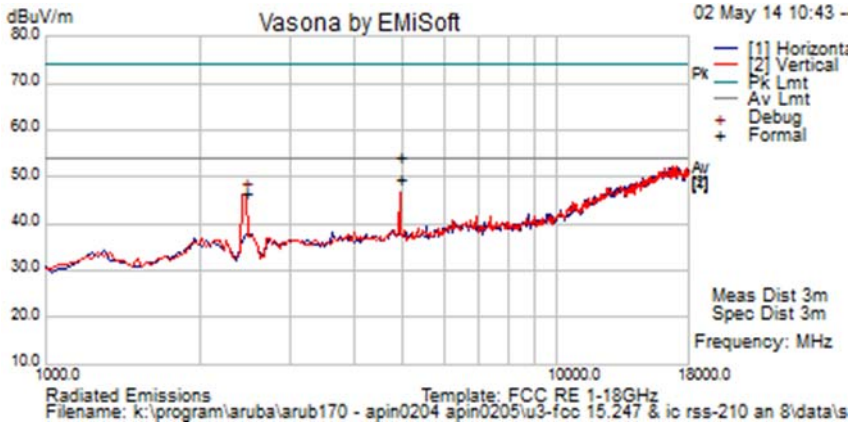


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4874.079	49.1	5.7	-2.3	52.5	Peak Max	V	178	0	74.0	-21.5	Pass	
4874.079	43.0	5.7	-2.3	46.4	Average Max	V	178	0	54.0	-7.6	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	2462 MHz	**Engineer**	SB
Variant	802.11b; 1 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 19	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

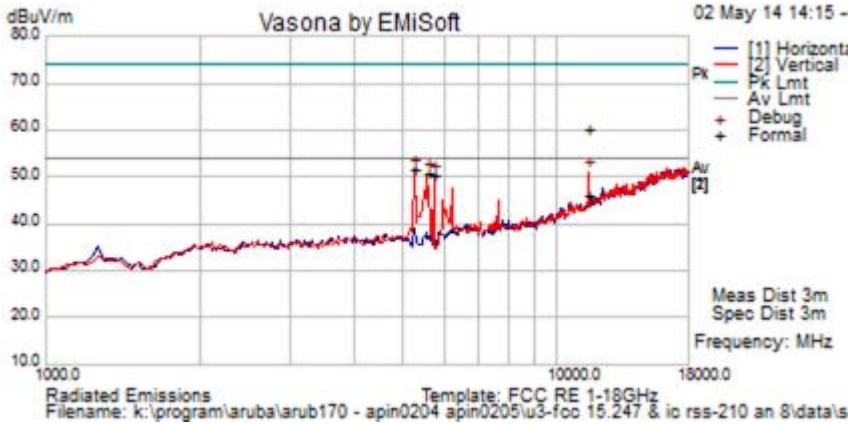


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
4924.023	51.0	5.7	-2.5	54.3	Peak Max	V	156	149	74.0	-19.7	Pass	
4924.023	46.0	5.7	-2.5	49.3	Average Max	V	156	149	54.0	-4.7	Pass	
2451.120	47.6	4.0	-5.2	46.4	Peak [Scan]	V	98	-1	54	-7.6	Pass	

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5745 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 19	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

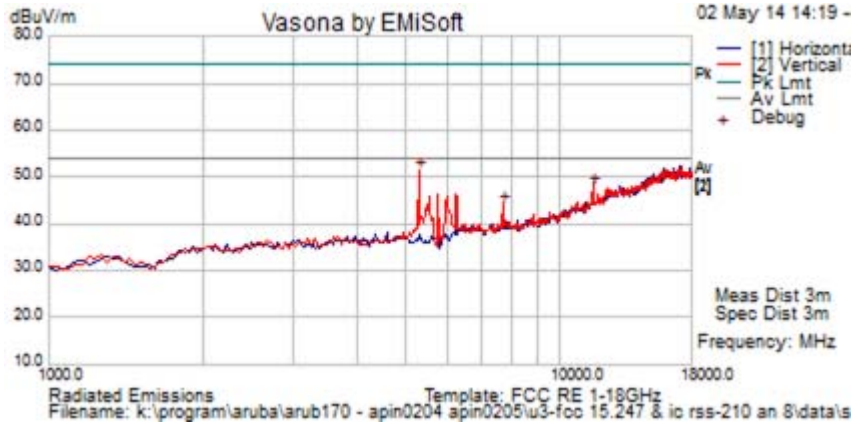


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11492.986	46.2	9.4	4.7	60.3	Peak Max	V	102	44	74.0	-13.7	Pass	RB
11492.986	32.1	9.4	4.7	46.2	Average Max	V	102	44	54.0	-7.9	Pass	RB
5258.517	47.9	5.9	-2.2	51.7	Peak [Scan]	V	100					NRB
5565.130	46.7	6.1	-2.1	50.7	Peak [Scan]	V	100					NRB
5735.471	45.9	6.2	-1.9	50.3	Peak [Scan]	V	100					FUND

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5785 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 19	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		

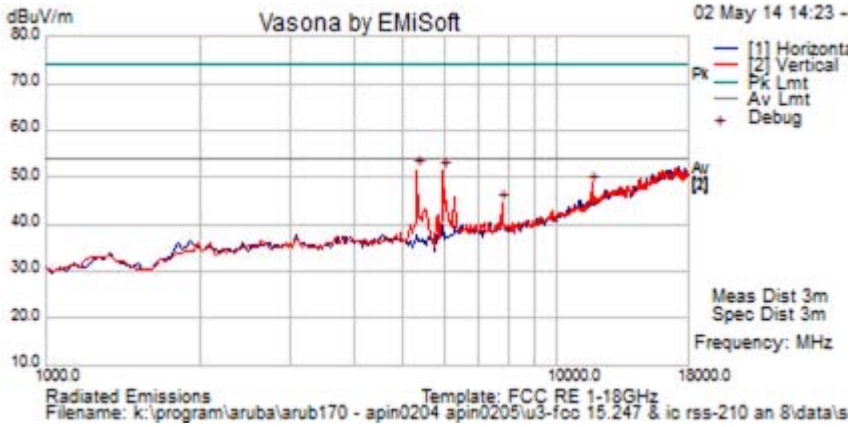


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11574.497	46.2	9.4	4.7	60.3	Peak Max	V	102	44	74.0	-13.7	Pass	RB
11574.497	32.1	9.4	4.7	46.2	Average Max	V	102	44	54.0	-7.9	Pass	RB
5292.585	47.4	6.0	-2.1	51.2	Peak [Scan]	V	100					NRB
7713.142	36.3	7.4	0.4	44.1	Peak [Scan]	V	101	-1	54.0	-9.9	Pass	RB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Test Freq.	5825 MHz	**Engineer**	SB
Variant	802.11a; 6 Mbs	**Temp (ºC)**	22
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	31
Power Setting	19	**Press. (mBars)**	1004
Antenna	AP ANT 19	**Duty Cycle (%)**	100
Test Notes 1	S/N:CM0000392; MAC:9C:1C:12:C7:DE:94;		
Test Notes 2	EUT Position Horizontal; POE;		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
11657.632	46.2	9.4	4.7	60.3	Peak Max	V	102	44	74.0	-13.7	Pass	RB
11657.632	32.1	9.4	4.7	46.2	Average Max	V	102	44	54.0	-7.9	Pass	RB
7778.761	36.3	7.5	0.6	44.3	Peak [Scan]	V	101	-1	54.0	-9.7	Pass	NRB
5326.653	47.4	6.0	-1.9	51.5	Peak [Scan]	V	100	0	54	-2.5	Pass	NRB
5973.948	46.3	6.4	-1.3	51.4	Peak [Scan]	V	100	0	54	-2.6	Pass	NRB

Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Antenna AP-ANT-19

Peak Limit 74.0 dBµV/m, Average Limit 54.0 dBµV/m

2.4 GHz Frequency Band

	Restricted Band 2390 MHz			Restricted Band 2483.5 MHz		
	dBµV/m		Power Setting	dBµV/m		Power Setting
Operational Mode	Peak	Average		Peak	Average	
b	51.50	39.37	19	54.47	44.13	19
g	70.27	51.78	18	70.81	49.44	17
n HT-20	70.10	52.39	18	69.99	49.31	17
n HT-40	67.76	52.88	18	71.71	52.09	16

5.8 GHz Frequency Band

	Restricted Band 5460 MHz		
Operational Mode	Peak	Average	Power Setting
a	55.64	43.12	19
n HT-20	55.37	42.19	19
n HT-40	54.74	41.47	19
ac-80	54.82	41.84	19

Specification Limits

FCC §15.247(d) and RSS-210 §A8.5 In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.

FCC §15.247(d)
If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified §15.209(a) is not required. In addition, radiated emissions which fall in the restricted bands, as defined in Section §15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(a)).

IC RSS-210 §A8.5 If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under section A8.4(4), the attenuation required shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in Tables 2 and 3 is not required. In addition, radiated emissions which fall in the restricted bands of Table 1 must also comply with the radiated emission limits specified in Tables 2 and 3.

IC RSS-Gen §4.7
The search for unwanted emissions shall be from the lowest frequency internally generated or used in the device (local oscillator, intermediate of carrier frequency), or from 30 MHz , whichever is the lowest frequency, to the 5th harmonic of the highest frequency generated without exceeding 40 GHz.

FCC §15.205 (a) Except as shown in paragraph (d) of 15.205 (a), only spurious emissions are permitted in any of the frequency bands listed.

FCC §15.205 (a) Except as shown in paragraphs (d) and (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

FCC §15.209 (a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table.

§15.209 (a) Limit Matrix

Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Measurement Distance (meters)
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Laboratory Measurement Uncertainty for Radiated Emissions

Measurement uncertainty	+5.6/ -4.5 dB

Traceability

Method	Test Equipment Used
Measurements were made per work instruction WI-03 'Measurement of Radiated Emissions'	0088, 0158, 0134, 0304, 0311, 0315, 0310, 0312

6.1.2.7. Digital Emissions (0.03-1 GHz)

FCC, Part 15 Subpart C §15.205/ §15.209
Industry Canada RSS-210 §2.2

Test Procedure

Testing 30M-1 GHz was performed in a 3-meter anechoic chamber using a CISPR compliant receiver. Preliminary radiated emissions were measured on every azimuth and with the receiving antenna in both horizontal and vertical polarizations. To further maximize emissions the receive antenna was varied between 1 and 4 meters. The emissions are recorded with receiver in peak hold mode. Emissions closest to the limits are measured in the quasi-peak mode with the tuned receiver using a bandwidth of 120 kHz. Only the highest emissions relative to the limit are listed. The anechoic chamber test set-up is identified in Section 6 Test Set-Up Photographs.

The EUT had two methods of powering on ac/dc converter and Power over Ethernet (POE). Both modes were tested for emissions below 1GHz.

Field Strength Calculation

The field strength is calculated by adding the Antenna Factor and Cable Loss, and subtracting Amplifier Gain from the measured reading. In this test facility, the Antenna Factor, Cable Loss, and Amplifier Gains are loaded into the Rohde & Schwarz Receiver and the corrected field strength can be read directly on the receiver.

$$FS = R + AF + CORR$$

where:

FS = Field Strength
R = Measured Receiver Input Amplitude
AF = Antenna Factor
CORR = Correction Factor = CL – AG + NFL
CL = Cable Loss
AG = Amplifier Gain

For example:
Given a Receiver input reading of 51.5dBμV; Antenna Factor of 8.5dB; Cable Loss of 1.3dB; Falloff Factor of 0dB, an Amplifier Gain of 26dB and Notch Filter Loss of 1dB. The Field Strength of the measured emission is:

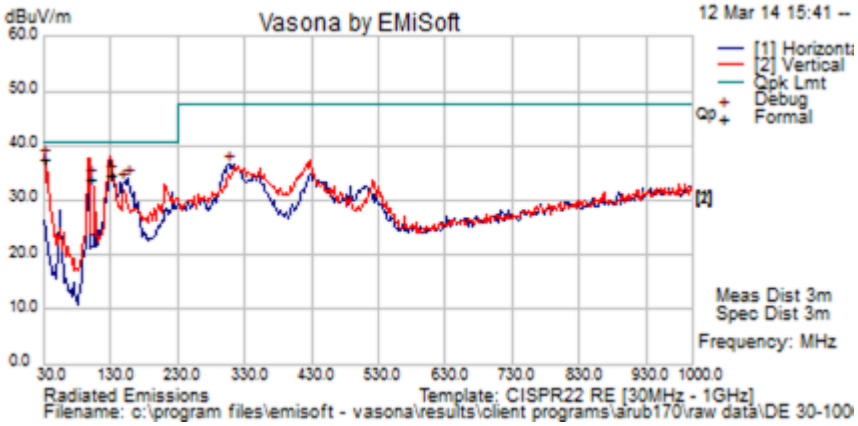
$$FS = 51.5 + 8.5 + 1.3 - 26.0 + 1 = 36.3 dB\mu V/m$$

Conversion between dBμV/m (or dBμV) and μV/m (or μV) are done as:

$$Level\ (dB\mu V/m) = 20 * Log\ (level\ (\mu V/m))$$

40 dBμV/m = 100μV/m
48 dBμV/m = 250μV/m

Test Freq.	NA	**Engineer**	JMH
Variant	Digital Emissions	**Temp (ºC)**	18
Freq. Range	30 - 1000 MHz	**Rel. Hum.(%)**	33
Power Setting	Not Applicable	**Press. (mBars)**	1007
Antenna	External APIN0204		
Test Notes 1	POE 55 Vdc		
Test Notes 2			

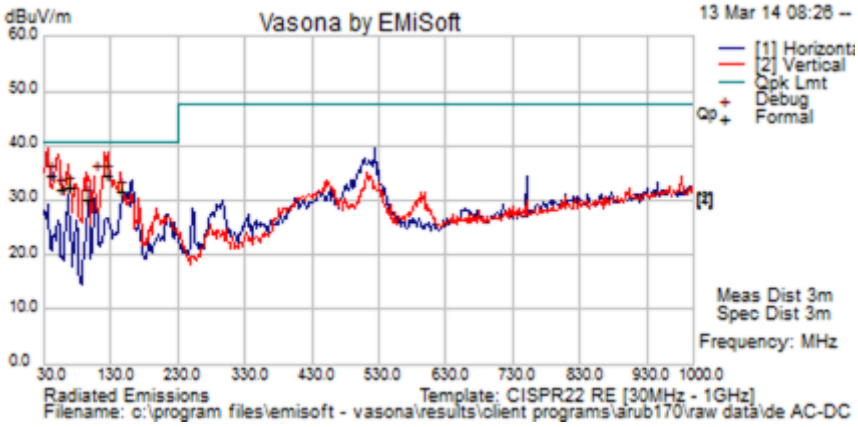


Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
30.606	43.9	3.5	-10.0	37.400	Quasi Max	V	99	225	40.5	-3.1	Pass	
128.993	47.2	4.3	-16.9	34.6	Quasi Max	H	393	283	40.5	-5.9	Pass	
97.306	51.3	4.1	-21.6	33.8	Quasi Max	V	111	302	40.5	-6.7	Pass	
144.896	47.1	4.3	-18.3	33.2	Peak [Scan]	H	98	-1	40.5	-7.3	Pass	
156.413	48.1	4.4	-18.5	34.0	Peak [Scan]	H	98	-1	40.5	-6.5	Pass	
304.698	48.1	5.1	-16.8	36.4	Peak [Scan]	H	98	-1	47.5	-11.1	Pass	

Legend:	DIG = Digital Device Emission; TX = Transmitter Emission; FUND = Fundamental Frequency
	NRB = Non-Restricted Band, Limit is 20 dB below Fundamental; RB = Restricted Band

Test Freq.	NA	**Engineer**	JMH
Variant	Digital Emissions	**Temp (ºC)**	18
Freq. Range	30 - 1000 MHz	**Rel. Hum.(%)**	33
Power Setting	NA	**Press. (mBars)**	1000
Antenna	External APIN0204		
Test Notes 1	AC/DC Powered 110Vac 60 Hz / 12 Vdc		
Test Notes 2	Digital Emissions		



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
37.871	46.7	3.6	-15.6	34.670	Quasi Max	V	105	62	40.5	-5.8	Pass	
122.751	47.4	4.2	-17.0	34.6	Quasi Max	V	133	186	40.5	-5.9	Pass	
52.159	51.5	3.7	-23.2	32.0	Quasi Max	V	156	89	40.5	-8.5	Pass	
65.446	51.9	3.8	-23.2	32.5	Quasi Max	V	189	50	40.5	-8.0	Pass	
143.372	45.5	4.3	-18.2	31.7	Quasi Max	V	99	10	40.5	-8.9	Pass	
91.769	49.6	4.0	-23.3	30.3	Quasi Max	V	99	257	40.5	-10.2	Pass	
105.812	49.8	4.1	-19.3	34.4	Peak [Scan]	V	100	0	40.5	-6.0	Pass	

Legend:	DIG = Digital Device Emission; TX = Transmitter Emission; FUND = Fundamental Frequency
	NRB = Non-Restricted Band, Limit is 20 dB below Fundamental; RB = Restricted Band

Specification

Limits

§15.205 (a) Except as shown in paragraph (d) of 15.205 (a), only spurious emissions are permitted in any of the frequency bands listed.

§15.205 (a) *Except as shown in paragraphs (d) and* (e) of this section, the field strength of emissions appearing within these frequency bands shall not exceed the limits shown in Section §15.209. At frequencies equal to or less than 1000 MHz, compliance with the limits in Section 15.209 shall be demonstrated using measurement instrumentation employing a CISPR quasi-peak detector. Above 1000 MHz, compliance with the emission limits in Section 15.209 shall be demonstrated based on the average value of the measured emissions. The provisions in Section 15.35 apply to these measurements.

§15.209 (a) Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table.

§15.209 (a) and **RSS-Gen §2.2** Limit Matrix

Frequency(MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Measurement Distance (meters)
30-88	100	40.0	3
88-216	150	43.5	3
216-960	200	46.0	3
Above 960	500	54.0	3

Laboratory Measurement Uncertainty for Radiated Emissions

Measurement uncertainty	+5.6/ -4.5 dB

Traceability

Method	Test Equipment Used
Measurements were made per work instruction WI-03 'Measurement of Radiated Emissions'	0088, 0158, 0134, 0304, 0311, 0315, 0310, 0312

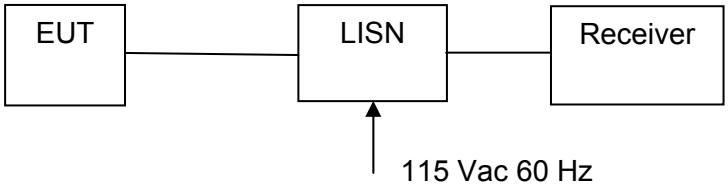
6.1.3. AC Wireline Conducted Emissions (150 kHz – 30 MHz)

FCC, Part 15 Subpart C §15.207
Industry Canada RSS-Gen §7.2.2

Test Procedure

The EUT is configured in accordance with ANSI C63.4. The conducted emissions are measured in a shielded room with a spectrum analyzer in peak hold in the first instance. Emissions closest to the limit are measured in the quasi-peak mode (QP) with the tuned receiver using a bandwidth of 9 kHz. The emissions are maximized further by cable manipulation. The highest emissions relative to the limit are listed.

Test Measurement Set up



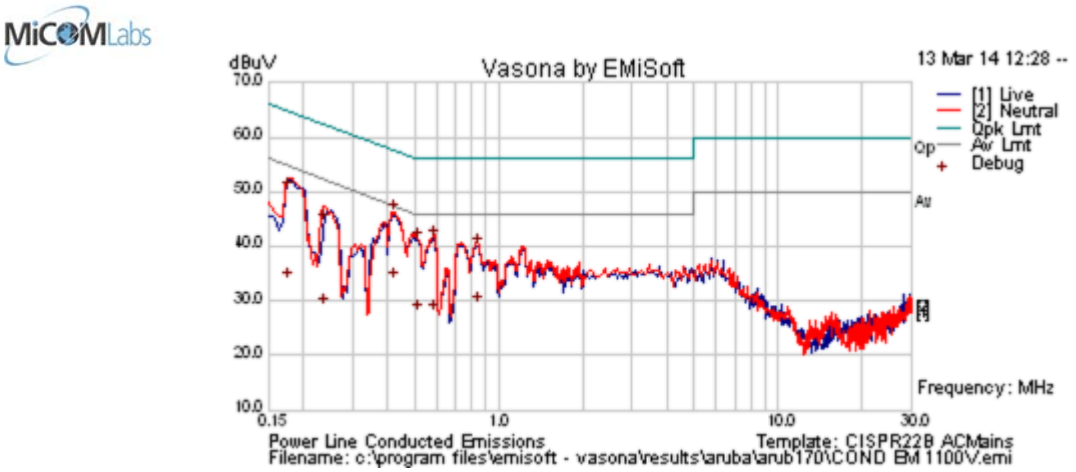
Measurement set up for AC Wireline Conducted Emissions Test

Measurement Results for AC Wireline Conducted Emissions (150 kHz – 30 MHz)

Ambient conditions.
Temperature: 17 to 23 °C Relative humidity: 31 to 57 % Pressure: 999 to 1012 mbar

ac/dc Adaptor Wireline Emissions

Test Freq.	N/A	**Engineer**	JMH
Variant	AC Line Emissions	**Temp (ºC)**	18
Freq. Range	0.150 MHz - 30 MHz	**Rel. Hum.(%)**	35
Power Setting	Not Applicable	**Press. (mBars)**	1004
Antenna	Not Applicable		
Test Notes 1	ac/dc Adaptor 110 Vac, 60 Hz		
Test Notes 2			



Formally measured emission peaks

Frequency MHz	Raw dBuV	Cable Loss	Factors dB	Level dBuV	Measurement Type	Line	Limit dBuV	Margin dB	Pass /Fail	Comments
0.175	23.7	9.9	0.1	33.7	Average	Neutral	54.72	-21.1	Pass	
0.175	40.3	9.9	0.1	50.3	Quasi Peak	Neutral	64.72	-14.5	Pass	
0.234	18.7	9.9	0.1	28.6	Average	Neutral	52.31	-23.7	Pass	
0.234	34.2	9.9	0.1	44.1	Quasi Peak	Neutral	62.31	-18.2	Pass	
0.415	36.2	9.9	0.1	46.1	Quasi Peak	Neutral	57.56	-11.4	Pass	
0.415	23.7	9.9	0.1	33.7	Average	Neutral	47.56	-13.9	Pass	
0.506	31.1	9.9	0.1	41.1	Quasi Peak	Neutral	56	-14.9	Pass	
0.506	17.7	9.9	0.1	27.7	Average	Neutral	46	-18.3	Pass	
0.579	17.5	9.9	0.1	27.6	Average	Neutral	46	-18.4	Pass	
0.579	31.4	9.9	0.1	41.5	Quasi Peak	Neutral	56	-14.6	Pass	
0.839	29.7	9.9	0.1	39.7	Quasi Peak	Neutral	56	-16.3	Pass	
0.839	19.0	9.9	0.1	29.0	Average	Neutral	46	-17.0	Pass	

Legend:	DIG = Digital Device Emission; TX = Transmitter Emission; FUND = Fundamental Frequency
	NRB = Non-Restricted Band, Limit is 20 dB below Fundamental; RB = Restricted Band

Specification

Limit

§15.207 (a) Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (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 the limits in the following table, as measured using a 50 μΩ line impedance stabilization network (LISN), see §15.207 (a) matrix below. Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal.

RSS-Gen §7.2.2
The radio frequency voltage that is conducted back into the AC power lines in the frequency range of 0.15 MHz to 30 MHz shall not exceed the limits shown in the table below. The tighter limit applies at the frequency range boundaries.

§15.207 (a) and **RSS-Gen §7.2.2** Limit Matrix
The lower limit applies at the boundary between frequency ranges

Frequency of Emission (MHz)	Conducted Limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency

Laboratory Measurement Uncertainty for Conducted Emissions

Measurement uncertainty	±2.64 dB

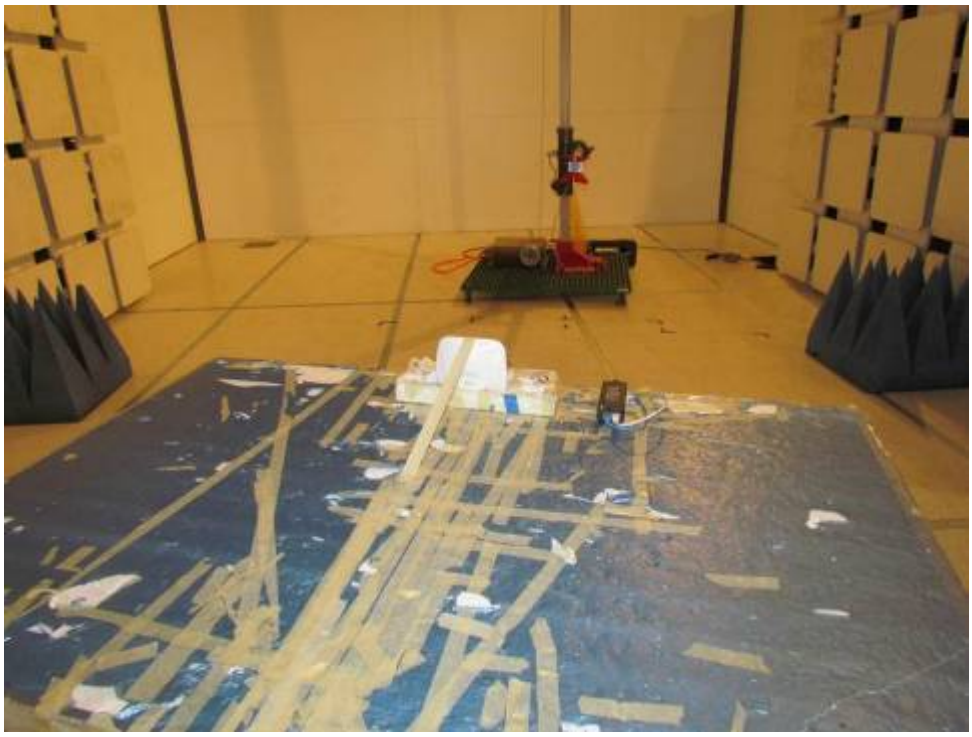
Traceability

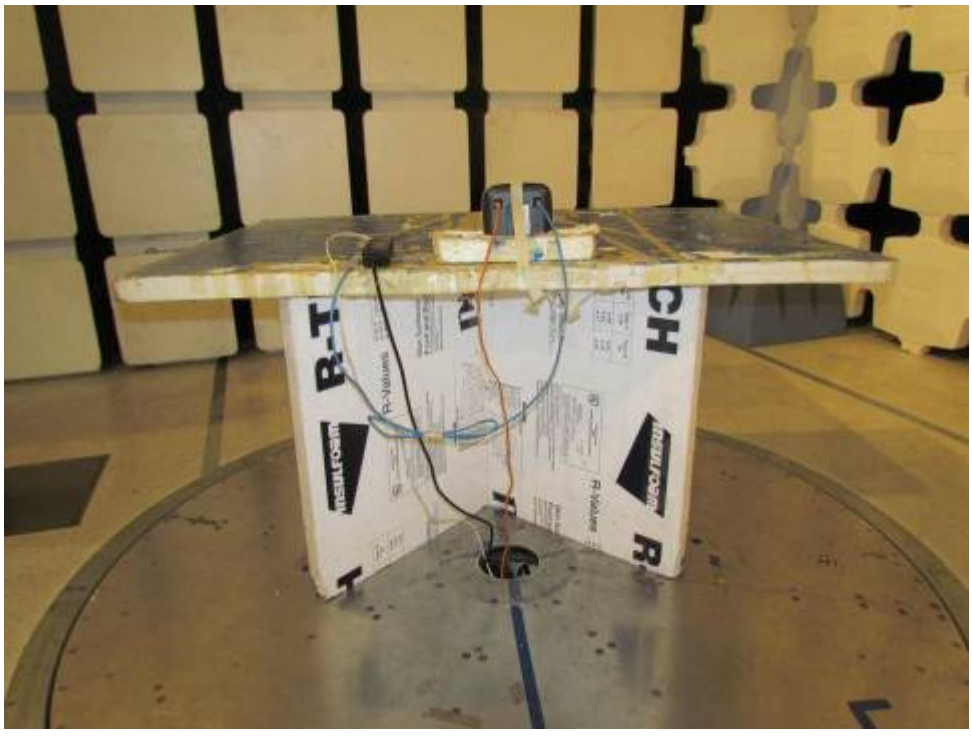
Method	Test Equipment Used
Measurements were made per work instruction WI-EMC-01 'Measurement of Conducted Emissions'	0158, 0184, 0287, 0190, 0293, 0307

7. PHOTOGRAPHS

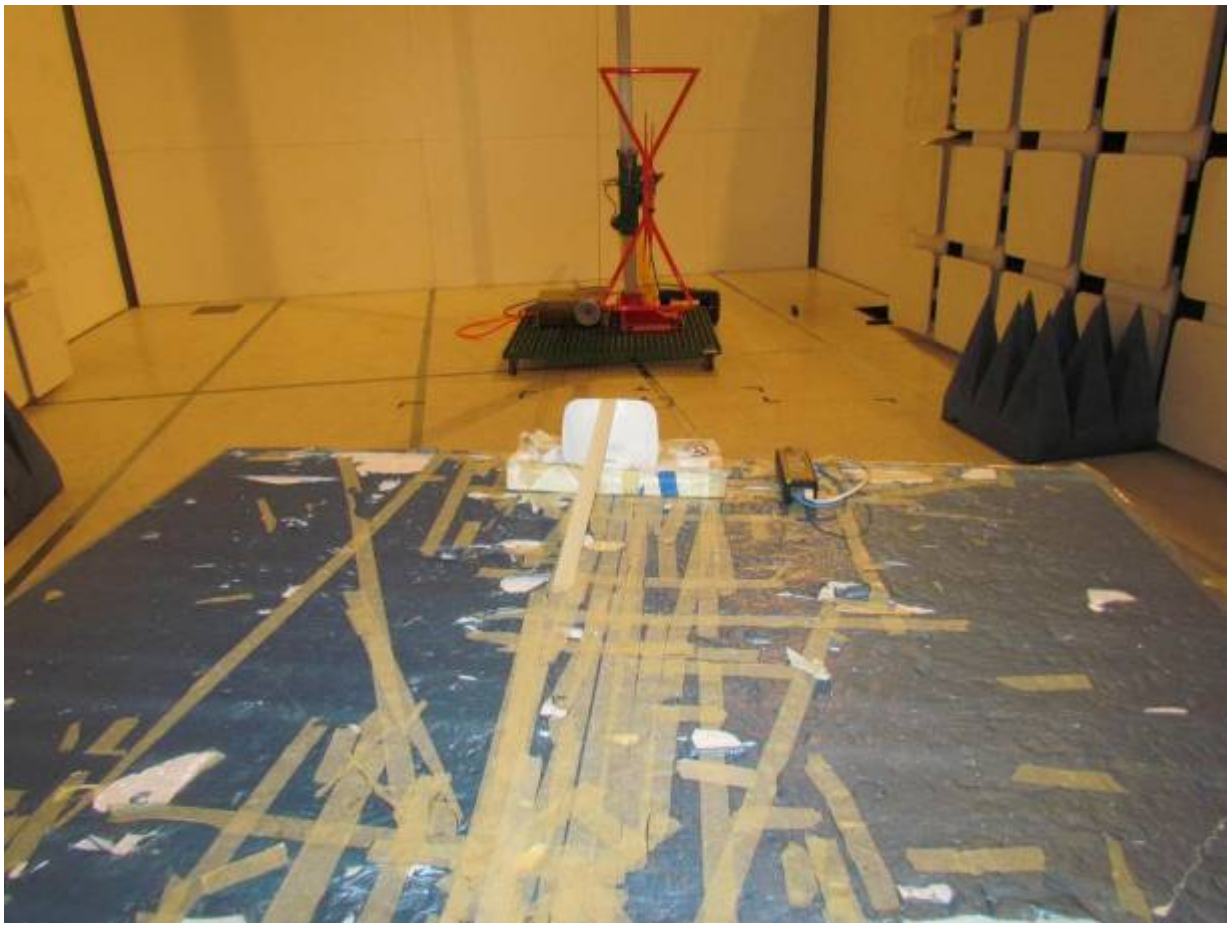
7.1. Conducted Test Setup

7.2. Test Setup - Digital Emissions > 1 GHz





7.3. Radiated Emissions Test Setup <1 GHz



7.4. ac Wireline Test Setup >1 GHz

8. TEST EQUIPMENT

Asset #	Instrument	Manufacturer	Part #	Serial #	Calibration Due Date
0117	Power Sensor	Hewlett Packard	8487D	3318A00371	18th Oct 14
0223	Power Meter	Hewlett Packard	EPM-442A	US37480256	18th Oct 14
0376	Power Sensor	Agilent	U2000A	MY51440005	28th Oct 14
0390	Power Sensor	Agilent	U2002A	MY50000103	17th Oct 14
0158	Barometer /Thermometer	Control Co.	4196	E2846	6th Dec 14
0287	EMI Receiver	Rhode & Schwartz	ESIB40	100201	31st Jul 14
0378	EMI Receiver	Rhode & Schwartz	ESIB40	100107/040	17th Jul 14
0338	30 - 3000 MHz Antenna	Sunol	JB3	A052907	14th Aug 14
0399	1-18 GHz Horn Antenna	EMCO	3117	00154575	10th Oct 14
0252	SMA Cable	Megaphase	Sucoflex 104	None	N/A
0310	2m SMA Cable	Micro-Coax	UFA210A-0-0787-3G03G0	209089-001	N/A
0312	3m SMA Cable	Micro-Coax	UFA210A-1-1181-3G0300	209092-001	N/A
0314	30dB N-Type Attenuator	ARRA	N9444-30	1623	N/A
0359	DFS Test System	Aeroflex	PXI-1042	300001/004	21st Oct 14
0299	DFS Test Software	Aeroflex	PXIModule	Version 7.1.0	N/A
0502	EMC Test Software	EMISoft	Vasona	5.0051	N/A
0503	RF Conducted Test Software	National Instruments	Labview	Version 8.2	N/A
0398	RF Conducted Test Software	MiCOM Labs ATS	--	Version 1.8	N/A
0380	RF Switch	MiCOM Labs	MIC001	MIC001	20th March 14

APPENDIX

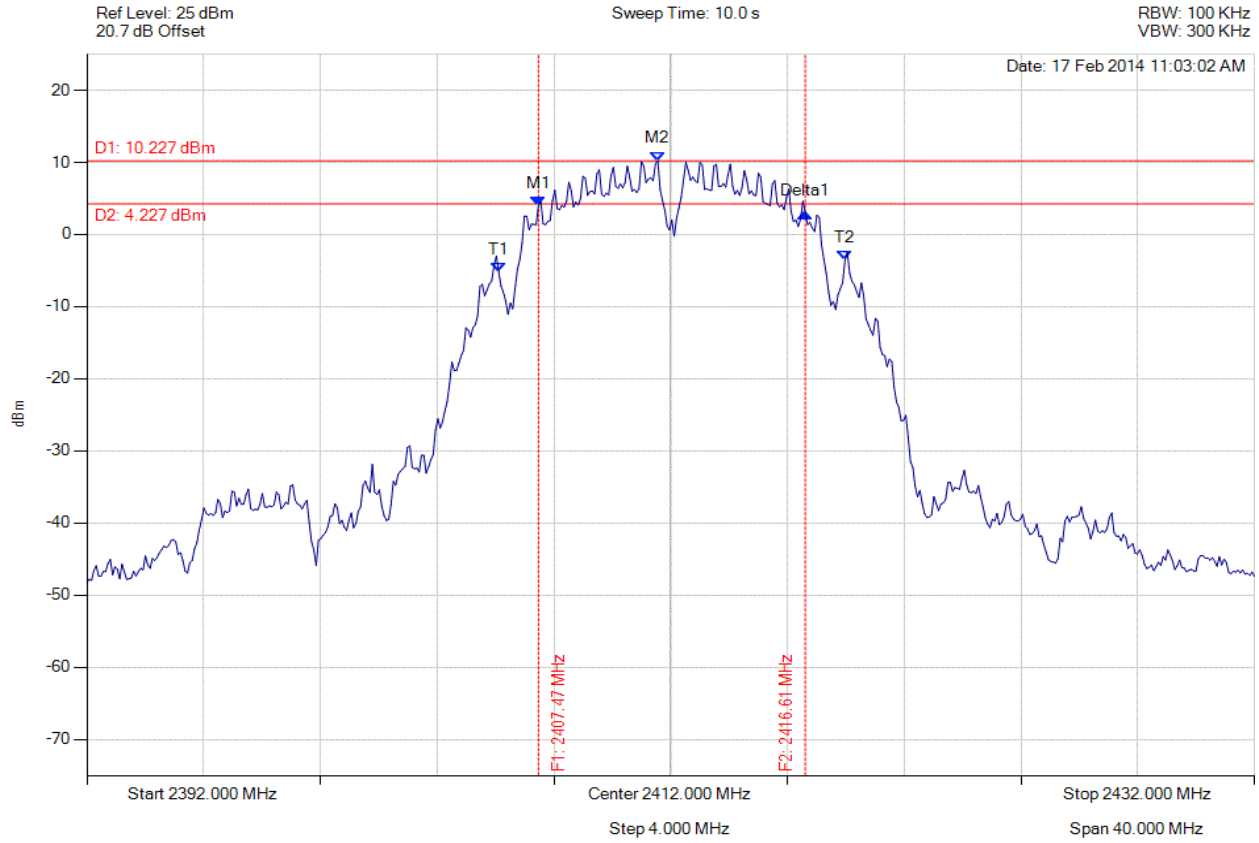
A. SUPPORTING INFORMATION

A.1. CONDUCTED TEST PLOTS

A.1.1. 6 dB & 99% Bandwidth

6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

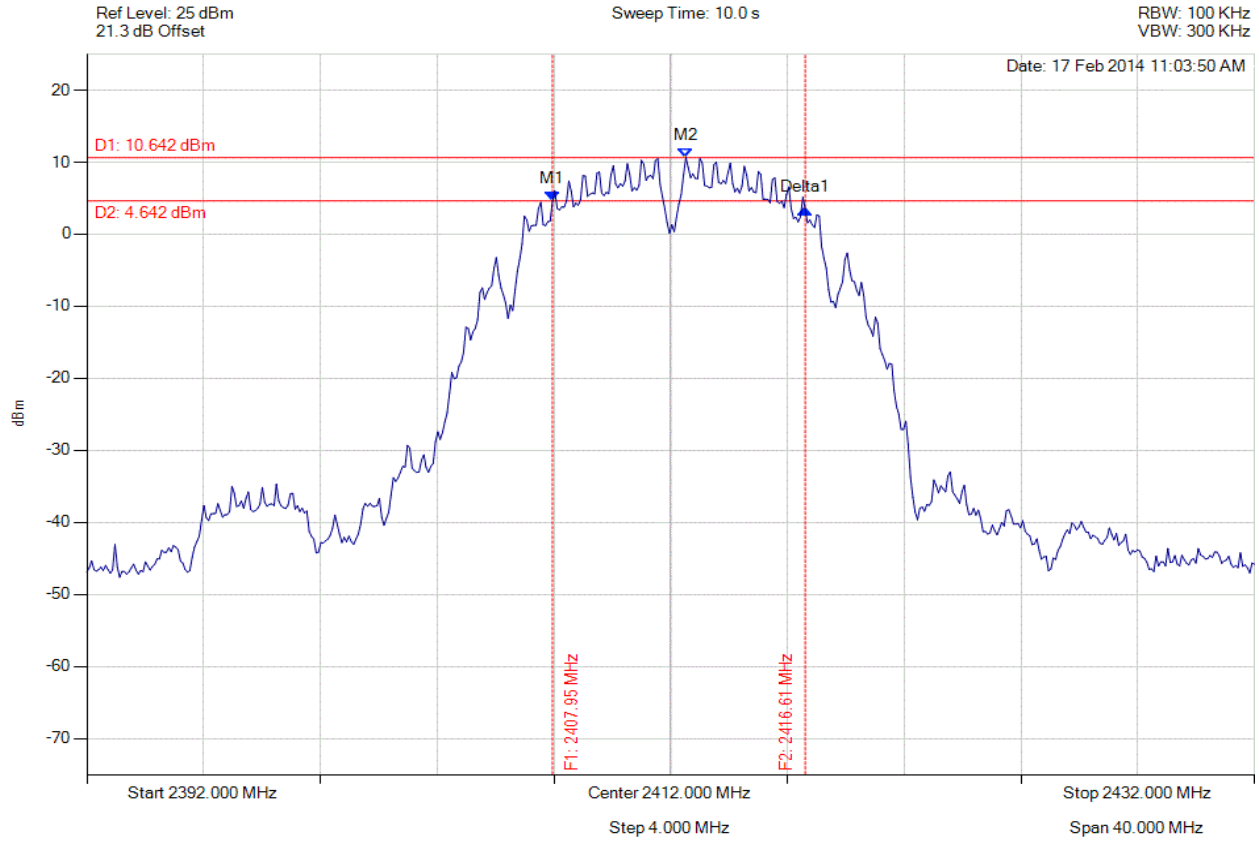


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2407.471 MHz : 4.002 dBm M2 : 2411.559 MHz : 10.227 dBm Delta1 : 9.138 MHz : -0.962 dB T1 : 2406.108 MHz : -5.154 dBm T2 : 2417.972 MHz : -3.568 dBm OBW : 11.864 MHz	Measured 6 dB Bandwidth: 9.138 MHz Limit: ≥500.0 kHz Margin: -8.64 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

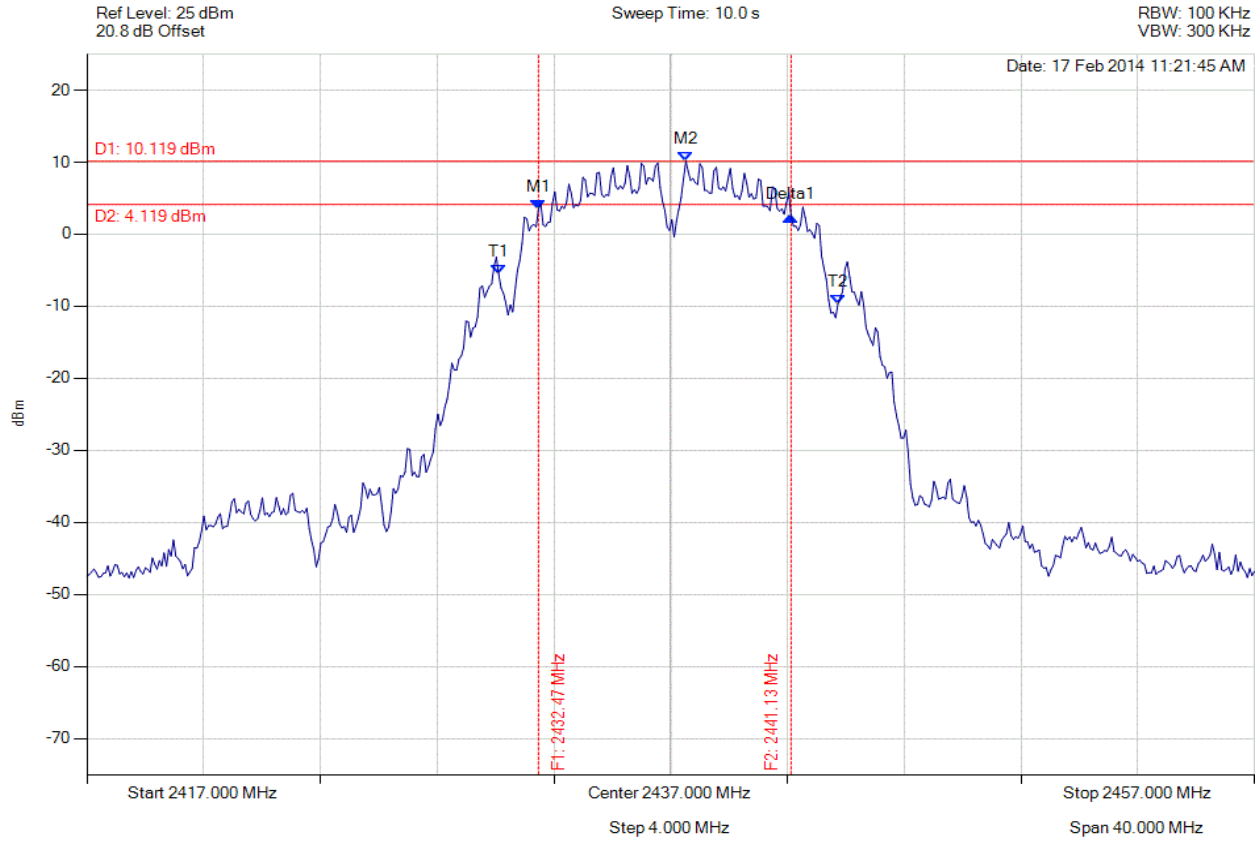


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2407.952 MHz : 4.628 dBm M2 : 2412.521 MHz : 10.642 dBm Delta1 : 8.657 MHz : -1.165 dB T1 : 0 Hz : 500.000 dBm T2 : 0 Hz : 500.000 dBm OBW : 11.623 MHz	Measured 6 dB Bandwidth: 8.657 MHz Limit: ≥500.0 kHz Margin: -8.16 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

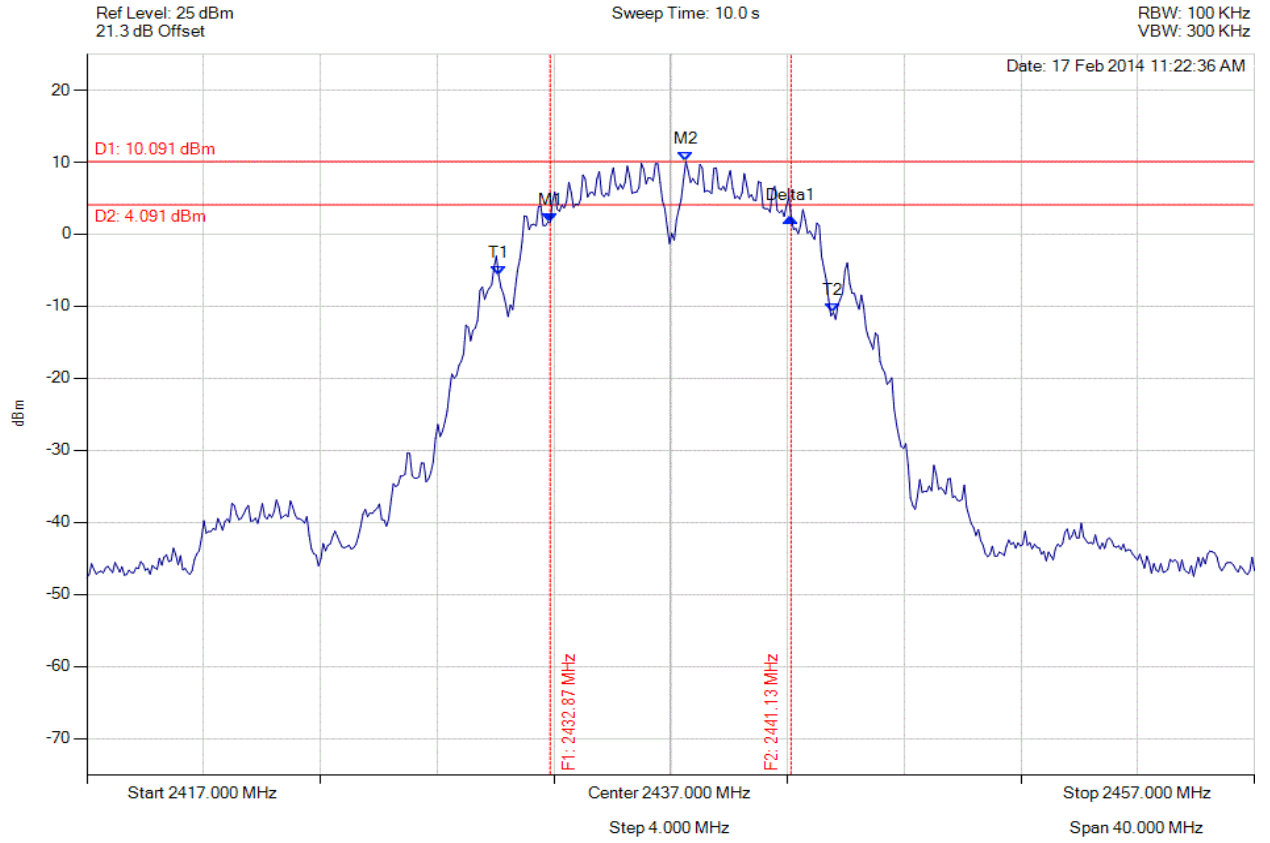


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2432.471 MHz : 3.520 dBm M2 : 2437.521 MHz : 10.119 dBm Delta1 : 8.657 MHz : -1.090 dB T1 : 2431.108 MHz : -5.545 dBm T2 : 2442.731 MHz : -9.669 dBm OBW : 11.623 MHz	Measured 6 dB Bandwidth: 8.657 MHz Limit: ≥500.0 kHz Margin: -8.16 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

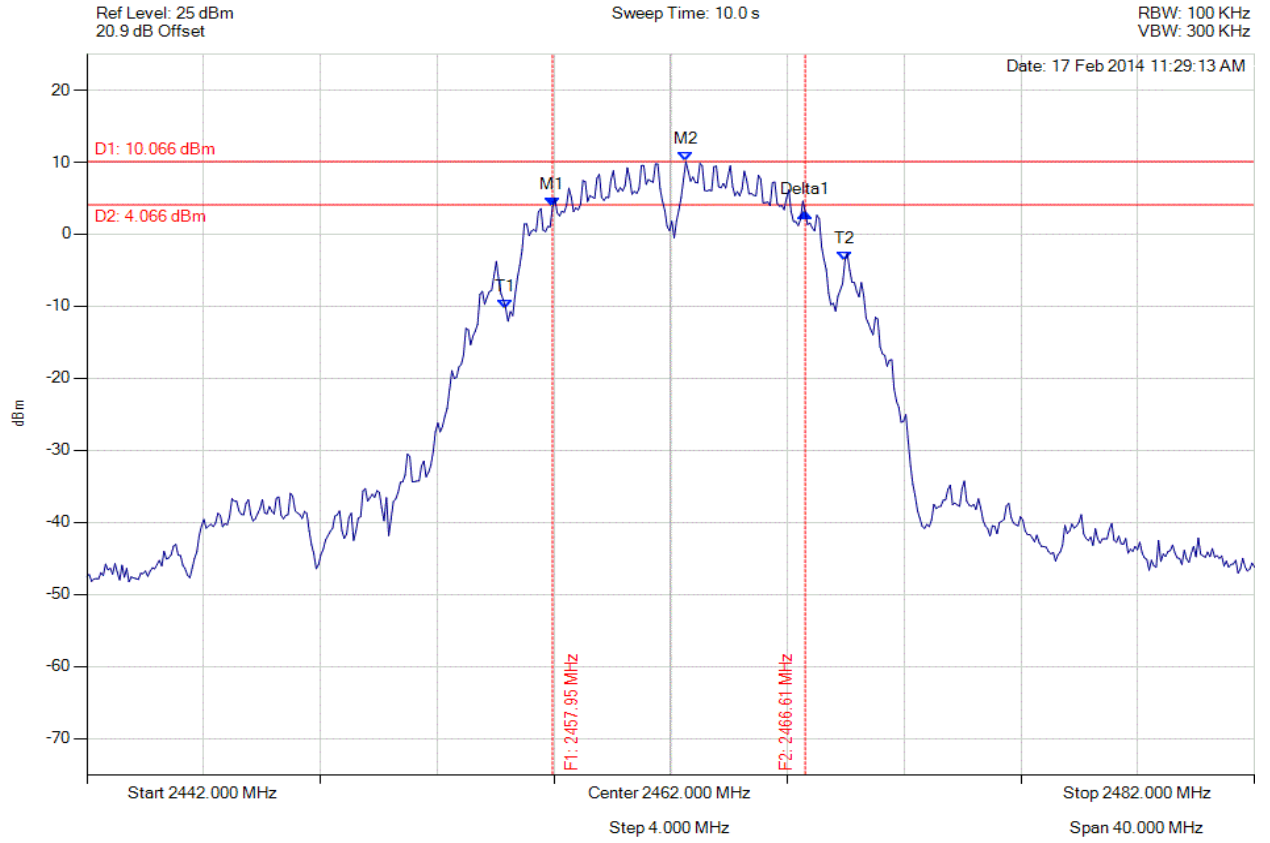


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2432.872 MHz : 1.610 dBm M2 : 2437.521 MHz : 10.091 dBm Delta1 : 8.257 MHz : 0.653 dB T1 : 2431.108 MHz : -5.734 dBm T2 : 2442.571 MHz : -10.859 dBm OBW : 11.463 MHz	Measured 6 dB Bandwidth: 8.257 MHz Limit: ≥500.0 kHz Margin: -7.76 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

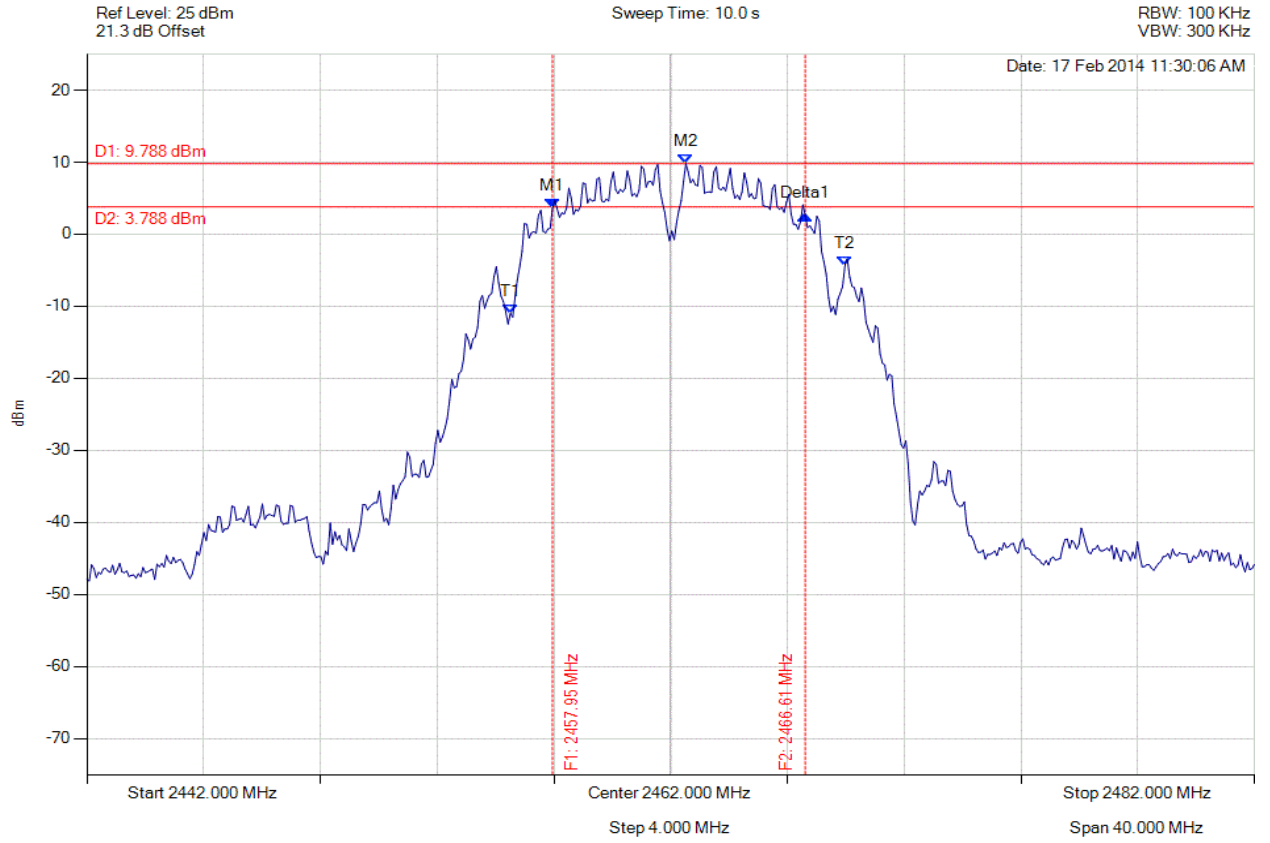


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2457.952 MHz : 3.745 dBm M2 : 2462.521 MHz : 10.066 dBm Delta1 : 8.657 MHz : -0.700 dB T1 : 2456.349 MHz : -10.347 dBm T2 : 2467.972 MHz : -3.651 dBm OBW : 11.623 MHz	Measured 6 dB Bandwidth: 8.657 MHz Limit: ≥500.0 kHz Margin: -8.16 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11b, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

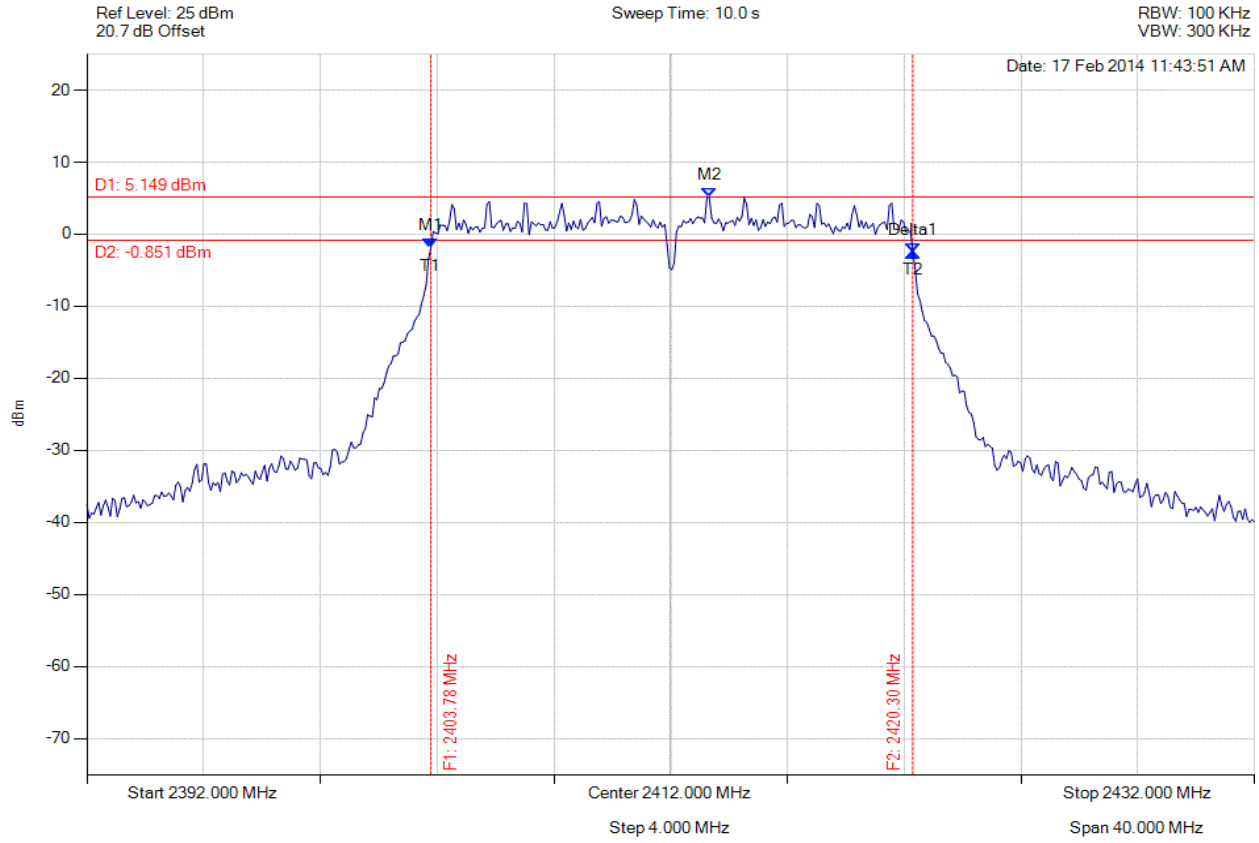


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2457.952 MHz : 3.581 dBm M2 : 2462.521 MHz : 9.788 dBm Delta1 : 8.657 MHz : -1.005 dB T1 : 2456.509 MHz : -10.989 dBm T2 : 2467.972 MHz : -4.316 dBm OBW : 11.463 MHz	Measured 6 dB Bandwidth: 8.657 MHz Limit: ≥500.0 kHz Margin: -8.16 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.784 MHz : -1.935 dBm M2 : 2413.323 MHz : 5.149 dBm Delta1 : 16.513 MHz : -0.547 dB T1 : 2403.784 MHz : -1.935 dBm T2 : 2420.297 MHz : -2.482 dBm OBW : 16.513 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

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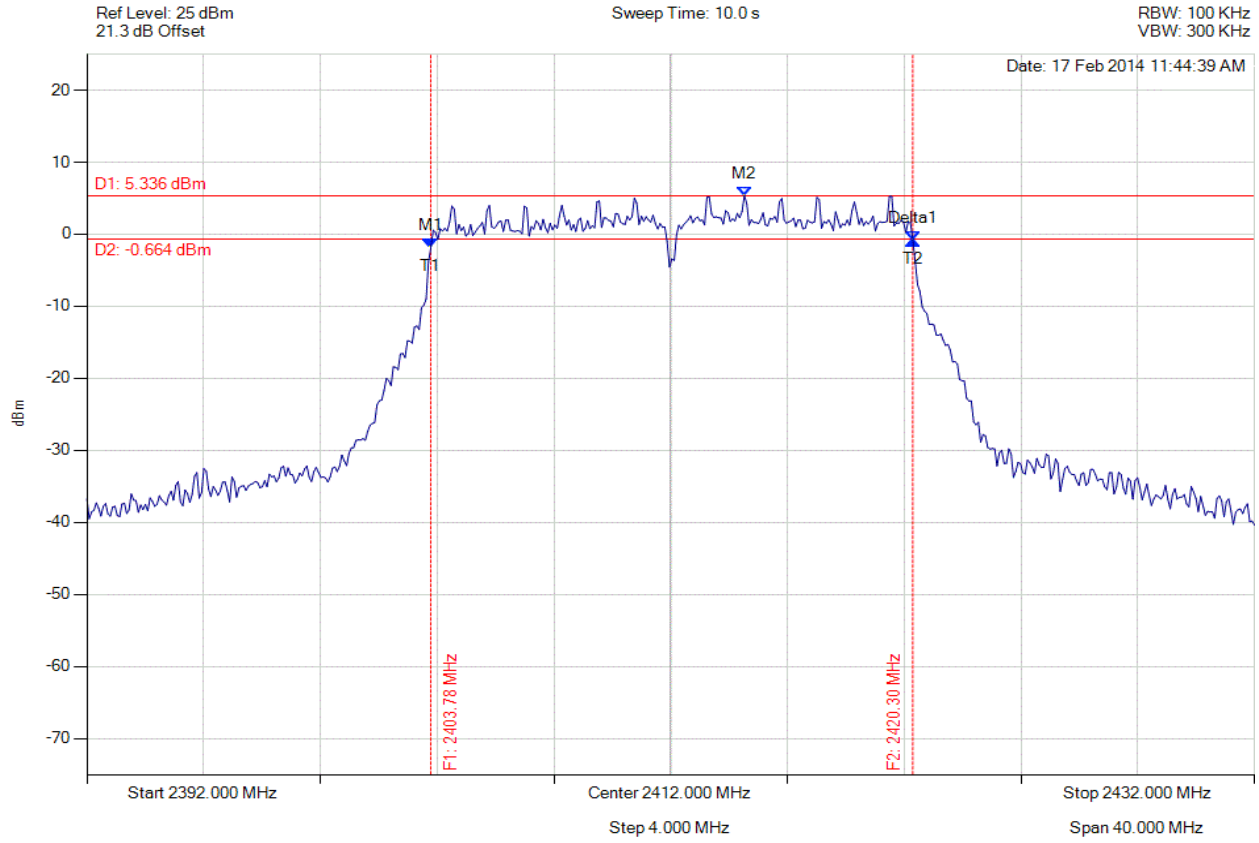
6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

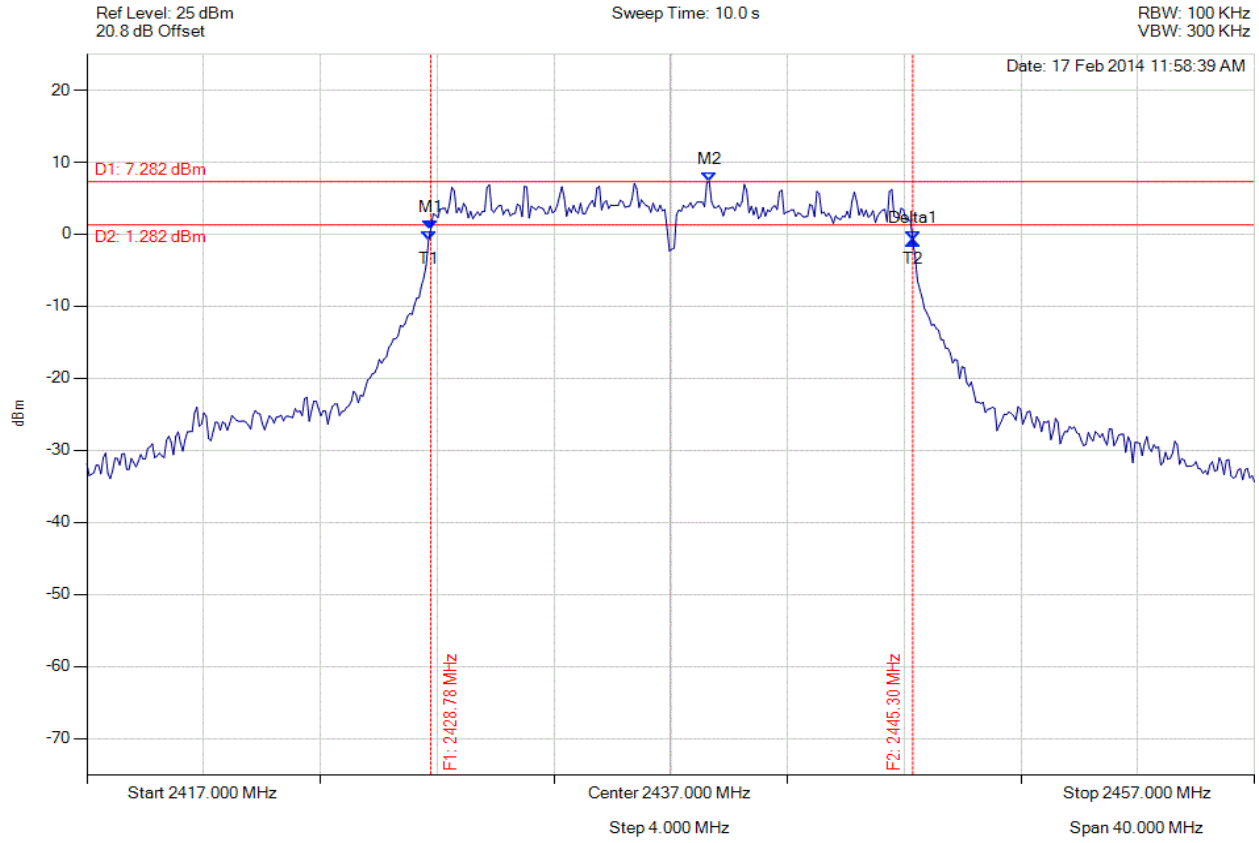


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.784 MHz : -1.925 dBm M2 : 2414.525 MHz : 5.336 dBm Delta1 : 16.513 MHz : 1.058 dB T1 : 2403.784 MHz : -1.925 dBm T2 : 2420.297 MHz : -0.867 dBm OBW : 16.513 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

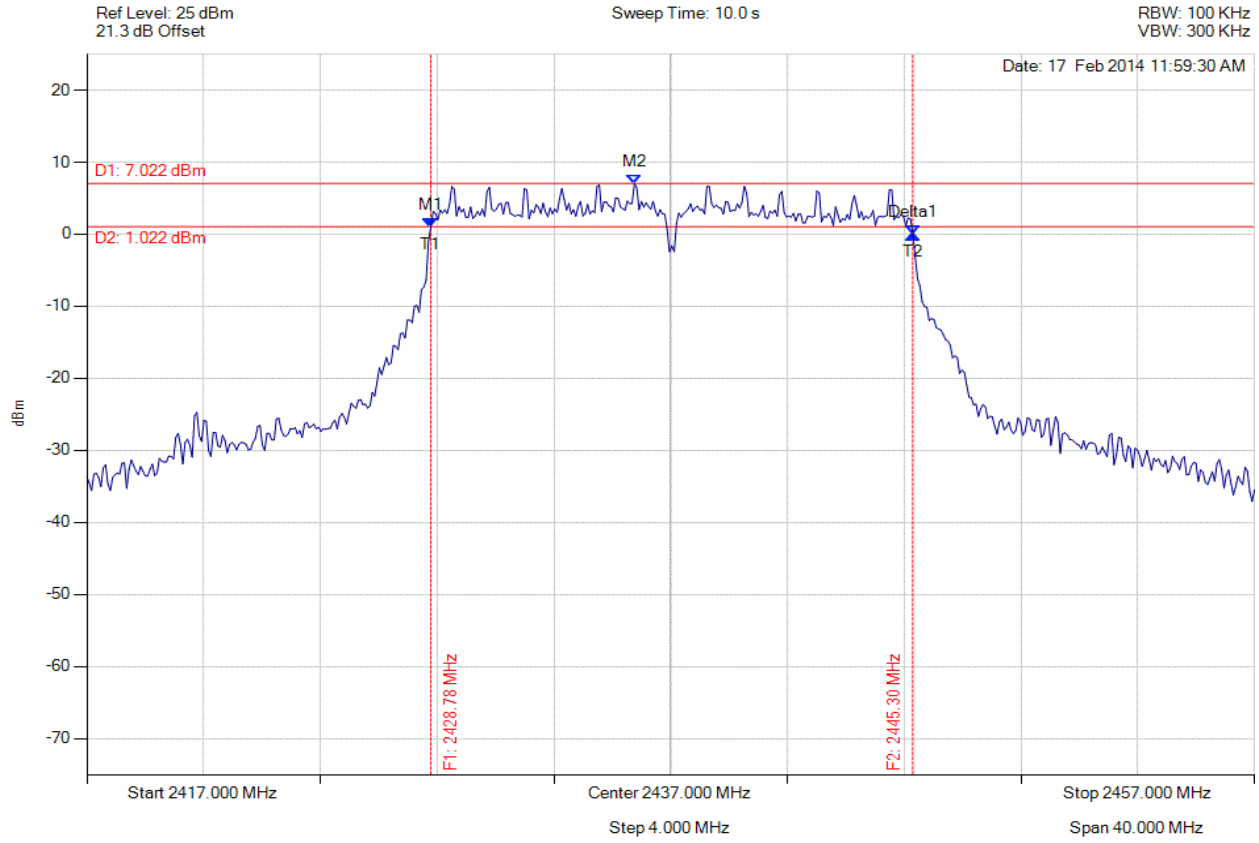


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2428.784 MHz : 0.693 dBm M2 : 2438.323 MHz : 7.282 dBm Delta1 : 16.513 MHz : -1.619 dB T1 : 2428.703 MHz : -0.877 dBm T2 : 2445.297 MHz : -0.926 dBm OBW : 16.593 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

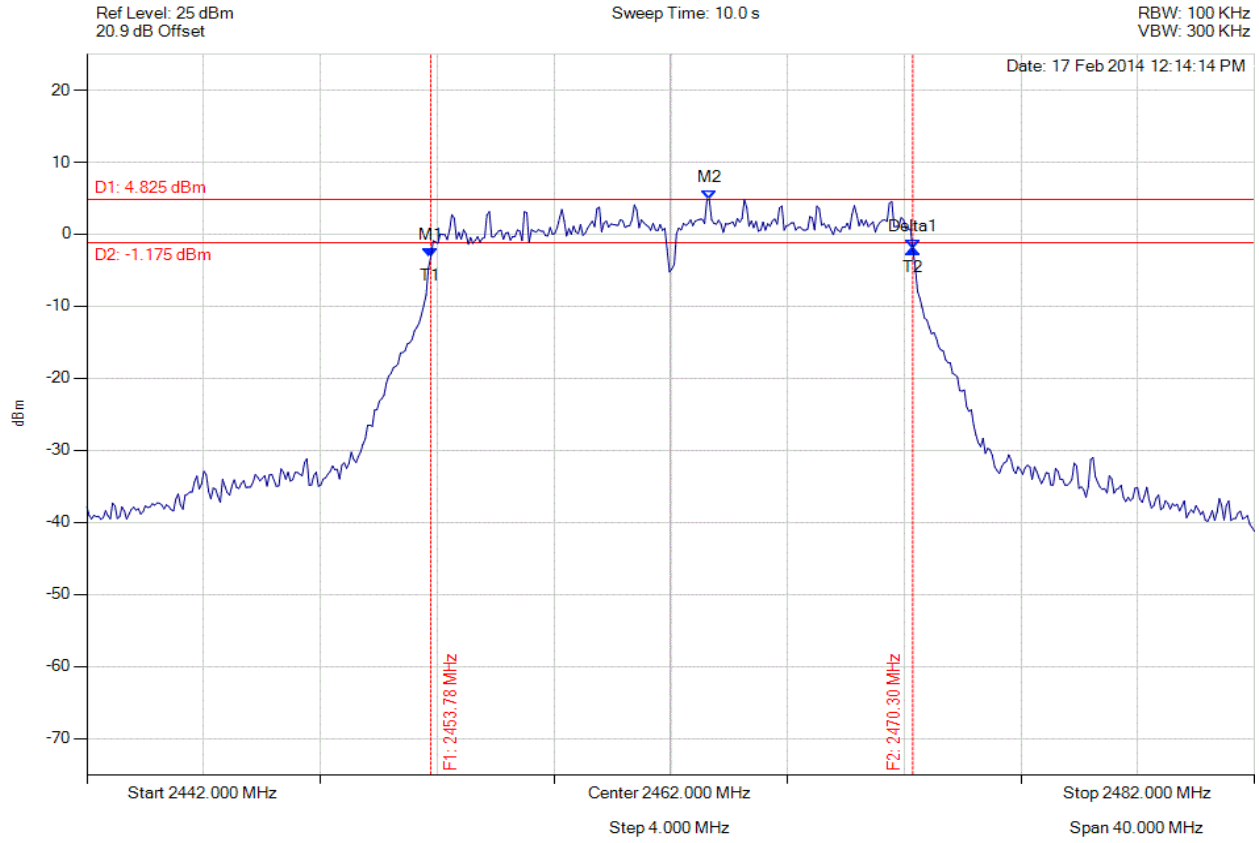


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2428.784 MHz : 1.004 dBm M2 : 2435.758 MHz : 7.022 dBm Delta1 : 16.513 MHz : -0.986 dB T1 : 2428.784 MHz : 1.004 dBm T2 : 2445.297 MHz : 0.017 dBm OBW : 16.513 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2453.784 MHz : -3.196 dBm M2 : 2463.323 MHz : 4.825 dBm Delta1 : 16.513 MHz : 1.106 dB T1 : 2453.784 MHz : -3.196 dBm T2 : 2470.297 MHz : -2.089 dBm OBW : 16.513 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

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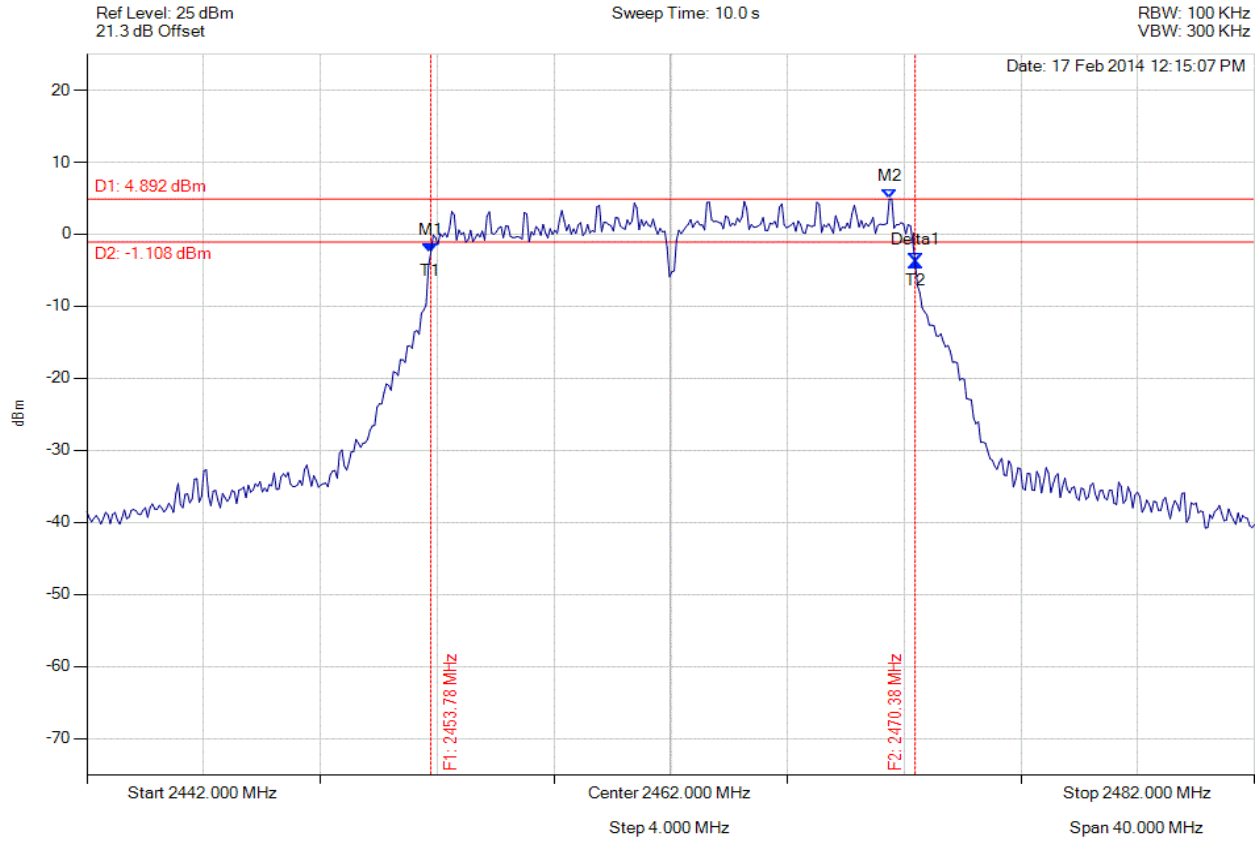
6 dB & 99% BANDWIDTH

Variant: 802.11g, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2453.784 MHz : -2.610 dBm M2 : 2469.495 MHz : 4.892 dBm Delta1 : 16.593 MHz : -1.332 dB T1 : 2453.784 MHz : -2.610 dBm T2 : 2470.377 MHz : -3.942 dBm OBW : 16.593 MHz	Measured 6 dB Bandwidth: 16.593 MHz Limit: ≥500.0 kHz Margin: -16.09 MHz

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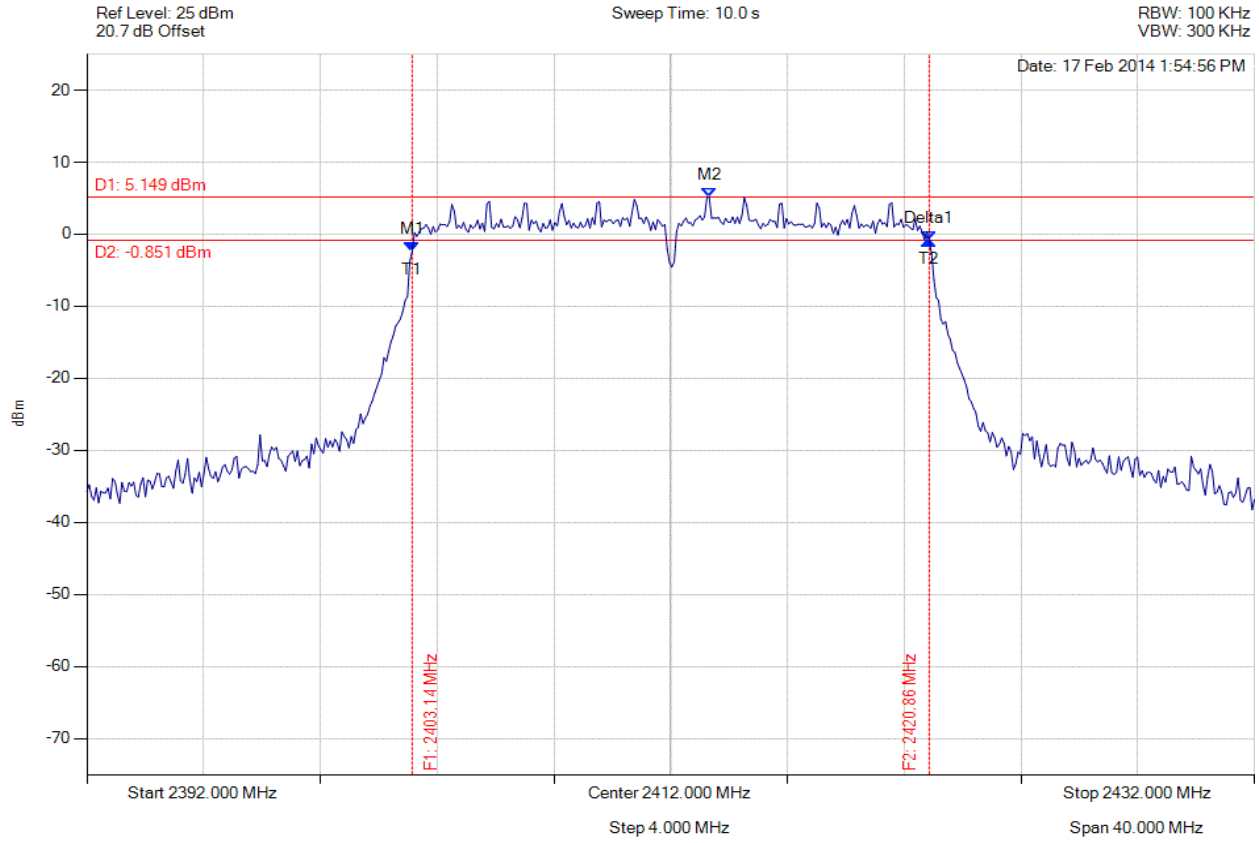
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.142 MHz : -2.374 dBm M2 : 2413.323 MHz : 5.149 dBm Delta1 : 17.715 MHz : 1.476 dB T1 : 2403.142 MHz : -2.374 dBm T2 : 2420.858 MHz : -0.898 dBm OBW : 17.715 MHz	Measured 6 dB Bandwidth: 17.715 MHz Limit: ≥500.0 kHz Margin: -17.22 MHz

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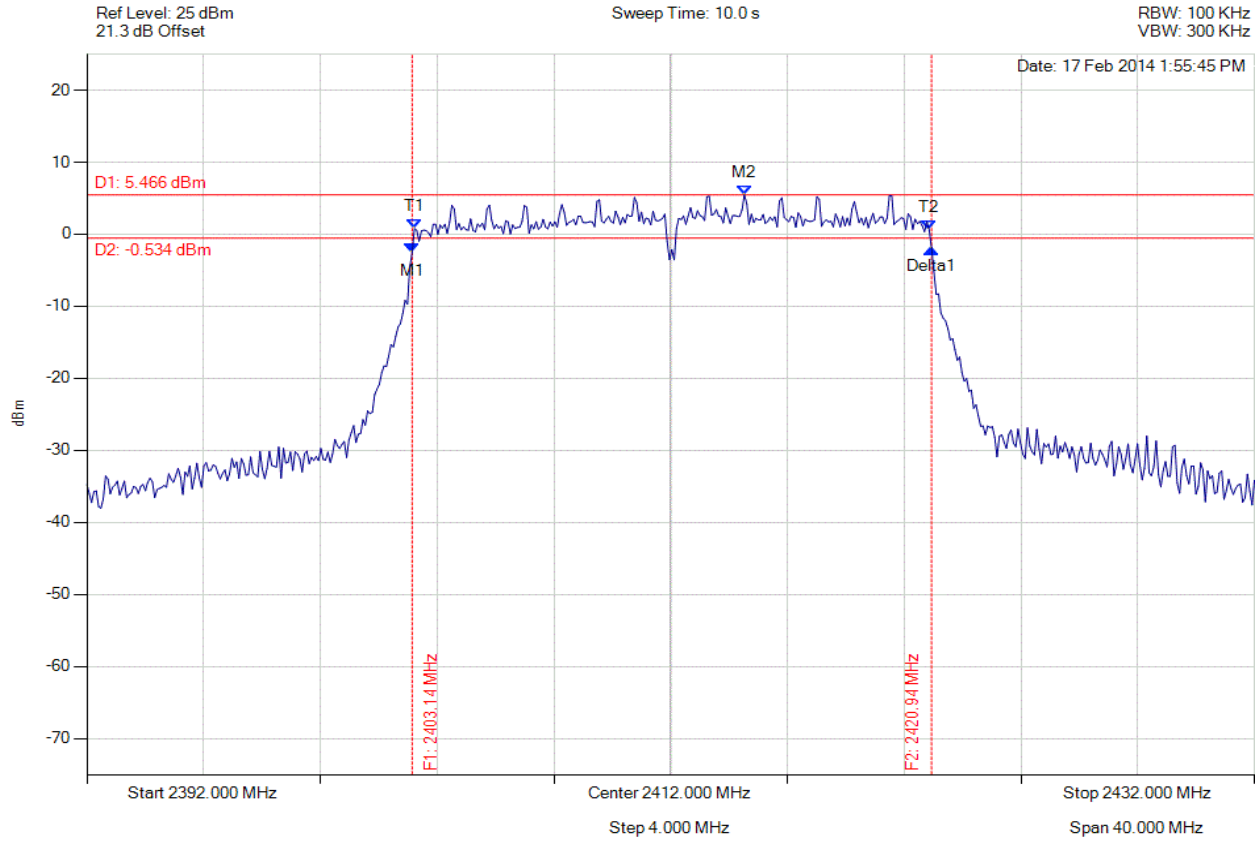
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.142 MHz : -2.531 dBm M2 : 2414.525 MHz : 5.466 dBm Delta1 : 17.796 MHz : 0.551 dB T1 : 2403.222 MHz : 0.794 dBm T2 : 2420.858 MHz : 0.560 dBm OBW : 17.635 MHz	Measured 6 dB Bandwidth: 17.796 MHz Limit: ≥500.0 kHz Margin: -17.30 MHz

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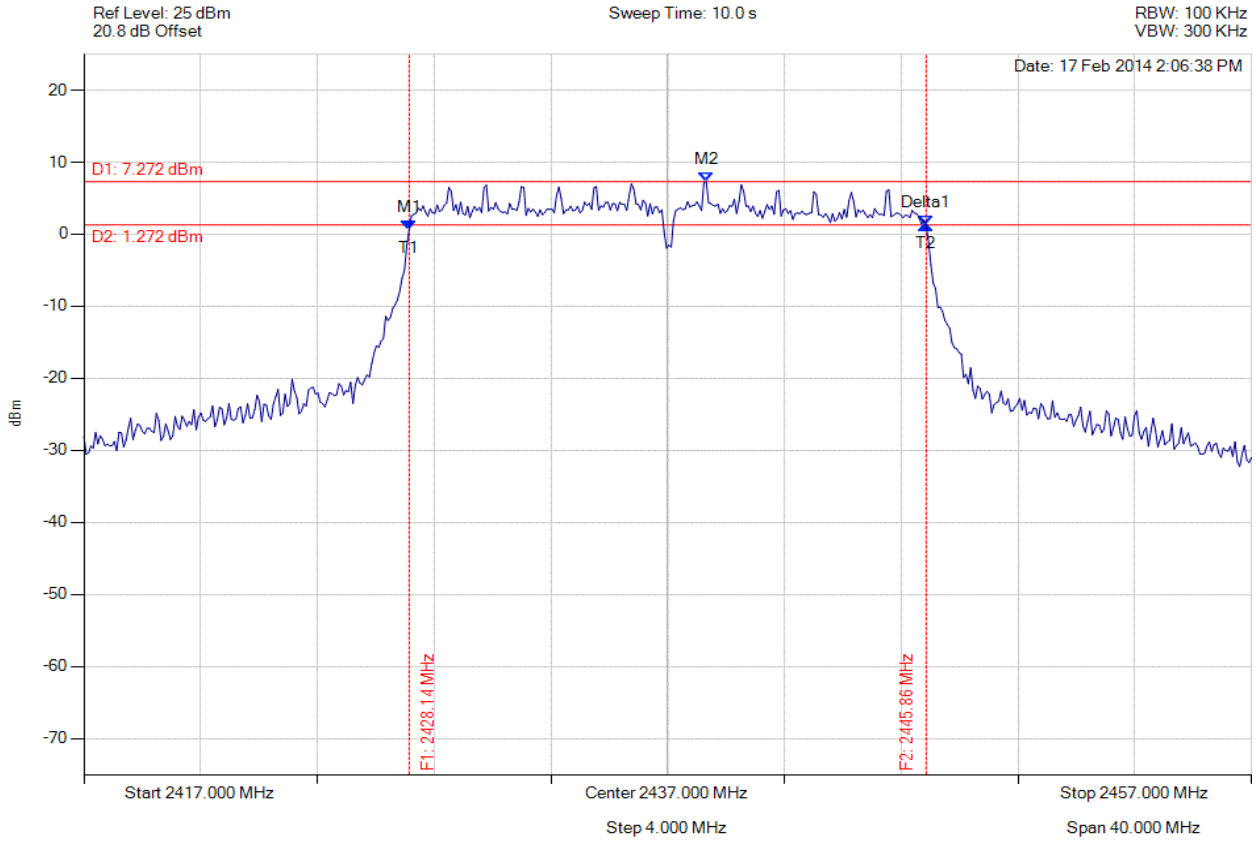
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2428.142 MHz : 0.597 dBm M2 : 2438.323 MHz : 7.272 dBm Delta1 : 17.715 MHz : 0.657 dB T1 : 2428.142 MHz : 0.597 dBm T2 : 2445.858 MHz : 1.254 dBm OBW : 17.715 MHz	Measured 6 dB Bandwidth: 17.715 MHz Limit: ≥500.0 kHz Margin: -17.22 MHz

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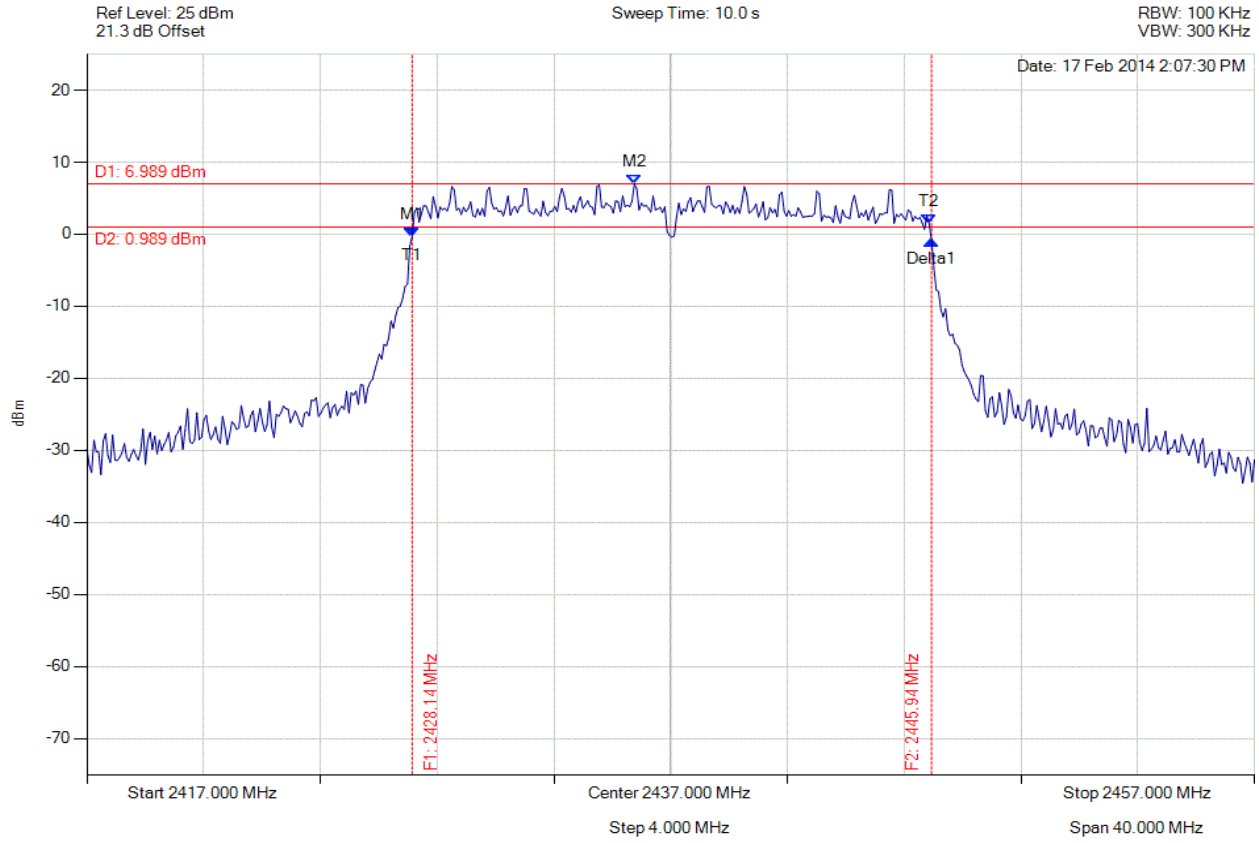
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2428.142 MHz : -0.371 dBm M2 : 2435.758 MHz : 6.989 dBm Delta1 : 17.796 MHz : -0.529 dB T1 : 2428.142 MHz : -0.371 dBm T2 : 2445.858 MHz : 1.413 dBm OBW : 17.715 MHz	Measured 6 dB Bandwidth: 17.796 MHz Limit: ≥500.0 kHz Margin: -17.30 MHz

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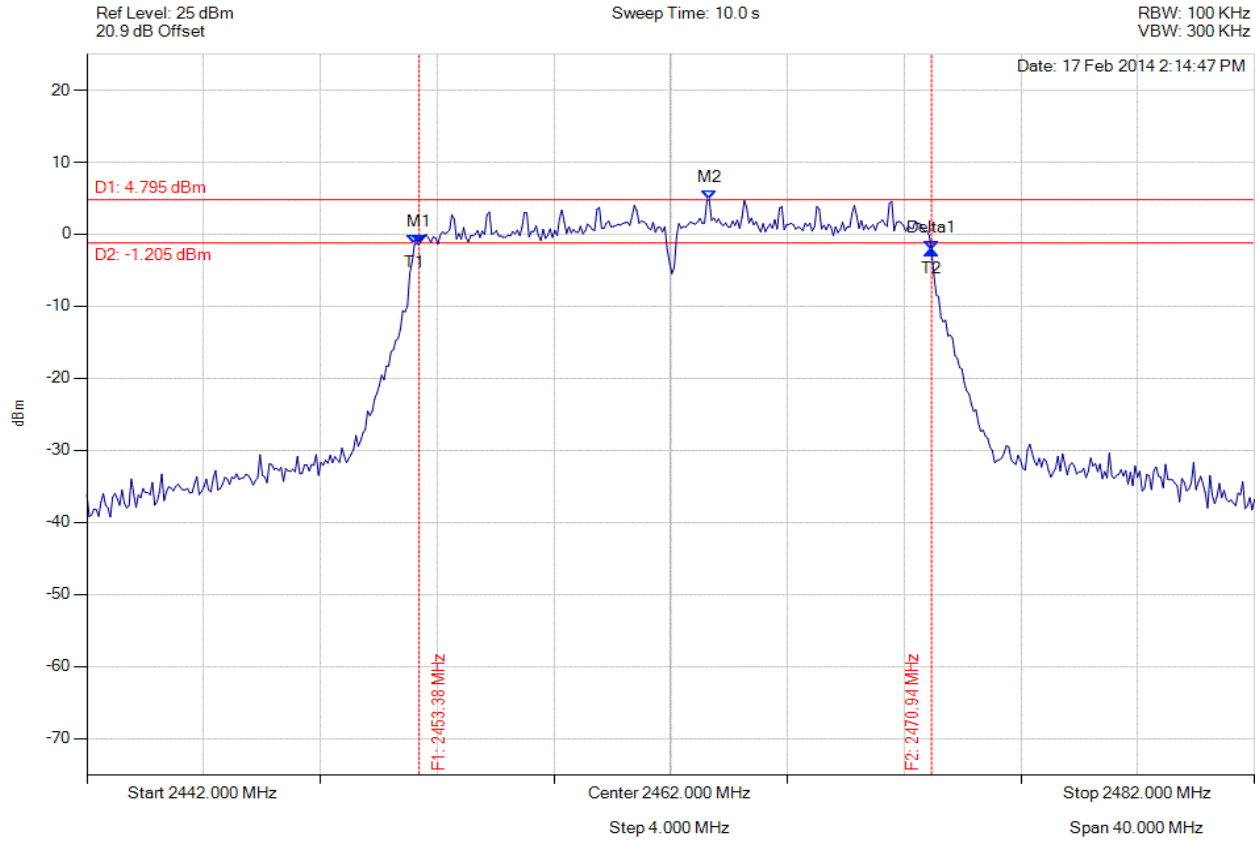
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2453.383 MHz : -1.429 dBm M2 : 2463.323 MHz : 4.795 dBm Delta1 : 17.555 MHz : -0.795 dB T1 : 2453.222 MHz : -1.431 dBm T2 : 2470.938 MHz : -2.224 dBm OBW : 17.715 MHz	Measured 6 dB Bandwidth: 17.555 MHz Limit: ≥500.0 kHz Margin: -17.06 MHz

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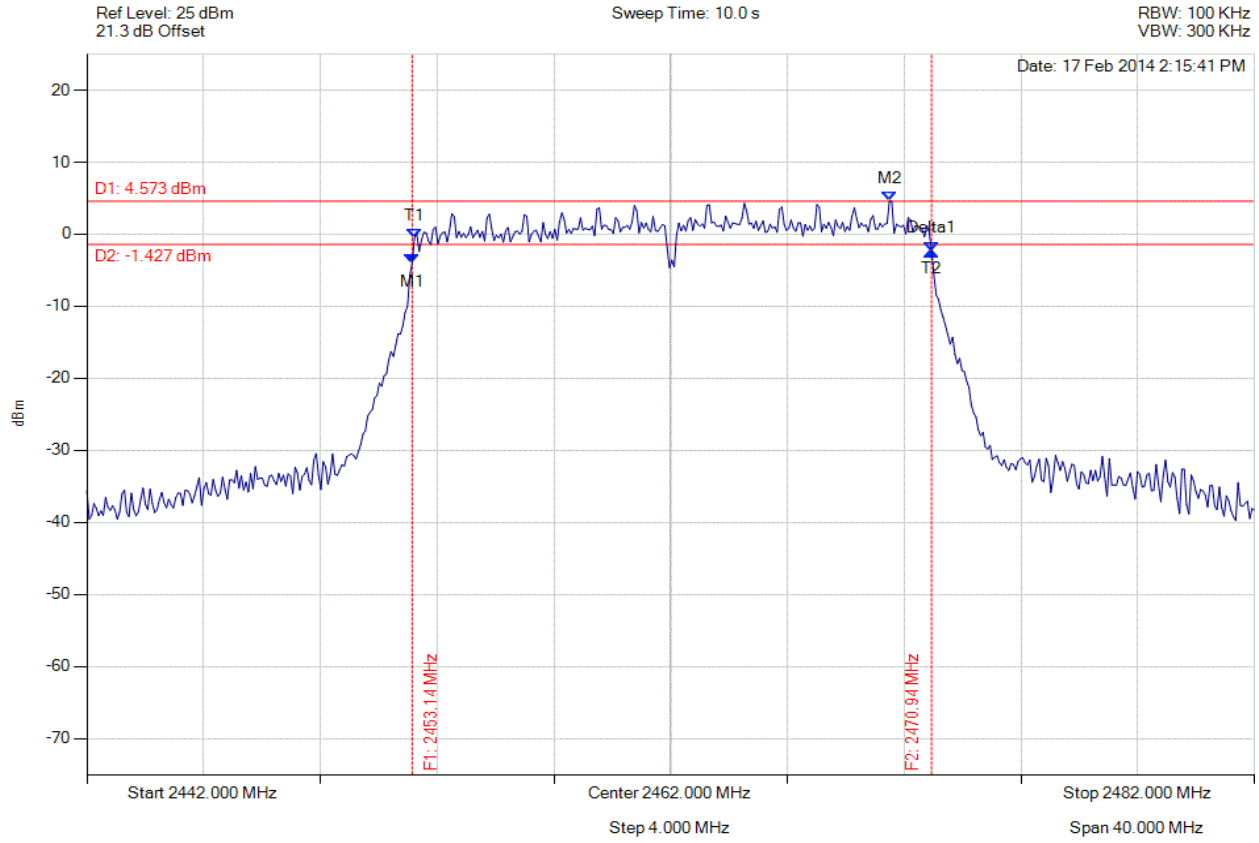
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2453.142 MHz : -4.028 dBm M2 : 2469.495 MHz : 4.573 dBm Delta1 : 17.796 MHz : 1.747 dB T1 : 2453.222 MHz : -0.538 dBm T2 : 2470.938 MHz : -2.281 dBm OBW : 17.715 MHz	Measured 6 dB Bandwidth: 17.796 MHz Limit: ≥500.0 kHz Margin: -17.30 MHz

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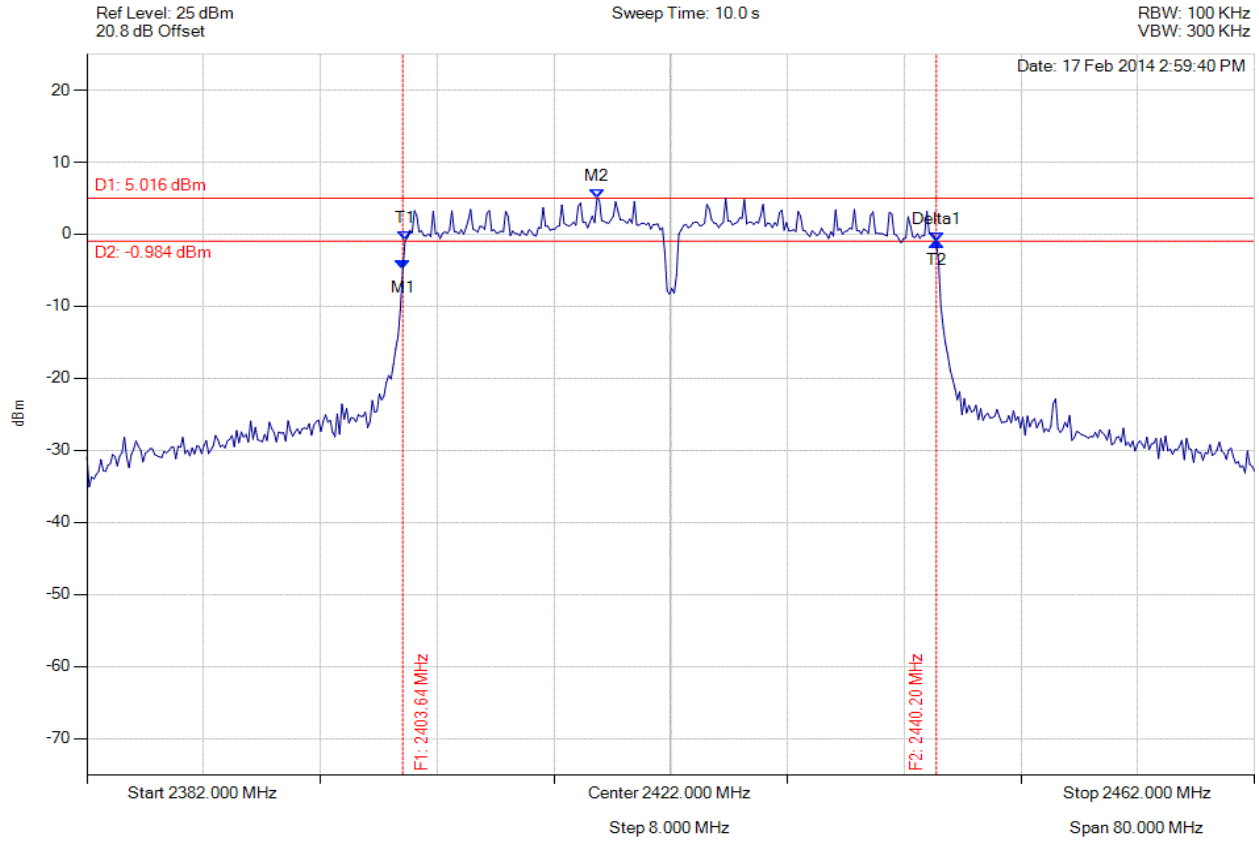
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.643 MHz : -4.872 dBm M2 : 2416.950 MHz : 5.016 dBm Delta1 : 36.553 MHz : 3.773 dB T1 : 2403.804 MHz : -0.875 dBm T2 : 2440.196 MHz : -1.099 dBm OBW : 36.393 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit: ≥500.0 kHz Margin: -36.05 MHz

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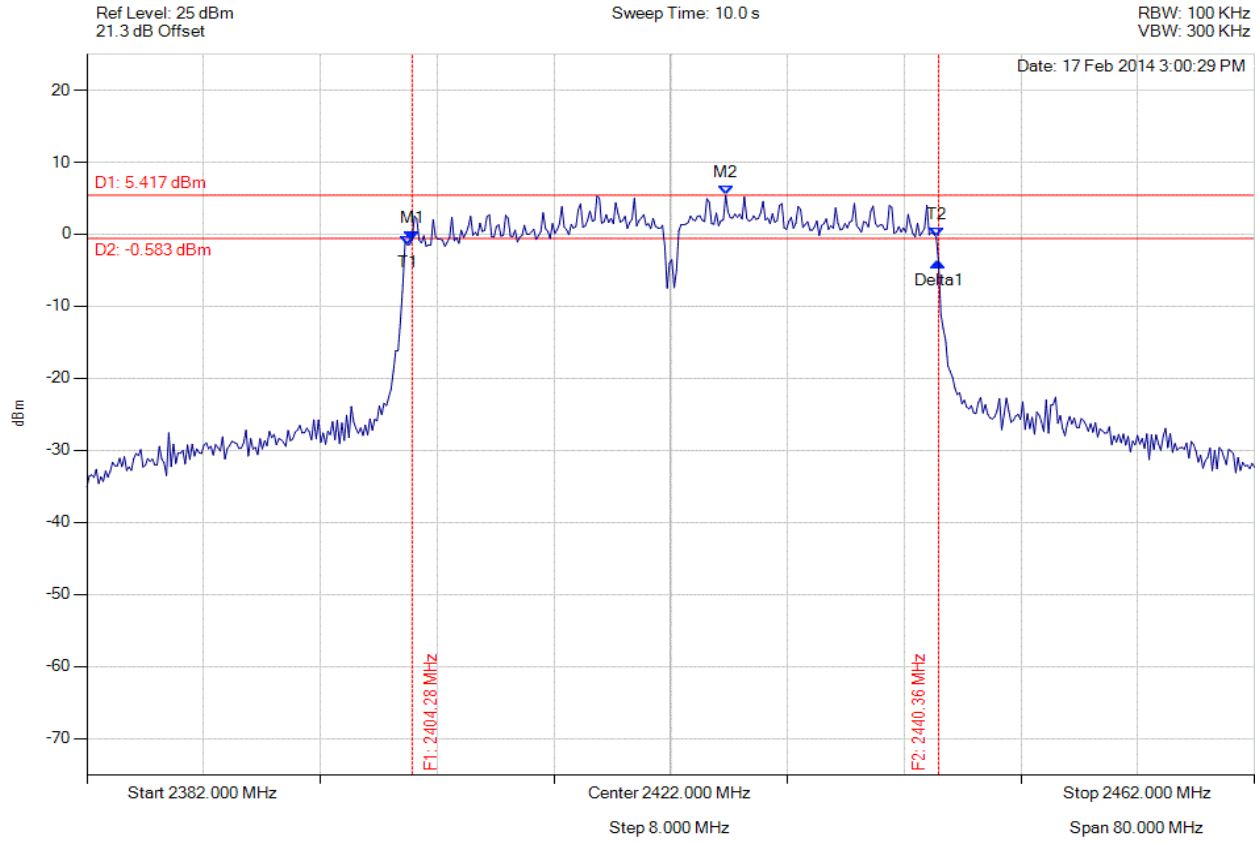
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2404.285 MHz : -0.818 dBm M2 : 2425.768 MHz : 5.417 dBm Delta1 : 36.072 MHz : -3.106 dB T1 : 2403.964 MHz : -1.465 dBm T2 : 2440.196 MHz : -0.371 dBm OBW : 36.232 MHz	Measured 6 dB Bandwidth: 36.072 MHz Limit: ≥500.0 kHz Margin: -35.57 MHz

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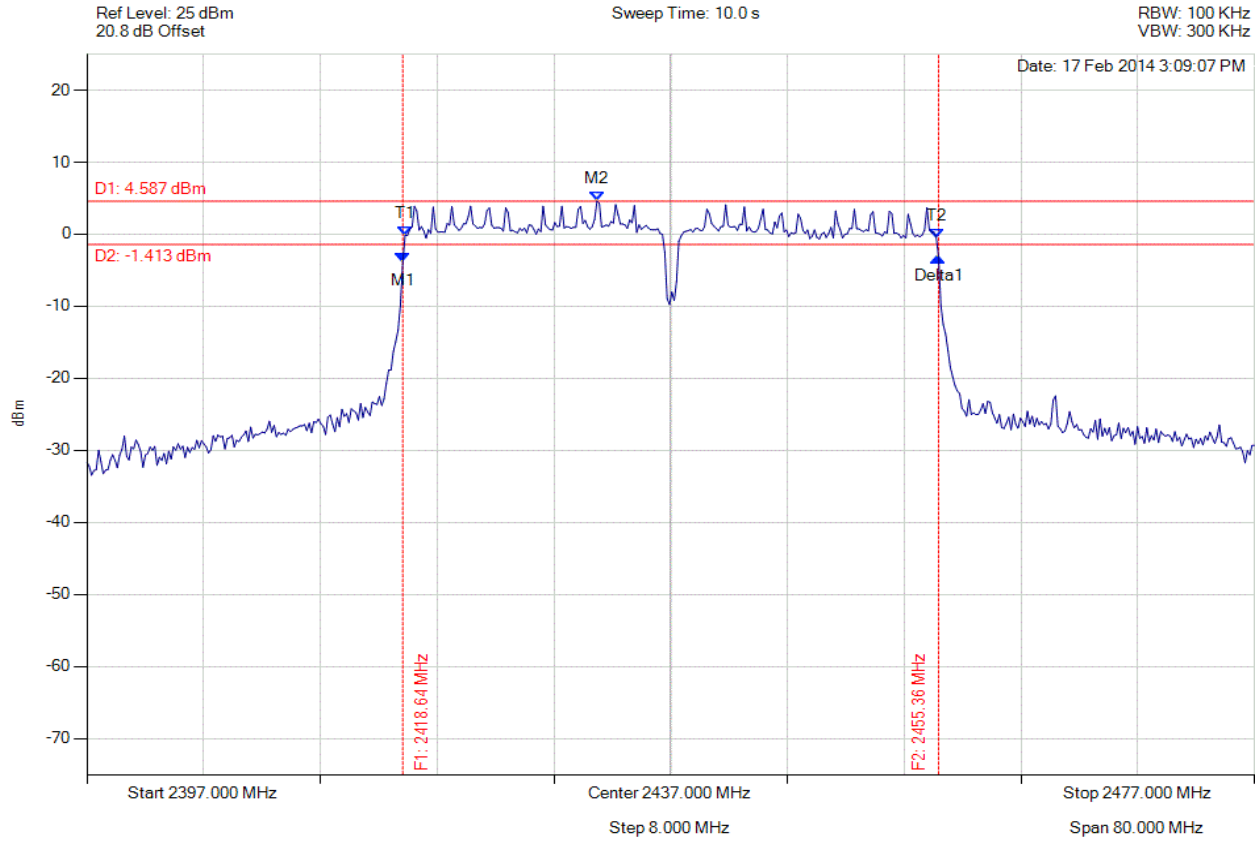
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2418.643 MHz : -3.871 dBm M2 : 2431.950 MHz : 4.587 dBm Delta1 : 36.713 MHz : 0.681 dB T1 : 2418.804 MHz : -0.172 dBm T2 : 2455.196 MHz : -0.469 dBm OBW : 36.393 MHz	Measured 6 dB Bandwidth: 36.713 MHz Limit: ≥500.0 kHz Margin: -36.21 MHz

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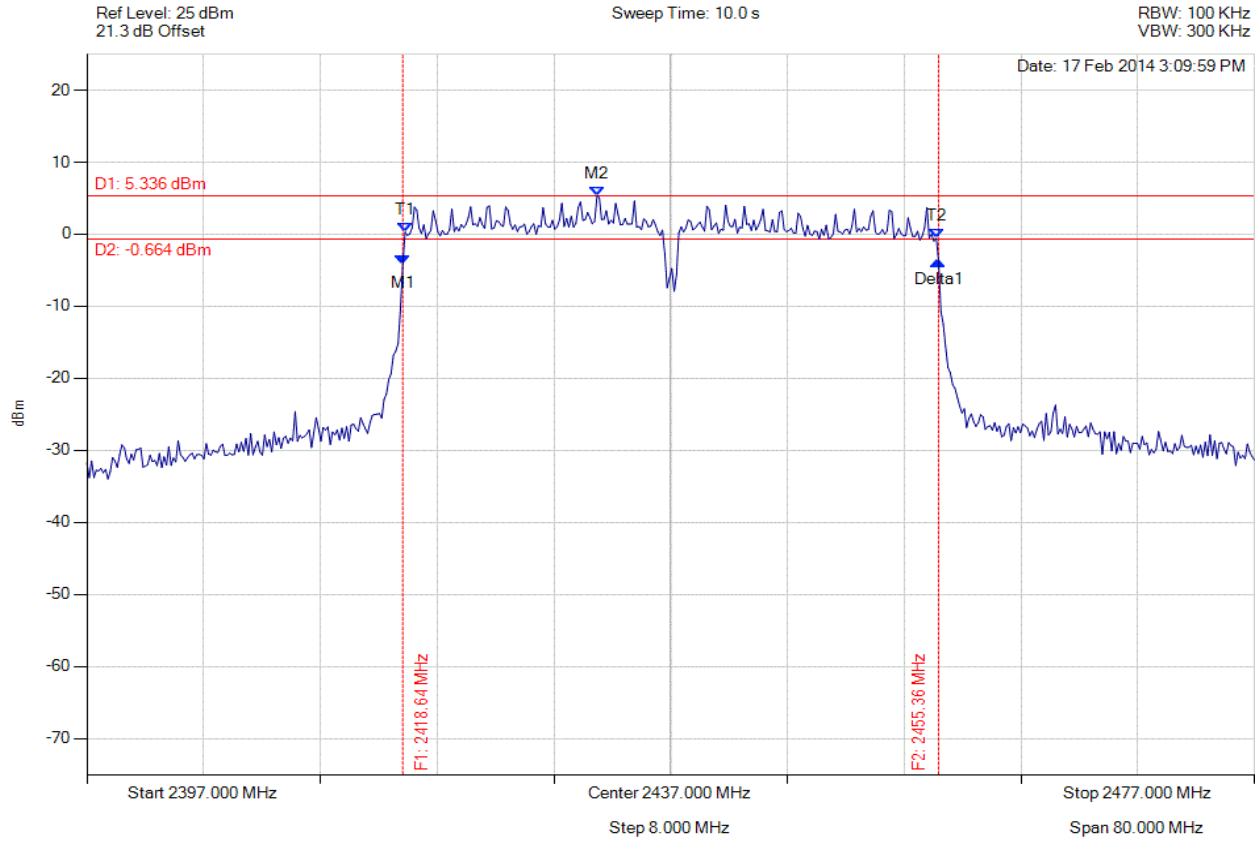
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2418.643 MHz : -4.188 dBm M2 : 2431.950 MHz : 5.336 dBm Delta1 : 36.713 MHz : 0.492 dB T1 : 2418.804 MHz : 0.304 dBm T2 : 2455.196 MHz : -0.572 dBm OBW : 36.393 MHz	Measured 6 dB Bandwidth: 36.713 MHz Limit: ≥500.0 kHz Margin: -36.21 MHz

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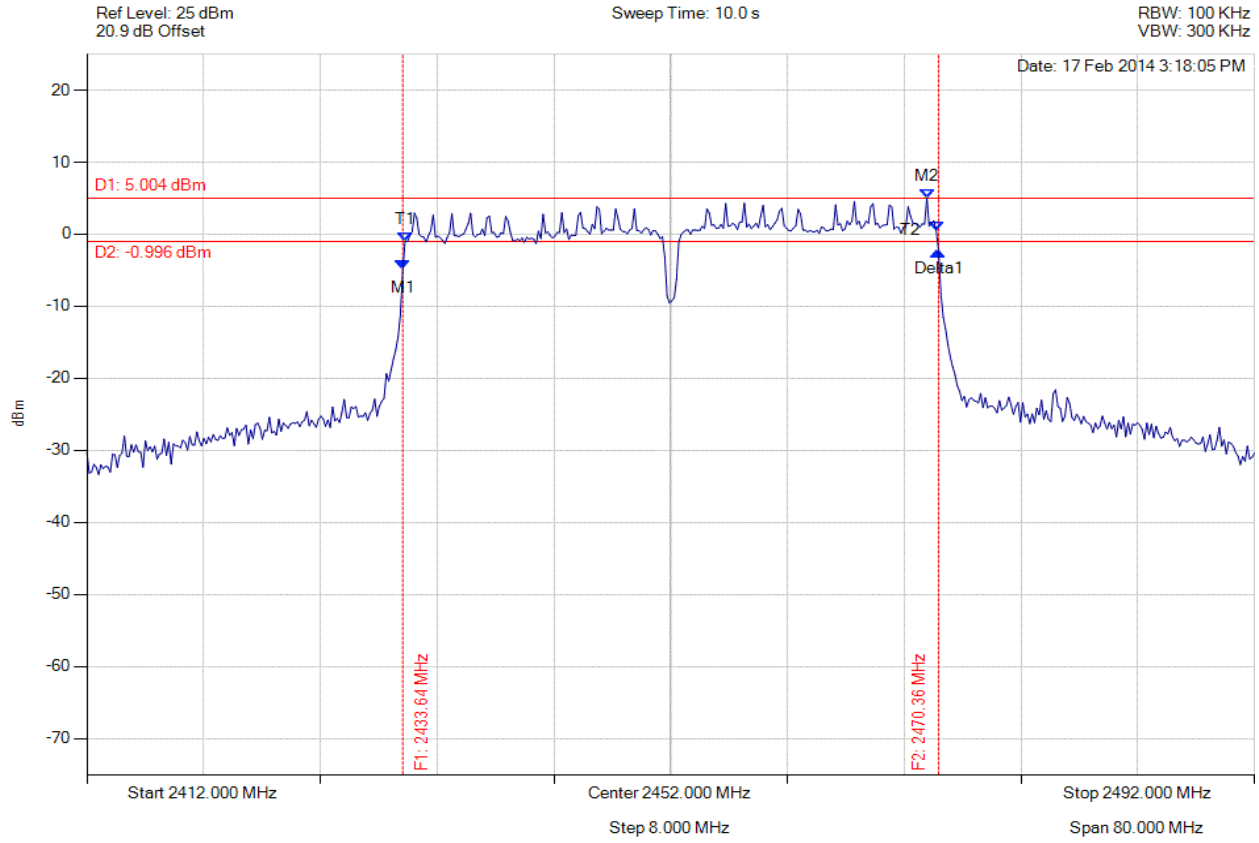
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2433.643 MHz : -4.849 dBm M2 : 2469.555 MHz : 5.004 dBm Delta1 : 36.713 MHz : 2.554 dB T1 : 2433.804 MHz : -0.977 dBm T2 : 2470.196 MHz : 0.504 dBm OBW : 36.393 MHz	Measured 6 dB Bandwidth: 36.713 MHz Limit: ≥500.0 kHz Margin: -36.21 MHz

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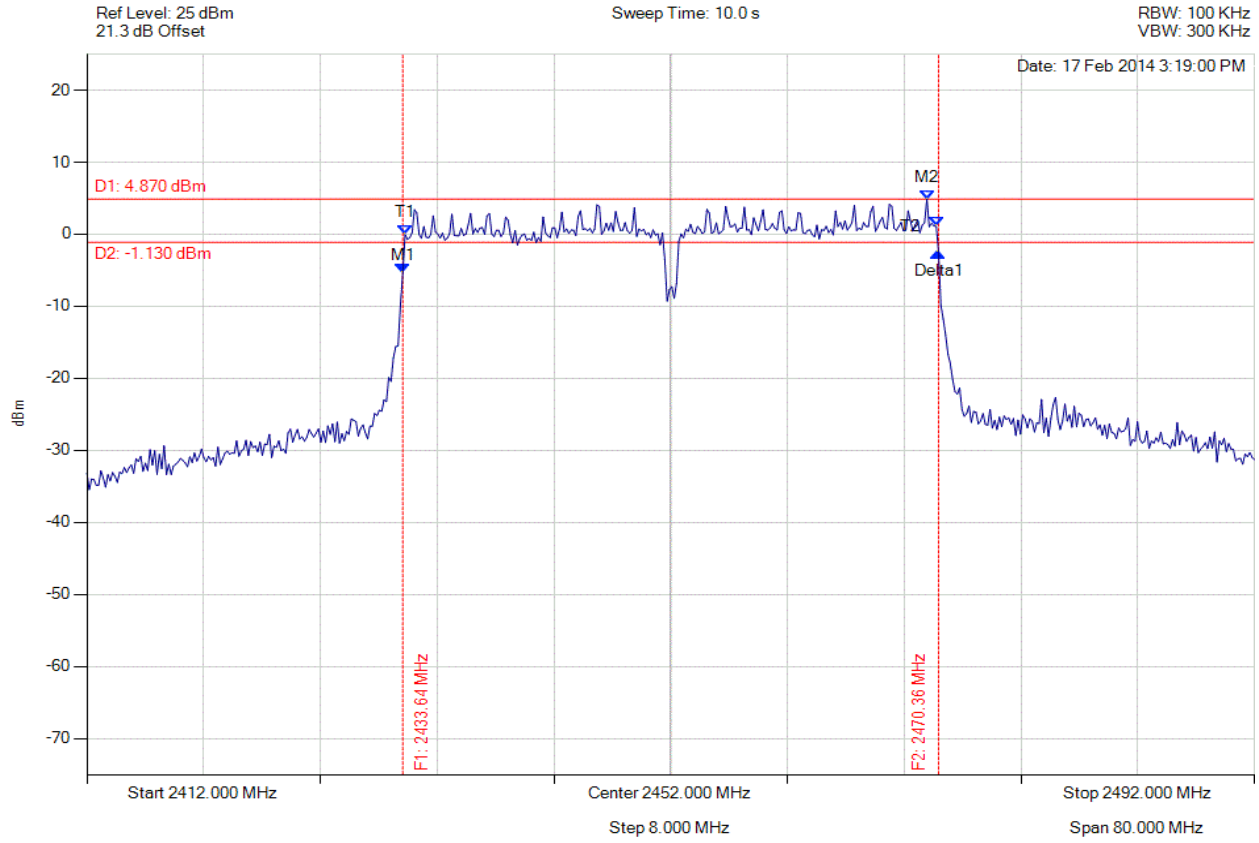
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2433.643 MHz : -5.421 dBm M2 : 2469.555 MHz : 4.870 dBm Delta1 : 36.713 MHz : 2.859 dB T1 : 2433.804 MHz : -0.052 dBm T2 : 2470.196 MHz : 1.085 dBm OBW : 36.393 MHz	Measured 6 dB Bandwidth: 36.713 MHz Limit: ≥500.0 kHz Margin: -36.21 MHz

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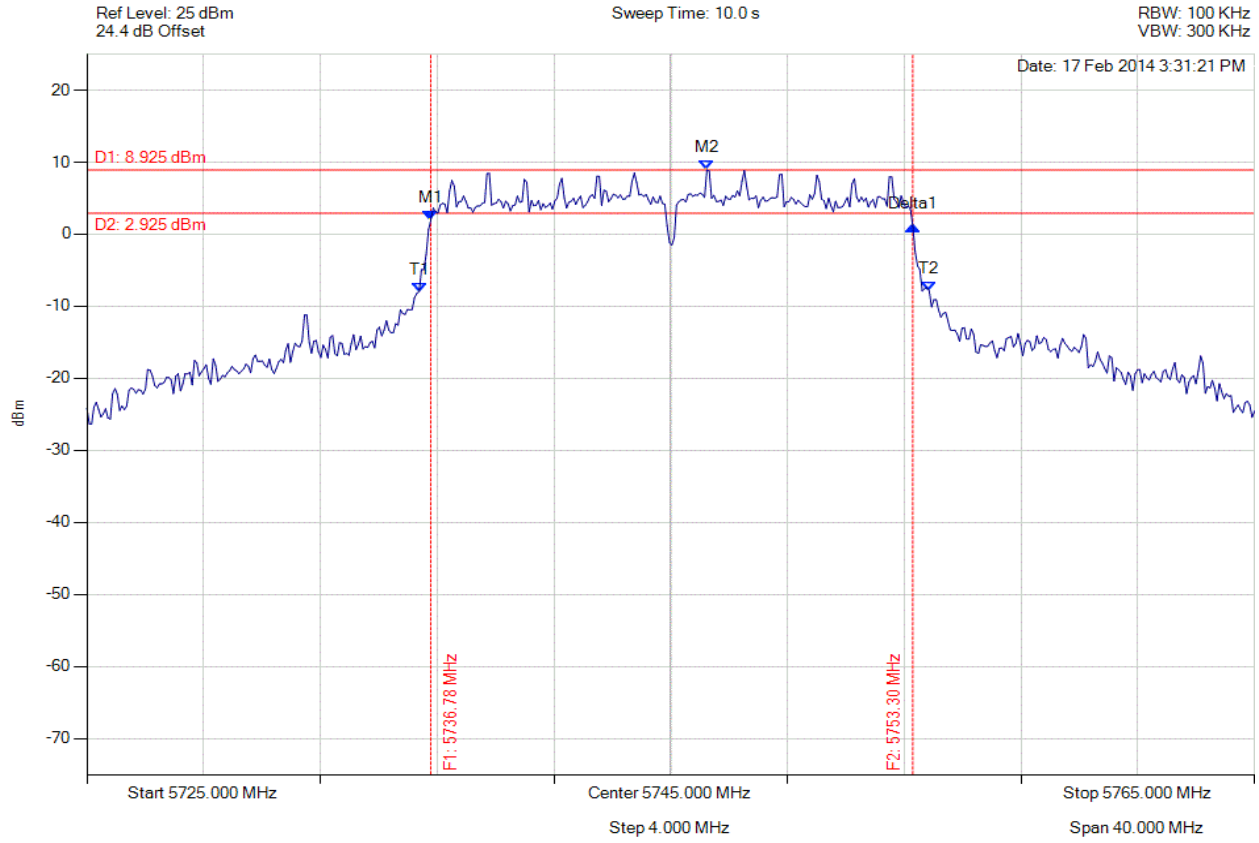
6 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.784 MHz : 1.958 dBm M2 : 5746.242 MHz : 8.925 dBm Delta1 : 16.513 MHz : -0.875 dB T1 : 5736.383 MHz : -7.981 dBm T2 : 5753.858 MHz : -7.855 dBm OBW : 17.475 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

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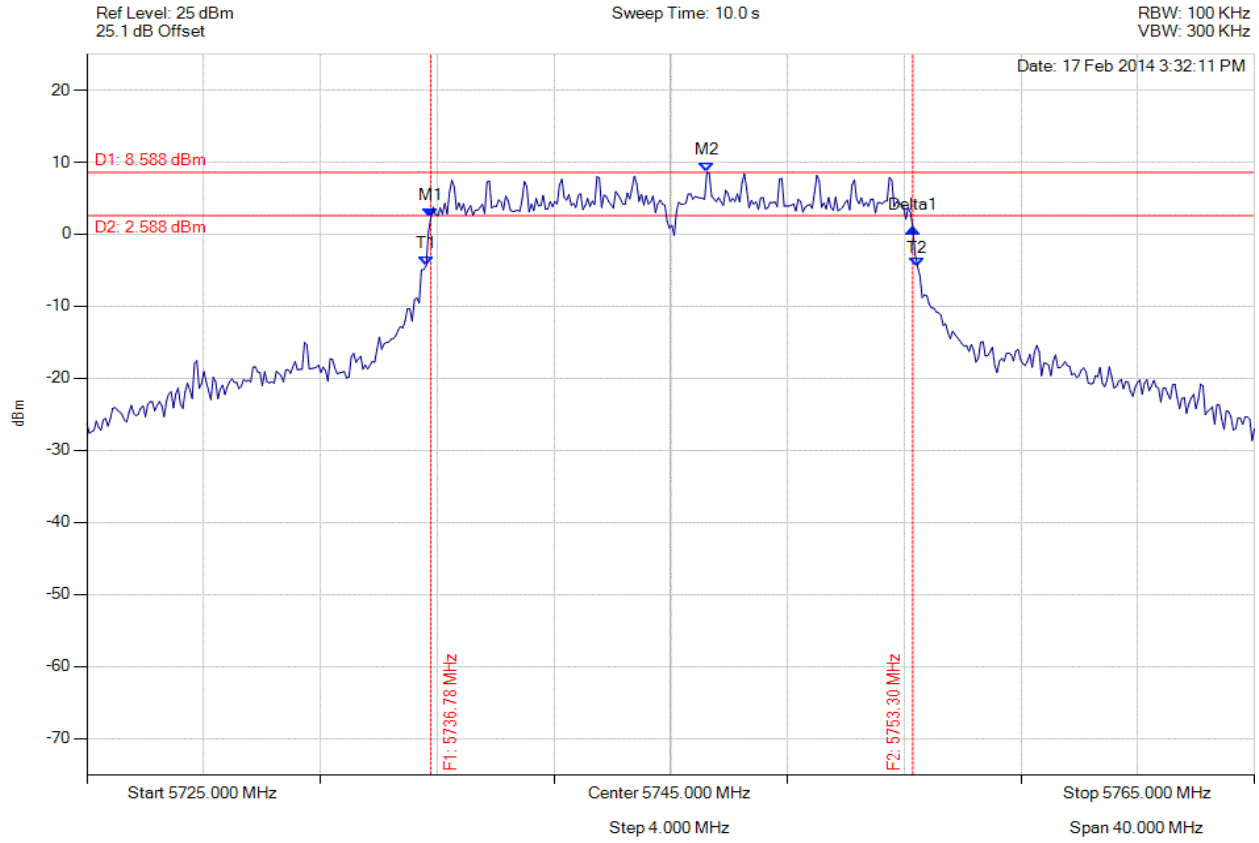
6 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.784 MHz : 2.240 dBm M2 : 5746.242 MHz : 8.588 dBm Delta1 : 16.513 MHz : -1.363 dB T1 : 5736.623 MHz : -4.404 dBm T2 : 5753.457 MHz : -4.463 dBm OBW : 16.834 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

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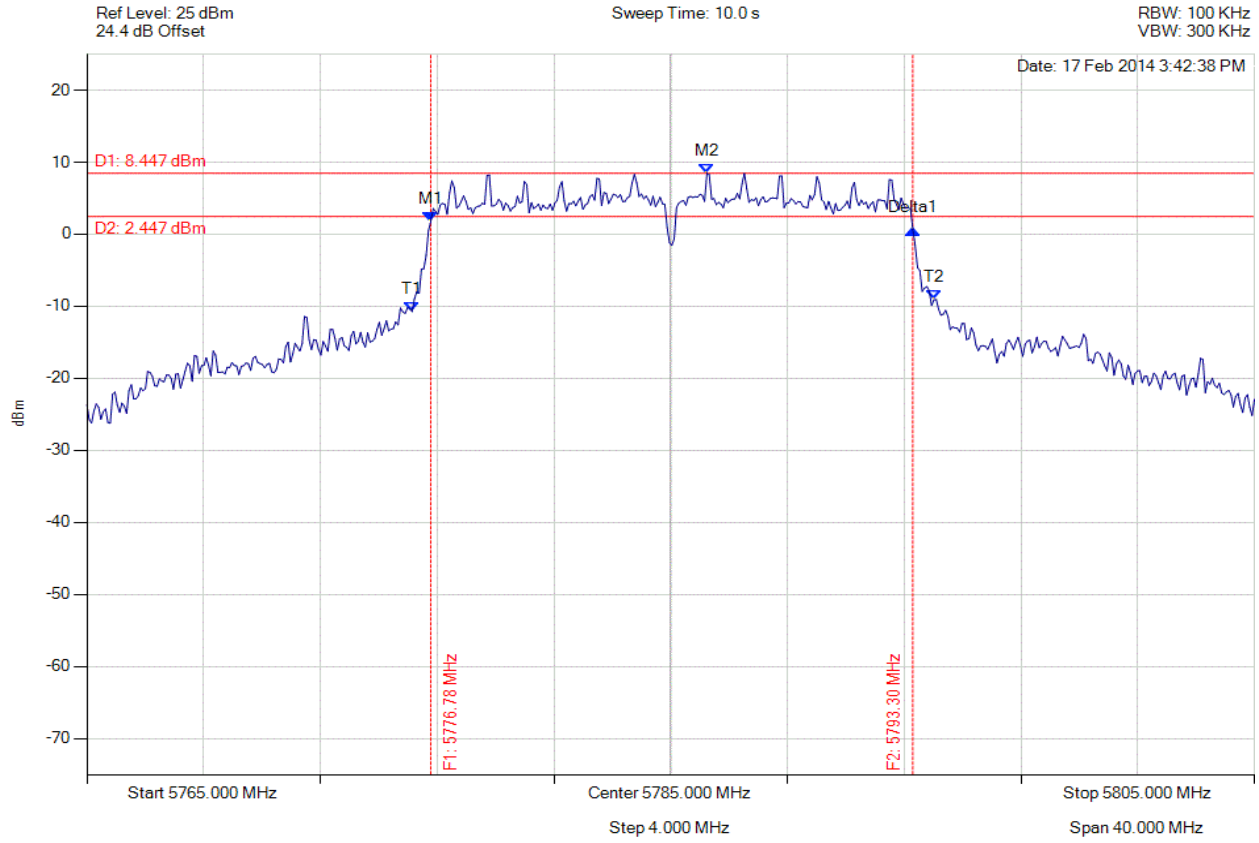
6 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5785.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.784 MHz : 1.803 dBm M2 : 5786.242 MHz : 8.447 dBm Delta1 : 16.513 MHz : -1.117 dB T1 : 5776.142 MHz : -10.747 dBm T2 : 5794.018 MHz : -9.112 dBm OBW : 17.876 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

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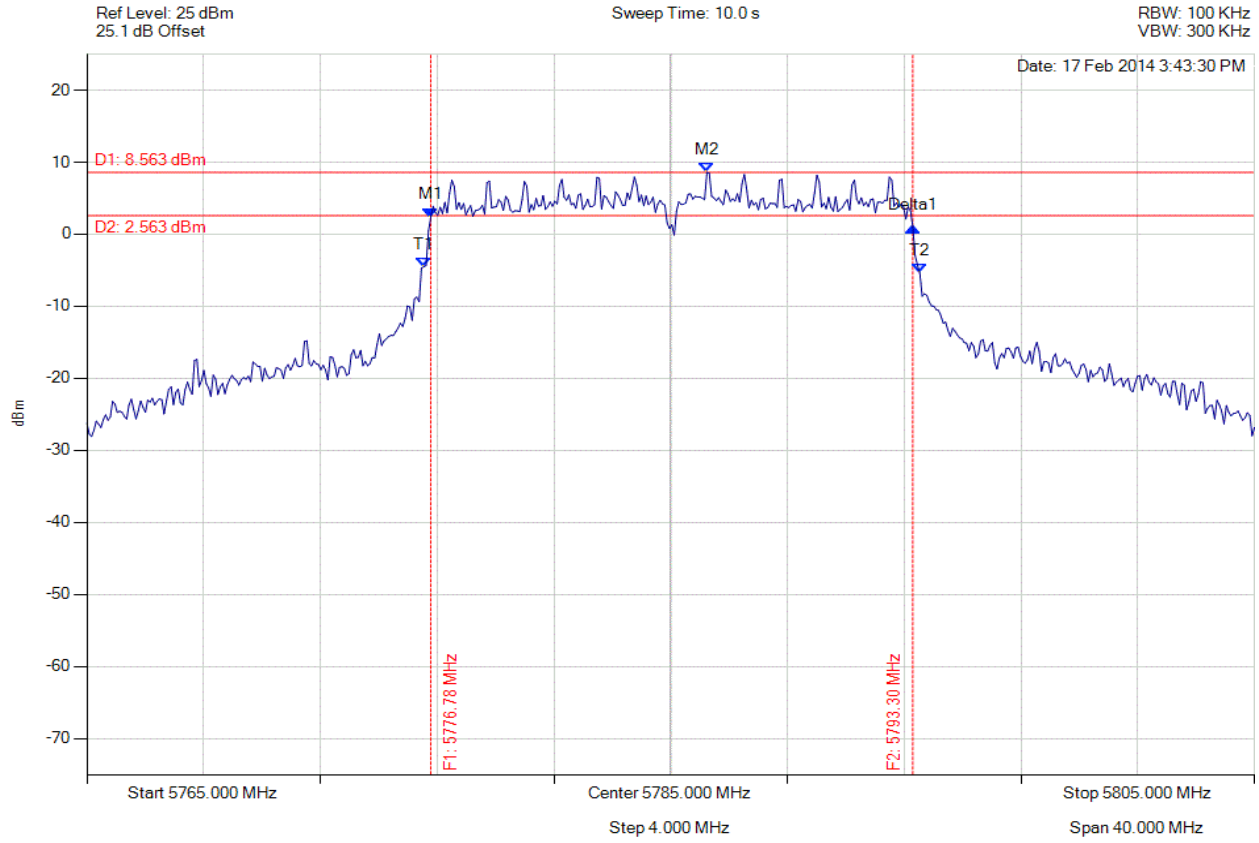
6 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5785.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.784 MHz : 2.389 dBm M2 : 5786.242 MHz : 8.563 dBm Delta1 : 16.513 MHz : -1.474 dB T1 : 5776.543 MHz : -4.522 dBm T2 : 5793.537 MHz : -5.433 dBm OBW : 16.994 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

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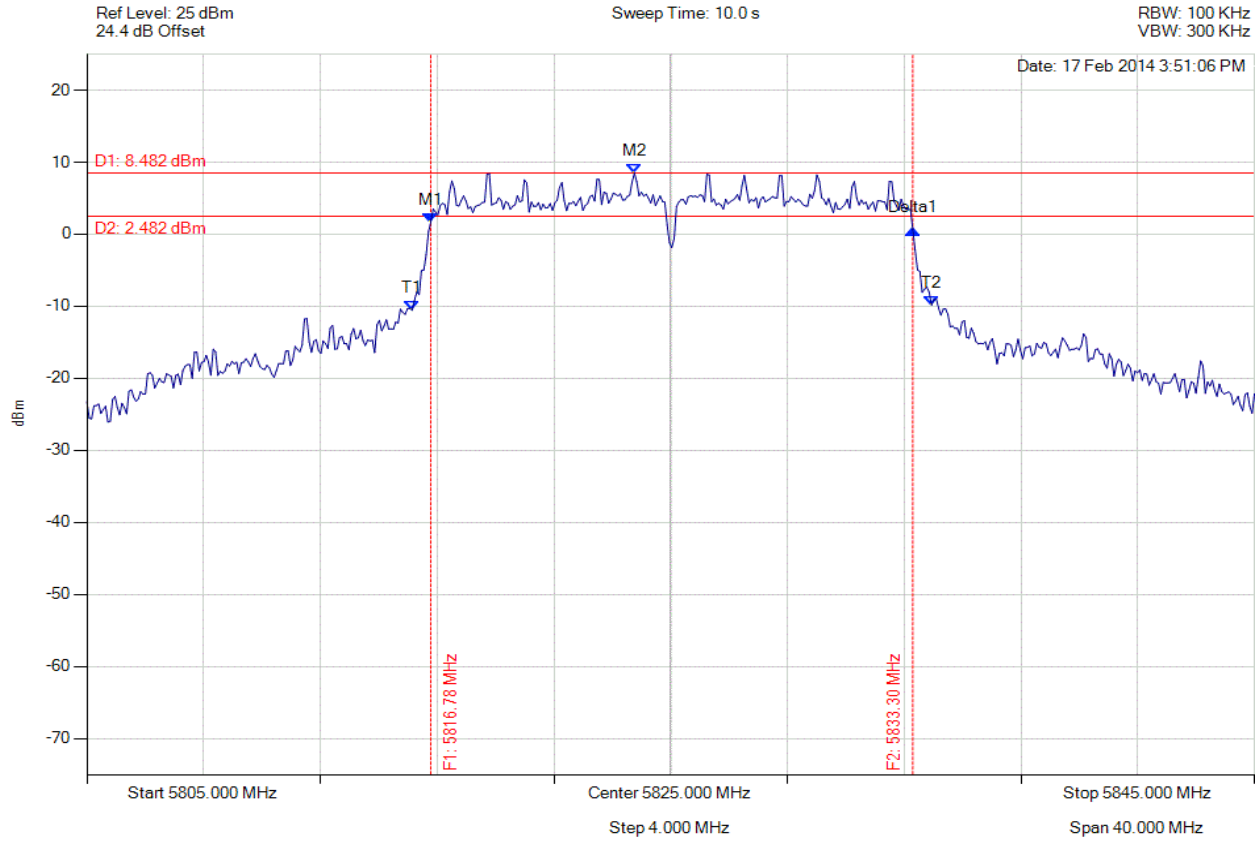
6 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

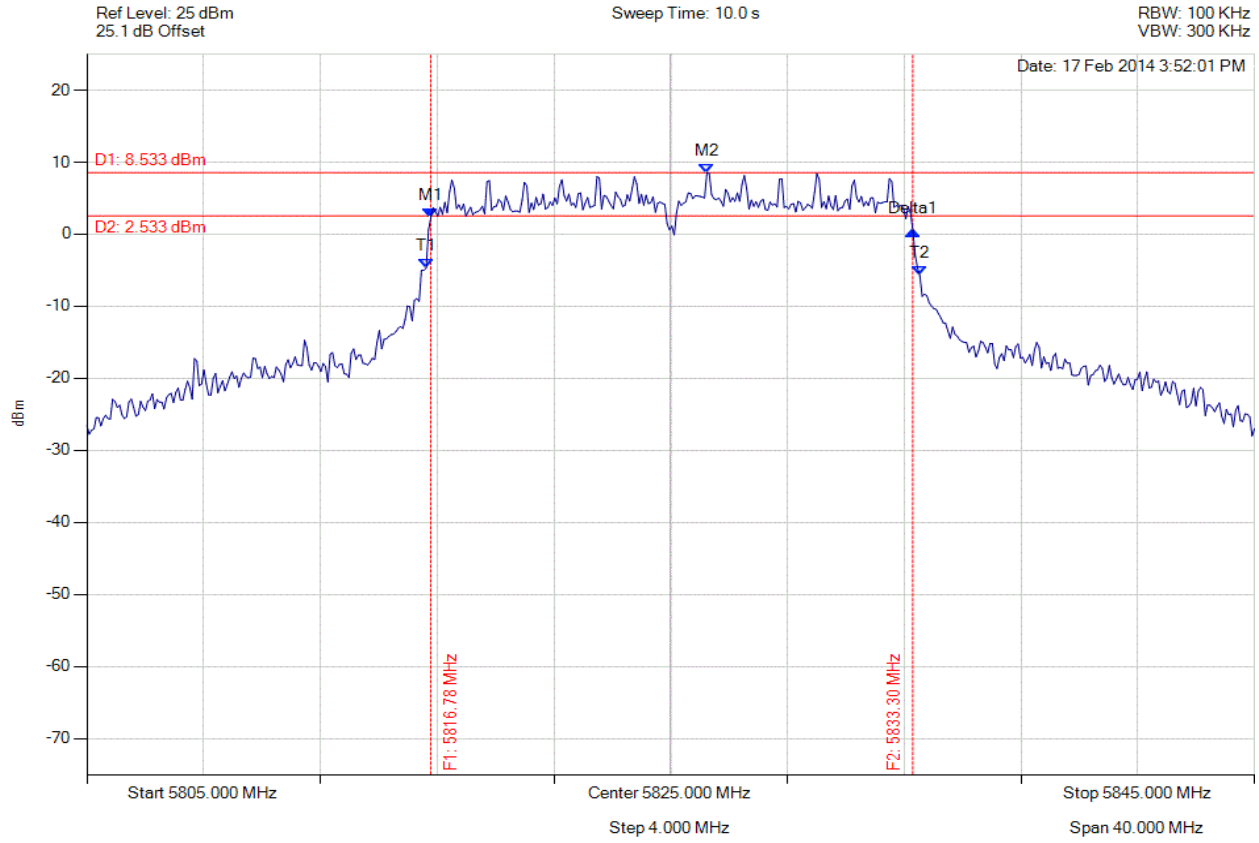


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5816.784 MHz : 1.689 dBm M2 : 5823.758 MHz : 8.482 dBm Delta1 : 16.513 MHz : -1.096 dB T1 : 5816.142 MHz : -10.574 dBm T2 : 5833.938 MHz : -9.854 dBm OBW : 17.796 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11a, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

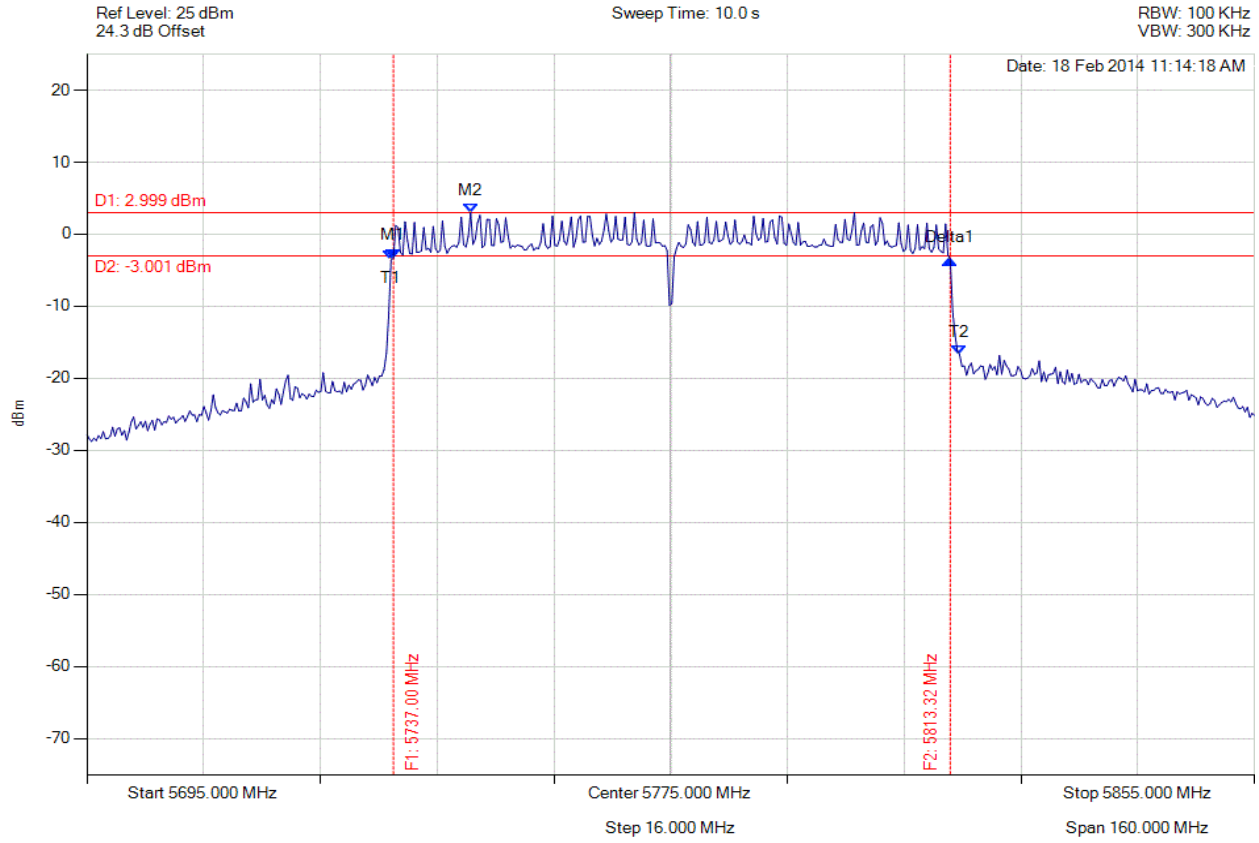


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5816.784 MHz : 2.305 dBm M2 : 5826.242 MHz : 8.533 dBm Delta1 : 16.513 MHz : -1.790 dB T1 : 5816.623 MHz : -4.709 dBm T2 : 5833.537 MHz : -5.764 dBm OBW : 16.914 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit: ≥500.0 kHz Margin: -16.01 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

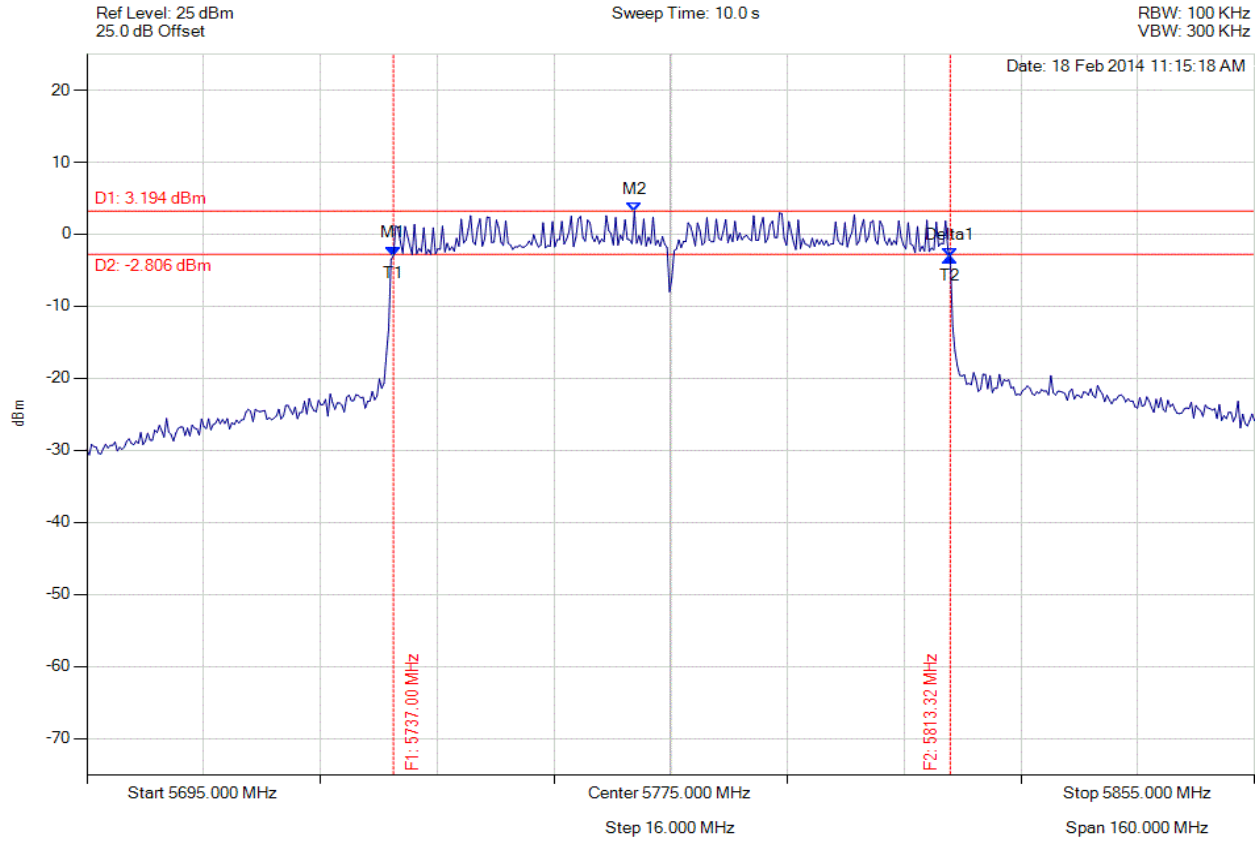


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5737.004 MHz : -3.289 dBm M2 : 5747.585 MHz : 2.999 dBm Delta1 : 76.313 MHz : -0.199 dB T1 : 5736.683 MHz : -3.603 dBm T2 : 5814.599 MHz : -16.739 dBm OBW : 77.916 MHz	Measured 6 dB Bandwidth: 76.313 MHz Limit: ≥500.0 kHz Margin: -75.81 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

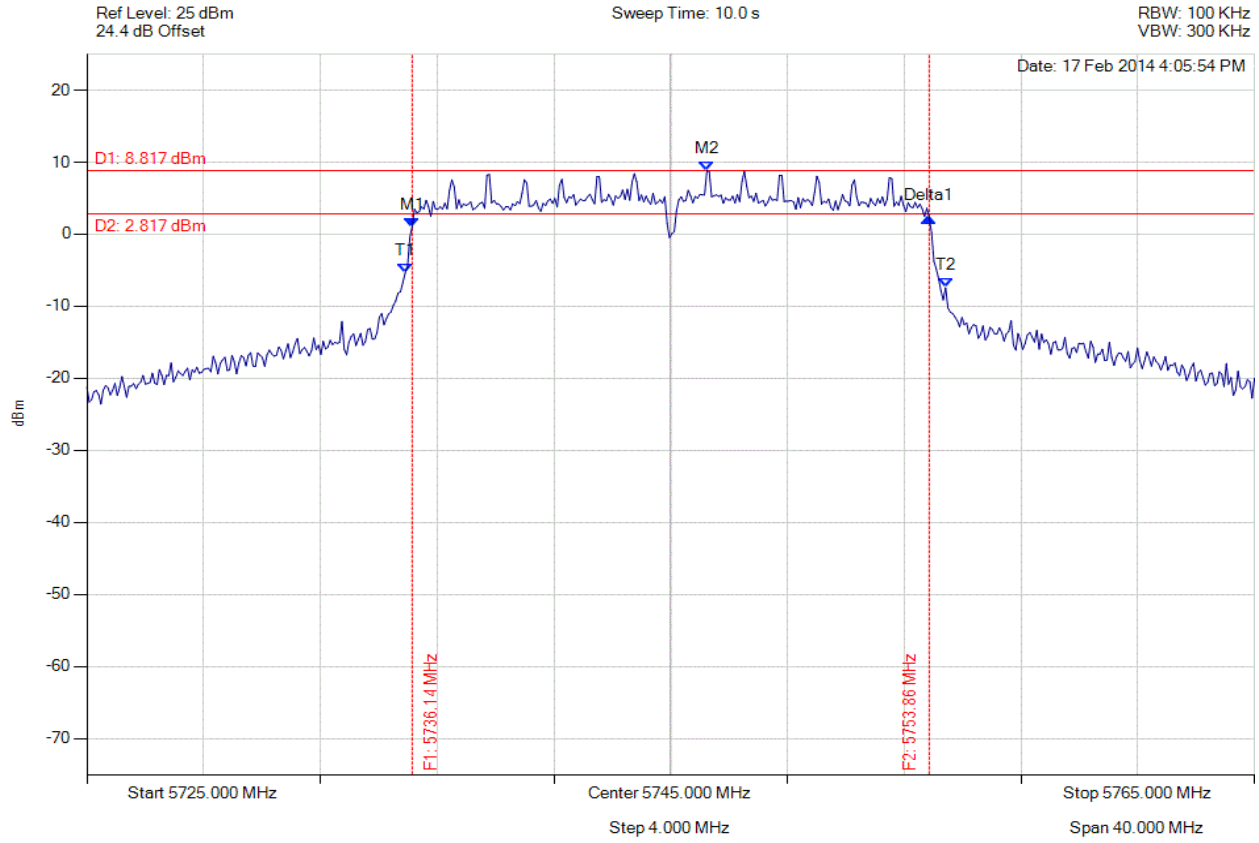


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5737.004 MHz : -2.948 dBm M2 : 5770.030 MHz : 3.194 dBm Delta1 : 76.313 MHz : -0.238 dB T1 : 5737.004 MHz : -2.948 dBm T2 : 5813.317 MHz : -3.186 dBm OBW : 76.313 MHz	Measured 6 dB Bandwidth: 76.313 MHz Limit: ≥500.0 kHz Margin: -75.81 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

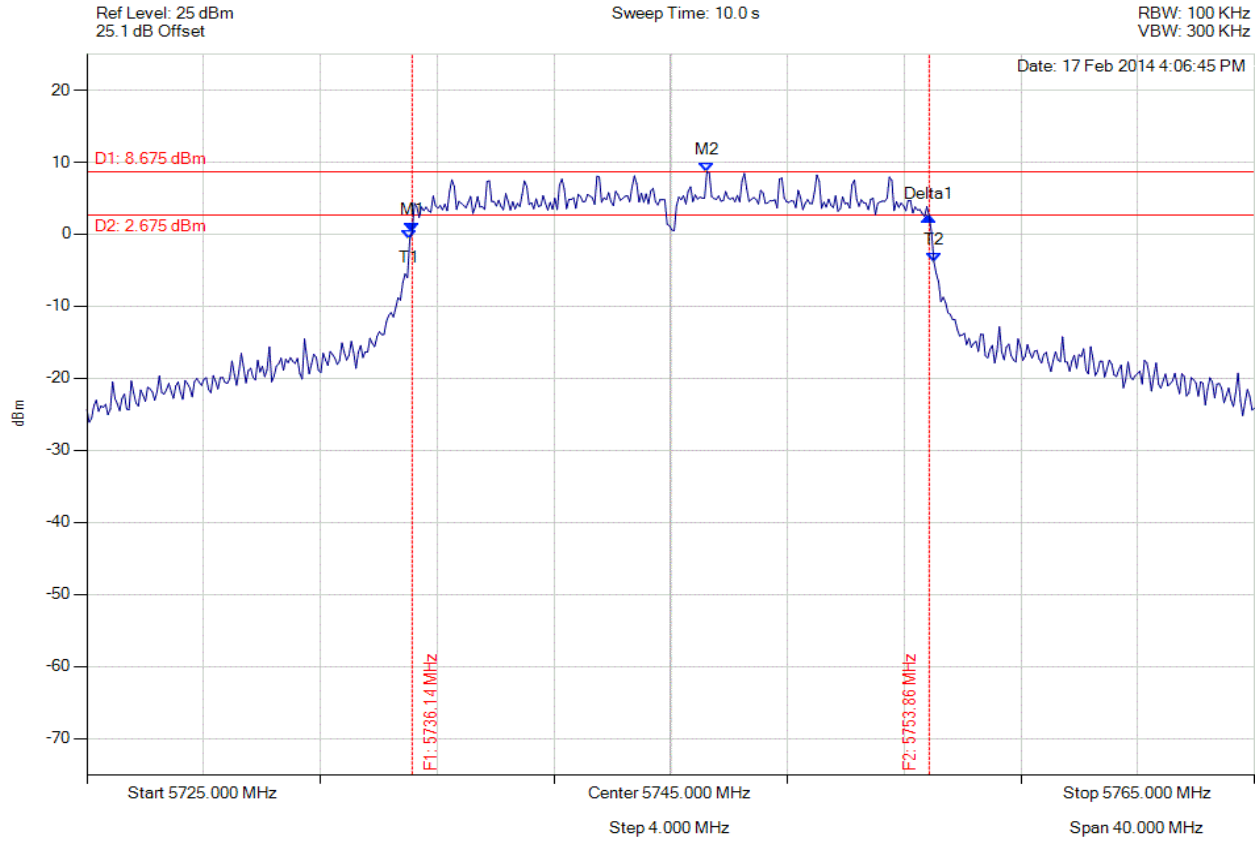


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.142 MHz : 1.032 dBm M2 : 5746.242 MHz : 8.817 dBm Delta1 : 17.715 MHz : 1.273 dB T1 : 5735.902 MHz : -5.421 dBm T2 : 5754.419 MHz : -7.430 dBm OBW : 18.517 MHz	Measured 6 dB Bandwidth: 17.715 MHz Limit: ≥500.0 kHz Margin: -17.22 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

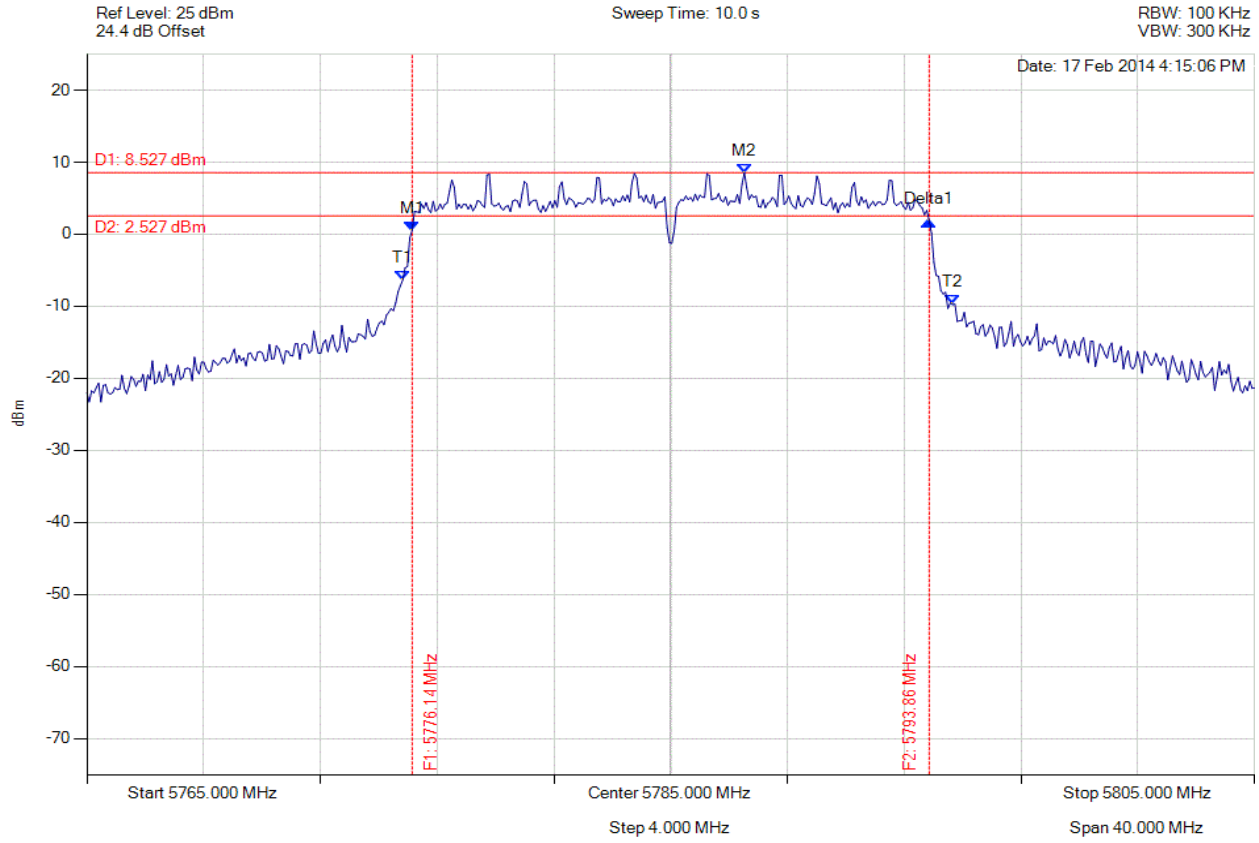


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.142 MHz : 0.365 dBm M2 : 5746.242 MHz : 8.675 dBm Delta1 : 17.715 MHz : 2.060 dB T1 : 5736.062 MHz : -0.739 dBm T2 : 5754.018 MHz : -3.820 dBm OBW : 17.956 MHz	Measured 6 dB Bandwidth: 17.715 MHz Limit: ≥500.0 kHz Margin: -17.22 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

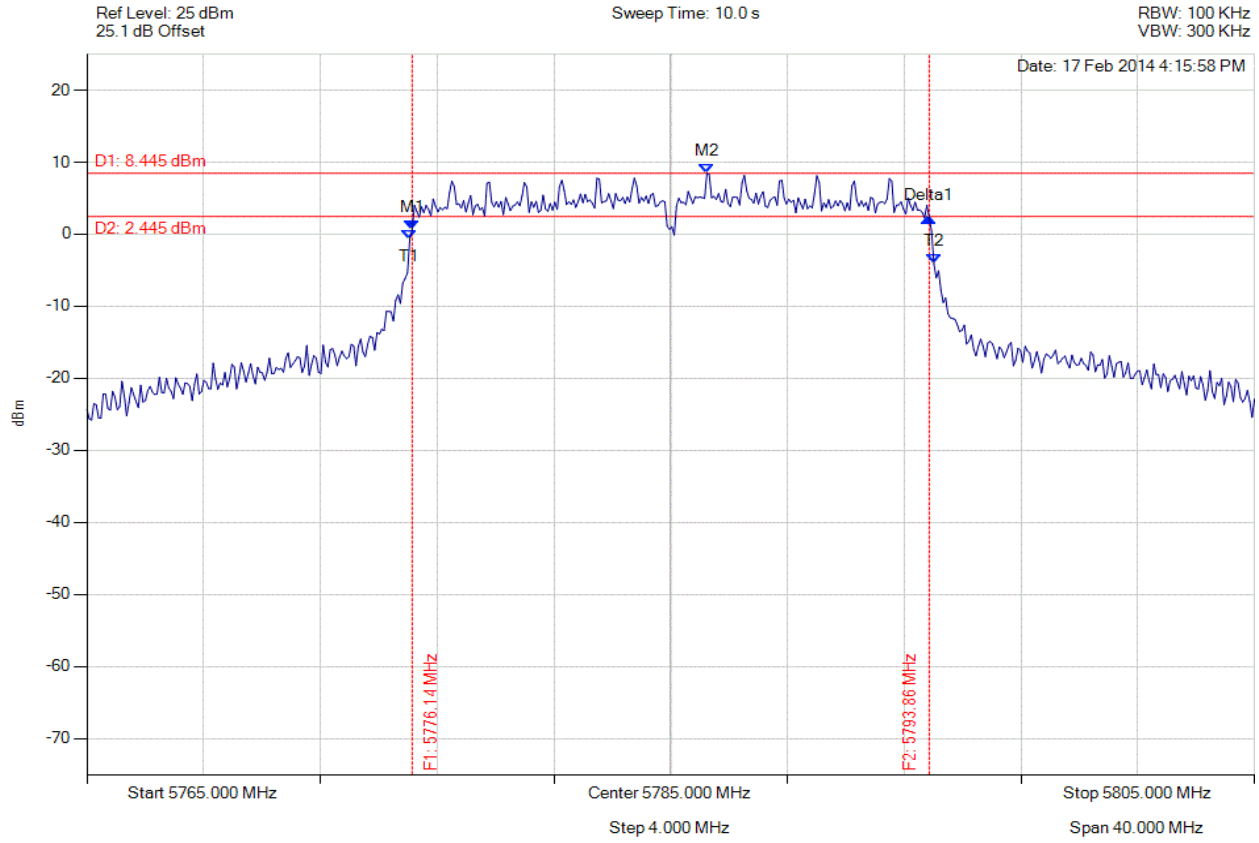


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.142 MHz : 0.518 dBm M2 : 5787.525 MHz : 8.527 dBm Delta1 : 17.715 MHz : 1.346 dB T1 : 5775.822 MHz : -6.344 dBm T2 : 5794.659 MHz : -9.761 dBm OBW : 18.838 MHz	Measured 6 dB Bandwidth: 17.715 MHz Limit: ≥500.0 kHz Margin: -17.22 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

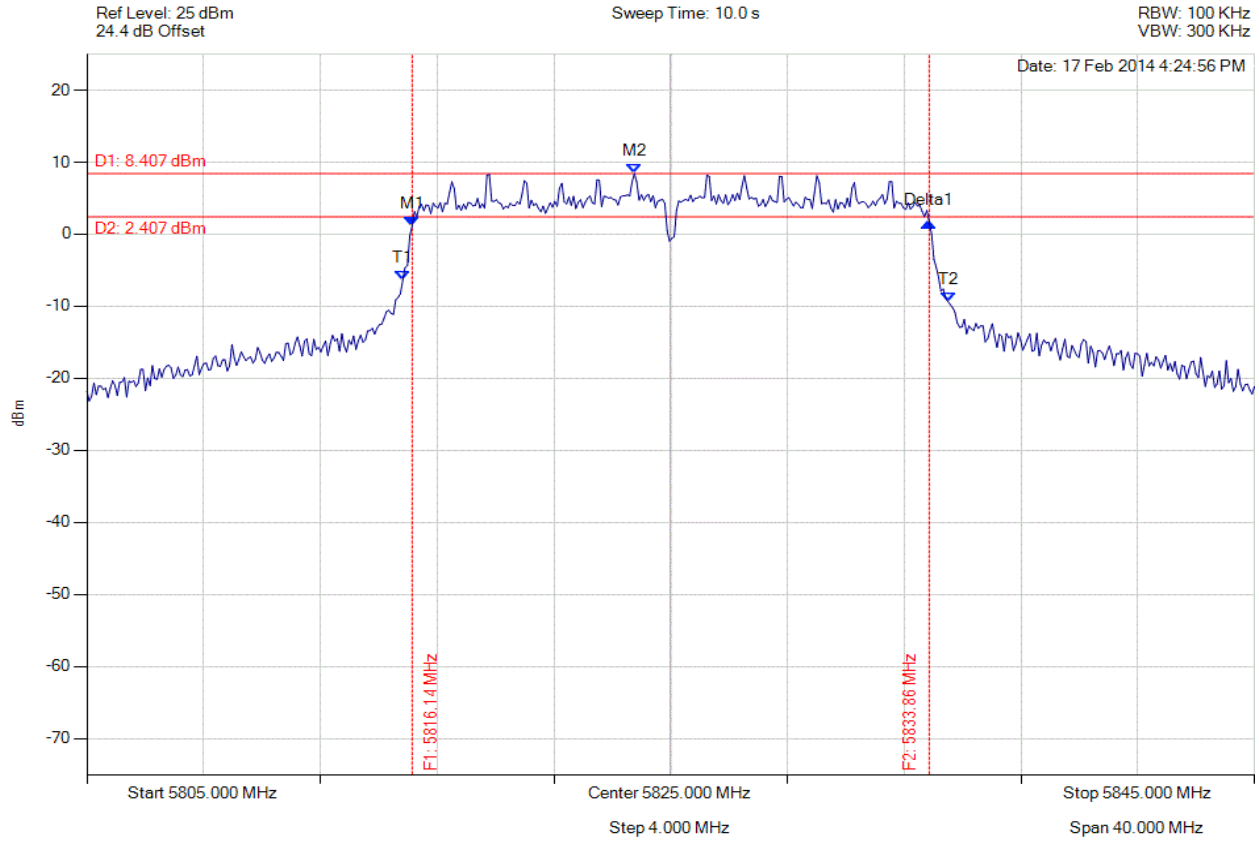


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.142 MHz : 0.571 dBm M2 : 5786.242 MHz : 8.445 dBm Delta1 : 17.715 MHz : 1.704 dB T1 : 5776.062 MHz : -0.637 dBm T2 : 5794.018 MHz : -4.087 dBm OBW : 17.956 MHz	Measured 6 dB Bandwidth: 17.715 MHz Limit: ≥500.0 kHz Margin: -17.22 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

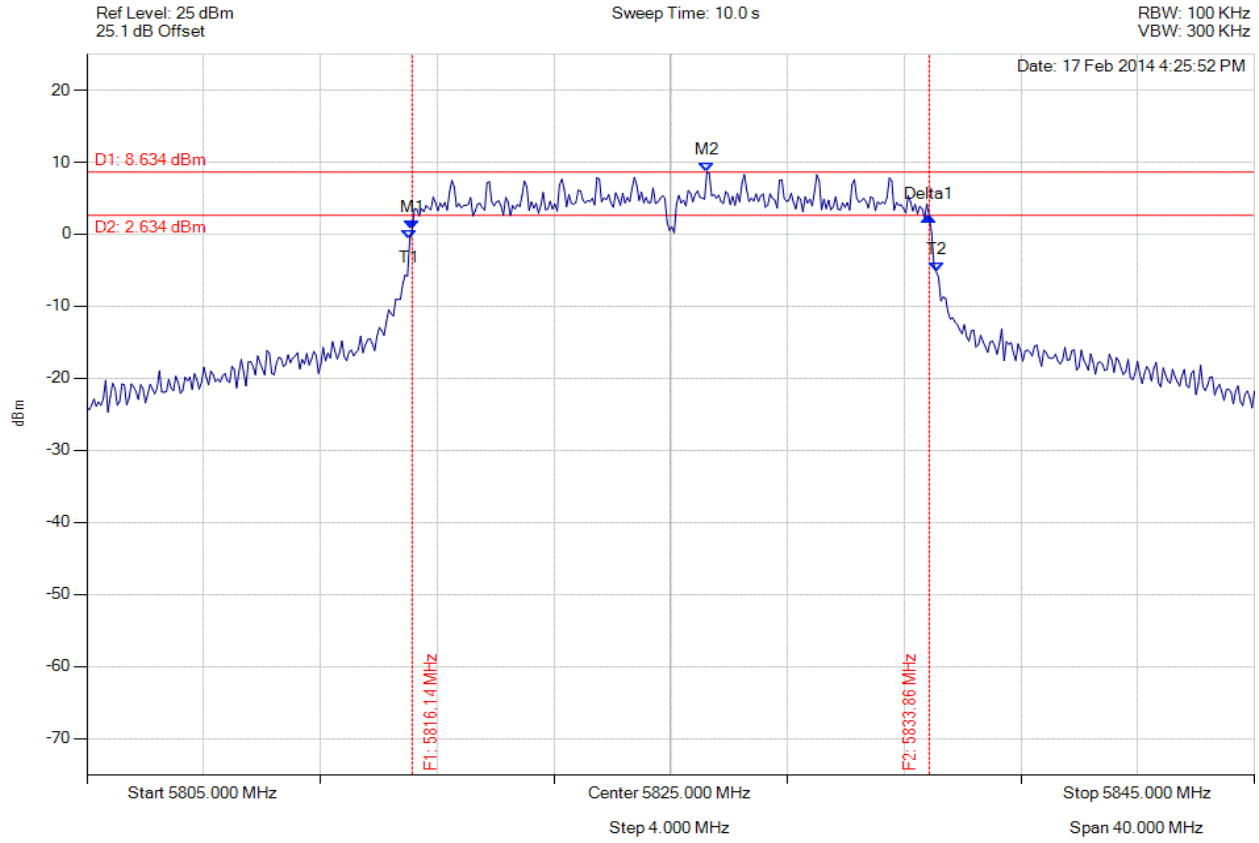


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5816.142 MHz : 1.132 dBm M2 : 5823.758 MHz : 8.407 dBm Delta1 : 17.715 MHz : 0.561 dB T1 : 5815.822 MHz : -6.379 dBm T2 : 5834.499 MHz : -9.330 dBm OBW : 18.677 MHz	Measured 6 dB Bandwidth: 17.715 MHz Limit: ≥500.0 kHz Margin: -17.22 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5816.142 MHz : 0.583 dBm M2 : 5826.242 MHz : 8.634 dBm Delta1 : 17.715 MHz : 1.938 dB T1 : 5816.062 MHz : -0.729 dBm T2 : 5834.098 MHz : -5.207 dBm OBW : 18.036 MHz	Measured 6 dB Bandwidth: 17.715 MHz Limit: ≥500.0 kHz Margin: -17.22 MHz

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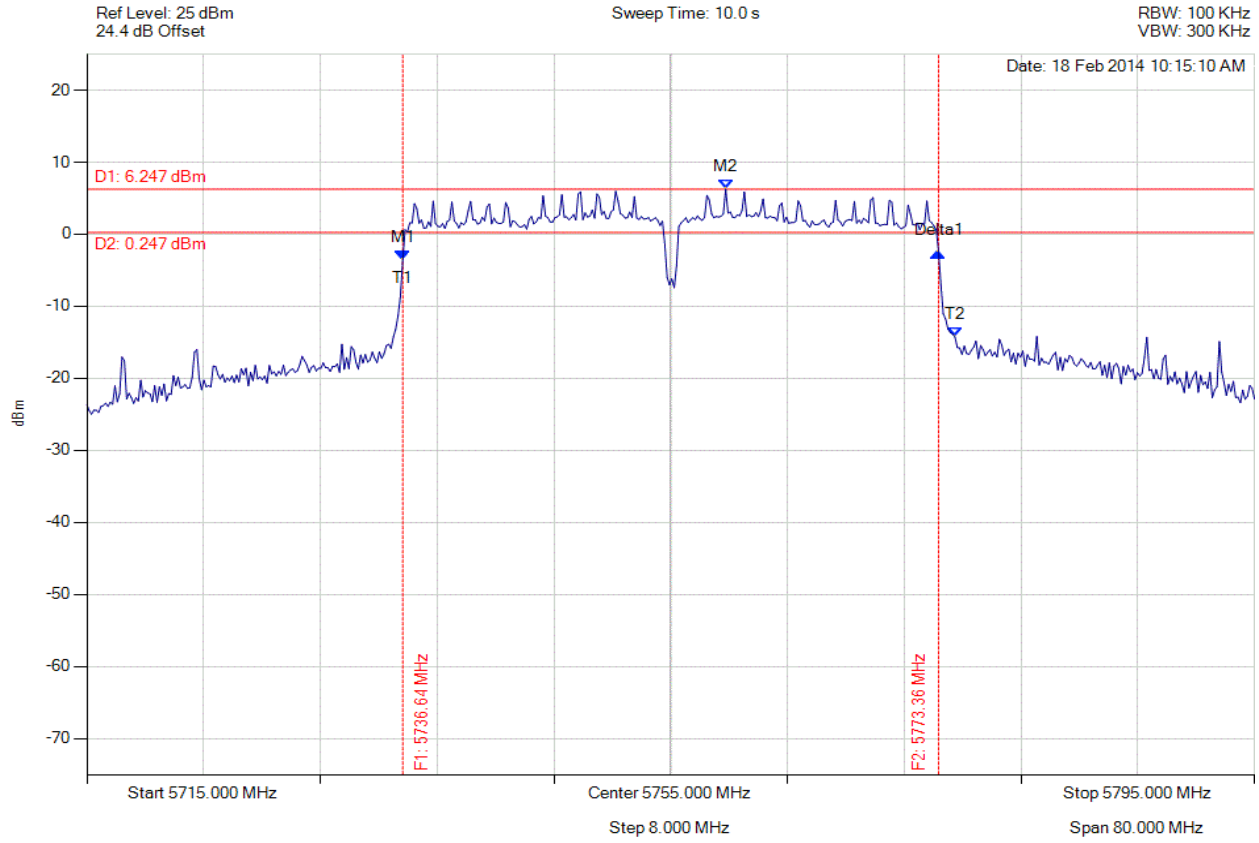
6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

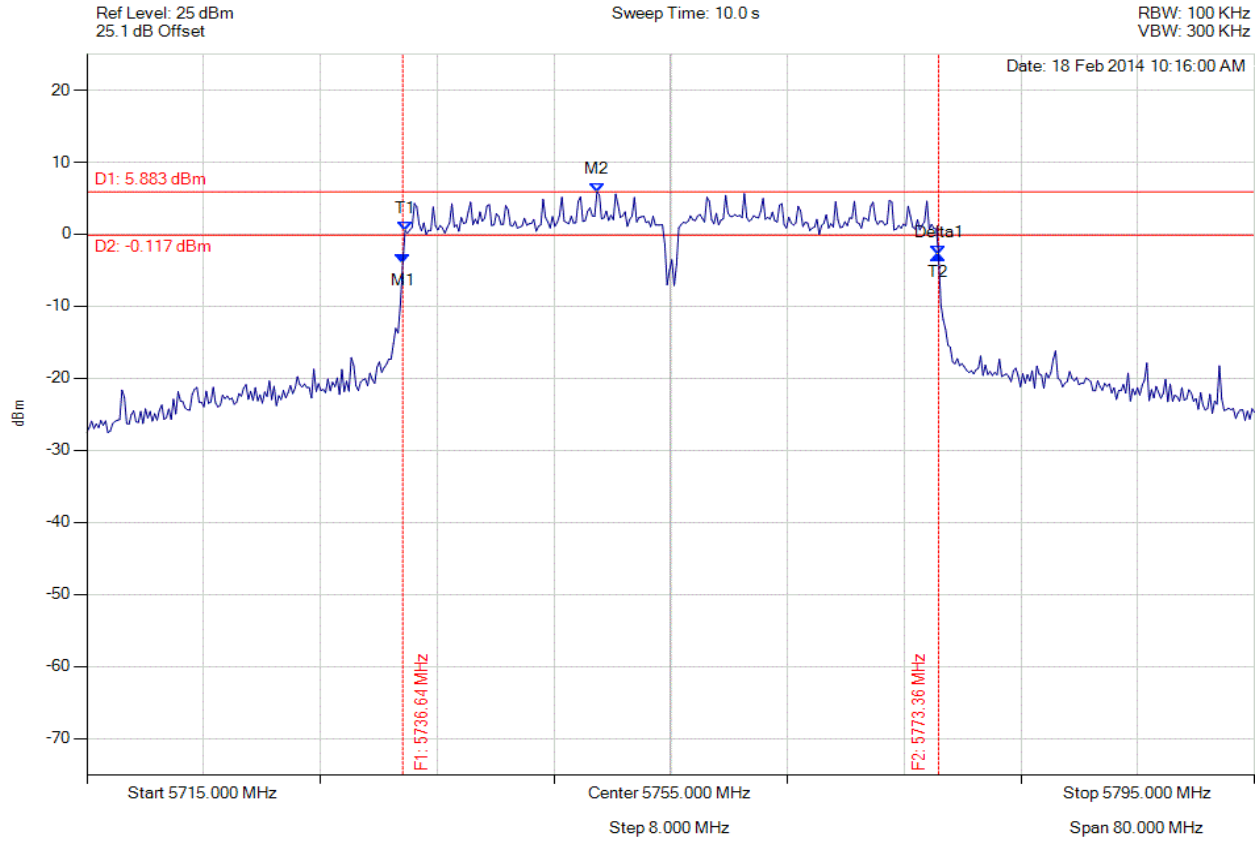


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.643 MHz : -3.509 dBm M2 : 5758.768 MHz : 6.247 dBm Delta1 : 36.713 MHz : 1.025 dB T1 : 5736.643 MHz : -3.509 dBm T2 : 5774.479 MHz : -14.268 dBm OBW : 37.836 MHz	Measured 6 dB Bandwidth: 36.713 MHz Limit: ≥500.0 kHz Margin: -36.21 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

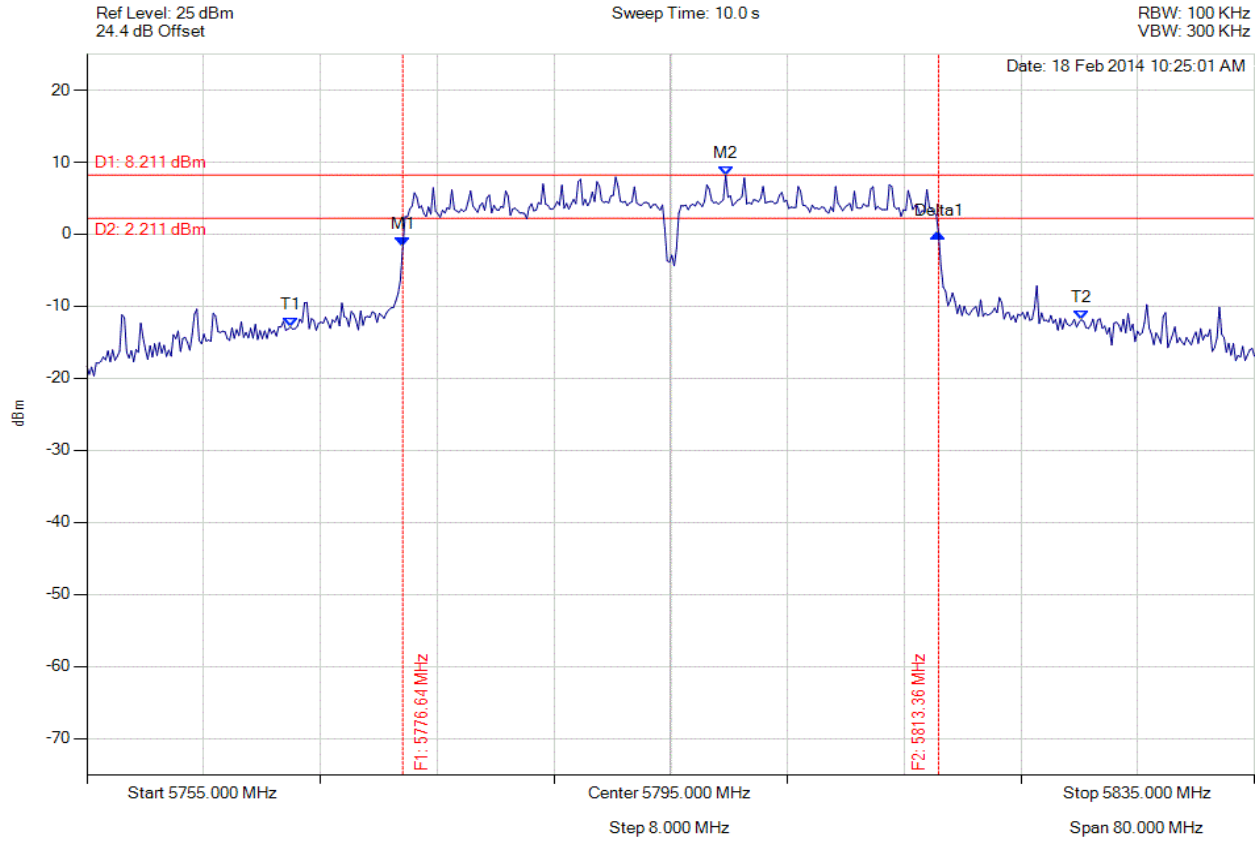


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.643 MHz : -3.961 dBm M2 : 5749.950 MHz : 5.883 dBm Delta1 : 36.713 MHz : 1.135 dB T1 : 5736.804 MHz : 0.512 dBm T2 : 5773.357 MHz : -2.826 dBm OBW : 36.553 MHz	Measured 6 dB Bandwidth: 36.713 MHz Limit: ≥500.0 kHz Margin: -36.21 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

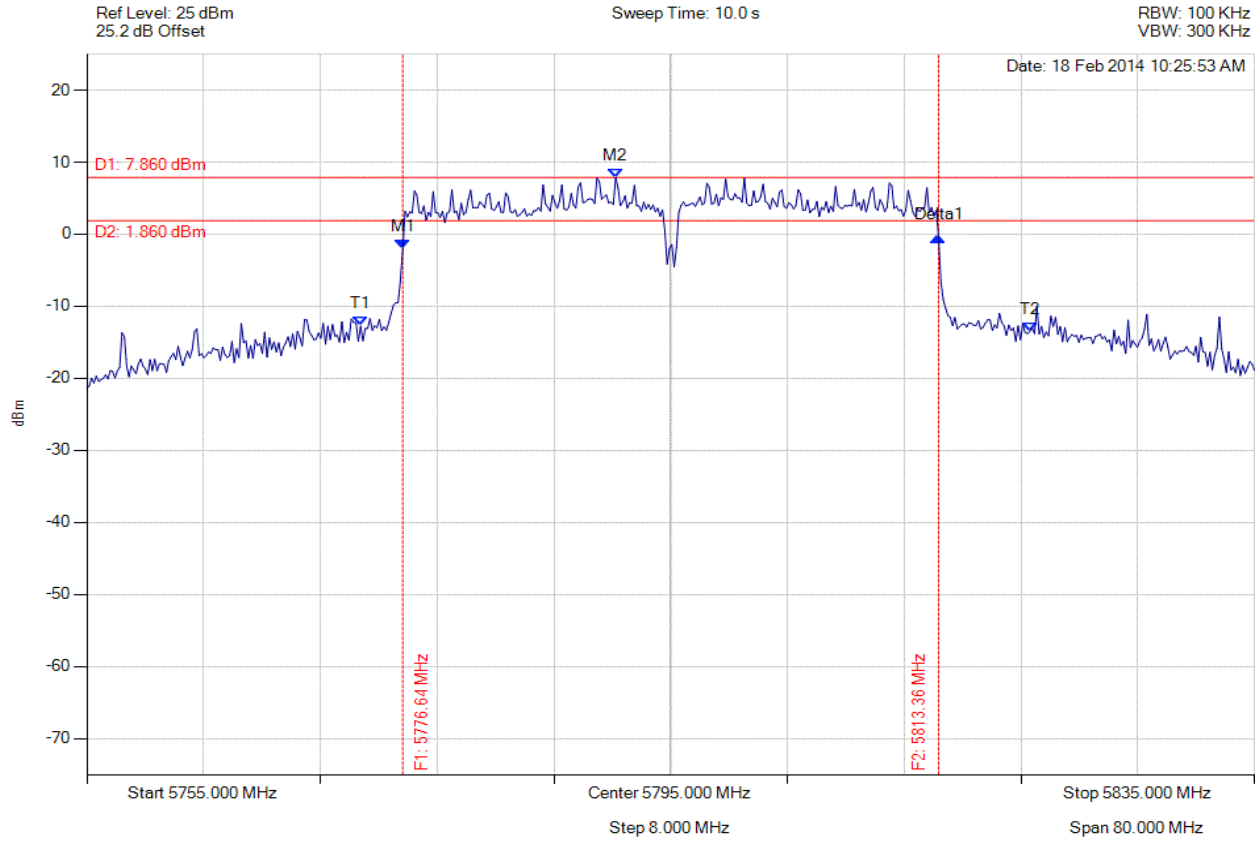


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.643 MHz : -1.719 dBm M2 : 5798.768 MHz : 8.211 dBm Delta1 : 36.713 MHz : 1.812 dB T1 : 5768.948 MHz : -12.854 dBm T2 : 5823.136 MHz : -11.878 dBm OBW : 54.188 MHz	Measured 6 dB Bandwidth: 36.713 MHz Limit: ≥500.0 kHz Margin: -36.21 MHz

Back to the Matrix

6 dB & 99% BANDWIDTH

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



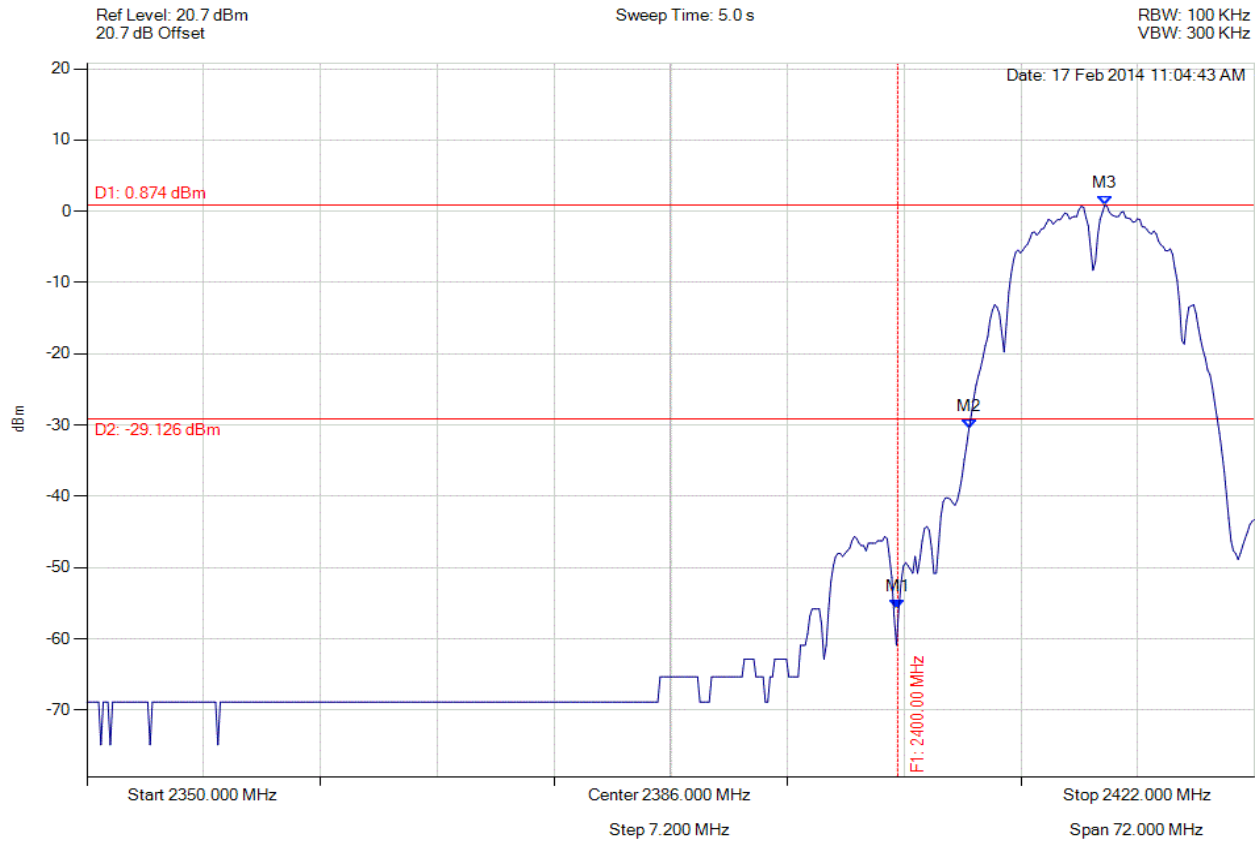
Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.643 MHz : -2.094 dBm M2 : 5791.232 MHz : 7.860 dBm Delta1 : 36.713 MHz : 1.696 dB T1 : 5773.758 MHz : -12.752 dBm T2 : 5819.609 MHz : -13.487 dBm OBW : 45.852 MHz	Measured 6 dB Bandwidth: 36.713 MHz Limit: ≥500.0 kHz Margin: -36.21 MHz

Back to the Matrix

A.1.2. Conducted Spurious Emissions

CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2400.000 MHz : -55.780 dBm M2 : 2404.397 MHz : -30.463 dBm M3 : 2412.766 MHz : 0.874 dBm	Channel Frequency: 2412.00 MHz

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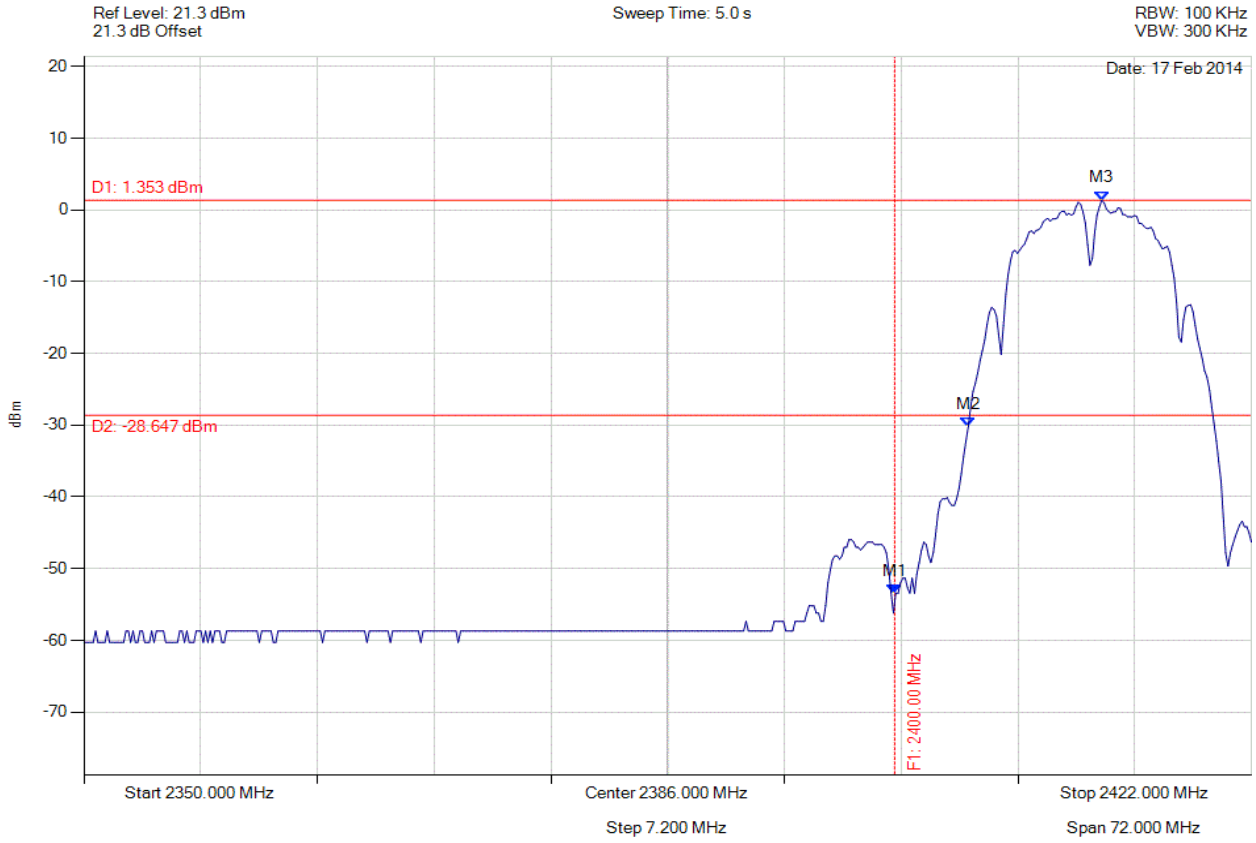
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -53.437 dBm M2 : 2404.541 MHz : -30.183 dBm M3 : 2412.766 MHz : 1.353 dBm	Channel Frequency: 2412.00 MHz

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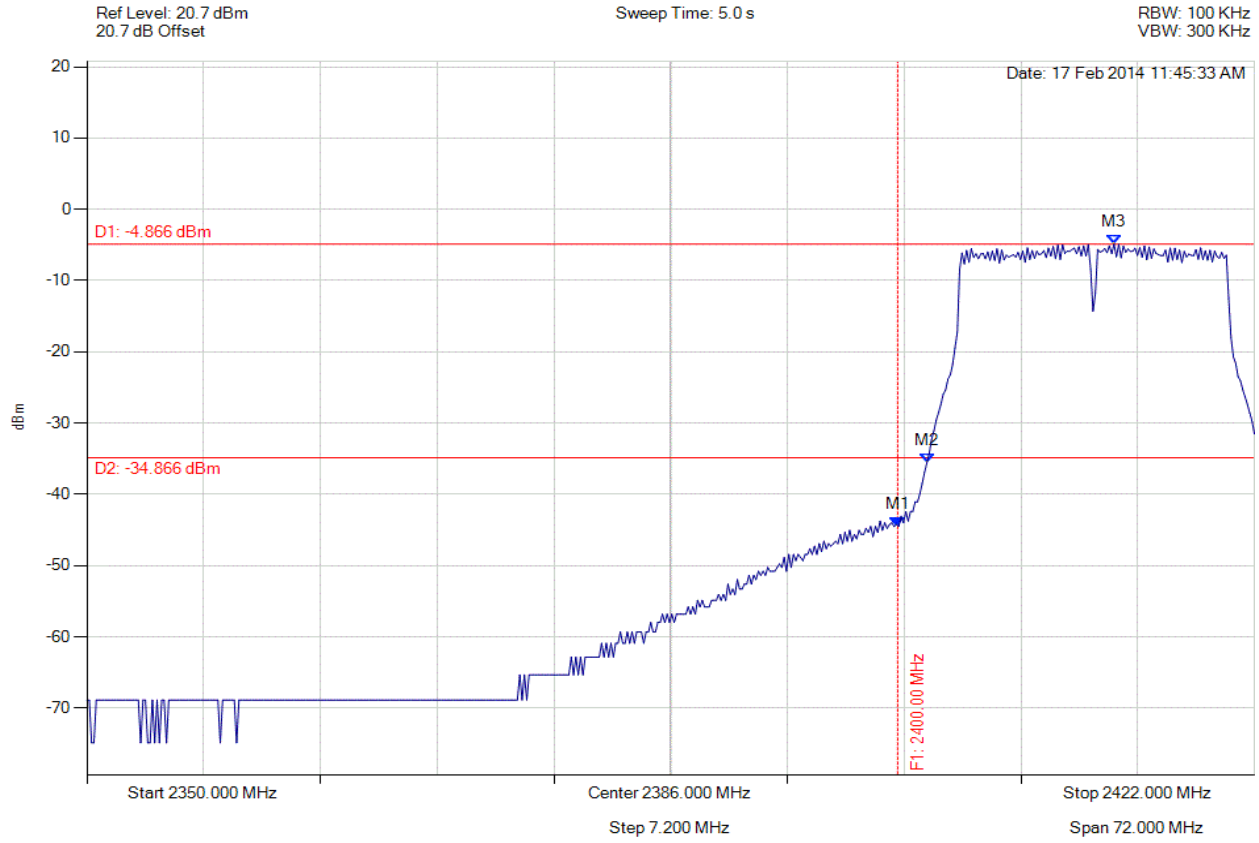
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2400.000 MHz : -44.495 dBm M2 : 2401.800 MHz : -35.590 dBm M3 : 2413.343 MHz : -4.866 dBm	Channel Frequency: 2412.00 MHz

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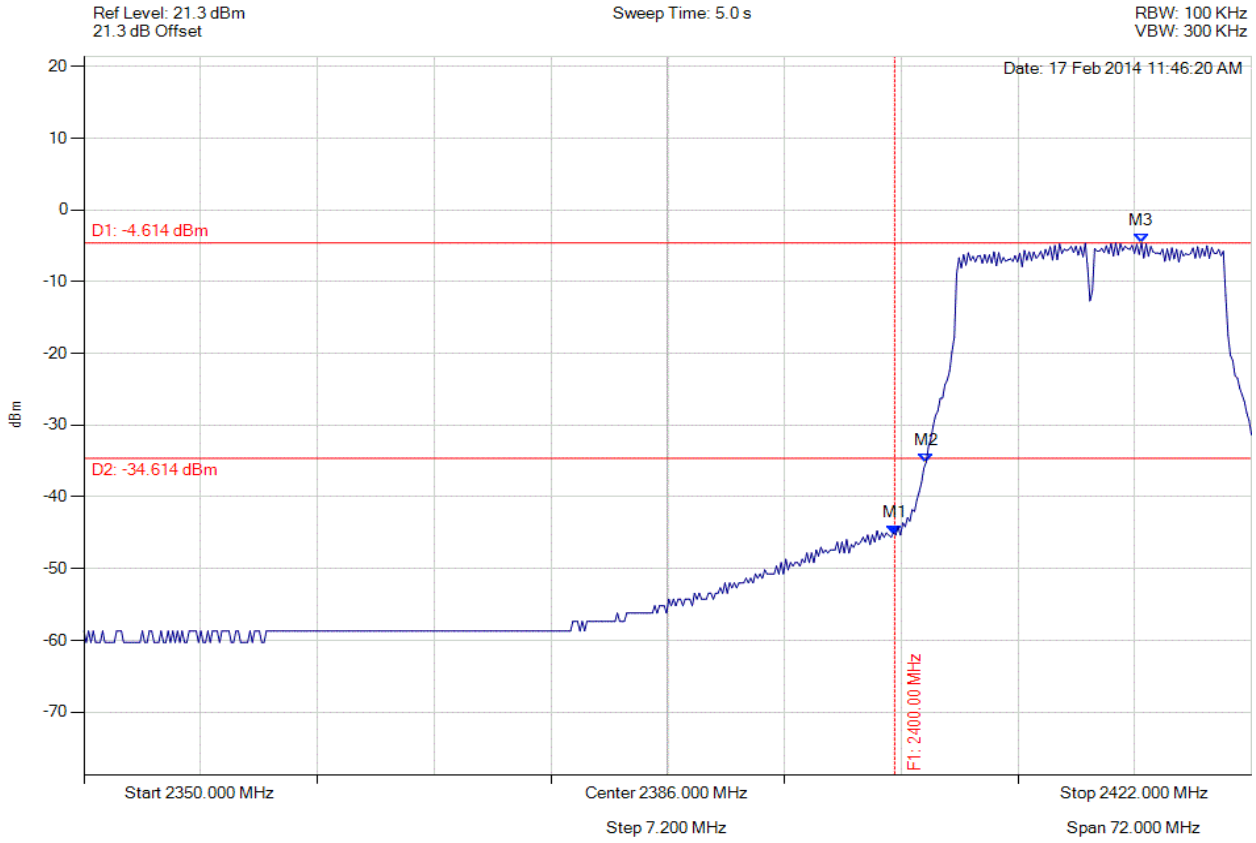
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -45.322 dBm M2 : 2401.944 MHz : -35.180 dBm M3 : 2415.218 MHz : -4.614 dBm	Channel Frequency: 2412.00 MHz

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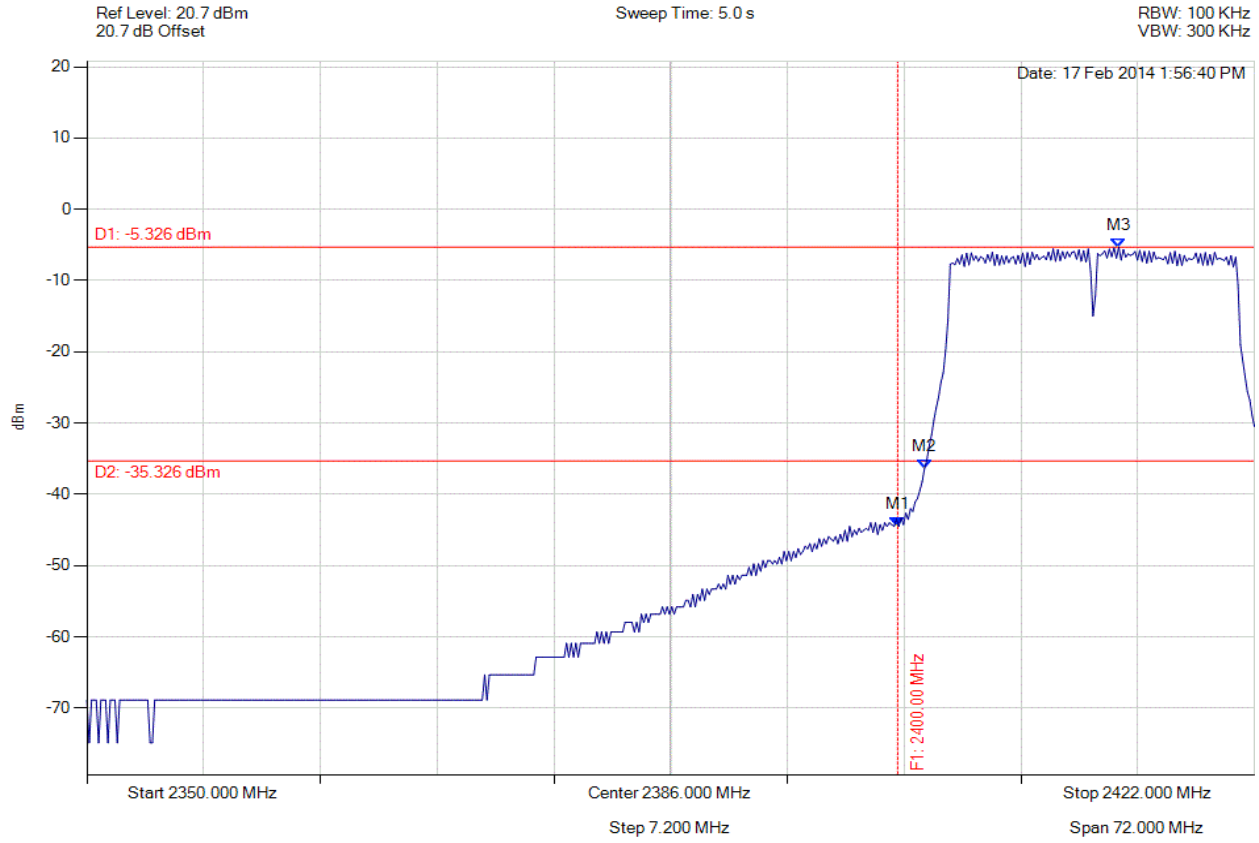
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2400.000 MHz : -44.495 dBm M2 : 2401.655 MHz : -36.380 dBm M3 : 2413.631 MHz : -5.326 dBm	Channel Frequency: 2412.00 MHz

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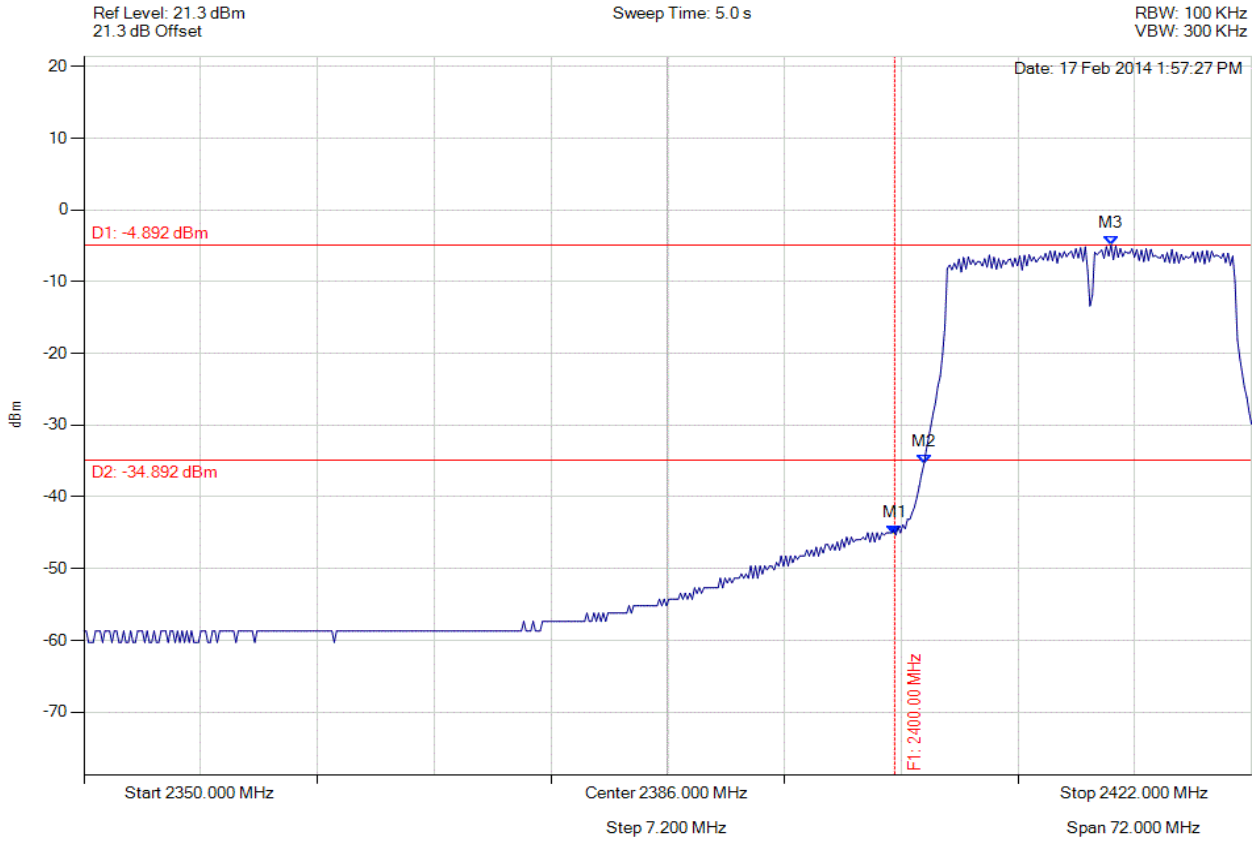
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -45.322 dBm M2 : 2401.800 MHz : -35.475 dBm M3 : 2413.343 MHz : -4.892 dBm	Channel Frequency: 2412.00 MHz

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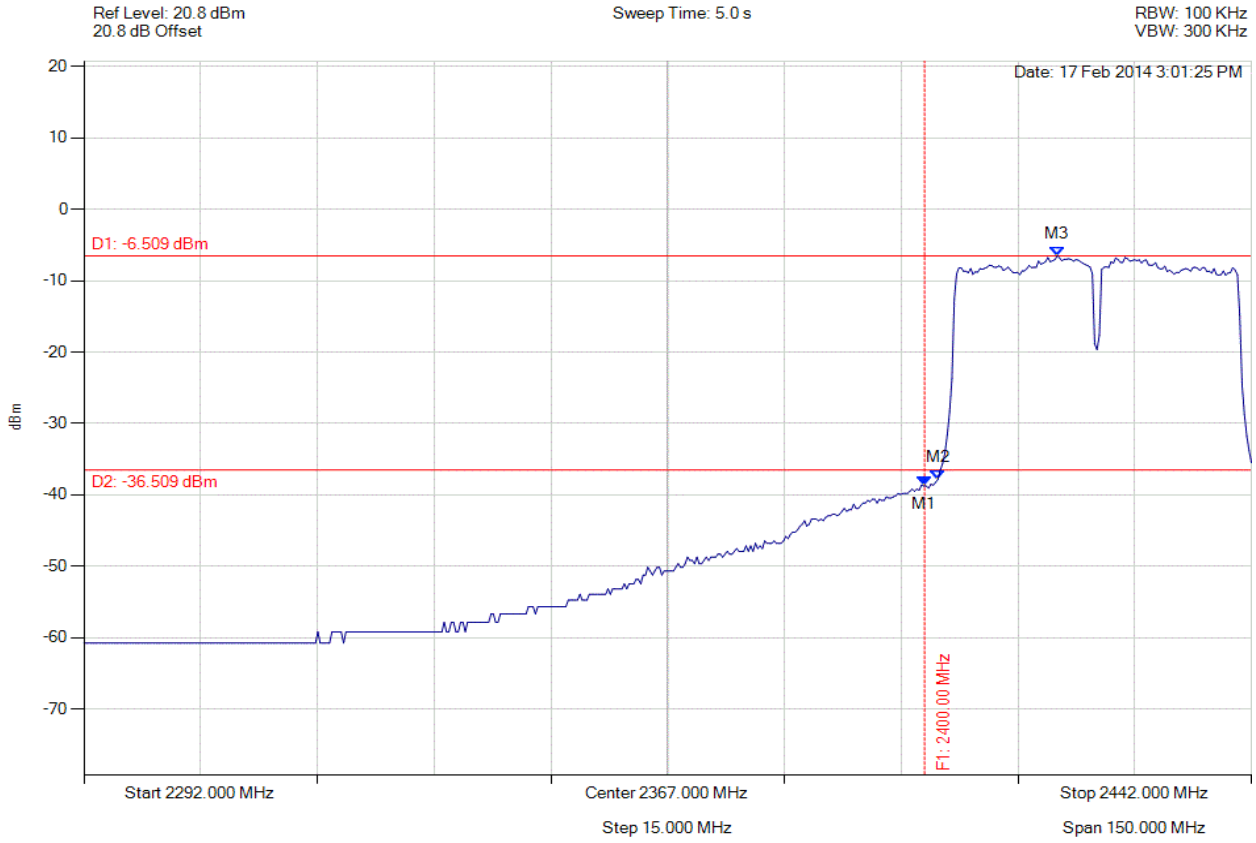
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -38.779 dBm M2 : 2401.719 MHz : -37.863 dBm M3 : 2417.050 MHz : -6.509 dBm	Channel Frequency: 2422.00 MHz

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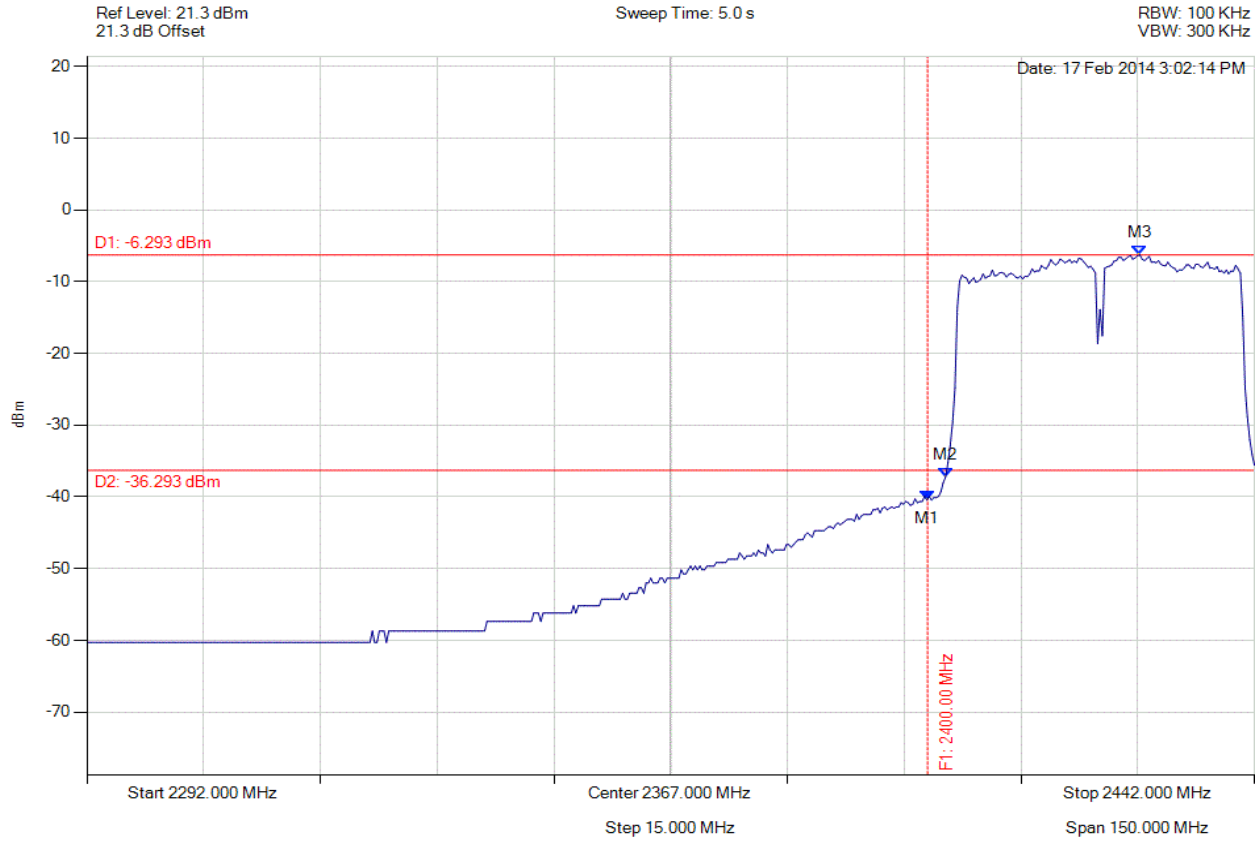
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.000 MHz : -40.461 dBm M2 : 2402.321 MHz : -37.240 dBm M3 : 2427.271 MHz : -6.293 dBm	Channel Frequency: 2422.00 MHz

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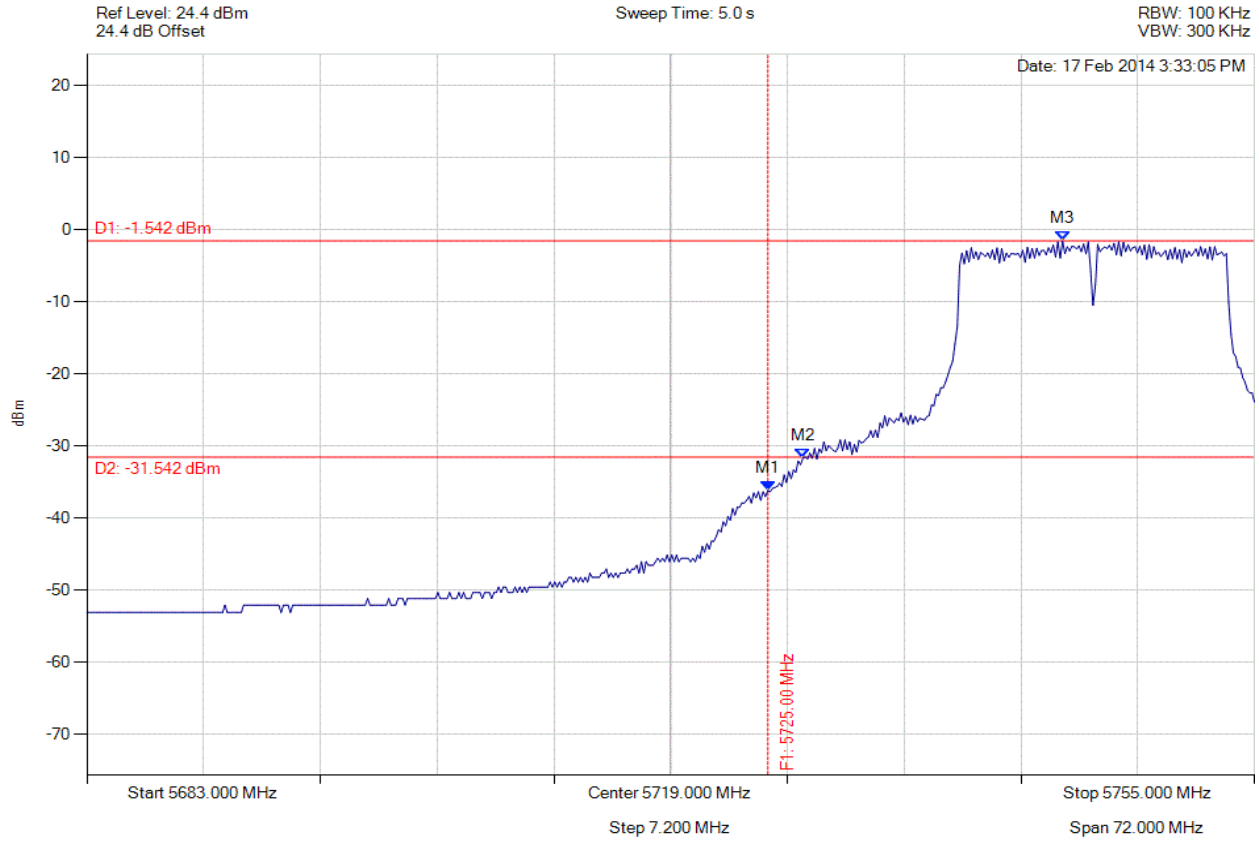
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11a, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5725.000 MHz : -36.202 dBm M2 : 5727.152 MHz : -31.703 dBm M3 : 5743.168 MHz : -1.542 dBm	Channel Frequency: 5745.00 MHz

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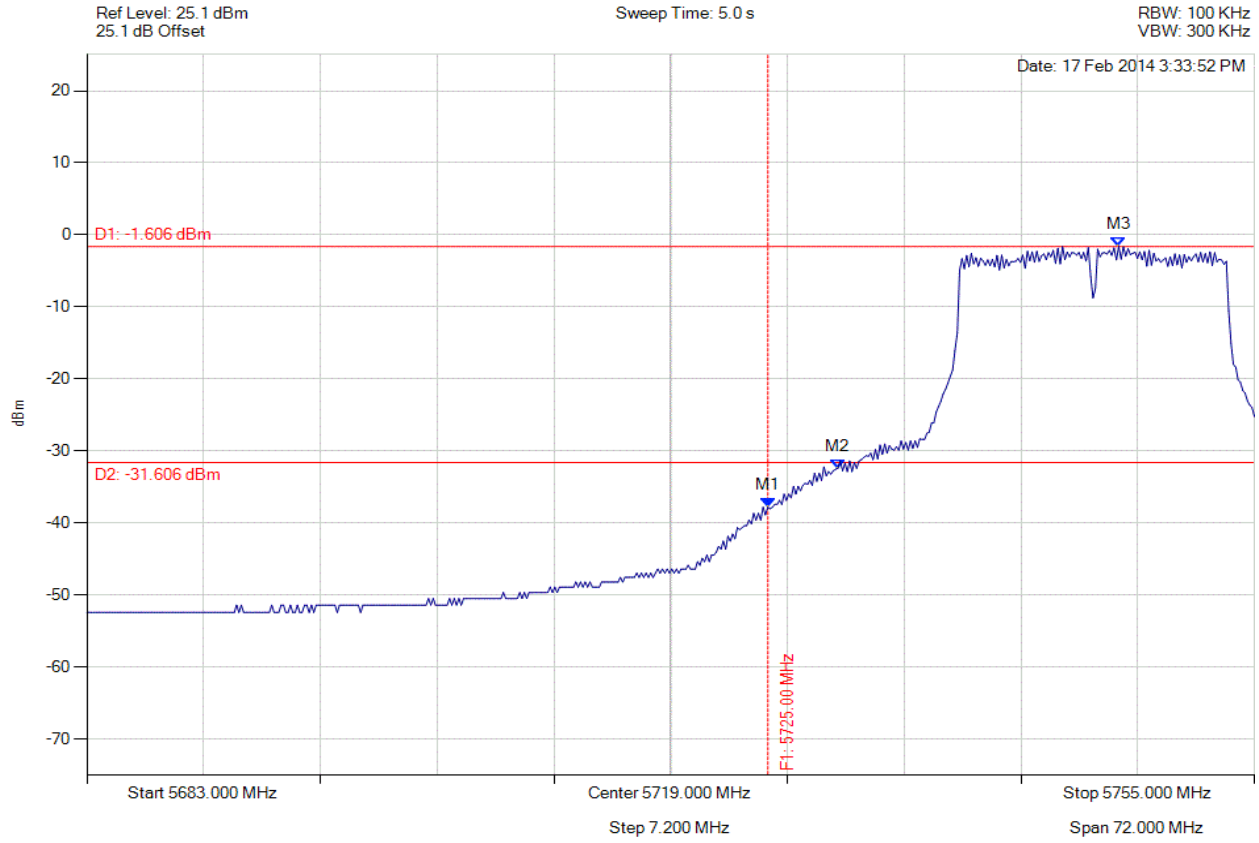
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11a, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

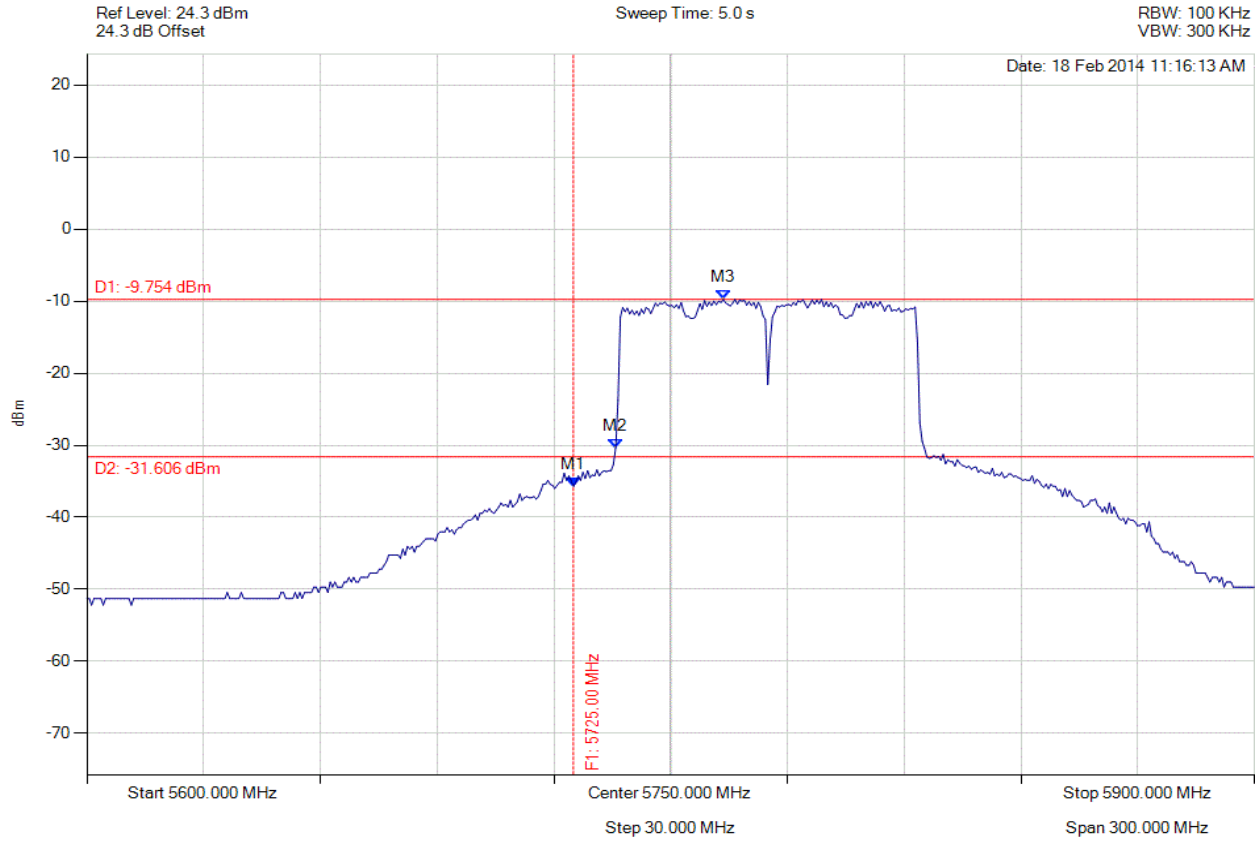


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5725.000 MHz : -37.796 dBm M2 : 5729.317 MHz : -32.404 dBm M3 : 5746.631 MHz : -1.606 dBm	Channel Frequency: 5745.00 MHz

Back to the Matrix

CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5725.000 MHz : -35.702 dBm M2 : 5735.872 MHz : -30.359 dBm M3 : 5763.527 MHz : -9.754 dBm	Channel Frequency: 5775.00 MHz

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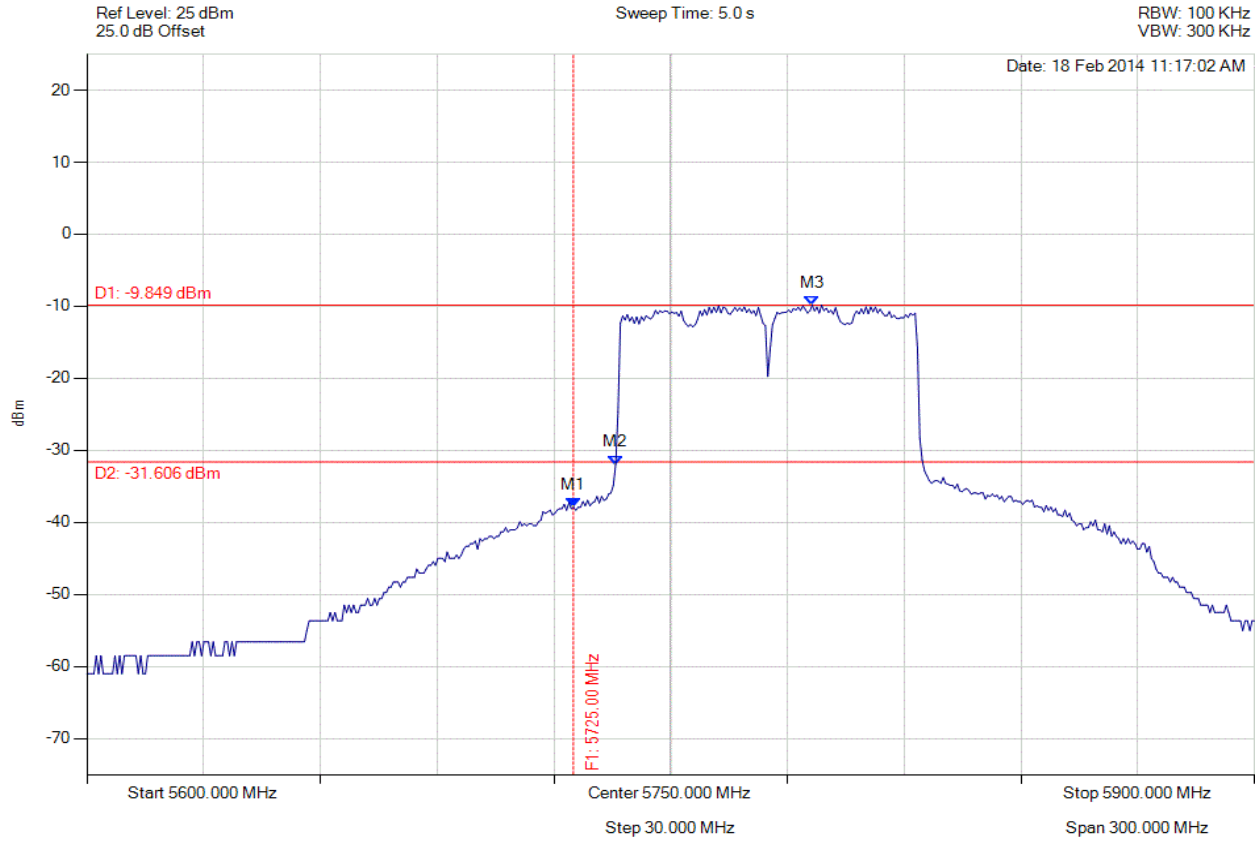
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

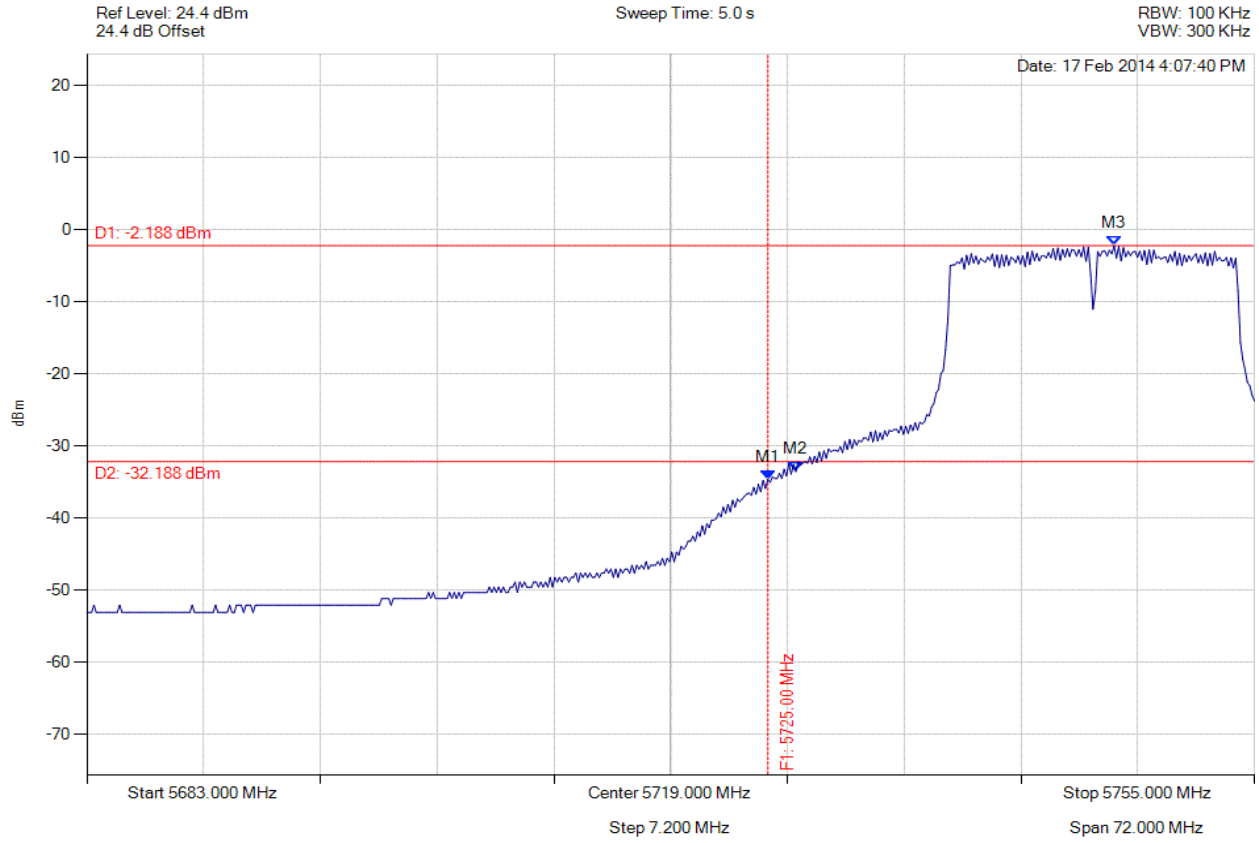


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5725.000 MHz : -37.896 dBm M2 : 5735.872 MHz : -31.977 dBm M3 : 5786.373 MHz : -9.849 dBm	Channel Frequency: 5775.00 MHz

Back to the Matrix

CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

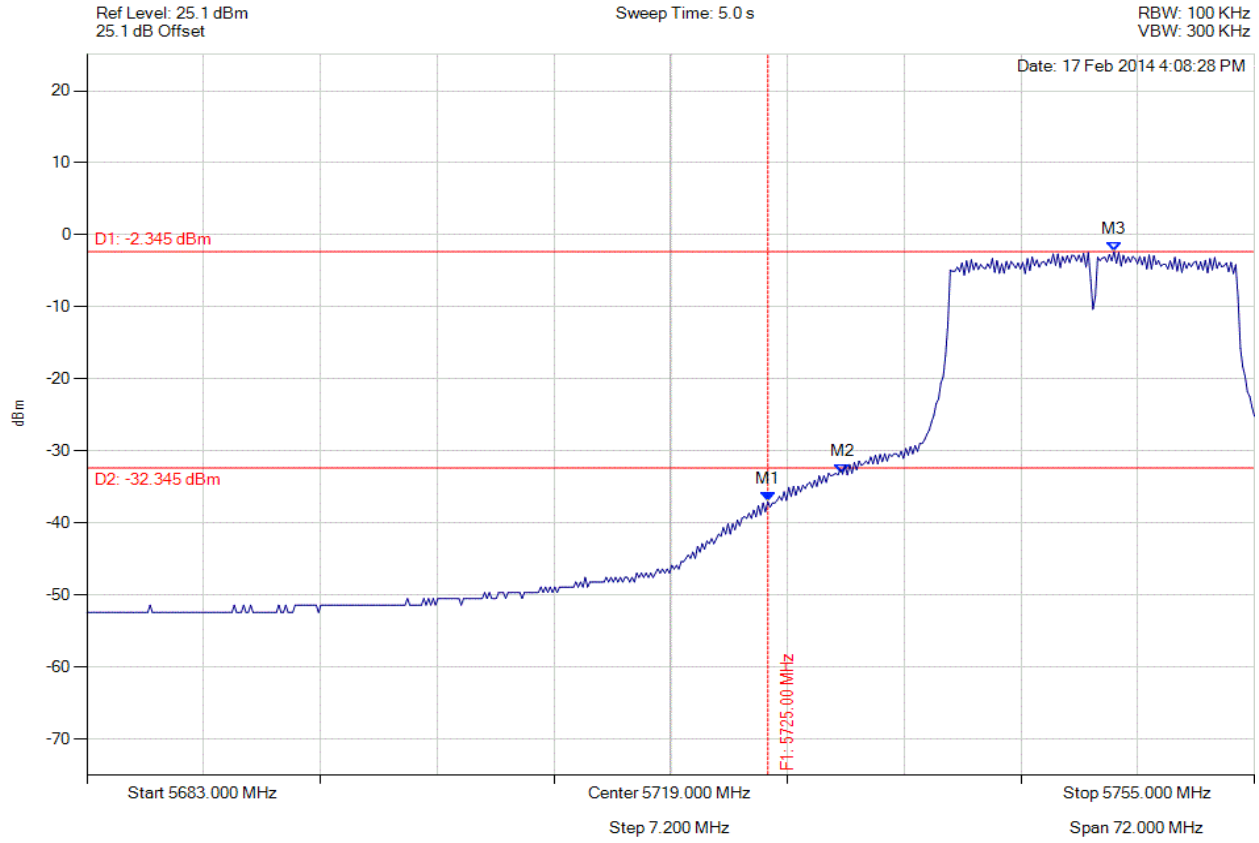


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5725.000 MHz : -34.644 dBm M2 : 5726.719 MHz : -33.549 dBm M3 : 5746.343 MHz : -2.188 dBm	Channel Frequency: 5745.00 MHz

Back to the Matrix

CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

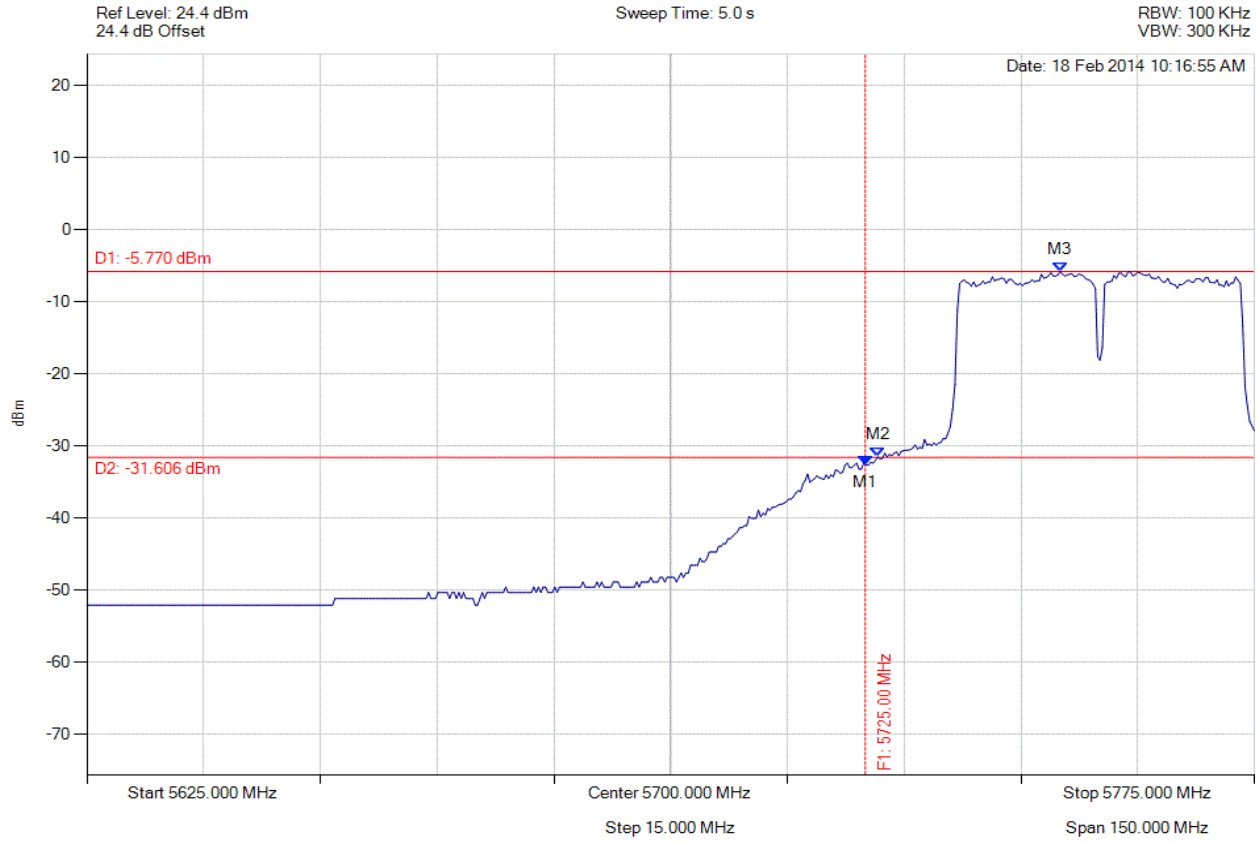


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5725.000 MHz : -37.023 dBm M2 : 5729.605 MHz : -33.199 dBm M3 : 5746.343 MHz : -2.345 dBm	Channel Frequency: 5745.00 MHz

Back to the Matrix

CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5725.000 MHz : -32.577 dBm M2 : 5726.603 MHz : -31.520 dBm M3 : 5750.050 MHz : -5.770 dBm	Channel Frequency: 5755.00 MHz

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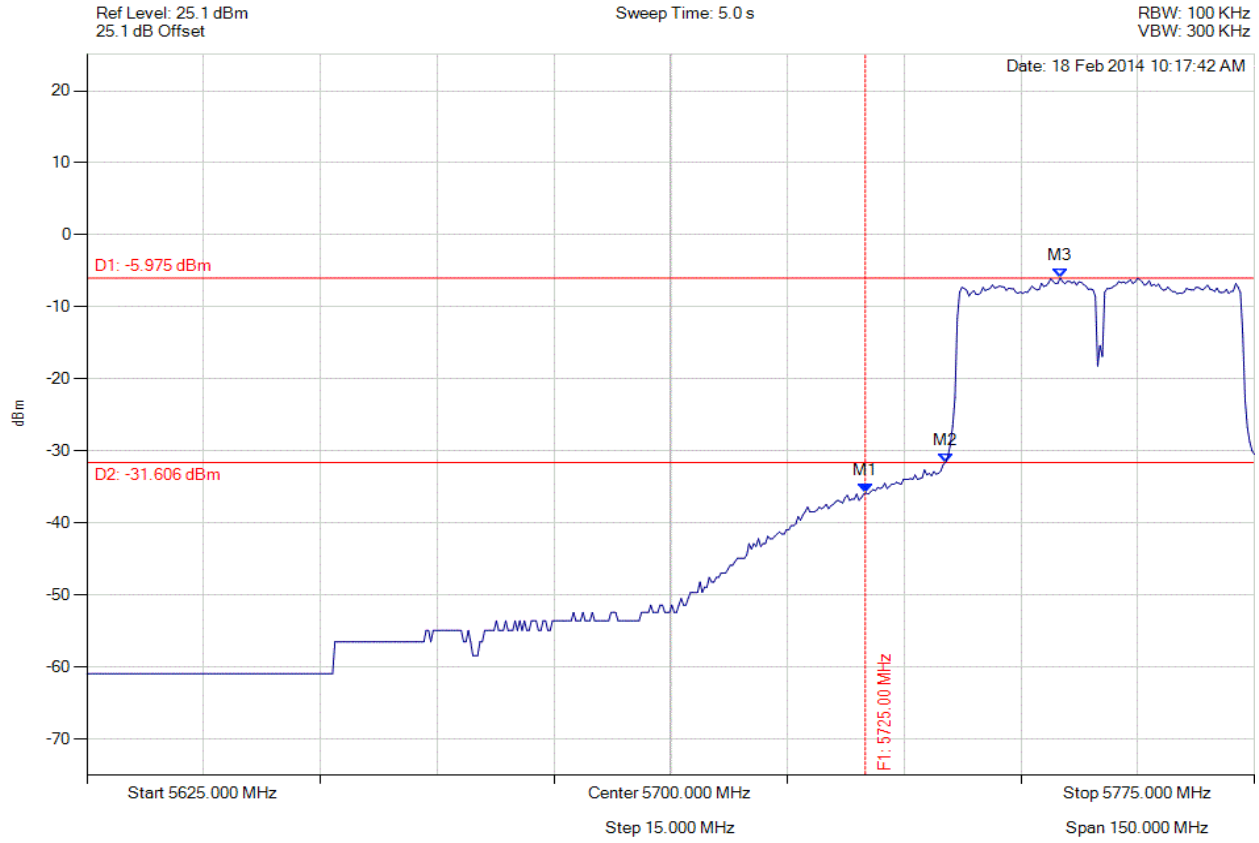
CONDUCTED LOW BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5725.000 MHz : -35.817 dBm M2 : 5735.321 MHz : -31.576 dBm M3 : 5750.050 MHz : -5.975 dBm	Channel Frequency: 5755.00 MHz

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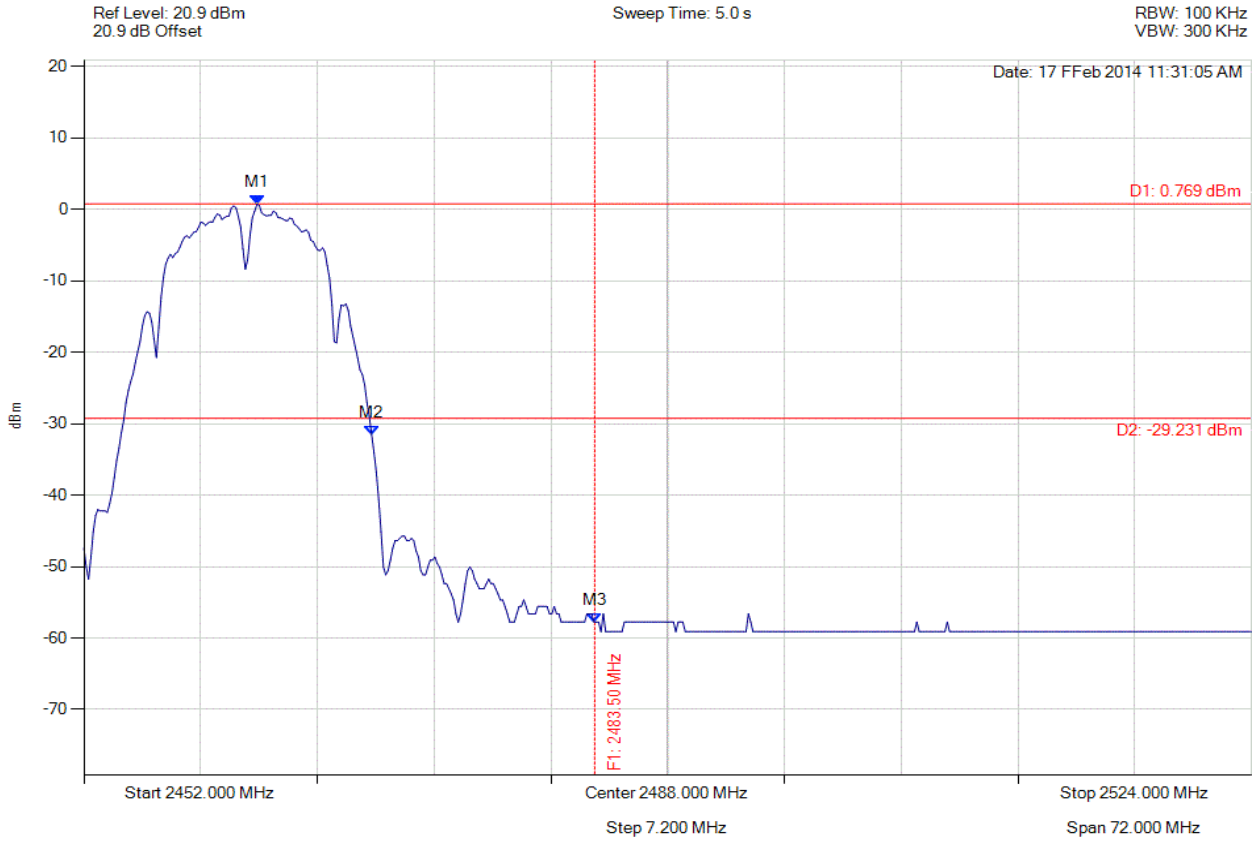
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

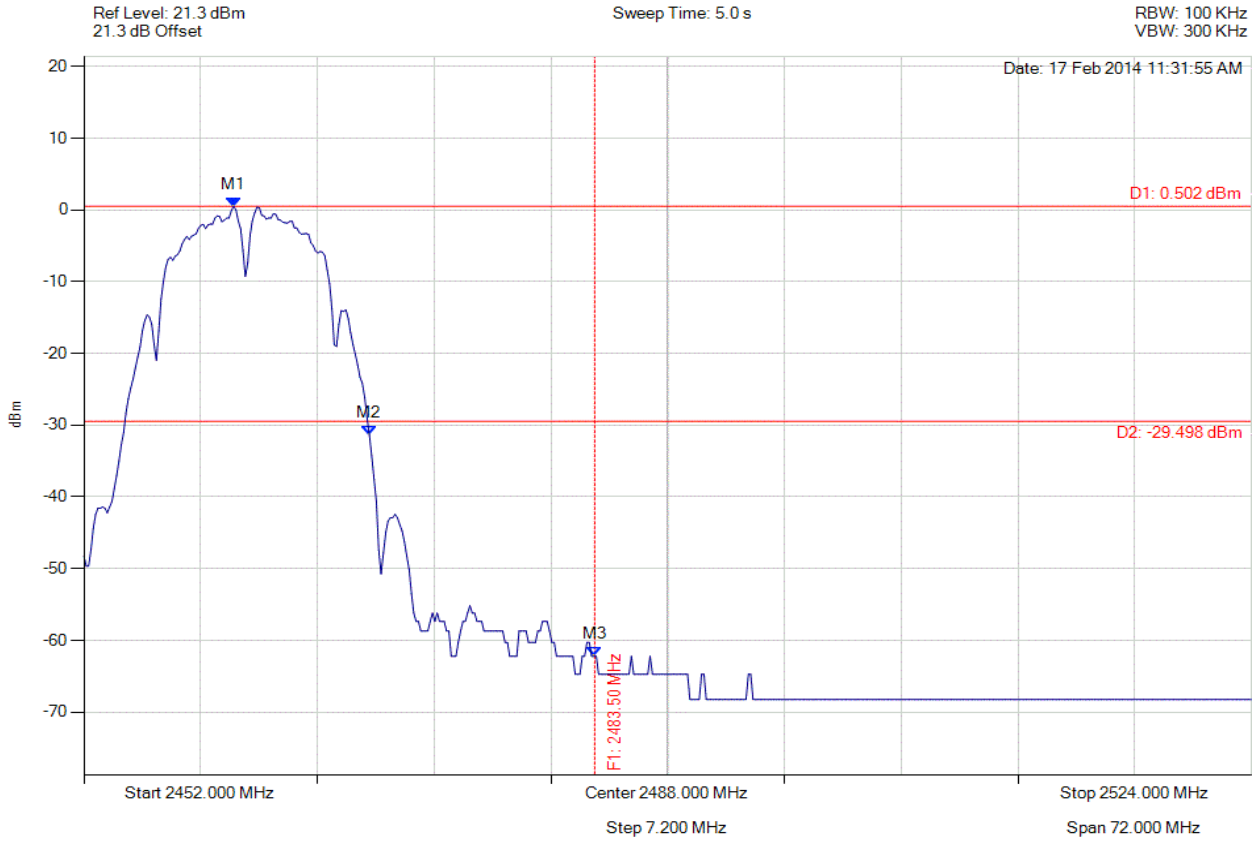


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2462.677 MHz : 0.769 dBm M2 : 2469.747 MHz : -31.559 dBm M3 : 2483.500 MHz : -57.763 dBm	Channel Frequency: 2462.00 MHz

Back to the Matrix

CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2461.234 MHz : 0.502 dBm M2 : 2469.603 MHz : -31.405 dBm M3 : 2483.500 MHz : -62.224 dBm	Channel Frequency: 2462.00 MHz

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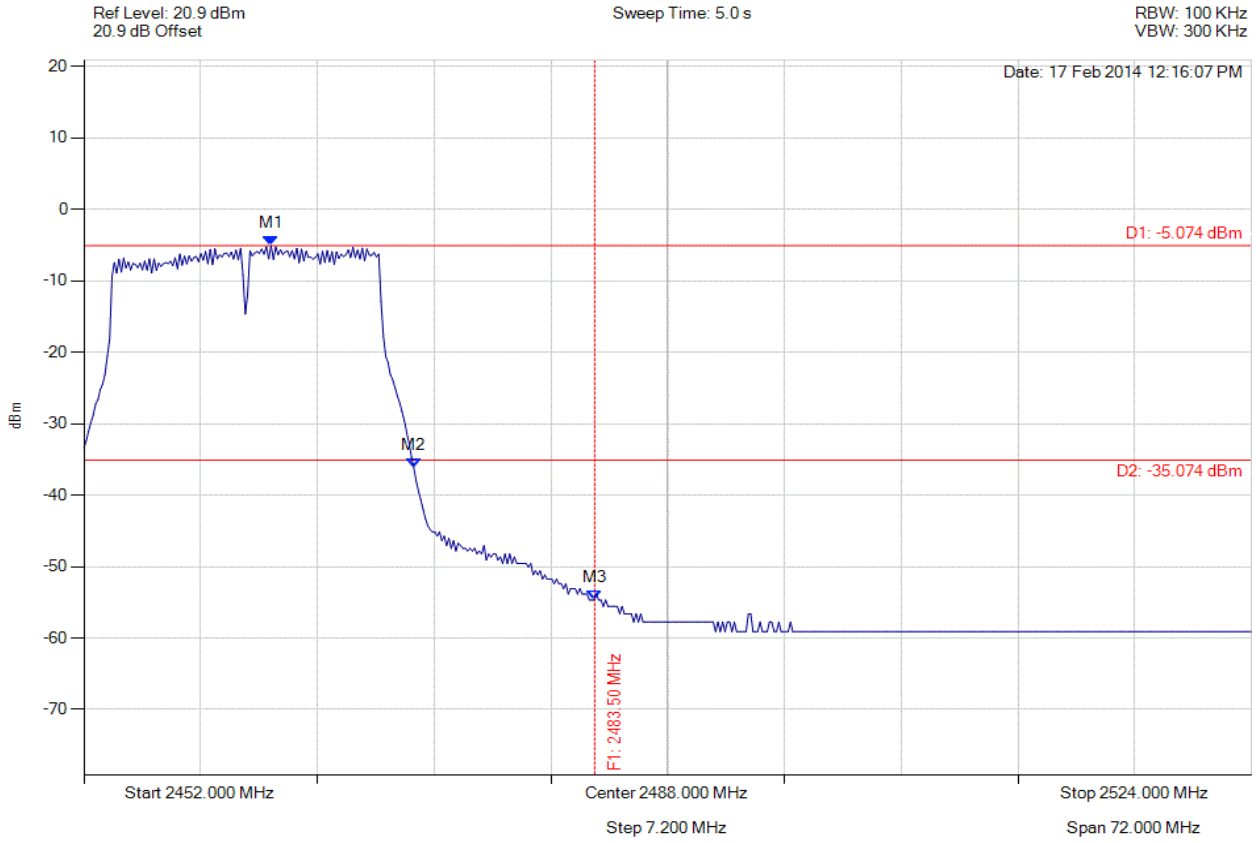
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2463.543 MHz : -5.074 dBm M2 : 2472.345 MHz : -36.077 dBm M3 : 2483.500 MHz : -54.665 dBm	Channel Frequency: 2462.00 MHz

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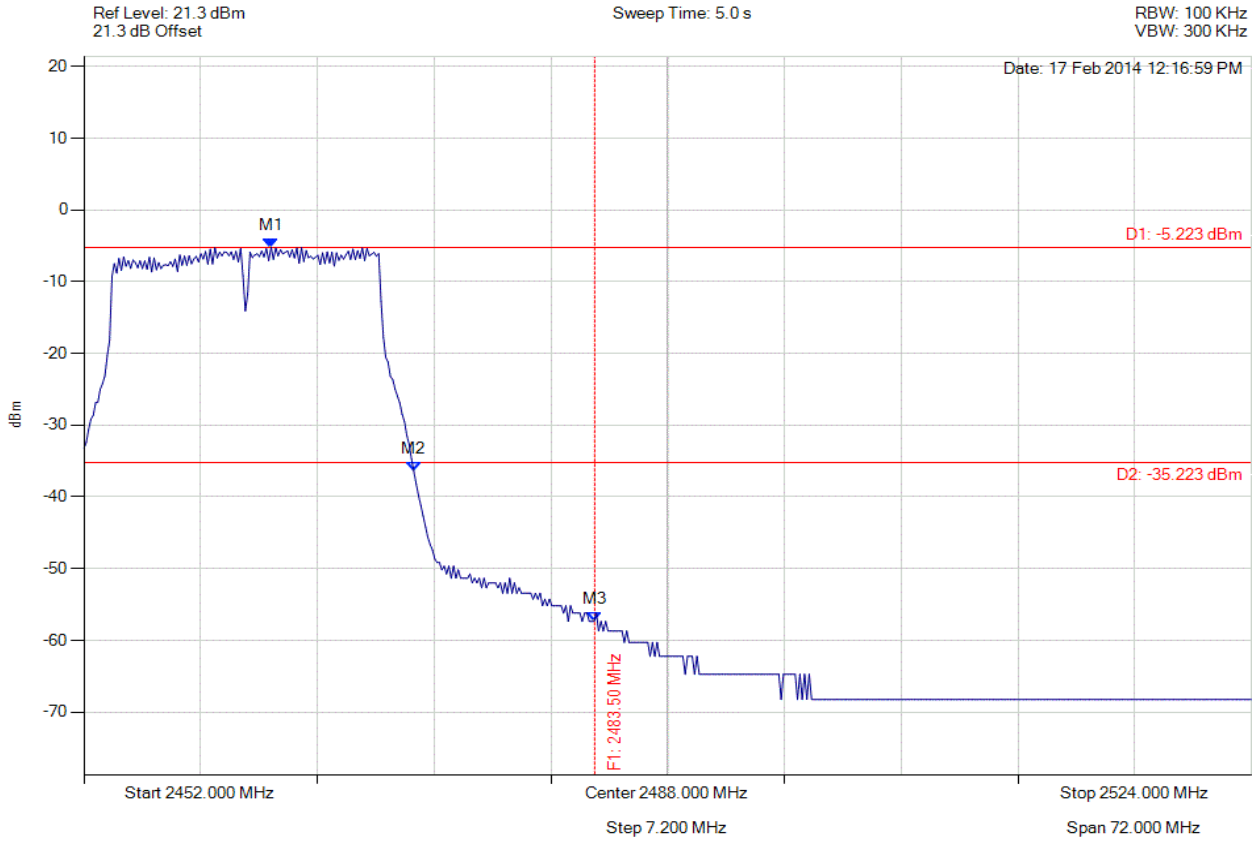
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2463.543 MHz : -5.223 dBm M2 : 2472.345 MHz : -36.423 dBm M3 : 2483.500 MHz : -57.363 dBm	Channel Frequency: 2462.00 MHz

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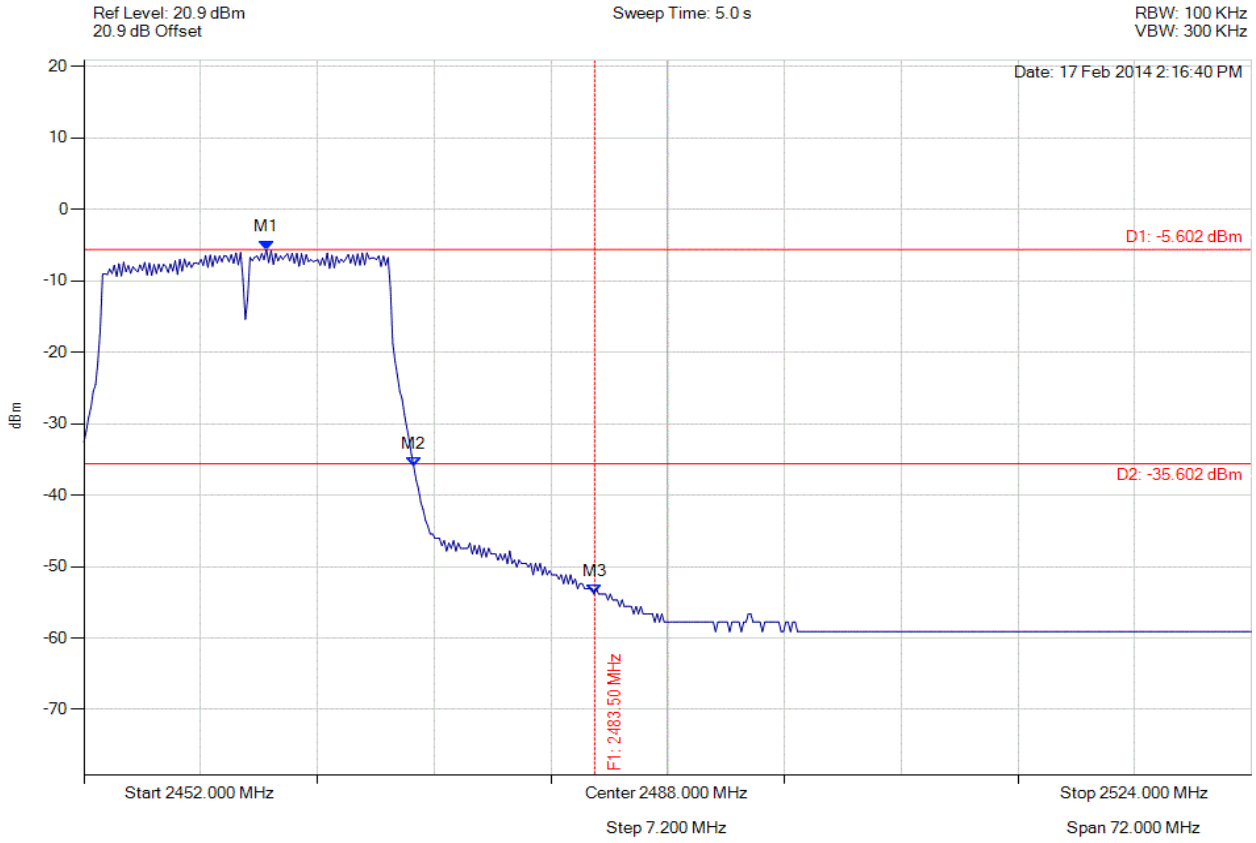
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2463.255 MHz : -5.602 dBm M2 : 2472.345 MHz : -35.975 dBm M3 : 2483.500 MHz : -53.837 dBm	Channel Frequency: 2462.00 MHz

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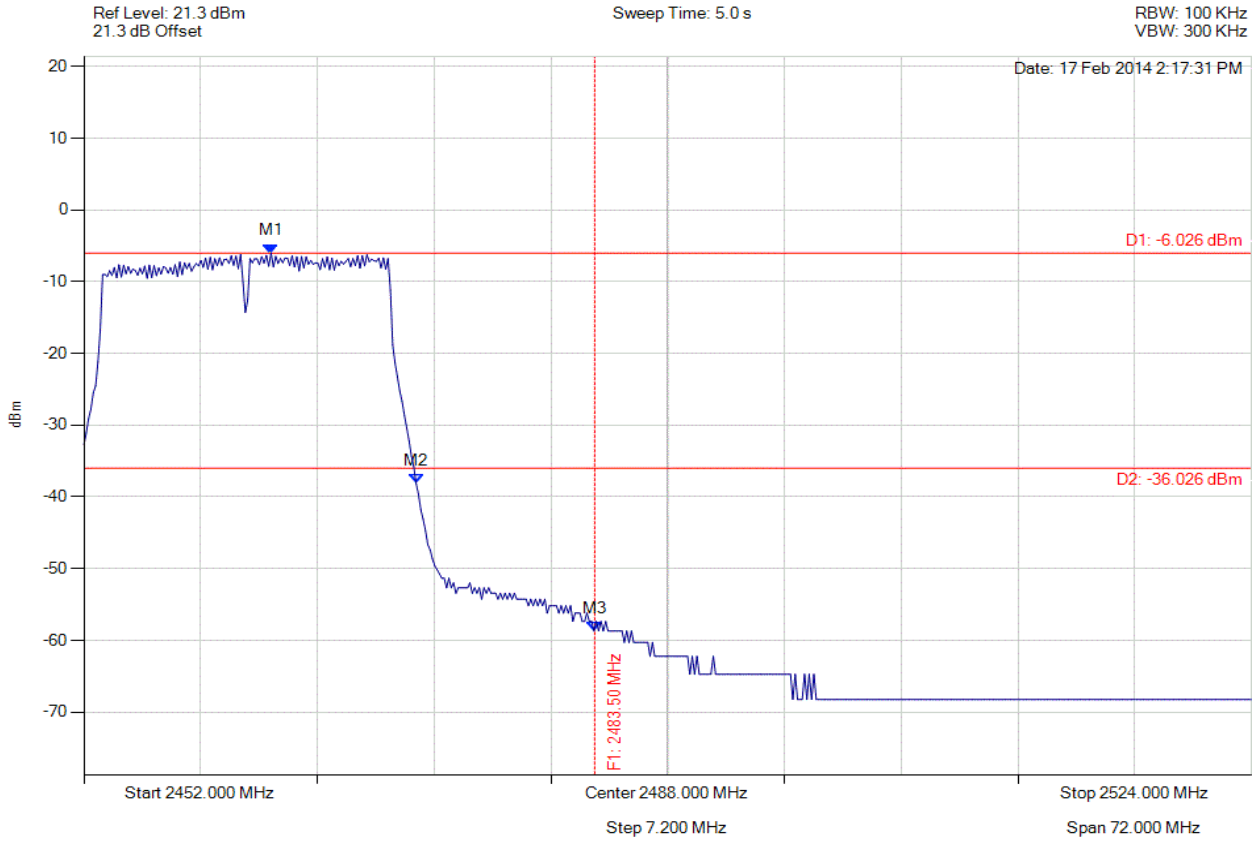
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2463.543 MHz : -6.026 dBm M2 : 2472.489 MHz : -38.142 dBm M3 : 2483.500 MHz : -58.702 dBm	Channel Frequency: 2462.00 MHz

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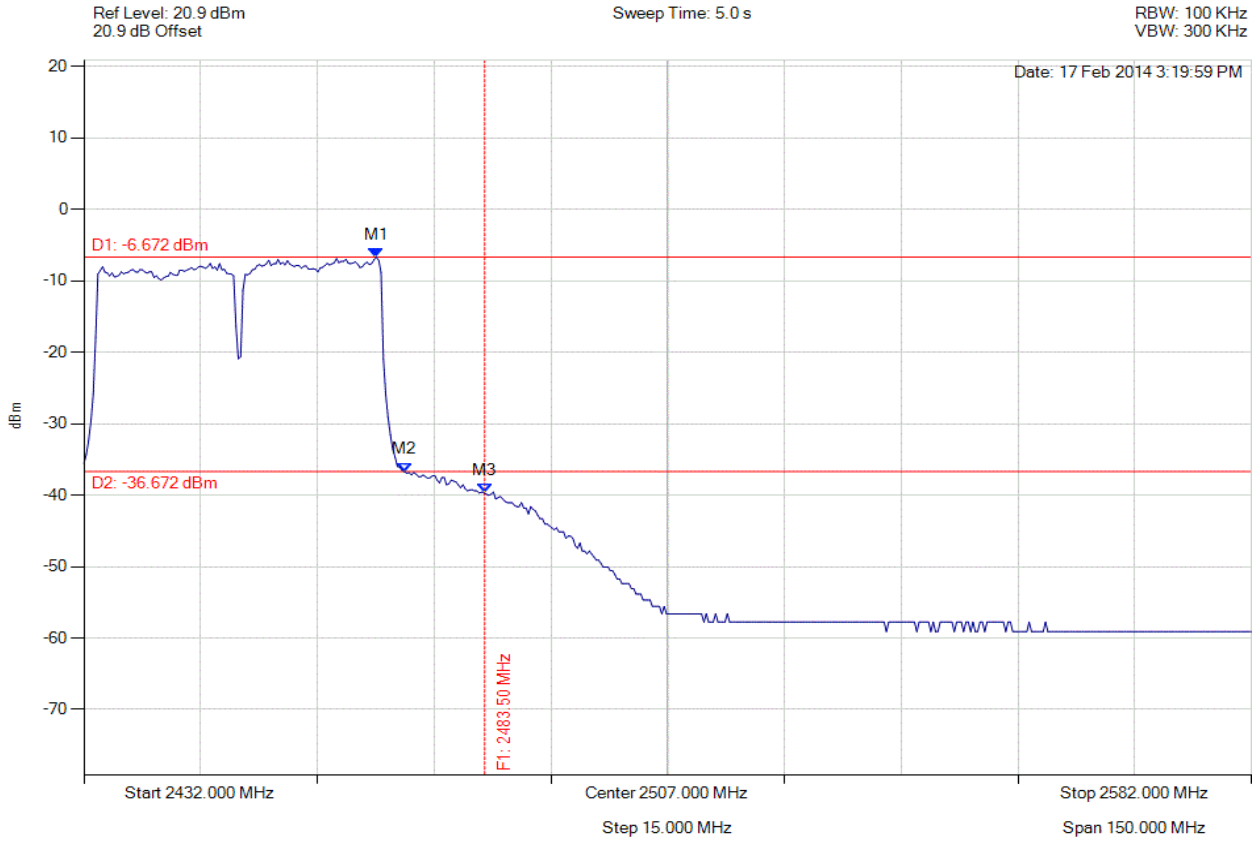
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2469.575 MHz : -6.672 dBm M2 : 2473.182 MHz : -36.713 dBm M3 : 2483.500 MHz : -39.702 dBm	Channel Frequency: 2452.00 MHz

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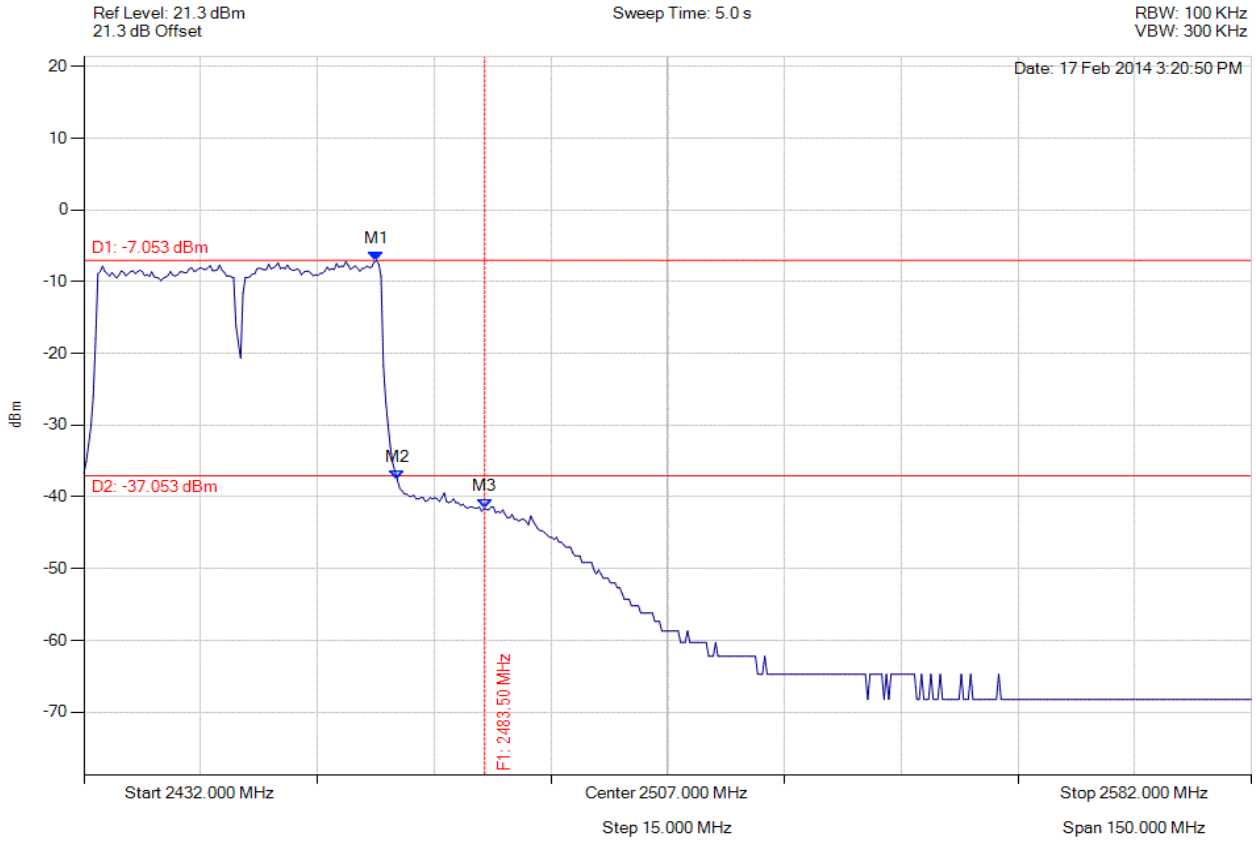
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2469.575 MHz : -7.053 dBm M2 : 2472.281 MHz : -37.615 dBm M3 : 2483.500 MHz : -41.596 dBm	Channel Frequency: 2452.00 MHz

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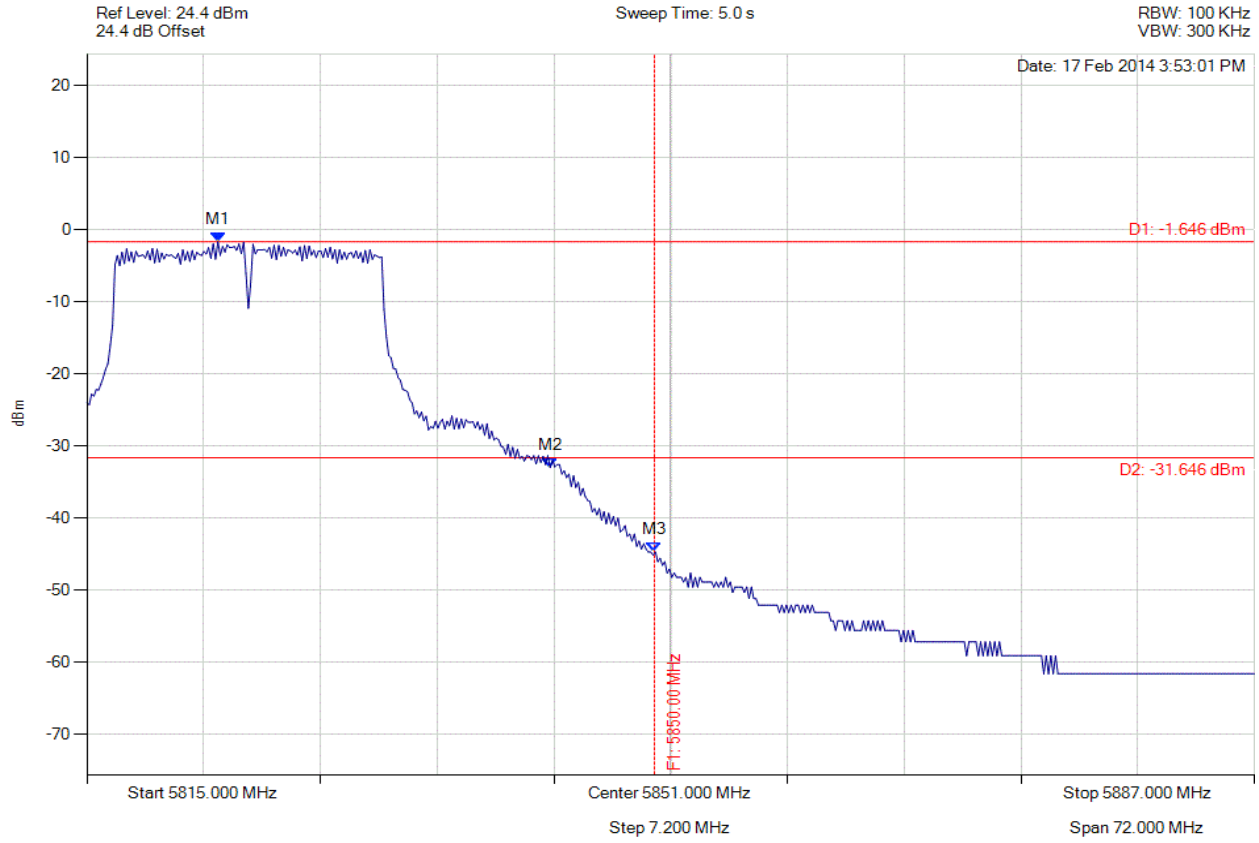
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11a, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5823.080 MHz : -1.646 dBm M2 : 5843.569 MHz : -32.996 dBm M3 : 5850.000 MHz : -44.721 dBm	Channel Frequency: 5825.00 MHz

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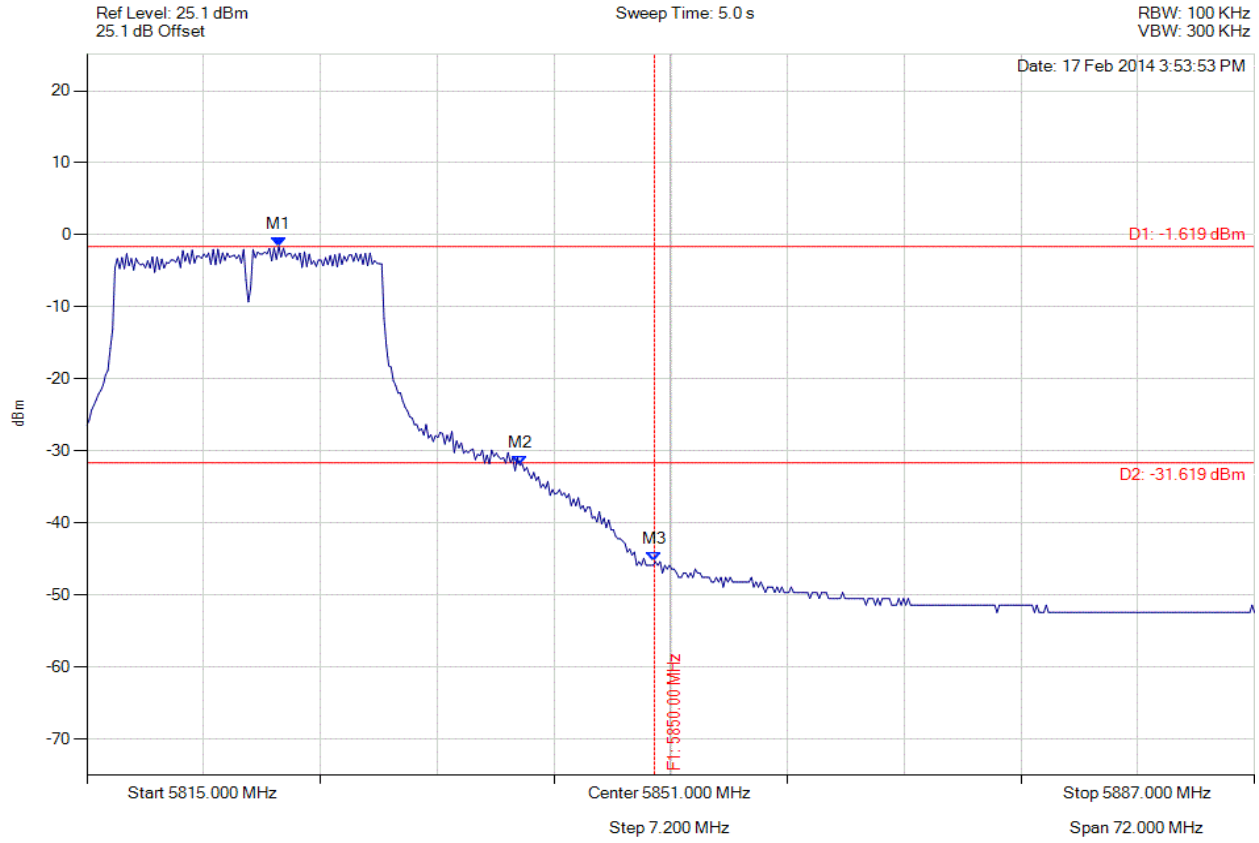
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11a, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5826.832 MHz : -1.619 dBm M2 : 5841.693 MHz : -31.980 dBm M3 : 5850.000 MHz : -45.360 dBm	Channel Frequency: 5825.00 MHz

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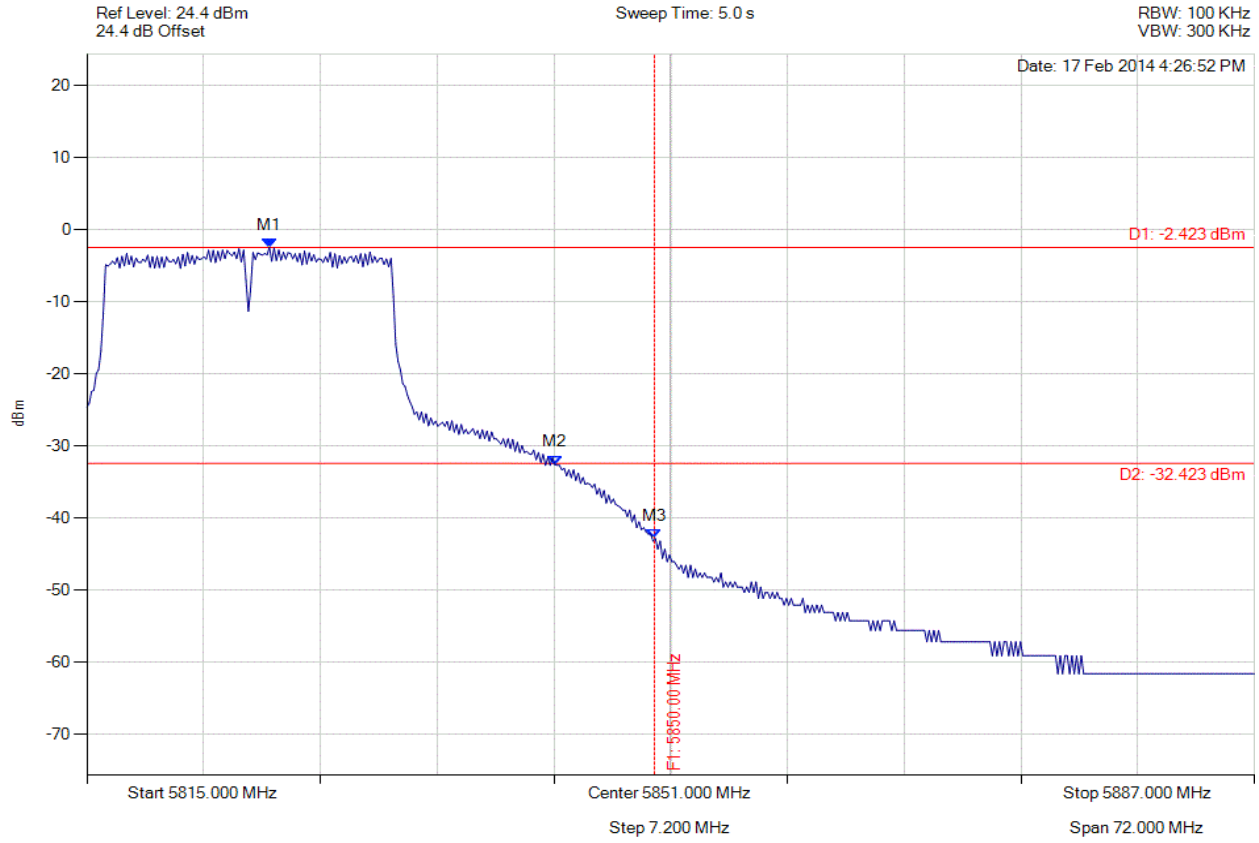
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5826.255 MHz : -2.423 dBm M2 : 5843.858 MHz : -32.577 dBm M3 : 5850.000 MHz : -42.866 dBm	Channel Frequency: 5825.00 MHz

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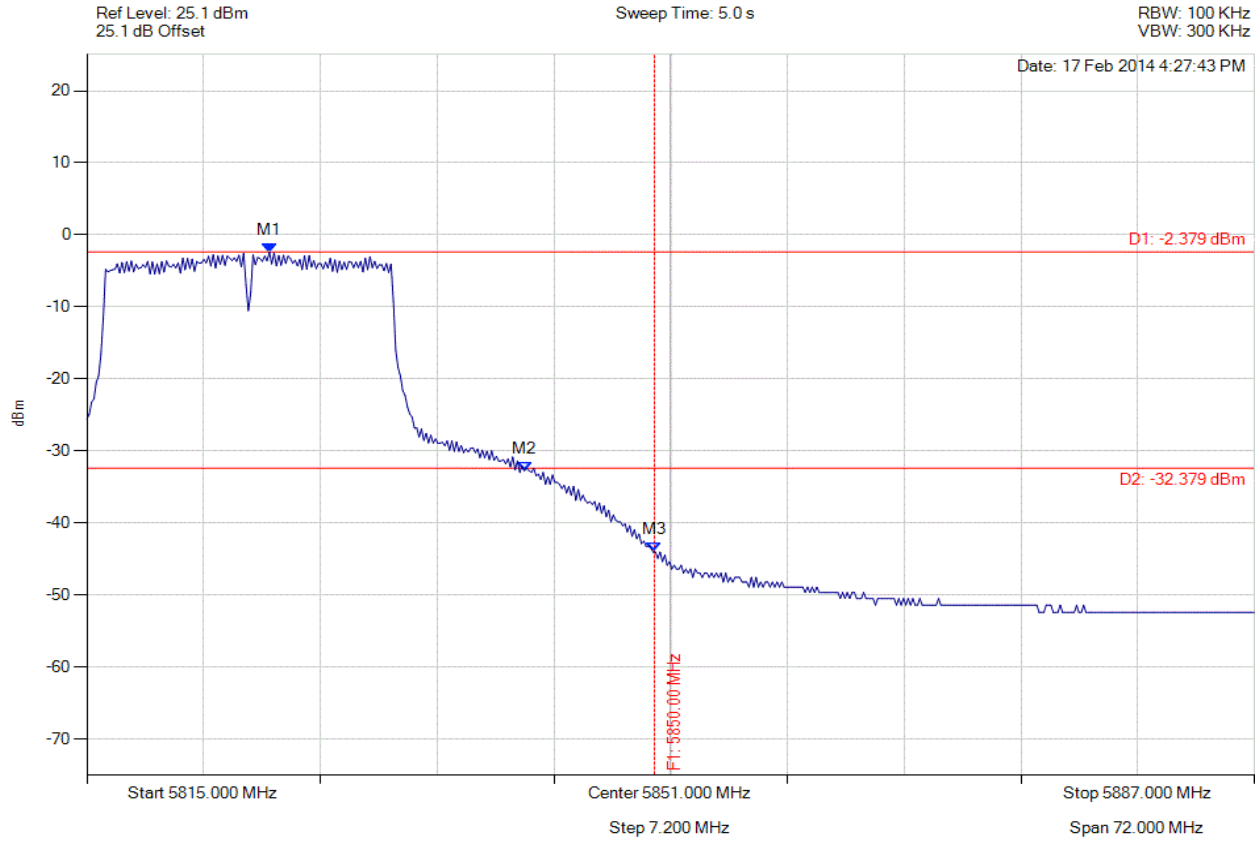
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5826.255 MHz : -2.379 dBm M2 : 5841.982 MHz : -32.736 dBm M3 : 5850.000 MHz : -44.021 dBm	Channel Frequency: 5825.00 MHz

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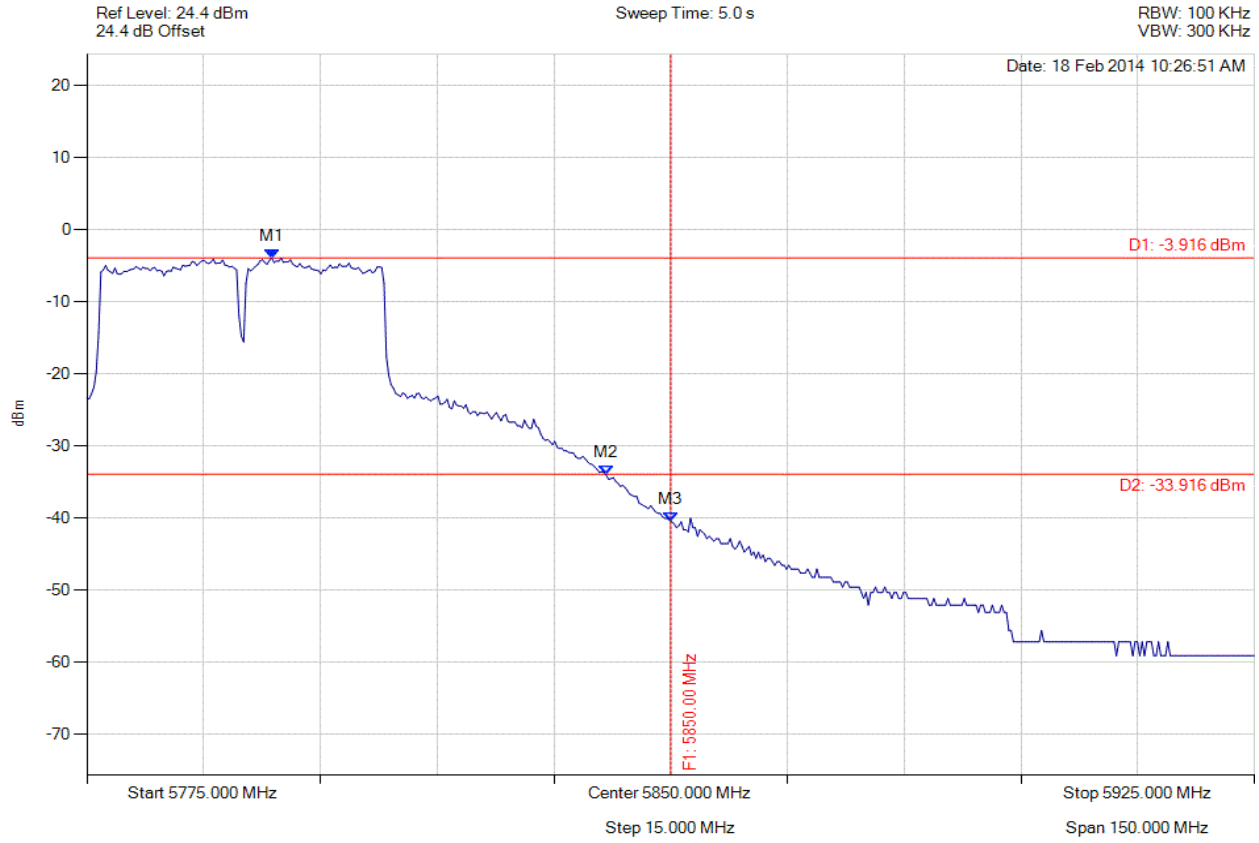
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5798.747 MHz : -3.916 dBm M2 : 5841.733 MHz : -34.019 dBm M3 : 5850.000 MHz : -40.536 dBm	Channel Frequency: 5795.00 MHz

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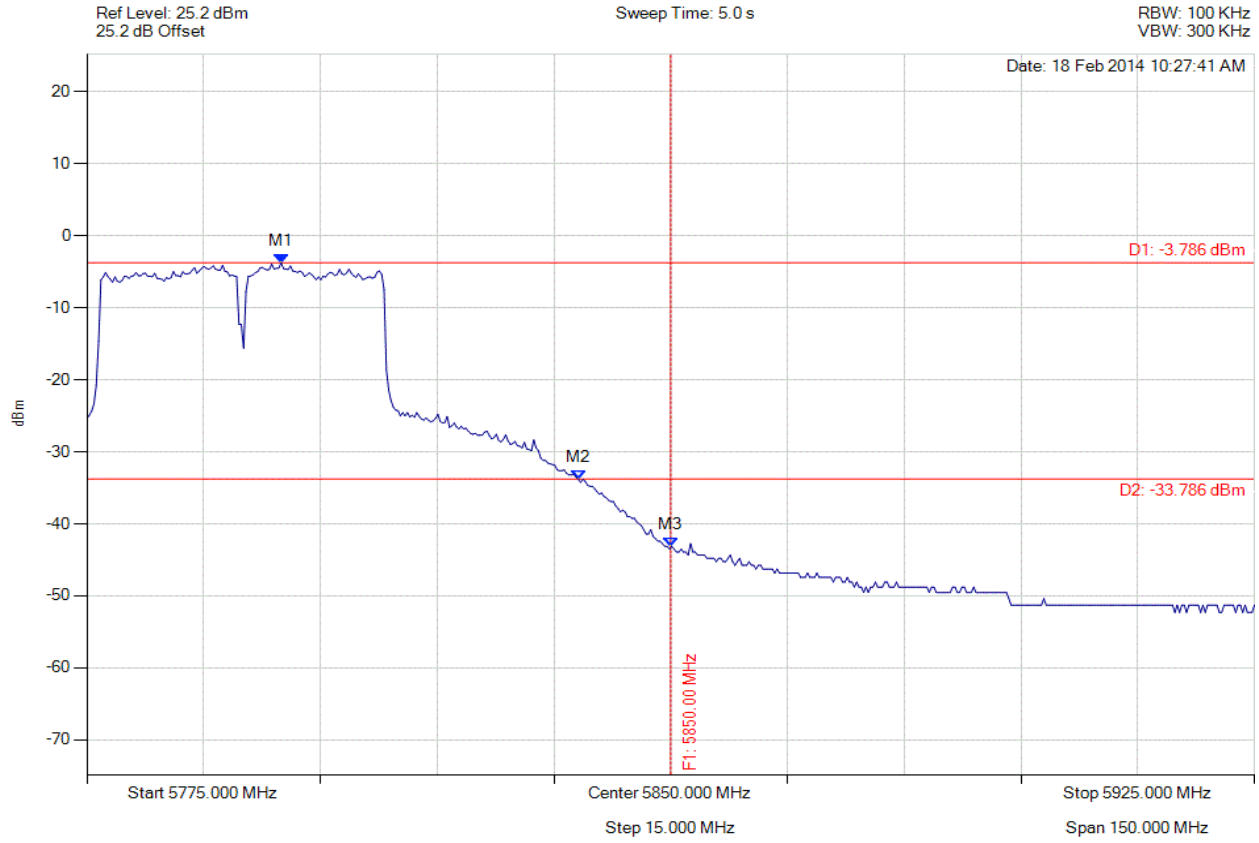
CONDUCTED HIGH BAND-EDGE EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5799.950 MHz : -3.786 dBm M2 : 5838.126 MHz : -33.844 dBm M3 : 5850.000 MHz : -43.131 dBm	Channel Frequency: 5795.00 MHz

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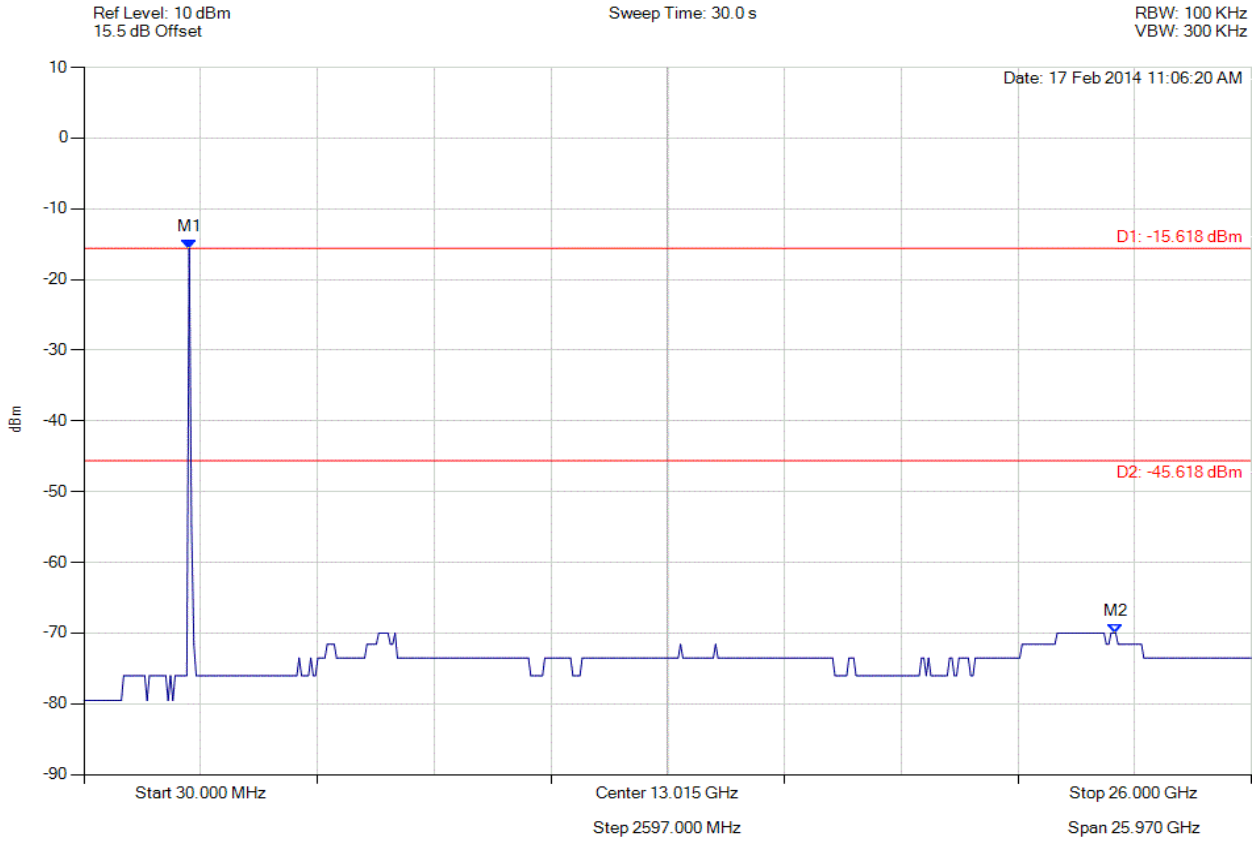
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2371.984 MHz : -15.618 dBm M2 : 22.981 GHz : -70.002 dBm	Limit: -45.62 dBm Margin: -24.38 dB

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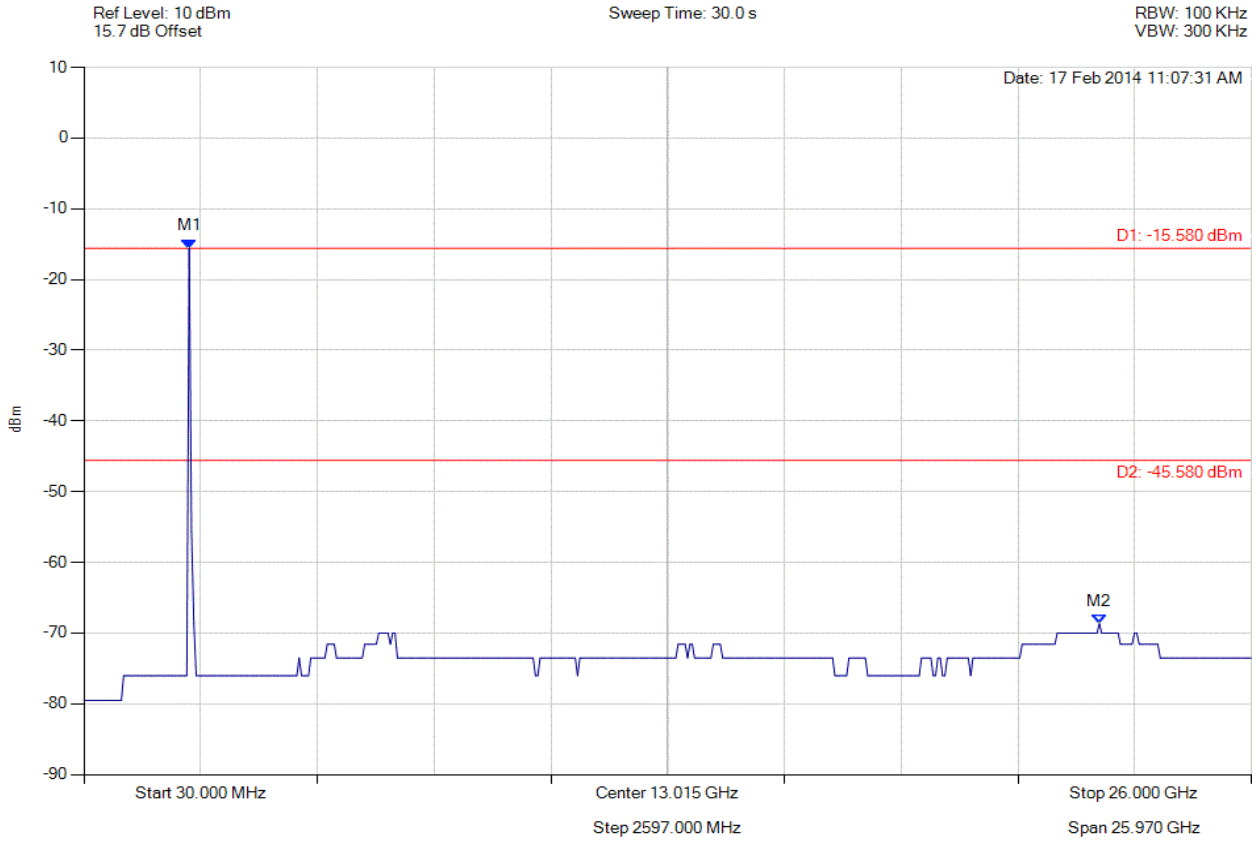
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2371.984 MHz : -15.580 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -45.58 dBm Margin: -23.08 dB

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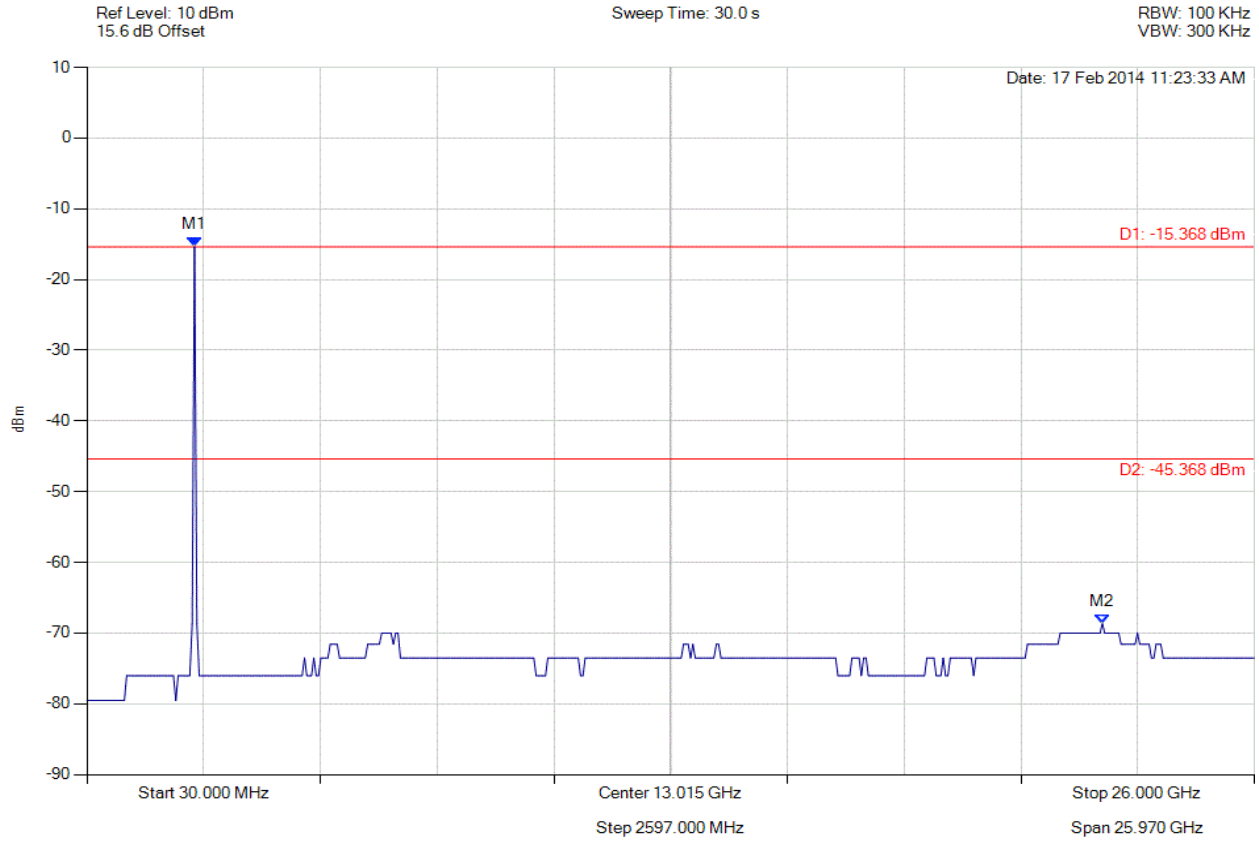
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -15.368 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -45.37 dBm Margin: -23.29 dB

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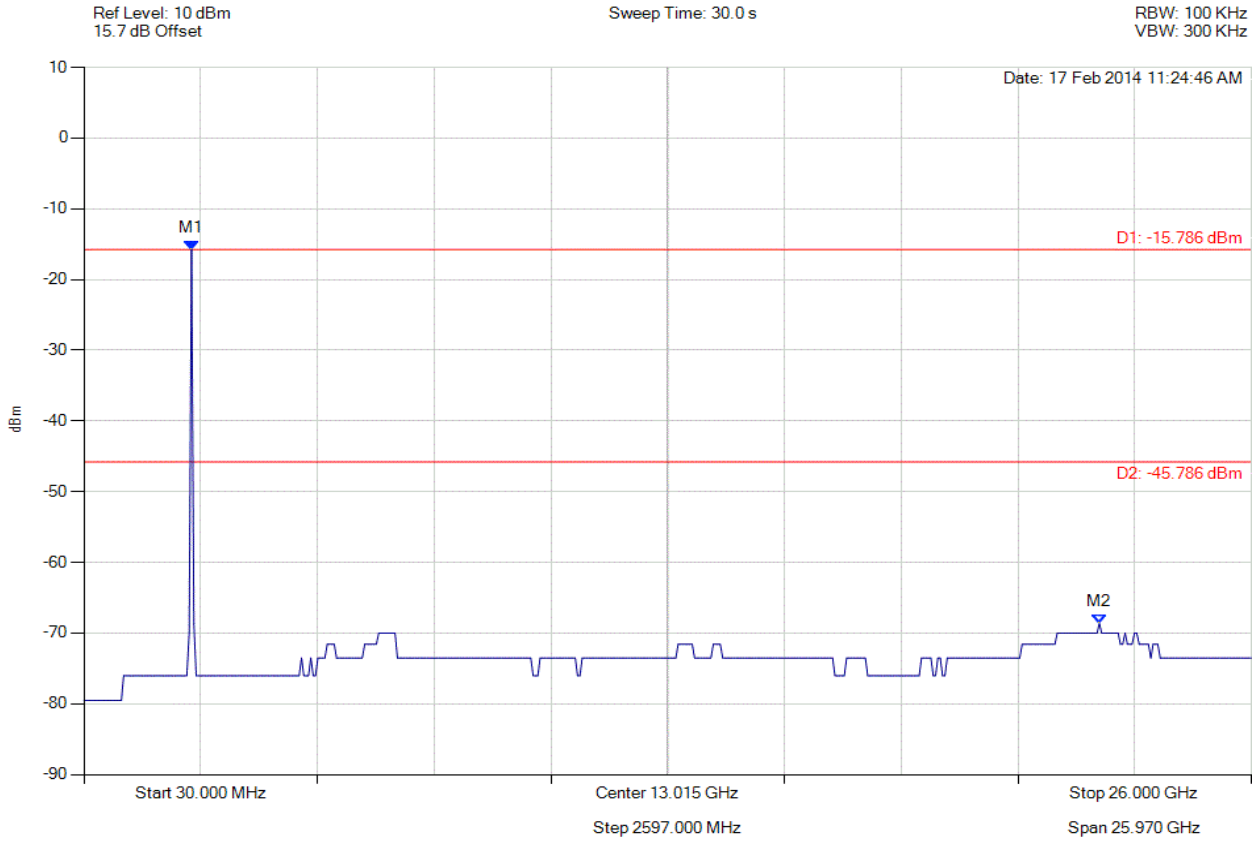
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -15.786 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -45.79 dBm Margin: -22.87 dB

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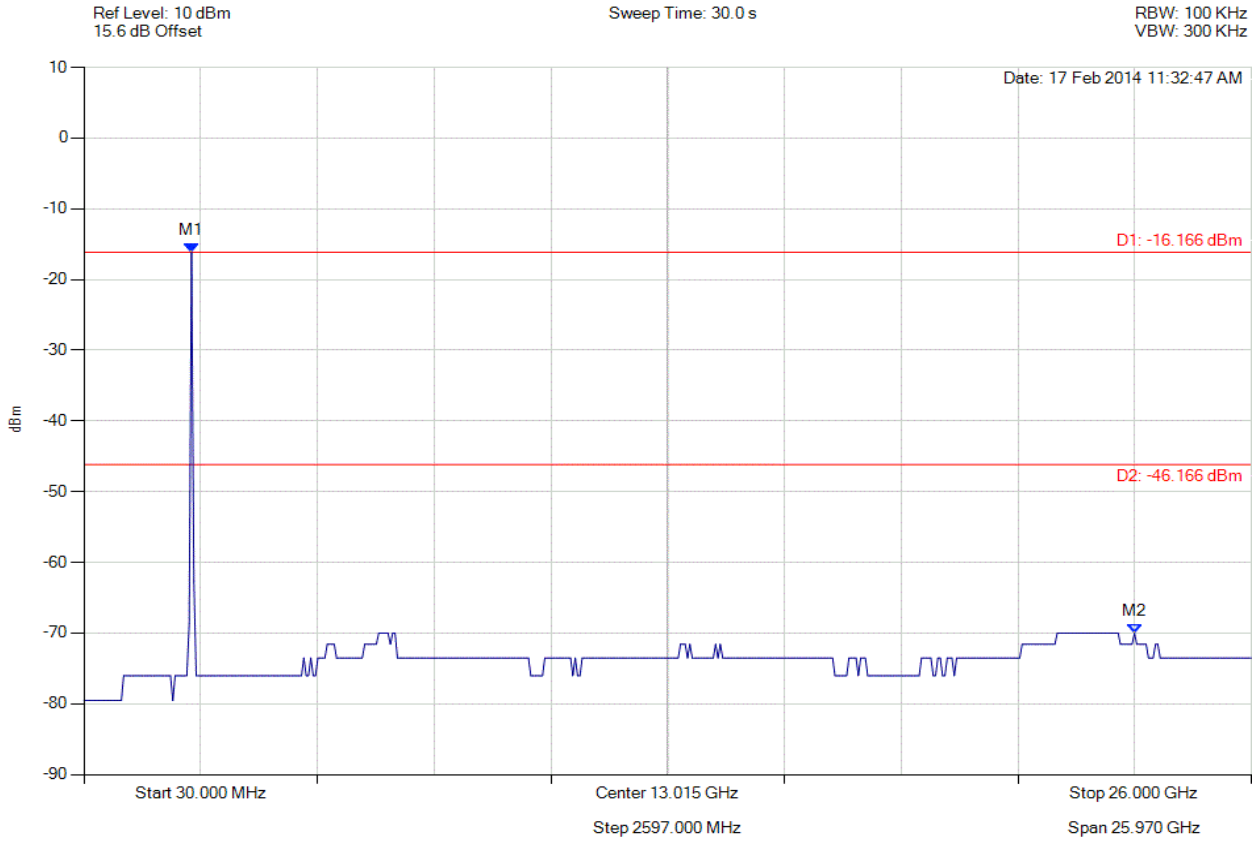
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -16.166 dBm M2 : 23.398 GHz : -70.002 dBm	Limit: -46.17 dBm Margin: -23.83 dB

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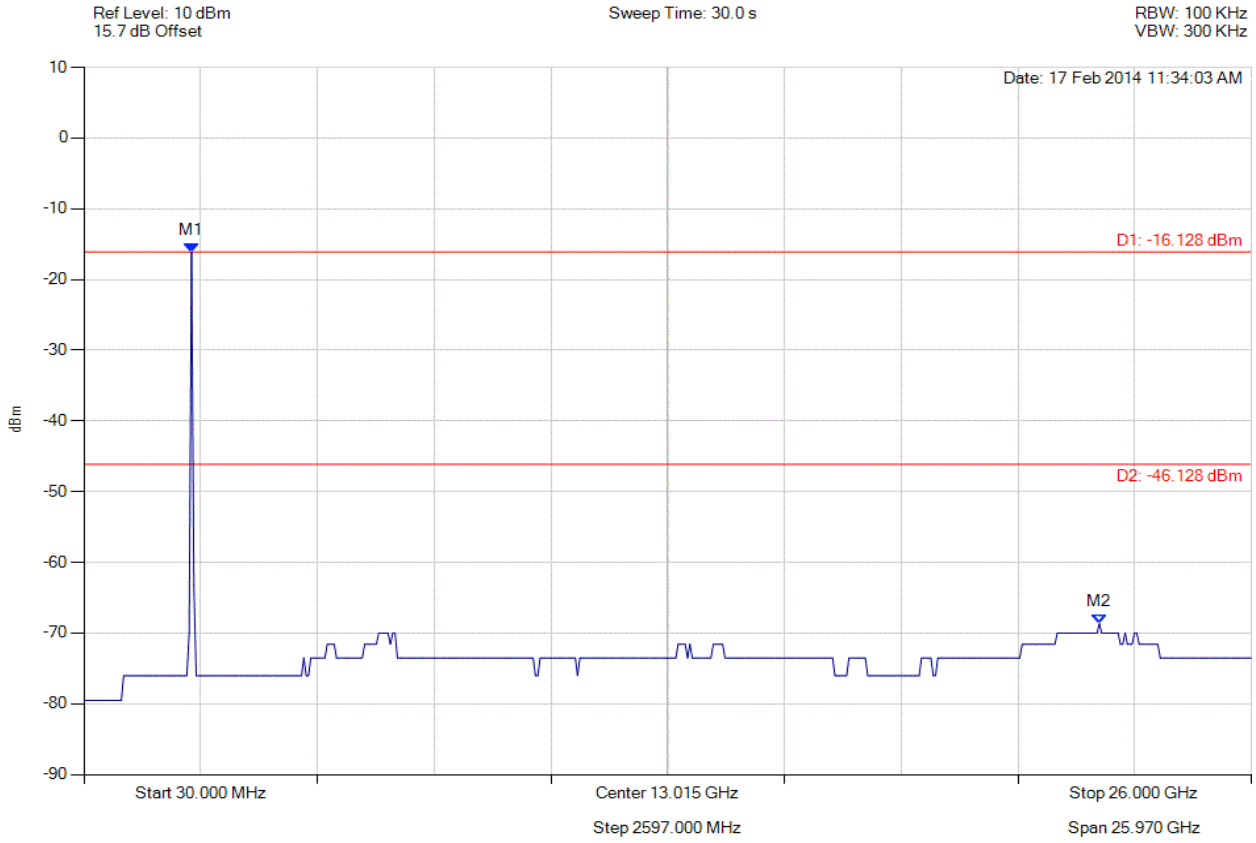
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -16.128 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -46.13 dBm Margin: -22.53 dB

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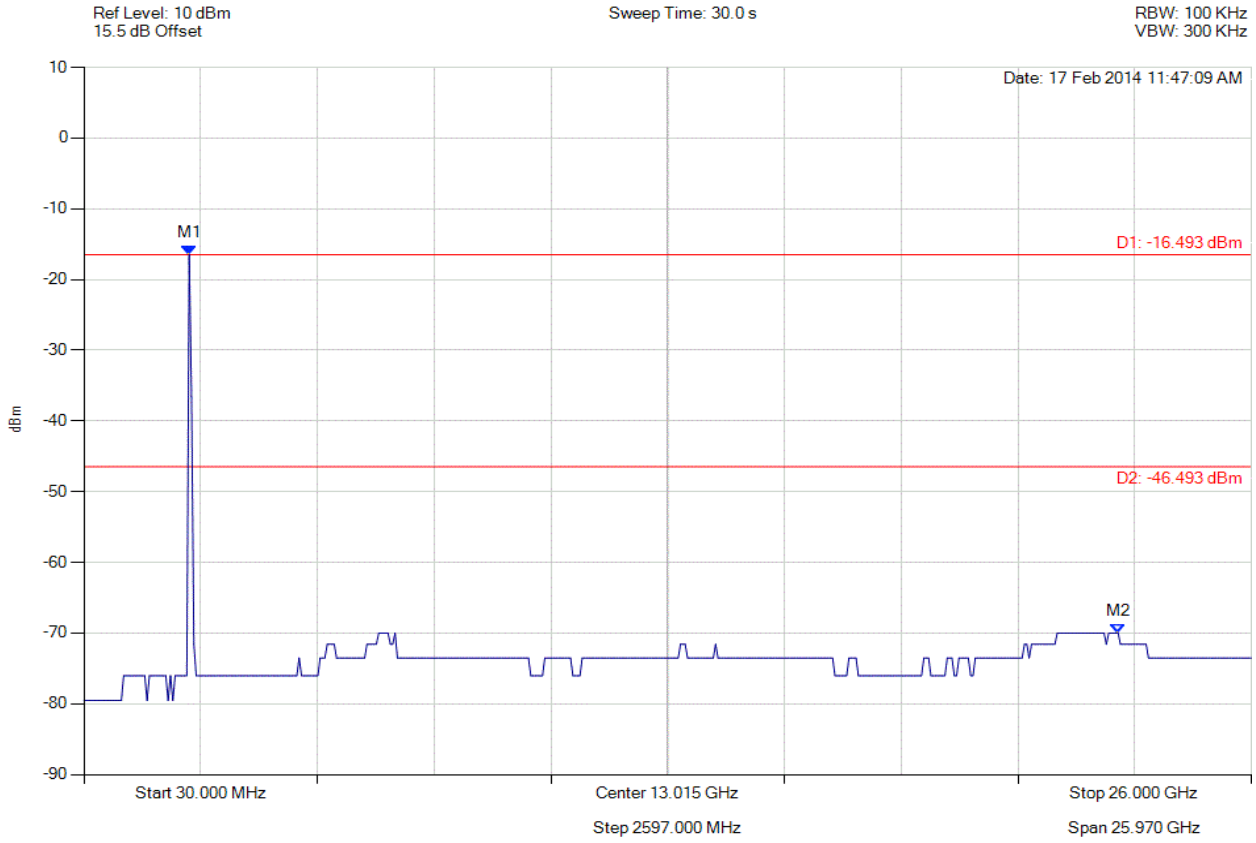
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2371.984 MHz : -16.493 dBm M2 : 23.033 GHz : -70.002 dBm	Limit: -46.49 dBm Margin: -23.51 dB

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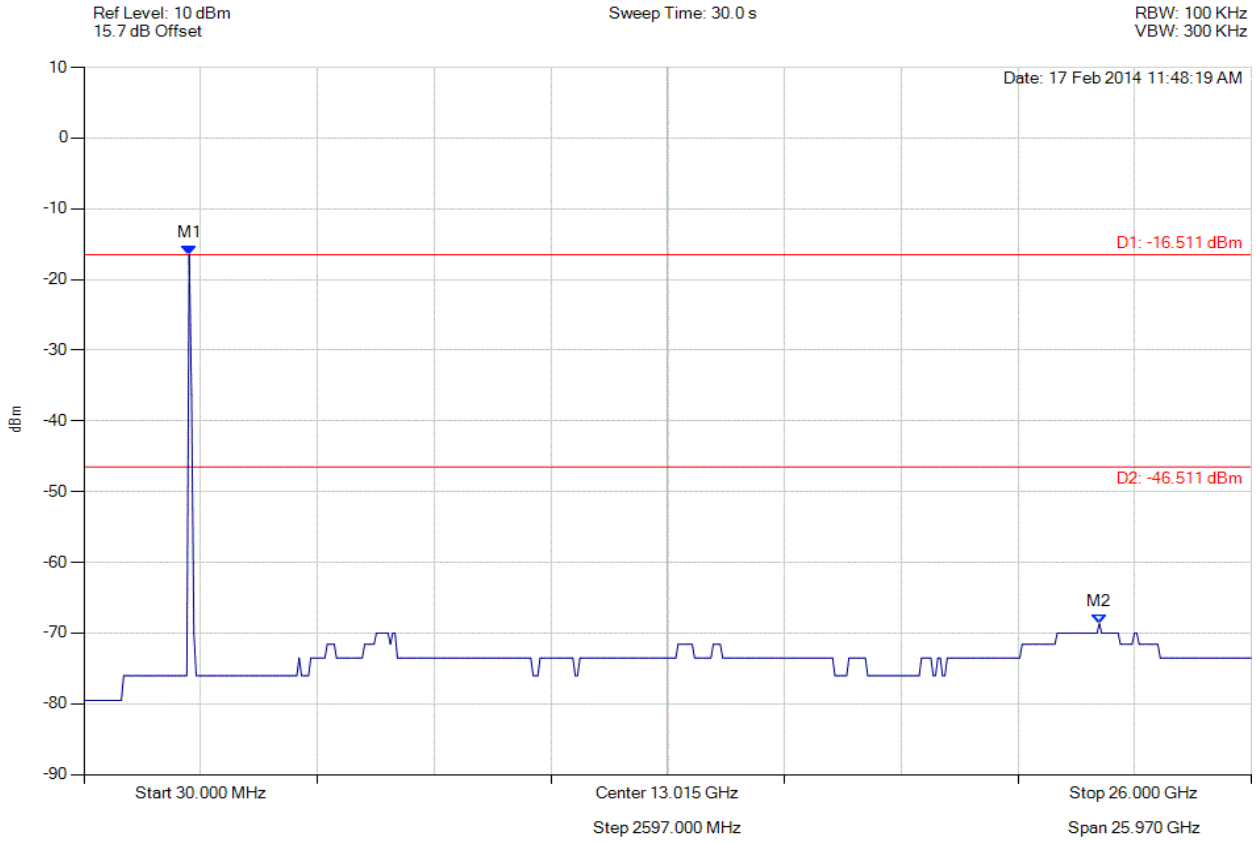
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2371.984 MHz : -16.511 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -46.51 dBm Margin: -22.15 dB

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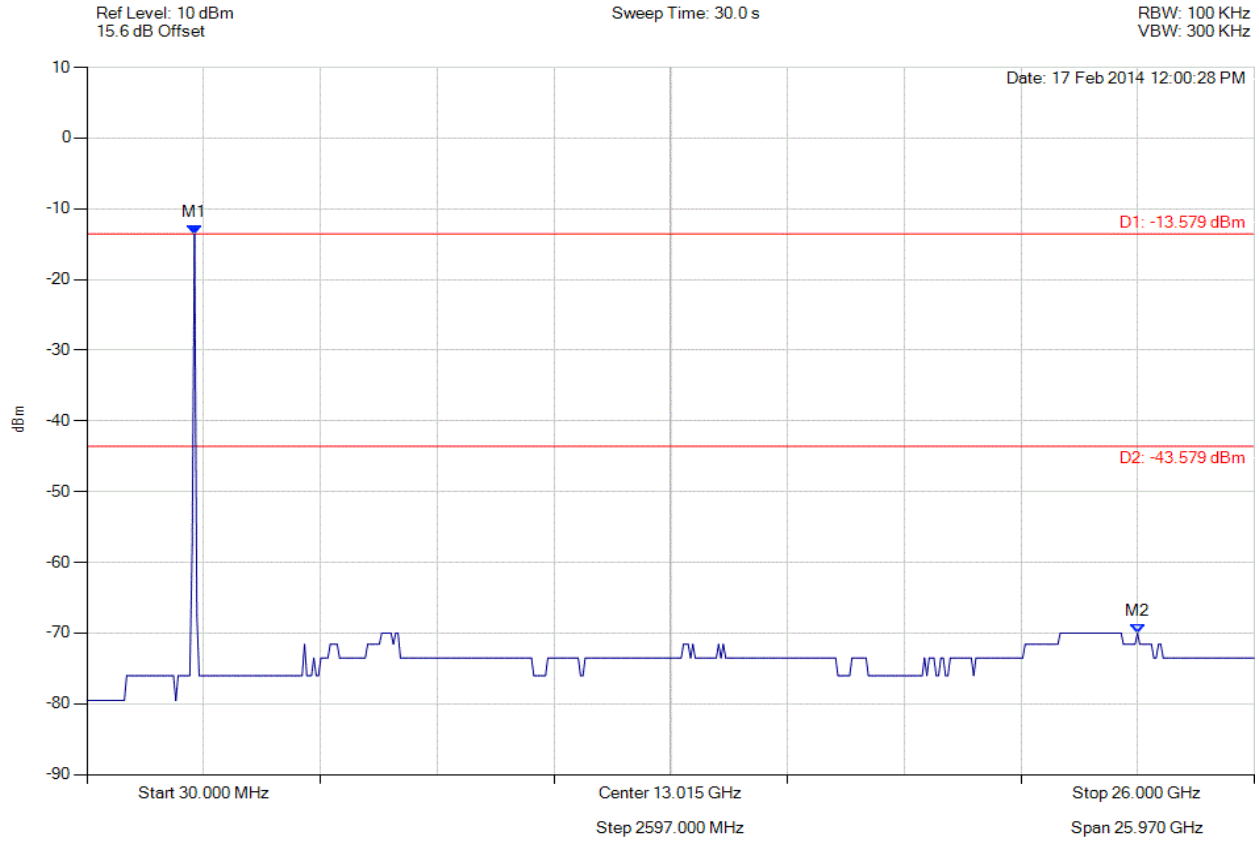
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -13.579 dBm M2 : 23.398 GHz : -70.002 dBm	Limit: -43.58 dBm Margin: -26.42 dB

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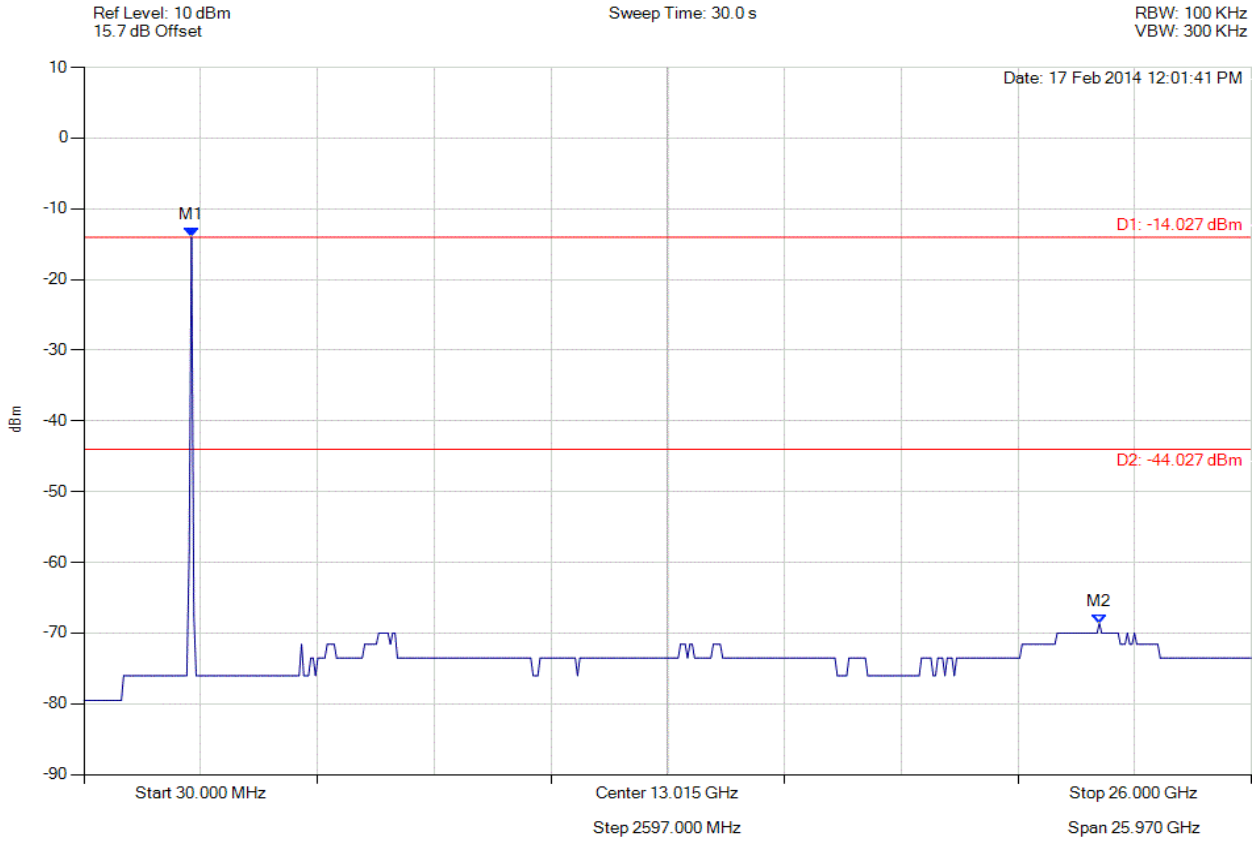
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -14.027 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -44.03 dBm Margin: -24.63 dB

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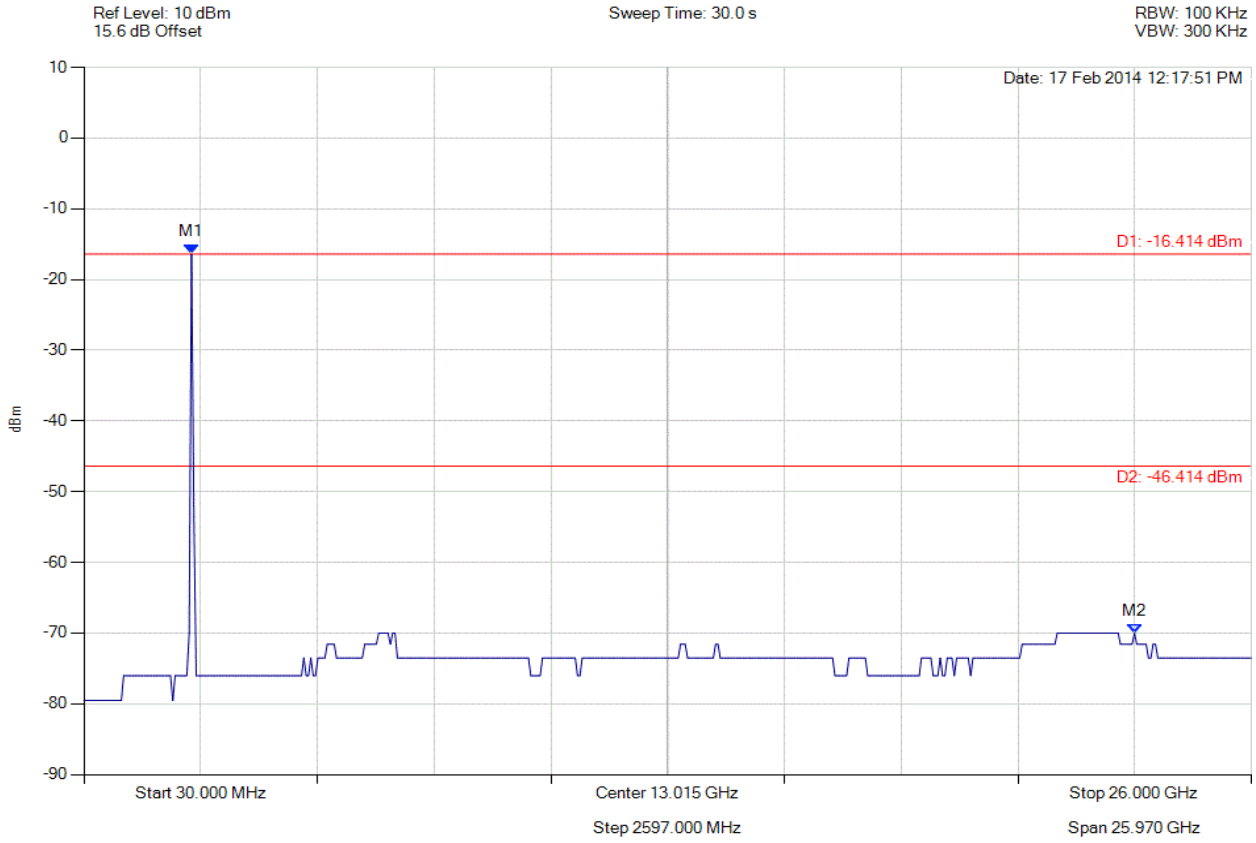
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -16.414 dBm M2 : 23.398 GHz : -70.002 dBm	Limit: -46.41 dBm Margin: -23.59 dB

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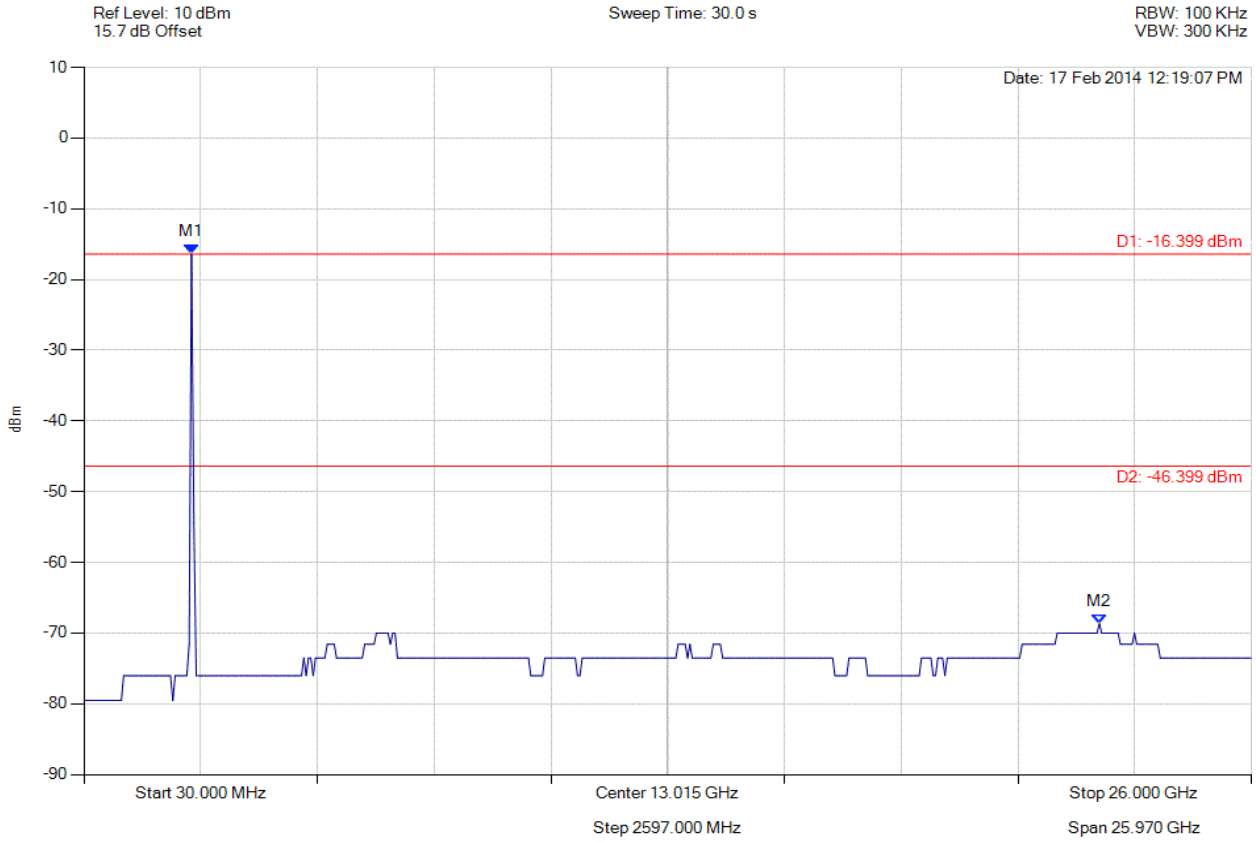
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

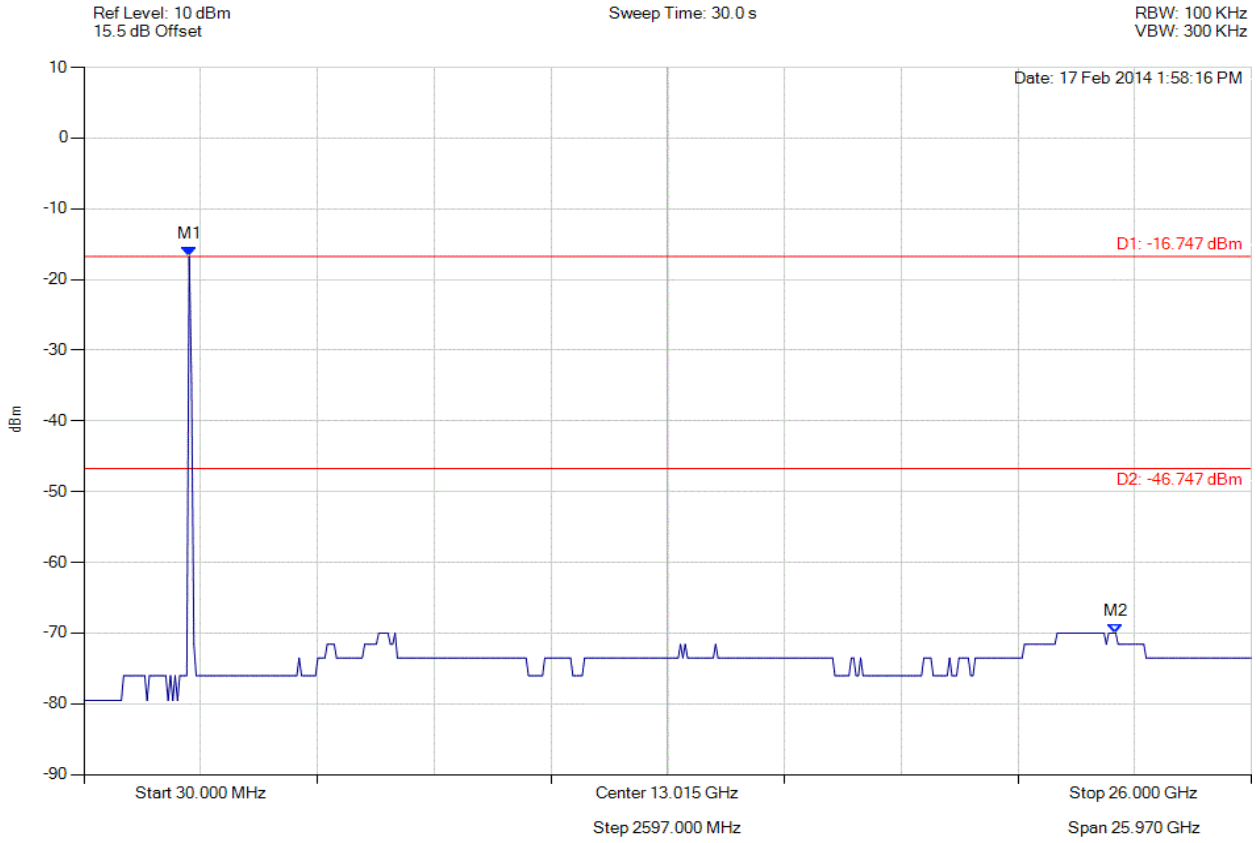


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -16.399 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -46.40 dBm Margin: -22.26 dB

Back to the Matrix

CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2371.984 MHz : -16.747 dBm M2 : 22.981 GHz : -70.002 dBm	Limit: -46.75 dBm Margin: -23.25 dB

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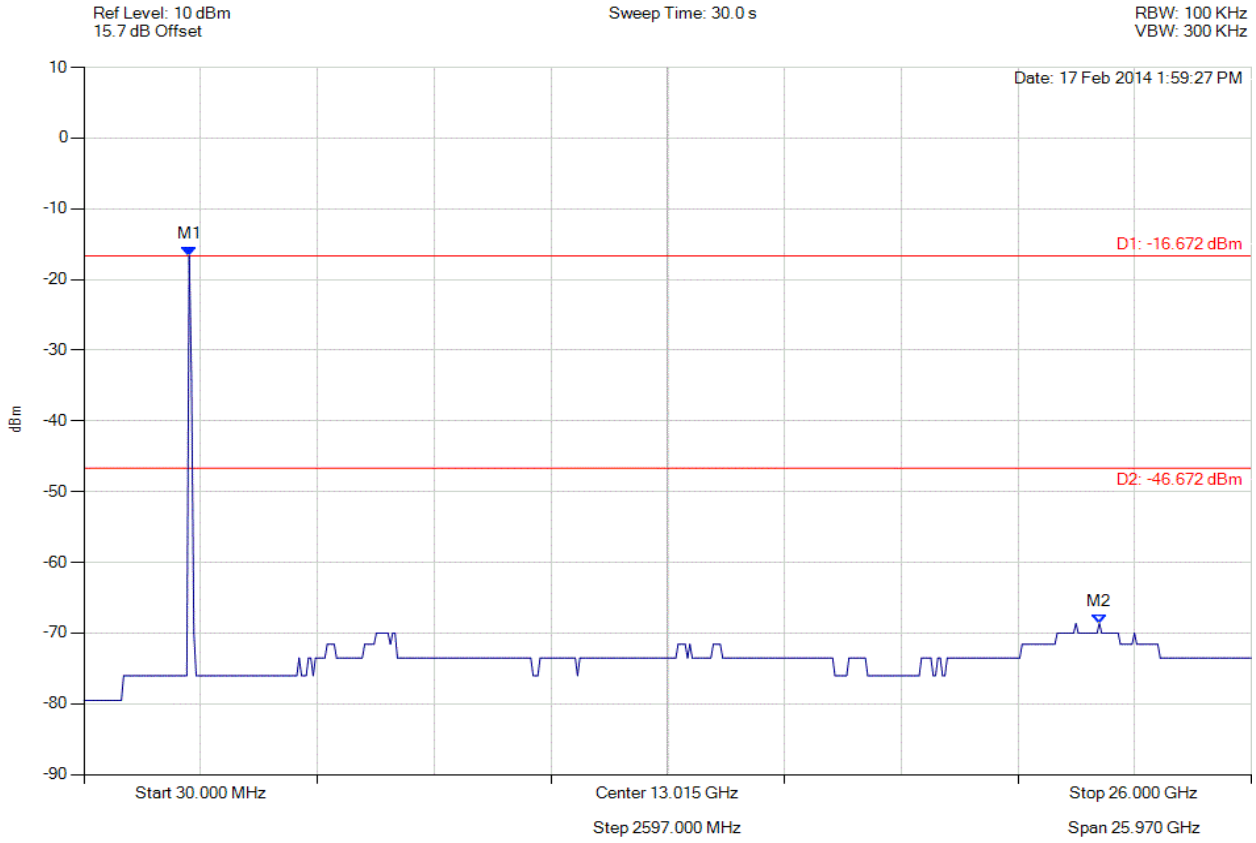
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2371.984 MHz : -16.672 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -46.67 dBm Margin: -21.99 dB

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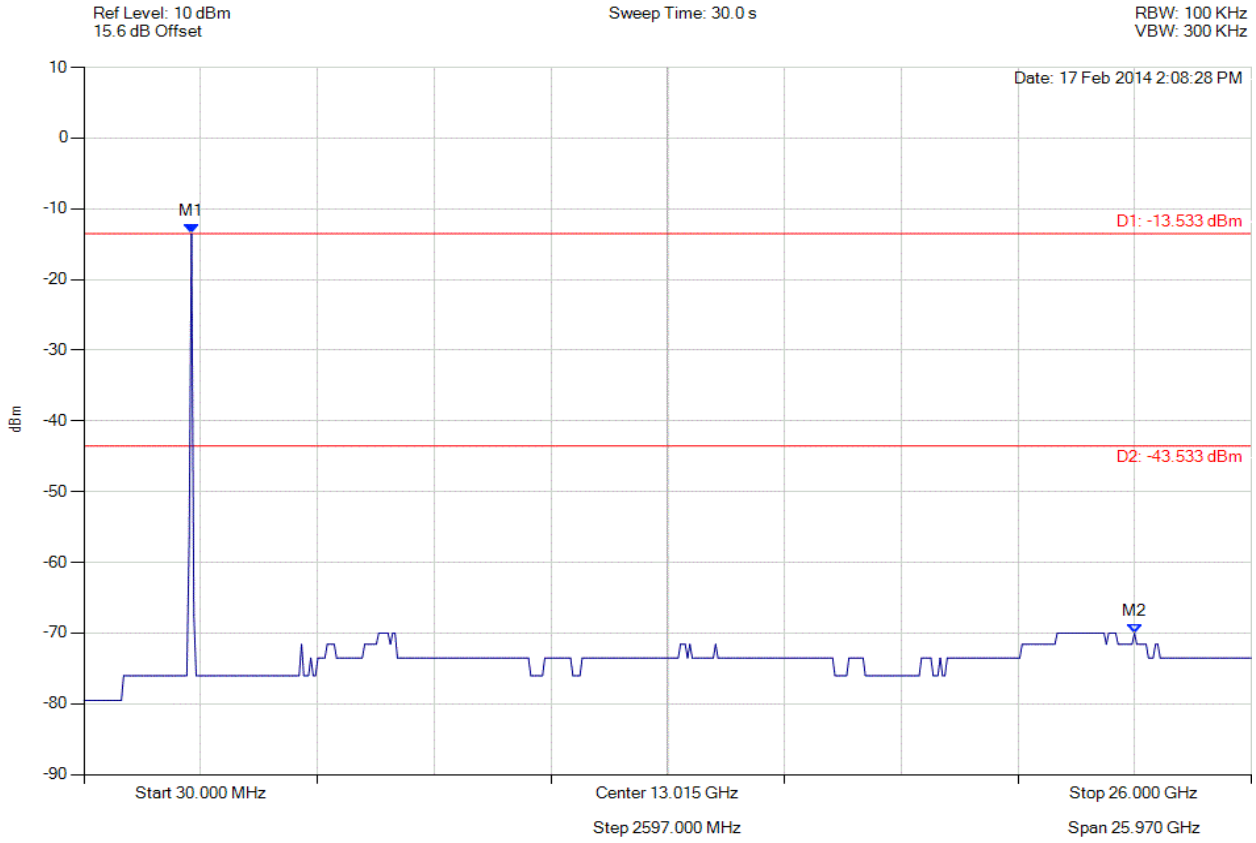
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

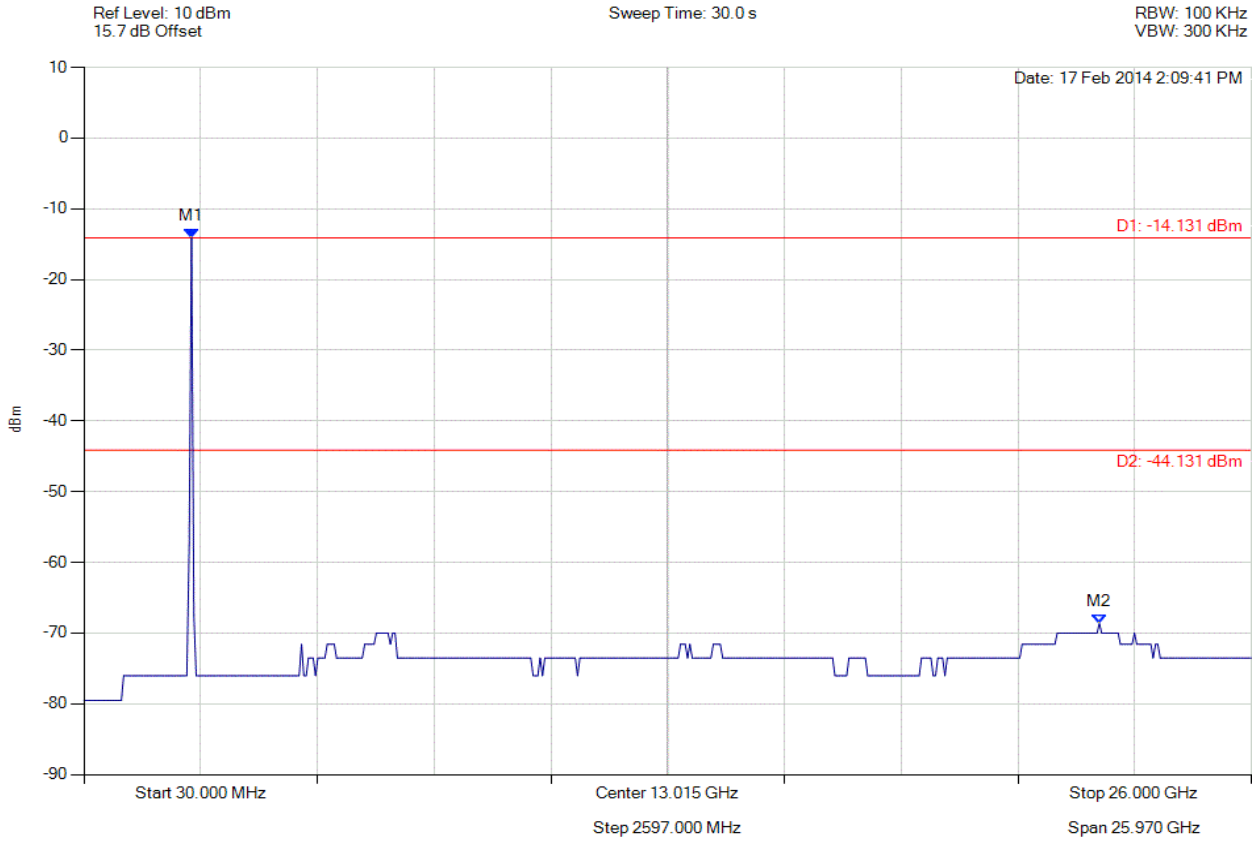


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -13.533 dBm M2 : 23.398 GHz : -70.002 dBm	Limit: -43.53 dBm Margin: -26.47 dB

Back to the Matrix

CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

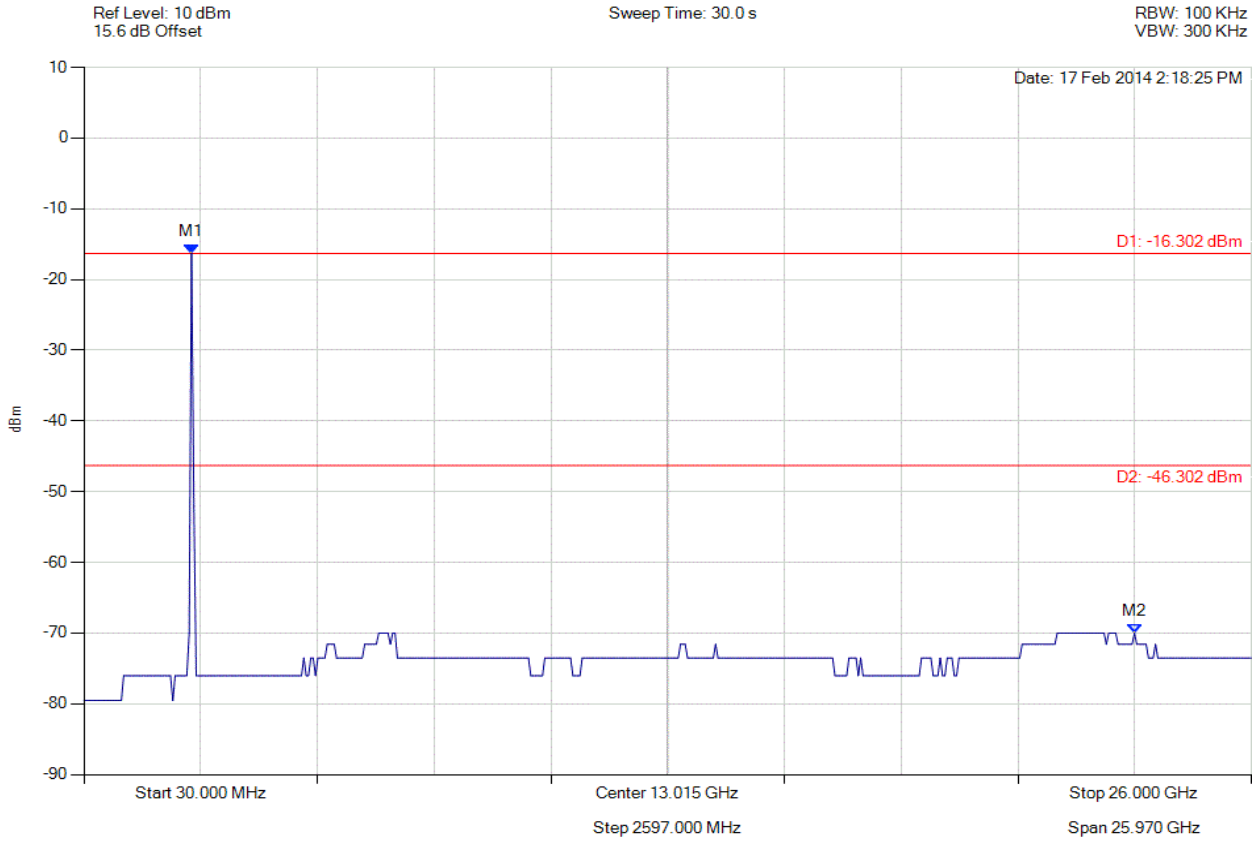


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -14.131 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -44.13 dBm Margin: -24.53 dB

Back to the Matrix

CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

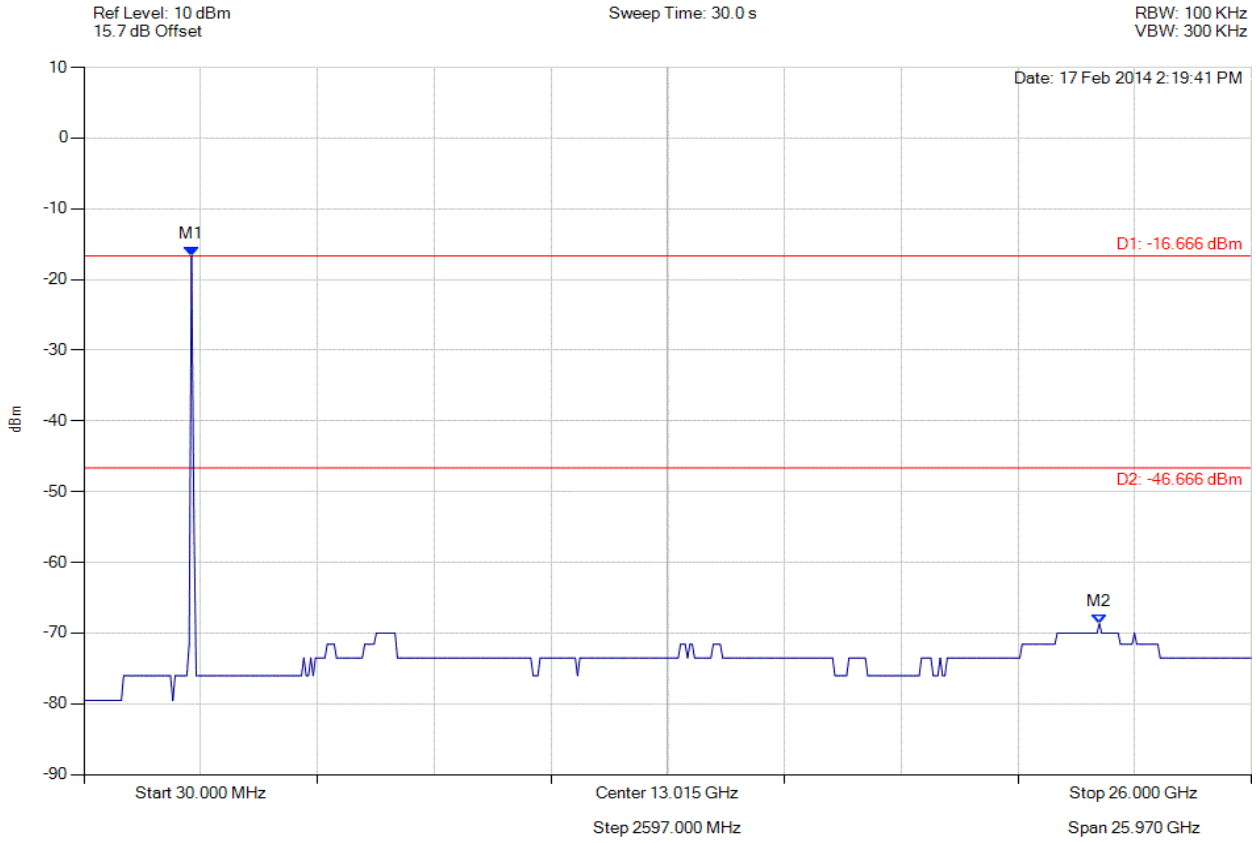


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -16.302 dBm M2 : 23.398 GHz : -70.002 dBm	Limit: -46.30 dBm Margin: -23.70 dB

Back to the Matrix

CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -16.666 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -46.67 dBm Margin: -21.99 dB

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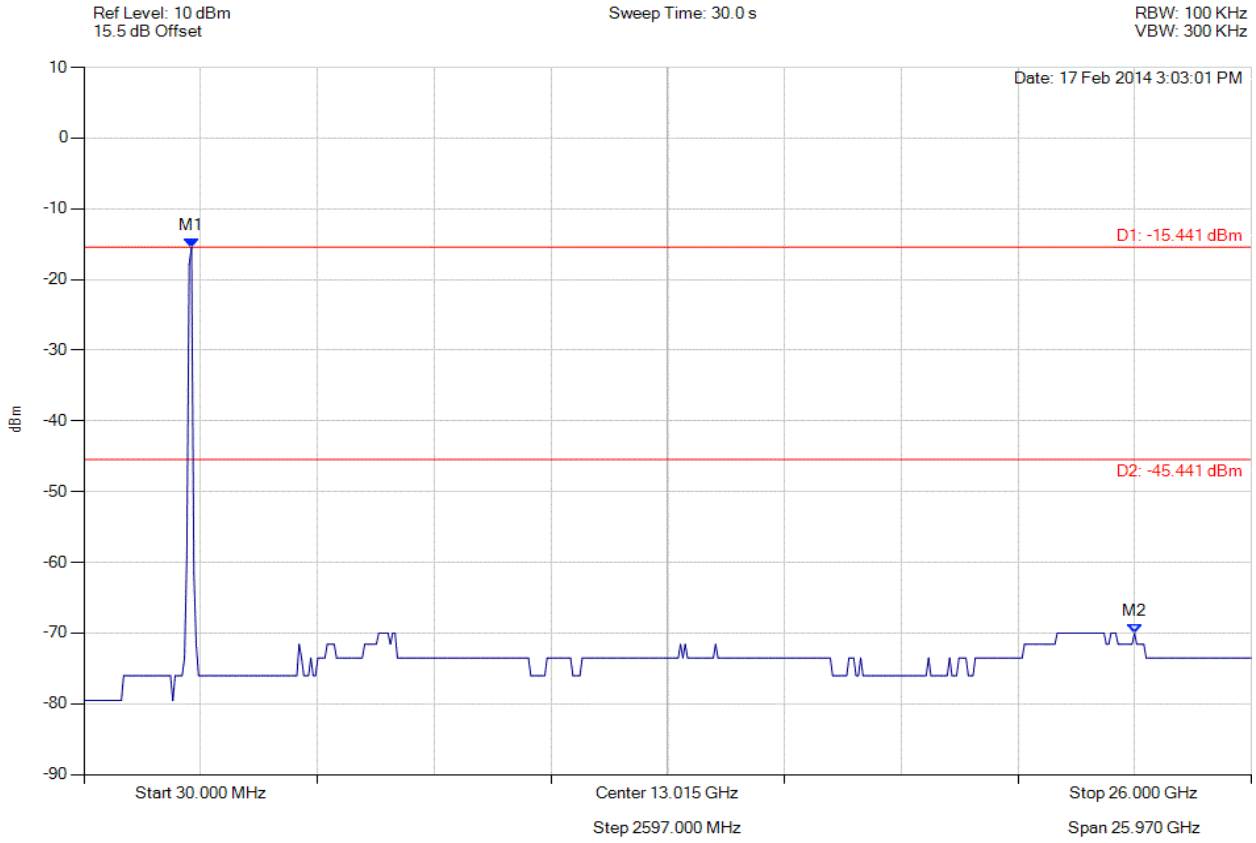
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -15.441 dBm M2 : 23.398 GHz : -70.002 dBm	Limit: -45.44 dBm Margin: -24.56 dB

Back to the Matrix

CONDUCTED SPURIOUS EMISSIONS - AVERAGE

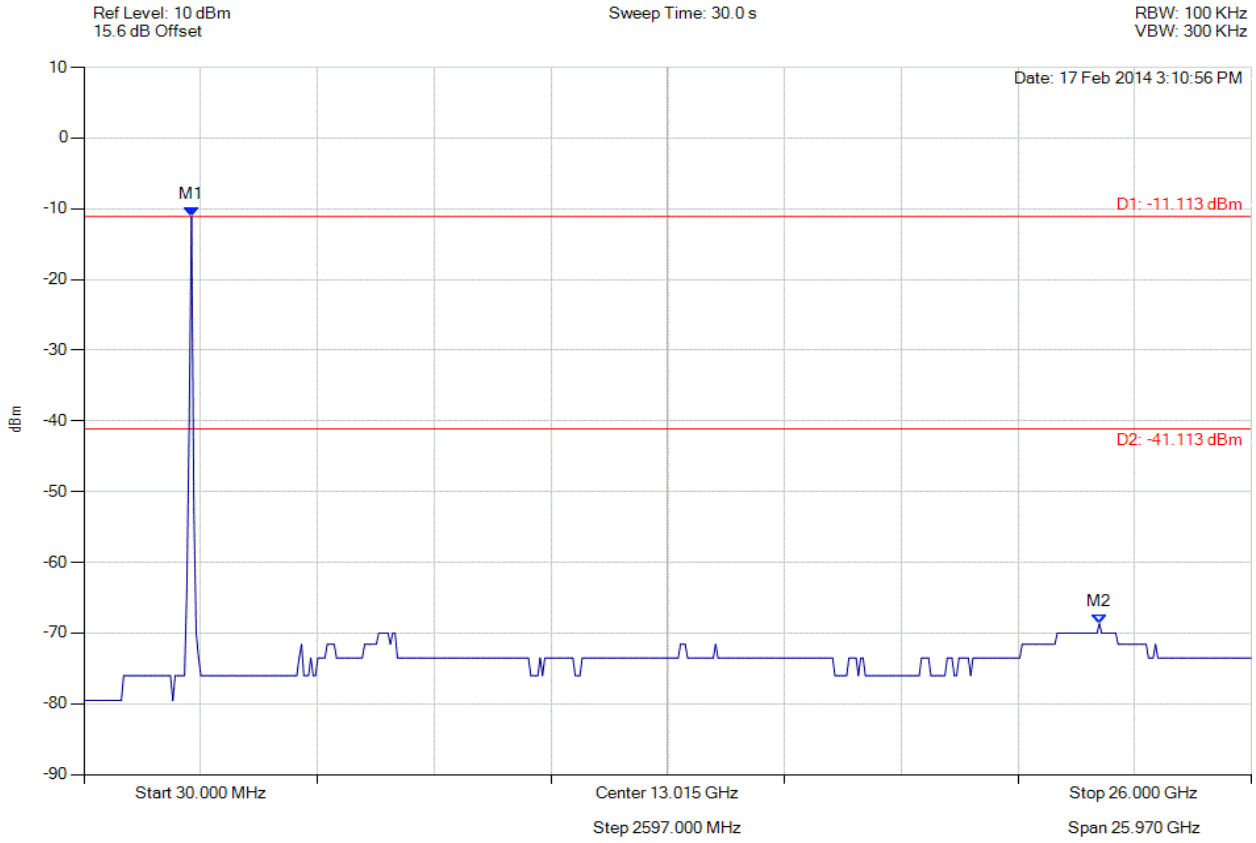
Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -15.384 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -45.38 dBm Margin: -23.28 dB

Back to the Matrix

CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -11.113 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -41.11 dBm Margin: -27.55 dB

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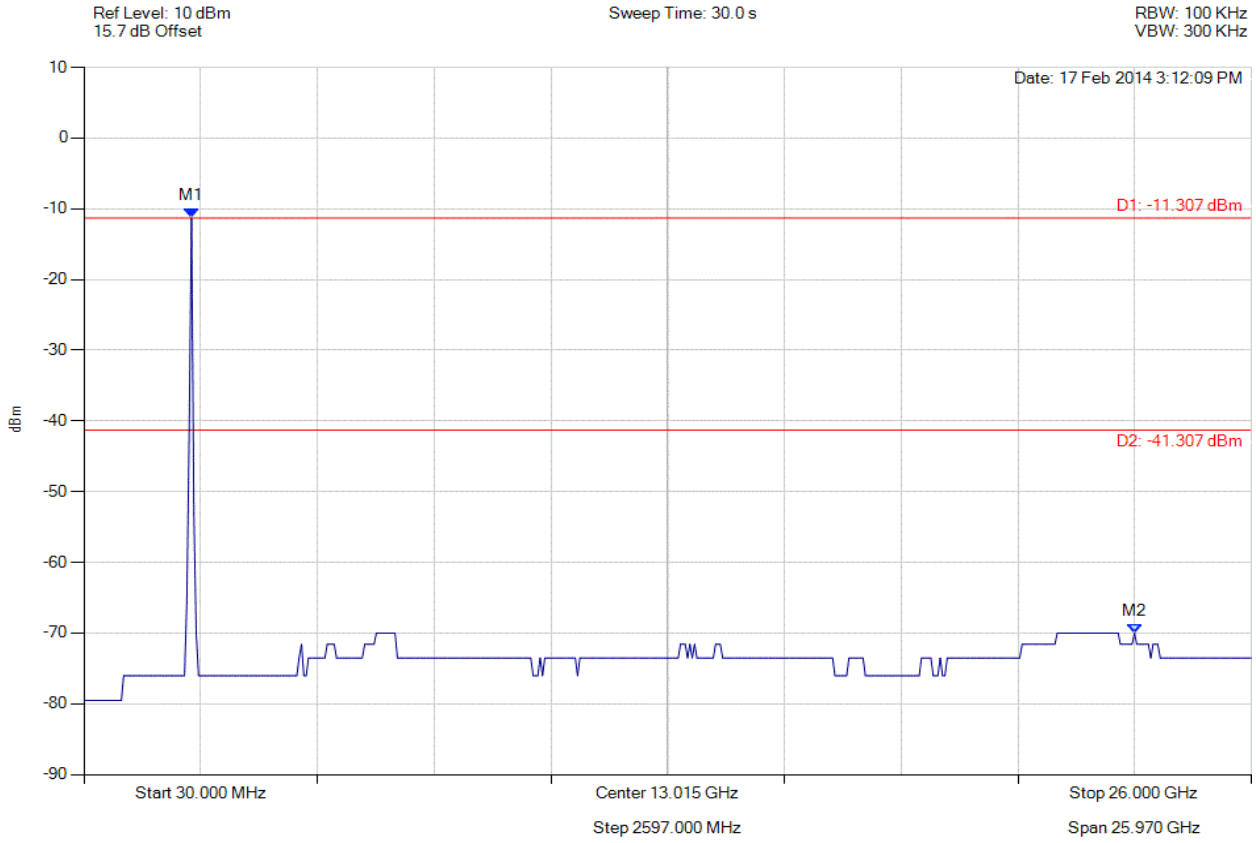
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -11.307 dBm M2 : 23.398 GHz : -70.002 dBm	Limit: -41.31 dBm Margin: -28.69 dB

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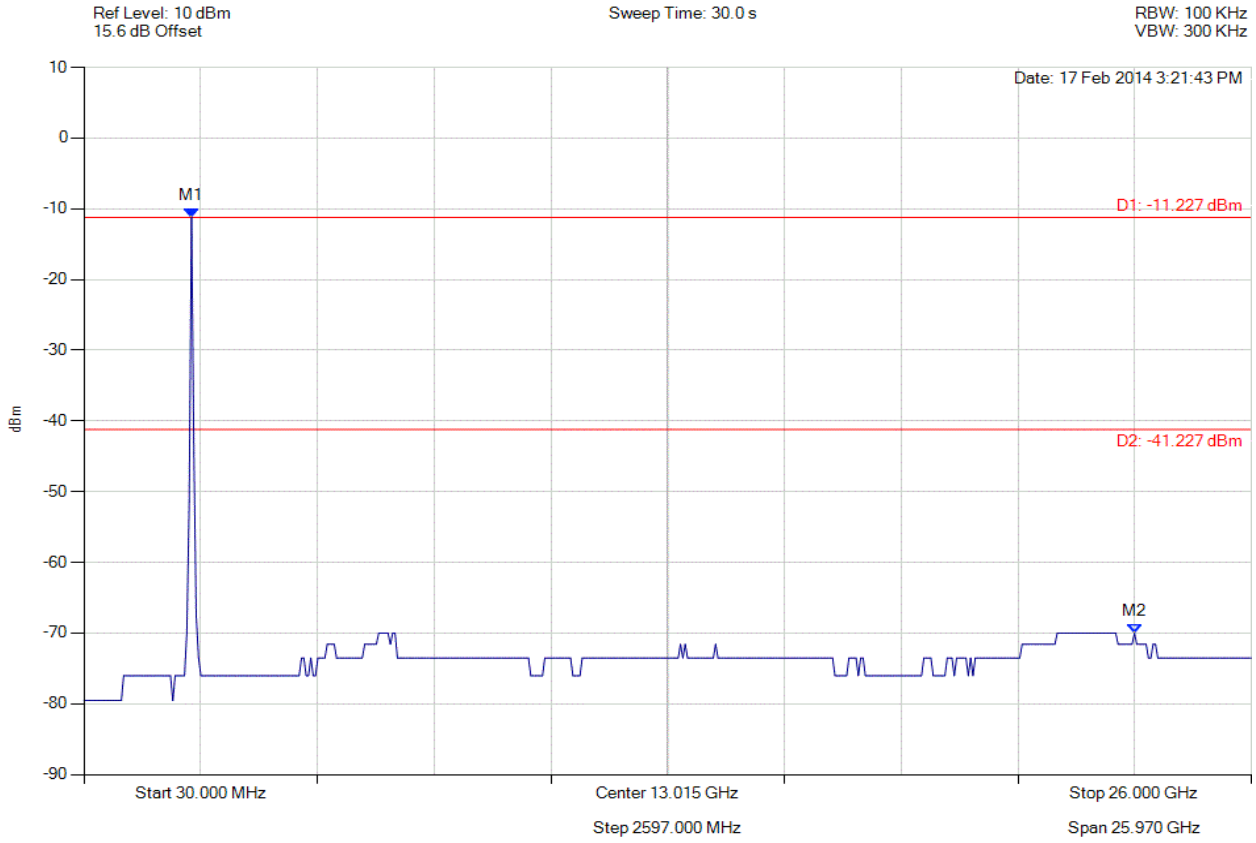
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -11.227 dBm M2 : 23.398 GHz : -70.002 dBm	Limit: -41.23 dBm Margin: -28.77 dB

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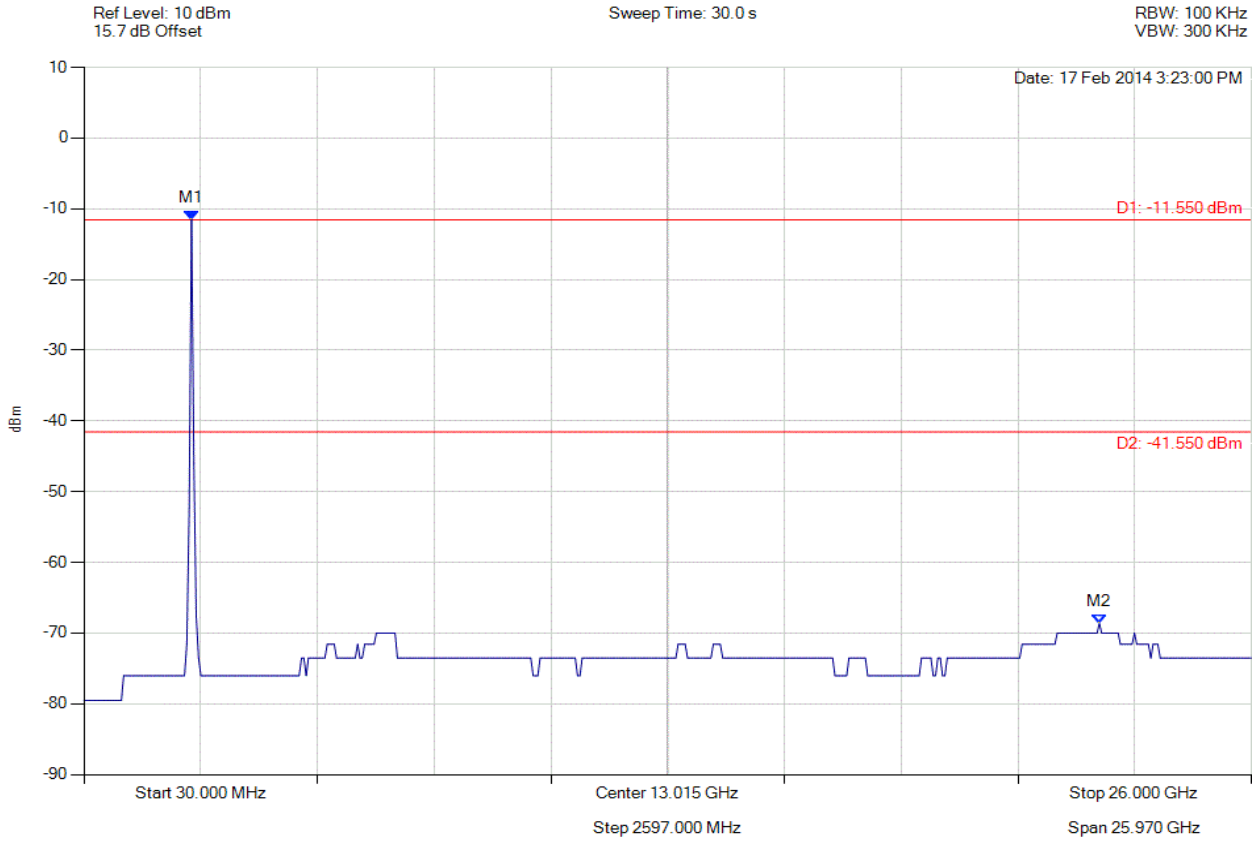
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 2424.028 MHz : -11.550 dBm M2 : 22.617 GHz : -68.663 dBm	Limit: -41.55 dBm Margin: -27.11 dB

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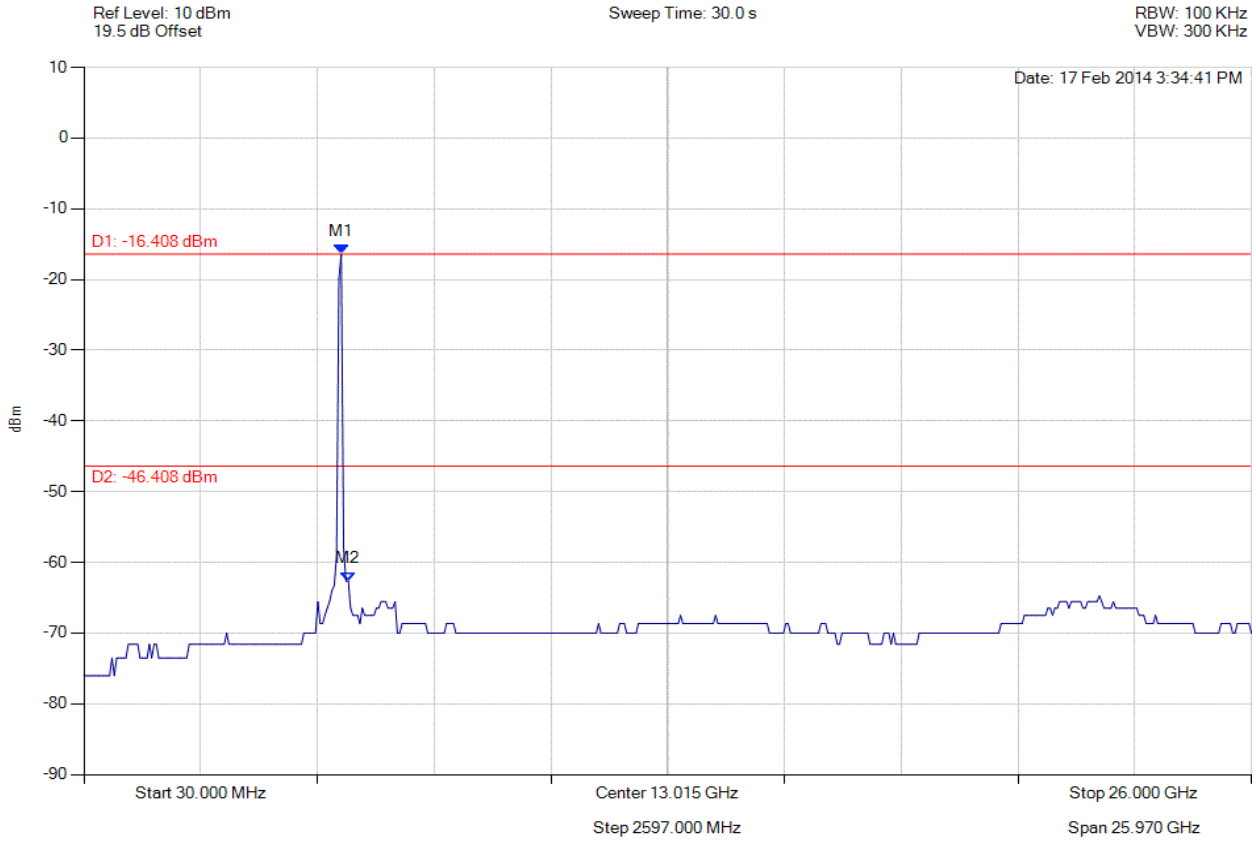
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11a, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -16.408 dBm M2 : 5910.982 MHz : -62.643 dBm	Limit: -46.41 dBm Margin: -16.23 dB

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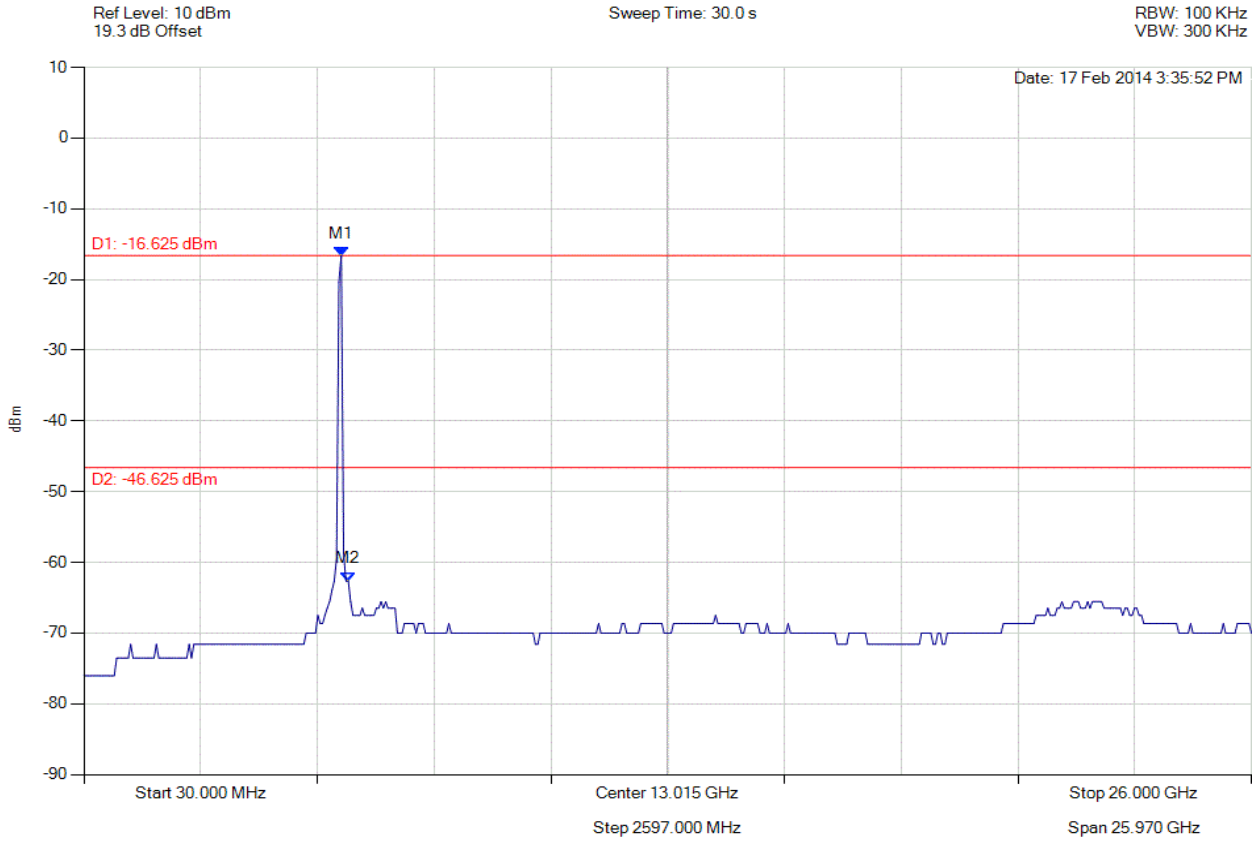
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11a, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -16.625 dBm M2 : 5910.982 MHz : -62.643 dBm	Limit: -46.63 dBm Margin: -16.01 dB

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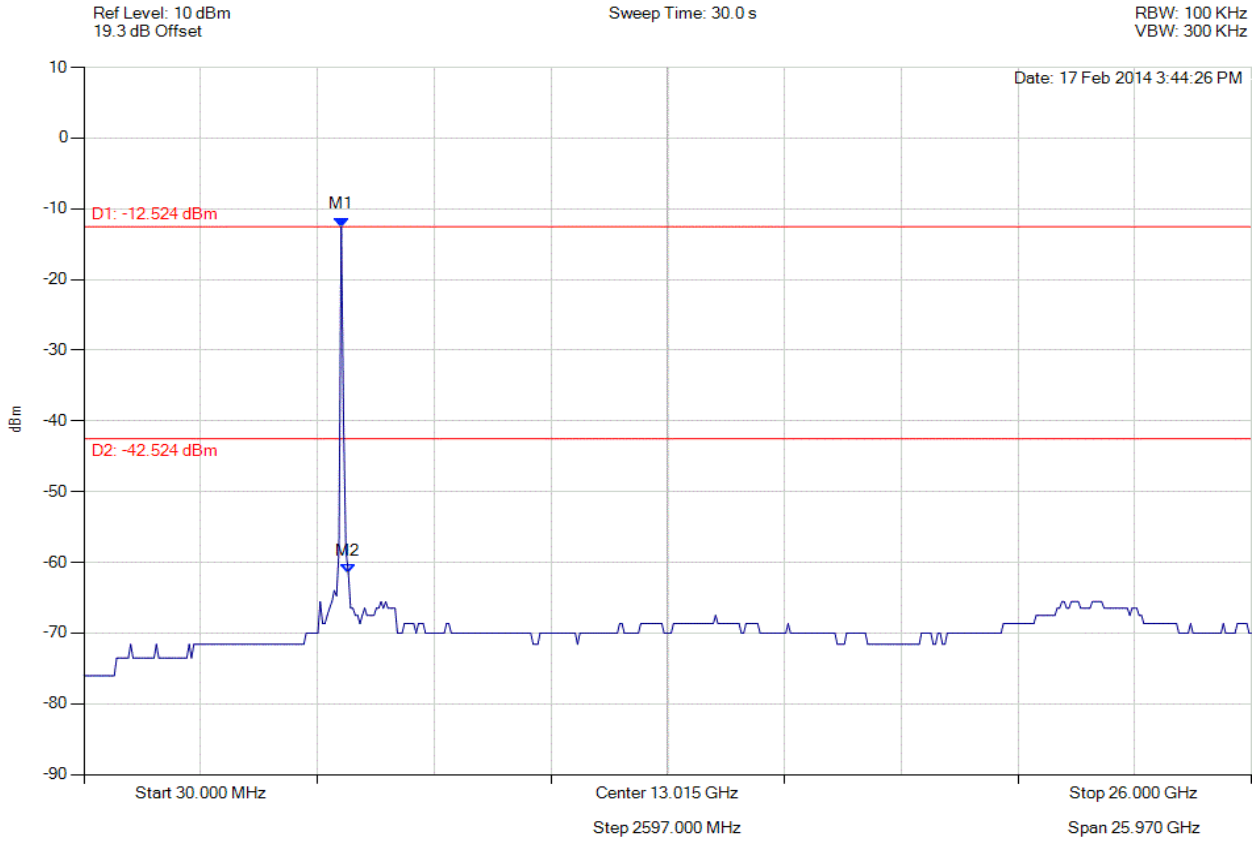
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11a, Channel: 5785.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -12.524 dBm M2 : 5910.982 MHz : -61.483 dBm	Limit: -42.52 dBm Margin: -18.96 dB

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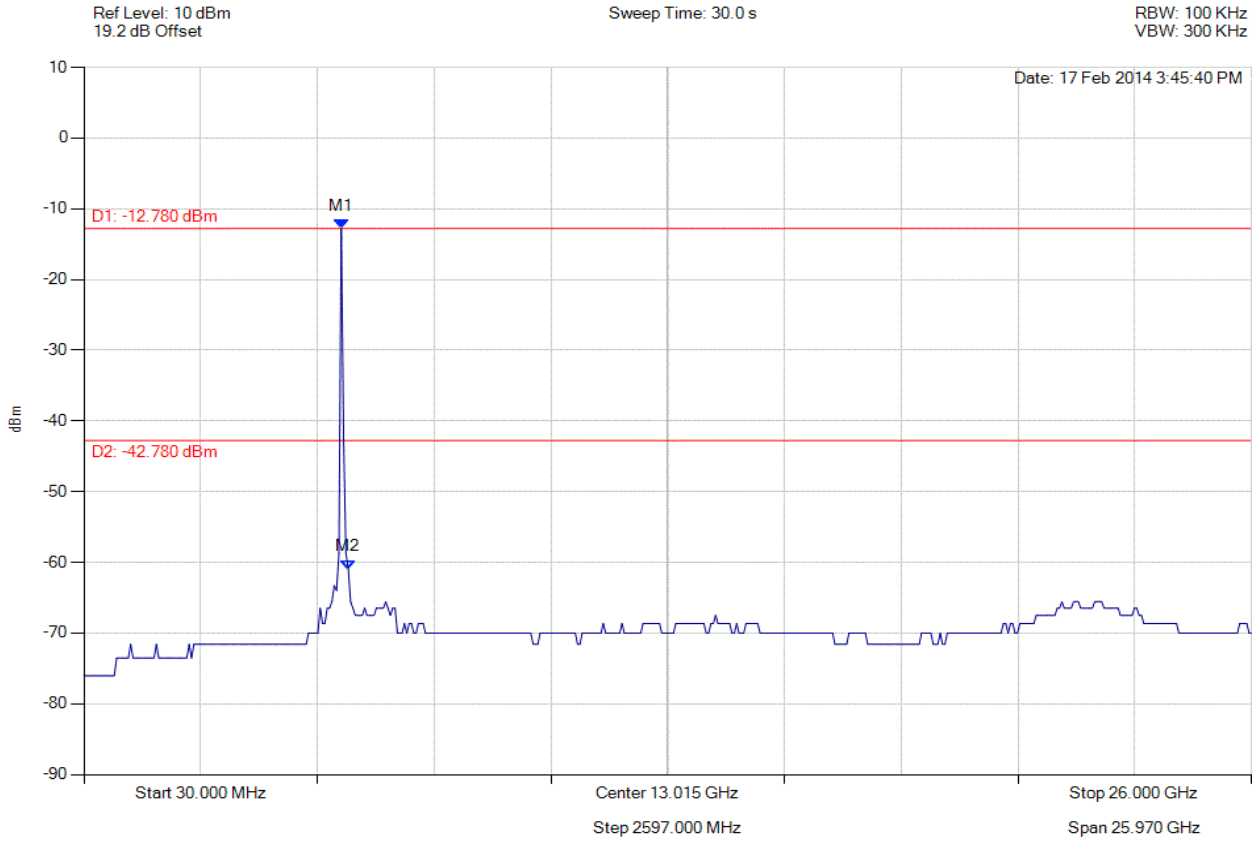
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11a, Channel: 5785.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -12.780 dBm M2 : 5910.982 MHz : -60.956 dBm	Limit: -42.78 dBm Margin: -18.18 dB

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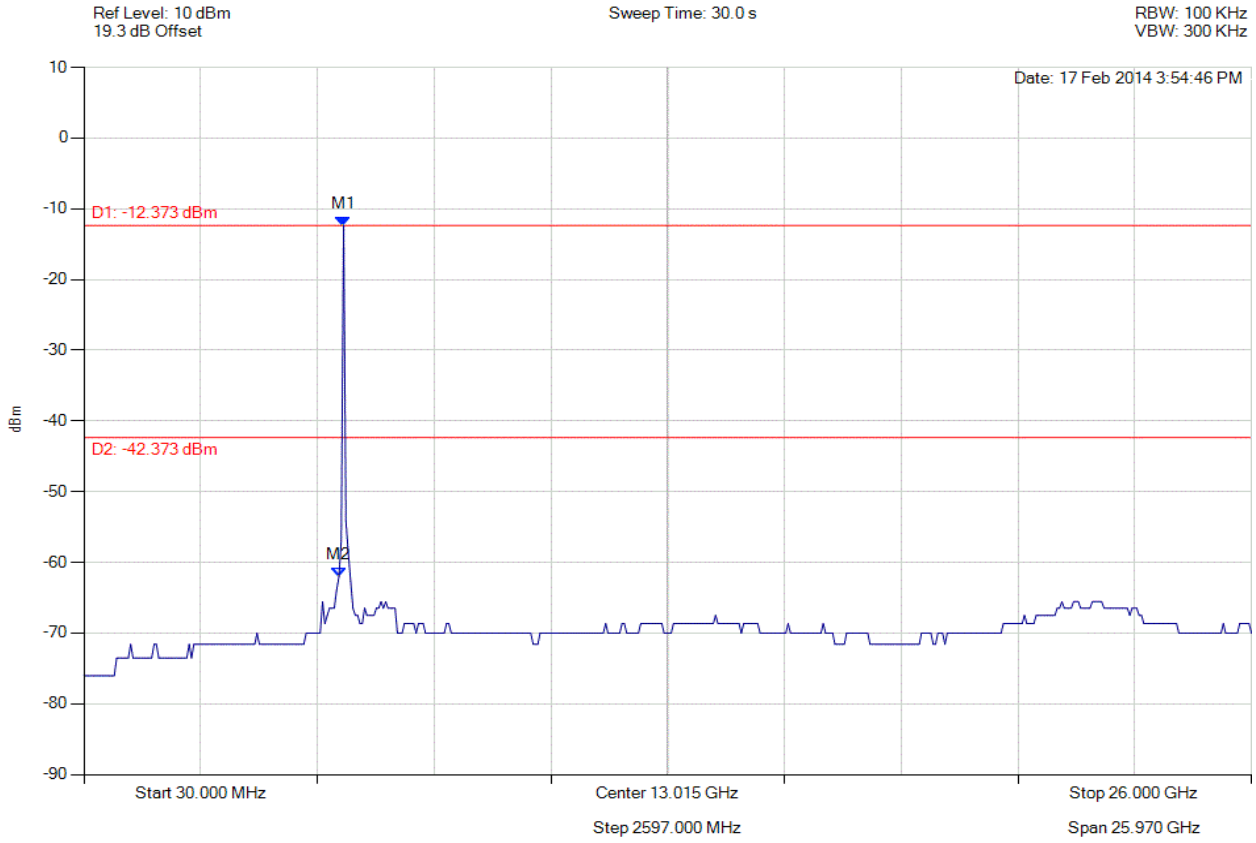
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11a, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5806.894 MHz : -12.373 dBm M2 : 5702.806 MHz : -62.044 dBm	Limit: -42.37 dBm Margin: -19.67 dB

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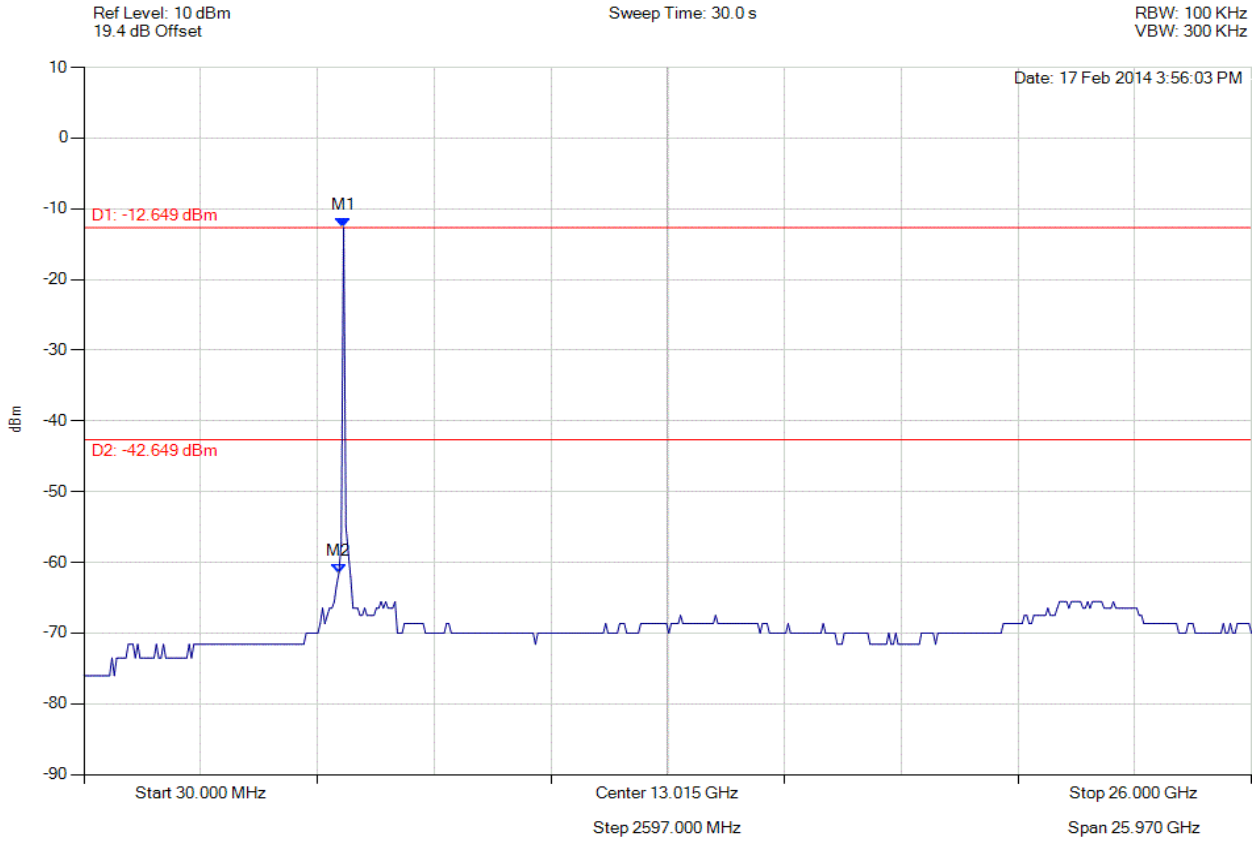
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11a, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5806.894 MHz : -12.649 dBm M2 : 5702.806 MHz : -61.483 dBm	Limit: -42.65 dBm Margin: -18.83 dB

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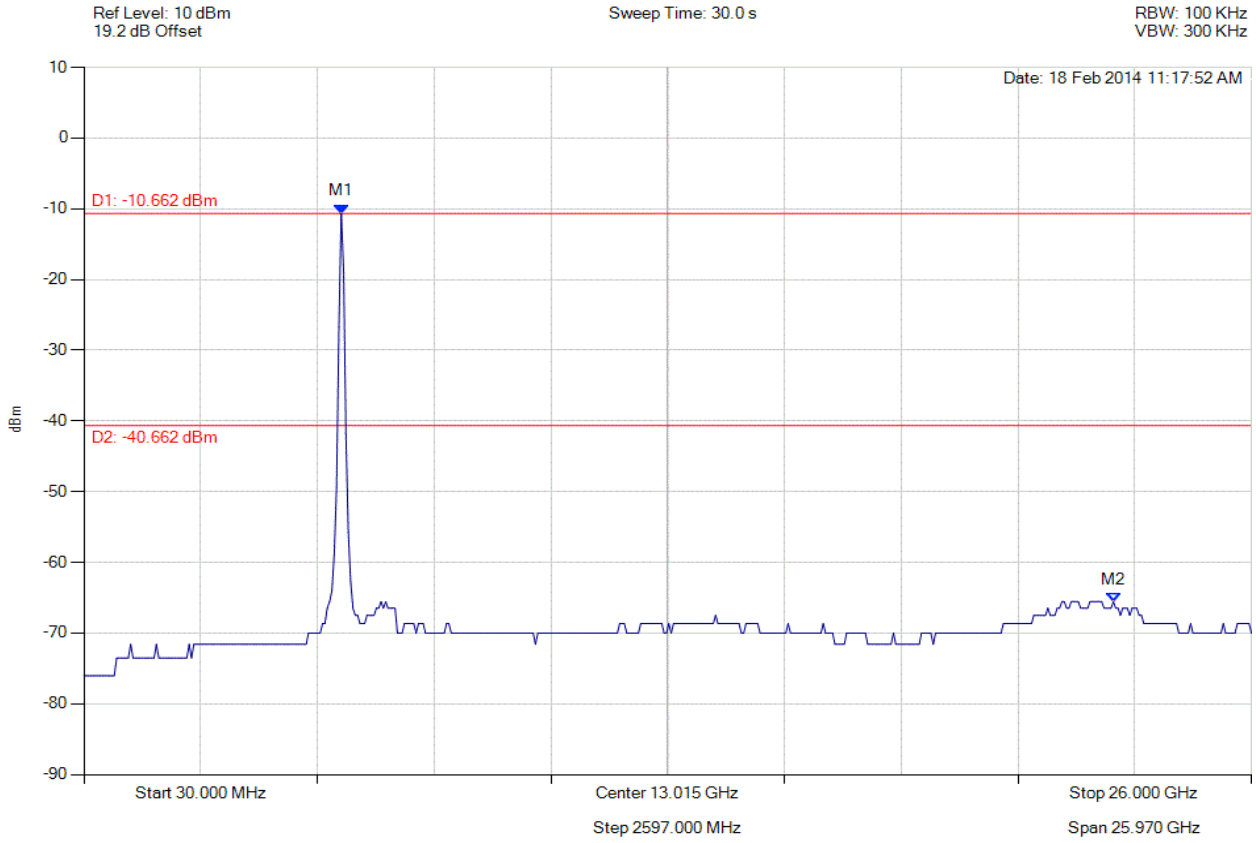
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -10.662 dBm M2 : 22.929 GHz : -65.565 dBm	Limit: -40.66 dBm Margin: -24.91 dB

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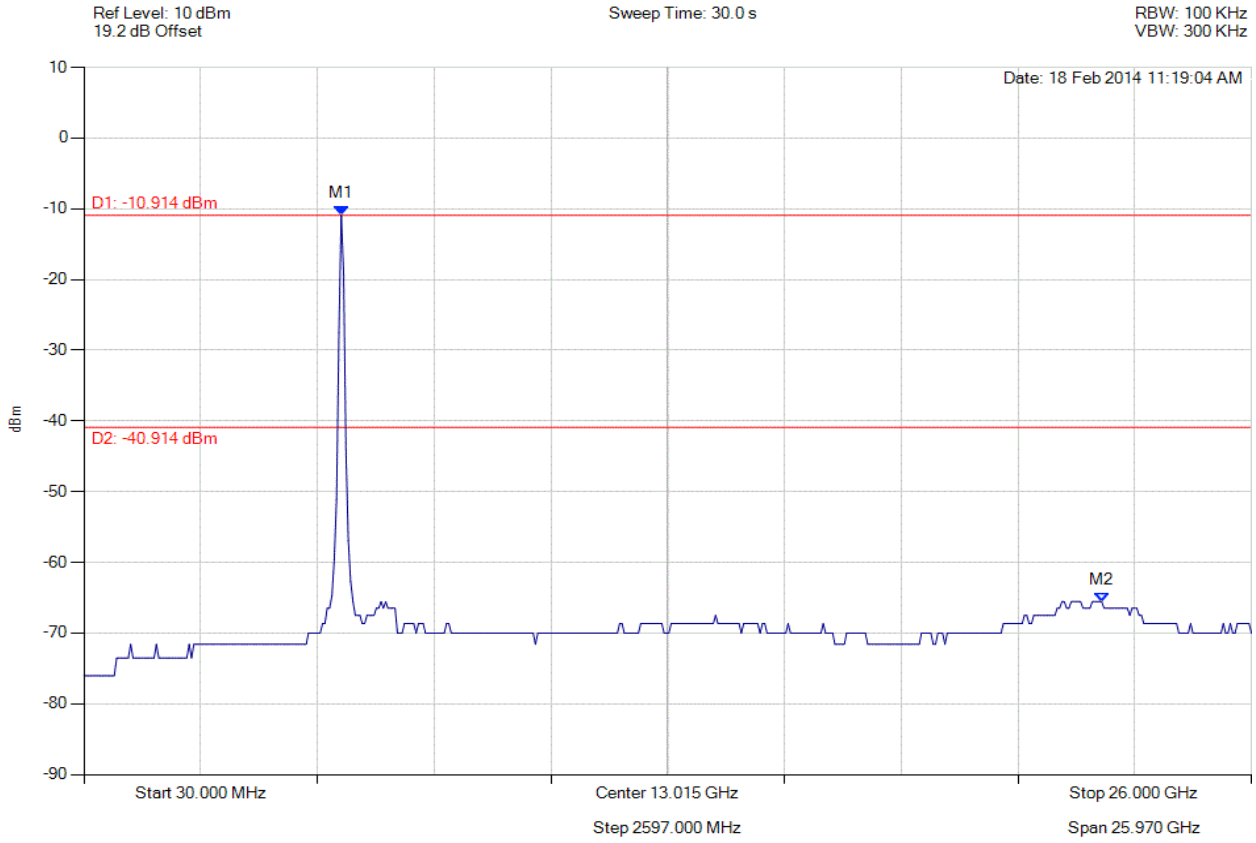
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -10.914 dBm M2 : 22.669 GHz : -65.565 dBm	Limit: -40.91 dBm Margin: -24.66 dB

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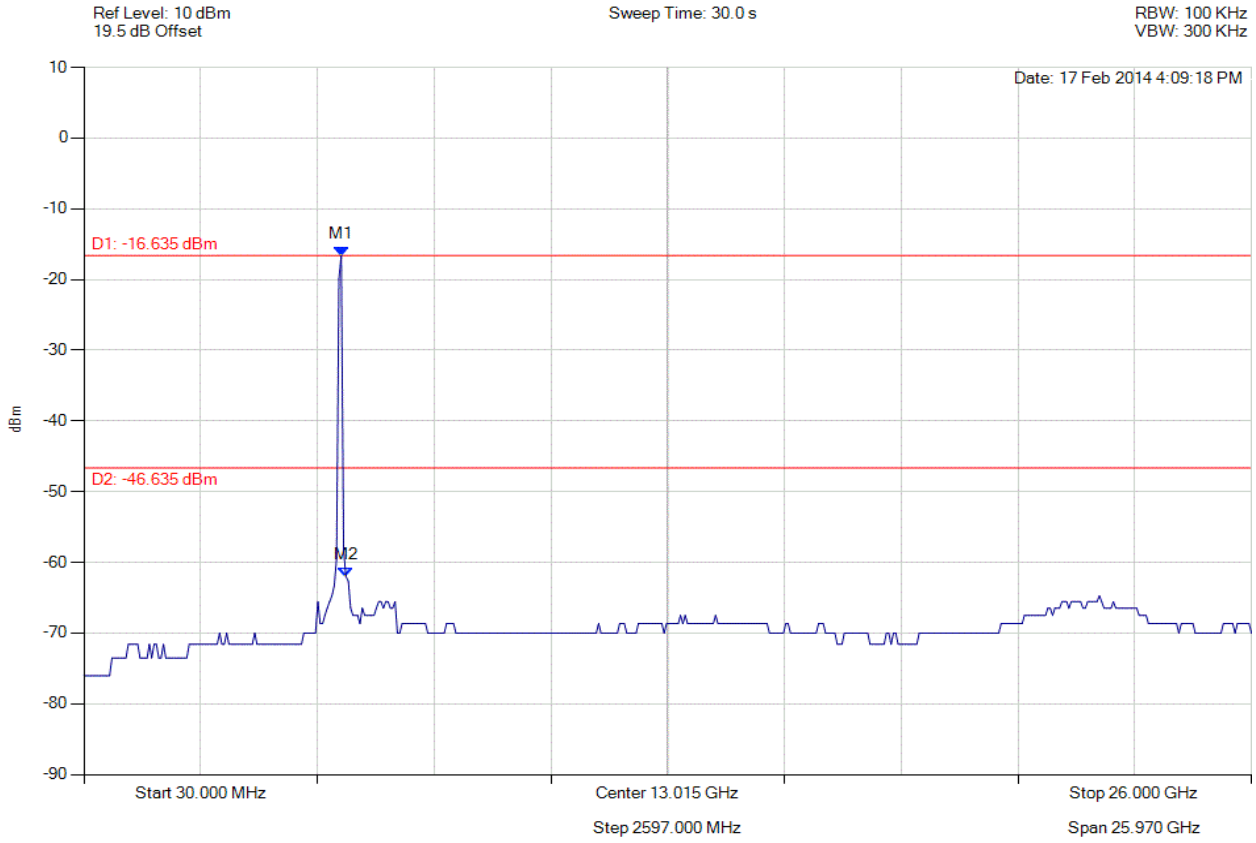
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -16.635 dBm M2 : 5858.938 MHz : -62.044 dBm	Limit: -46.64 dBm Margin: -15.40 dB

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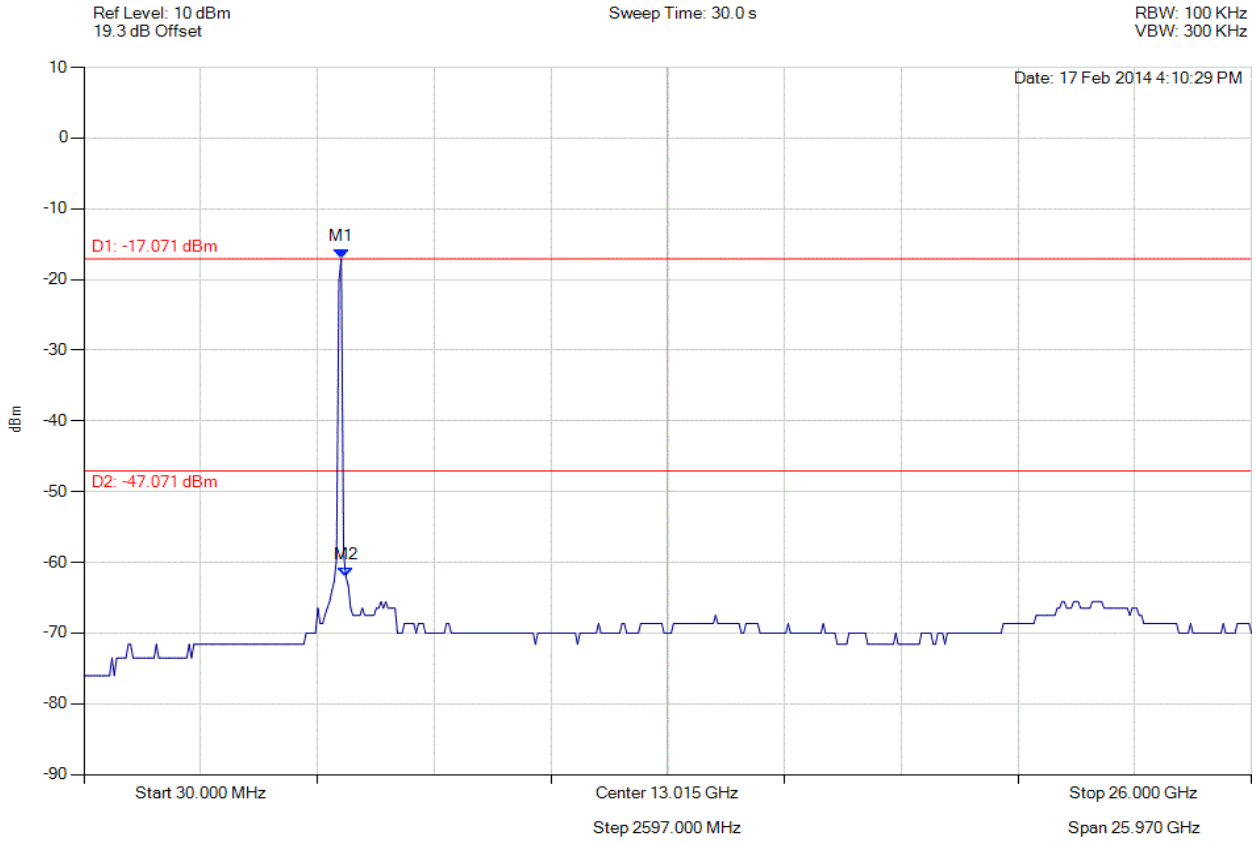
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -17.071 dBm M2 : 5858.938 MHz : -62.044 dBm	Limit: -47.07 dBm Margin: -14.97 dB

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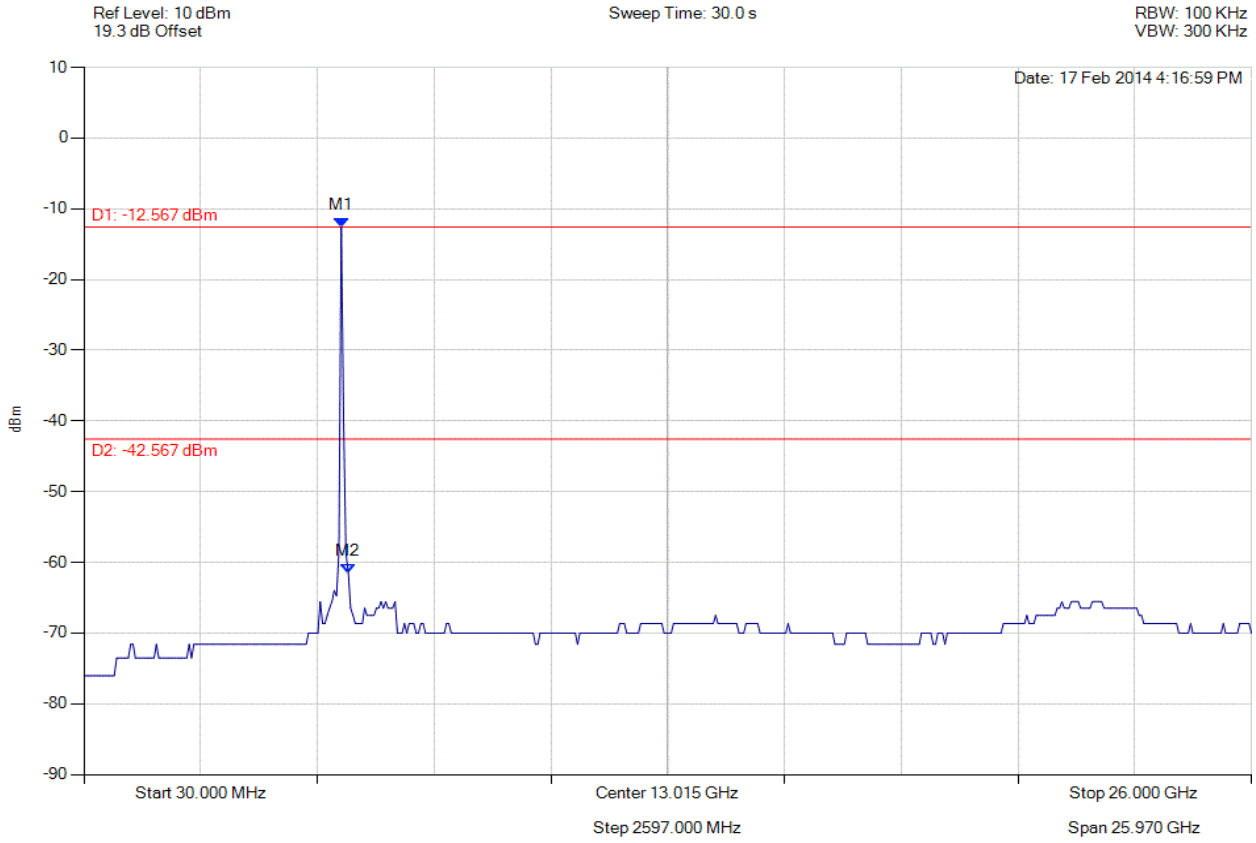
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -12.567 dBm M2 : 5910.982 MHz : -61.483 dBm	Limit: -42.57 dBm Margin: -18.91 dB

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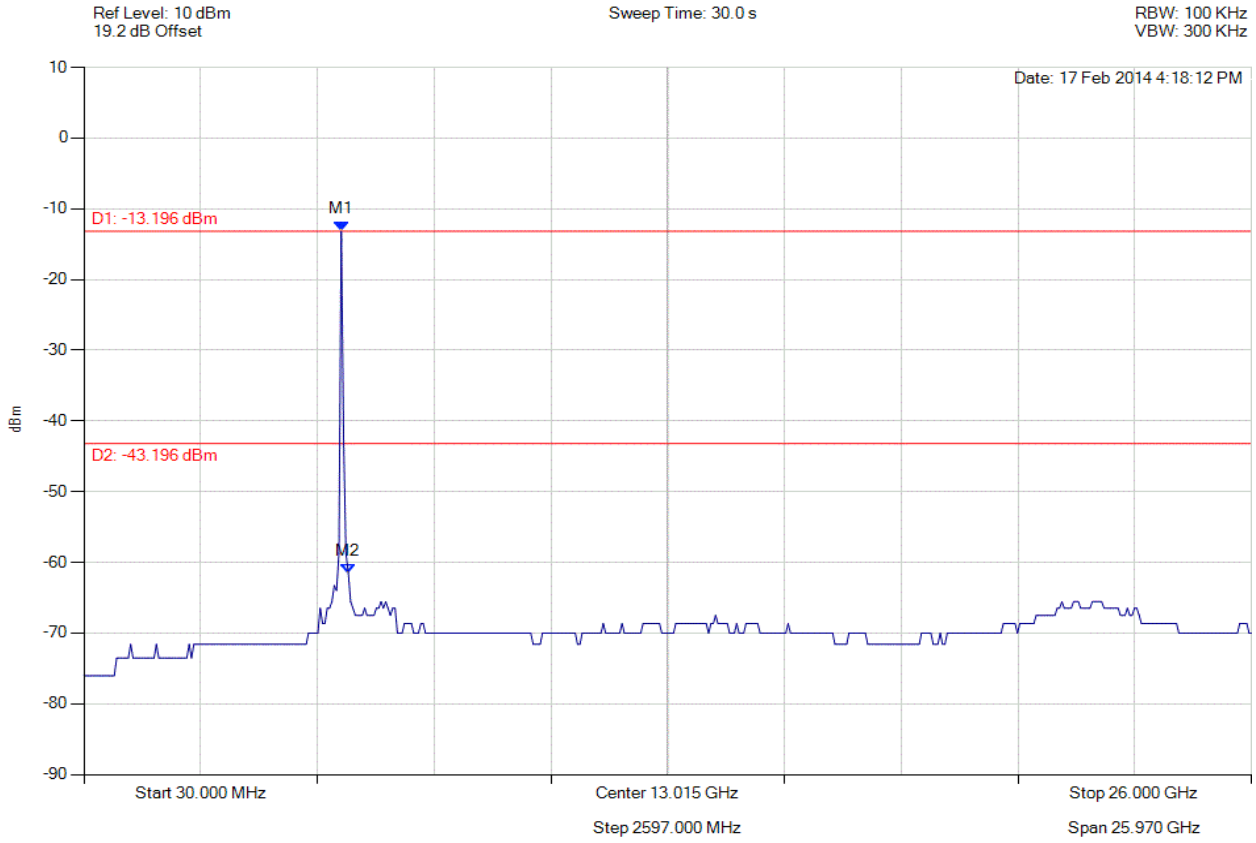
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -13.196 dBm M2 : 5910.982 MHz : -61.483 dBm	Limit: -43.20 dBm Margin: -18.28 dB

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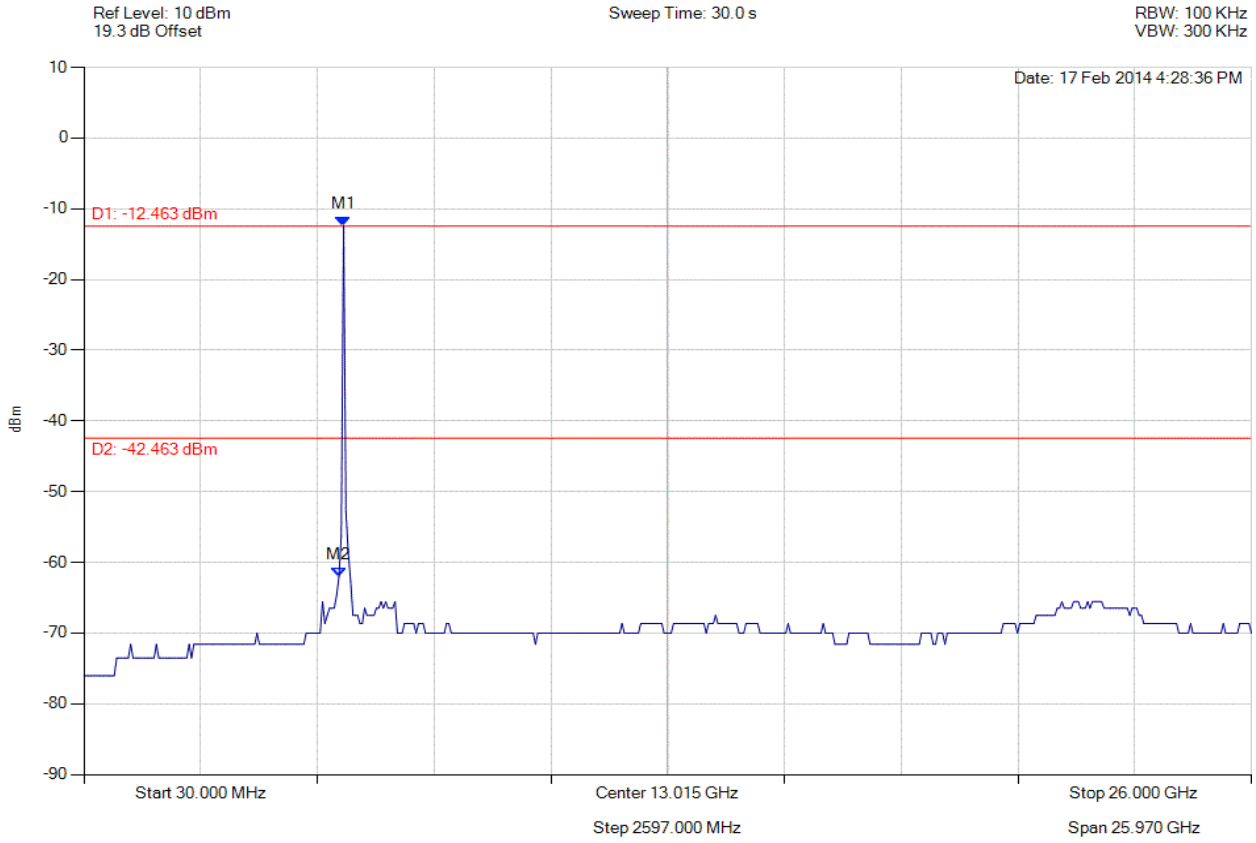
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5806.894 MHz : -12.463 dBm M2 : 5702.806 MHz : -62.044 dBm	Limit: -42.46 dBm Margin: -19.58 dB

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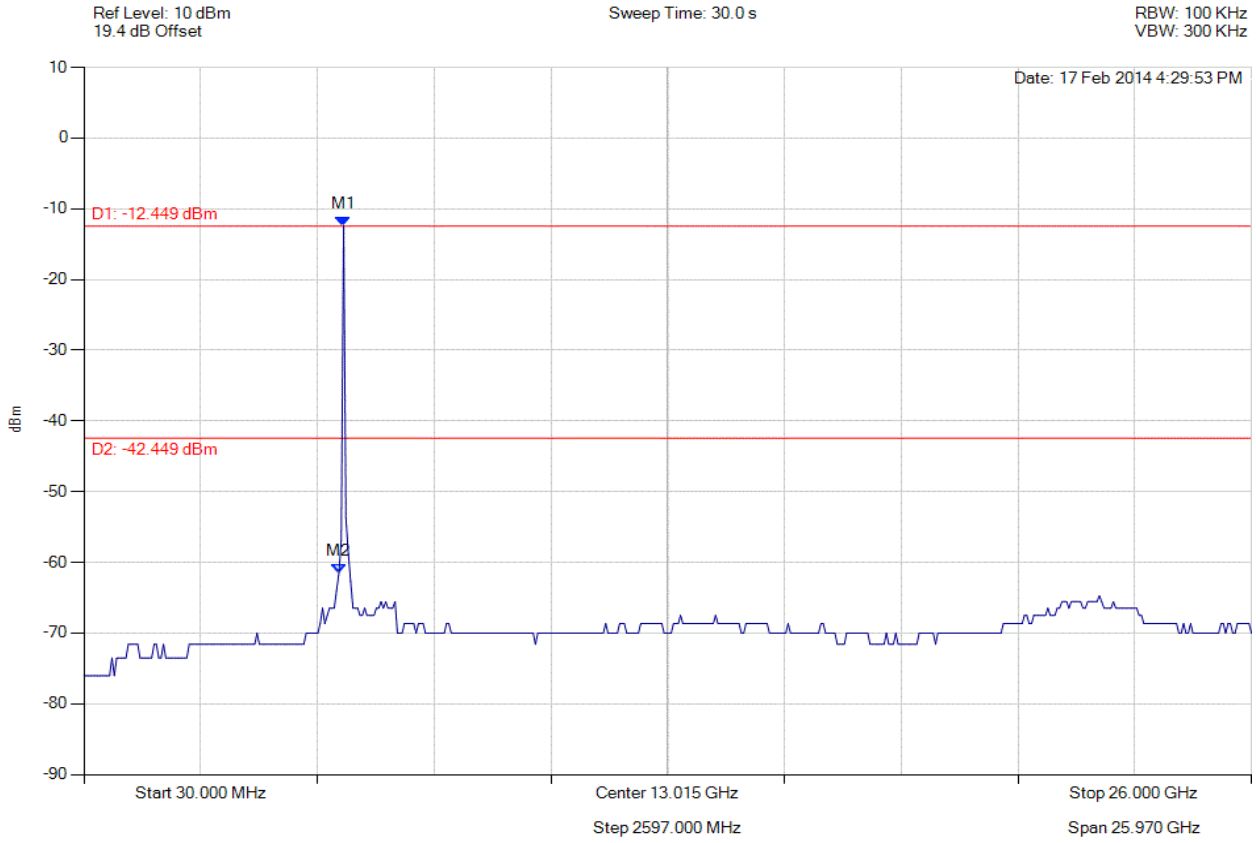
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5806.894 MHz : -12.449 dBm M2 : 5702.806 MHz : -61.483 dBm	Limit: -42.45 dBm Margin: -19.03 dB

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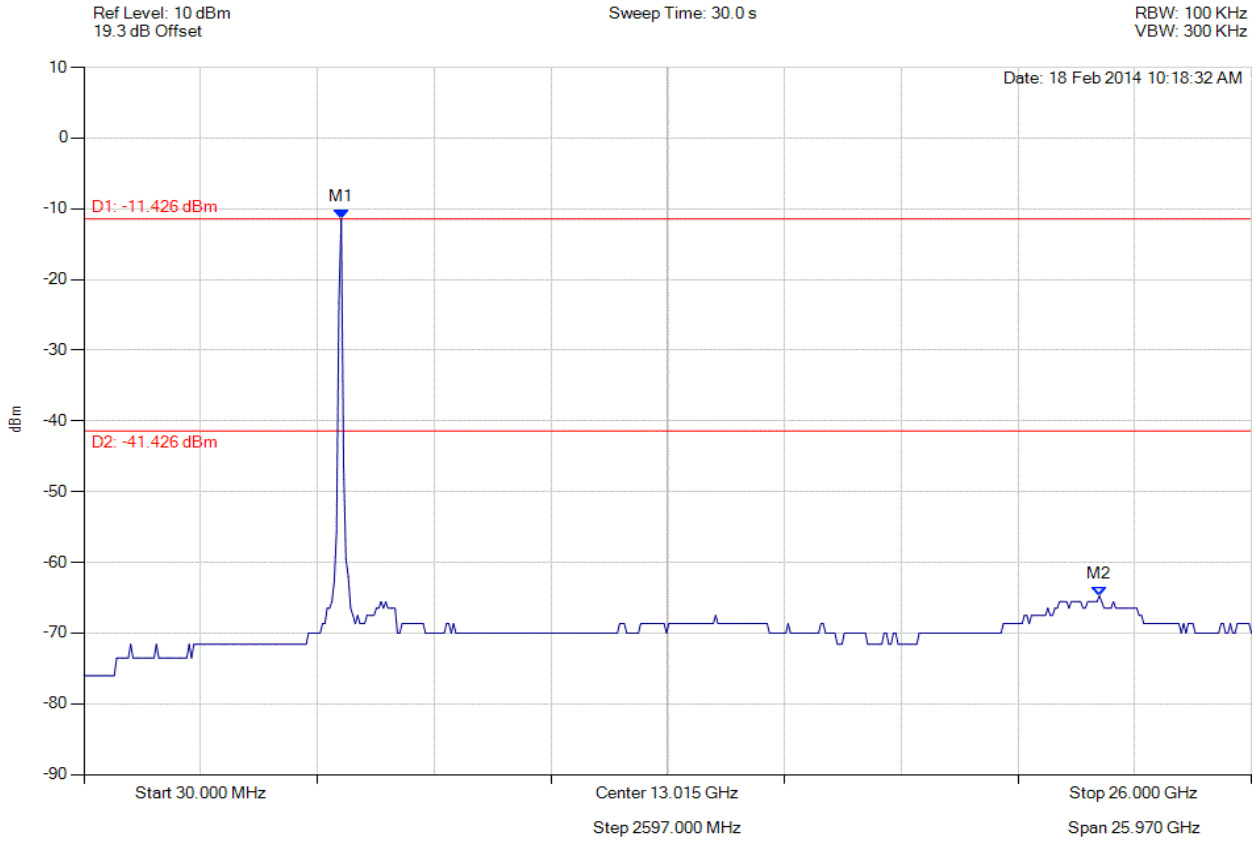
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -11.426 dBm M2 : 22.617 GHz : -64.737 dBm	Limit: -41.43 dBm Margin: -23.31 dB

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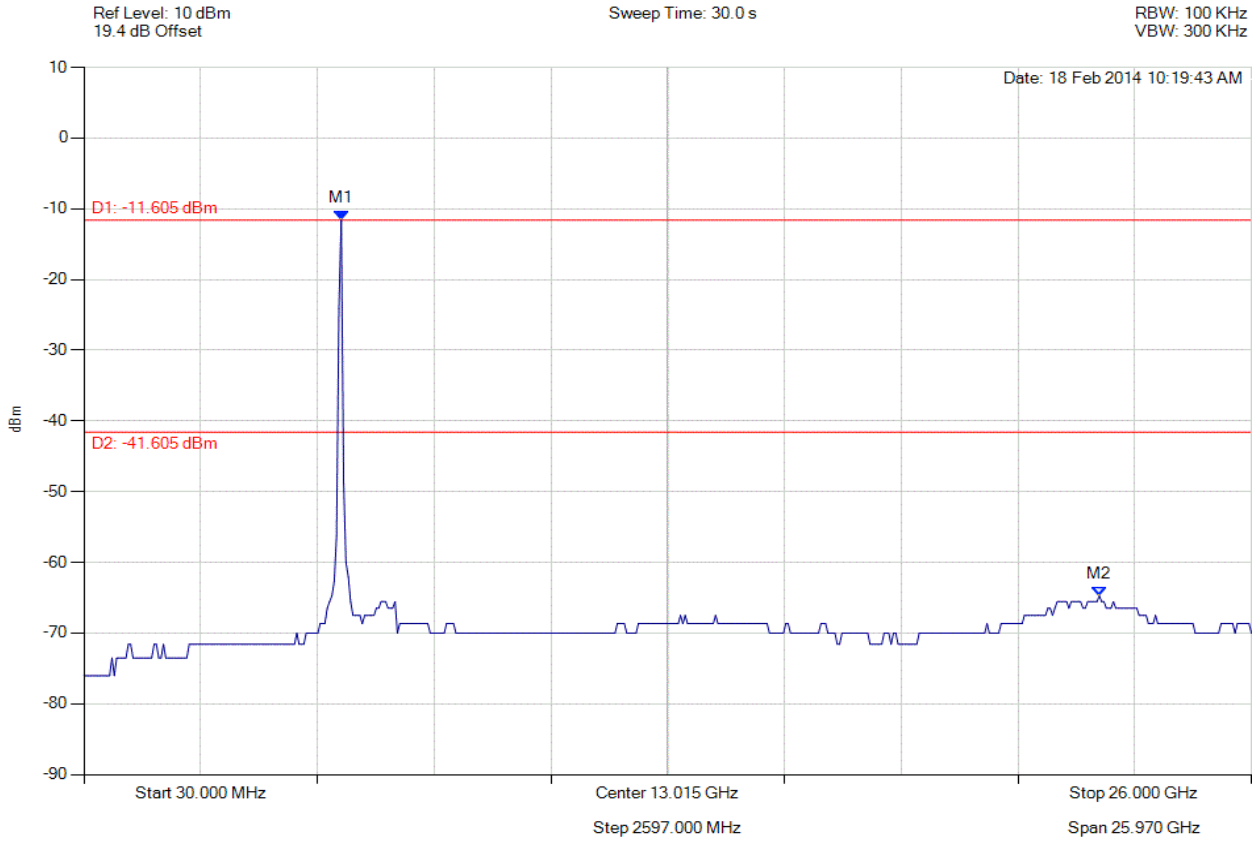
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5754.850 MHz : -11.605 dBm M2 : 22.617 GHz : -64.737 dBm	Limit: -41.61 dBm Margin: -23.13 dB

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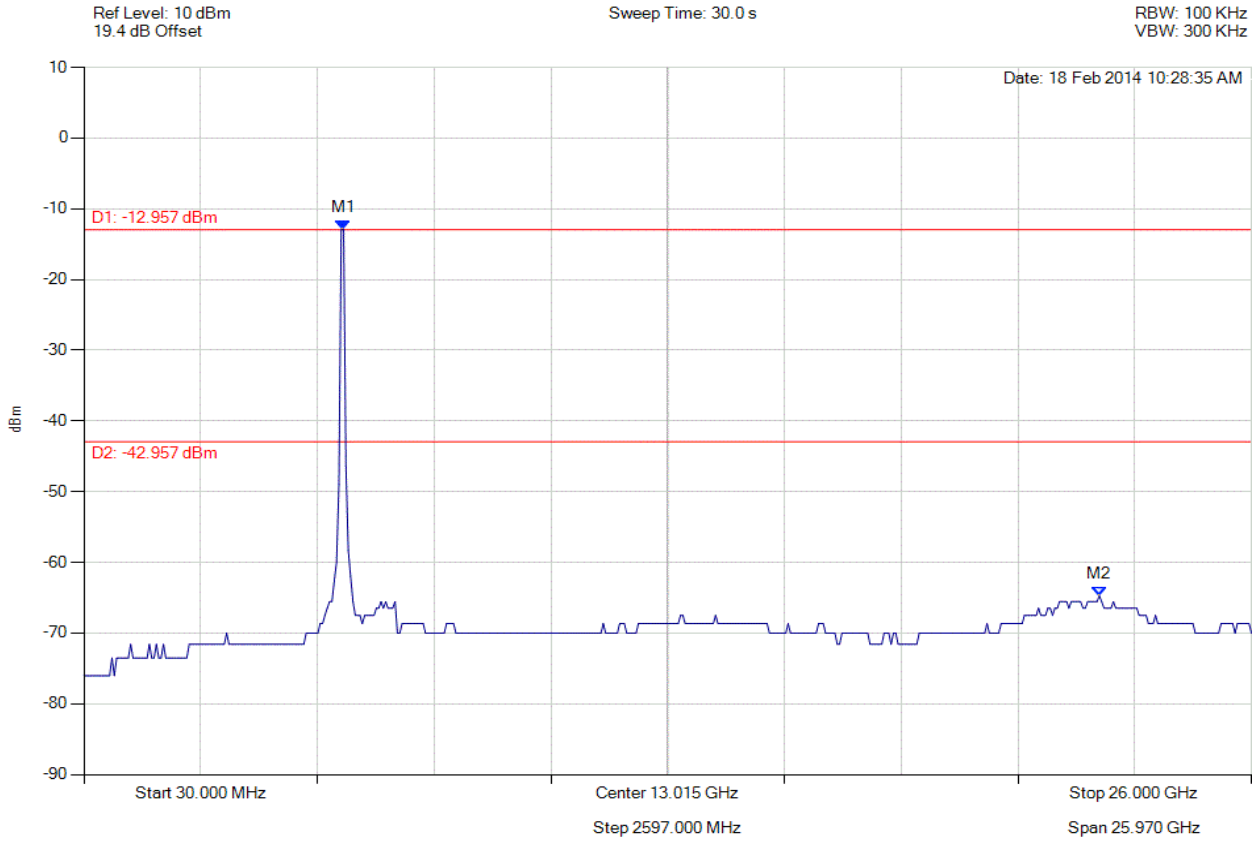
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5806.894 MHz : -12.957 dBm M2 : 22.617 GHz : -64.737 dBm	Limit: -42.96 dBm Margin: -21.78 dB

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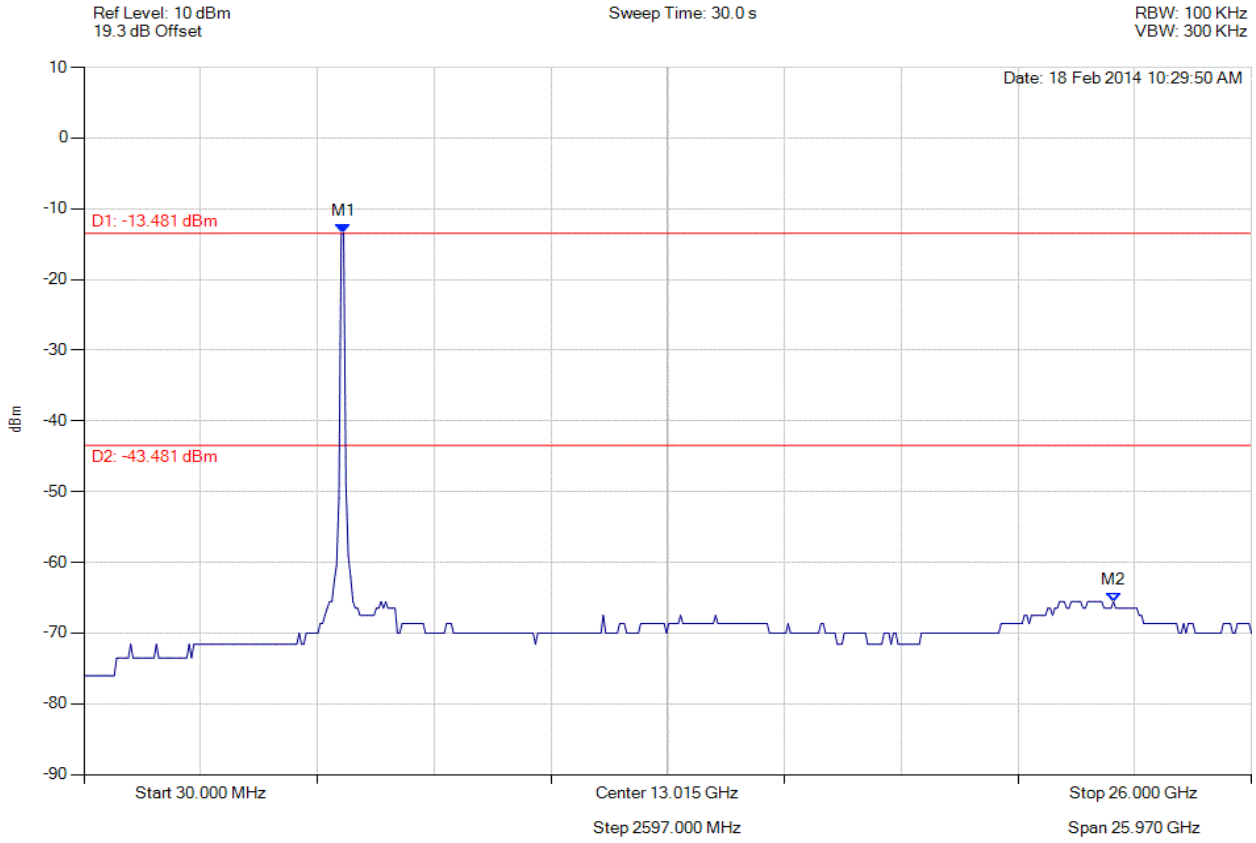
CONDUCTED SPURIOUS EMISSIONS - AVERAGE

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



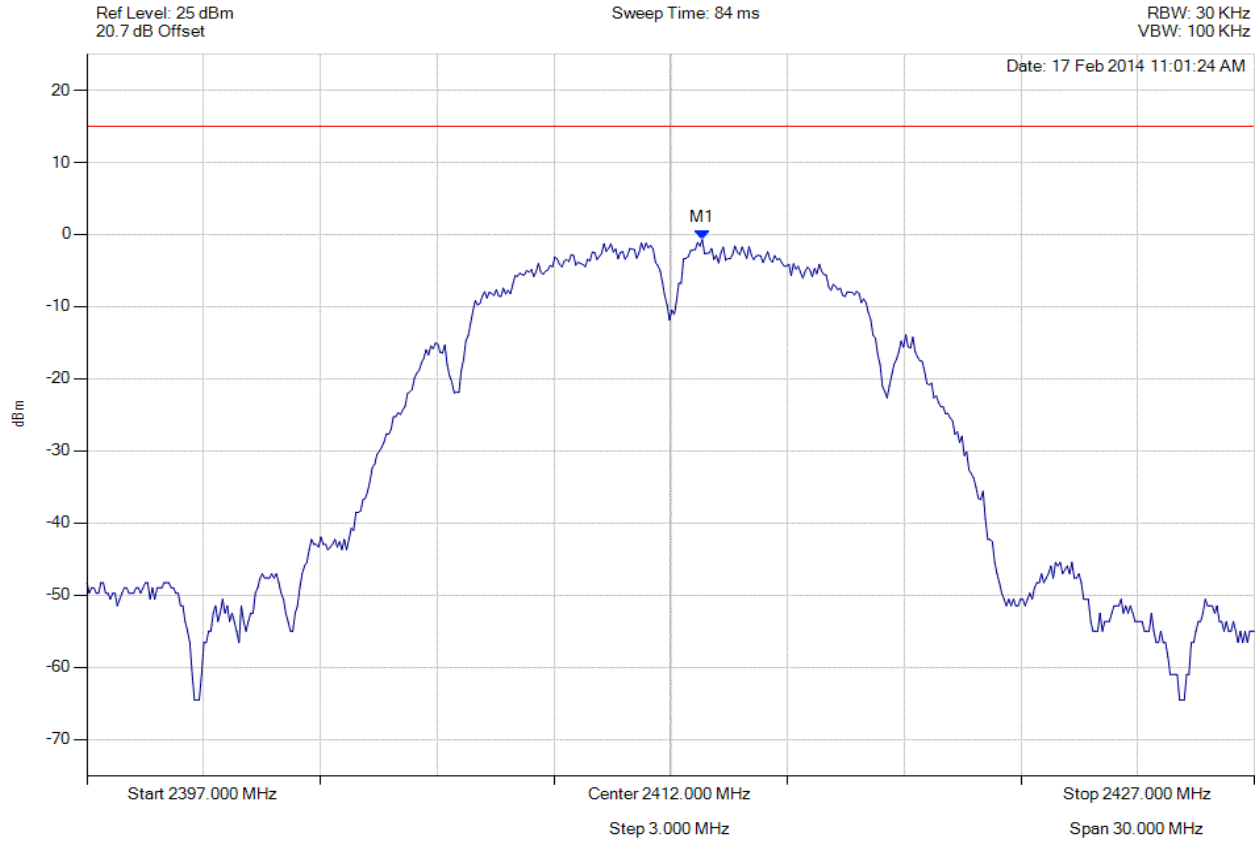
Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 10 Trace Mode = VIEW	M1 : 5806.894 MHz : -13.481 dBm M2 : 22.929 GHz : -65.565 dBm	Limit: -43.48 dBm Margin: -22.09 dB

Back to the Matrix

A.1.3. Power Spectral Density

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

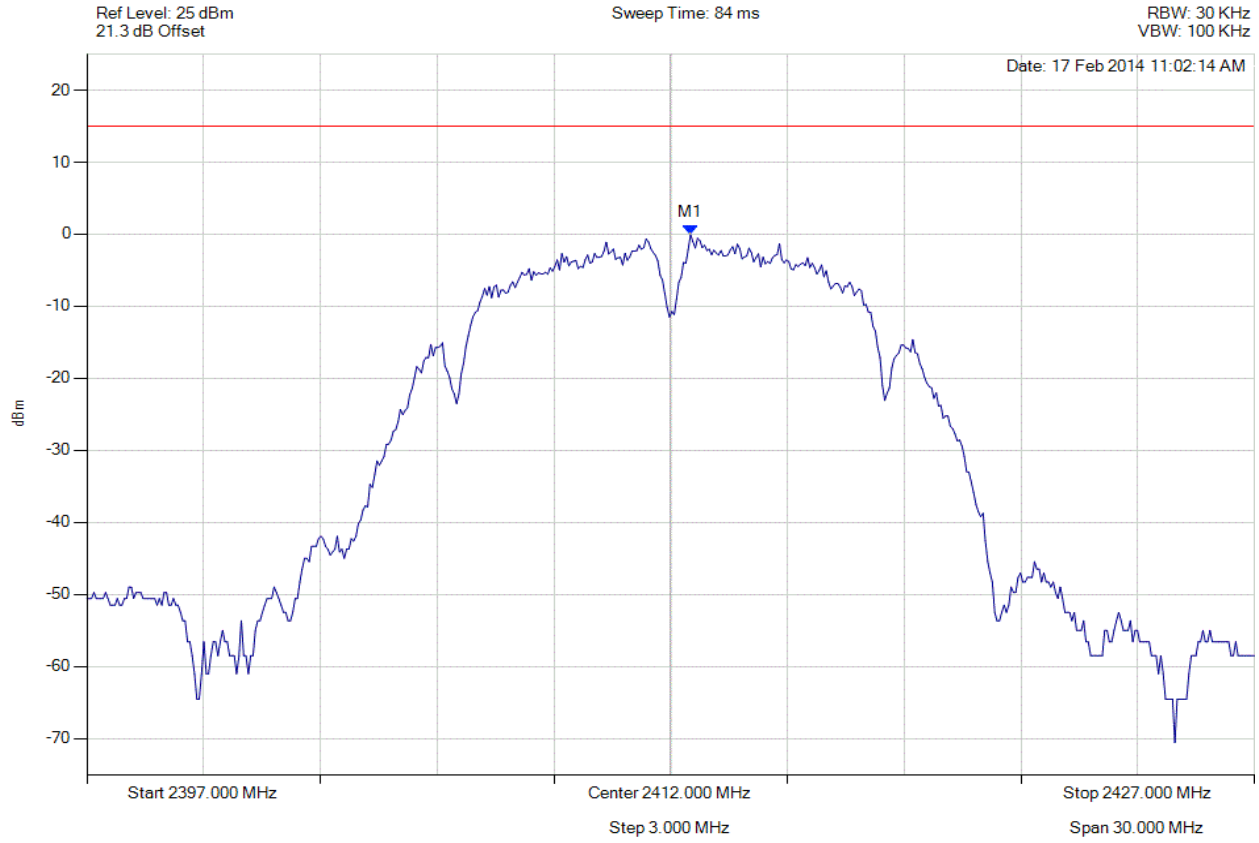


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2412.812 MHz : -0.699 dBm	Limit: ≤ 14.990 dBm Margin: -15.69 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

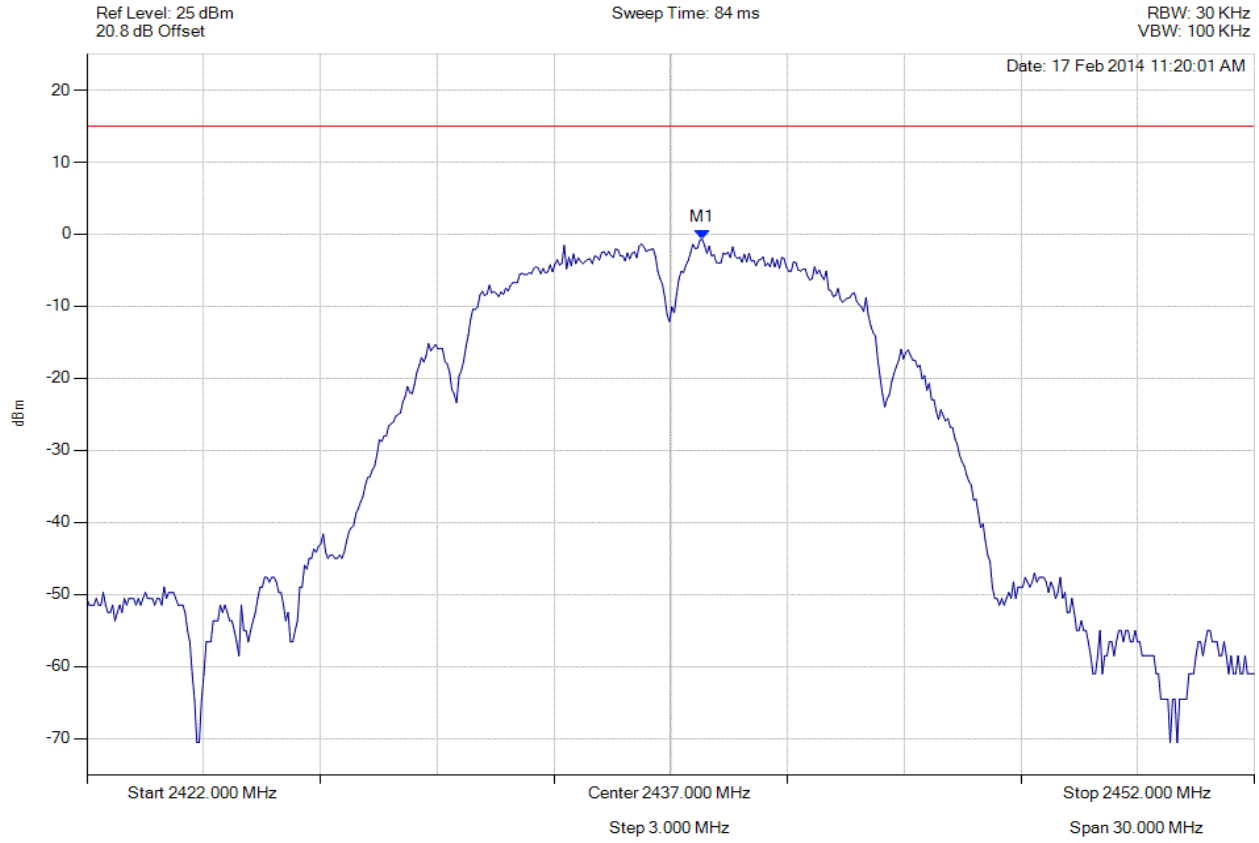


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2412.511 MHz : -0.070 dBm	Limit: ≤ 14.990 dBm Margin: -15.06 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

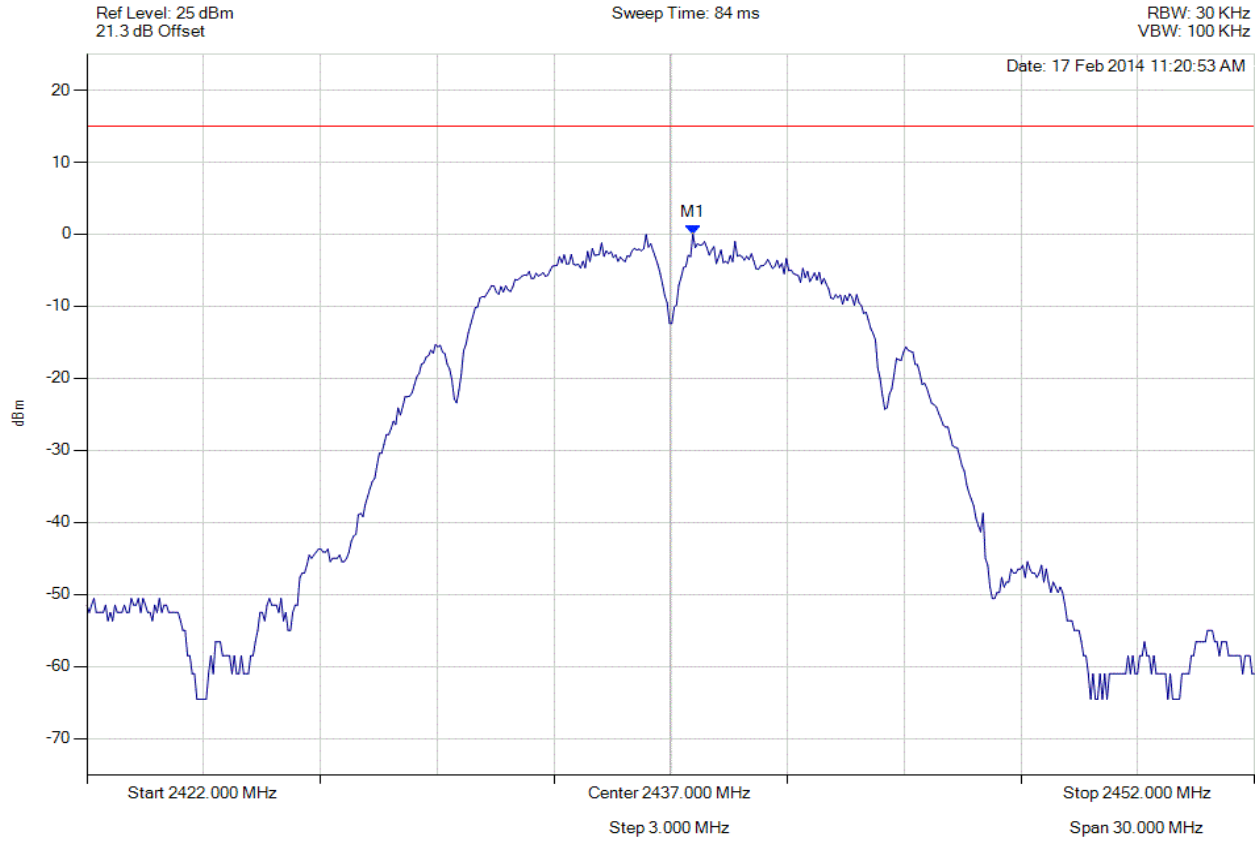


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2437.812 MHz : -0.685 dBm	Limit: ≤ 14.990 dBm Margin: -15.68 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

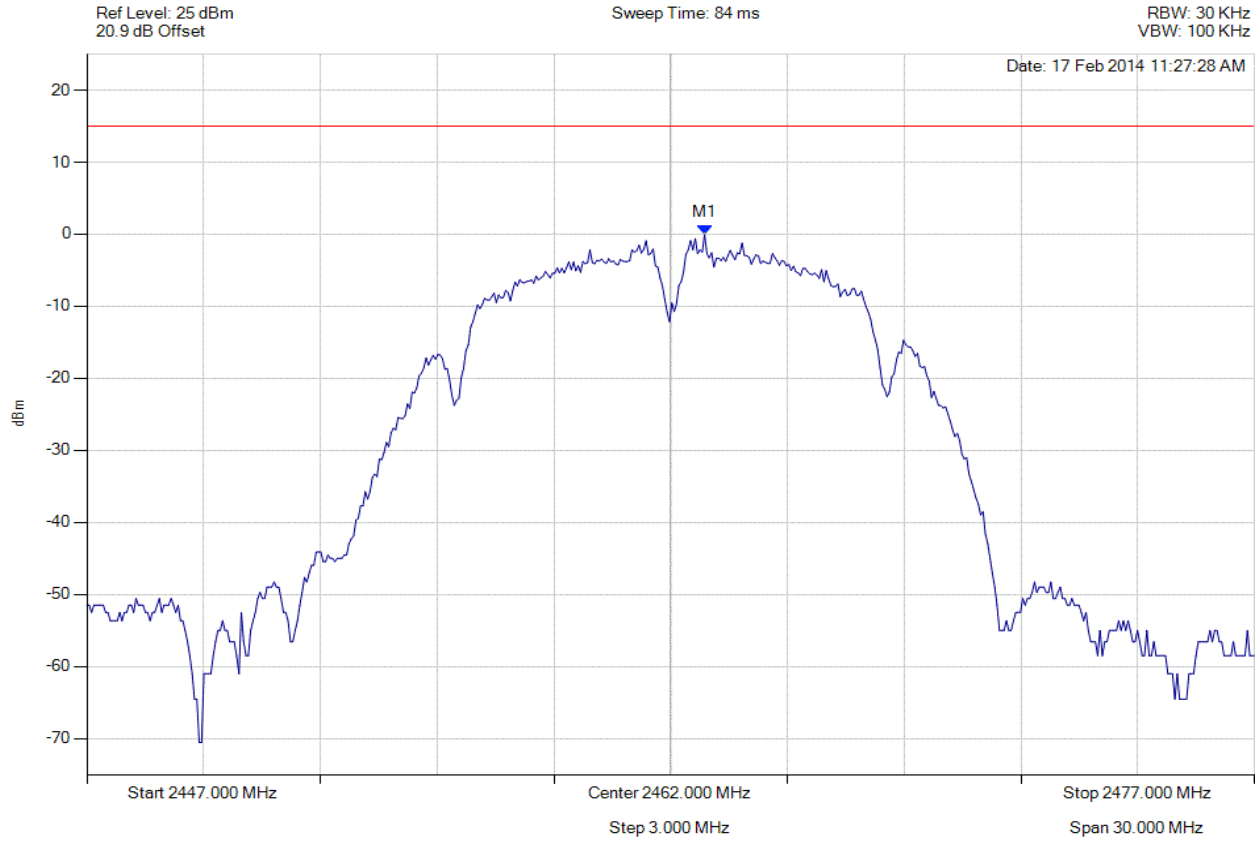


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2437.571 MHz : 0.010 dBm	Limit: ≤ 14.990 dBm Margin: -14.98 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

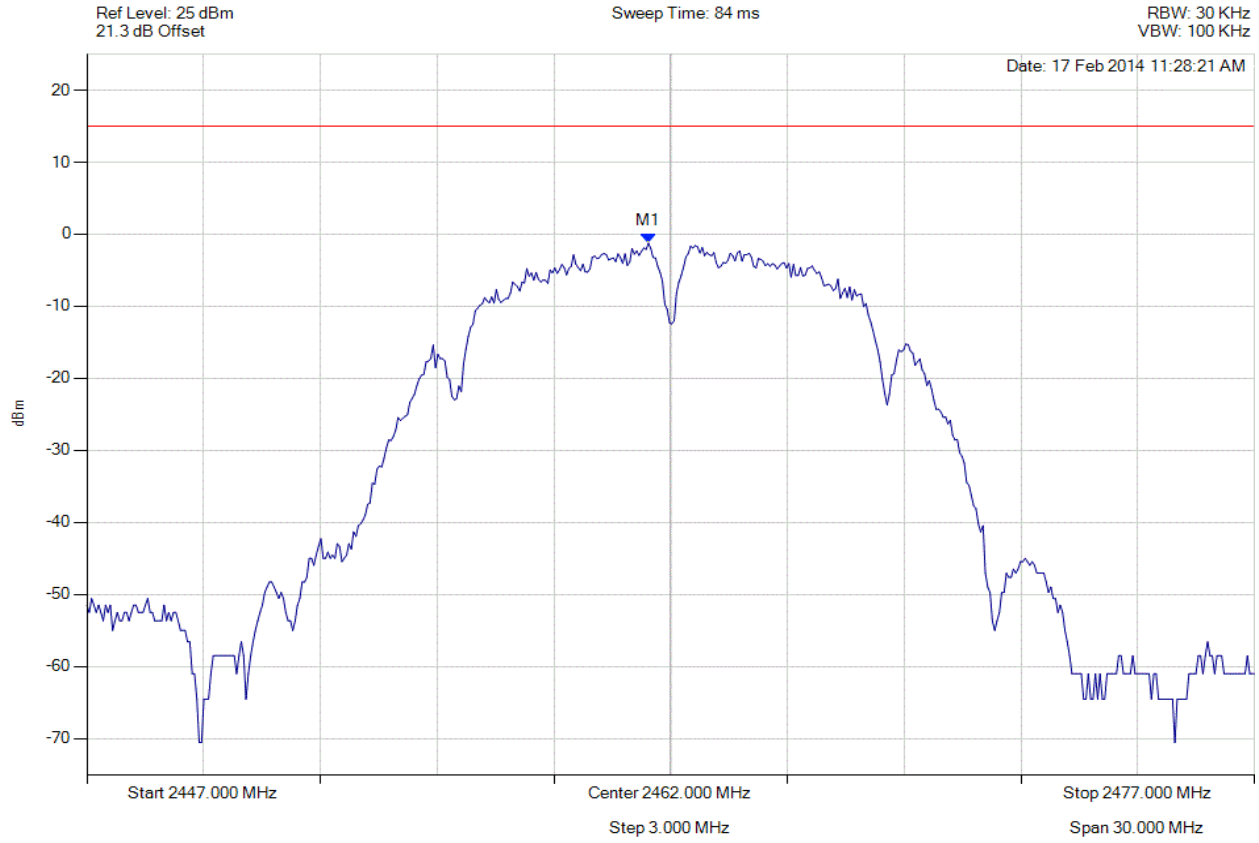


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2462.872 MHz : -0.057 dBm	Limit: ≤ 14.990 dBm Margin: -15.05 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11b, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

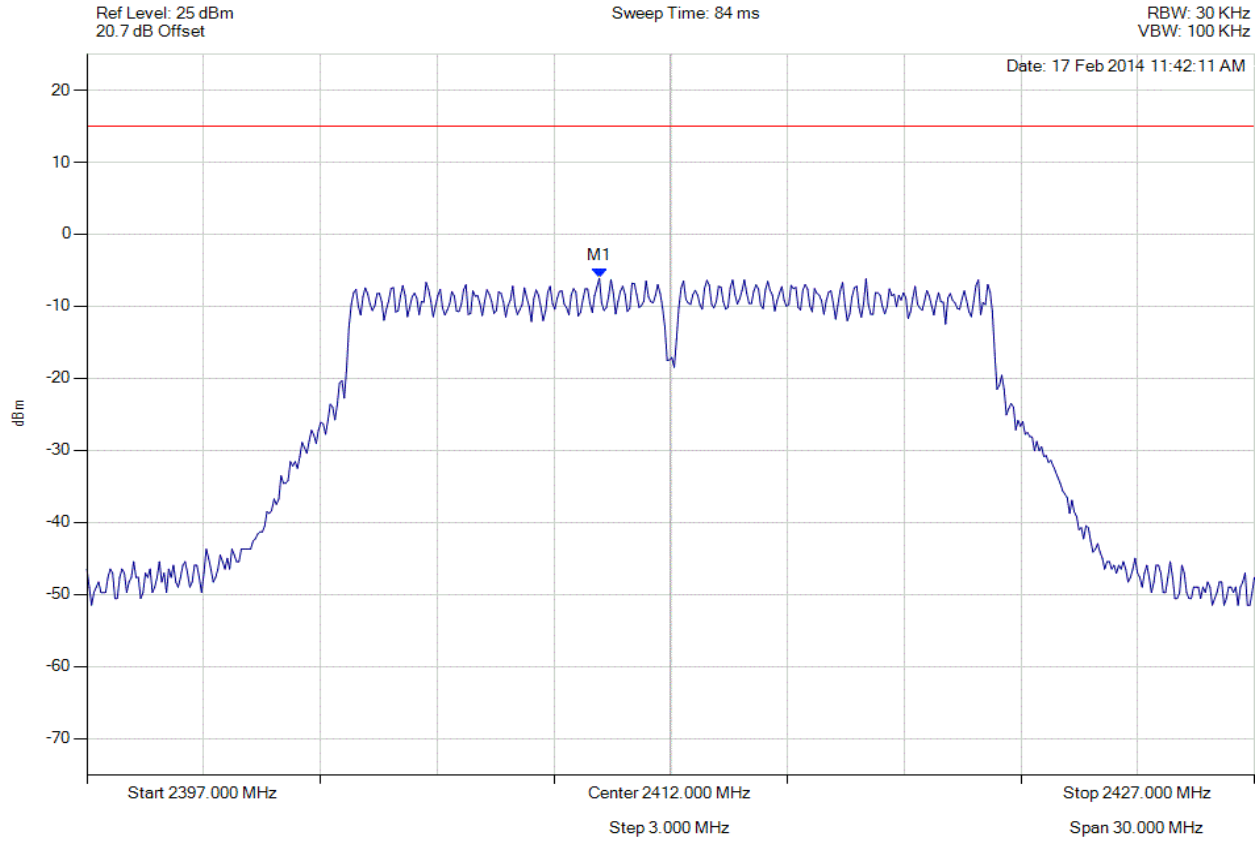


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2461.429 MHz : -1.246 dBm	Limit: ≤ 14.990 dBm Margin: -16.24 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

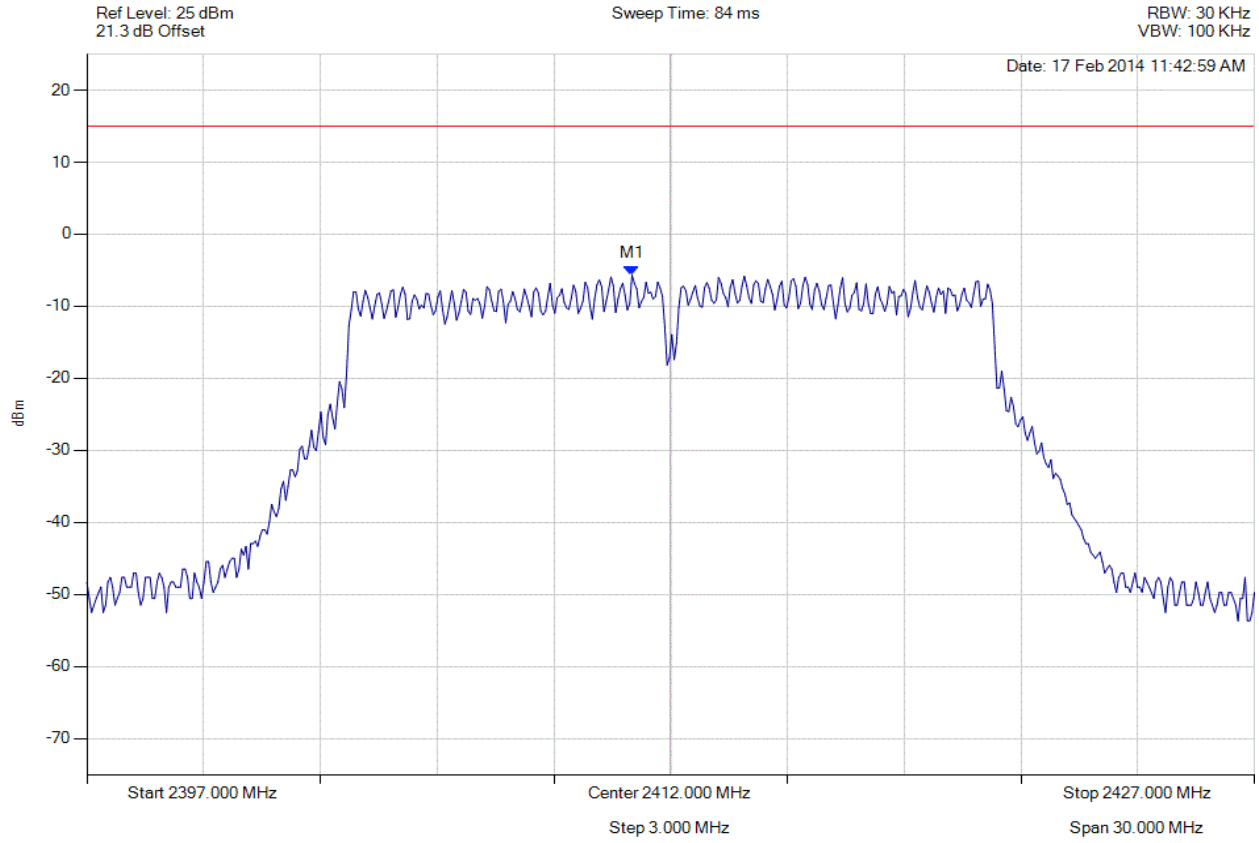


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2410.166 MHz : -6.111 dBm	Limit: ≤ 14.990 dBm Margin: -21.10 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

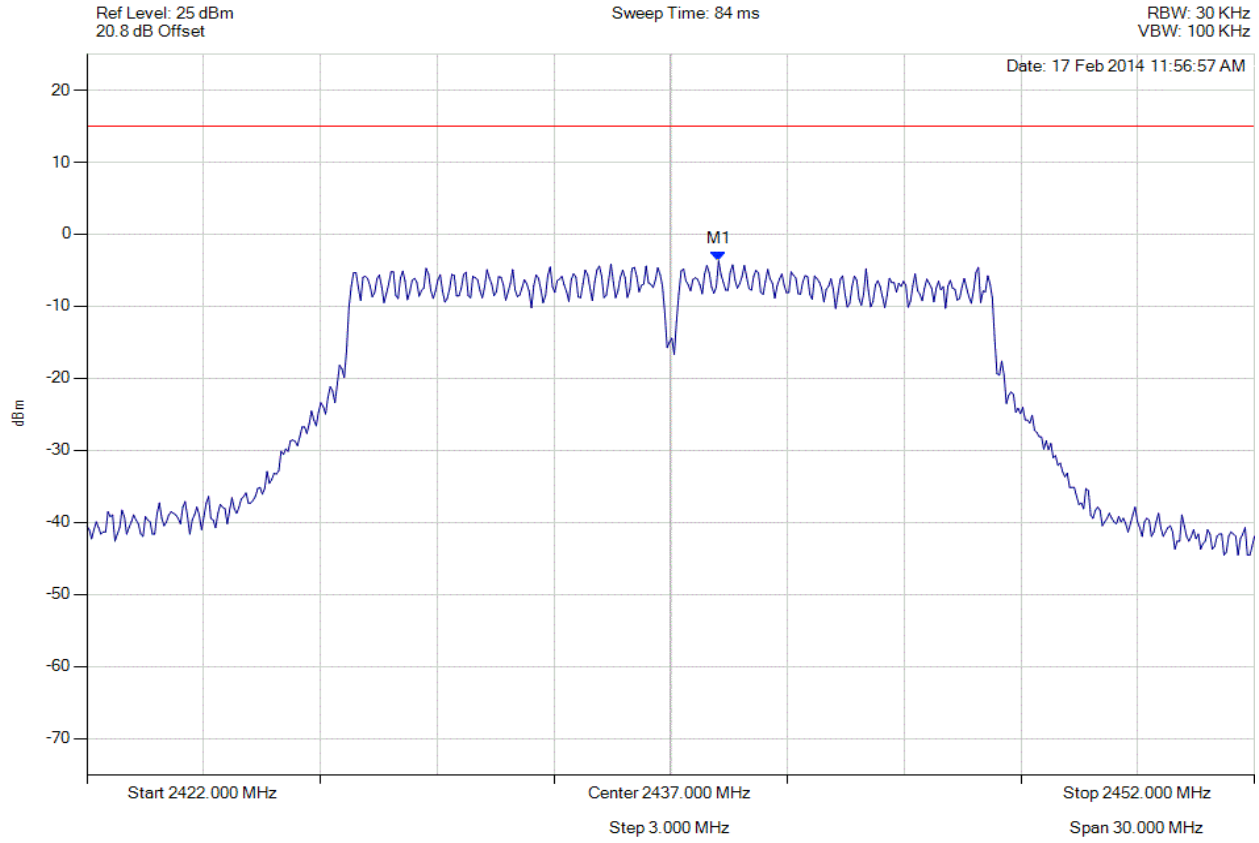


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2411.008 MHz : -5.680 dBm	Limit: ≤ 14.990 dBm Margin: -20.67 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

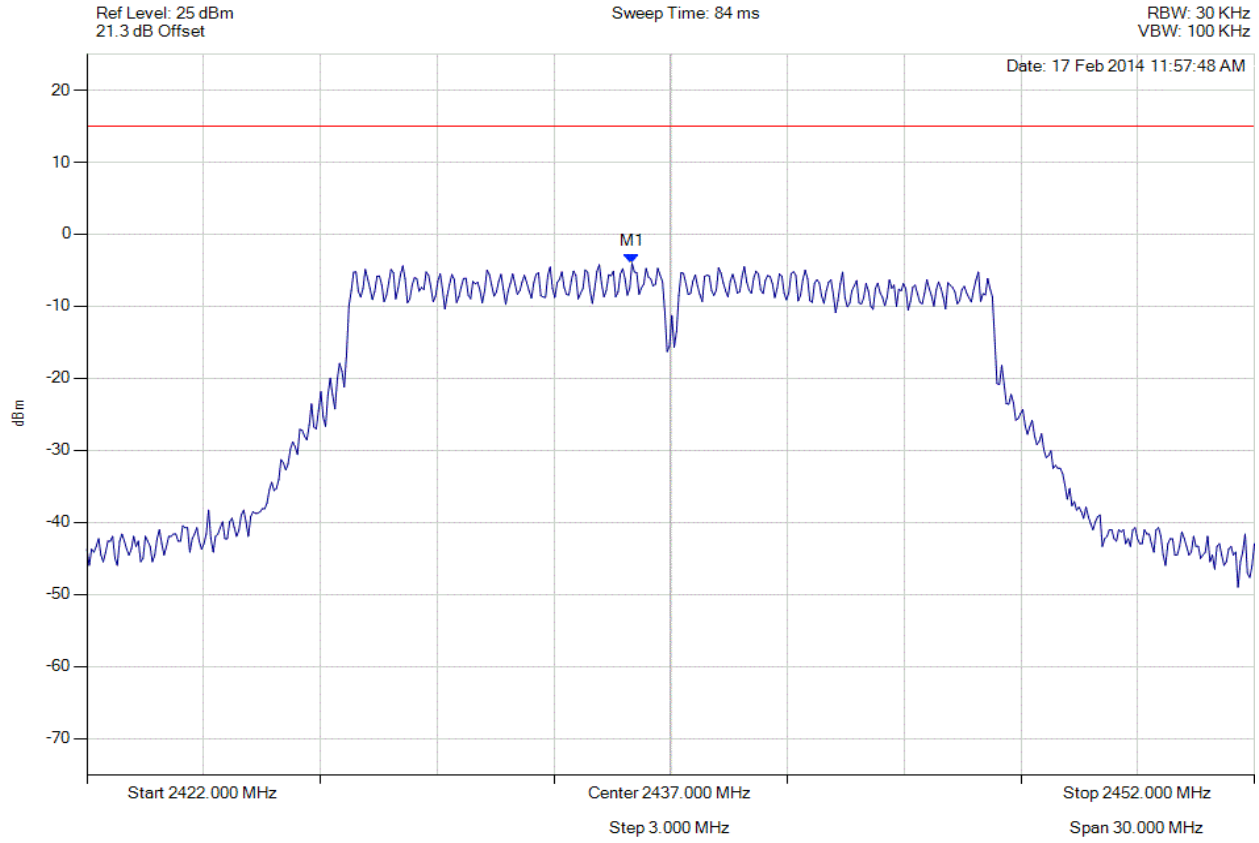


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2438.232 MHz : -3.717 dBm	Limit: ≤ 14.990 dBm Margin: -18.71 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

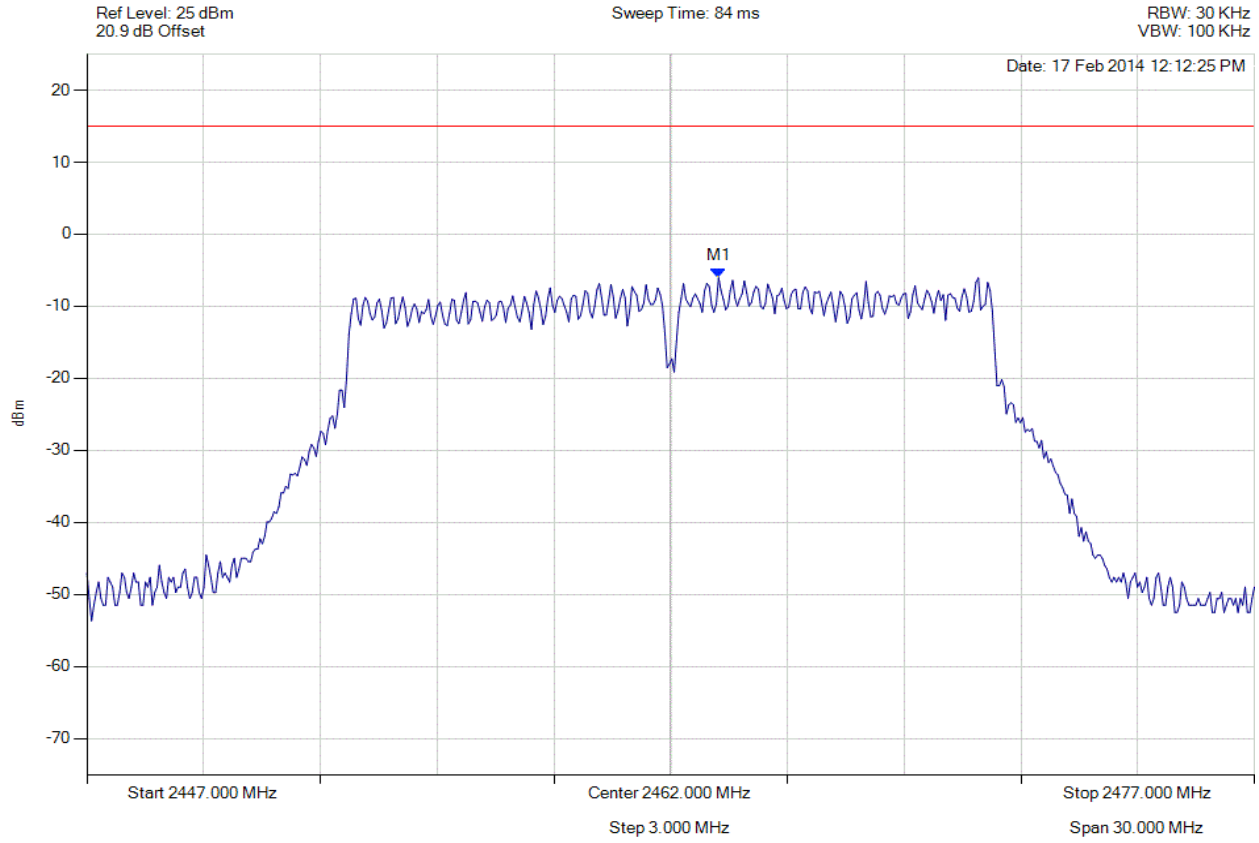


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2436.008 MHz : -4.047 dBm	Limit: ≤ 14.990 dBm Margin: -19.04 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

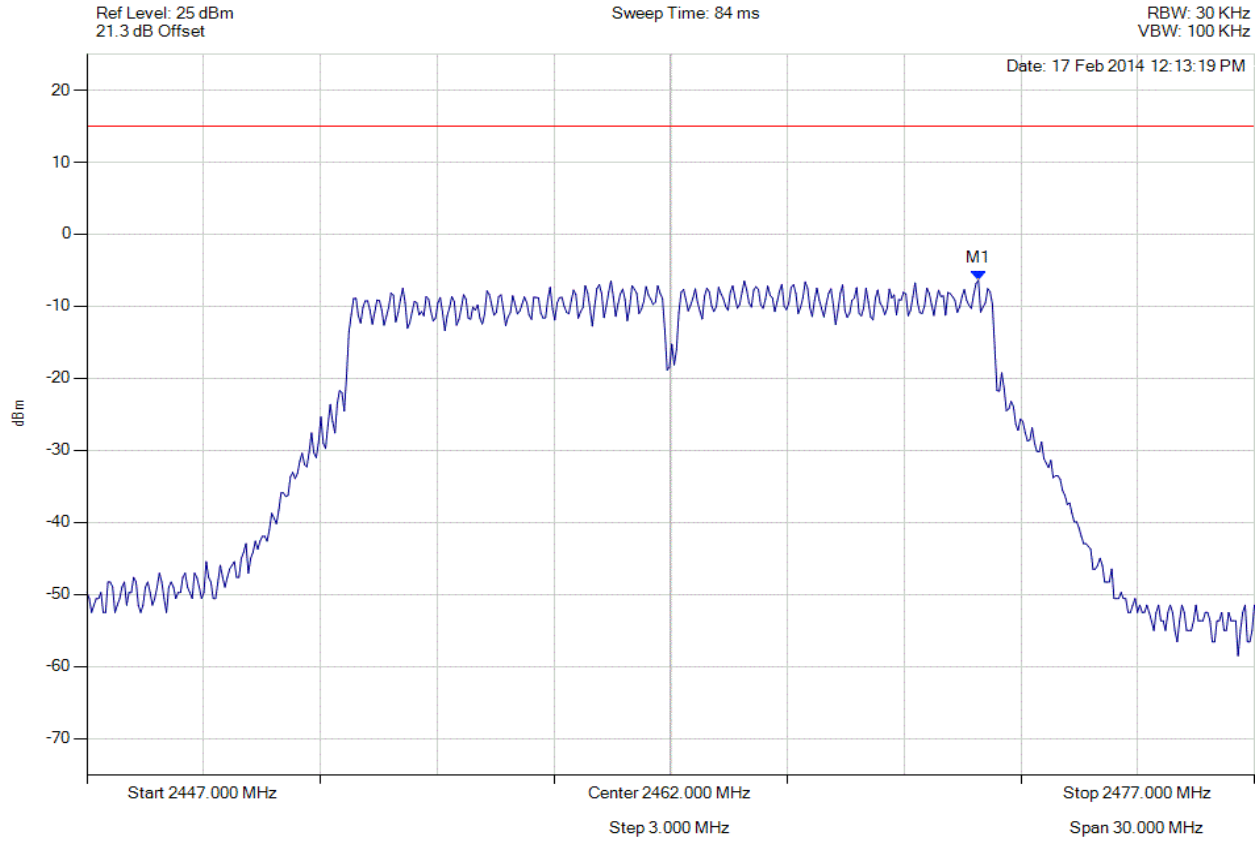


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2463.232 MHz : -6.023 dBm	Limit: ≤ 14.990 dBm Margin: -21.01 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11g, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

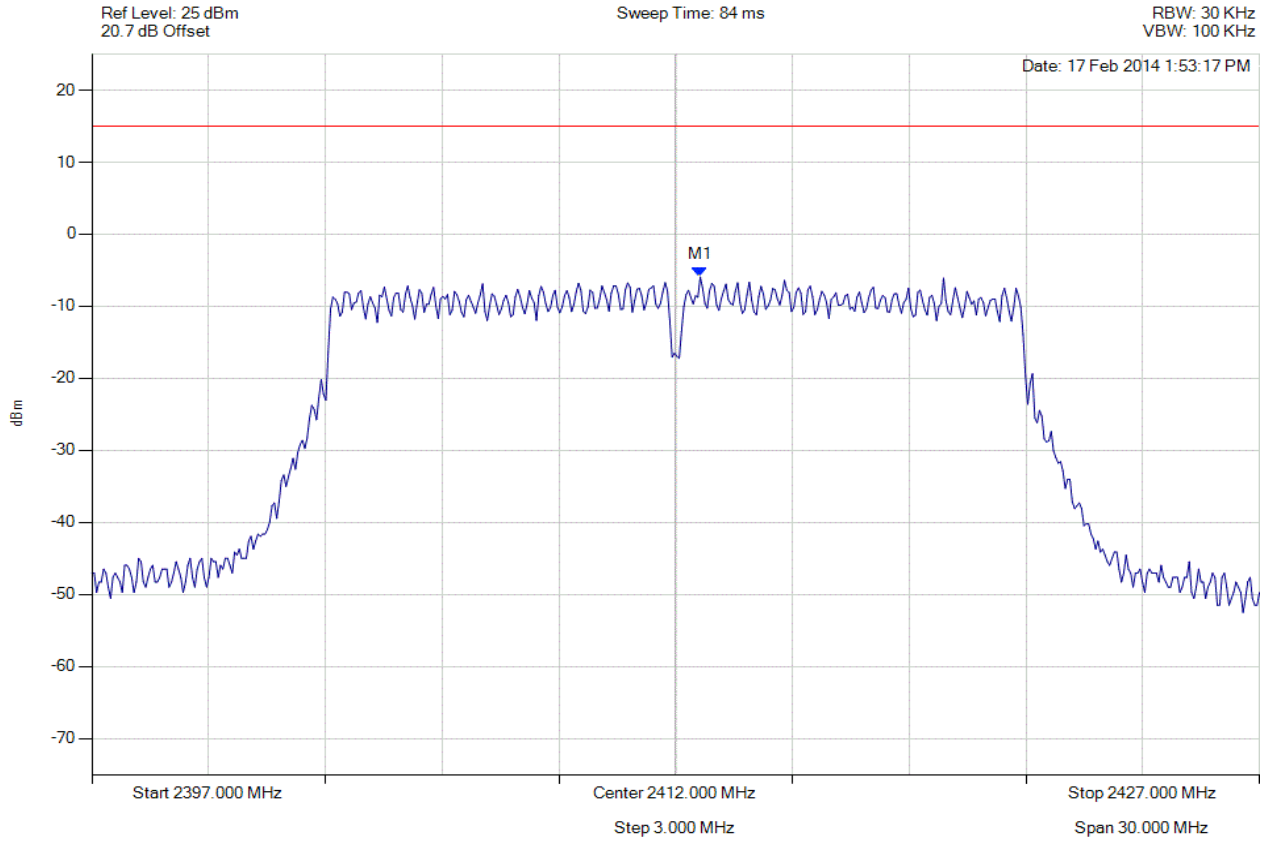


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2469.906 MHz : -6.386 dBm	Limit: ≤ 14.990 dBm Margin: -21.38 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

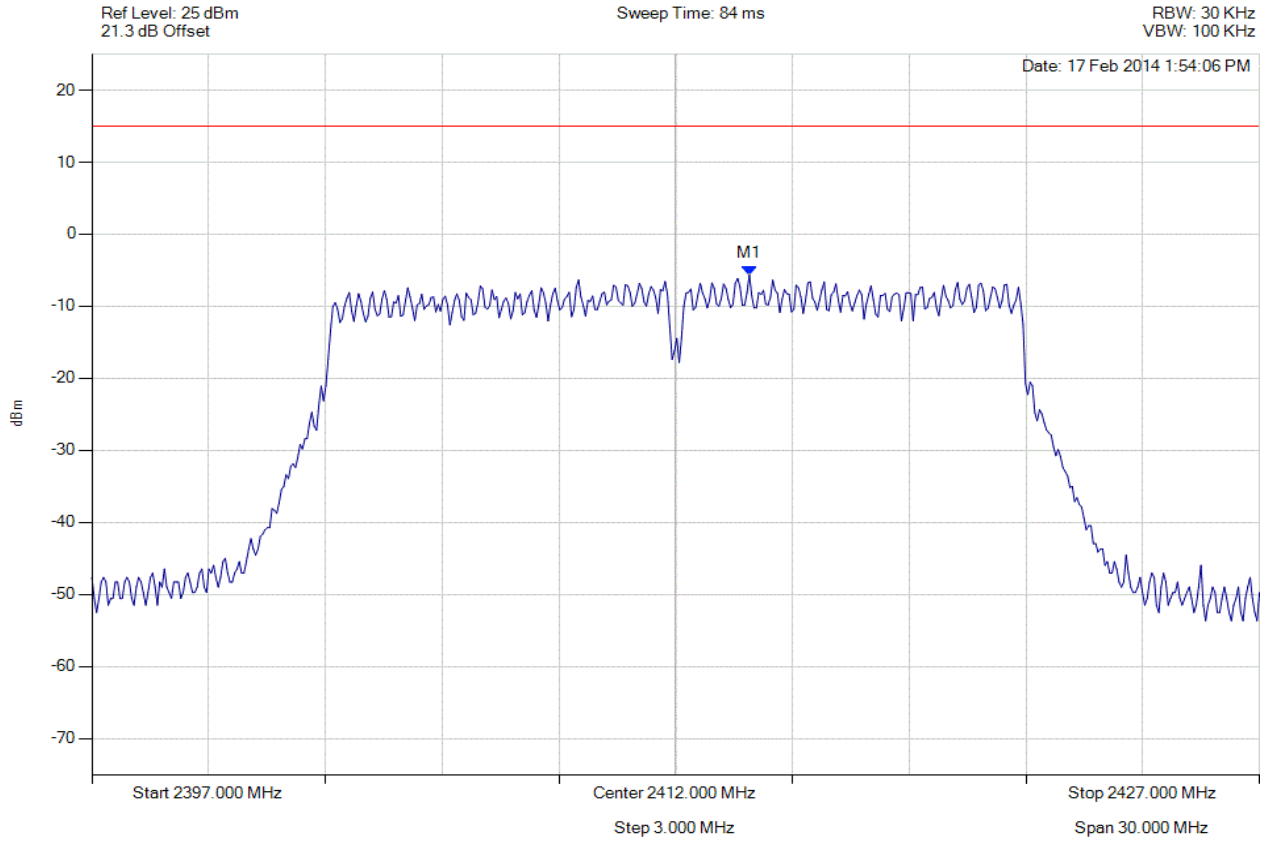


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2412.631 MHz : -5.936 dBm	Limit: ≤ 14.990 dBm Margin: -20.93 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

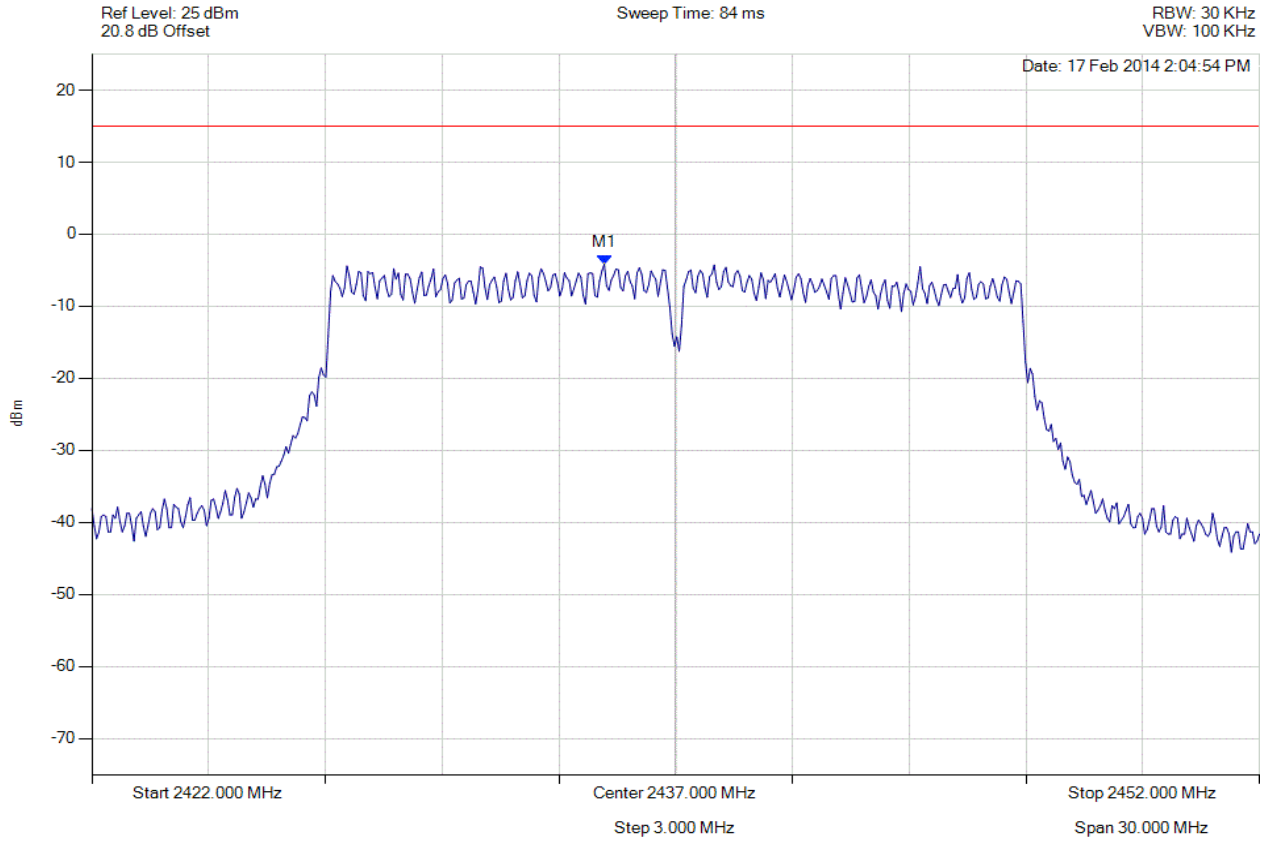


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2413.894 MHz : -5.635 dBm	Limit: ≤ 14.990 dBm Margin: -20.63 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

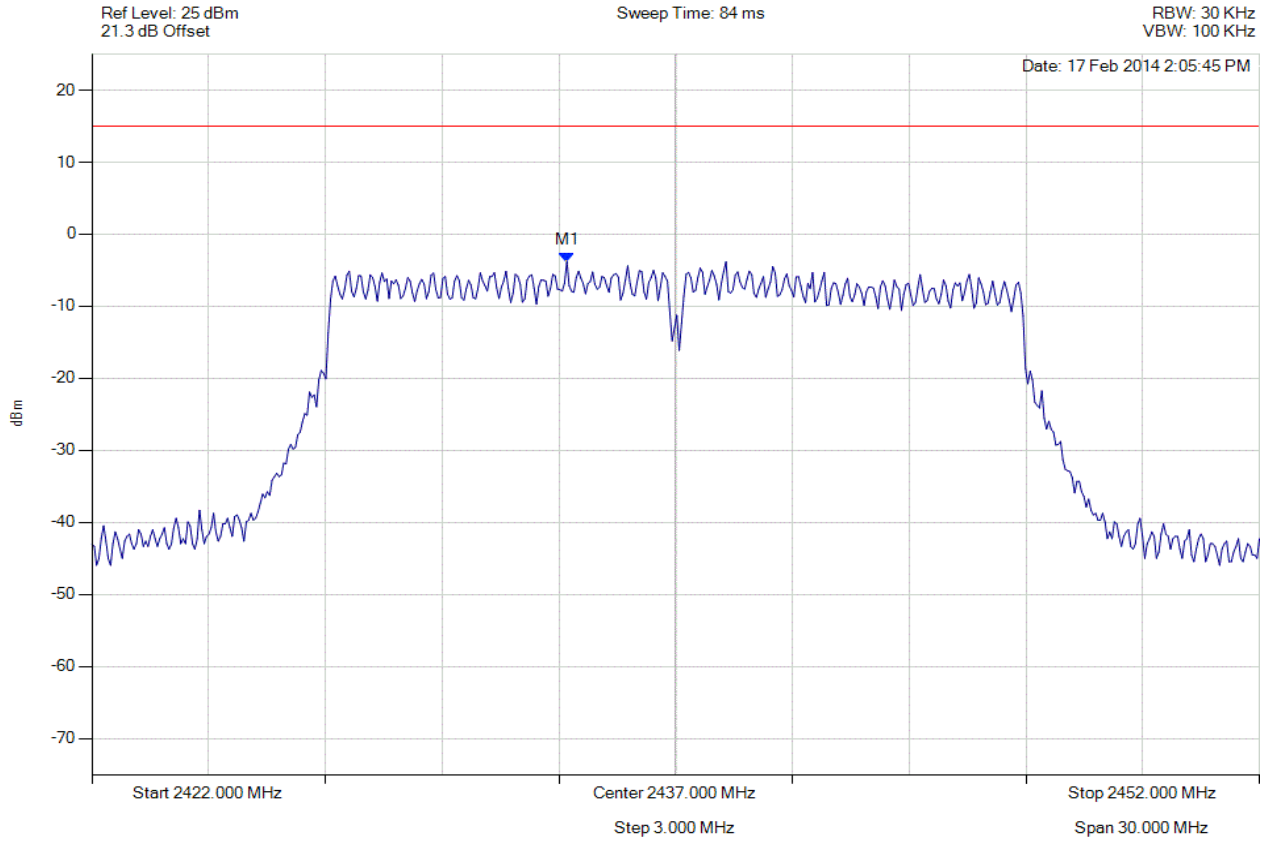


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2435.166 MHz : -4.154 dBm	Limit: ≤ 14.990 dBm Margin: -19.14 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

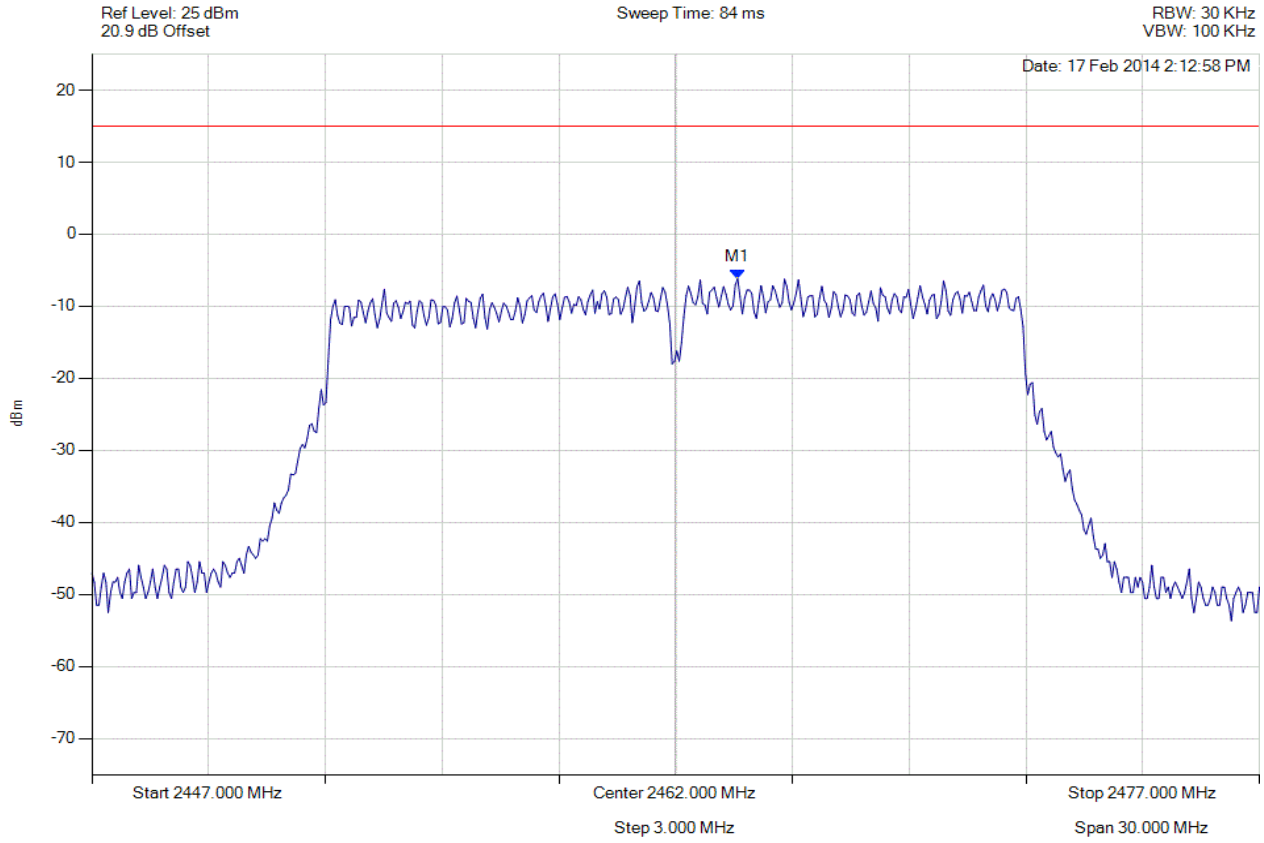


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2434.204 MHz : -3.816 dBm	Limit: ≤ 14.990 dBm Margin: -18.81 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

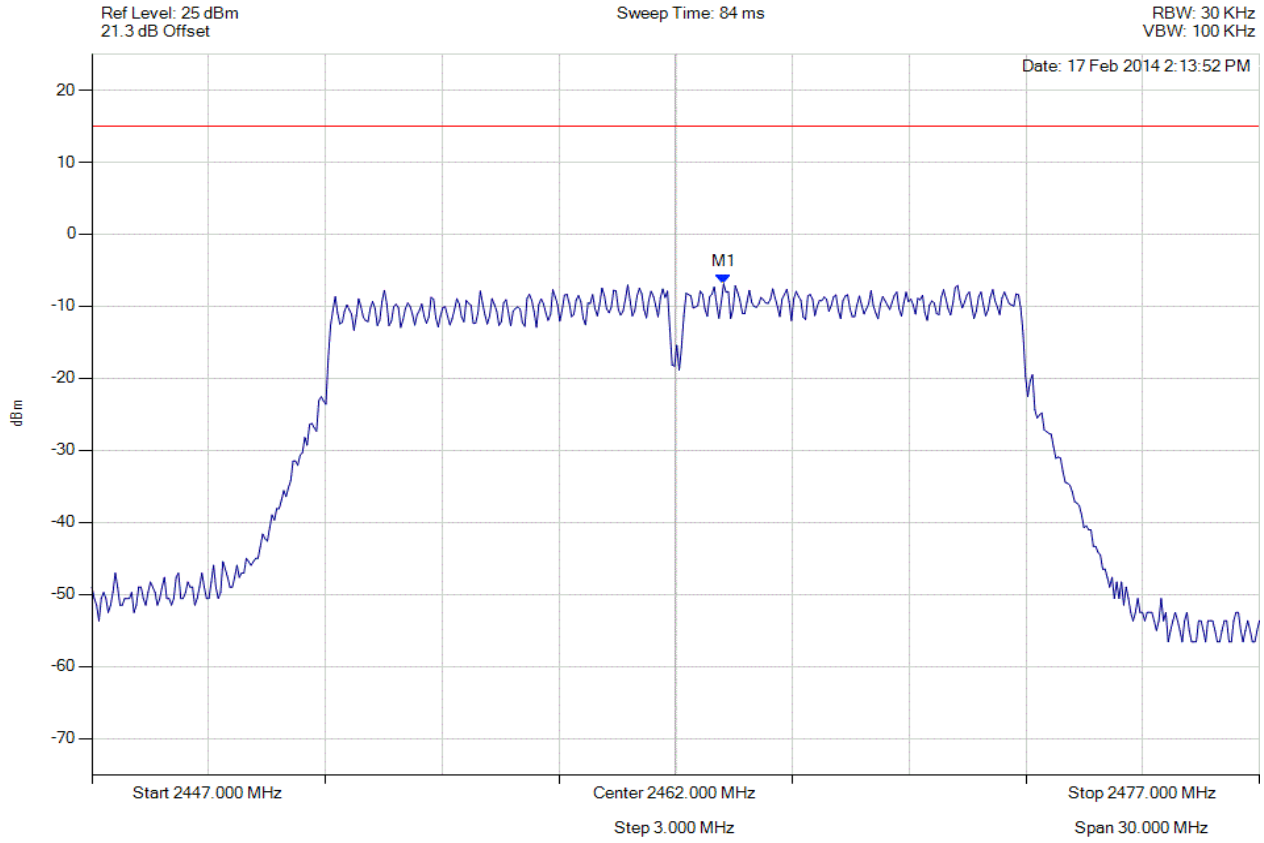


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2463.593 MHz : -6.179 dBm	Limit: ≤ 14.990 dBm Margin: -21.17 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2463.232 MHz : -6.889 dBm	Limit: ≤ 14.990 dBm Margin: -21.88 dB

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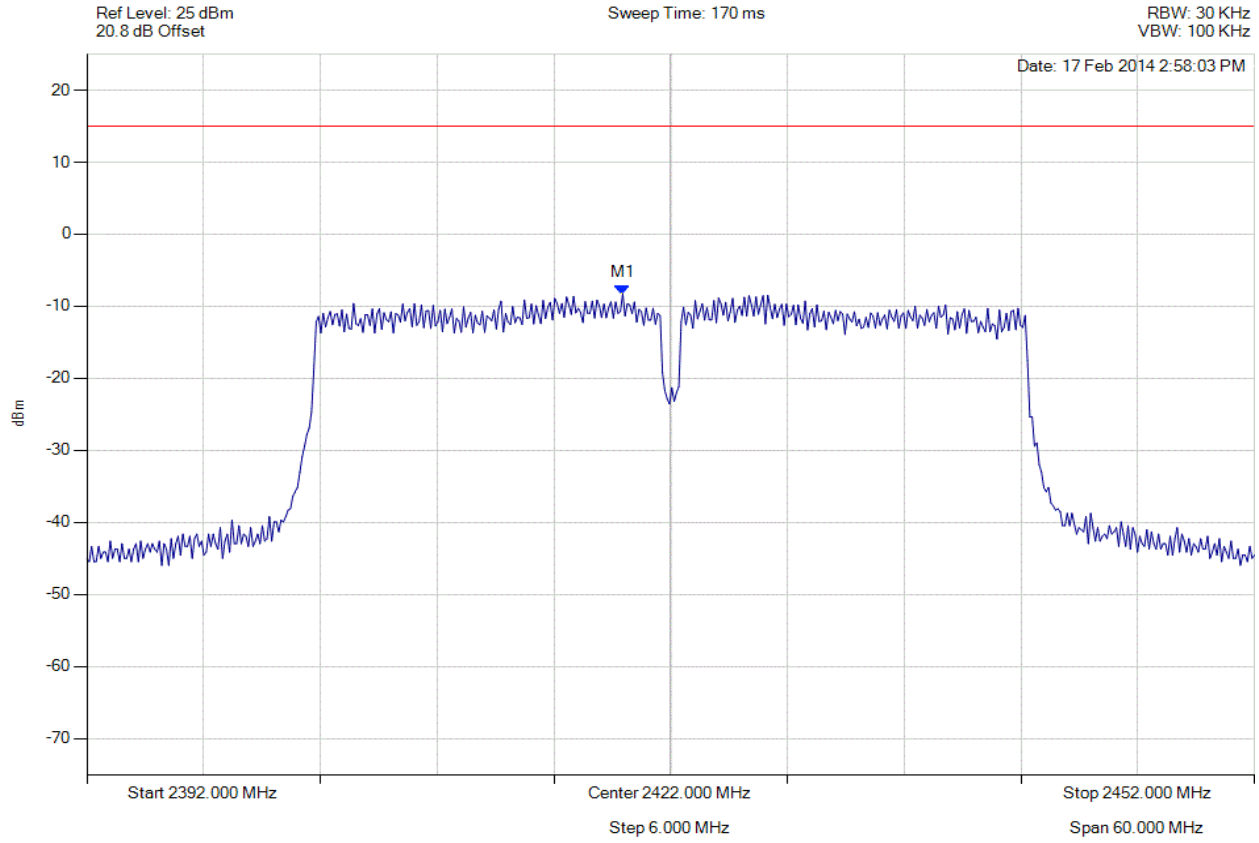
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

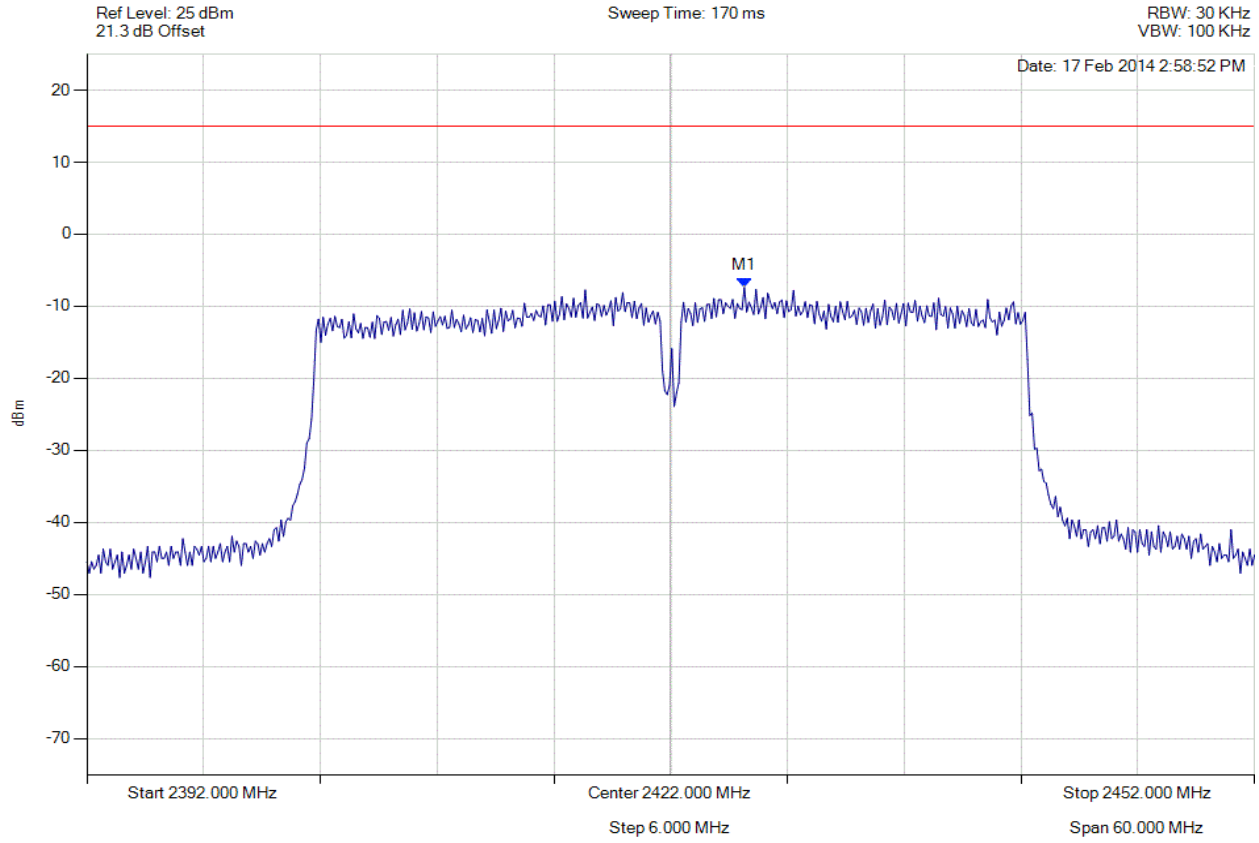


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2419.535 MHz : -8.300 dBm	Limit: ≤ 14.990 dBm Margin: -23.29 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

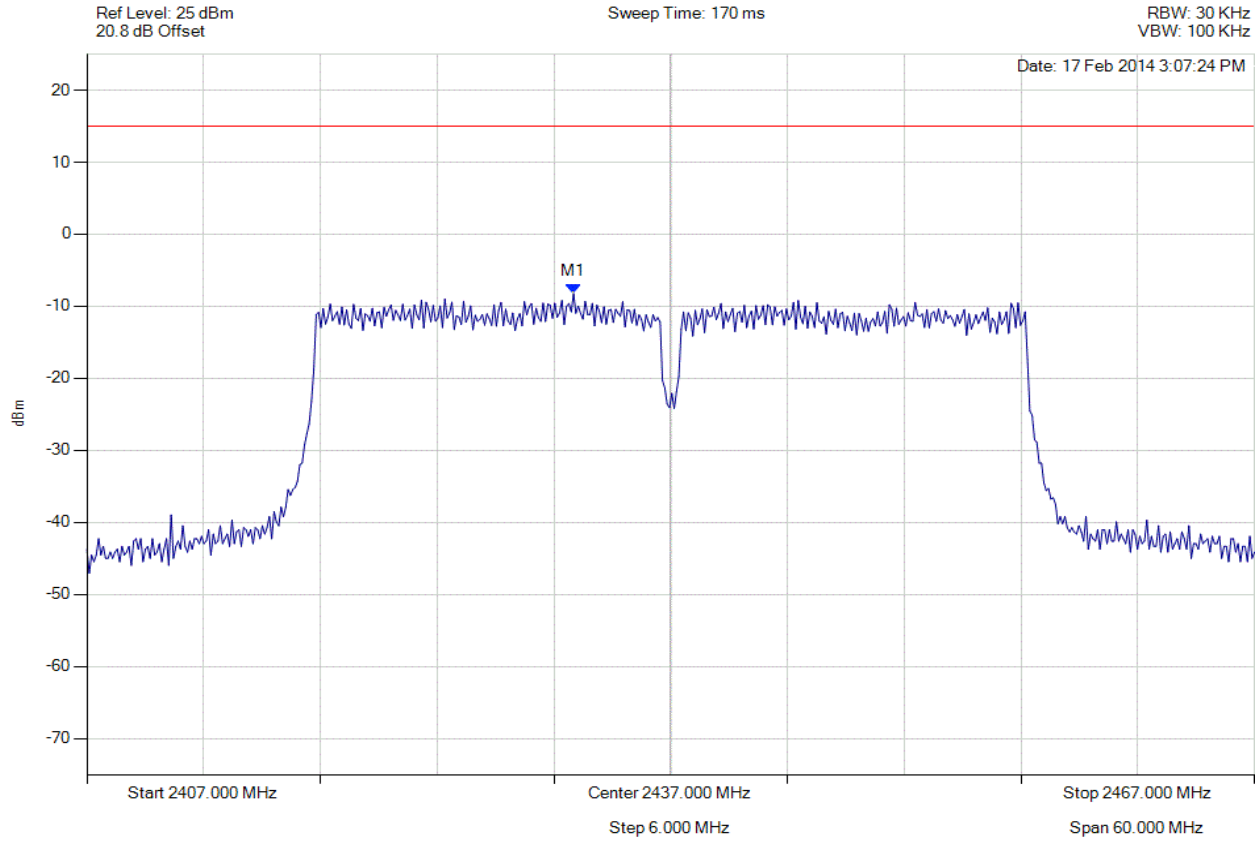


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2425.788 MHz : -7.380 dBm	Limit: ≤ 14.990 dBm Margin: -22.37 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

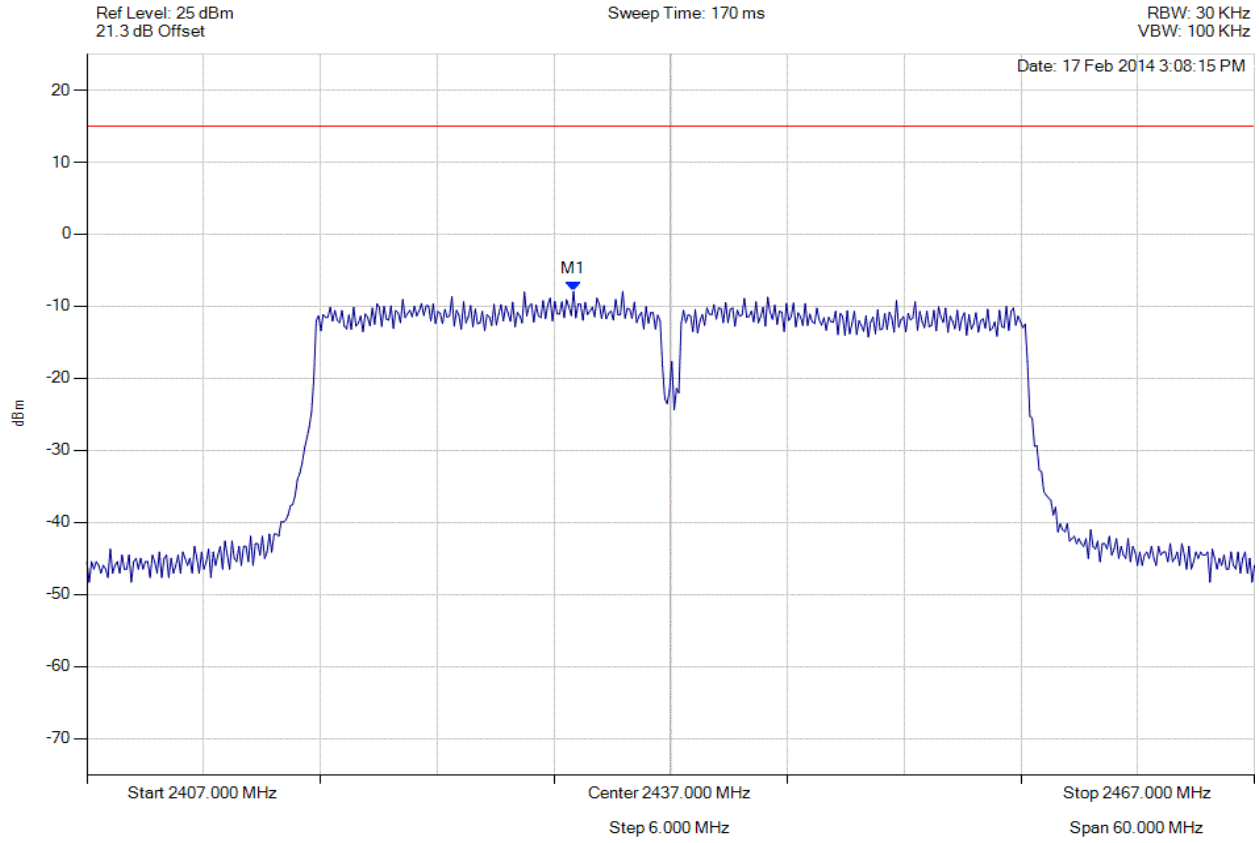


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2432.010 MHz : -8.233 dBm	Limit: ≤ 14.990 dBm Margin: -23.22 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

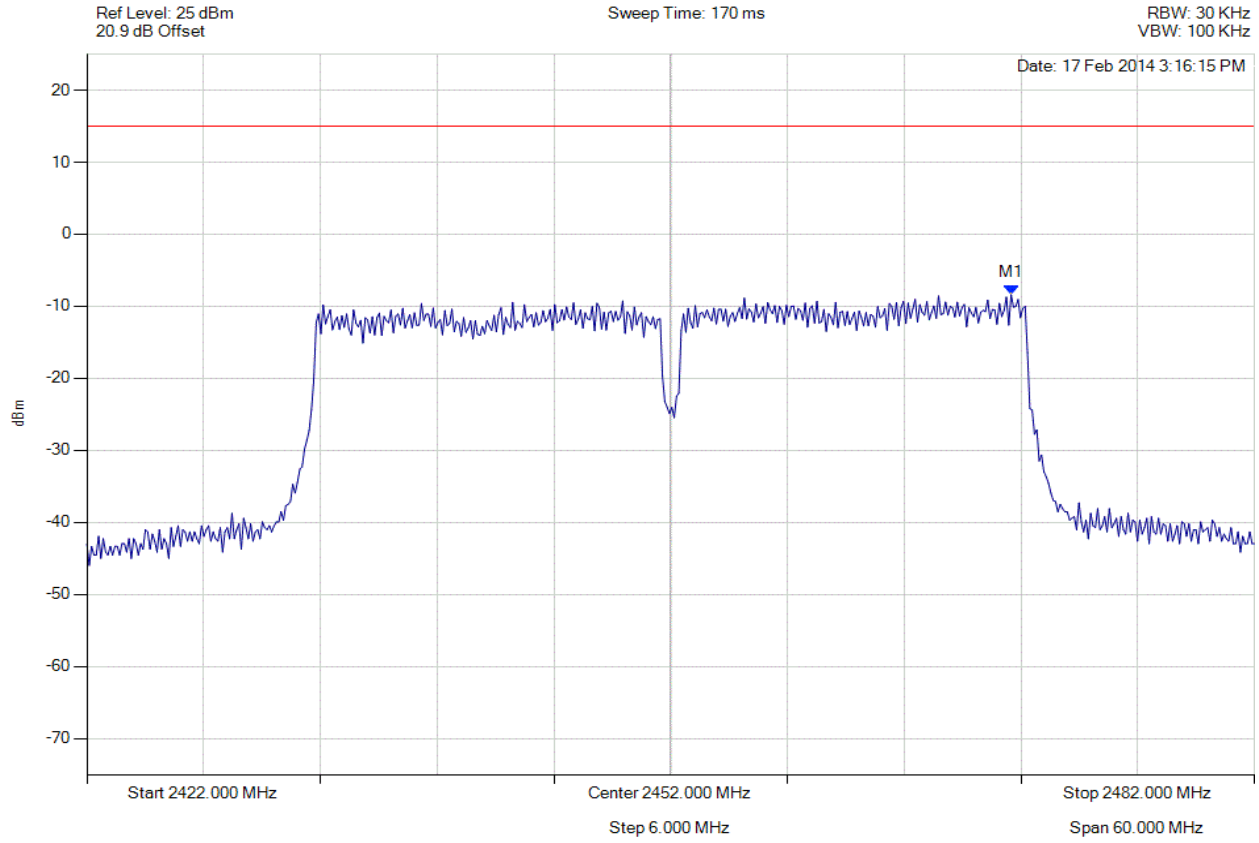


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2432.010 MHz : -7.946 dBm	Limit: ≤ 14.990 dBm Margin: -22.94 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

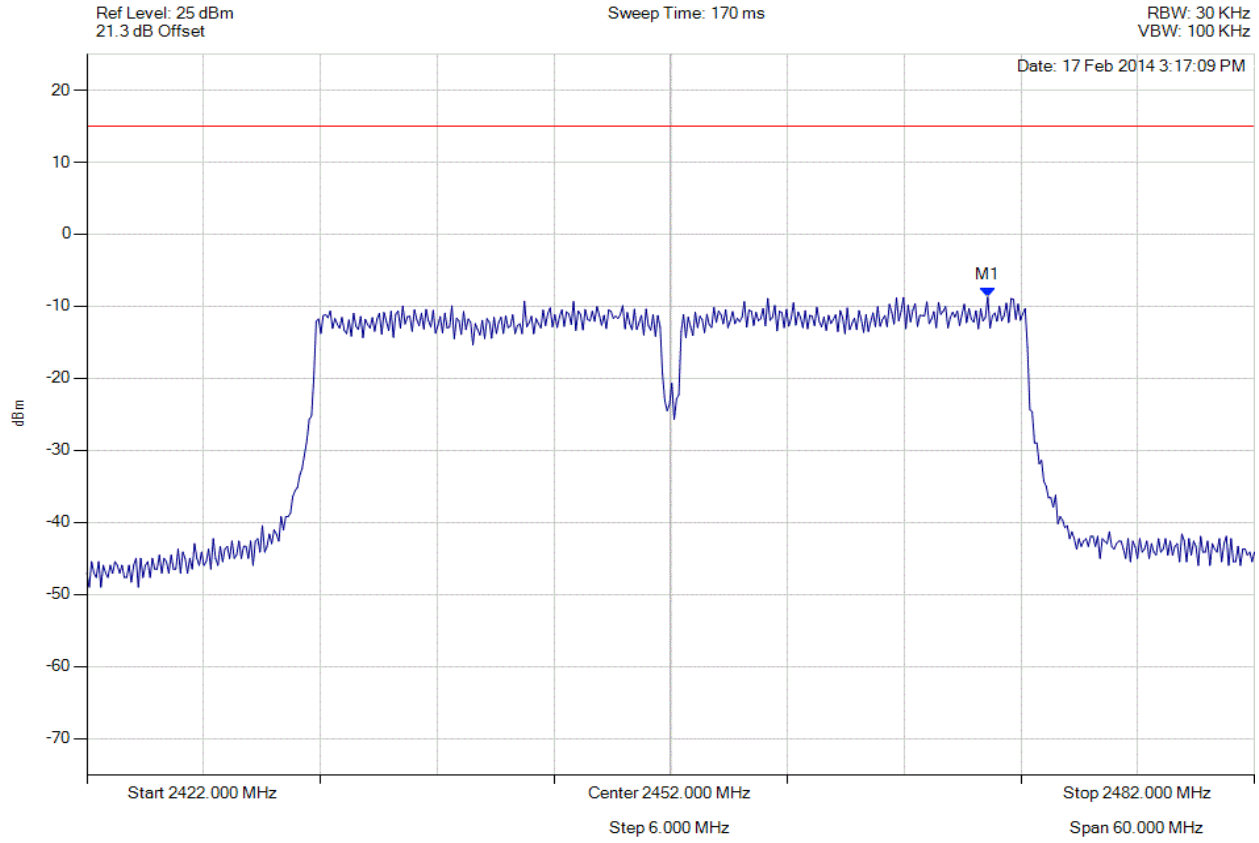


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2469.495 MHz : -8.408 dBm	Limit: ≤ 14.990 dBm Margin: -23.40 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

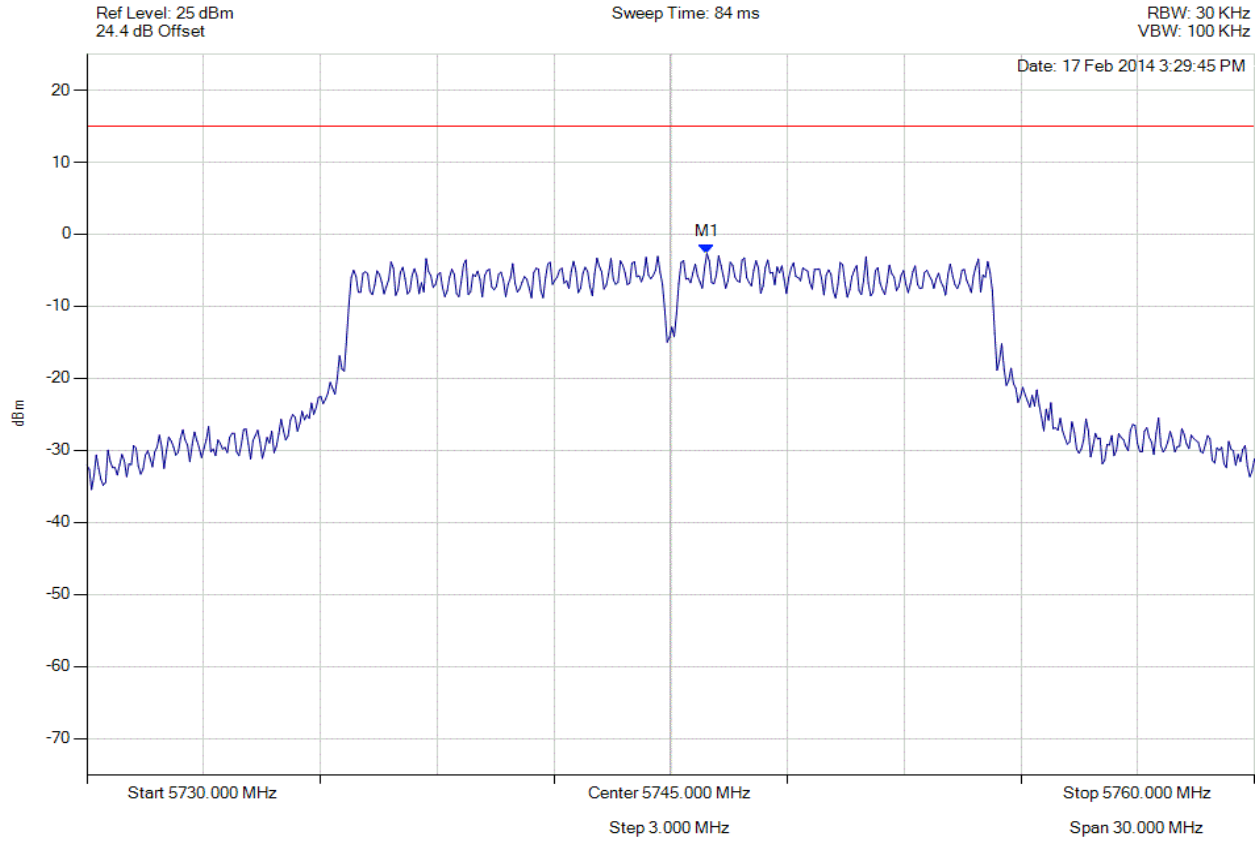


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2468.293 MHz : -8.718 dBm	Limit: ≤ 14.990 dBm Margin: -23.71 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11a, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

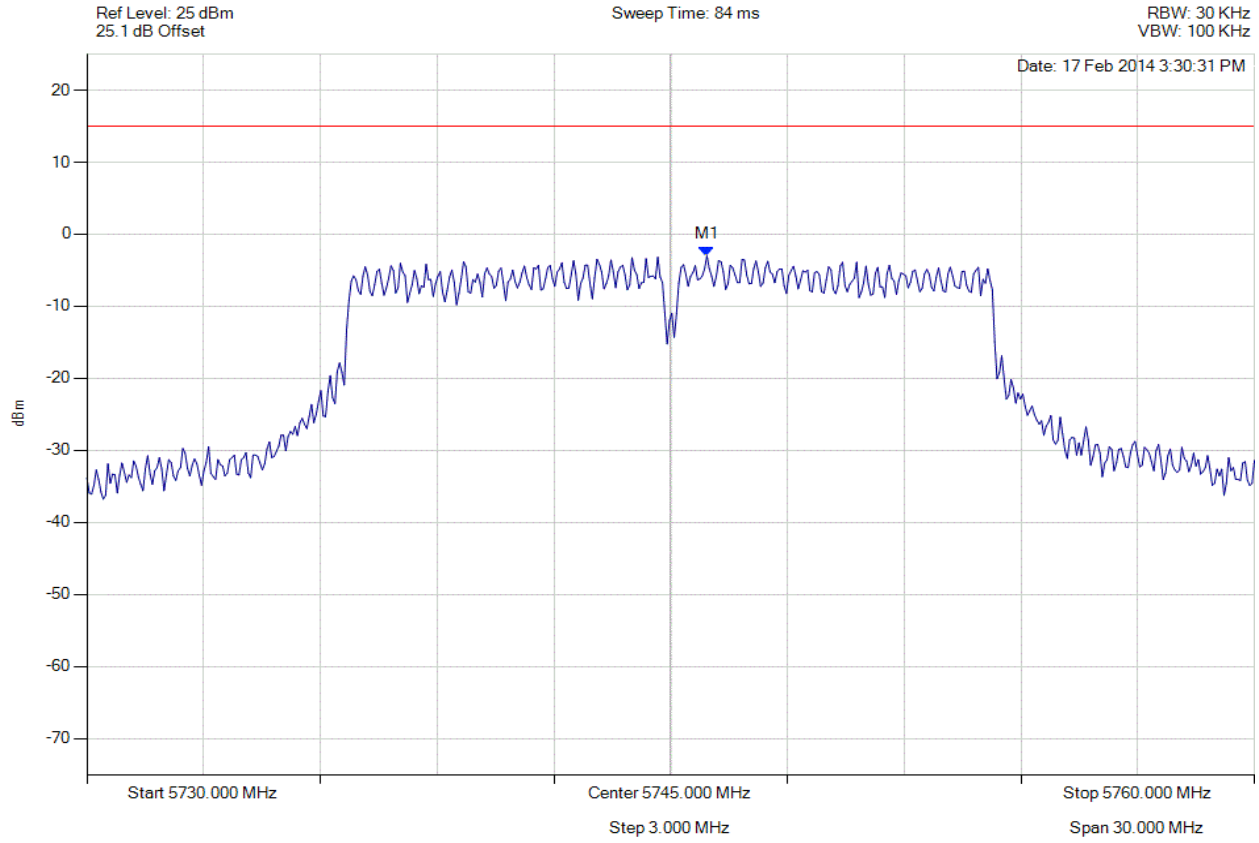


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5745.932 MHz : -2.690 dBm	Limit: ≤ 14.990 dBm Margin: -17.68 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11a, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

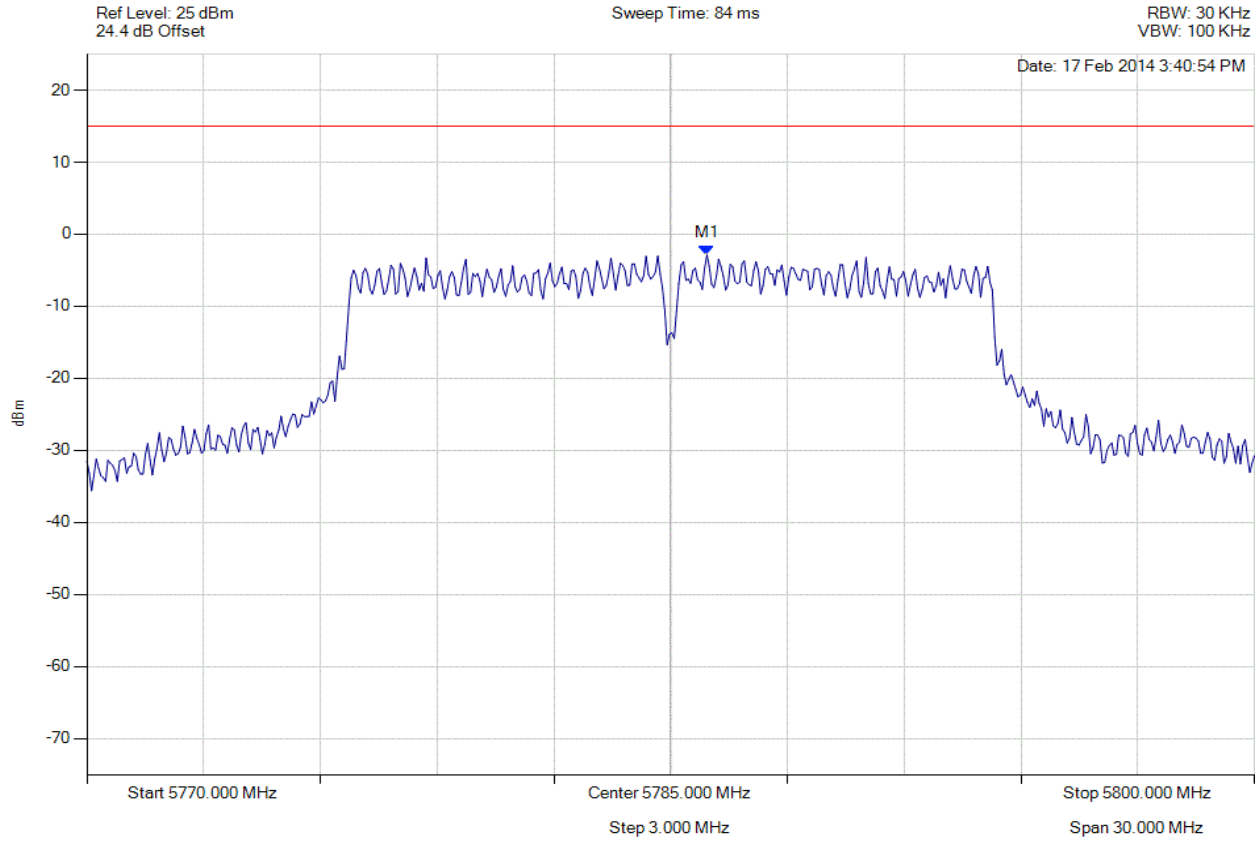


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5745.932 MHz : -3.023 dBm	Limit: ≤ 14.990 dBm Margin: -18.01 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11a, Channel: 5785.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

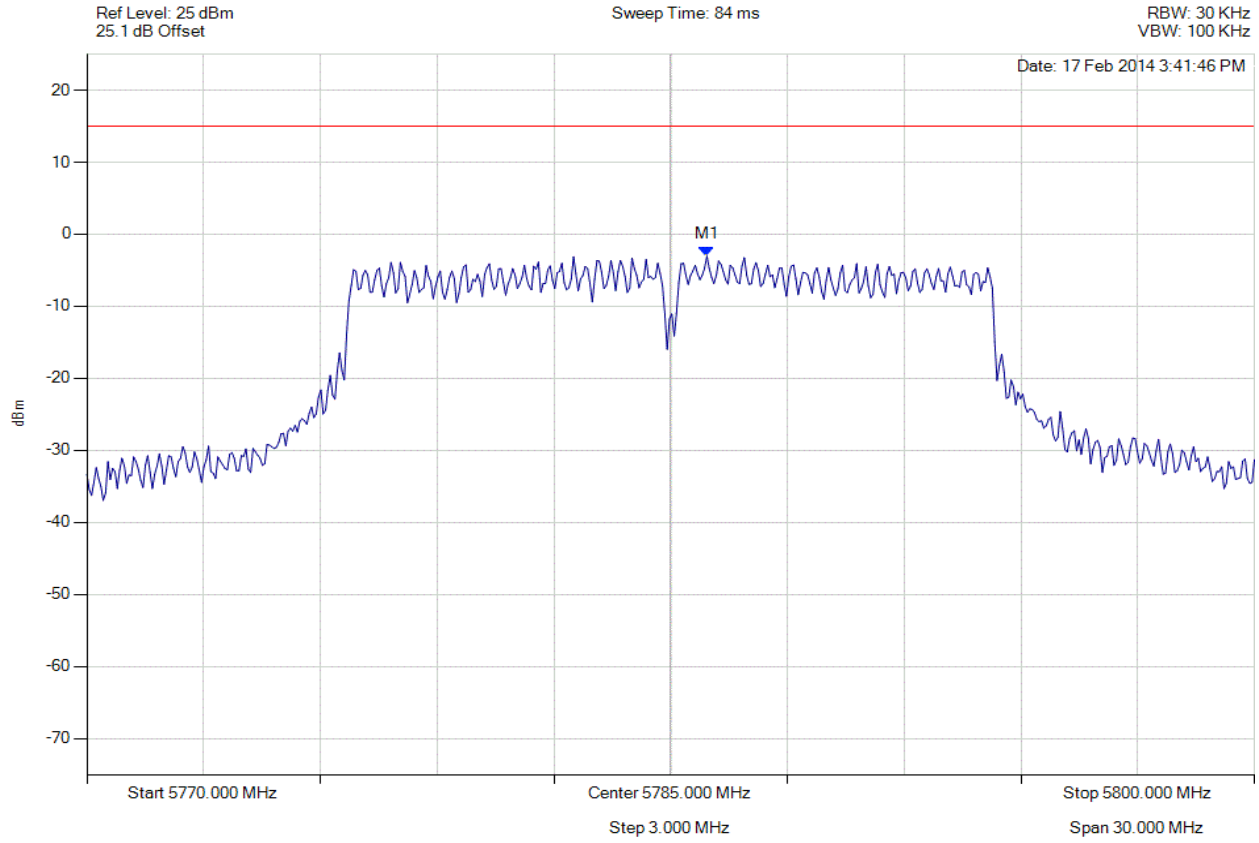


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5785.932 MHz : -2.868 dBm	Limit: ≤ 14.990 dBm Margin: -17.86 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11a, Channel: 5785.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

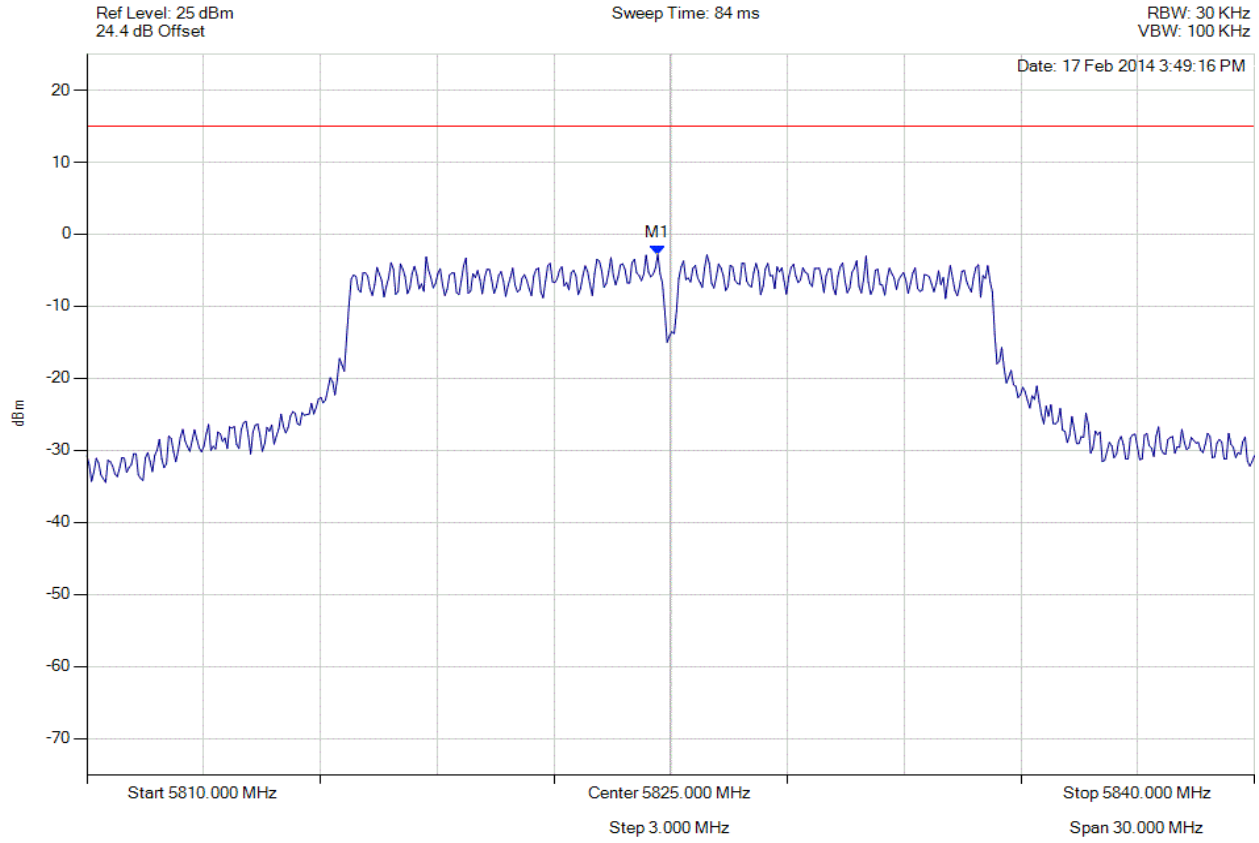


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5785.932 MHz : -3.052 dBm	Limit: ≤ 14.990 dBm Margin: -18.04 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11a, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc

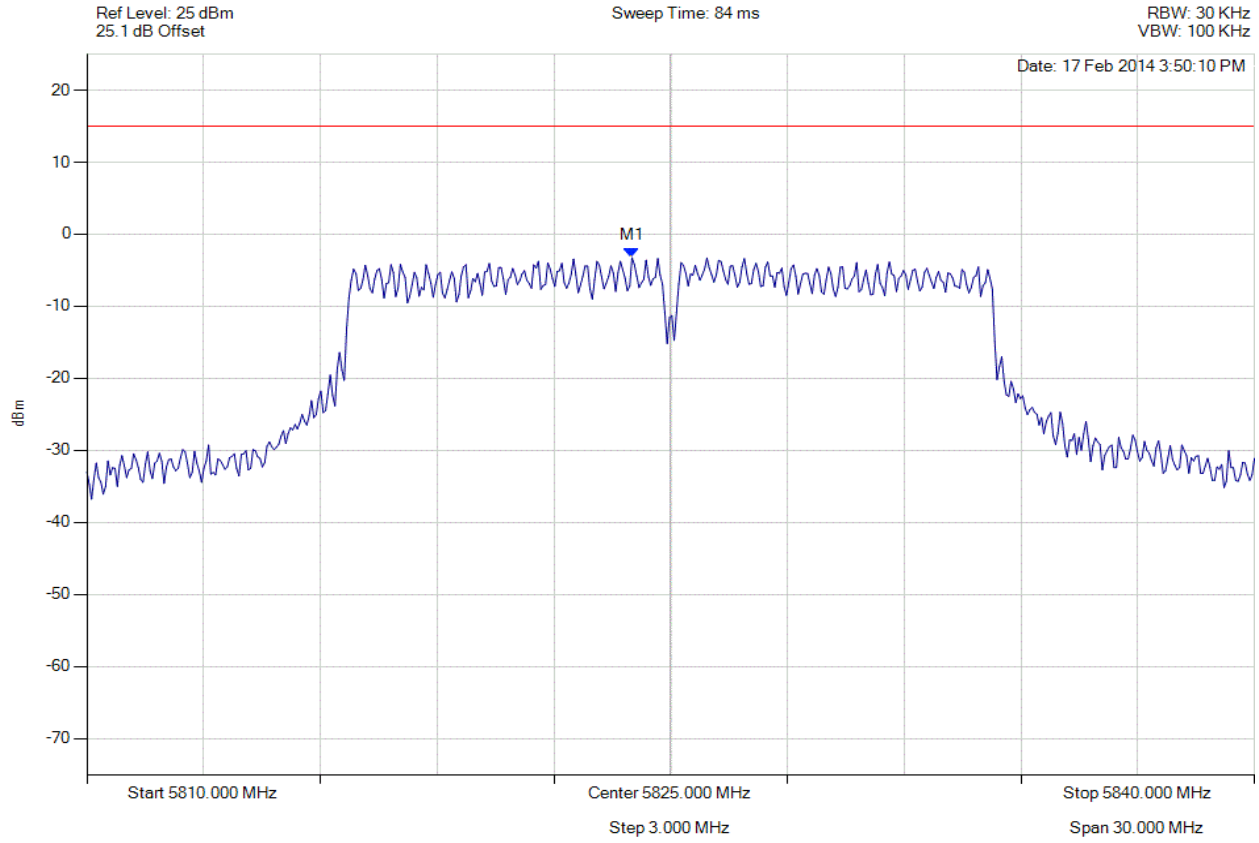


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5824.669 MHz : -2.832 dBm	Limit: ≤ 14.990 dBm Margin: -17.82 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11a, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc

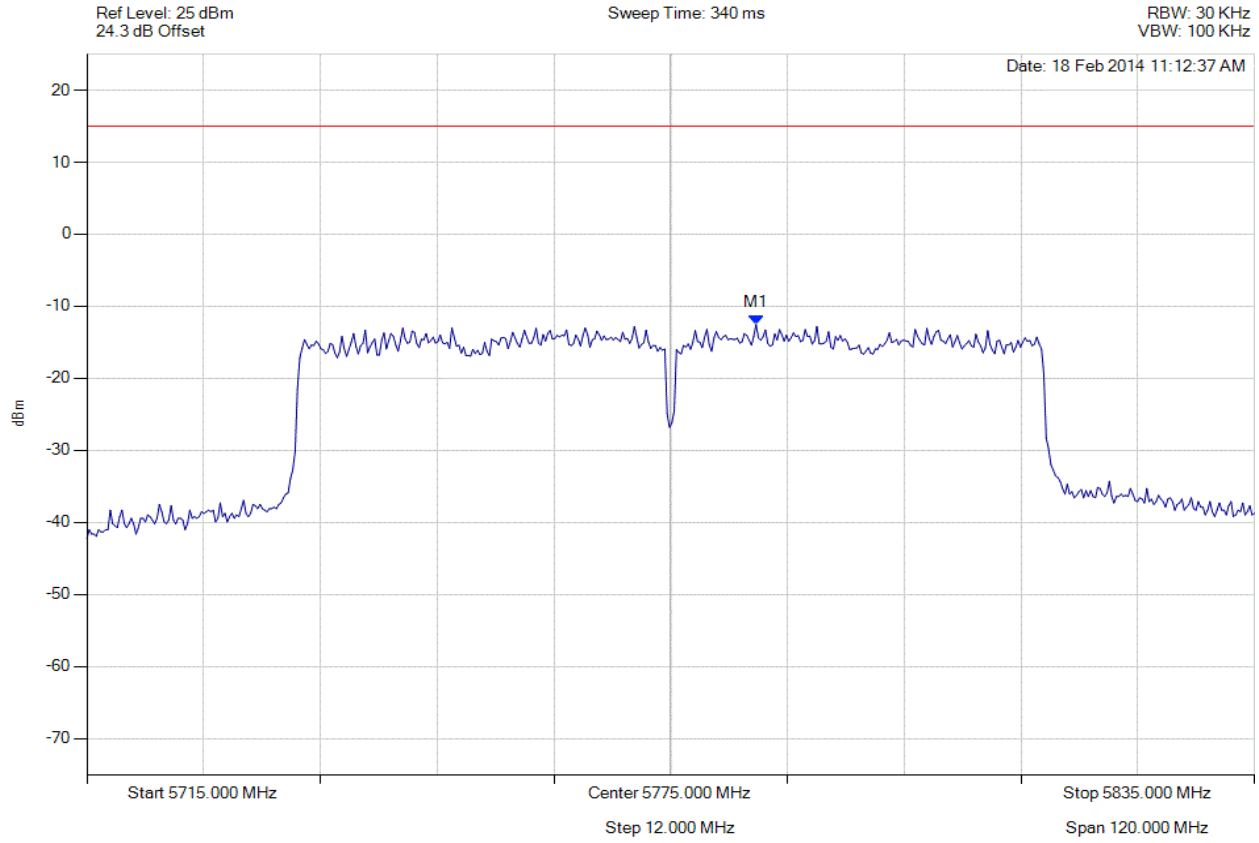


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5824.008 MHz : -3.263 dBm	Limit: ≤ 14.990 dBm Margin: -18.25 dB

Back to the Matrix

POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5783.778 MHz : -12.525 dBm	Limit: ≤ 14.990 dBm Margin: -27.52 dB

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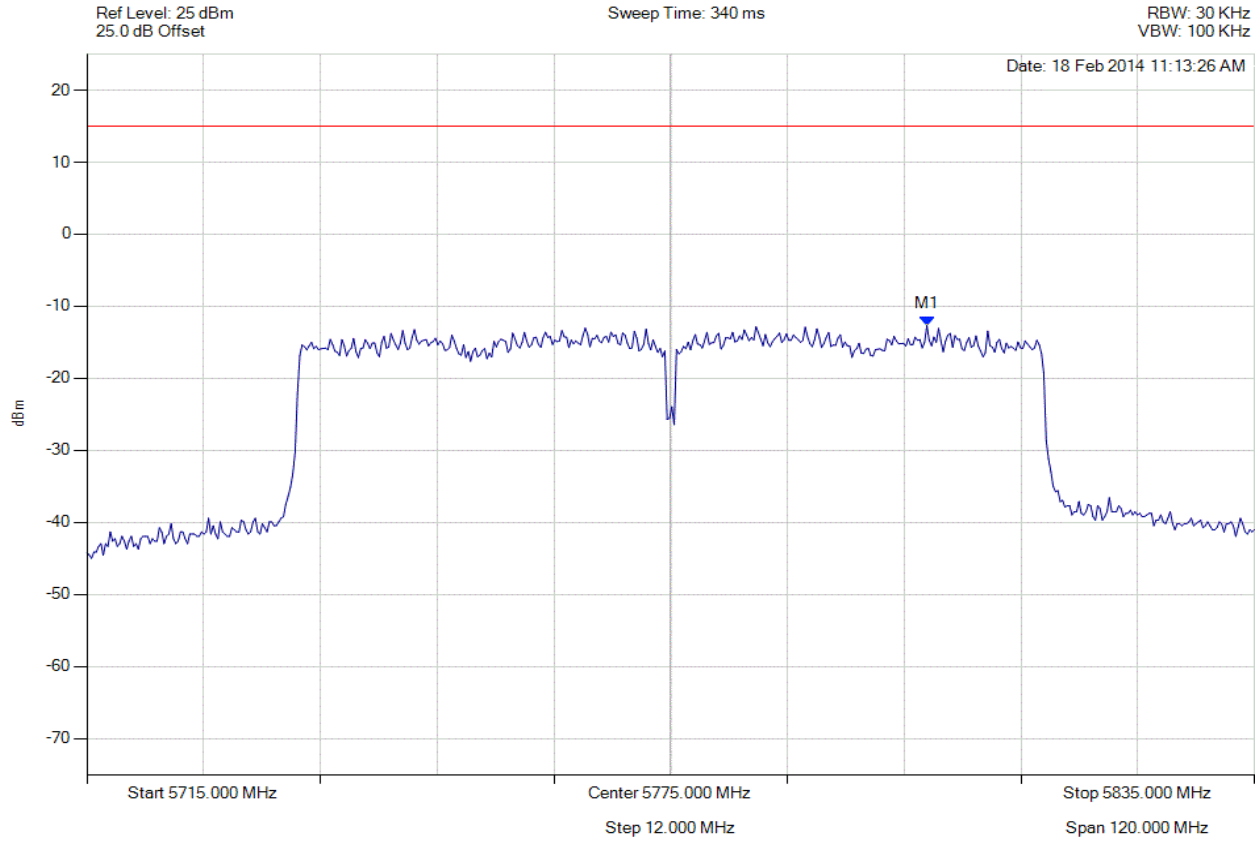
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11ac-80, Channel: 5775.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5801.333 MHz : -12.679 dBm	Limit: ≤ 14.990 dBm Margin: -27.67 dB

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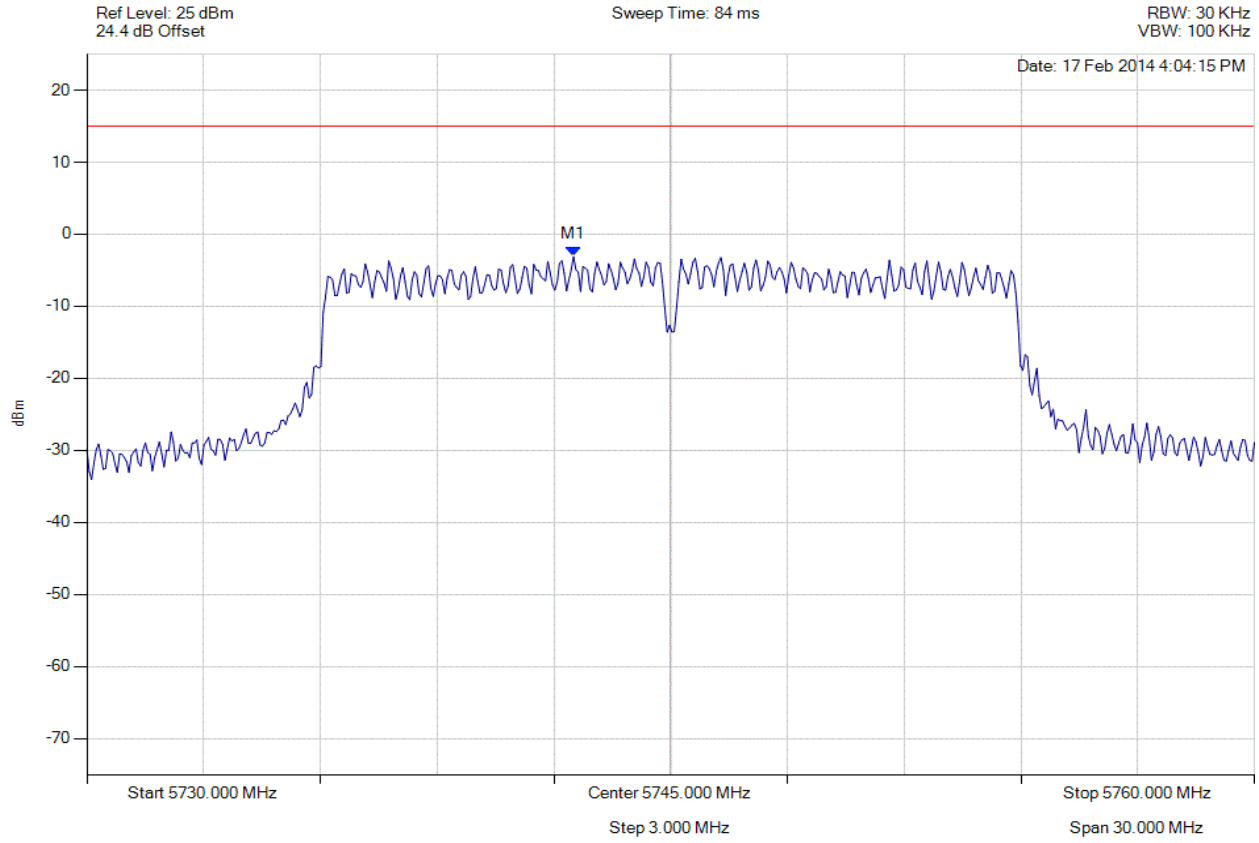
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5742.505 MHz : -3.107 dBm	Limit: ≤ 14.990 dBm Margin: -18.10 dB

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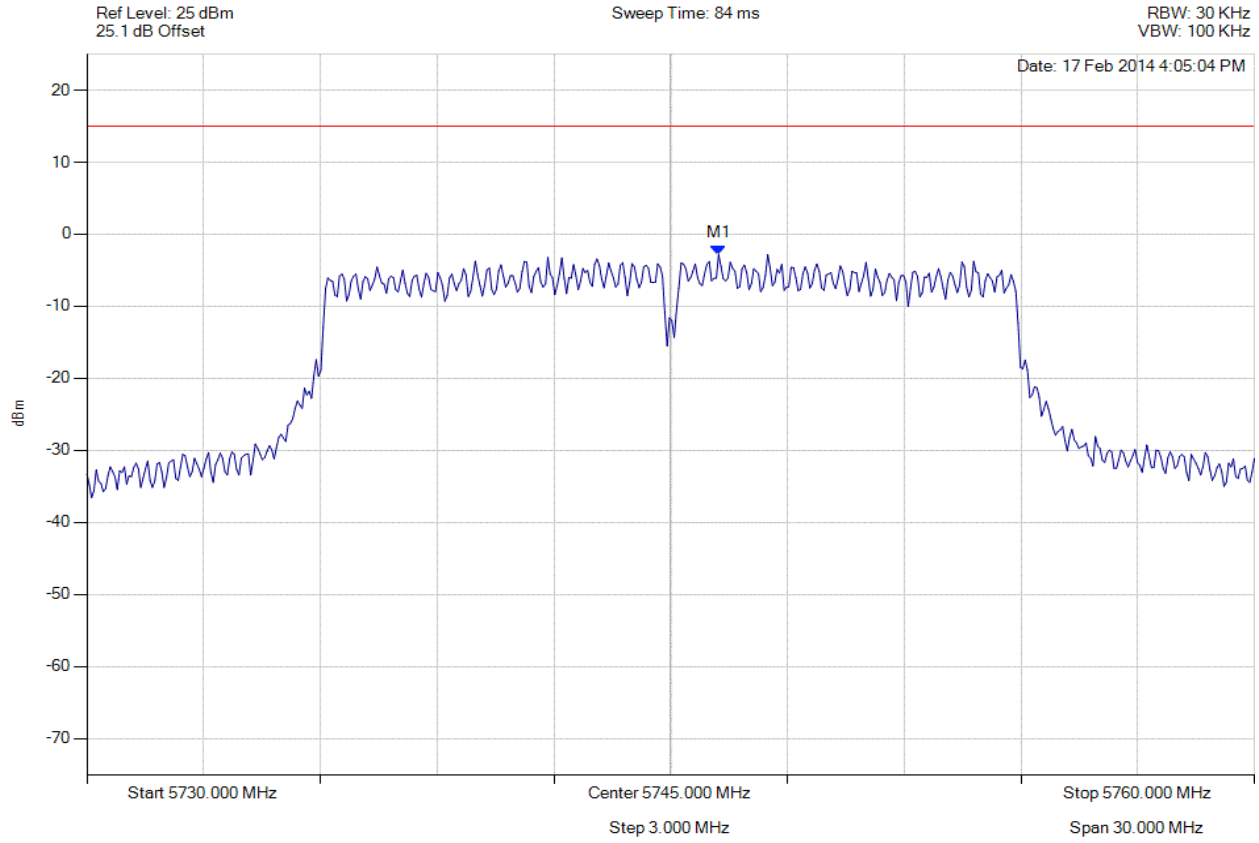
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5746.232 MHz : -2.835 dBm	Limit: ≤ 14.990 dBm Margin: -17.82 dB

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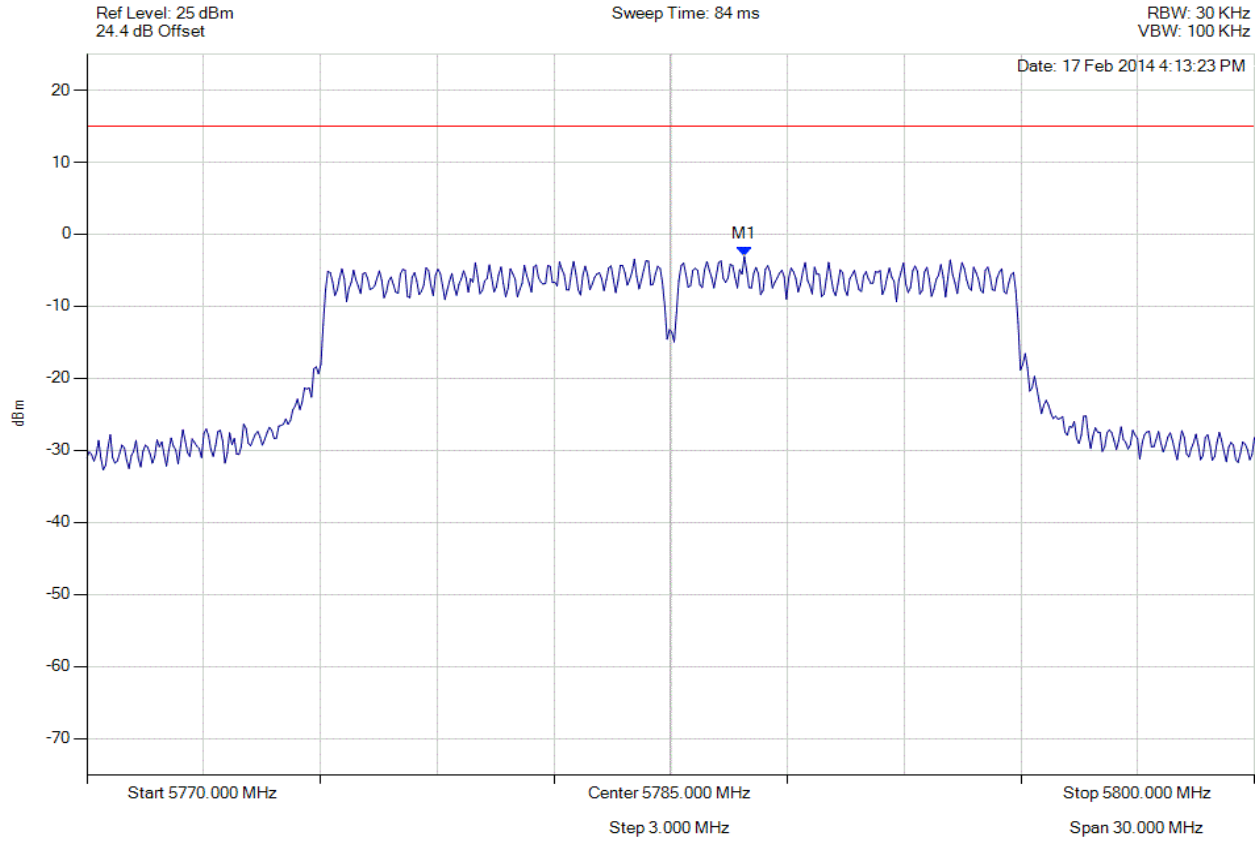
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5786.894 MHz : -3.074 dBm	Limit: ≤ 14.990 dBm Margin: -18.06 dB

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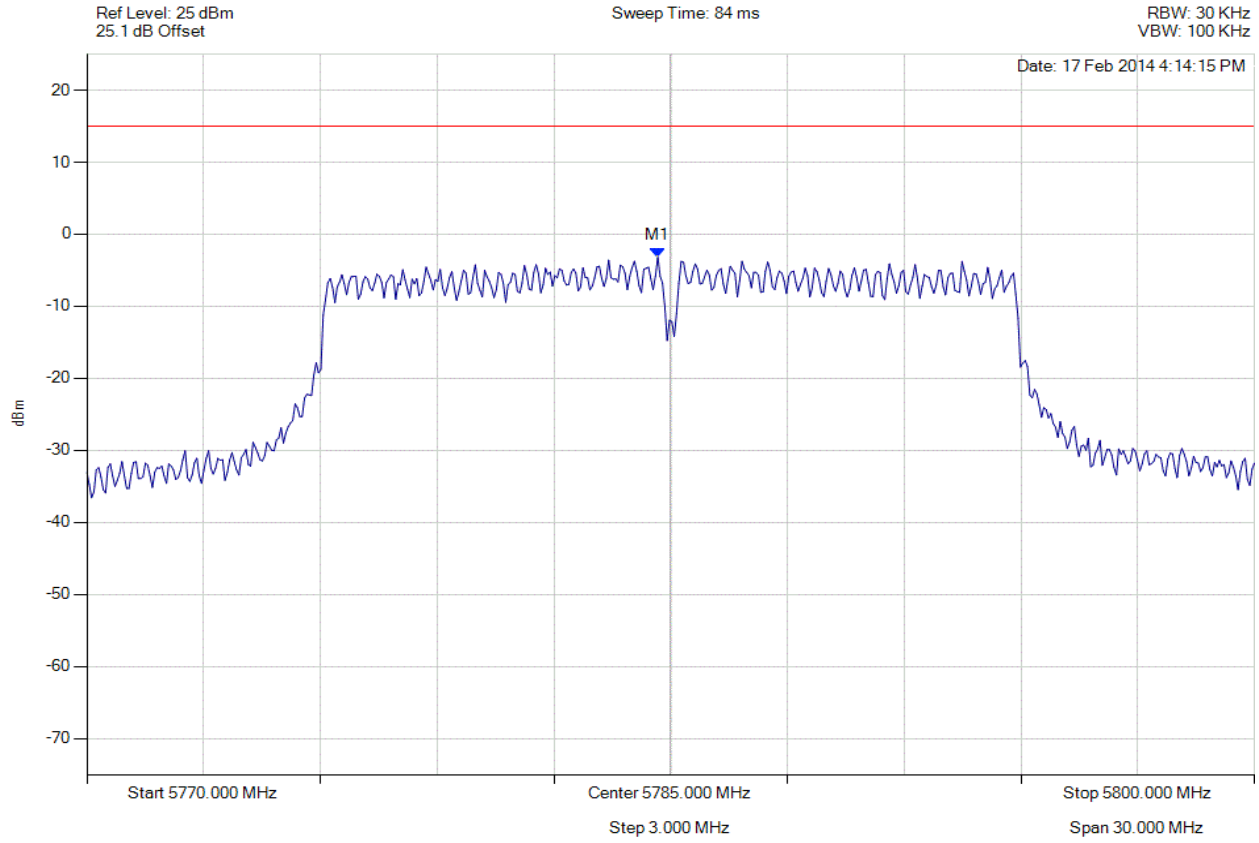
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5784.669 MHz : -3.203 dBm	Limit: ≤ 14.990 dBm Margin: -18.19 dB

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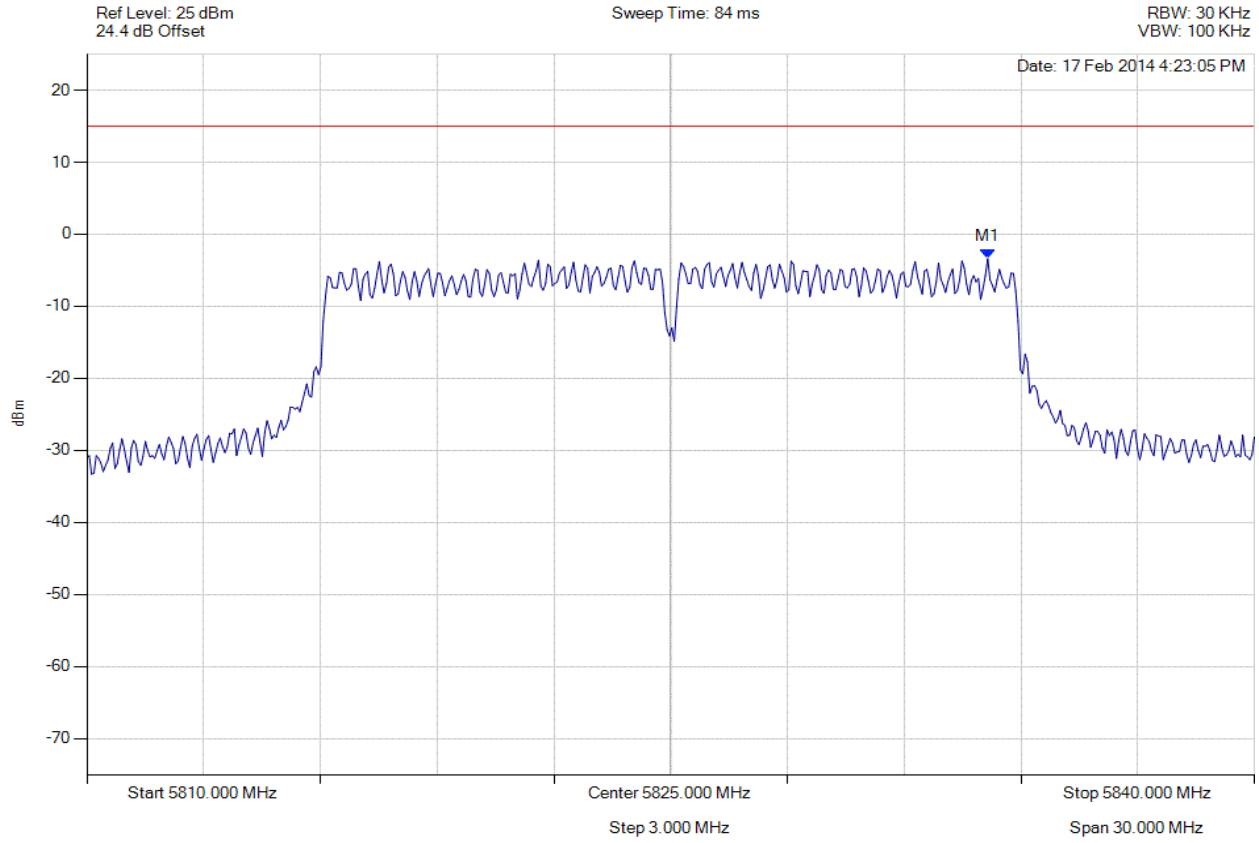
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5833.146 MHz : -3.395 dBm	Limit: ≤ 14.990 dBm Margin: -18.39 dB

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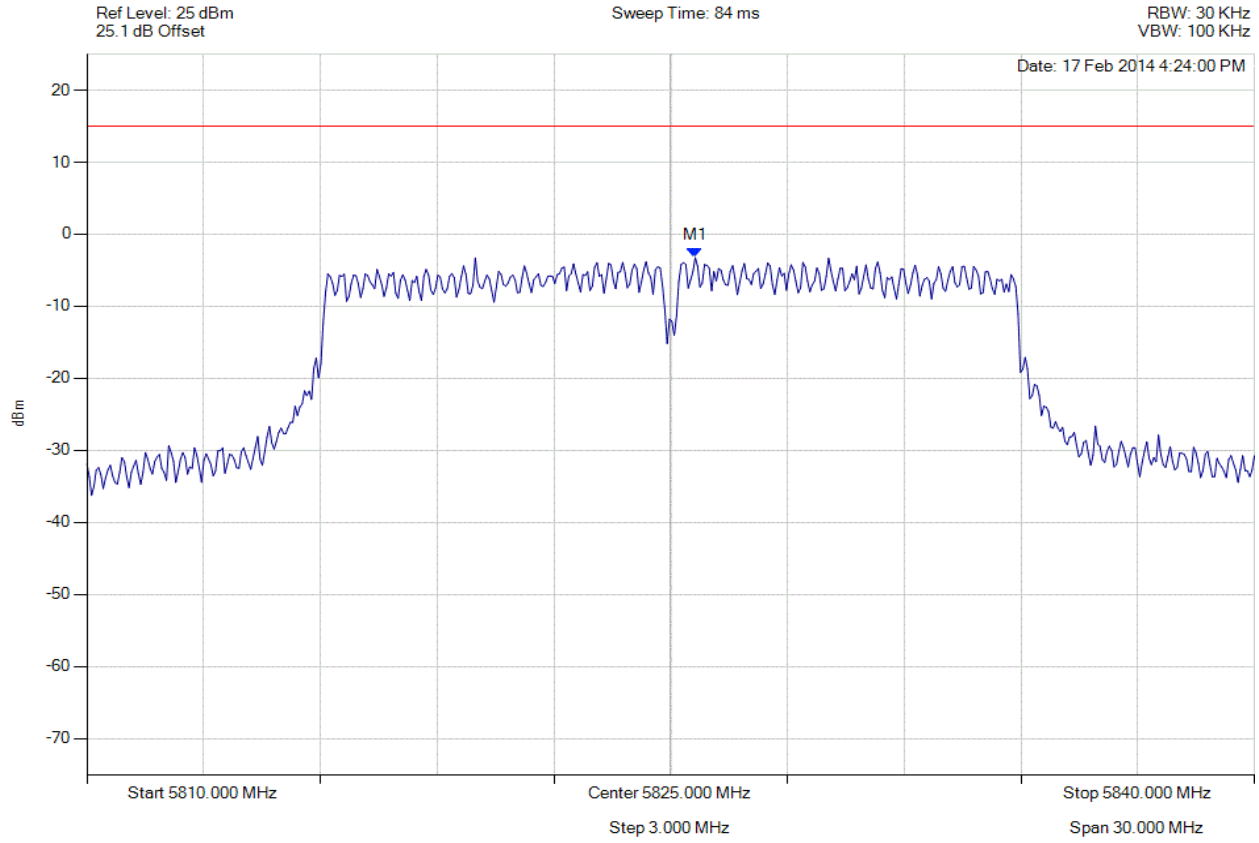
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5825.631 MHz : -3.252 dBm	Limit: ≤ 14.990 dBm Margin: -18.24 dB

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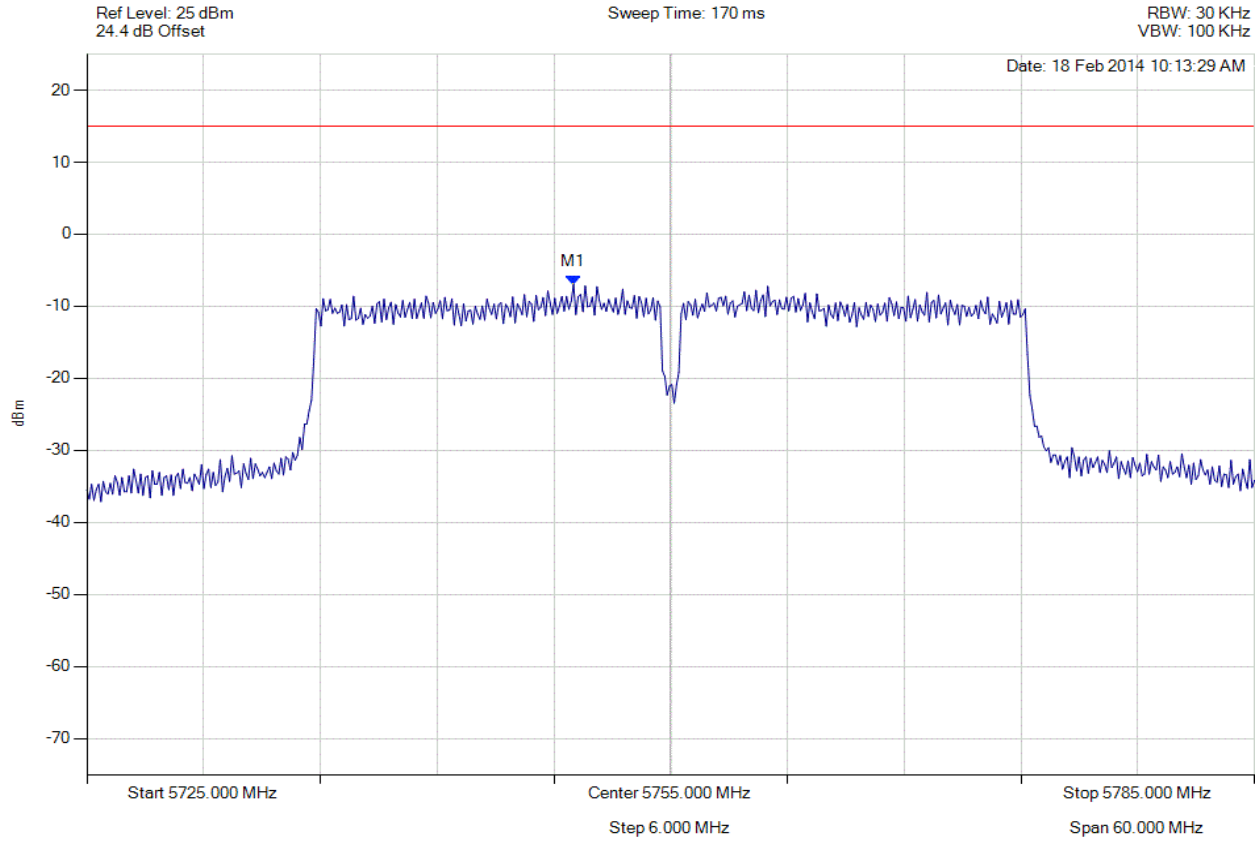
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5750.010 MHz : -6.957 dBm	Limit: ≤ 14.990 dBm Margin: -21.95 dB

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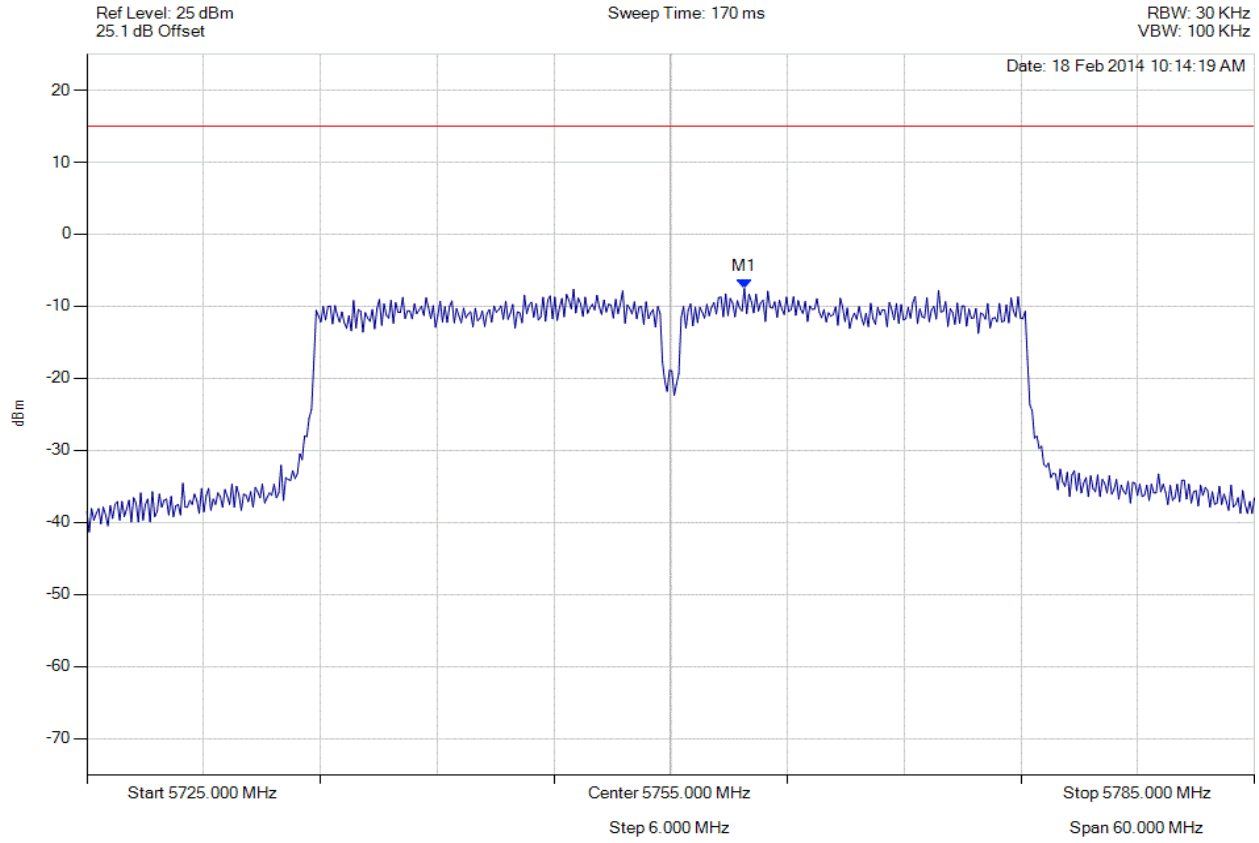
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5758.788 MHz : -7.513 dBm	Limit: ≤ 14.990 dBm Margin: -22.50 dB

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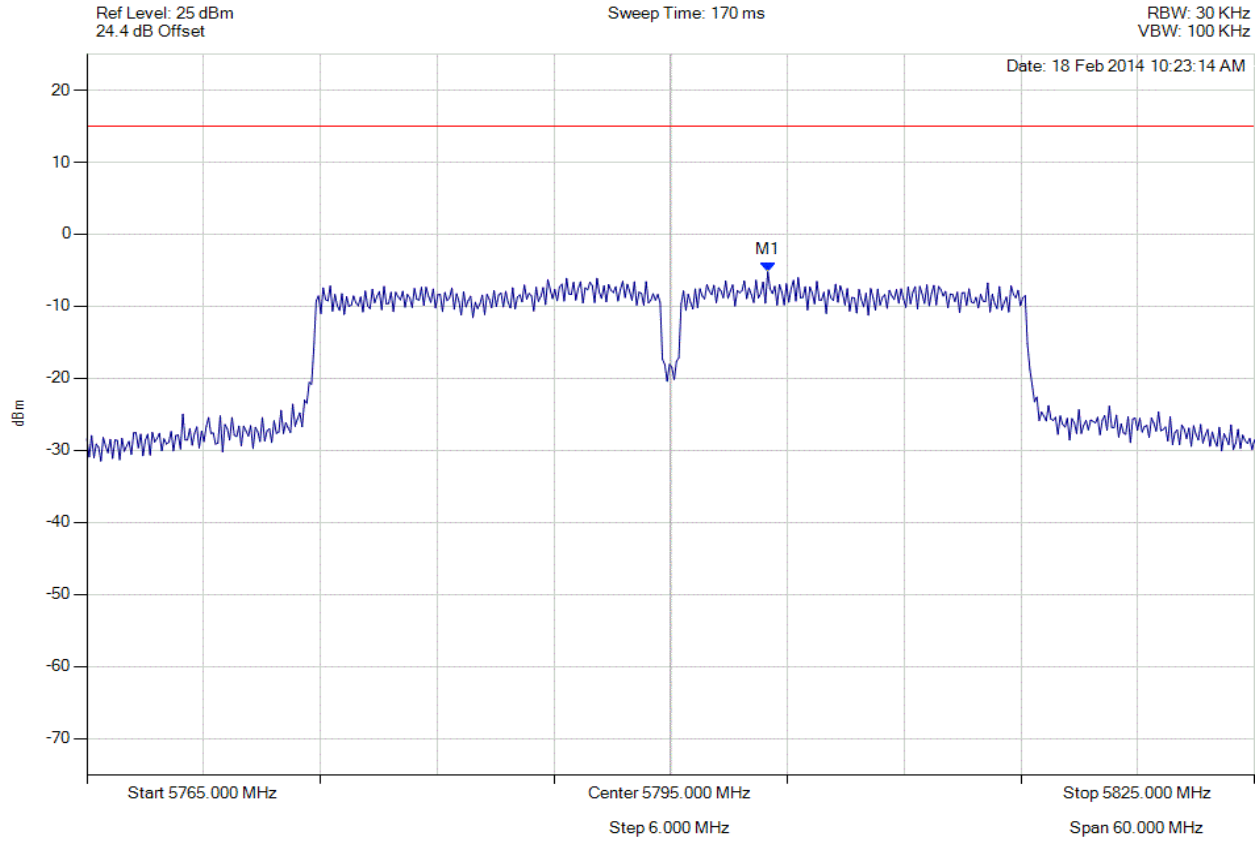
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain a, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5799.990 MHz : -5.208 dBm	Limit: ≤ 14.990 dBm Margin: -20.20 dB

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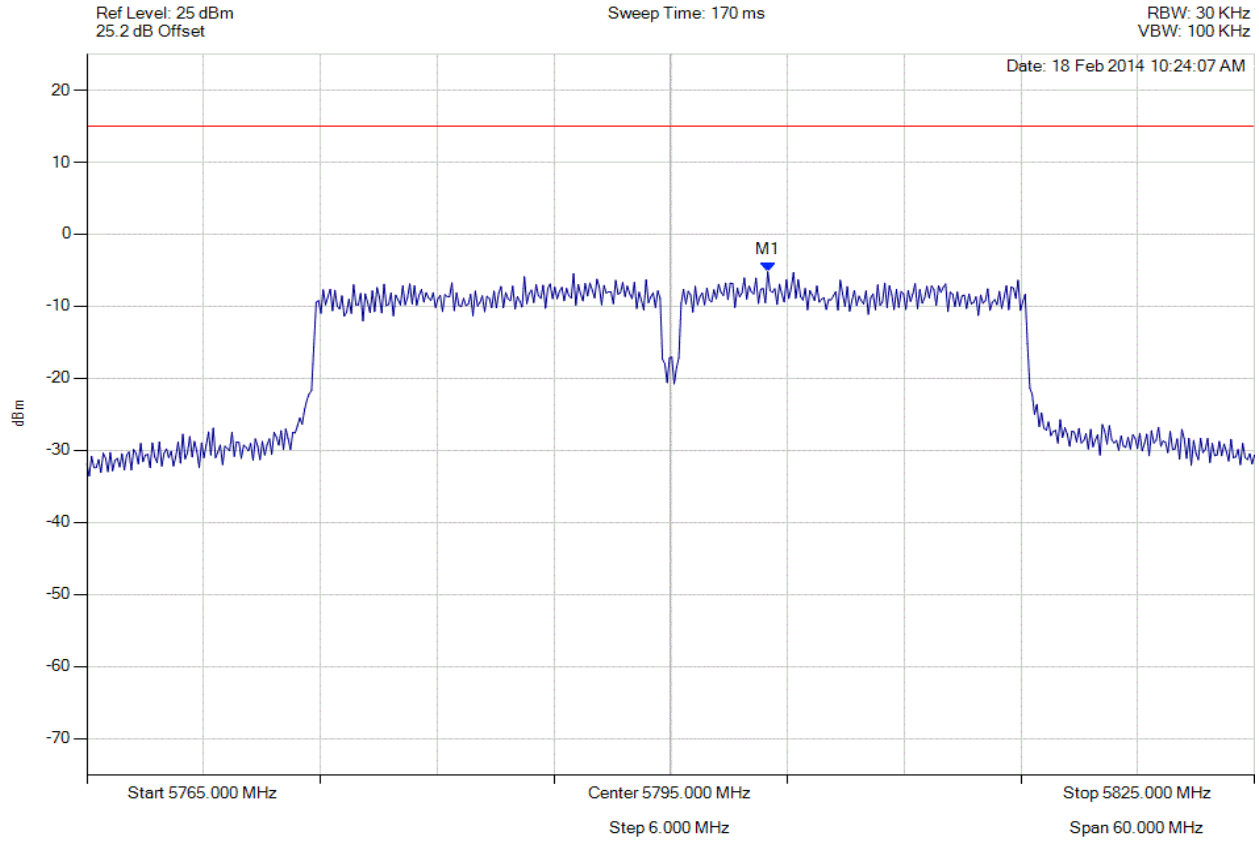
POWER SPECTRAL DENSITY - AVERAGE

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain b, Temp: Ambient, Voltage: 12 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = AVERAGE Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5799.990 MHz : -5.213 dBm	Limit: ≤ 14.990 dBm Margin: -20.20 dB

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