Test of Juniper Networks WLA532E Wireless LAN Access Point

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

Test Report Serial No.: JNIP22-U1 Rev A

TEST REPORT

FROM

Test of Juniper Networks WLA532E Wireless LAN Access Point

to

To FCC 47 CFR Part 15.247 & IC RSS-210

Test Report Serial No.: JNIP22-U1 Rev A

Note: this report contains data with regard to the 2400 to 2483.5 MHz and 5725 to 5850 MHz operational modes of the Juniper Networks WLA532E Wireless Access Point. Test data for the 5,150 - 5,350 and 5,470 – 5,725 MHz is reported in MiCOM Labs test report JNIP22-U2

This report supersedes: NONE

Applicant: Juniper Networks, Inc
1194 North Mathilda Avenue
Sunnyvale
California 94089, USA

Product Function: Wireless LAN Access Point

Copy No: pdf Issue Date: 5th October 2012

This Test Report is Issued Under the Authority of;

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ACCREDITED
TEST CERTIFICATE #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


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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 27th day of March 2012.

President & CEO
For the Accreditation Council
Certificate Number 2381.01
Valid to November 30, 2013

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 Guide 65. 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	5th October 2012	Initial release.

1. TEST RESULT CERTIFICATE

Manufacturer:	Juniper Networks, Inc 1194 North Mathilda Avenue Sunnyvale California 94089, USA	Tested By:	MiCOM Labs, Inc. 440 Boulder Court Suite 200 Pleasanton California, 94566, USA
EUT:	802.11a/b/g/n Wireless LAN Access Point	Telephone:	+1 925 462 0304
Model:	WLA532E-US; WLA532E-WW (for Canada)	Fax:	+1 925 462 0306
S/N's:	JB021153959		
Test Date(s):	1st to 14th August '12	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.

ACCREDITED
TEST CERTIFICATE #2381.01

Approved & Released for MiCOM Labs, Inc. by:

Graeme Grieve
Quality Manager MiCOM Labs,

Gordon Hurst
President & CEO MiCOM Labs, Inc.

2. REFERENCES AND MEASUREMENT UNCERTAINTY

2.1. 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 Licence-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

2.2. 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.

3. PRODUCT DETAILS AND TEST CONFIGURATIONS

3.1. Technical Details

Details	Description
Purpose:	Test of the Juniper Networks WLA532E Wireless LAN Access Point to FCC Part 15.247 and Industry Canada RSS-210 regulations.
Applicant:	Juniper Networks, Inc 1194 North Mathilda Avenue Sunnyvale California 94089, USA
Manufacturer:	As applicant.
Laboratory performing the tests:	MiCOM Labs, Inc. 440 Boulder Court, Suite 200 Pleasanton, California 94566 USA
Test report reference number:	JNIP22-U1 Rev A
Date EUT received:	26th July 2012
Standard(s) applied:	FCC 47 CFR Part 15.247 & IC RSS-210
Dates of test (from - to):	1st to 14th August '12
No of Units Tested:	One
Type of Equipment:	802.11a/b/g/n Wireless Access Point, 3x3 Spatial Multiplexing MIMO configuration
Manufacturers Trade Name:	Wireless Access Point
Model(s):	WLA532E-US, WLA532E-WW
Location for use:	Indoor and outdoor
Declared Frequency Range(s):	2400 - 2483.5 MHz; 5725 - 5850 MHz
Hardware Rev	P1b
Software Rev	MSS8.0.0.0.090
Type of Modulation:	Per 802.11 –CCK, BPSK, QPSK, DSSS, OFDM
Declared Nominal Average Output Power:	802.11b: +18 dBm 802.11g:Leg. +18dBm,HT-20 +18 dBm,HT-40 +18 dBm 802.11a:Leg. +18dBm,HT-20 +18 dBm,HT-40 +18 dBm
EUT Modes of Operation:	Legacy 802.11a/b/g, 802.11n HT-20, HT-40
Transmit/Receive Operation:	Time Division Duplex
System Beam Forming:	WLA532E-US, WLA532E-WW has no capability for antenna beam forming
Rated Input Voltage and Current:	POE 48 Vdc 0.625 A
Operating Temperature Range:	Declared range 0° to +50ºC at 95% humidity non condensing
ITU Emission Designator:	2400 – 2483.5 MHz 802.11b 13M9G1D 2400 – 2483.5 MHz 802.11g 17M6D1D 2400 – 2483.5 MHz 802.11n – HT-20 18M3D1D 2400 – 2483.5 MHz 802.11n – HT-40 36M9D1D 5725 – 5850 MHz 802.11a 16M8D1D 5725 – 5850 MHz 802.11n – HT-20 17M9D1D 5725 – 5850 MHz 802.11n – HT-40 36M6D1D
Equipment Dimensions:	6.5” (Diameter) x 2.1” (H) inches 16 (Diameter) x 5.34 (H) cm

Weight:	25.185 oz
Primary function of equipment:	Wireless Access Point for transmitting data and voice.

3.2. Scope of Test Program

Juniper Networks WLA532E Wireless Access Point

The scope of the test program was to test the Juniper Networks WLA532E Wireless LAN Access Point, 3x3 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.

WLA532E-US (for US distribution)
WLA532E-WW, WLA532E-XX (where –XX can be any alphanumeric, for world wide distribution)

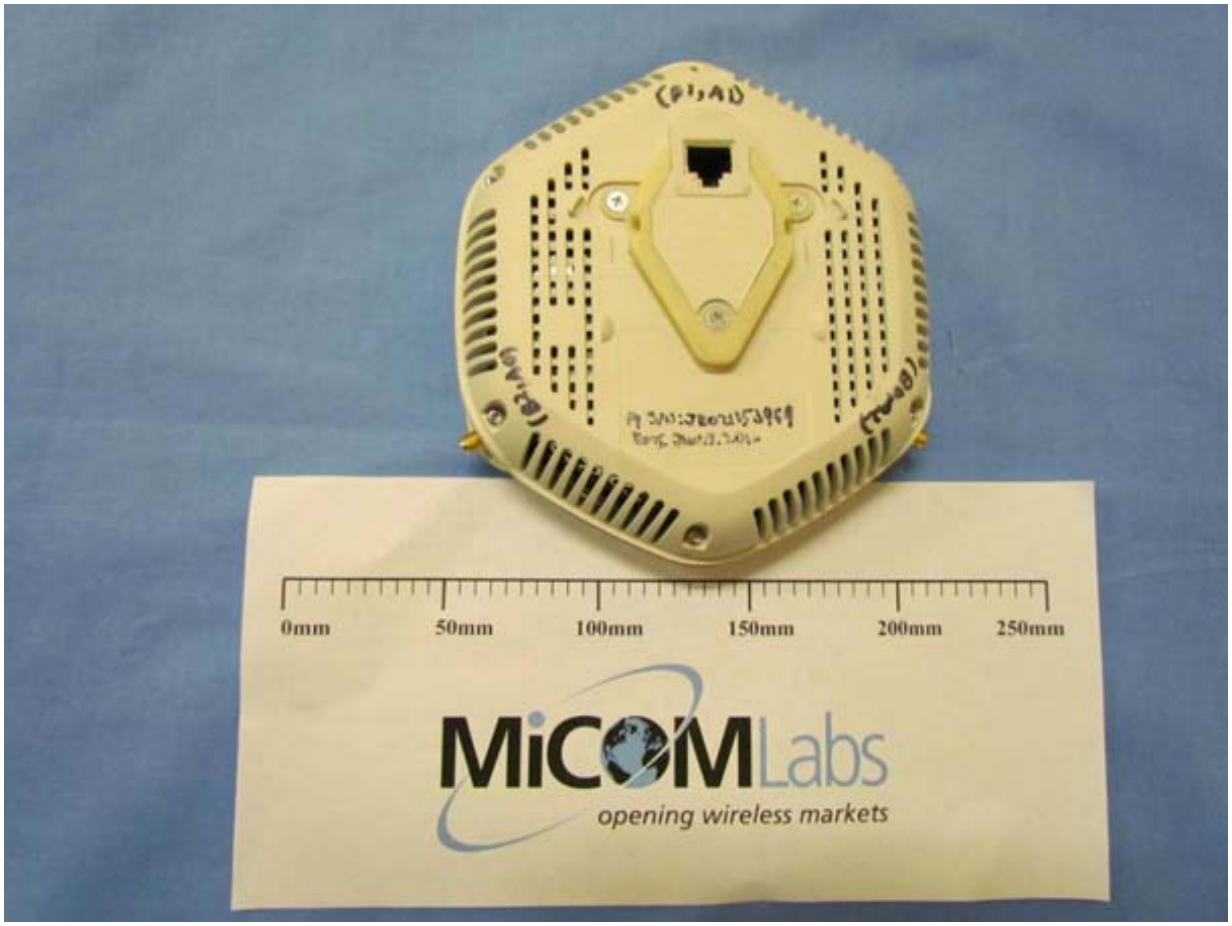
FCC OET KDB Implementation
This test program implements the following FCC KDB – 662911 4/4/2011;
Emissions Testing of Transmitters with Multiple Outputs in the Same Band

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.

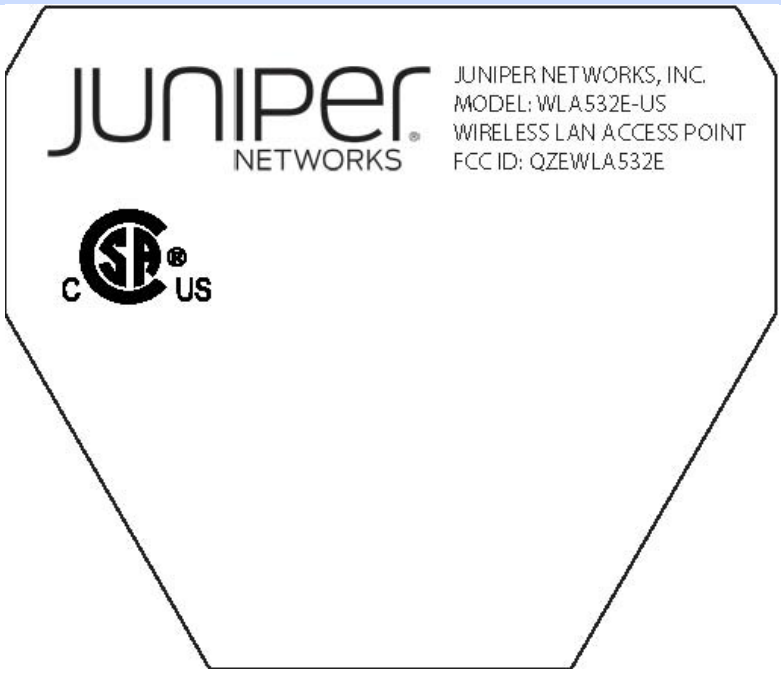
This guidance does not apply to the multiple transmitters included in a composite device, such as a device that combines an 802.11 modem with a cell phone in one enclosure with each driving its own antenna.

WLA532E Wireless LAN Access Point

WLA532E Wireless LAN Access Point (Rear)



WLA532E-WW Wireless LAN Access Point Label



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

Equipment Type	Equipment Description (Including Brand Name)	Mfr	Model No.	Serial No.
EUT	802.11a/b/g/n WLAN	Juniper Networks	WLA532E-US; WLA532E-WW	JB021153959
Support	Laptop PC	IBM	Thinkpad	None

3.4. Antenna Details

Antenna Type	Manufacturer	Model Number	Antenna Gain (dBi	
			2.4 GHz	5 GHz
Dual Band OMNI	Accton	WLA-ANT-7360P-IN	3.0	5.0
Dual Band OMNI	PC-Tel/Maxrad	ANT-7360A-OUT	6.0	8.0
Dual Band Panel	Laird	ANT-77555-OUT	8.0	10.7

3.5. Cabling and I/O Ports

Number and type of I/O ports

1. 1 x 10/100/1000 Ethernet (includes POE +48 Vdc)

3.6. 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)	Variant	Data Rate with Highest Power	Frequencies (MHz)
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
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

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.

2,400 – 2483.5 MHz

15.247	
802.11b	b SE 2412
	b SE 2437
	b SE 2462
	BE b 2390
	BE b 2483.5
802.11g	g SE 2412
	g SE 2437
	g SE 2462
	BE g 2390
	BE g 2483.5
802.11n HT-20	n HT-20 SE 2412
	n HT-20 SE 2437
	n HT-20 SE 2462
	BE n HT-20 2390
	BE n HT-20 2483.5
802.11n HT-40	n HT-40 SE 2422
	n HT-40 SE 2437
	n HT-40 SE 2452
	BE n HT-40 2390
	BE n HT-40 2483.5

5,725 – 5850 MHz

15.247	
802.11a	a SE 5745
	a SE 5785
	a SE 5825
802.11n HT-20	n HT-20 SE 5745
	n HT-20 SE 5785
	n HT-20 SE 5825
802.11n HT-40	n HT-40 SE 5755
	n HT-40 SE 5795

KEY;-

SE – Spurious Emission
BE – Band-Edge

3.7. Equipment Modifications

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

1. Band-Edge Power Reduction

   All conducted and radiated spurious emission testing was performed with the device set for maximum power at all times. During radiated band-edge emission testing the output power was reduced in order to comply with the Restricted Band limit criteria. At 2.4 GHz restricted bands are 2,310 – 2,390 MHz and 2,483.5 – 2,500 MHz.

   Section 6.1.1.2 Peak Output Power identifies the total conducted power levels measured per antenna port and sums the powers when the device was set for transmitting maximum power. Further the power tables reported in Section 6.1.1.2 reflect the power on a per chain basis for each antenna identified in Section 3.4 Antenna Details along with the power reduction are identified below.

   Note: the power setting for the mid channel is maximum setting at all times.

			WLA-ANT-7360P-IN	ANT-7360A-OUT	ANT-77555-OUT
		Channel (MHz)	Maximum Power Level		
2.4 GHz	b	2412	18	18	18
		2437	18	18	18
		2462	18	18	18
	g	2412	17	17	15
		2437	18	18	18
		2462	16	16	15
	HT-20	2412	17	17	15
		2437	18	18	17.5
		2462	15	16	14
	HT-40	2422	15.5	14	14
		2437	18	18	17
		2452	13	13	13
5.8 GHz	a	5745	18	18	18
		5785	18	18	18
		5825	18	18	18
	HT-20	5745	18	18	18
		5785	18	18	18
		5825	18	18	18
	HT-40	5755	18	18	18
		5795	18	18	18

3.8. 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)

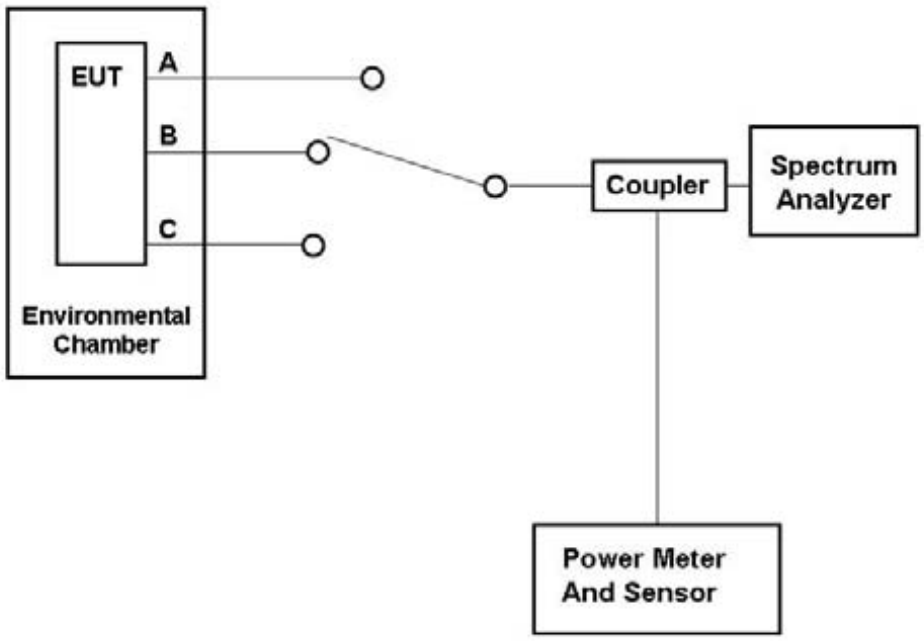
4.1. Conducted RF Emission Test Set-up

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

3 - Port Test Configuration

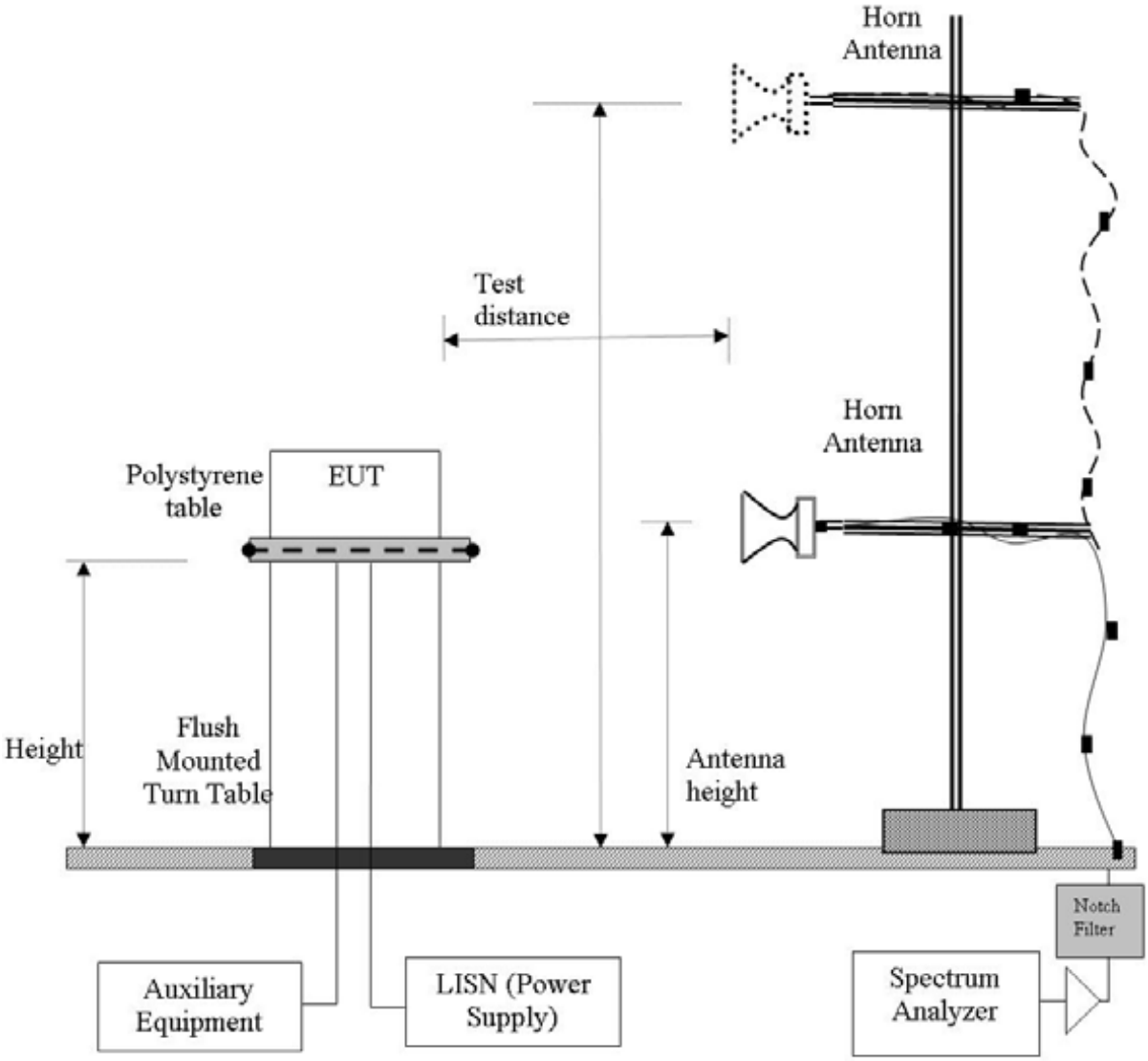


4.2. Radiated Spurious Emission Test Set-up > 1 GHz

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

1. Section 6.1.2.1. Dual Band OMNI Paddle WLA-ANT-7360P-IN
2. Section 6.1.2.2. Dual Band OMNI WLA-ANT-7360A-OUT
3. Section 6.1.2.3. Dual Band PANEL WLA-ANT-77555-OUT

Radiated Emission Measurement Setup – Above 1 GHz

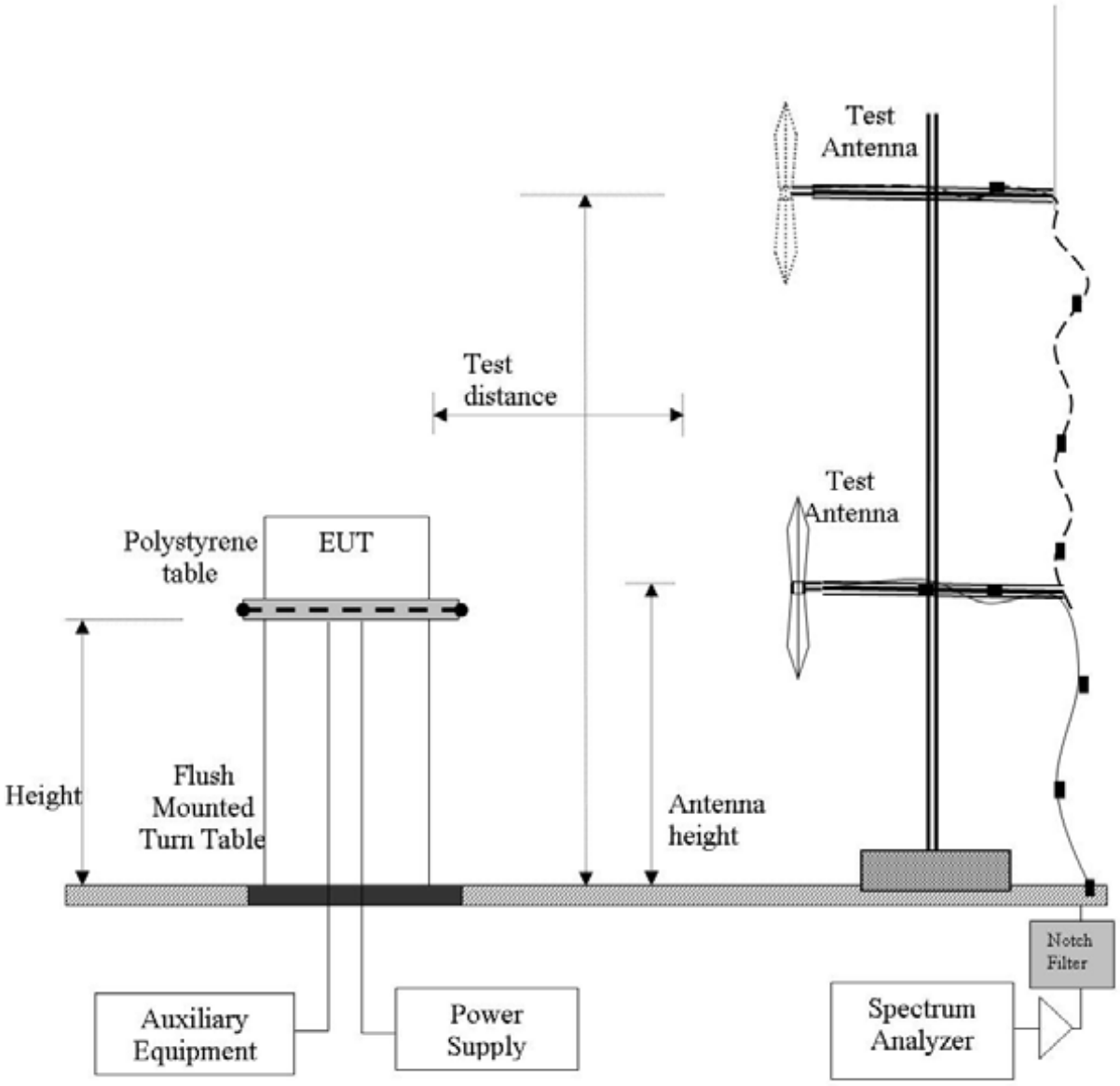


4.3. Digital Emissions Test Set-up (0.03 – 1 GHz)

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

1. Section 6.1.2.4. Dual Band OMNI Paddle WLA-ANT-7360P-IN

Digital Emission Measurement Setup – Below 1 GHz

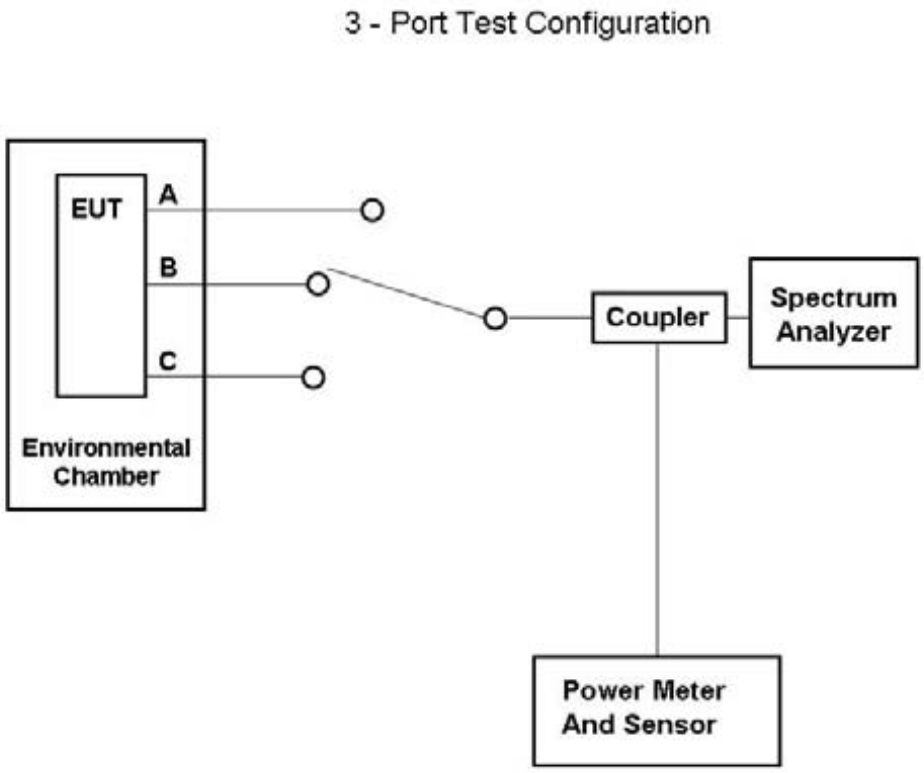


4.4. ac Wireline Emission Test Set-up

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

1. Section 6.1.3 ac Wireline Conducted Emissions

Conducted Test Set-Up Pictorial Representation



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
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	5.1.2
15.247(e) **A8.2**	Peak Power Spectral Density	Shall not be greater than +8 dBm in any 3 kHz band	Conducted	Complies	5.1.3
15.247(i) **5.5**	Maximum Permissible Exposure	Exposure to radio frequency energy levels	Conducted	Complies	5.1.4
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	5.1.5

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	5.1.6
	Transmitter Radiated Spurious Emissions	Emissions above 1 GHz		Complies	*5.1.6.1*
	Radiated Band Edge	Band-edge results Peak Emissions		Complies	*5.1.6.2.*
15.205 / **15.209** **2.2**	Radiated Spurious Emissions	Emissions <1 GHz (30M-1 GHz)	Radiated	Complies	*5.1.6.3*
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	*5.1.6*

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 centre frequency.

Equipment Configuration for 6 dB and 99% Bandwidth			
Variant:	802.11b	**Duty Cycle (%):**	99
Data Rate:	1 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	CCK	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	MHz	MHz
2412.0	10.180	10.180	10.180	--	10.180	10.180	0.5	-9.68
2437.0	10.180	10.180	10.180	--	10.180	10.180	0.5	-9.68
2462.0	10.180	10.180	10.180	--	10.180	10.180	0.5	-9.68

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)	
MHz	a	b	c	d		
2412.0	13.948	13.868	13.868	--	13.948	
2437.0	13.948	13.868	13.788	--	13.948	
2462.0	13.948	13.948	13.868	--	13.948	

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for 6 dB and 99% Bandwidth			
Variant:	802.11g	**Duty Cycle (%):**	99
Data Rate:	6 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	MHz	MHz
2412.0	16.433	16.353	16.433	--	16.433	16.353	0.5	-15.85
2437.0	16.433	16.513	16.433	--	16.513	16.433	0.5	-15.93
2462.0	16.433	16.433	16.353	--	16.433	16.353	0.5	-15.85

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)	
MHz	a	b	c	d		
2412.0	16.754	16.673	16.593	--	16.754	
2437.0	16.834	16.754	16.593	--	16.834	
2462.0	17.555	16.914	16.754	--	17.555	

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for 6 dB and 99% Bandwidth			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	MHz	MHz
2412.0	17.635	17.635	17.635	--	17.635	17.635	0.5	-17.14
2437.0	17.635	17.635	17.635	--	17.635	17.635	0.5	-17.14
2462.0	17.635	17.635	17.635	--	17.635	17.635	0.5	-17.14

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)	
MHz	a	b	c	d		
2412.0	17.956	17.876	17.796	--	17.956	
2437.0	17.956	17.876	17.796	--	17.956	
2462.0	18.277	17.956	17.876	--	18.277	

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for 6 dB and 99% Bandwidth			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	MHz	MHz
2422.0	36.553	36.553	36.553	--	36.553	36.553	0.5	-36.05
2437.0	36.553	36.553	36.553	--	36.553	36.553	0.5	-36.05
2452.0	36.553	36.553	36.553	--	36.553	36.553	0.5	-36.05

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)	
MHz	a	b	c	d		
2422.0	36.874	36.713	36.553	--	36.874	
2437.0	36.713	36.713	36.553	--	36.713	
2452.0	36.874	36.874	36.553	--	36.874	

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for 6 dB and 99% Bandwidth			
Variant:	802.11a	**Duty Cycle (%):**	99
Data Rate:	6 MBits	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	MHz	MHz
5745.0	16.433	16.513	16.513	--	16.513	16.433	0.5	-15.93
5785.0	16.433	16.513	16.513	--	16.513	16.433	0.5	-15.93
5825.0	16.353	16.593	16.433	--	16.593	16.353	0.5	-15.85

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)	
MHz	a	b	c	d		
5745.0	16.593	16.754	16.593	--	16.754	
5785.0	16.593	16.754	16.593	--	16.754	
5825.0	16.593	16.754	16.593	--	16.754	

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for 6 dB and 99% Bandwidth			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	MHz	MHz
5745.0	17.635	17.635	17.635	--	17.635	17.635	0.5	-17.14
5785.0	17.395	17.635	17.635	--	17.635	17.395	0.5	-16.90
5825.0	17.635	17.635	17.715	--	17.715	17.635	0.5	-17.14

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)	
MHz	a	b	c	d		
5745.0	17.796	17.956	17.796	--	17.956	
5785.0	17.796	17.876	17.876	--	17.876	
5825.0	17.796	17.876	17.796	--	17.876	

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for 6 dB and 99% Bandwidth			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	MHz	MHz
5755.0	36.393	36.553	36.553	--	36.553	36.393	0.5	-35.89
5795.0	36.553	36.713	36.713	--	36.713	36.553	0.5	-36.05

Test Frequency	Measured 99% Bandwidth (MHz) Port(s)				Maximum 99% Bandwidth (MHz)	
MHz	a	b	c	d		
5755.0	36.393	36.393	36.393	--	36.393	
5795.0	36.232	36.553	36.553	--	36.553	

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the 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)
WLA-ANT-7360P-IN	3.0	+30.0	+25.23	+33.0
ANT-7360A-OUT	6.0	+30.0	+25.23	+36.0
ANT-77555-OUT	8.0	+28.0	+23.23	+36.0

5.8 GHz Uncorrelated Operation (MIMO)

Antenna	Gain	Max. Allowable Conducted Peak Power (dBm)		Maximum EIRP
(dB)	(dBi)	Uncorrelated	Max. Power Per Chain	(dBm)
WLA-ANT-7360P-IN	5.0	+30.0	+25.23	+35.0
ANT-7360A-OUT	8.0	+28.0	+23.23	+36.0
ANT-77555-OUT	10.7	+25.3	+20.53	+36.0

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)
WLA-ANT-7360P-IN	3.0	3	4.77	7.77	+28.23	+36.0
ANT-7360A-OUT	6.0	3	4.77	10.77	+25.23	+36.0
ANT-77555-OUT	8.0	3	4.77	12.77	+23.23	+36.0

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)
WLA-ANT-7360P-IN	5.0	3	4.77	9.77	+26.23	+36.0
ANT-7360A-OUT	8.0	3	4.77	12.77	+23.23	+36.0
ANT-77555-OUT	10.7	3	4.77	15.47	+20.53	+36.0

The following Peak Power Matrix(s) was tested using the system maximum power setting NART = 18, see Section 3.7 Equipment Modifications

Equipment Configuration for Maximum Peak Output Power			
Variant:	802.11b	**Duty Cycle (%):**	99
Data Rate:	1 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	CCK	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2412.0	19.07	19.06	18.91	--	23.78	30.00	-6.22	18
2437.0	18.02	17.98	17.80	--	22.71	30.00	-7.29	18
2462.0	18.04	17.66	18.10	--	22.71	30.00	-7.29	18

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for peak output power			
Variant:	802.11g	**Duty Cycle (%):**	99
Data Rate:	6 MBits	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2412.0	24.97	24.50	23.88	--	29.24	30.00	-0.76	18
2437.0	24.36	23.99	23.26	--	28.66	30.00	-1.34	18
2462.0	24.19	23.60	23.41	--	28.52	30.00	-1.48	18

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for Peak Output Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2412.0	24.37	24.11	23.73	--	28.85	30.00	-1.15	18
2437.0	23.78	23.56	23.06	--	28.25	30.00	-1.75	18
2462.0	23.75	23.27	23.33	--	28.23	30.00	-1.77	18

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Peak Output Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2422.0	24.56	24.32	24.24	--	29.15	30.00	-0.85	18
2437.0	24.08	23.90	23.70	--	28.67	30.00	-1.33	18
2452.0	23.98	23.87	23.77	--	28.65	30.00	-1.35	18

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for Peak Output Power			
Variant:	802.11a	**Duty Cycle (%):**	99
Data Rate:	6 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
5745.0	22.98	24.48	23.70	--	28.53	30.00	-1.47	18
5785.0	23.37	24.83	23.77	--	28.81	30.00	-1.19	18
5825.0	23.15	24.61	25.29	--	29.21	30.00	-0.79	18

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Peak Output Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
5745.0	23.30	24.49	23.50	--	28.57	30.00	-1.43	18
5785.0	23.53	24.66	23.85	--	28.81	30.00	-1.19	18
5825.0	22.89	24.21	24.68	--	28.76	30.00	-1.24	18

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for Peak Output Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
5755.0	23.31	24.39	23.23	--	28.45	30.00	-1.55	18
5795.0	23.87	24.67	24.06	--	28.98	30.00	-1.02	18

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Note: click the link in the above results matrix to view the plot

The following matrix(s) identify the maximum allowable output power on a per antenna basis. The power levels reported take into account any power reduction as a result of Radiated Restricted Band testing.

As there were no power reduction required for 802.11b and 5.8 GHz the tables reported above is the actual maximum permissible power permitted.

Plots for the following Peak Power Measurements are held on file by the laboratory.

WLA-ANT-7360P-IN

Equipment Configuration for peak output power			
Variant:	802.11g	**Duty Cycle (%):**	99
Data Rate:	6 MBits	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Max. Power per Antenna Type		
Engineering Test Notes:	Maximum reported power levels for antenna WLA-ANT-7360P-IN (3 dBi OMNI)		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2412.0	24.14	22.91	23.57	--	28.34	30.00	-1.66	17
2437.0	24.36	23.99	23.26	--	28.66	30.00	-1.34	18
2462.0	22.42	21.35	21.81	--	26.65	30.00	-3.35	16

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Peak Output Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Max. Power per Antenna Type		
Engineering Test Notes:	Maximum reported power levels for antenna WLA-ANT-7360P-IN (3 dBi OMNI)		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2412.0	23.26	22.39	22.76	--	27.59	30.00	-2.41	17
2437.0	23.78	23.56	23.06	--	28.25	30.00	-1.75	18
2462.0	20.69	19.92	20.06	--	25.01	30.00	-4.99	15

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Peak Output Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Max. Power per Antenna Type		
Engineering Test Notes:	Maximum reported power levels for antenna WLA-ANT-7360P-IN (3 dBi OMNI)		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2422.0	19.53	18.93	19.07	--	23.96	30.00	-5.21	13
2437.0	24.08	23.90	23.70	**--**	28.67	30.00	-1.33	18
2452.0	21.34	20.85	21.18	**--**	25.90	30.00	-6.47	15.5

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

WLA-ANT-7360A-OUT

Equipment Configuration for peak output power			
Variant:	802.11g	**Duty Cycle (%):**	99
Data Rate:	6 MBits	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Max. Power per Antenna Type		
Engineering Test Notes:	Maximum reported power levels for antenna WLA-ANT-7360A-OUT (6 dBi OMNI)		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2412.0	24.14	22.91	23.57	--	28.34	30.00	-1.66	17
2437.0	24.36	23.99	23.26	--	28.66	30.00	-1.34	18
2462.0	22.42	21.35	21.81	--	26.65	30.00	-3.35	16

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Peak Output Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Max. Power per Antenna Type		
Engineering Test Notes:	Maximum reported power levels for antenna WLA-ANT-7360A-OUT (6 dBi OMNI)		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2412.0	23.26	22.39	22.76	--	27.59	30.00	-2.41	17
2437.0	23.78	23.56	23.06	--	28.25	30.00	-1.75	18
2462.0	21.53	20.76	20.96	--	25.87	30.00	-4.13	16

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Peak Output Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Max. Power per Antenna Type		
Engineering Test Notes:	Maximum reported power levels for antenna WLA-ANT-7360A-OUT (6 dBi OMNI)		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2422.0	20.31	19.89	19.84	--	24.79	30.00	-5.21	14
2437.0	24.08	23.90	23.70	**--**	28.67	30.00	-1.33	18
2452.0	18.95	18.45	18.86	**--**	23.53	30.00	-6.47	13

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

WLA-ANT-77555-OUT

Equipment Configuration for peak output power			
Variant:	802.11g	**Duty Cycle (%):**	99
Data Rate:	6 MBits	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Max. Power per Antenna Type		
Engineering Test Notes:	Maximum reported power levels for antenna WLA-ANT-77555-OUT (8 dBi OMNI)		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2412.0	21.82	20.80	21.21	--	26.07	28.00	-1.93	15
2437.0	23.36	22.99	22.26	--	27.66	28.00	-0.34	17
2462.0	21.33	20.20	20.64	--	25.52	28.00	-2.48	15

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Peak Output Power			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Max. Power per Antenna Type		
Engineering Test Notes:	Maximum reported power levels for antenna WLA-ANT-77555-OUT (8 dBi OMNI)		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2412.0	20.89	20.24	20.44	--	25.30	28.00	-2.70	15
2437.0	23.28	23.06	22.56	--	27.75	28.00	-0.25	17.5
2462.0	19.68	18.89	19.09	--	24.00	28.00	-4.00	14

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

Equipment Configuration for Peak Output Power			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Max. Power per Antenna Type		
Engineering Test Notes:	Maximum reported power levels for antenna WLA-ANT-77555-OUT (8 dBi OMNI)		

Test Measurement Results

Test Frequency	Measured Output Power (dBm) Port(s)				Calculated Total Power (dBm)	Limit	Margin	EUT Power Setting
MHz	a	b	c	d	Σ Port(s)	dBm	dBm	
2422.0	20.31	19.89	19.84	--	24.79	28.00	-3.21	14
2437.0	23.08	22.90	22.70	--	27.67	28.00	-0.33	17
2452.0	18.95	18.45	18.86	--	23.53	28.00	-6.47	13

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-01 Measuring RF Output Power
Measurement Uncertainty:	±1.33 dB

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			
Variant:	802.11b	**Duty Cycle (%):**	99
Data Rate:	1 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	CCK	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm) Port(s)				Calculated Total Power Spectral Density (dBm)		Limit	Margin
MHz	**a**	**b**	**c**	**d**	**Σ Ports**	**Conversion to 3 kHz RBW**	**dBm**	**dB**
2412.0	-6.350	-6.350	-6.543	--	-1.642	N/A	8.0	-9.64
2437.0	-7.337	-7.536	-7.668	--	-2.740	N/A	8.0	-10.74
2462.0	-7.566	-7.947	-7.420	--	-2.867	N/A	8.0	-10.87

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Equipment Configuration for Power Spectral Density			
Variant:	802.11g	**Duty Cycle (%):**	99
Data Rate:	6 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm) Port(s)				Calculated Total Power Spectral Density (dBm)		Limit	Margin
MHz	**a**	**b**	**c**	**d**	**Σ Port(s)**	**Conversion to 3 kHz RBW**	**dBm**	**dB**
2412.0	-7.249	-7.731	-7.422	--	-2.692	N/A	8.0	-10.69
2437.0	-8.203	-7.147	-7.654	--	-2.875	N/A	8.0	-10.88
2462.0	-8.140	-8.244	-7.900	--	-3.321	N/A	8.0	-11.32

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm) Port(s)				Calculated Total Power Spectral Density (dBm)		Limit	Margin
MHz	a	b	c	d	Σ Port(s)	Conversion to 3 kHz RBW	dBm	dB
2412.0	-7.914	-7.833	-7.991	--	-3.141	N/A	8.0	-11.14
2437.0	-8.917	-8.134	-9.210	--	-3.958	N/A	8.0	-11.96
2462.0	-8.553	-8.372	-8.447	--	-3.685	N/A	8.0	-11.69

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm) Port(s)				Calculated Total Power Spectral Density (dBm)		Limit	Margin
MHz	a	b	c	d	Σ Port(s)	Conversion to 3 kHz RBW	dBm	dB
2422.0	-10.190	-10.420	-10.920	--	-5.728	N/A	8.0	-13.73
2437.0	-10.562	-10.883	-11.463	--	-6.182	N/A	8.0	-14.18
2452.0	-11.691	-10.959	-10.647	--	-6.306	N/A	8.0	-14.31

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for Power Spectral Density			
Variant:	802.11a	**Duty Cycle (%):**	99
Data Rate:	6 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm) Port(s)				Calculated Total Power Spectral Density (dBm)		Limit	Margin
MHz	**a**	**b**	**c**	**d**	**Σ Port(s)**	**Conversion to 3 kHz RBW**	**dBm**	**dB**
5745.0	-7.398	-7.989	-8.656	--	-3.213	N/A	8.0	-11.21
5785.0	-8.748	-8.020	-8.148	--	-3.523	N/A	8.0	-11.52
5825.0	-8.406	-7.119	-6.802	--	-2.618	N/A	8.0	-10.62

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results

Test Frequency	Measured Power Spectral Density (dBm) Port(s)				Calculated Total Power Spectral Density (dBm)		Limit	Margin
MHz	**a**	**b**	**c**	**d**	**Σ Port(s)**	**Conversion to 3 kHz RBW**	**dBm**	**dB**
5745.0	-8.034	-7.546	-8.225	--	-3.154	N/A	8.0	-11.15
5785.0	-8.414	-7.322	-8.502	--	-3.274	N/A	8.0	-11.27
5825.0	-8.360	-7.597	-7.361	--	-2.981	N/A	8.0	-10.98

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the plot

Equipment Configuration for Power Spectral Density			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

Test Measurement Results								
Test Frequency	**Measured Power Spectral Density (dBm)**				**Calculated Total Power Spectral Density (dBm)**		**Limit**	**Margin**
	Port(s)							
MHz	**a**	**b**	**c**	**d**	**Σ Port(s)**	**Conversion to 3 kHz RBW**	**dBm**	**dB**
5755.0	-11.075	-10.011	-11.900	--	-6.155	N/A	8.0	-14.15
5795.0	-9.031	-10.686	-9.791	--	-5.013	N/A	8.0	-13.01

Traceability to Industry Recognized Test Methodologies	
Work Instruction:	WI-03 Measuring RF Spectrum Mask
Measurement Uncertainty:	±2.81 dB

Note: click the link in the above results matrix to view the 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 Transmitter Conducted Spurious and Band-Edge Emissions			
Variant:	802.11b	**Duty Cycle (%):**	99
Data Rate:	1 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	CCK	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	-42.007	-13.23	-47.600	-13.08	-42.414	-13.78	--	--
2437.0	30.0 - 26000.0	-41.893	-14.09	-42.548	-13.63	-46.221	-13.73	--	--
2462.0	30.0 - 26000.0	-52.041	-14.15	-49.493	-14.27	-41.972	-14.54	--	--

SE - Maximum spurious emission found

Test Frequency	Band-Edge Frequency	Transmitter Conducted Band-Edge Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	BE	Limit	BE	Limit	BE	Limit	BE	Limit
2412.0	2400.0	-44.762	-12.63	-43.420	-12.31	-43.815	-12.60	--	--
2462.0	2483.5	-46.377	-13.43	-47.146	-13.72	-47.264	-13.42	--	--

BE - Maximum band-edge emission found

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 link in the above results matrix to view the plot

Equipment Configuration for Transmitter Conducted Spurious and Band-Edge Emissions			
Variant:	802.11g	**Duty Cycle (%):**	99
Data Rate:	6 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	-42.088	-17.16	-46.695	-14.89	-41.980	-16.88	--	--
2437.0	30.0 – 26000.0	-41.877	-15.04	-41.832	-15.35	-47.524	-17.95	--	--
2462.0	30.0 – 26000.0	-48.738	-17.29	-48.594	-15.34	-42.222	-15.31	--	--

SE – Maximum spurious emission found

Test Frequency	Band-Edge Frequency	Transmitter Conducted Band-Edge Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	BE	Limit	BE	Limit	BE	Limit	BE	Limit
2412.0	2400.0	-19.430	-13.37	-21.120	-13.68	-23.674	-14.35	--	--
2462.0	2483.5	-29.690	-14.28	-28.444	-14.55	-30.418	-14.84	--	--

BE – Maximum band-edge emission found

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 link in the above results matrix to view the plot

Equipment Configuration for Transmitter Conducted Spurious and Band-Edge Emissions			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	-42.255	-14.28	-48.287	-14.23	-42.064	-15.20	--	--
2437.0	30.0 - 26000.0	-42.074	-15.48	-41.625	-15.53	-45.938	-16.20	--	--
2462.0	30.0 - 26000.0	-48.555	-15.56	-48.161	-16.44	-42.440	-15.38	--	--

SE - Maximum spurious emission found

Test Frequency	Band-Edge Frequency	Transmitter Conducted Band-Edge Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	BE	Limit	BE	Limit	BE	Limit	BE	Limit
2412.0	2400.0	-19.660	-13.67	-20.779	-13.74	-22.163	-14.41	--	--
2462.0	2483.5	-26.530	-14.42	-28.369	-14.87	-29.456	-14.88	--	--

BE - Maximum band-edge emission found

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 link in the above results matrix to view the plot

Equipment Configuration for Transmitter Conducted Spurious and Band-Edge Emissions			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	-42.385	-17.02	-41.802	-17.20	-48.795	-17.49	--	--
2437.0	30.0 – 26000.0	-41.816	-17.62	-42.839	-17.64	-52.289	-18.72	--	--
2452.0	30.0 – 26000.0	-51.962	-18.10	-52.048	-17.77	-42.248	-17.67	--	--

SE – Maximum spurious emission found

Test Frequency	Band-Edge Frequency	Transmitter Conducted Band-Edge Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	BE	Limit	BE	Limit	BE	Limit	BE	Limit
2422.0	2400.0	-20.957	-16.65	-22.331	-16.73	-23.595	-16.91	--	--
2452.0	2483.5	-25.049	-17.38	-23.844	-17.25	-23.922	-17.42	--	--

BE – Maximum band-edge emission found

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 link in the above results matrix to view the plot

Equipment Configuration for Transmitter Conducted Spurious and Band-Edge Emissions			
Variant:	802.11a	**Duty Cycle (%):**	99
Data Rate:	6 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	-46.299	-15.87	-39.404	-17.20	-46.023	-16.20	--	--
5785.0	30.0 – 26000.0	-39.011	-17.25	-38.126	-14.09	-45.608	-16.95	--	--
5825.0	30.0 – 26000.0	-39.117	-15.26	-36.838	-15.24	-39.120	-15.15	--	--

SE – Maximum spurious emission found

Test Frequency	Band-Edge Frequency	Transmitter Conducted Band-Edge Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	BE	Limit	BE	Limit	BE	Limit	BE	Limit
5745.0	5725.0	-37.966	-15.08	-28.755	-14.91	-33.178	-15.47	--	--
5825.0	5850.0	-40.579	-15.39	-36.234	-15.17	-38.697	-14.54	--	--

BE – Maximum band-edge emission found

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 link in the above results matrix to view the plot

Equipment Configuration for Transmitter Conducted Spurious and Band-Edge Emissions			
Variant:	802.11n HT-20	**Duty Cycle (%):**	99
Data Rate:	6.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	-46.394	-17.22	-39.721	-15.82	-45.301	-16.76	--	--
5785.0	30.0 – 26000.0	-39.127	-16.48	-39.306	-15.22	-46.174	-16.51	--	--
5825.0	30.0 – 26000.0	-38.920	-15.96	-37.062	-15.77	-39.272	-15.20	--	--

SE – Maximum spurious emission found

Test Frequency	Band-Edge Frequency	Transmitter Conducted Band-Edge Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	BE	Limit	BE	Limit	BE	Limit	BE	Limit
5745.0	5725.0	-34.853	-14.98	-28.111	-14.21	-31.662	-15.41	--	--
5825.0	5850.0	-40.823	-14.95	-36.183	-14.74	-37.629	-14.21	--	--

BE – Maximum band-edge emission found

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 link in the above results matrix to view the plot

Equipment Configuration for Transmitter Conducted Spurious and Band-Edge Emissions			
Variant:	802.11n HT-40	**Duty Cycle (%):**	99
Data Rate:	13.5 MBit/s	**Antenna Gain (dBi):**	N/A
Modulation:	OFDM	**Beam Forming Gain (Y):**	N/A
TPC:	Maximum Power		
Engineering Test Notes:			

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	-37.563	-18.76	-39.639	-18.14	-46.113	-19.60	--	--
5795.0	30.0 - 26000.0	-38.685	-18.33	-40.768	-17.80	-38.350	-17.91	--	--

SE - Maximum spurious emission found

Test Frequency	Band-Edge Frequency	Transmitter Conducted Band-Edge Emissions (dBm)							
		Port a		Port b		Port c		Port d	
MHz	MHz	BE	Limit	BE	Limit	BE	Limit	BE	Limit
5755.0	5725.0	-33.116	-17.75	-24.750	-17.20	-30.144	-18.62	--	--
5795.0	5850.0	-40.814	-17.61	-38.204	-17.12	-41.193	-18.60	--	--

BE - Maximum band-edge emission found

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 link in the above results matrix to view the 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.

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:

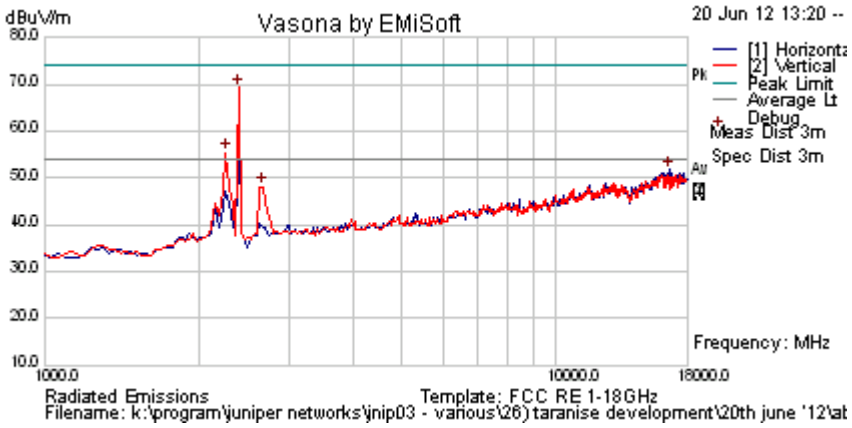
Level (dBμV/m) = 20 * Log (level (μV/m))

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. Dual Band OMNI Paddle WLA-ANT-7360P-IN

Test Freq.	2412 MHz	**Engineer**	GMH
Variant	802.11b; 1 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

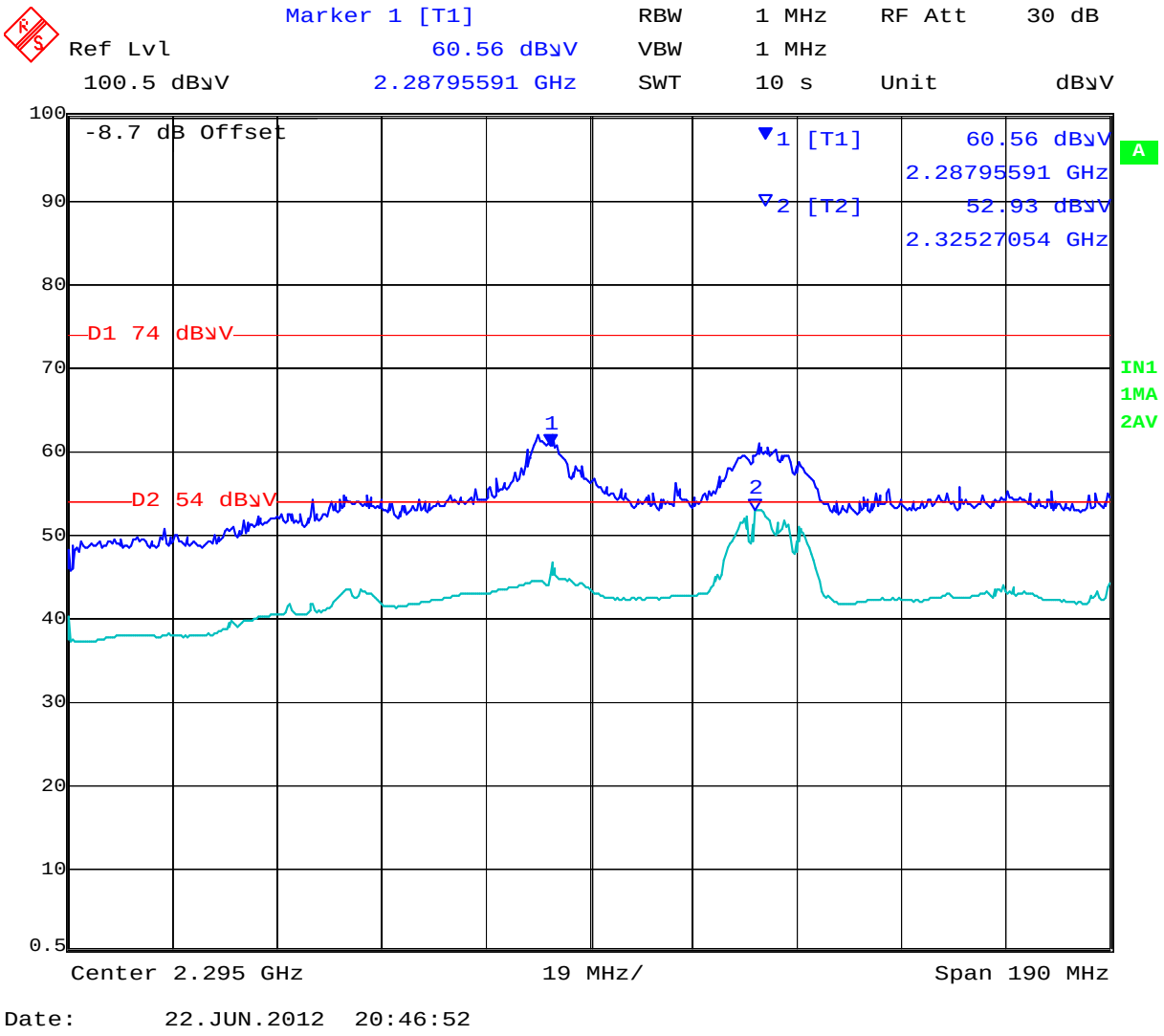


Formally measured emission peaks

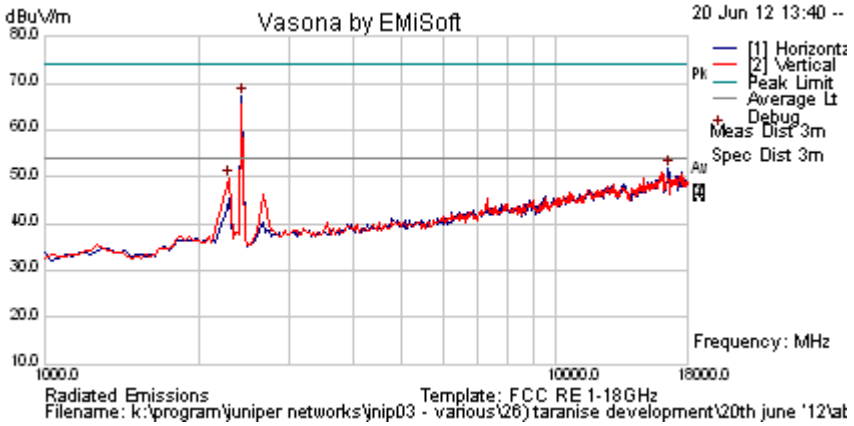
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2396.794	78.1	3.0	-11.7	69.4	Peak [Scan]	V						FUND
2260.52104	64.2	2.9	-11.8	55.3	Peak [Scan]	V					Pass	BE
16569.138	42.6	8.8	0.5	51.8	Peak [Scan]	H	150	0	54	-2.2	Pass	NOISE
2669.339	56.6	3.1	-11.5	48.2	Peak [Scan]	V					Pass	BE

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



Test Freq.	2437 MHz	**Engineer**	GMH
Variant	802.11b; 1 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

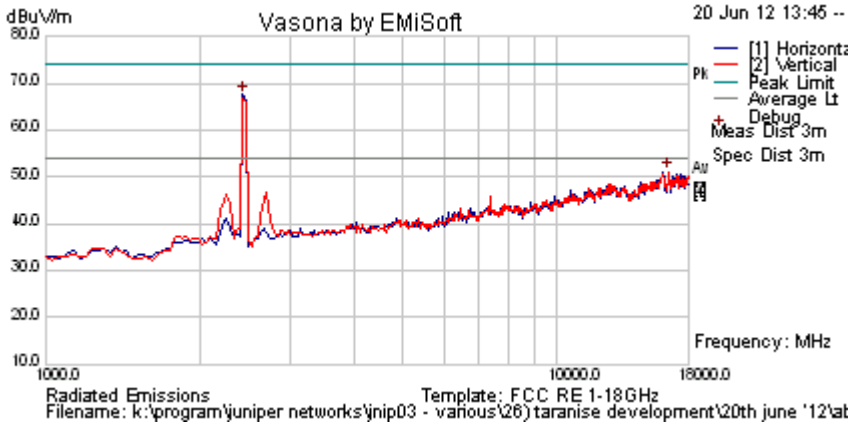


Formally measured emission peaks

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
2430.862	75.8	3.0	-11.6	67.2	Peak [Scan]	H						FUND
16535.07	42.5	8.8	0.4	51.6	Peak [Scan]	H	100	0	54.0	-2.4	Pass	NOISE
2294.589	58.6	2.9	-11.9	49.6	Peak [Scan]	V					Pass	BE

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**	GMH
Variant	802.11b; 1 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

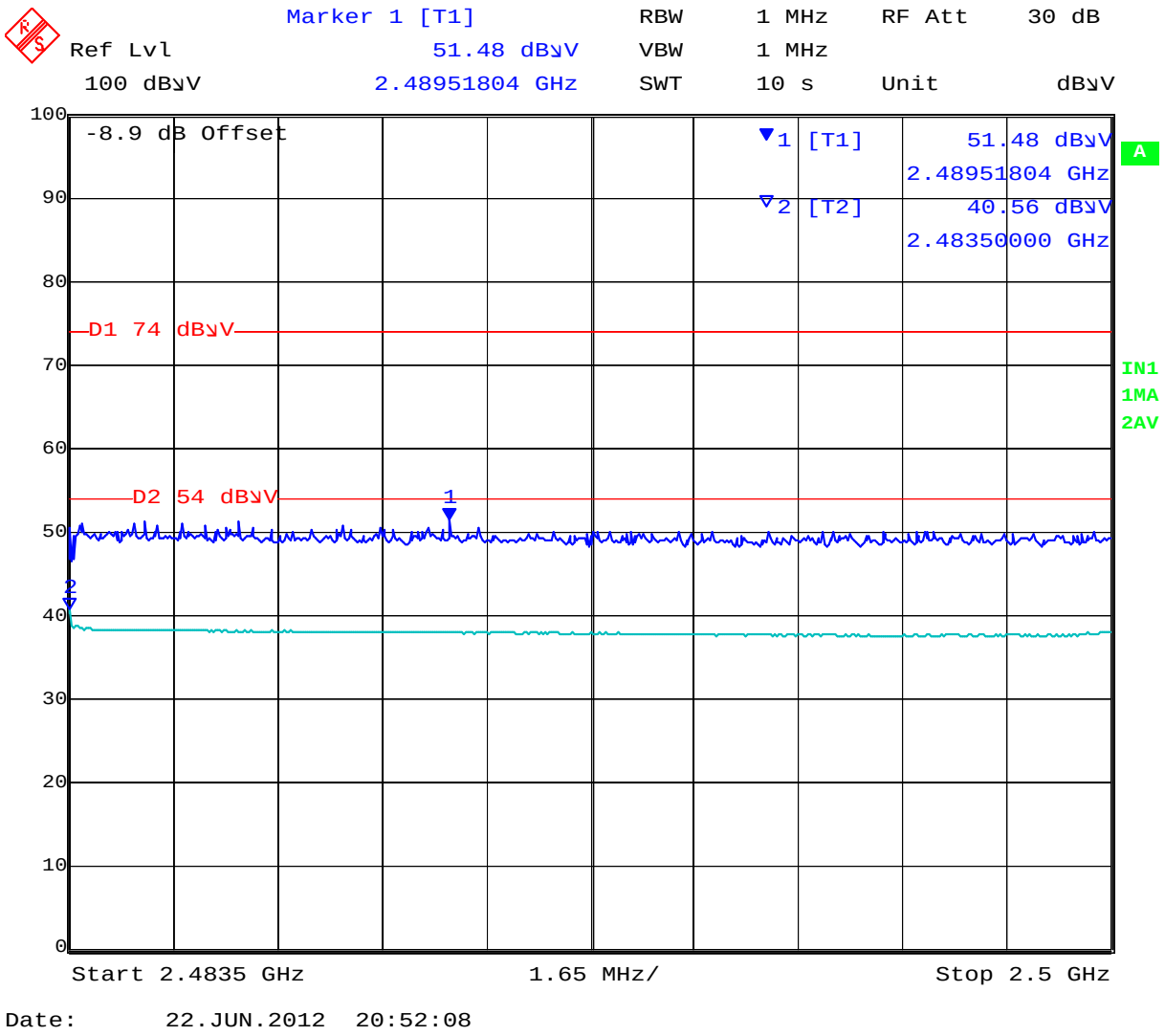


Formally measured emission peaks

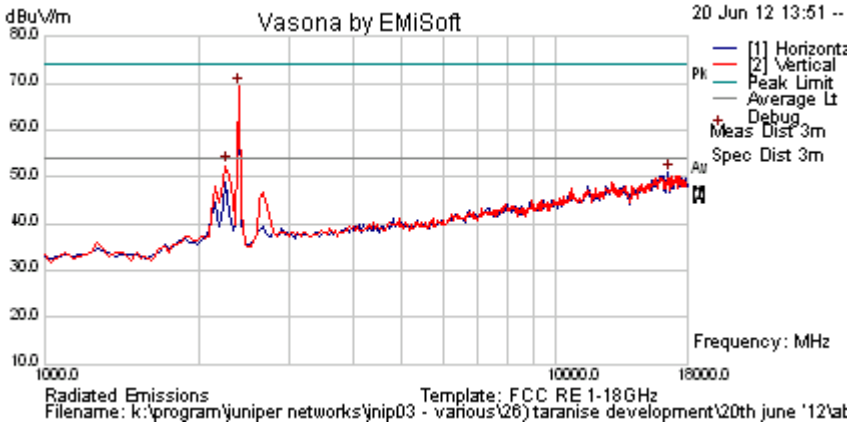
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2430.862	76.3	3.0	-11.6	67.7	Peak [Scan]	H						FUND
16501.002	41.9	8.8	0.3	51.1	Peak [Scan]	V	150	0	54.0	-3.0	Pass	NOISE

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



Test Freq.	2412 MHz	**Engineer**	GMH
Variant	802.11g; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

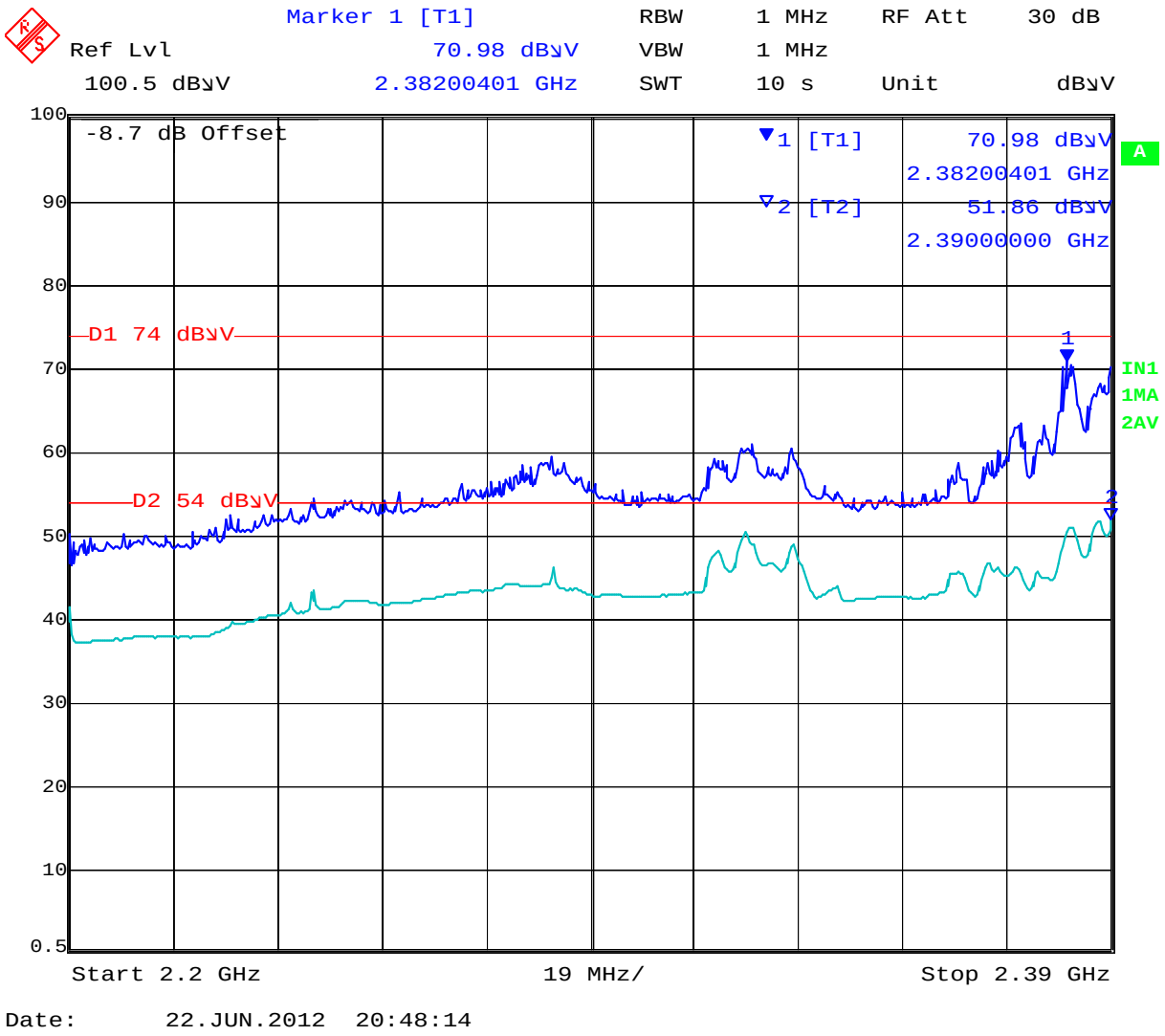


Formally measured emission peaks

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
2396.794	78.1	3.0	-11.7	69.4	Peak [Scan]	V						FUND
2260.52104	61.4	2.9	-11.8	52.5	Peak [Scan]	V					Pass	BE
16535.070	41.8	8.8	0.4	51.0	Peak [Scan]	H	150	0	54	-3.0	Pass	NOISE

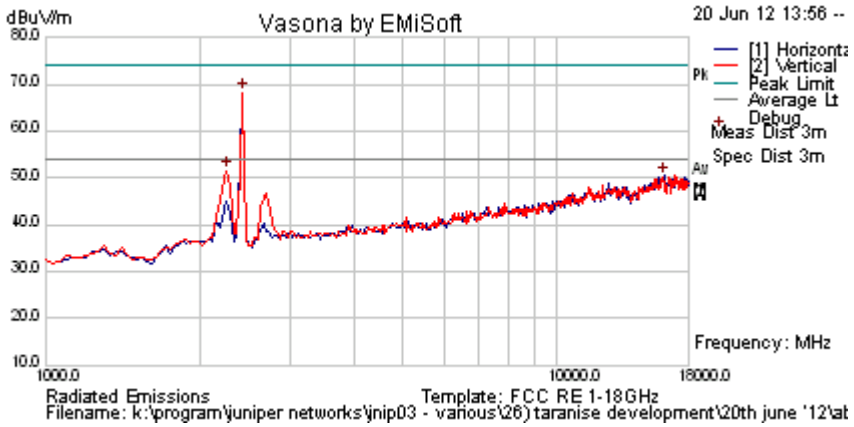
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 17

Test Freq.	2437 MHz	**Engineer**	GMH
Variant	802.11g; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

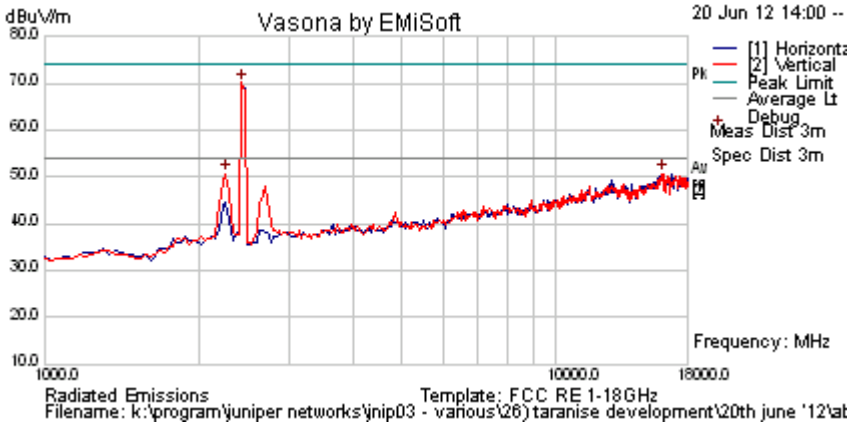


Formally measured emission peaks

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
2430.862	76.9	3.0	-11.6	68.3	Peak [Scan]	H						FUND
2260.52104	60.5	2.9	-11.8	51.5	Peak [Scan]	V					Pass	BE
16160.321	41.5	9.0	0.2	50.6	Peak [Scan]	H	150	0	54	-3.4	Pass	NOISE

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**	GMH
Variant	802.11g; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

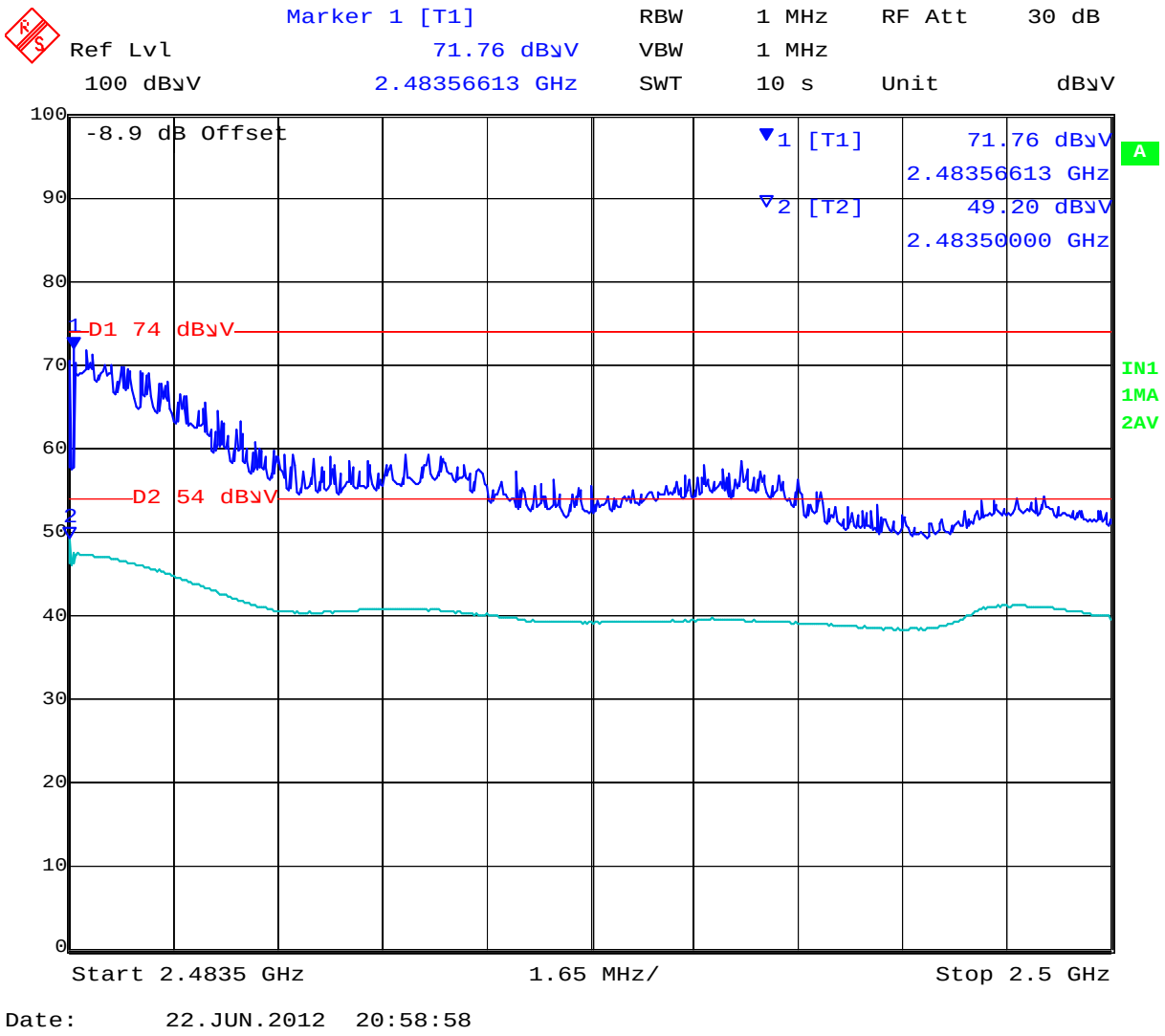


Formally measured emission peaks

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
2430.862	78.8	3.0	-11.6	70.2	Peak [Scan]	V						FUND
2260.52104	59.7	2.9	-11.8	50.8	Peak [Scan]	V					Pass	BE
16092.184	41.5	9.0	0.3	50.7	Peak [Scan]	V	150	0	54	-3.3	Pass	NOISE

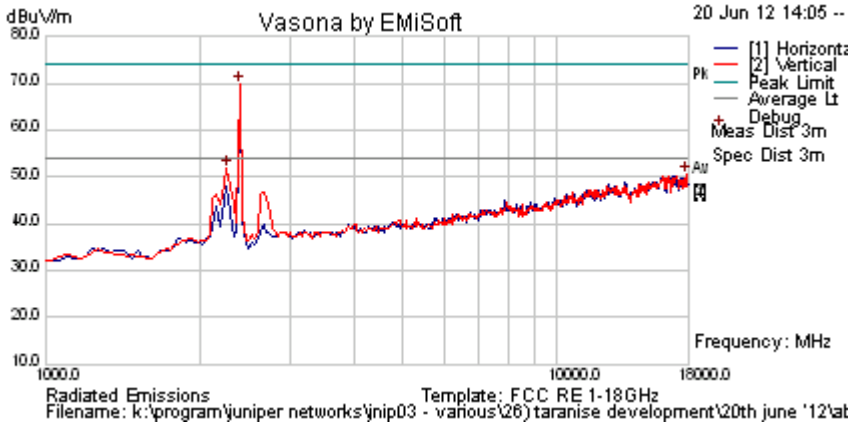
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 16

Test Freq.	2412 MHz	**Engineer**	GMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

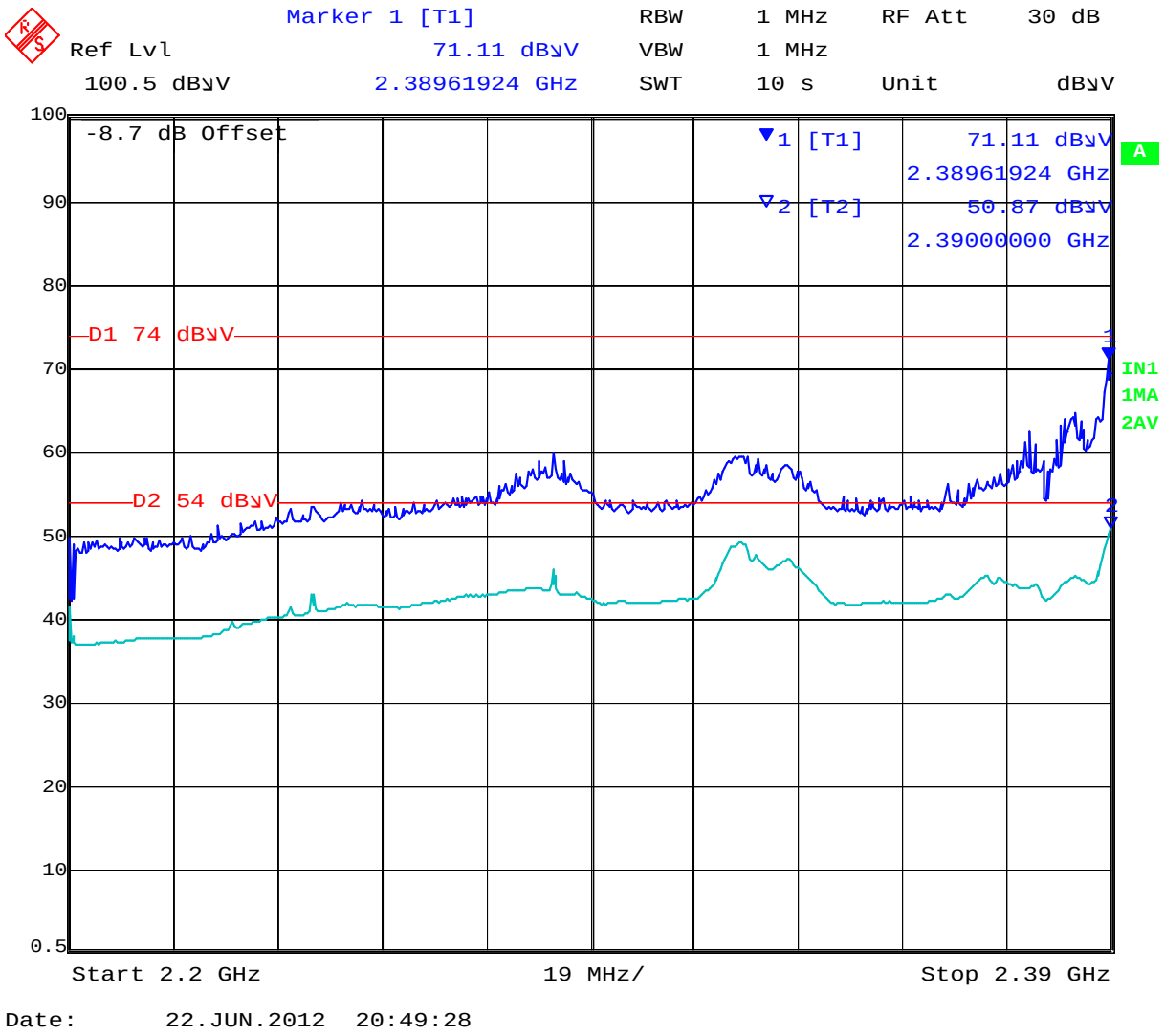


Formally measured emission peaks

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
2396.794	78.3	3.0	-11.7	69.6	Peak [Scan]	V						FUND
2260.52104	60.8	2.9	-11.8	51.9	Peak [Scan]	V					Pass	BE
17829.659	41.4	8.8	0.2	50.4	Peak [Scan]	V	100	0	54	-3.6	Pass	NOISE

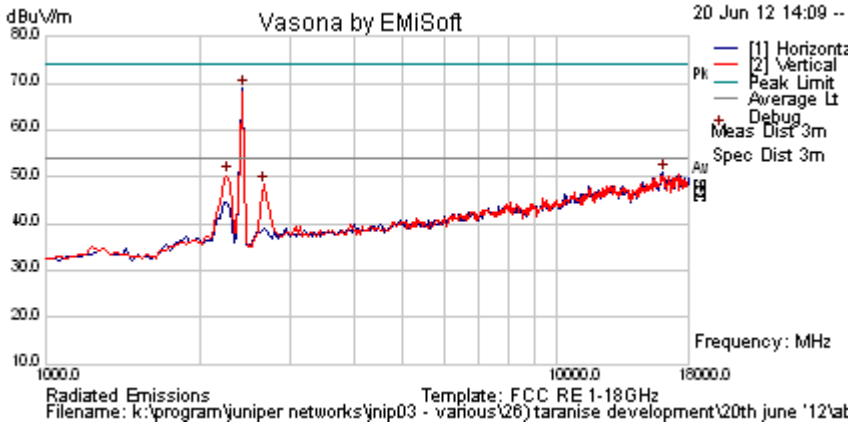
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 17

Test Freq.	2437 MHz	**Engineer**	GMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

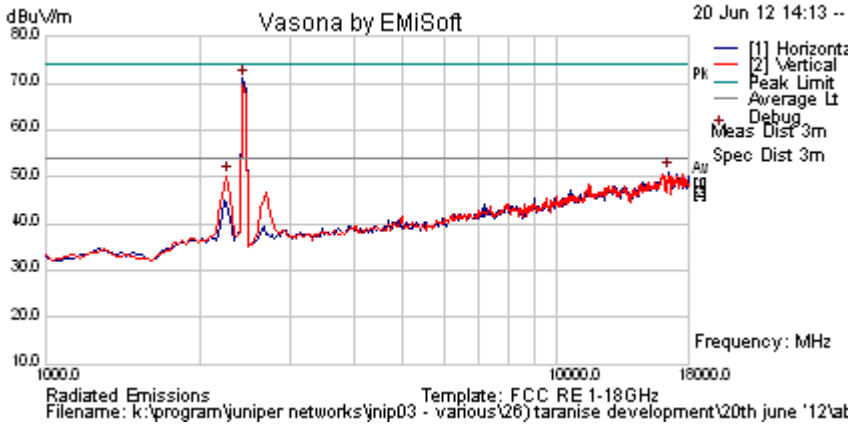


Formally measured emission peaks

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
2430.862	77.4	3.0	-11.6	68.8	Peak [Scan]	H						FUND
16092.184	41.5	9.0	0.3	50.8	Peak [Scan]	H	100	0	54.0	-3.2	Pass	NOISE
2260.521	59.2	2.9	-11.8	50.3	Peak [Scan]	V					Pass	BE
2669.339	56.7	3.1	-11.5	48.3	Peak [Scan]	V					Pass	BE

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**	GMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

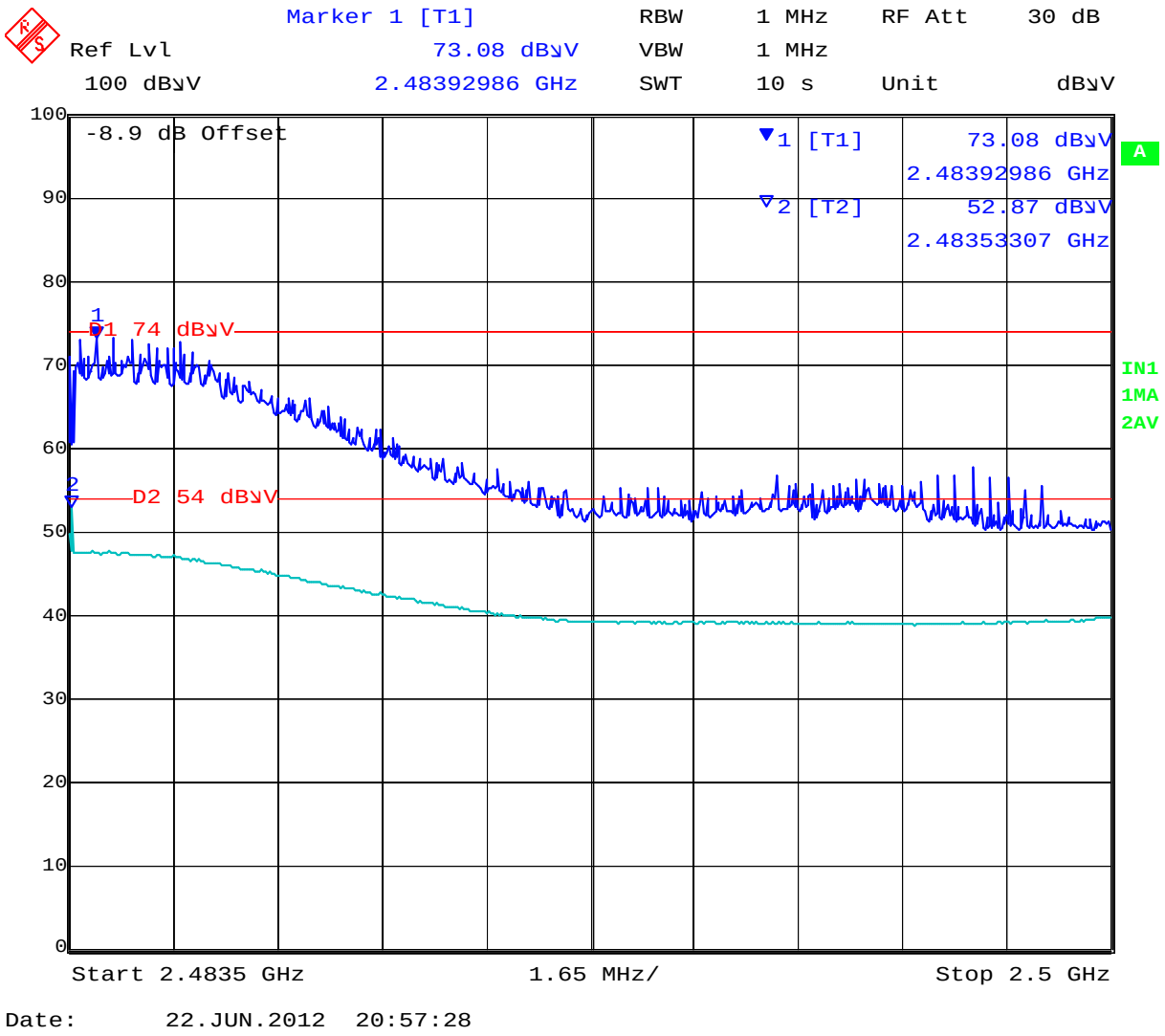


Formally measured emission peaks

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
2430.862	79.7	3.0	-11.6	71.2	Peak [Scan]	H						FUND
16466.934	41.9	8.8	0.3	51.0	Peak [Scan]	H	150	0	54.0	-3.0	Pass	NOISE
2260.521	59.2	2.9	-11.8	50.2	Peak [Scan]	V					Pass	BE

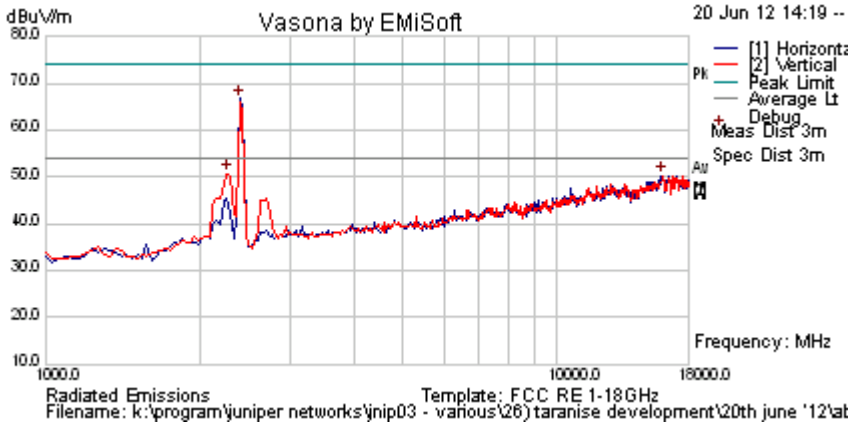
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 15

Test Freq.	2422 MHz	**Engineer**	GMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

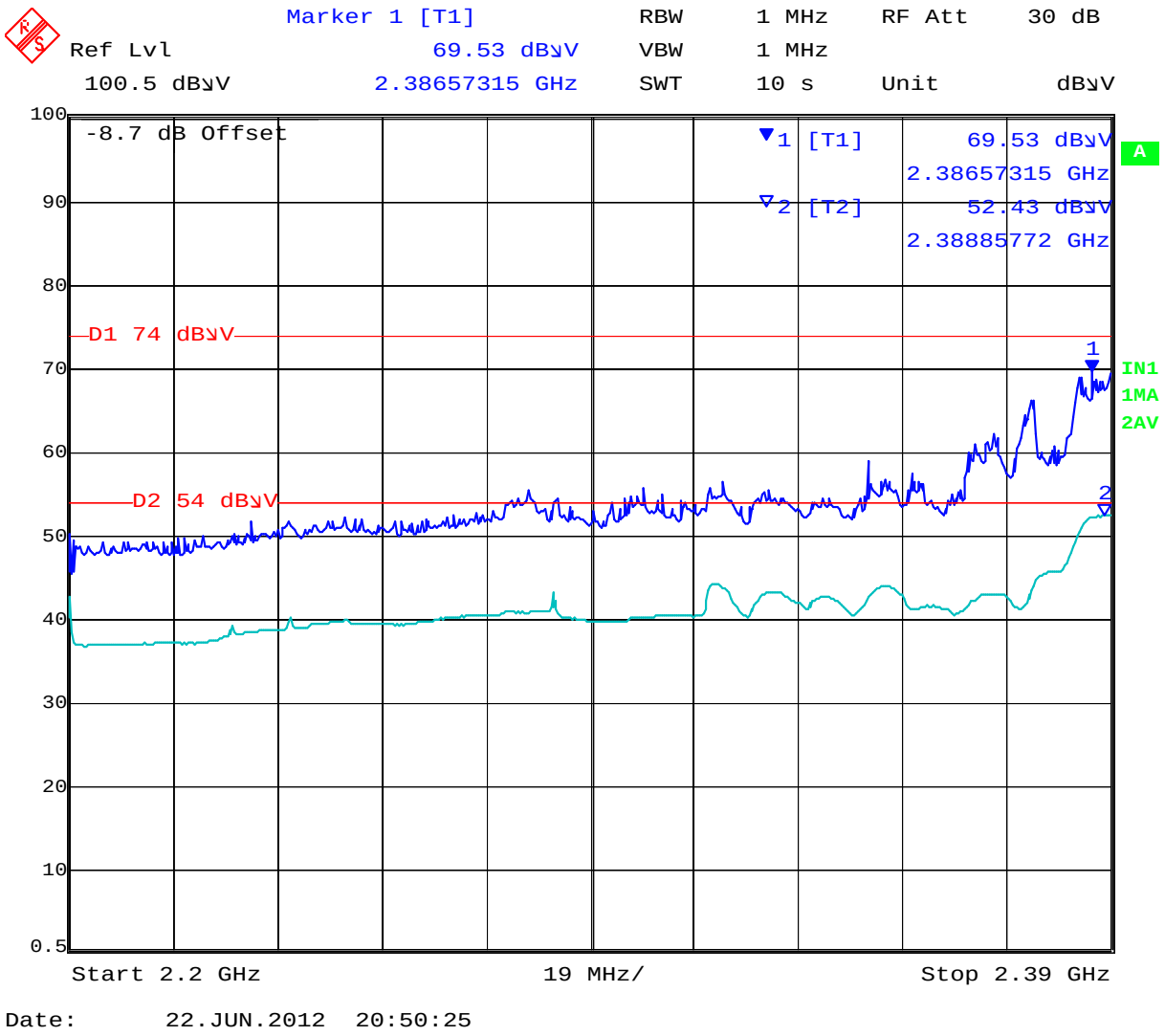


Formally measured emission peaks

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
2396.794	75.4	3.0	-11.7	66.7	Peak [Scan]	H						FUND
2260.52104	59.6	2.9	-11.8	50.7	Peak [Scan]	V					Pass	BE
16024.048	41.1	9.0	0.2	50.3	Peak [Scan]	H	100	0	54	-3.7	Pass	NOISE

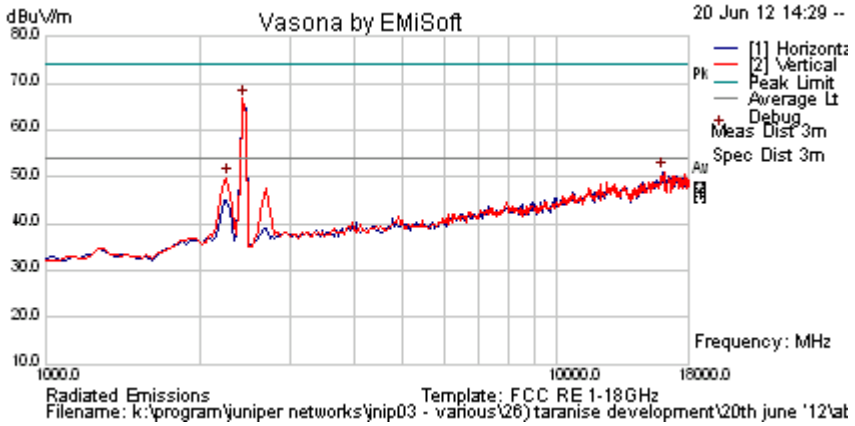
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 13

Test Freq.	2437 MHz	**Engineer**	GMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

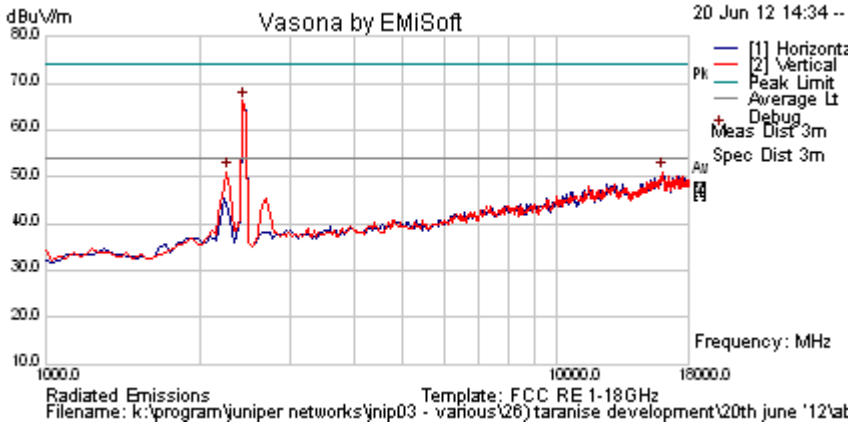


Formally measured emission peaks

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
2430.862	75.3	3.0	-11.6	66.7	Peak [Scan]	V						FUND
15989.98	42.0	9.0	0.1	51.1	Peak [Scan]	H	100	0	54.0	-2.9	Pass	NOISE
2260.521	58.8	2.9	-11.8	49.9	Peak [Scan]	V					Pass	BE

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.	2452 MHz	**Engineer**	GMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

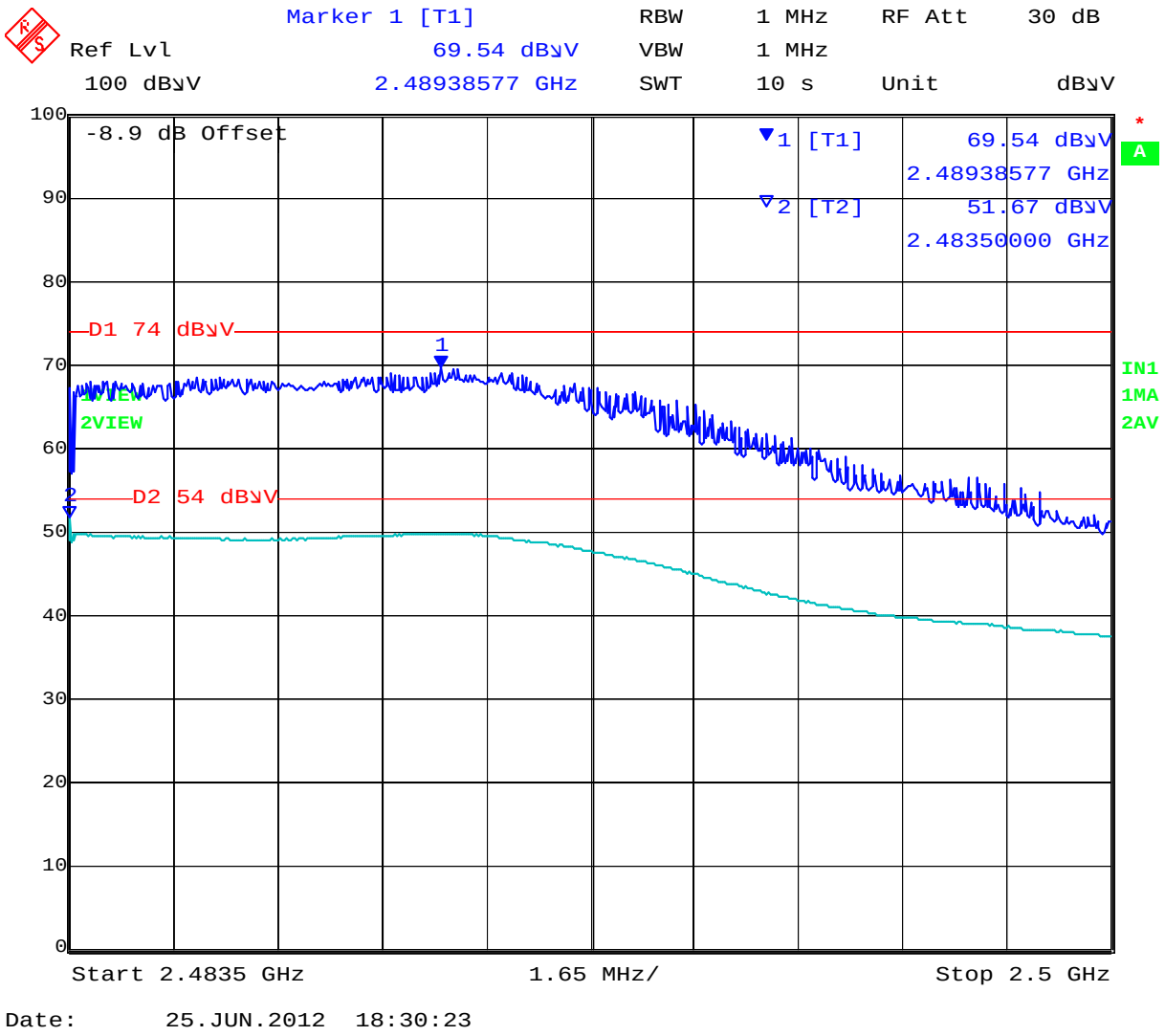


Formally measured emission peaks

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
2430.862	74.9	3.0	-11.6	66.3	Peak [Scan]	V						FUND
2260.52104	60.1	2.9	-11.8	51.2	Peak [Scan]	V					Pass	BE
16058.116	41.9	9.0	0.3	51.2	Peak [Scan]	V	150	0	54	-2.8	Pass	NOISE

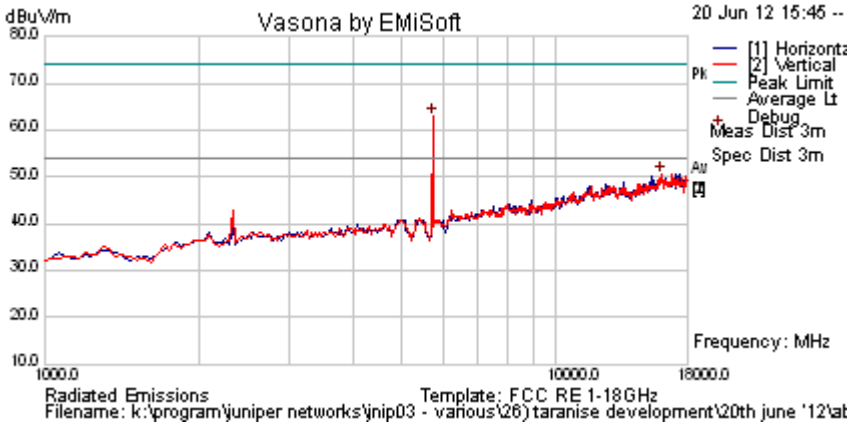
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 15.5

Test Freq.	5745 MHz	**Engineer**	GMH
Variant	802.11a; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

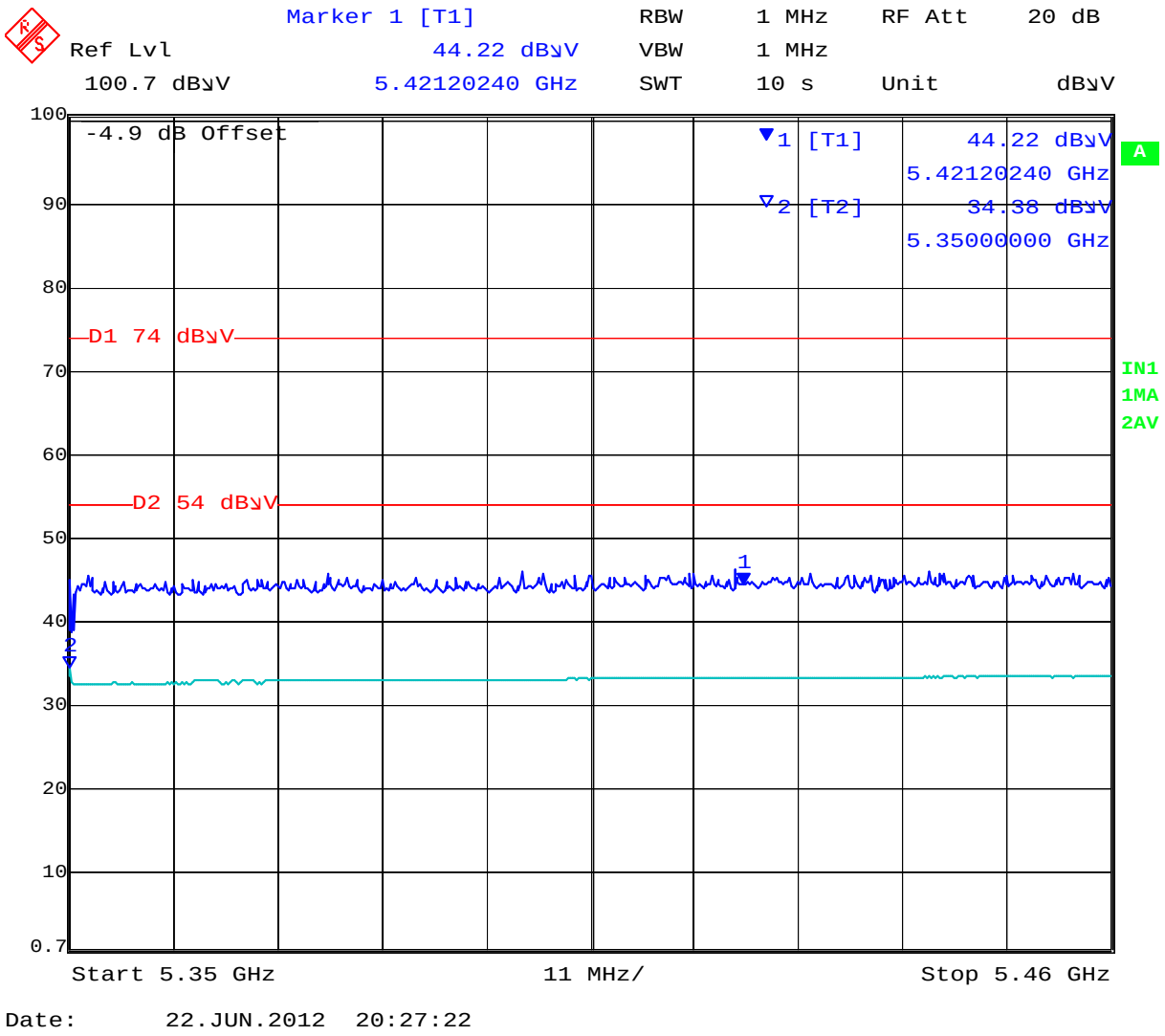


Formally measured emission peaks

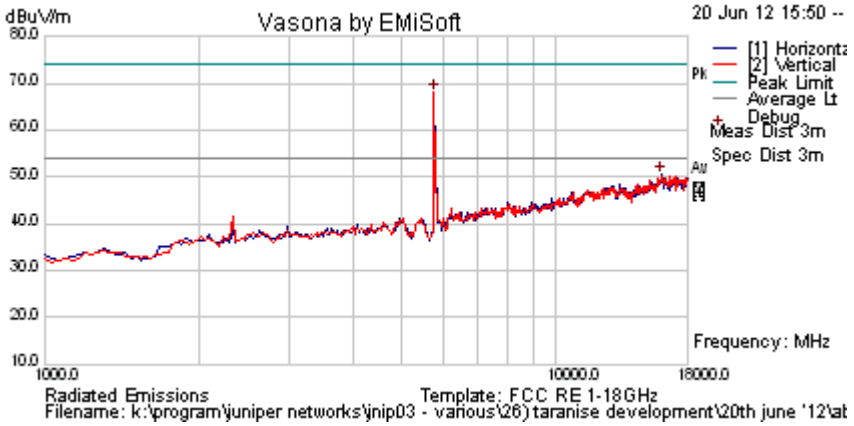
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5735.471	67.6	4.8	-9.5	62.8	Peak [Scan]	V						
15989.98	41.3	9.0	0.1	50.4	Peak [Scan]	V	100	0	54.0	-3.6	Pass	NOISE

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



Test Freq.	5785 MHz	**Engineer**	GMH
Variant	802.11a; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

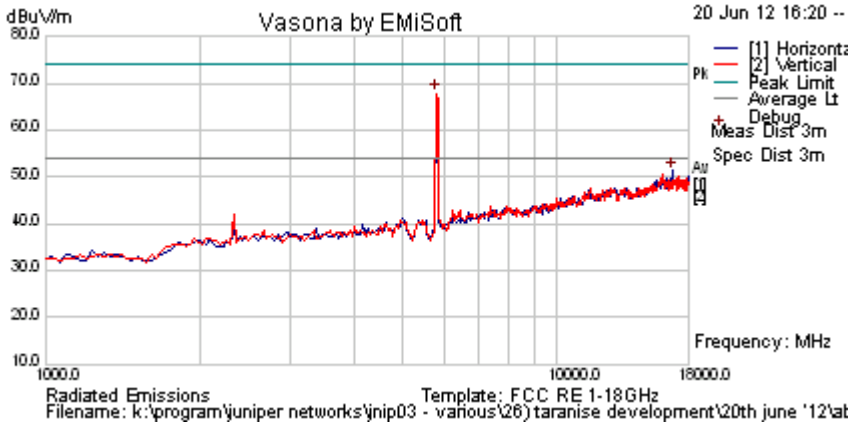


Formally measured emission peaks

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
5769.539	72.8	4.8	-9.5	68.1	Peak [Scan]	V						FUND
16058.116	41.2	9.0	0.3	50.5	Peak [Scan]	H	150	0	54.0	-3.5	Pass	Noise

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**	GMH
Variant	802.11a; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

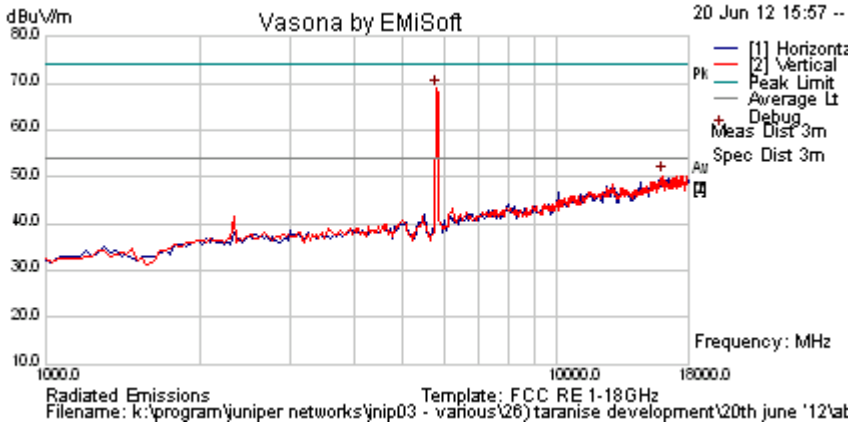


Formally measured emission peaks

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
5803.607	72.4	4.8	-9.4	67.8	Peak [Scan]	V						FUND
16739.479	41.8	8.7	0.9	51.3	Peak [Scan]	H	100	0	54.0	-2.7	Pass	NOISE

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**	GMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

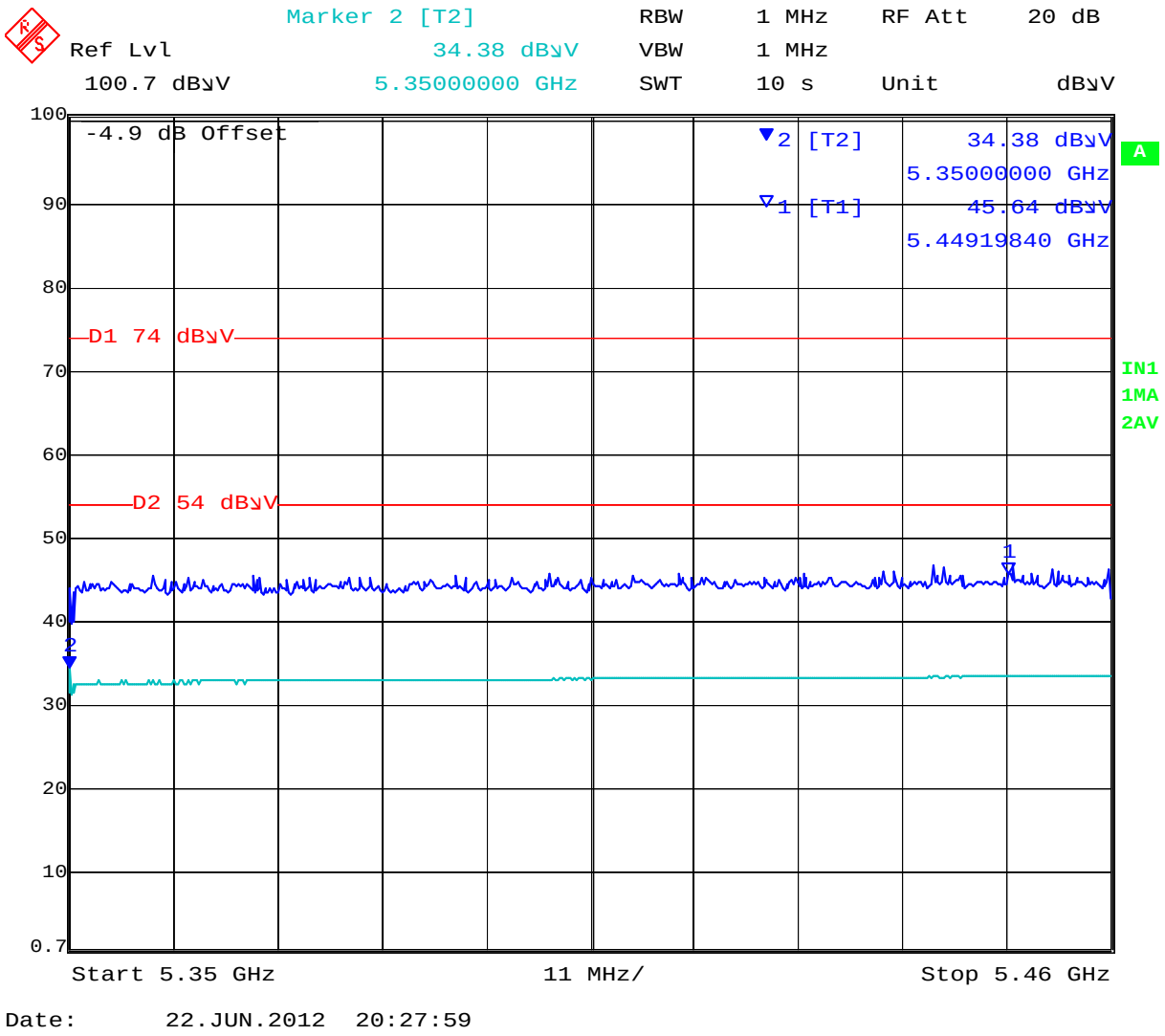


Formally measured emission peaks

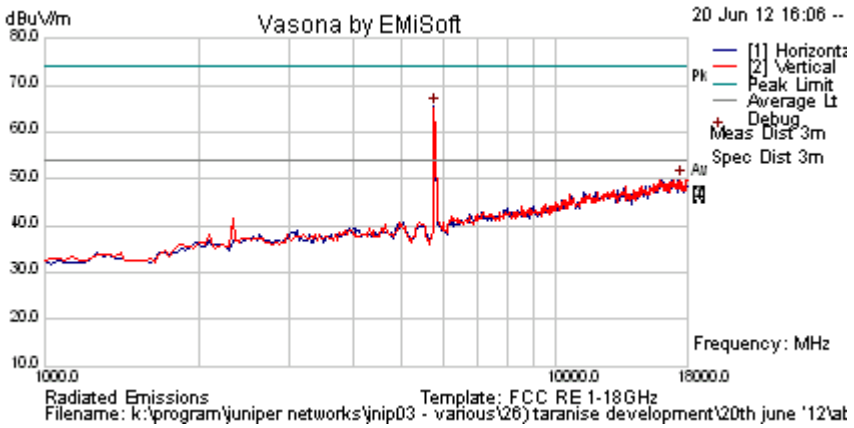
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5803.607	73.4	4.8	-9.4	68.8	Peak [Scan]							FUND
16024.048	40.9	9.0	0.2	50.2	Peak [Scan]	V	100	0	54.0	-3.8	Pass	NOISE

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



Test Freq.	5785 MHz	**Engineer**	GMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

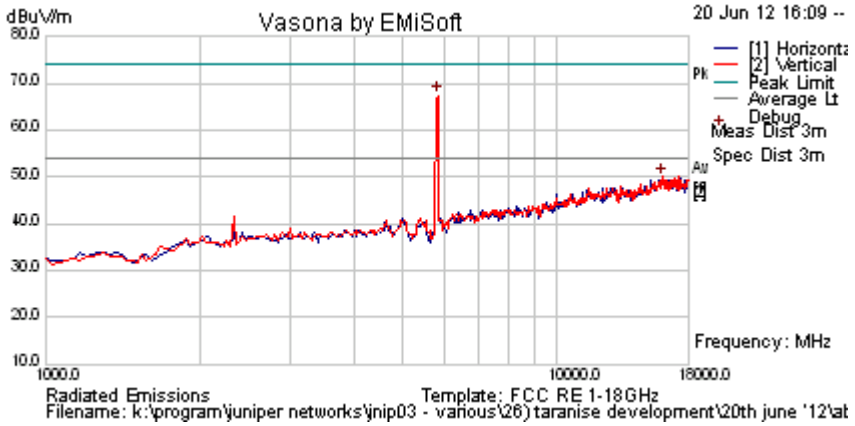


Formally measured emission peaks

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
5769.539	70.1	4.8	-9.5	65.4	Peak [Scan]	H						FUND
17454.91	39.8	8.7	1.2	49.8	Peak [Scan]	H	100	0	54.0	-4.3	Pass	NOISE

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**	GMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

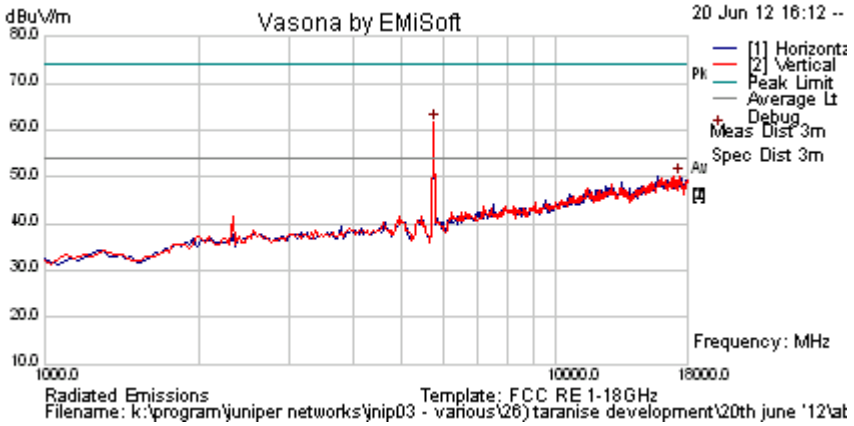


Formally measured emission peaks

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
5837.675	71.9	4.8	-9.3	67.5	Peak [Scan]	V						FUND
16058.116	40.8	9.0	0.3	50.1	Peak [Scan]	V	100	0	54.0	-3.9	Pass	NOISE

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.	5755 MHz	**Engineer**	GMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (°C)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

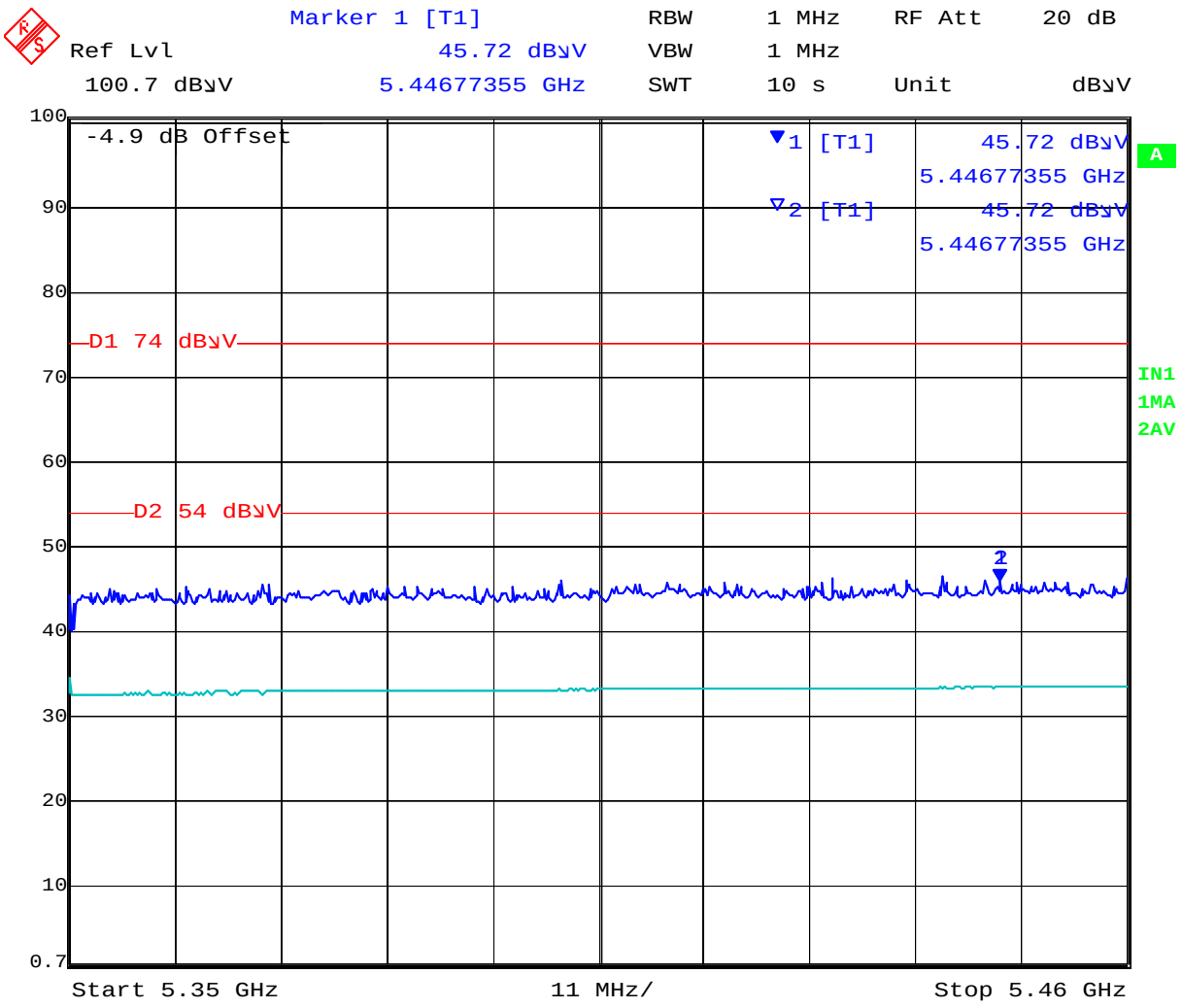


Formally measured emission peaks

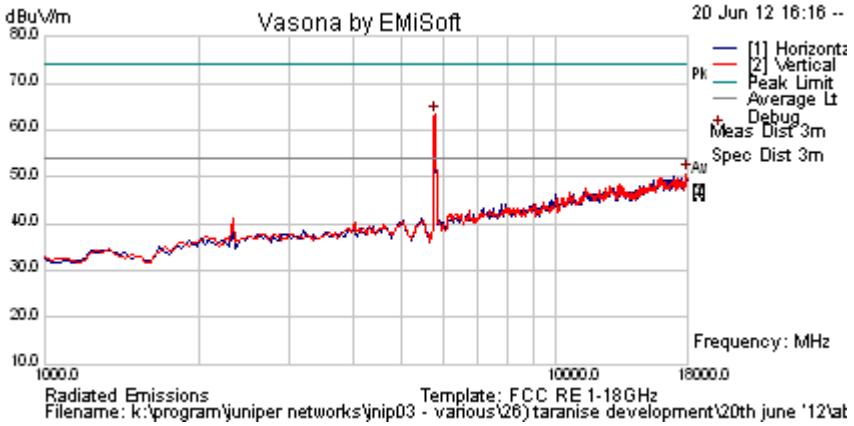
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5769.539	66.3	4.8	-9.5	61.6	Peak [Scan]	V						FUND
17352.705	40.1	8.7	1.3	50.1	Peak [Scan]	V	100	0	54.0	-3.9	Pass	NOISE

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



Test Freq.	5795 MHz	**Engineer**	GMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (°C)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			



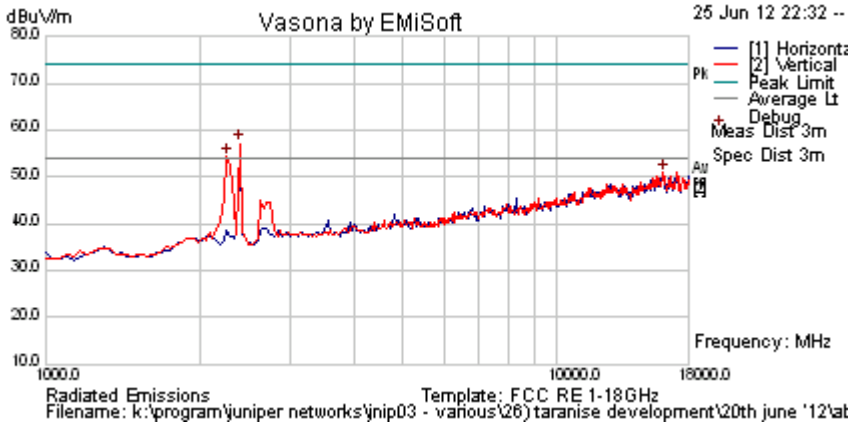
Formally measured emission peaks

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
5803.607	68.0	4.8	-9.4	63.4	Peak [Scan]	V						FUND
17931.864	41.4	8.8	0.6	50.7	Peak [Scan]	V	100	0	54.0	-3.3	Pass	NOISE

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

6.1.2.2. Dual Band OMNI WLA-ANT-7360A-OUT

Test Freq.	2412 MHz	**Engineer**	JMH
Variant	802.11b; 1 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

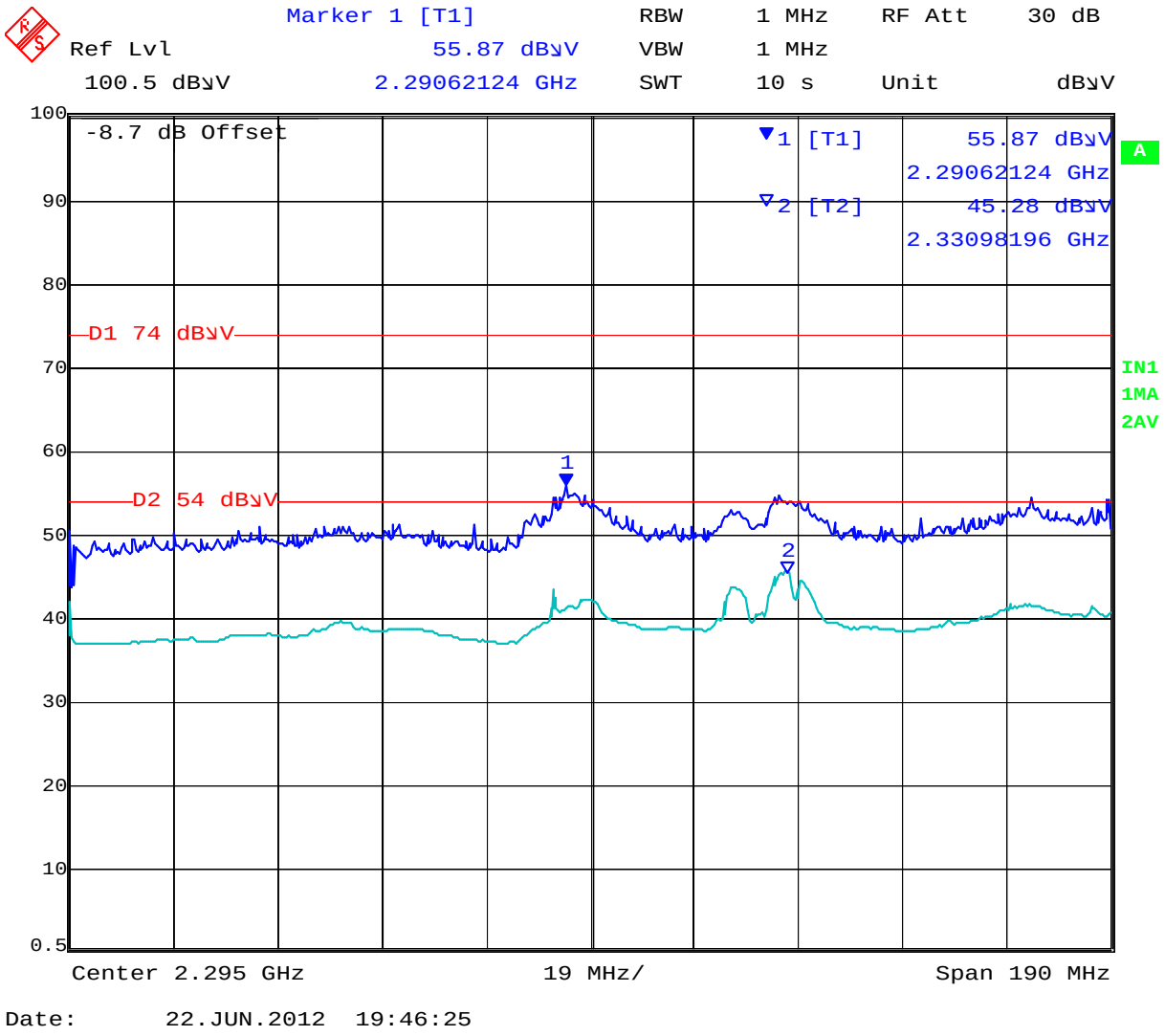


Formally measured emission peaks

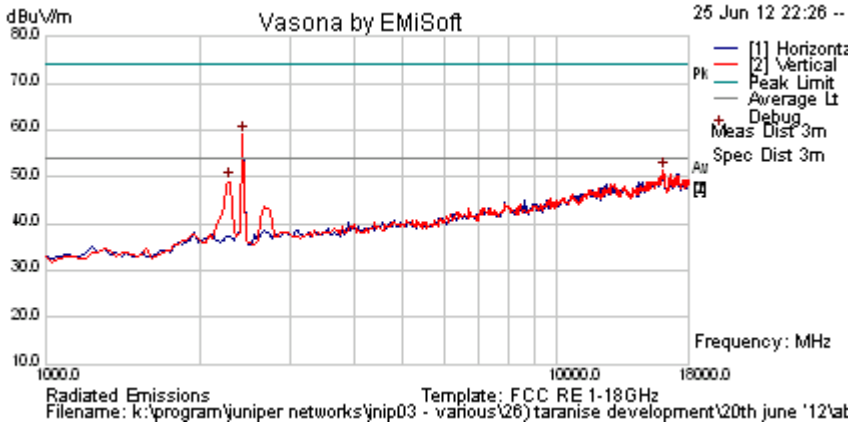
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2396.794	65.9	3.0	-11.7	57.2	Peak [Scan]	V						FUND
2260.52104	63.2	2.9	-11.8	54.3	Peak [Scan]	V					Pass	BE
16092.184	41.7	9.0	0.3	50.9	Peak [Scan]	V	100	0	54.0	-3.3	Pass	Noise

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



Test Freq.	2437 MHz	**Engineer**	JMH
Variant	802.11b; 1 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

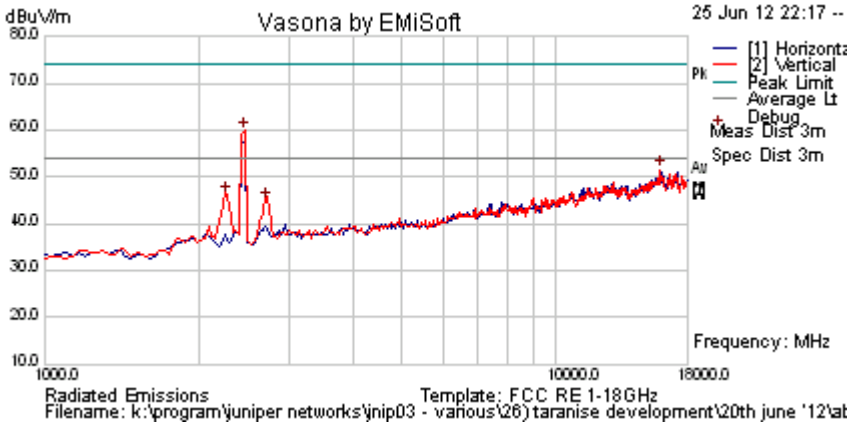


Formally measured emission peaks

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
2430.862	67.7	3.0	-11.6	59.2	Peak [Scan]	H						FUND
16092.184	42.0	9.0	0.3	51.3	Peak [Scan]	V	100	0	54.0	-3.3	Pass	Noise
2294.589	57.9	2.9	-11.9	48.9	Peak [Scan]	V					Pass	BE

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**	JMH
Variant	802.11b; 1 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

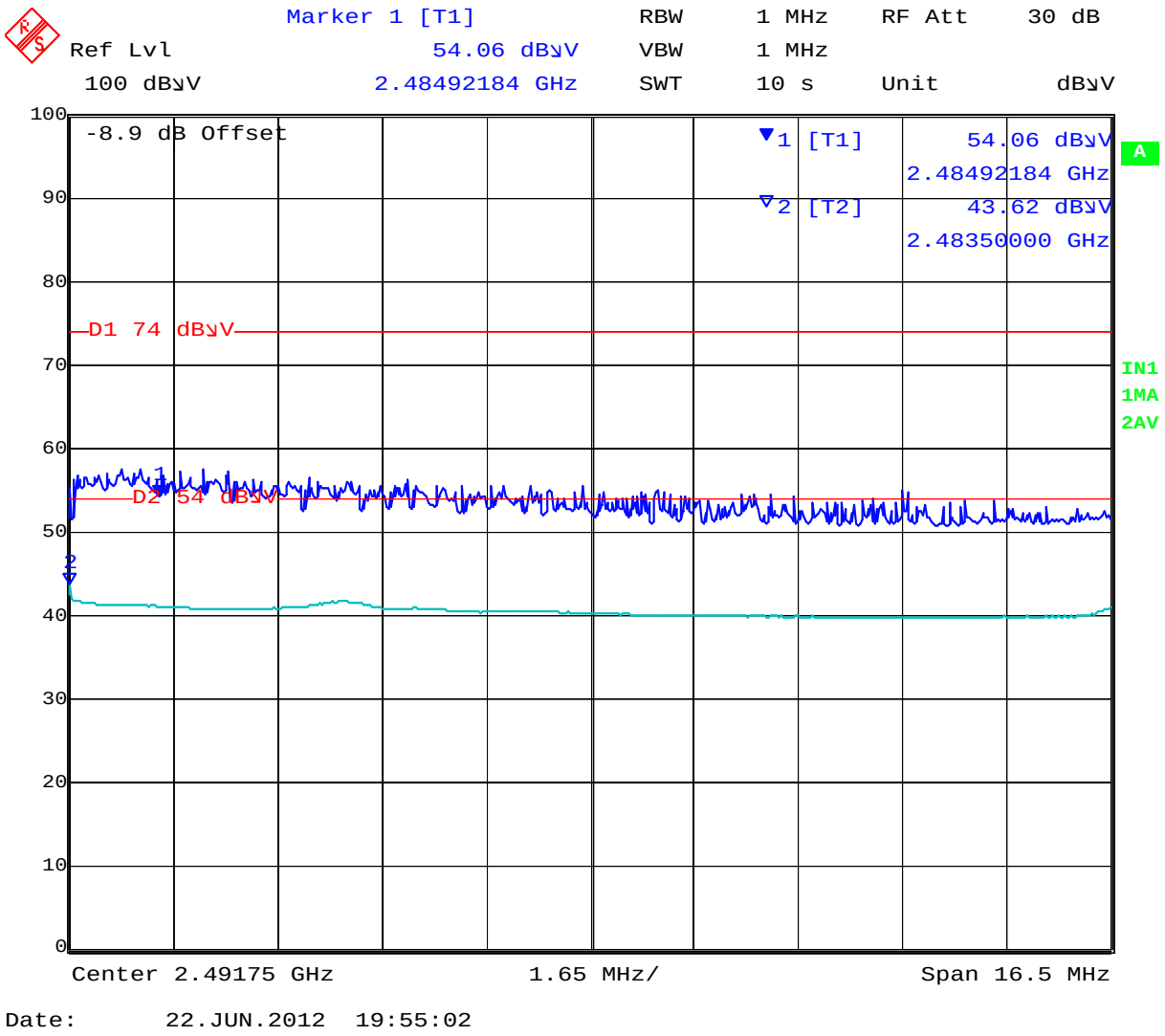


Formally measured emission peaks

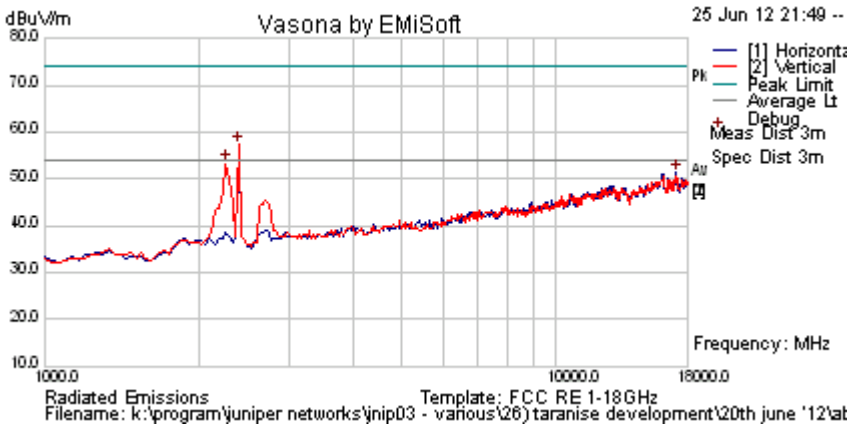
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2464.930	68.4	3.0	-11.5	59.8	Peak [Scan]	V						FUND
15955.912	42.5	9.0	0.0	51.5	Peak [Scan]	V					Pass	Noise
2275.752	54.9	2.9	-11.9	46.0	Peak [Scan]	V					Pass	BE
2722.400	53.4	3.2	-11.7	44.9	Peak [Scan]	V					Pass	BE

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



Test Freq.	2412 MHz	**Engineer**	JMH
Variant	802.11g; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	17	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

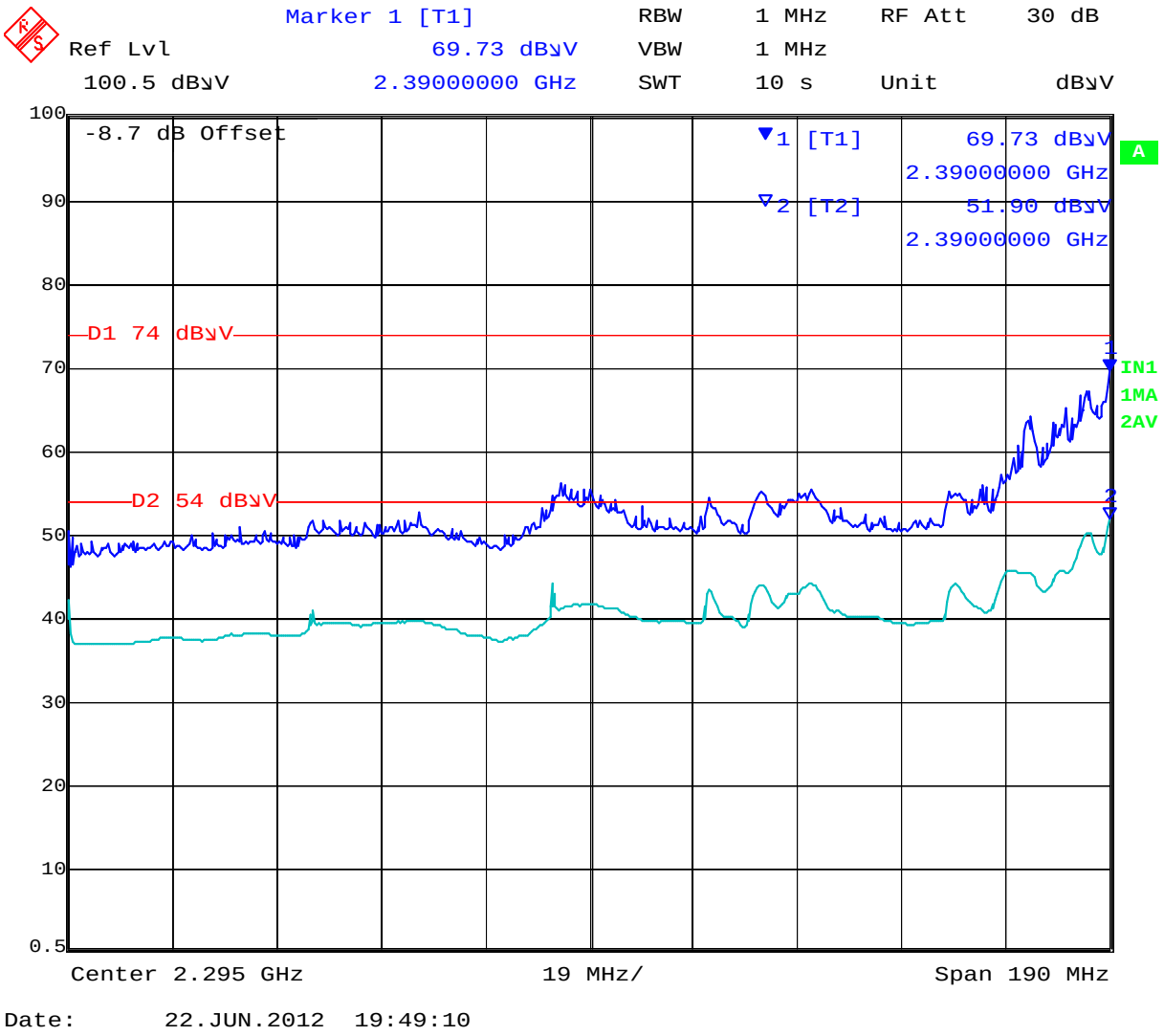


Formally measured emission peaks

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
2396.794	66.1	3.0	-11.7	57.4	Peak [Scan]	V						FUND
2260.52104	62.2	2.9	-11.8	53.3	Peak [Scan]	V					Pass	BE
17148.297	42.3	8.6	0.5	51.4	Peak [Scan]	H					Pass	Noise

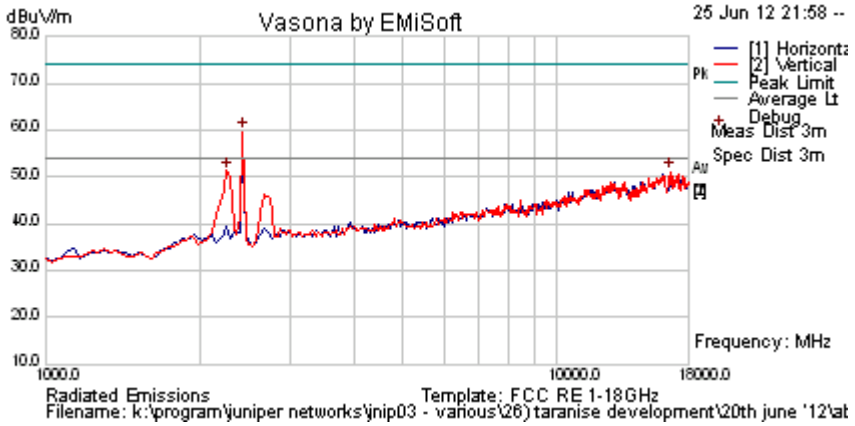
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 17

Test Freq.	2437 MHz	**Engineer**	JMH
Variant	802.11g; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	17	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

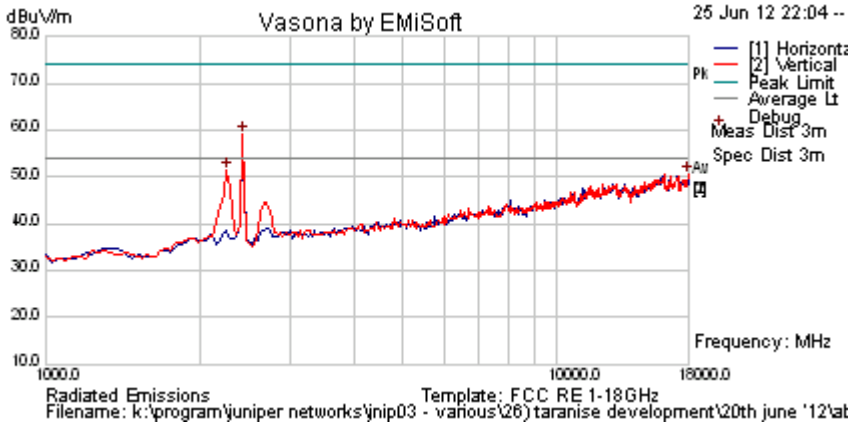


Formally measured emission peaks

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
2430.862	68.3	3.0	-11.6	59.7	Peak [Scan]	V						FUND
2260.52104	60.2	2.9	-11.8	51.3	Peak [Scan]	V					Pass	BE
16569.138	41.8	8.8	0.5	51.0	Peak [Scan]	V					Pass	Noise

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**	JMH
Variant	802.11g; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	16	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

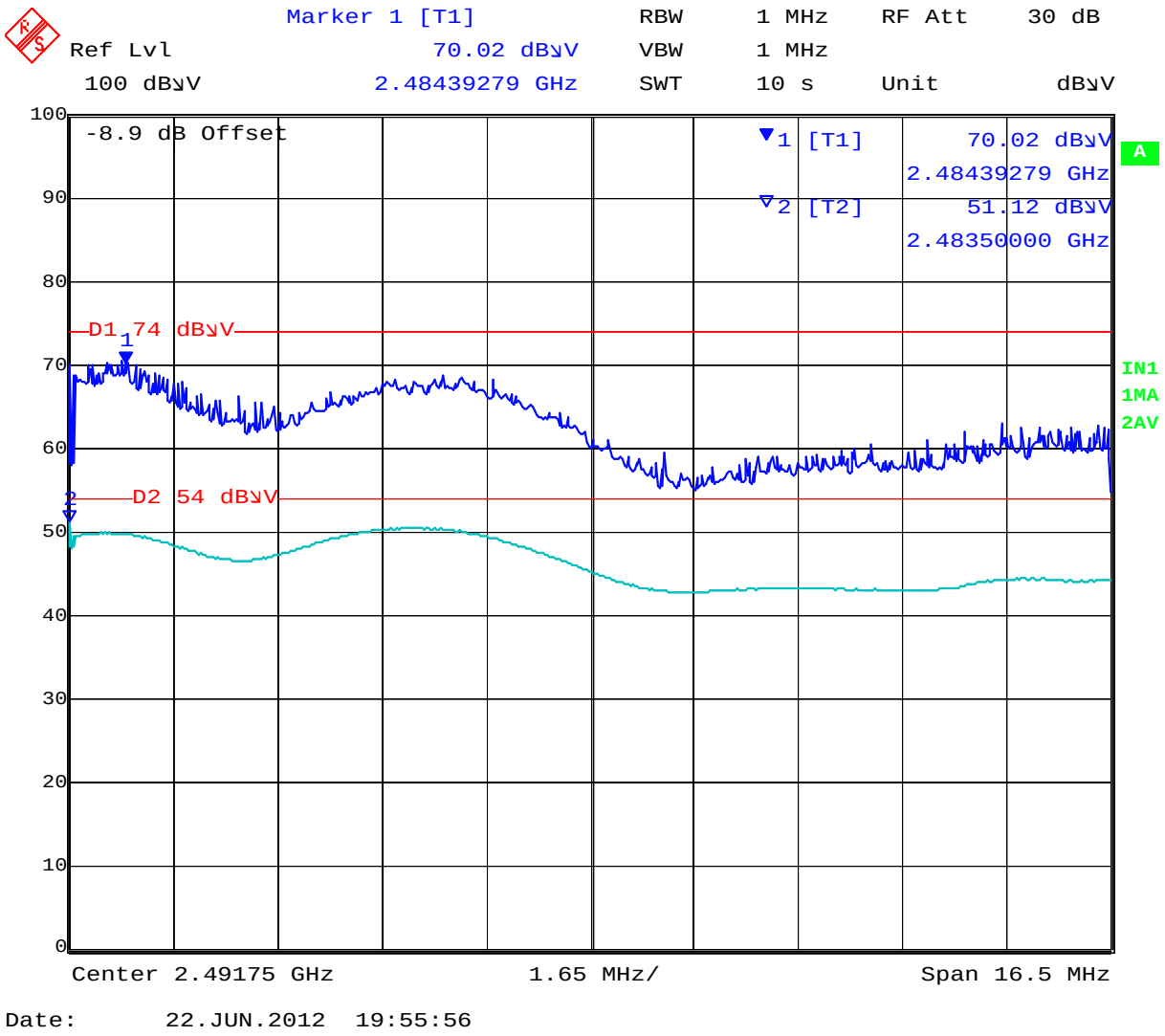


Formally measured emission peaks

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
2430.862	67.5	3.0	-11.6	58.9	Peak [Scan]	V	100	0	54.0	4.9	Fail	
2260.52104	60.3	2.9	-11.8	51.4	Peak [Scan]	V	100	0	54.0	-2.6	Pass	
17965.932	41.1	8.8	0.7	50.6	Peak [Scan]	V	150	0	54	-3.4	Pass	

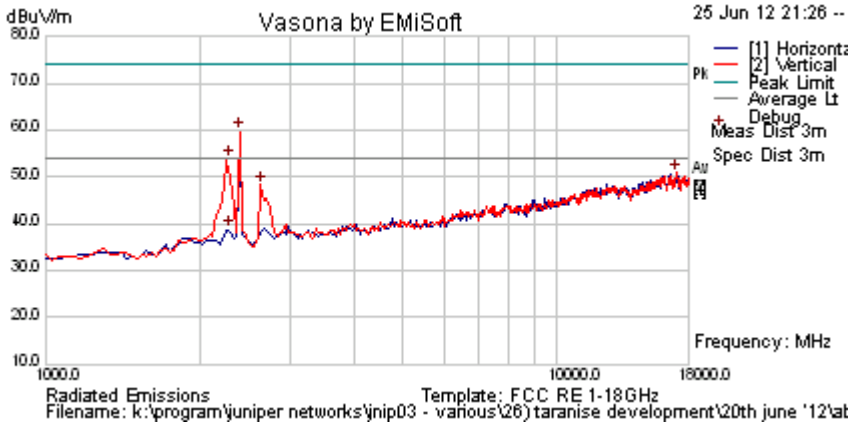
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 16

Test Freq.	2412 MHz	**Engineer**	JMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	17	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

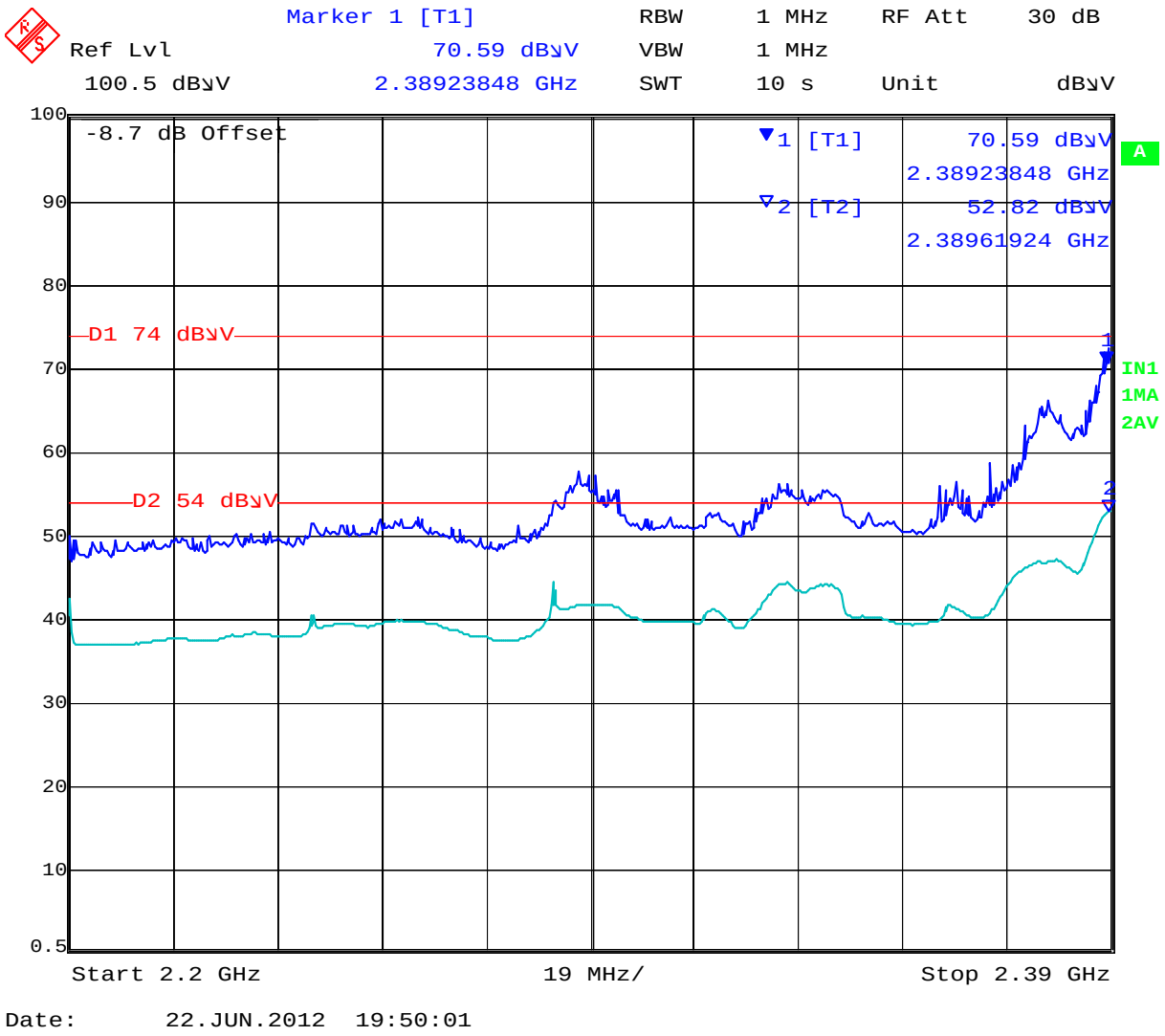


Formally measured emission peaks

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
2396.794	68.3	3.0	-11.7	59.6	Peak [Scan]	V	150	0	54.0	5.6	Fail	FUND
17080.16	42.0	8.5	0.4	50.9	Peak [Scan]	V	150	0	54	-3.4	Pass	Noise
2635.271	56.7	3.1	-11.4	48.4	Peak [Scan]	V					Pass	BE
2280.701	47.6	2.9	-11.9	38.6	Average Max	V					Pass	BE

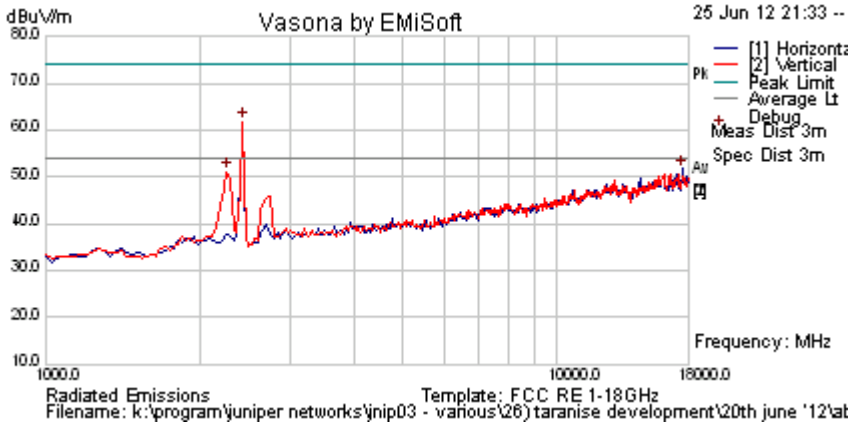
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 17

Test Freq.	2437 MHz	**Engineer**	JMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	17	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

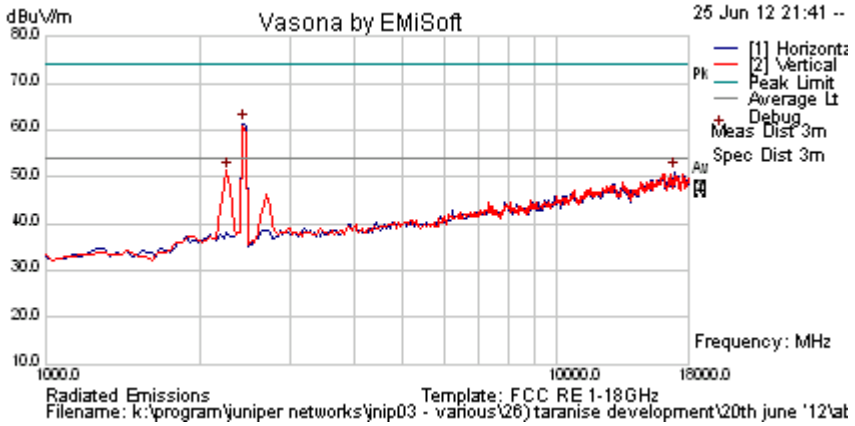


Formally measured emission peaks

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
2430.862	70.4	3.0	-11.6	61.8	Peak [Scan]	V						Fund
17591.182	42.3	8.8	0.6	51.7	Peak [Scan]	H					Pass	Noise
2260.521	60.1	2.9	-11.8	51.2	Peak [Scan]	V					Pass	BE

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**	JMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	16	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

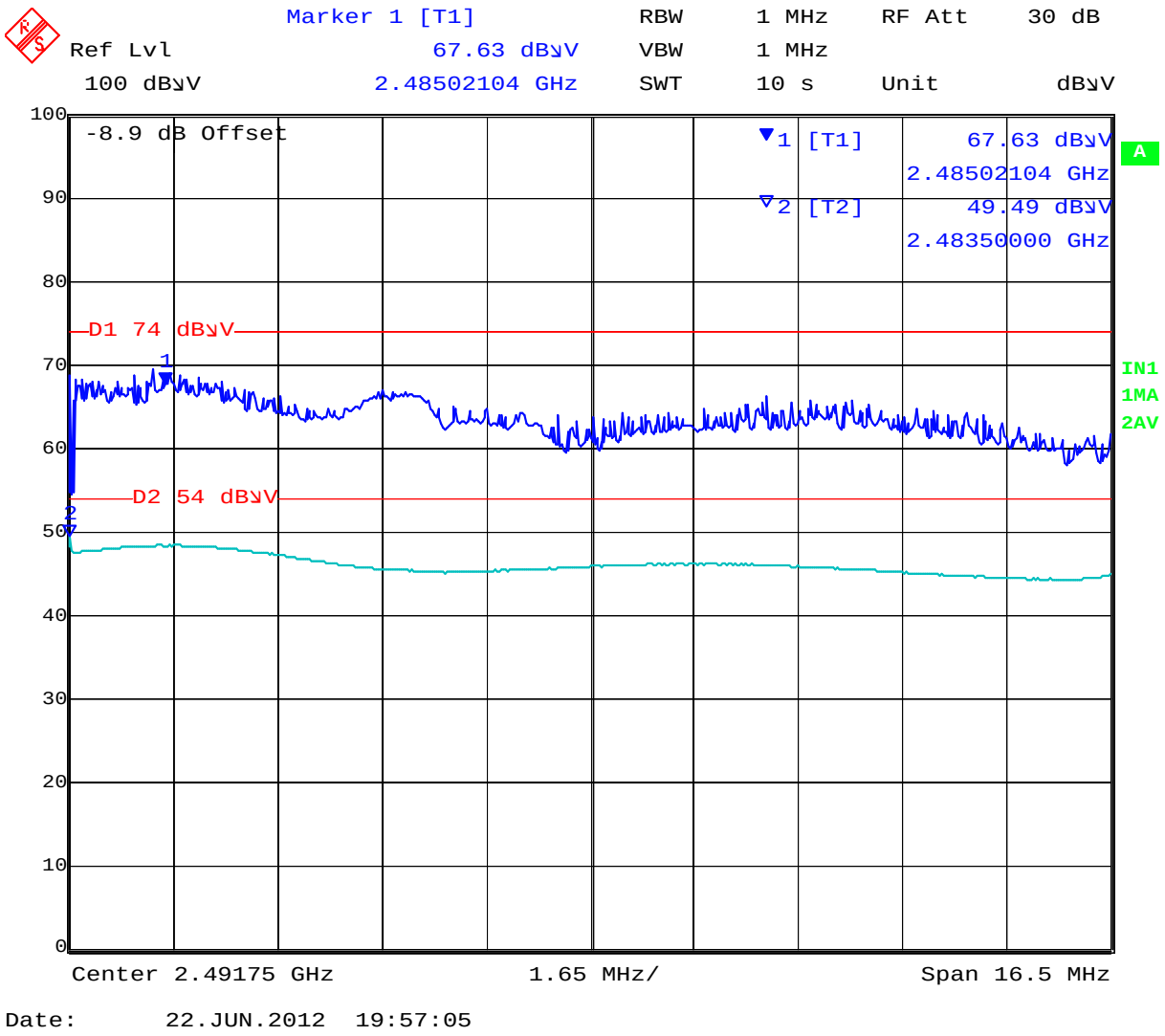


Formally measured emission peaks

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
2430.862	70.1	3.0	-11.6	61.5	Peak [Scan]	H	100	0	54.0	7.5		FUND
2260.52104	60.2	2.9	-11.8	51.3	Peak [Scan]	V					Pass	BE
16875.752	41.9	8.6	0.7	51.1	Peak [Scan]	H					Pass	Noise

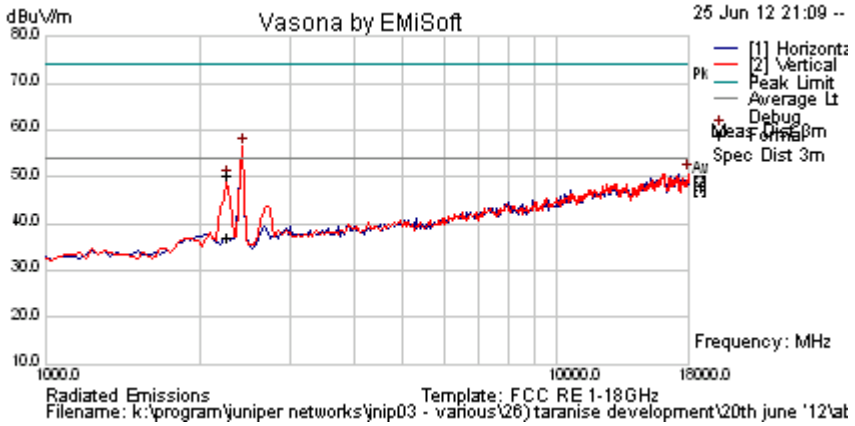
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 16

Test Freq.	2422 MHz	**Engineer**	JMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	13	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

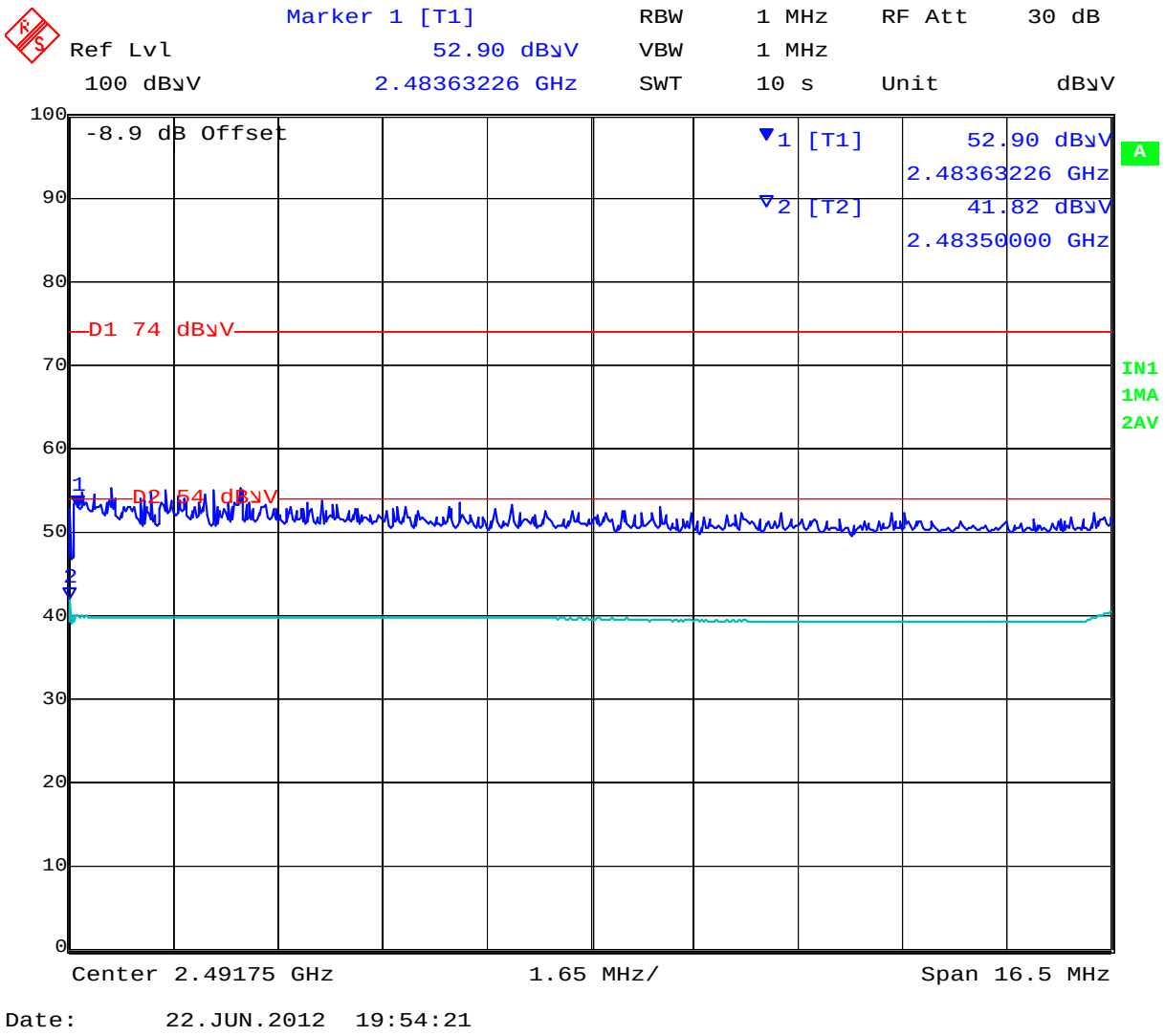


Formally measured emission peaks

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
2396.794	65.1	3.0	-11.6	56.5	Peak [Scan]	H						FUND
18000	41.3	8.8	0.7	50.8	Peak [Scan]	V					Pass	Noise
2278.637	59.3	2.9	-11.9	50.3	Peak Max	V	127	326	74	-23.7	Pass	BE
2278.637	45.9	2.9	-11.9	37.0	Average Max	V	127	326	54	-17.0	Pass	

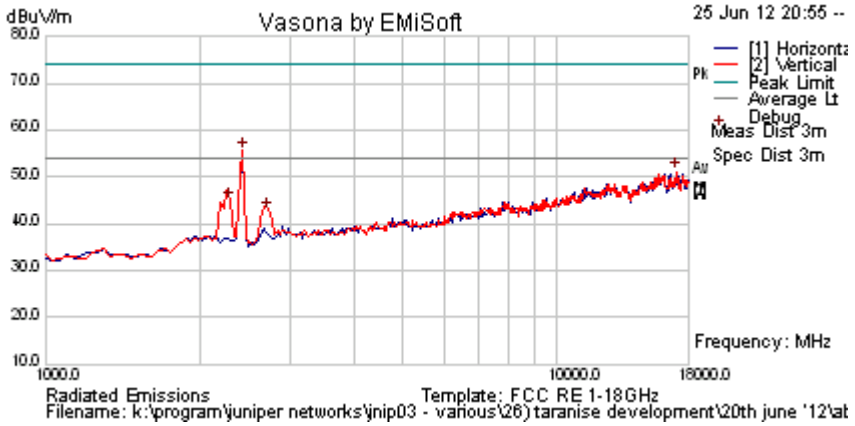
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 14

Test Freq.	2437 MHz	**Engineer**	JMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	13	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

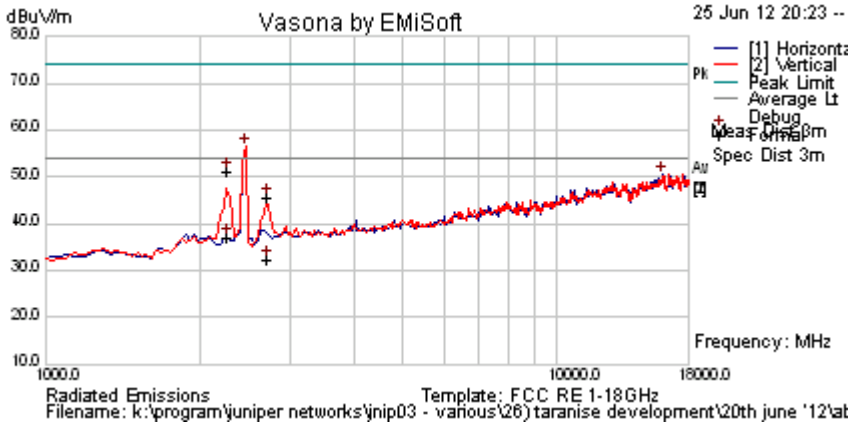


Formally measured emission peaks

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
2430.862	64.2	3.0	-11.6	55.7	Peak [Scan]	V						Fund
17114.228	42.2	8.5	0.5	51.1	Peak [Scan]	V	200	0	54.0	-2.9	Pass	Noise
2295.572	53.7	2.9	-11.9	44.7	Peak [Scan]	V					Pass	BE

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.	2452 MHz	**Engineer**	JMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	13	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	S/N: JB021153959		
Test Notes 2			

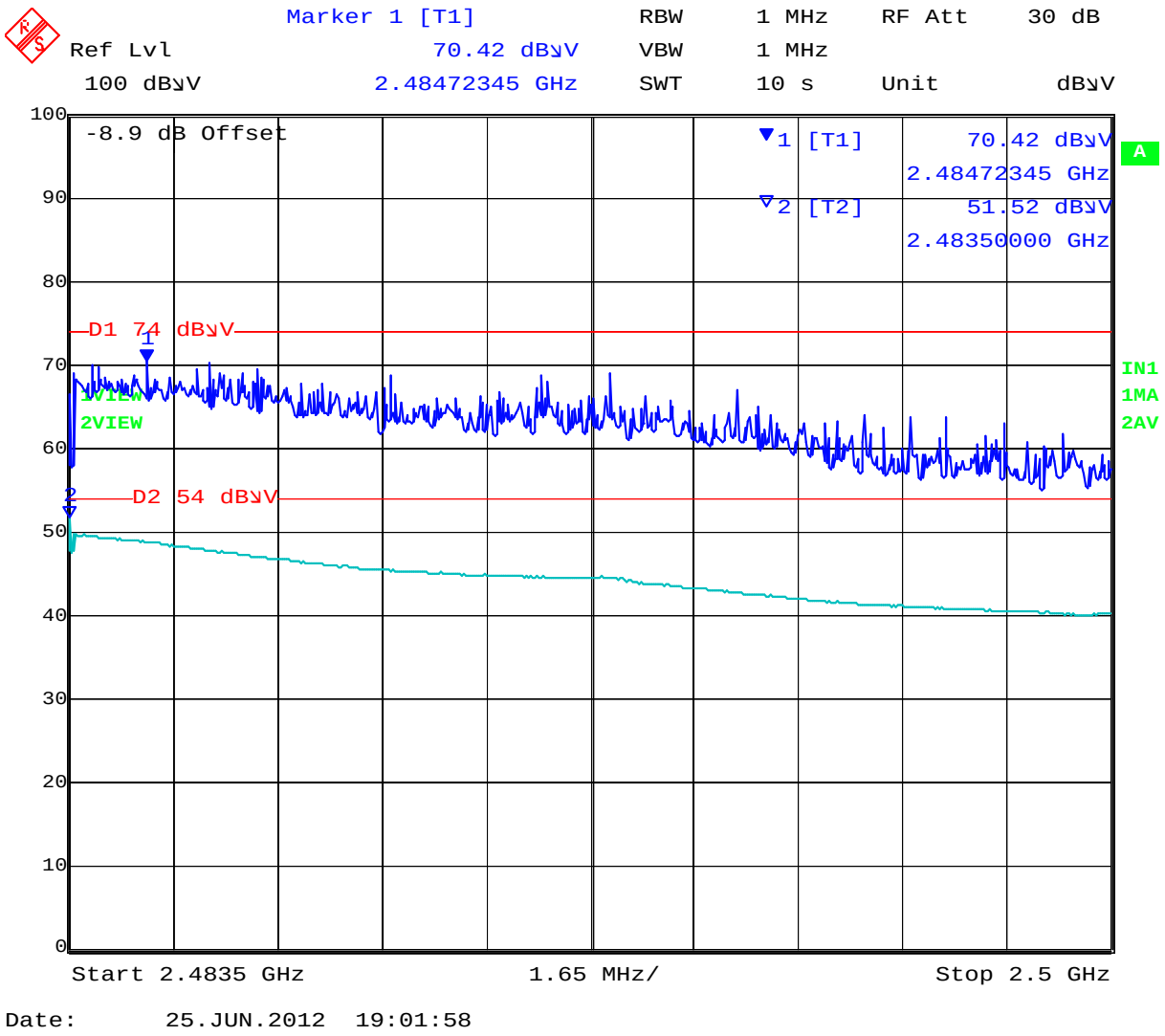


Formally measured emission peaks

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
2464.930	64.9	3.0	-11.5	56.4	Peak [Scan]	V						FUND
16058.116	41.2	9.0	0.3	50.5	Peak [Scan]	H	200	0	54.0	-2.9	Pass	Noise
2275.753	60.1	2.9	-11.9	51.2	Peak Max	V	124	266	74	-22.8	Pass	BE
2724.644	54.3	3.2	-11.7	45.8	Peak Max	V	124	121	74	-28.2	Pass	BE

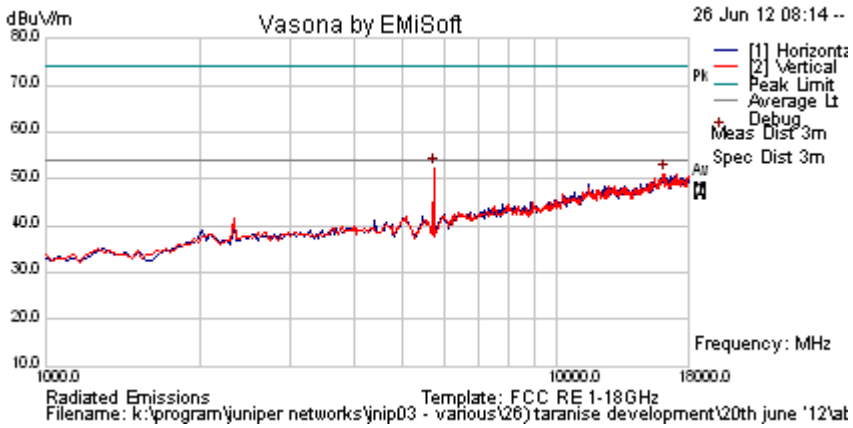
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 13

Test Freq.	5745 MHz	**Engineer**	JMH
Variant	802.11a; 6 Mbs	**Temp (ºC)**	25
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

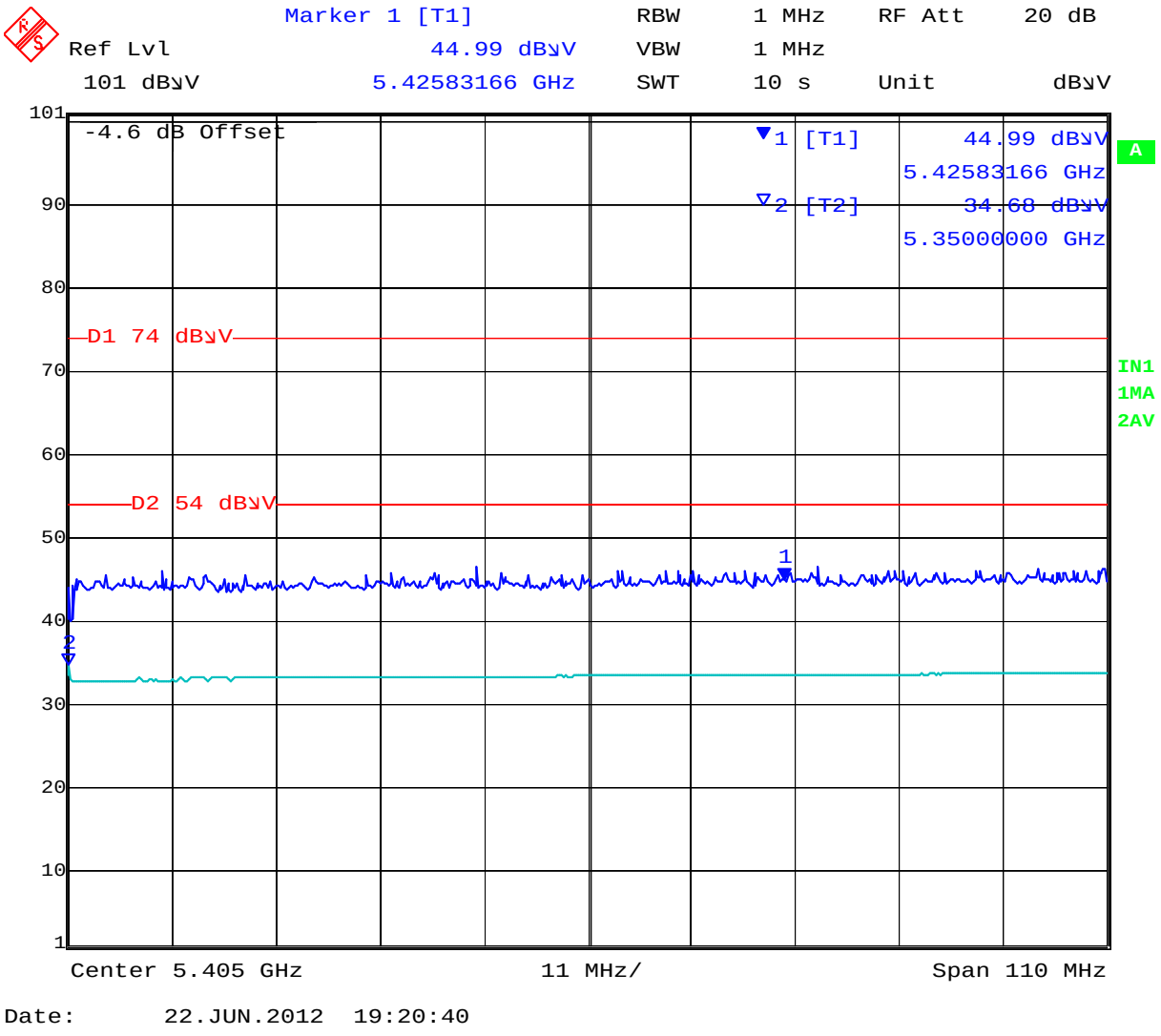


Formally measured emission peaks

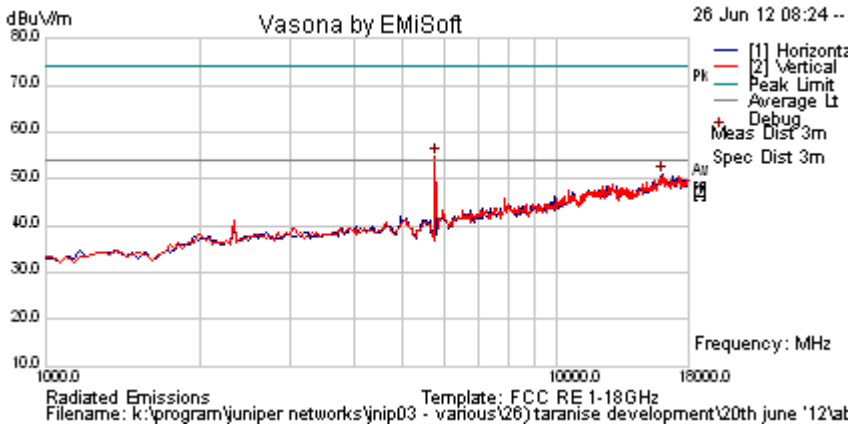
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5735.471	57.3	4.8	-9.5	52.5	Peak [Scan]	V						FUND
16092.184	41.9	9.0	0.3	51.2	Peak [Scan]	H					Pass	Noise

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



Test Freq.	5785 MHz	**Engineer**	JMH
Variant	802.11a; 6 Mbs	**Temp (°C)**	25
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

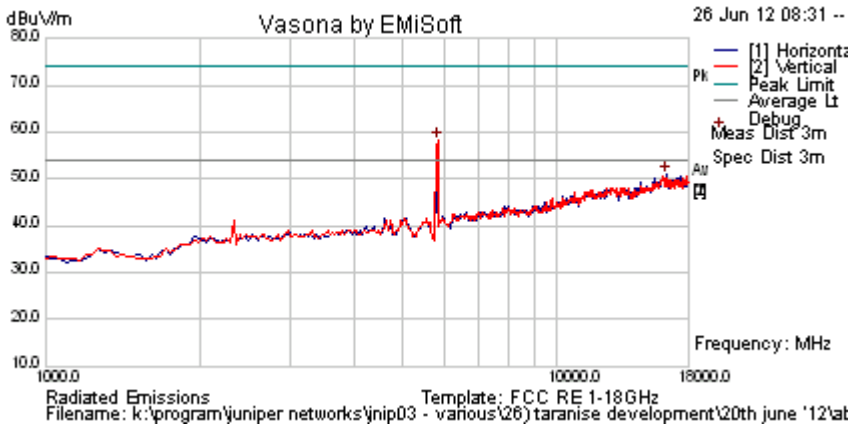


Formally measured emission peaks

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
5769.539	59.4	4.8	-9.5	54.7	Peak [Scan]	V						FUND
15989.98	41.7	9.0	0.1	50.8	Peak [Scan]	H					Pass	Noise

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**	JMH
Variant	802.11a; 6 Mbs	**Temp (ºC)**	25
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

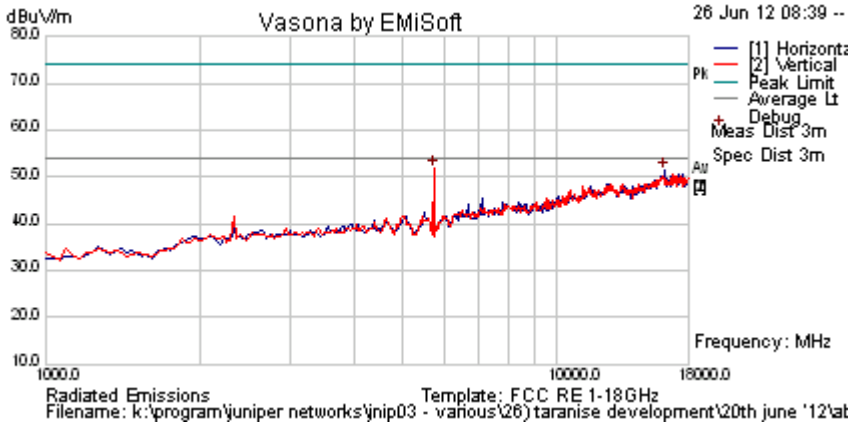


Formally measured emission peaks

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
5837.675	62.6	4.8	-9.3	58.1	Peak [Scan]	V						FUND
16364.729	41.7	8.9	0.2	50.8	Peak [Scan]	H					Pass	Noise

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**	JMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	25
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

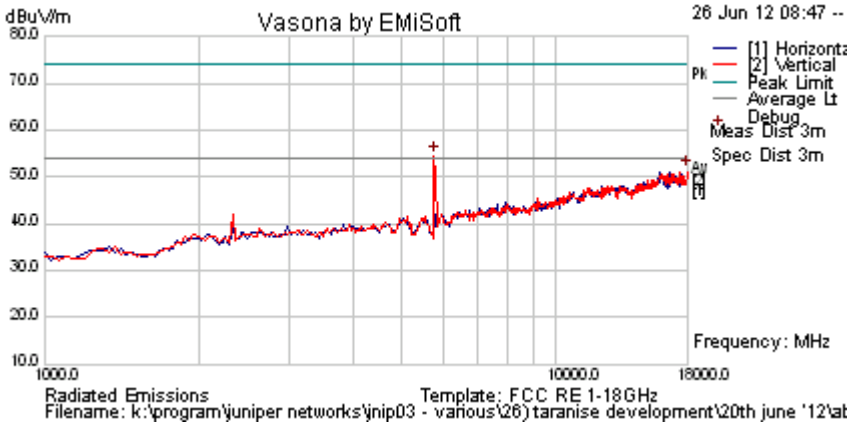


Formally measured emission peaks

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
5735.471	56.5	4.8	-9.5	51.7	Peak [Scan]	V						Fund
16228.457	42.2	8.9	0.1	51.2	Peak [Scan]	H					Pass	Noise

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**	JMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (°C)**	25
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

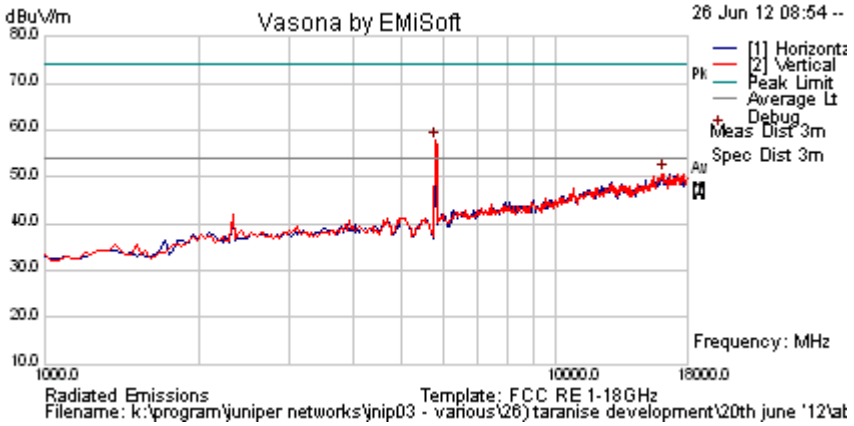


Formally measured emission peaks

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
5769.539	59.3	4.8	-9.5	54.6	Peak [Scan]	V						Fund
18000	42.0	8.8	0.7	51.5	Peak [Scan]	V					Pass	Noise

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**	JMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (°C)**	25
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

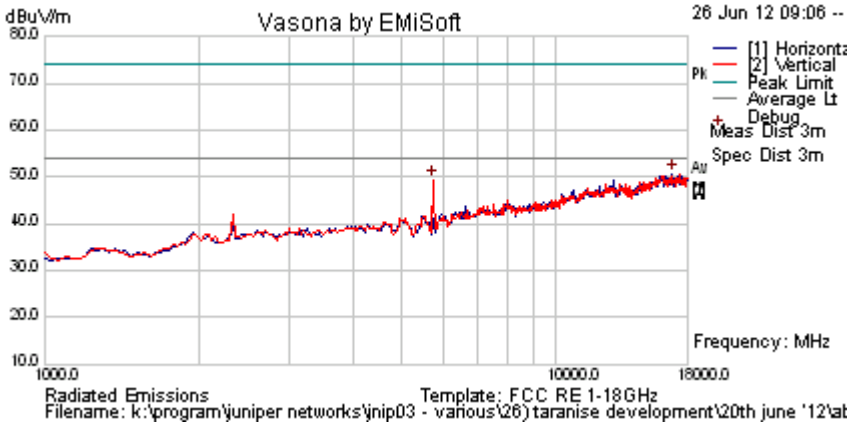


Formally measured emission peaks

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
5803.607	62.2	4.8	-9.4	57.7	Peak [Scan]	V						Fund
16228.457	41.6	8.9	0.1	50.7	Peak [Scan]	V					Pass	Noise

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.	5755 MHz	**Engineer**	JMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (°C)**	25
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

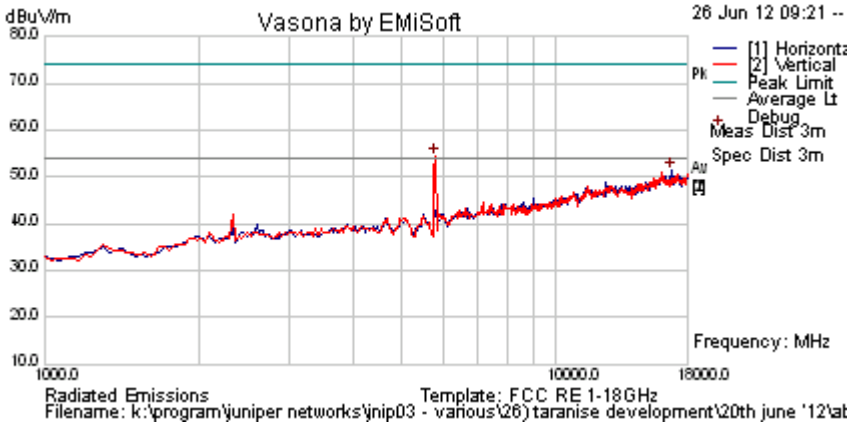


Formally measured emission peaks

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
16841.683	41.4	8.6	0.8	50.8	Peak [Scan]	H					Pass	NOISE
5735.47094	54.1	4.8	-9.5	49.3	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.	5795 MHz	**Engineer**	JMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (°C)**	25
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Dipole 7360	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			



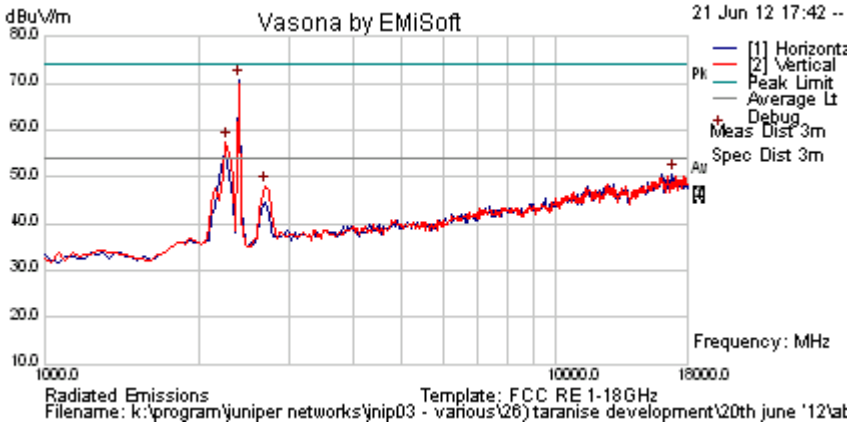
Formally measured emission peaks

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
5803.607	58.8	4.8	-9.4	54.3	Peak [Scan]	V						FUND
16739.479	41.7	8.7	0.9	51.2	Peak [Scan]	H					Pass	NOISE

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

6.1.2.3. Dual Band Panel WLA-ANT-77555-OUT

Test Freq.	2412 MHz	**Engineer**	GMH
Variant	802.11b; 1 Mbs	**Temp (°C)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

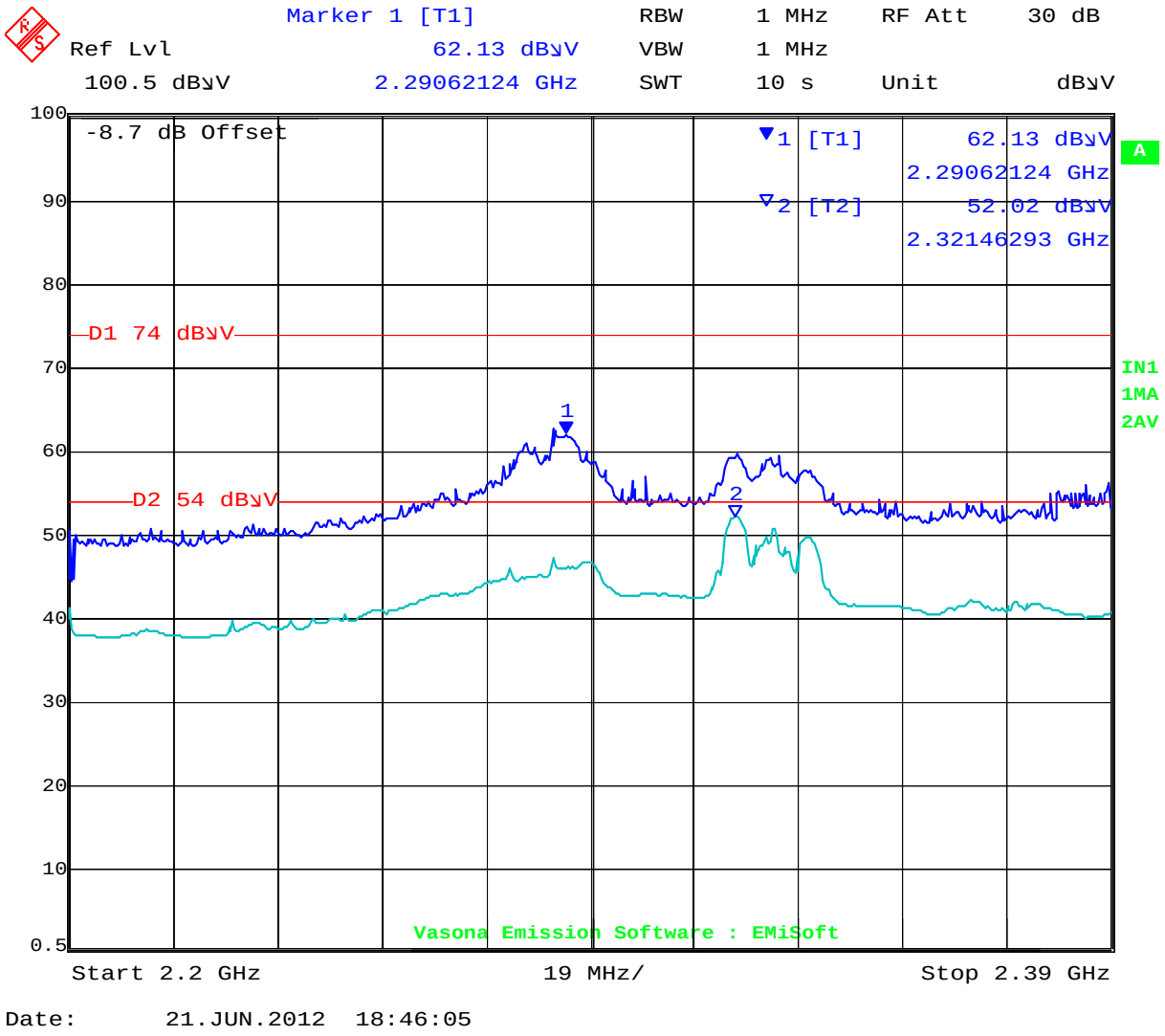


Formally measured emission peaks

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
2396.794	79.5	3.0	-11.7	70.8	Peak [Scan]	H						FUND
2260.52104	66.4	2.9	-11.8	57.5	Peak [Scan]	V					Pass	BE
16841.683	41.4	8.6	0.8	50.8	Peak [Scan]	H	100	0	54	-3.3	Pass	NOISE
2703.407	56.6	3.2	-11.7	48.1	Peak [Scan]	V	100	0	54	-5.9	Pass	BE

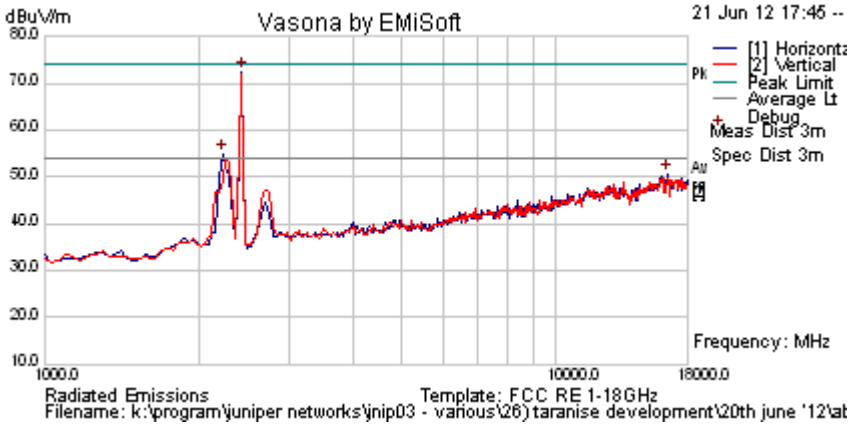
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 16

Test Freq.	2437 MHz	**Engineer**	GMH
Variant	802.11b; 1 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

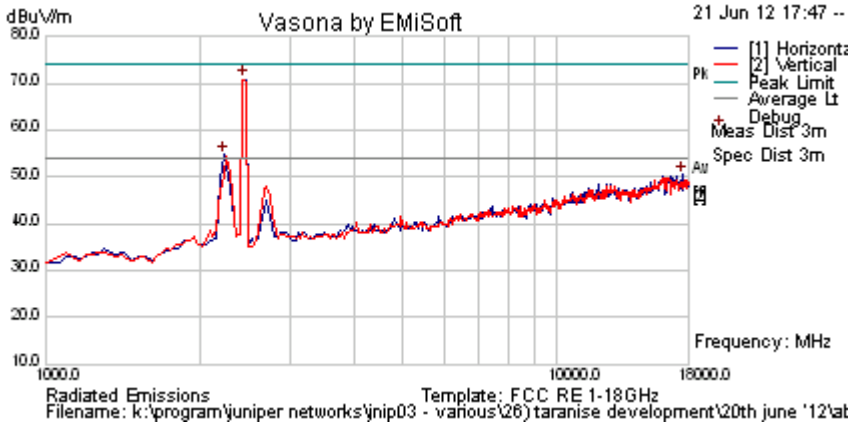


Formally measured emission peaks

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
2430.862	81.1	3.0	-11.6	72.5	Peak [Scan]	H						FUND
2226.45291	64.2	2.9	-12.0	55.1	Peak [Scan]	H					Pass	BE
16501.002	41.5	8.8	0.3	50.6	Peak [Scan]	H	100	0	54	-3.4	Pass	NOISE

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**	GMH
Variant	802.11b; 1 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

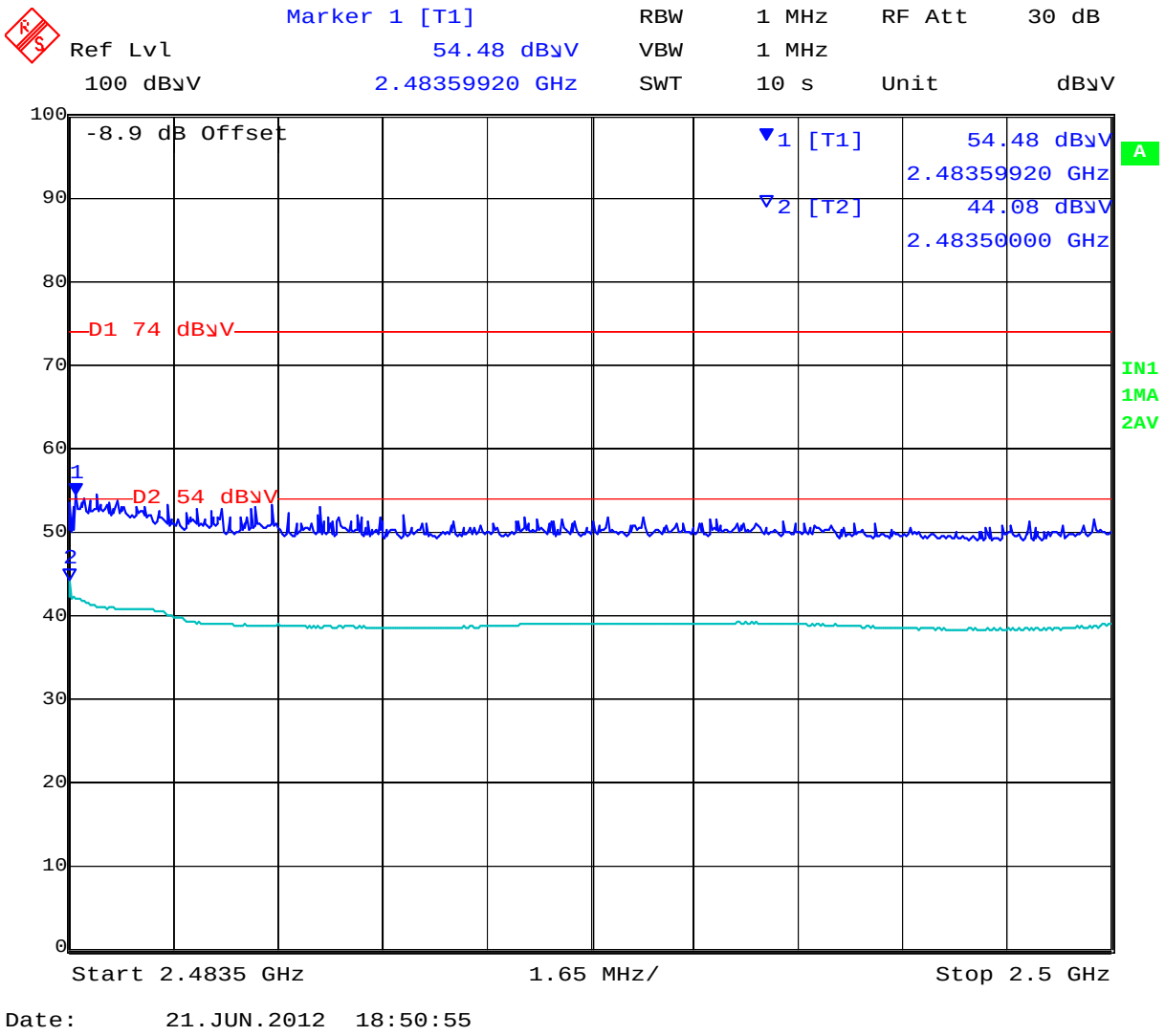


Formally measured emission peaks

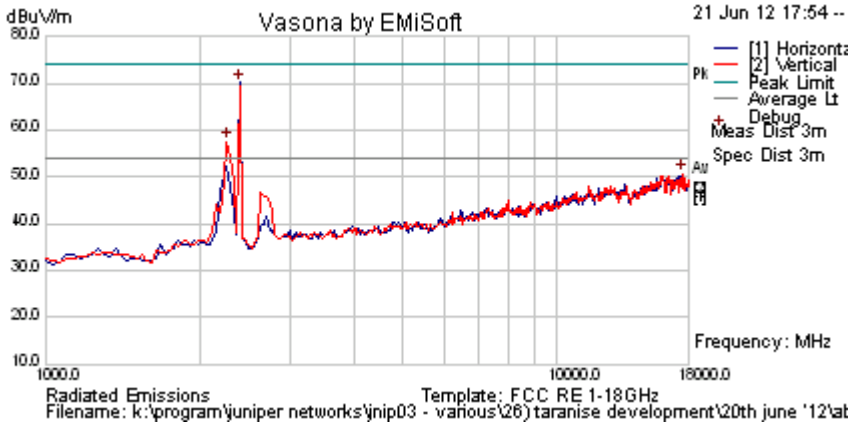
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
2430.862	79.5	3.0	-11.6	70.9	Peak [Scan]	H						FUND
2226.45291	63.7	2.9	-12.0	54.6	Peak [Scan]	H					Pass	BE
17488.978	40.7	8.8	1.0	50.5	Peak [Scan]	H	100	0	54	-3.6	Pass	NOISE

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



Test Freq.	2412 MHz	**Engineer**	
Variant	802.11g; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

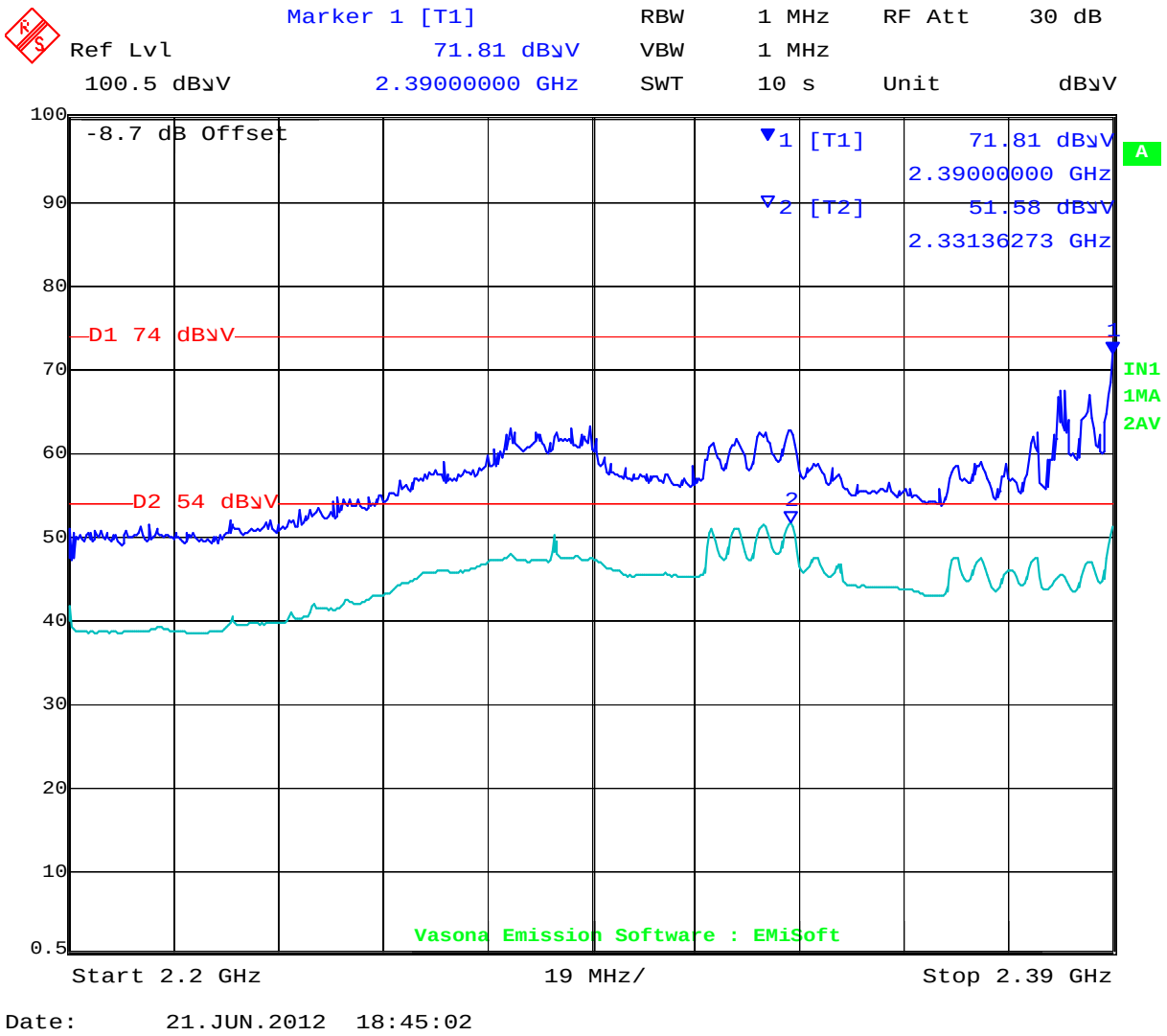


Formally measured emission peaks

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
2396.794	78.8	3.0	-11.7	70.1	Peak [Scan]	H						FUND
2260.52104	66.5	2.9	-11.8	57.6	Peak [Scan]	V					Pass	BE
17488.978	40.9	8.8	1.0	50.7	Peak [Scan]	V	100	0	54	-3.3	Pass	NOISE

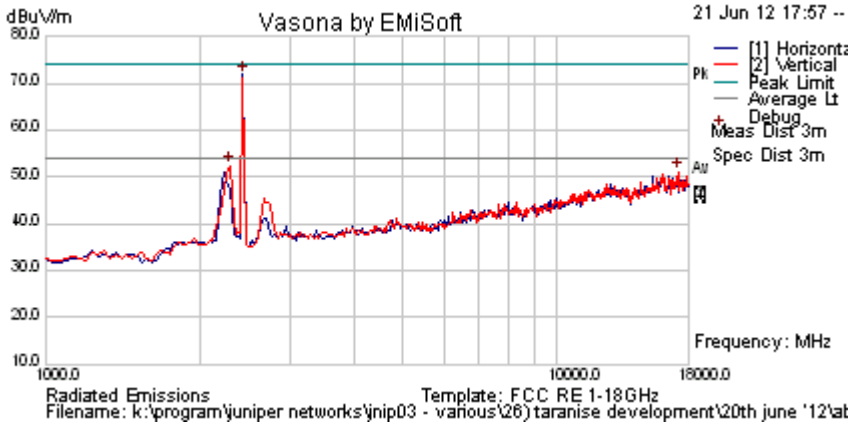
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 15

Test Freq.	2437 MHz	**Engineer**	0
Variant	802.11g; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

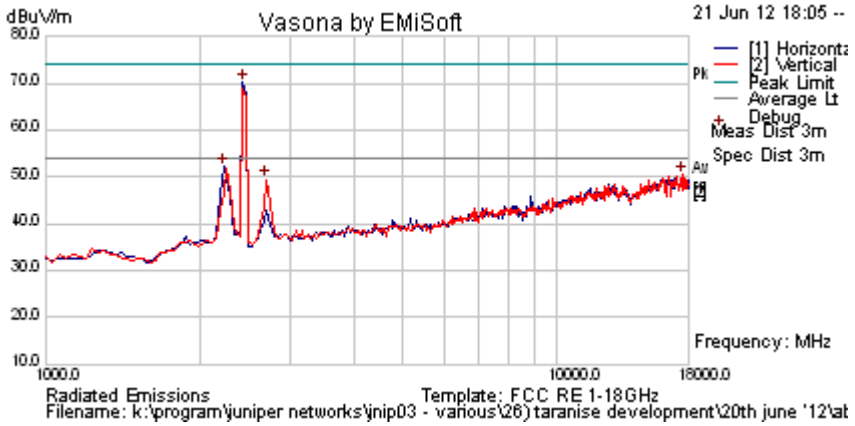


Formally measured emission peaks

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
2430.862	80.5	3.0	-11.6	71.9	Peak [Scan]	H						FUND
2294.58918	61.3	2.9	-11.9	52.3	Peak [Scan]	V	100	0	54.0	-1.7	Pass	BE
17182.365	41.8	8.6	0.7	51.1	Peak [Scan]	V	100	0	54	-2.9	Pass	NOISE

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**	0
Variant	802.11g; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

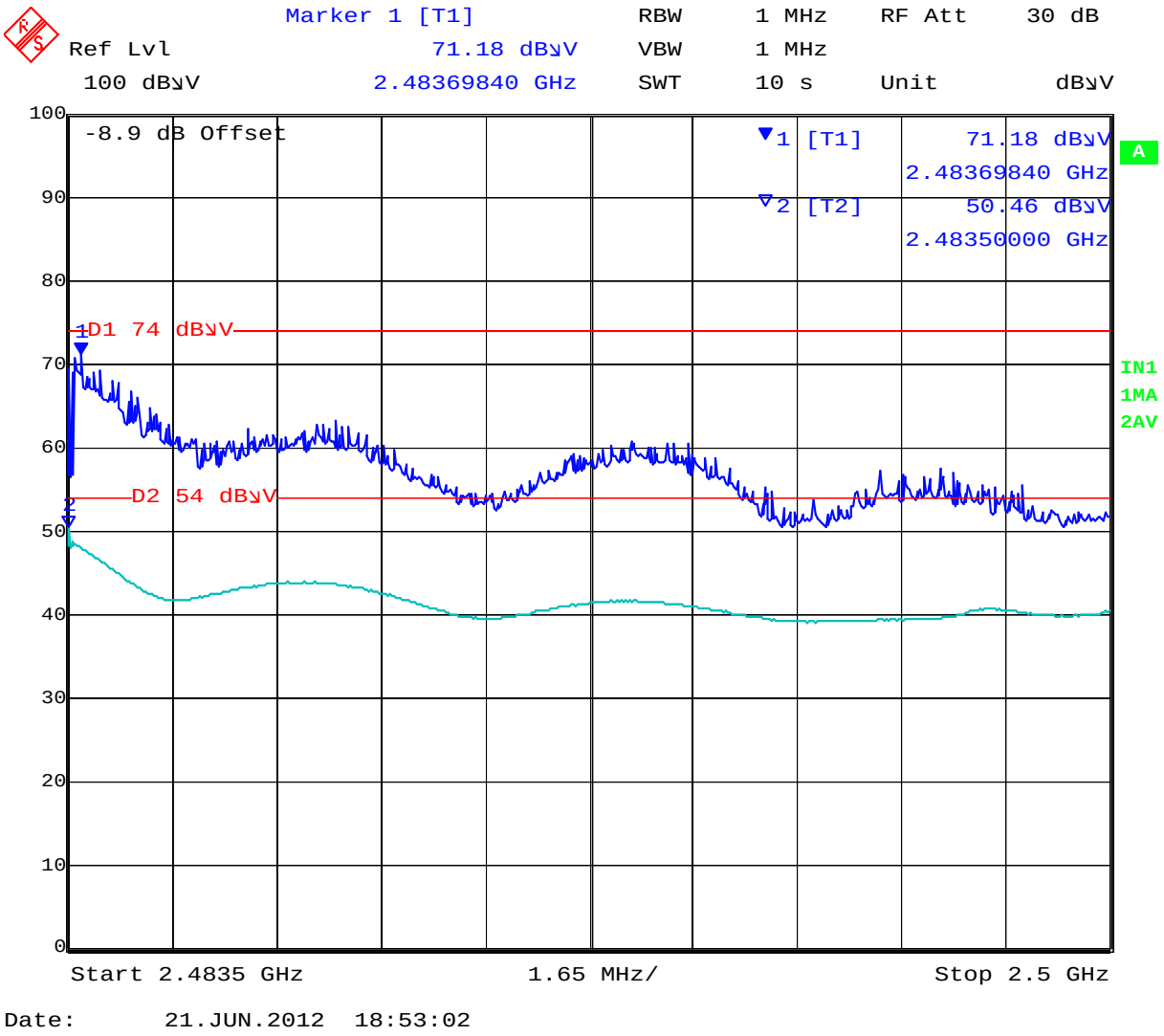


Formally measured emission peaks

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
2430.862	79.7	3.0	-11.6	71.1	Peak [Scan]	V						FUND
2226.45291	63.6	2.9	-12.0	54.5	Peak [Scan]	H					Pass	BE
16092.184	41.7	9.0	0.3	50.9	Peak [Scan]	V	100	0	54	-3.1	Pass	NOISE

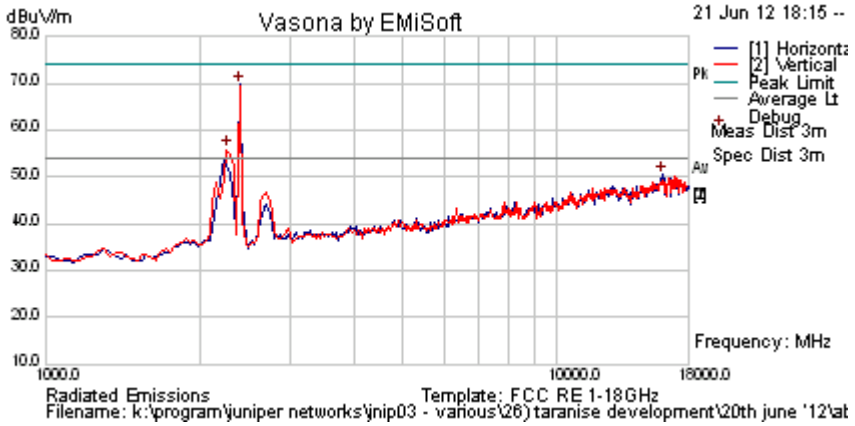
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 15

Test Freq.	2412 MHz	**Engineer**	
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

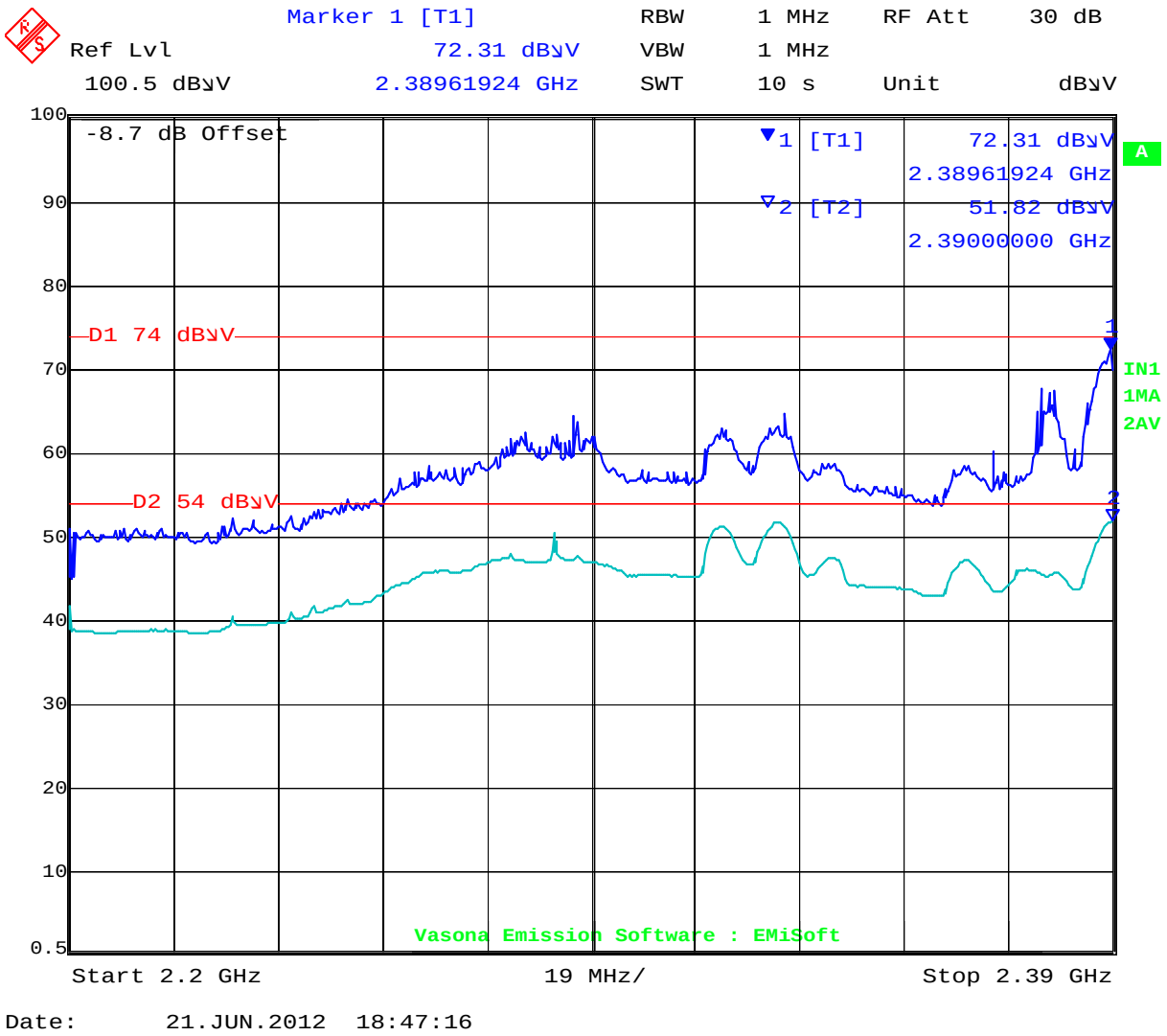


Formally measured emission peaks

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
2396.794	78.4	3.0	-11.7	69.7	Peak [Scan]	H						FUND
2260.52104	64.8	2.9	-11.8	55.9	Peak [Scan]	V					Pass	BE
16058.116	41.2	9.0	0.3	50.4	Peak [Scan]	H	100	0	54	-3.6	Pass	NOISE

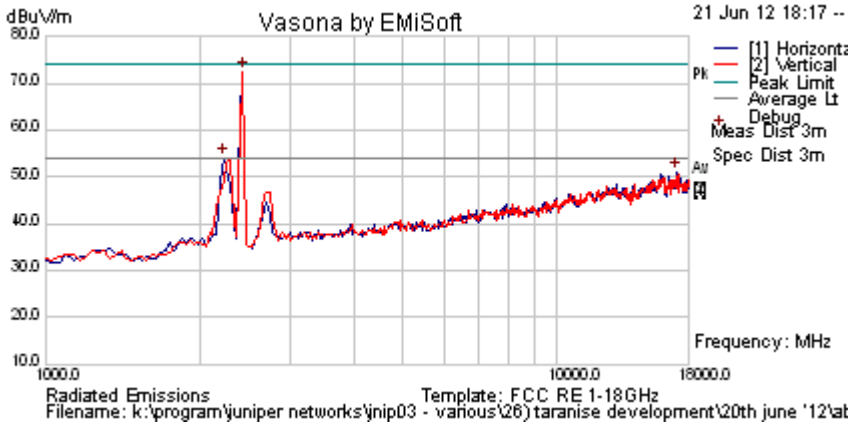
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 15

Test Freq.	2437 MHz	**Engineer**	0
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

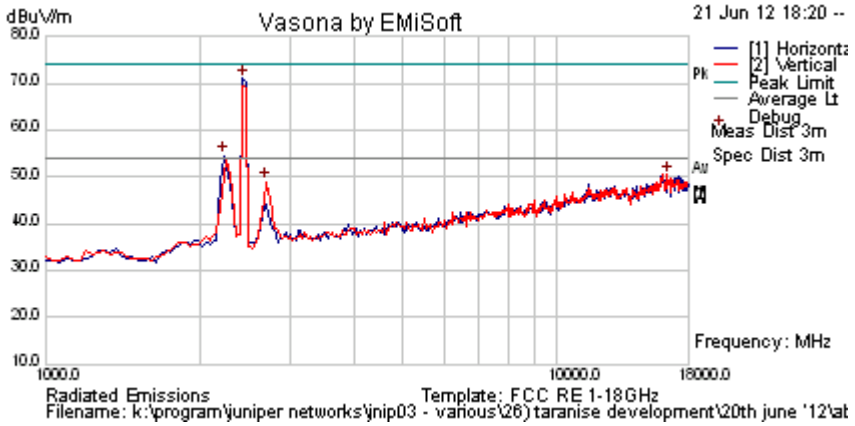


Formally measured emission peaks

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
2430.862	81.2	3.0	-11.6	72.6	Peak [Scan]	H						FUND
2226.45291	63.2	2.9	-12.0	54.2	Peak [Scan]	H					Pass	BE
17080.160	42.2	8.5	0.4	51.0	Peak [Scan]	H	100	0	54	-3.0	Pass	NOISE

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**	0
Variant	802.11n; HT-20; 6.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

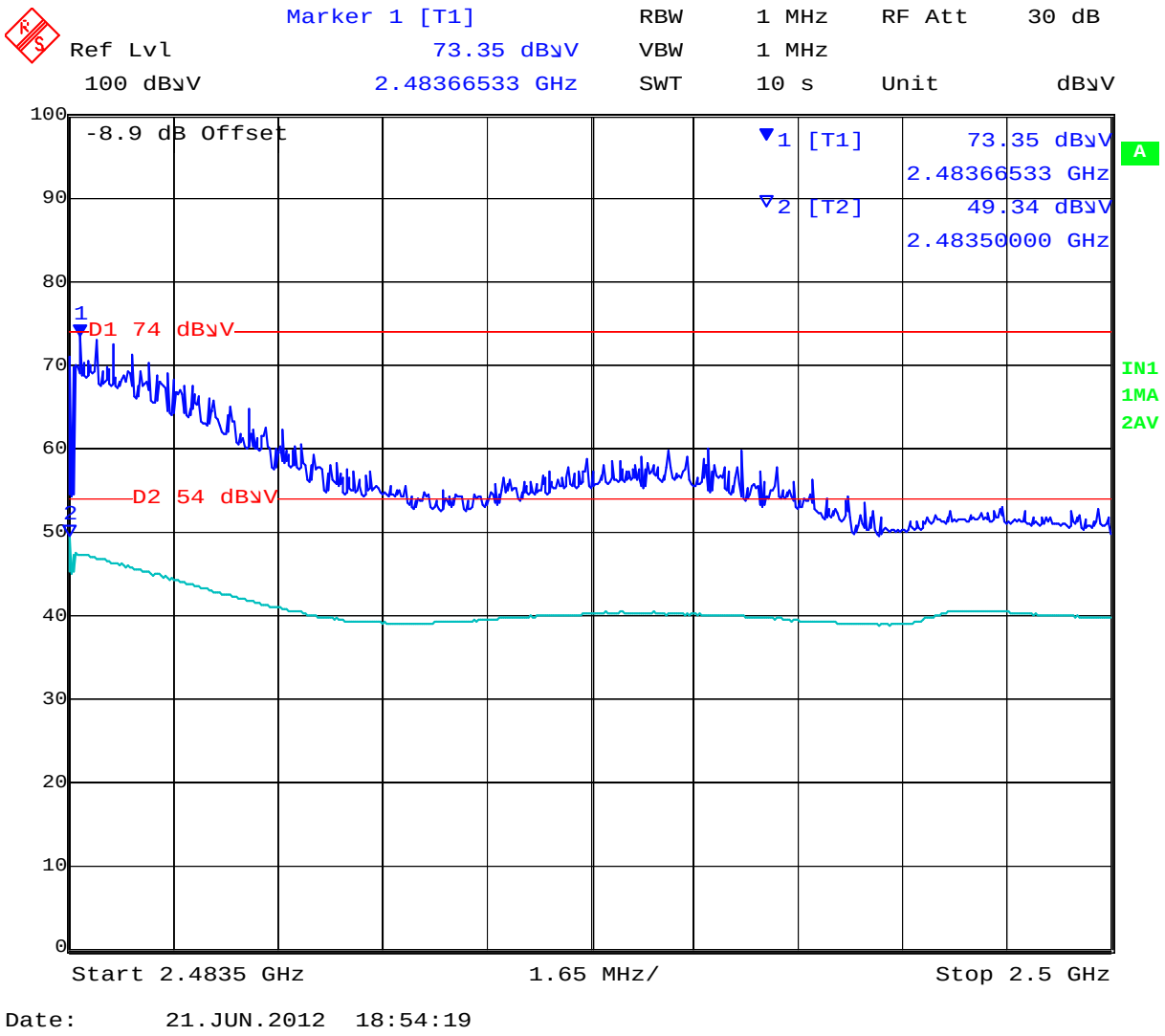


Formally measured emission peaks

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
2430.862	79.5	3.0	-11.6	70.9	Peak [Scan]	H						FUND
2226.45291	63.7	2.9	-12.0	54.6	Peak [Scan]	H					Pass	BE
16398.798	41.4	8.9	0.2	50.5	Peak [Scan]	V	100	0	54	-3.5	Pass	NOISE
2703.407	57.4	3.2	-11.7	48.9	Peak [Scan]	V	100	0	54	-5.1	Pass	BE

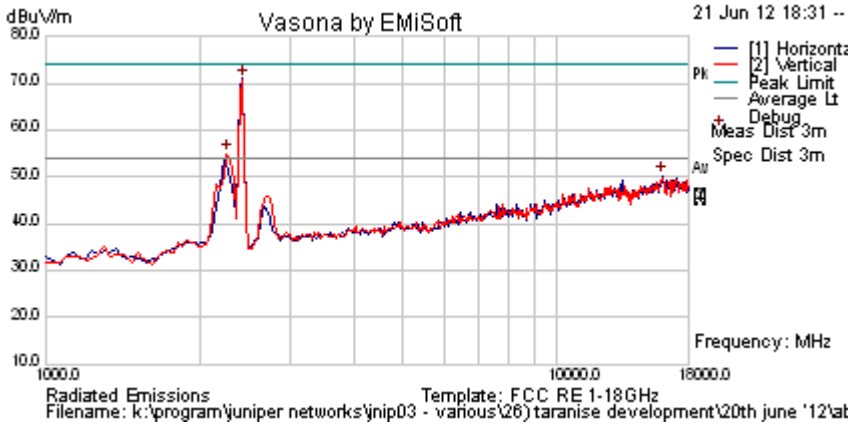
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 14

Test Freq.	2422 MHz	**Engineer**	
Variant	802.11n; HT-40; 13.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

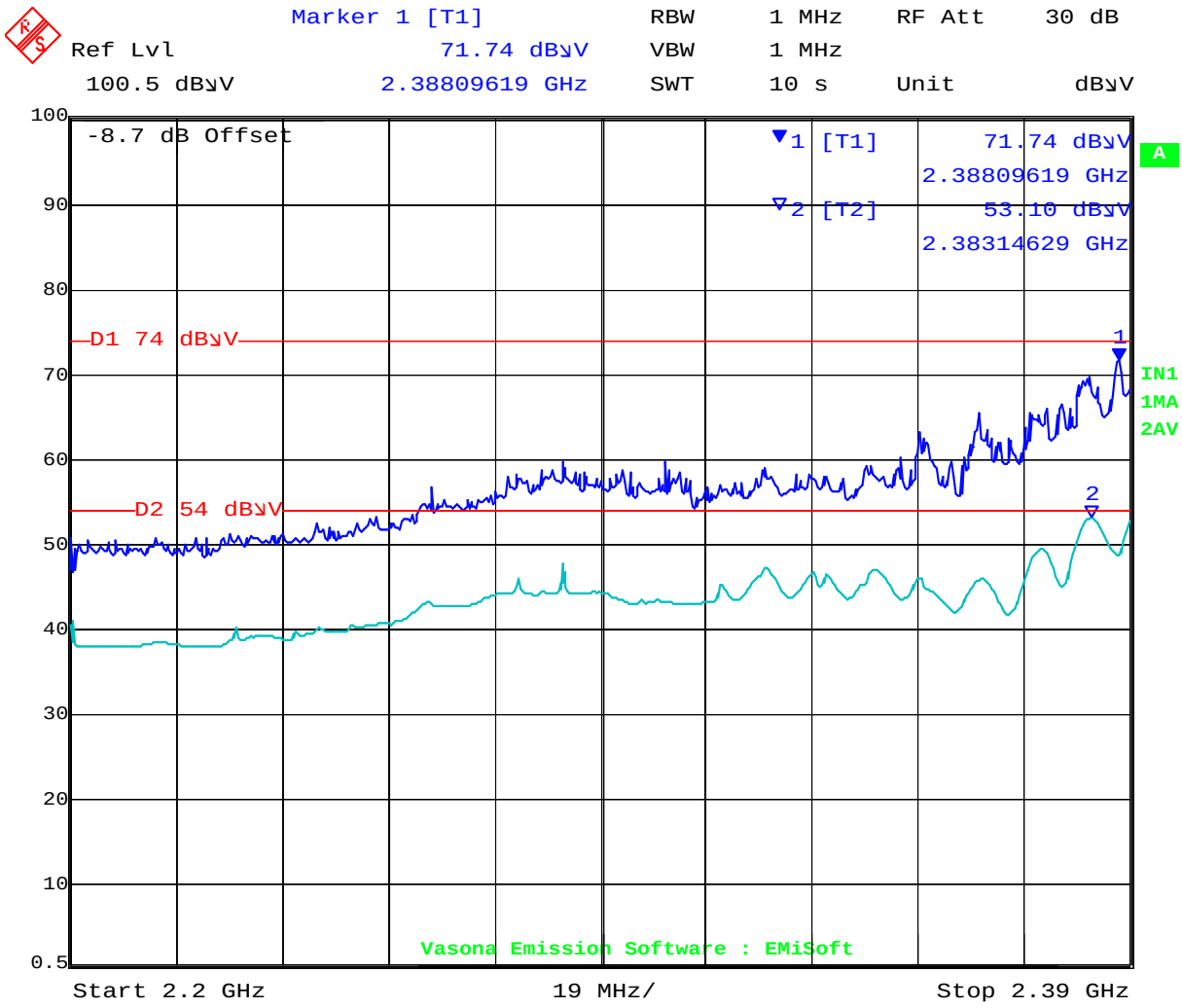


Formally measured emission peaks

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
2430.862	79.7	3.0	-11.6	71.1	Peak [Scan]	H						FUND
2260.52104	63.8	2.9	-11.8	54.9	Peak [Scan]	V					Pass	BE
16058.116	41.0	9.0	0.3	50.3	Peak [Scan]	H	100	0	54	-3.7	Pass	NOISE

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

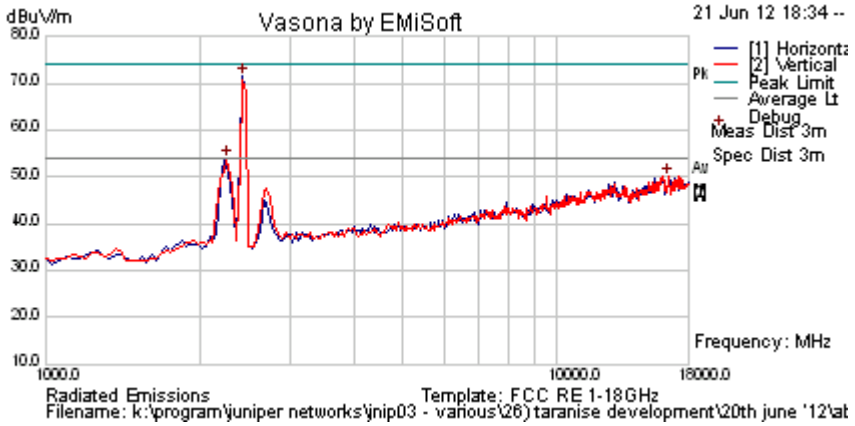
Band Edge



Date: 21.JUN.2012 18:48:27

Power reduction required in order to bring unit into compliance NART = 14

Test Freq.	2437 MHz	**Engineer**	0
Variant	802.11n; HT-40; 13.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

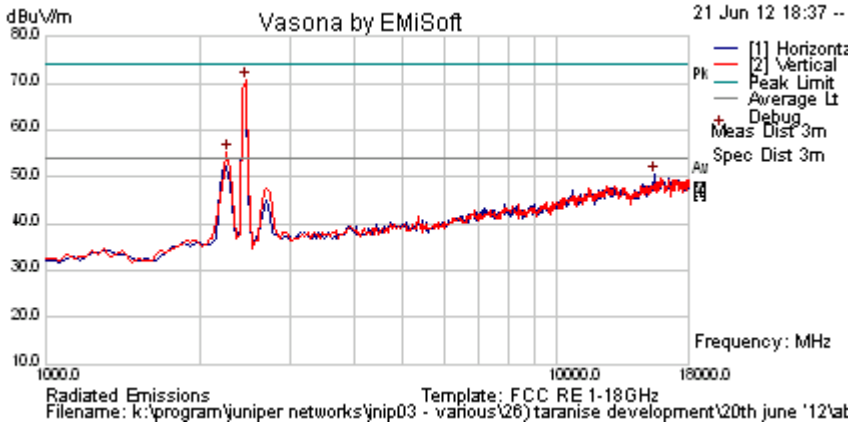


Formally measured emission peaks

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
2430.862	80.0	3.0	-11.6	71.4	Peak [Scan]	H						FUND
2260.52104	62.9	2.9	-11.8	54.0	Peak [Scan]	V	100	0	54.0	0.0	Pass	BE
16501.002	40.9	8.8	0.3	50.0	Peak [Scan]	V	100	0	54	-4.0	Pass	NOISE

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.	2452 MHz	**Engineer**	0
Variant	802.11n; HT-40; 13.5 MCS	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

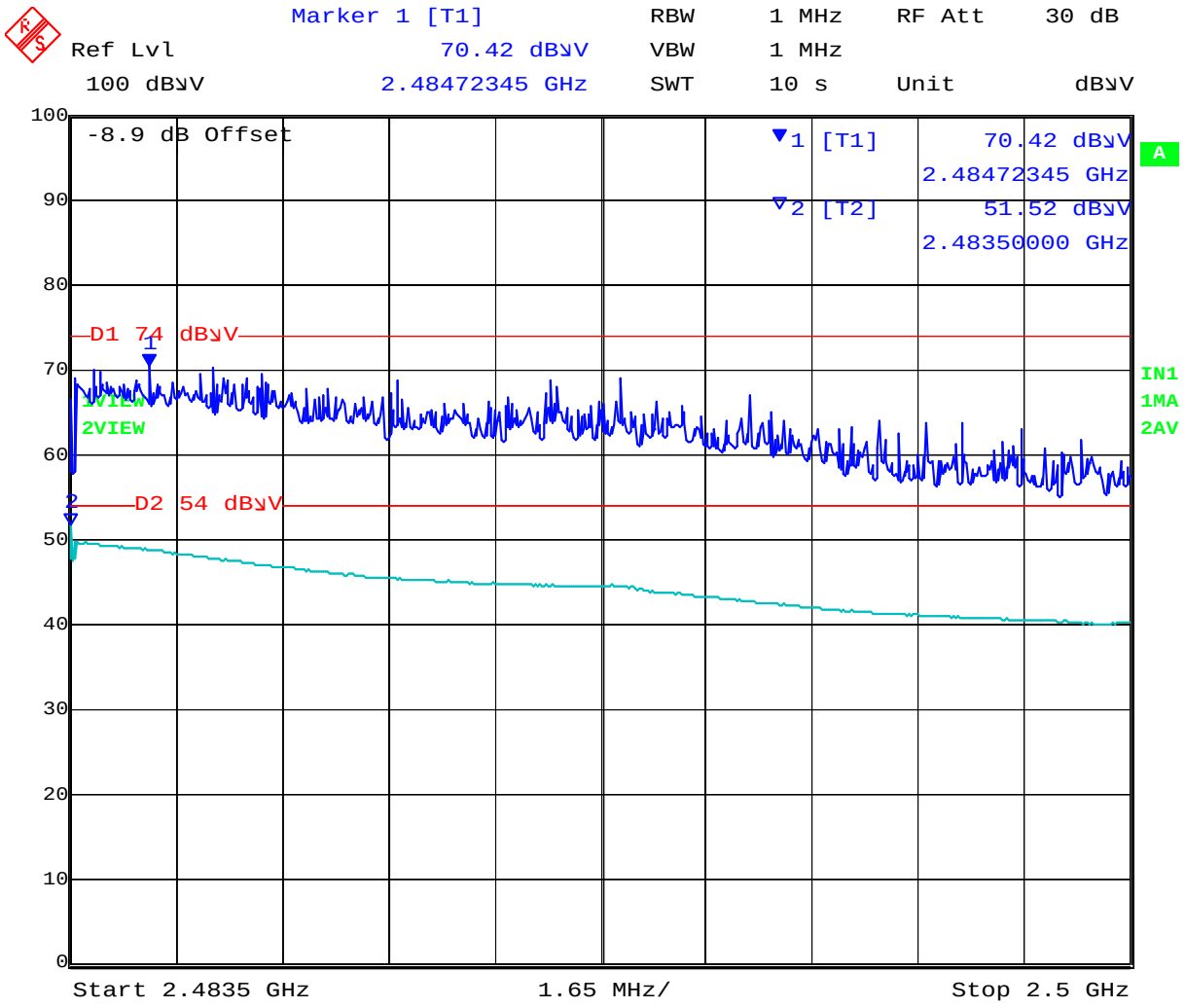


Formally measured emission peaks

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
2464.930	79.2	3.0	-11.5	70.7	Peak [Scan]	V						FUND
2260.52104	64.1	2.9	-11.8	55.2	Peak [Scan]	V					Pass	BE
15478.958	42.9	8.2	-0.6	50.5	Peak [Scan]	H	100	0	54	-3.5	Pass	NOISE

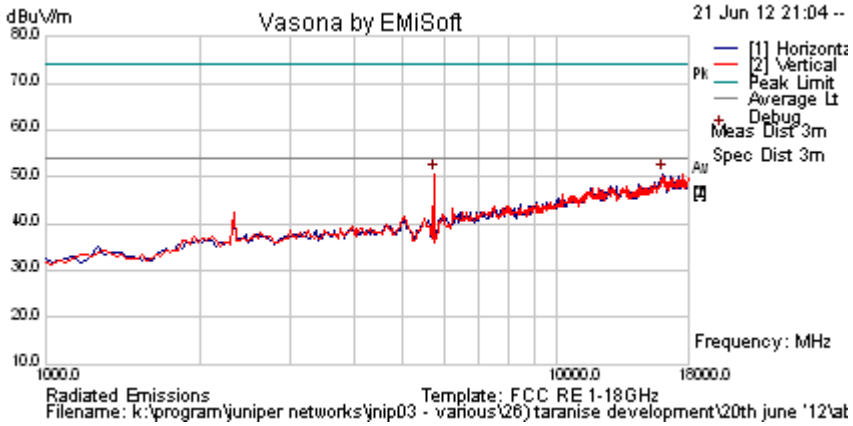
Legend:	TX = Transmitter Emissions; DIG = Digital Emissions; FUND = Fundamental; WB = Wideband Emission
	RB = Restricted Band (15.209 Limits); NRB = Non Restricted Band, Limit is 20dB below fundamental peak

Band Edge



Power reduction required in order to bring unit into compliance NART = 13

Test Freq.	5745 MHz	**Engineer**	GMH
Variant	802.11a; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

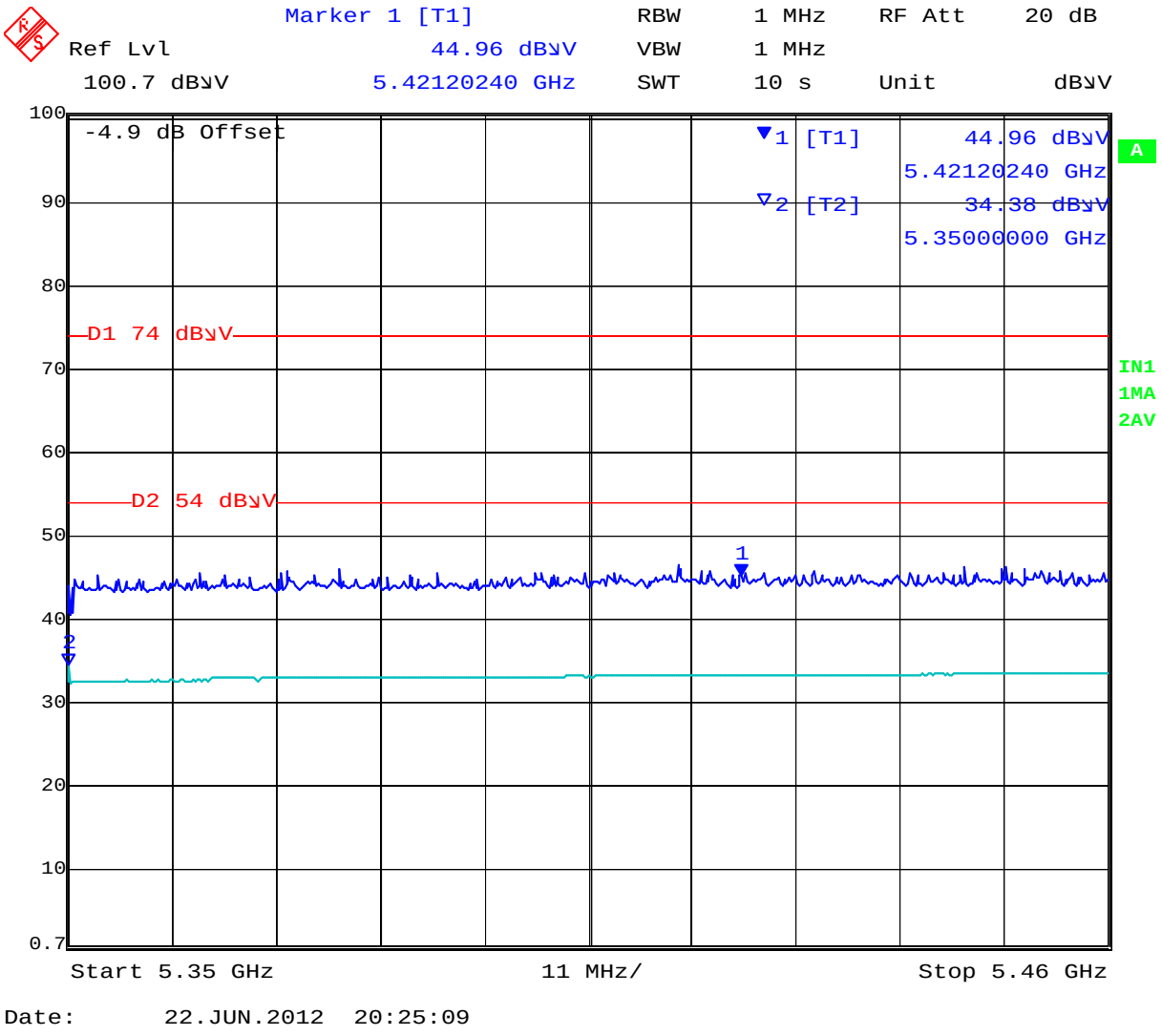


Formally measured emission peaks

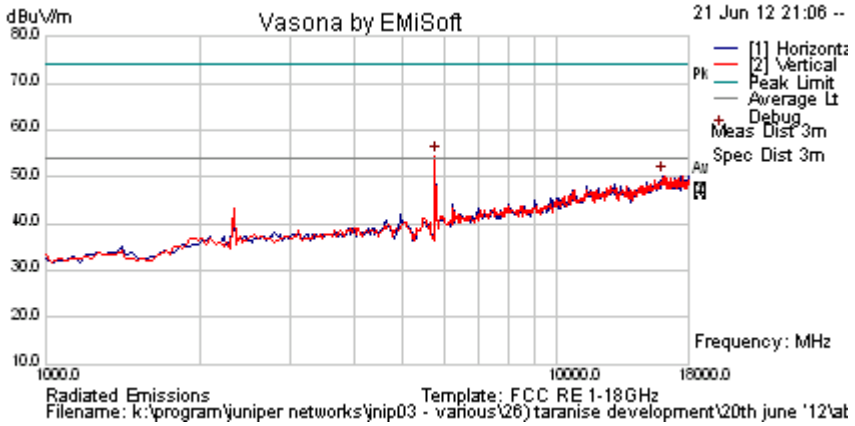
Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail	Comments
5735.471	55.5	4.8	-9.5	50.7	Peak [Scan]	V						FUND
16024.048	41.4	9.0	0.2	50.6	Peak [Scan]	H	100	0	54.0	-3.4	Pass	NOISE

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



Test Freq.	5785 MHz	**Engineer**	GMH
Variant	802.11a; 6 Mbs	**Temp (ºC)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

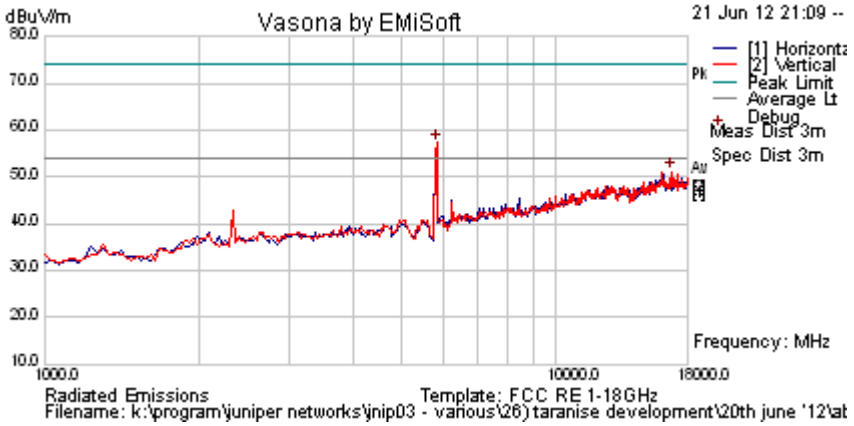


Formally measured emission peaks

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
5769.539	59.2	4.8	-9.5	54.5	Peak [Scan]	H						FUND
15989.98	41.2	9.0	0.1	50.3	Peak [Scan]	H	100	0	54.0	-3.7	Pass	NOISE

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**	GMH
Variant	802.11a; 6 Mbs	**Temp (°C)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

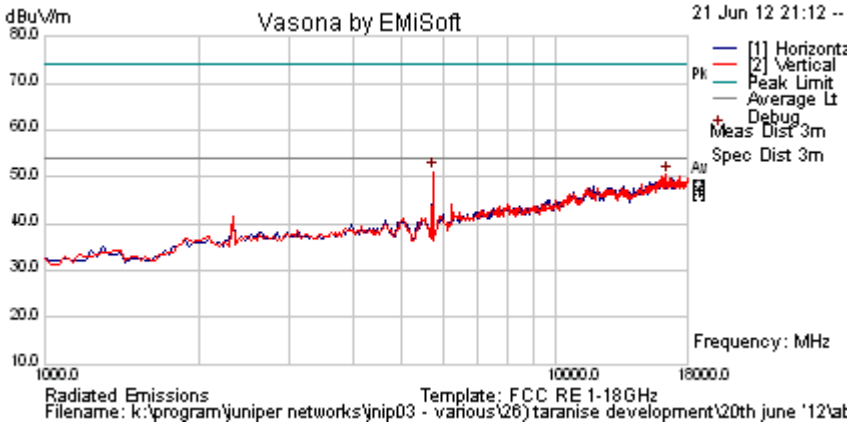


Formally measured emission peaks

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
5837.675	61.8	4.8	-9.3	57.3	Peak [Scan]	V						FUND
16739.479	41.5	8.7	0.9	51.1	Peak [Scan]	V	100	0	54.0	-3.0	Pass	NOISE

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**	GMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (°C)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

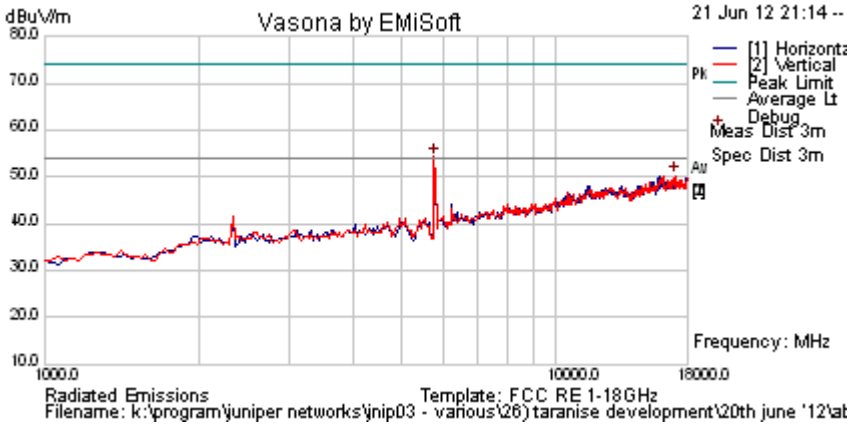


Formally measured emission peaks

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
5735.471	55.9	4.8	-9.5	51.1	Peak [Scan]	V						FUND
16398.798	41.4	8.9	0.2	50.5	Peak [Scan]	V	100	0	54.0	-3.5	Pass	NOISE

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**	GMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (°C)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

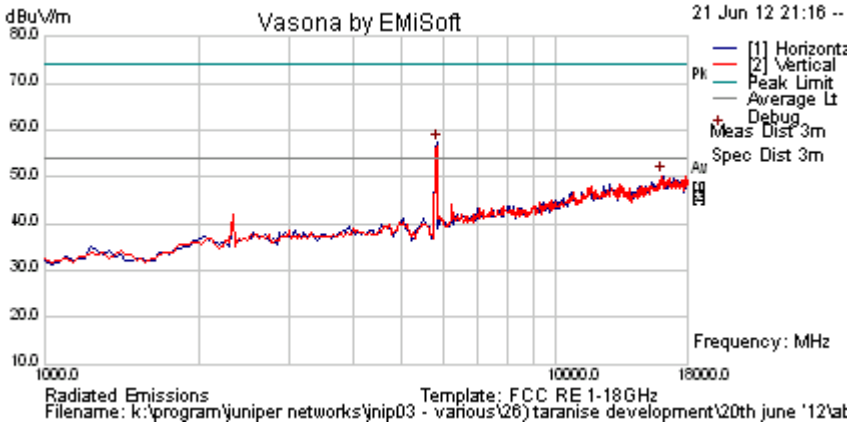


Formally measured emission peaks

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
5769.539	59.1	4.8	-9.5	54.4	Peak [Scan]	V						FUND
17046.092	41.5	8.5	0.3	50.3	Peak [Scan]	V	100	0	54.0	-3.8	Pass	NOISE

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**	GMH
Variant	802.11n; HT-20; 6.5 MCS	**Temp (°C)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

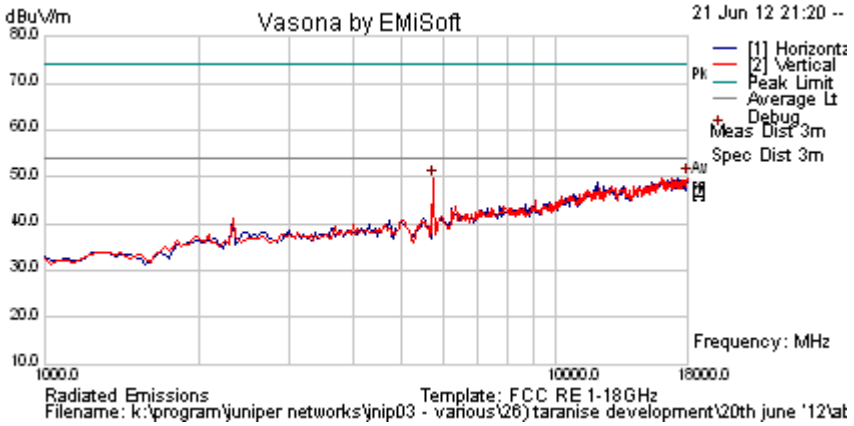


Formally measured emission peaks

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
5837.675	61.7	4.8	-9.3	57.3	Peak [Scan]	H						FUND
16058.116	41.1	9.0	0.3	50.3	Peak [Scan]	H	100	0	54.0	-3.7	Pass	NOISE

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.	5755 MHz	**Engineer**	GMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (°C)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	WLA-ANT-77555 Directional	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
Test Notes 2			

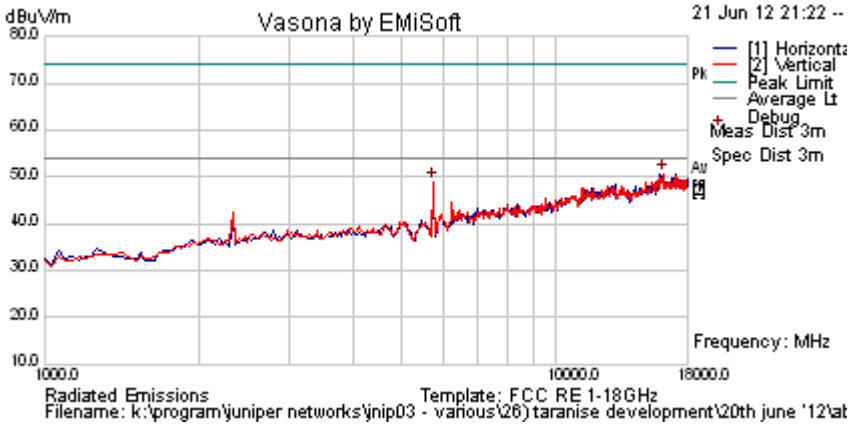


Formally measured emission peaks

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
17965.932	40.4	8.8	0.7	49.8	Peak [Scan]	V	100					FUND
5735.47094	54.3	4.8	-9.5	49.5	Peak [Scan]	V	100	0	54.0	-4.5	Pass	NOISE

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.	5795 MHz	**Engineer**	GMH
Variant	802.11n; HT-40; 13.5 MCS	**Temp (°C)**	28
Freq. Range	1000 MHz - 18000 MHz	**Rel. Hum.(%)**	33
Power Setting	18	**Press. (mBars)**	995
Antenna	Accton Paddle	**Duty Cycle (%)**	100
Test Notes 1	EUT S/N: JB021153959		
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
16160.321	41.5	9.0	0.2	50.6	Peak [Scan]	V						FUND
5735.47094	53.8	4.8	-9.5	49.0	Peak [Scan]	V	100	0	54.0	-5.0	Pass	NOISE

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

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

6.1.2.4. 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:

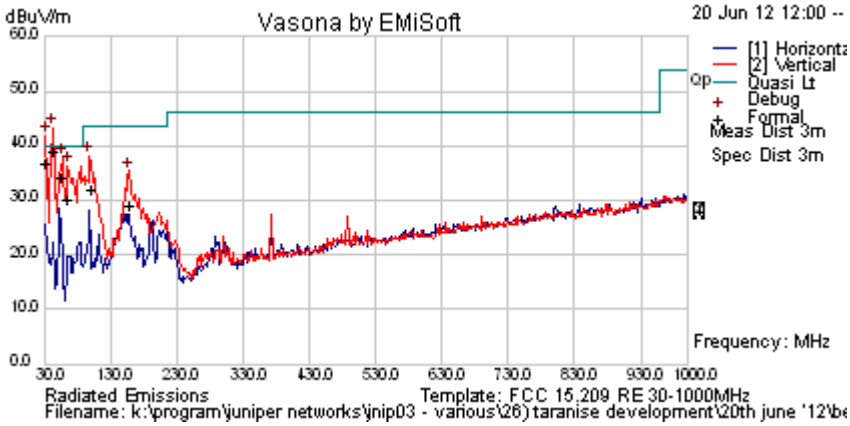
$$FS = 51.5 + 8.5 + 1.3 - 26.0 + 1 = 36.3 dB\mu V/m$$

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.	2412 MHz	**Engineer**	GMH
Variant	Digital Emissions	**Temp (ºC)**	27.5
Freq. Range	30 MHz - 1000 MHz	**Rel. Hum.(%)**	30
Power Setting	18	**Press. (mBars)**	995
Antenna	Dual Band (Small Paddle)		
Test Notes 1	Serial Number: JB021153959		
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
43.843	55.6	3.6	-20.2	39.0	Quasi Max	V	98	194	40	-1.1	Pass	
32.350	44.7	3.5	-11.5	36.7	Quasi Max	V	131	73	40.0	-3.3	Pass	
57.755	54.5	3.8	-24.1	34.1	Quasi Max	V	101	207	40.0	-5.9	Pass	
65.960	49.7	3.8	-23.5	30.0	Quasi Max	V	163	353	40.0	-10.0	Pass	
101.899	48.6	4.1	-20.7	32.0	Quasi Max	V	110	124	43.5	-11.5	Pass	
159.036	43.4	4.4	-18.8	28.9	Quasi Max	V	116	332	43.5	-14.6	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

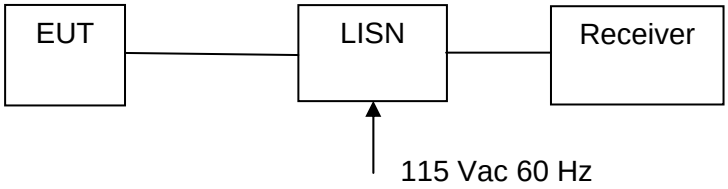
Method	Test Equipment Used
Measurements were made per work instruction WI-03 'Measurement of Radiated Emissions'	0088, 0158, 0134, 0304, 0311, 0315, 0310, 0312

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

Not required - EUT is power by POE only.

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

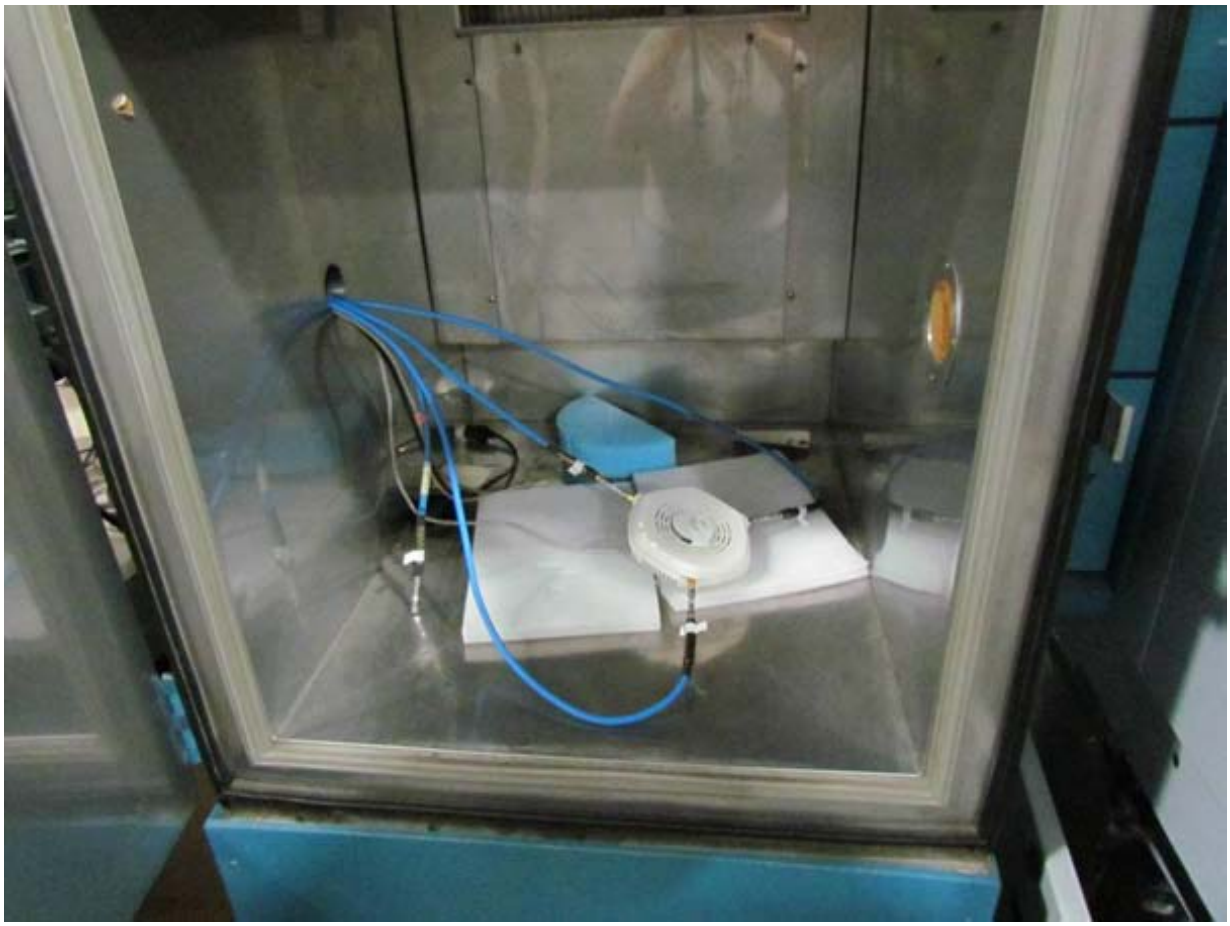
Measurement uncertainty	±2.64 dB

Traceability

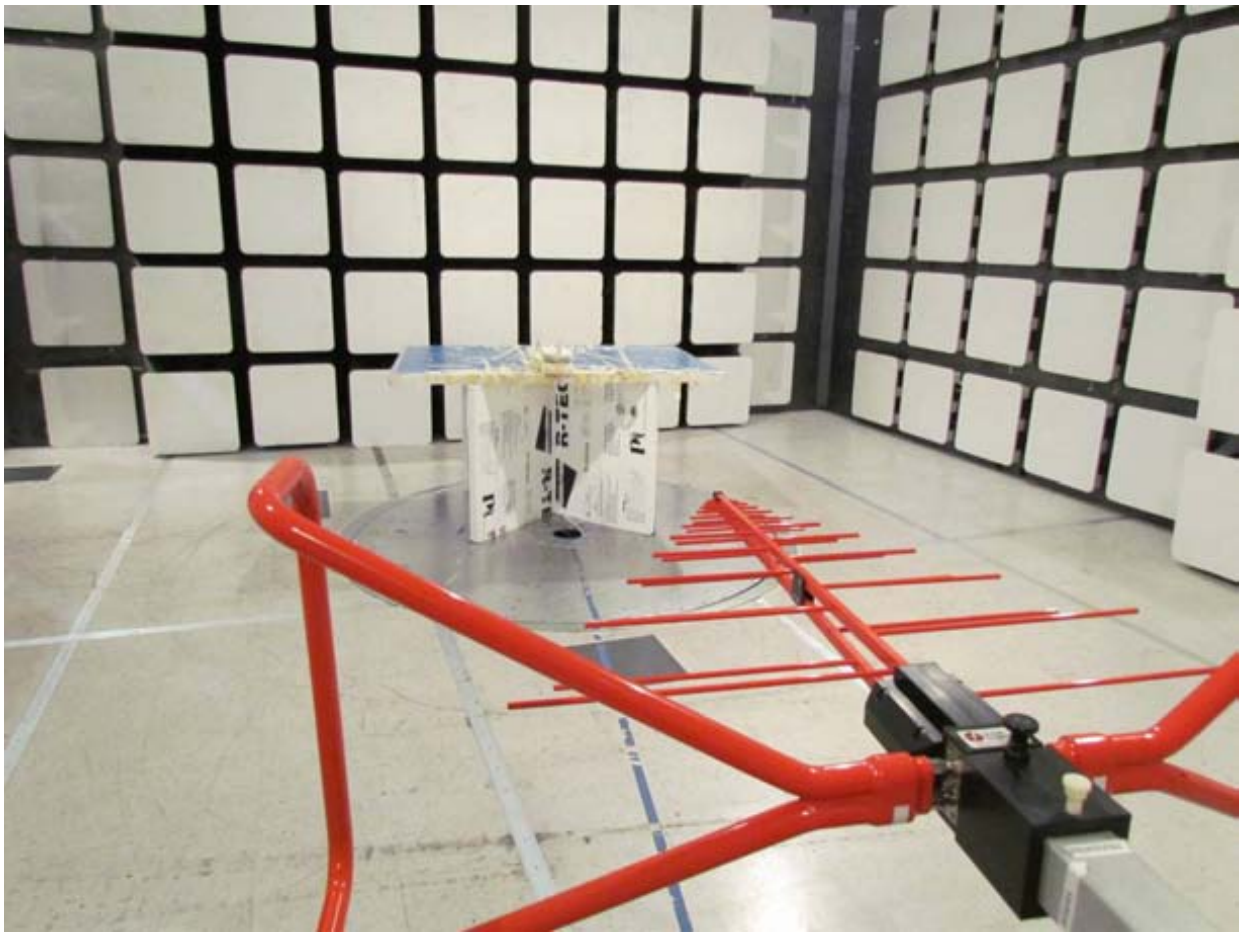
Method	Test Equipment Used
Measurements were made per work instruction WI-EMC-01 'Measurement of Conducted Emissions'	0158, 0184, 0287, 0190, 0293, 0307

7. PHOTOGRAPHS

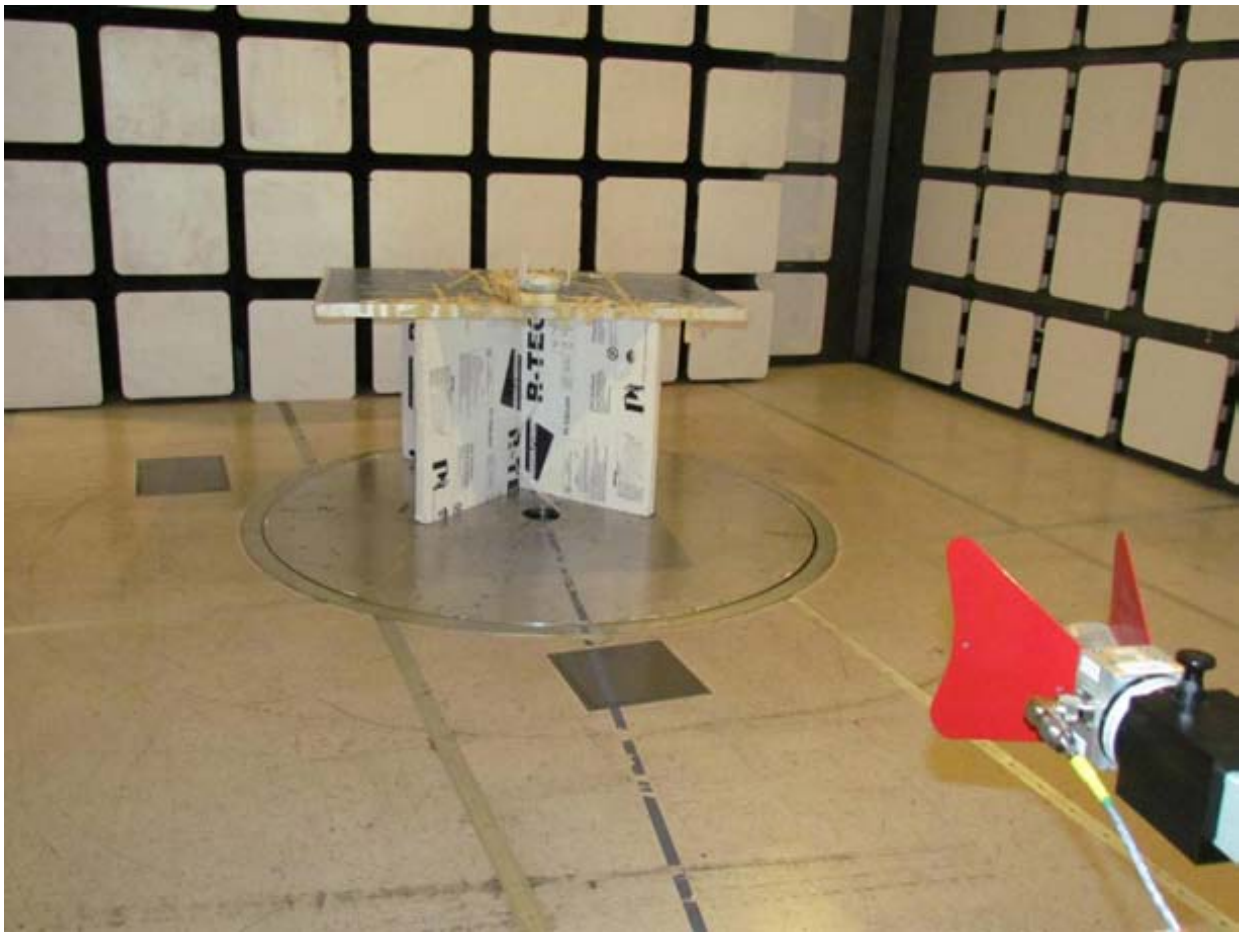
7.1. Conducted Test Setup



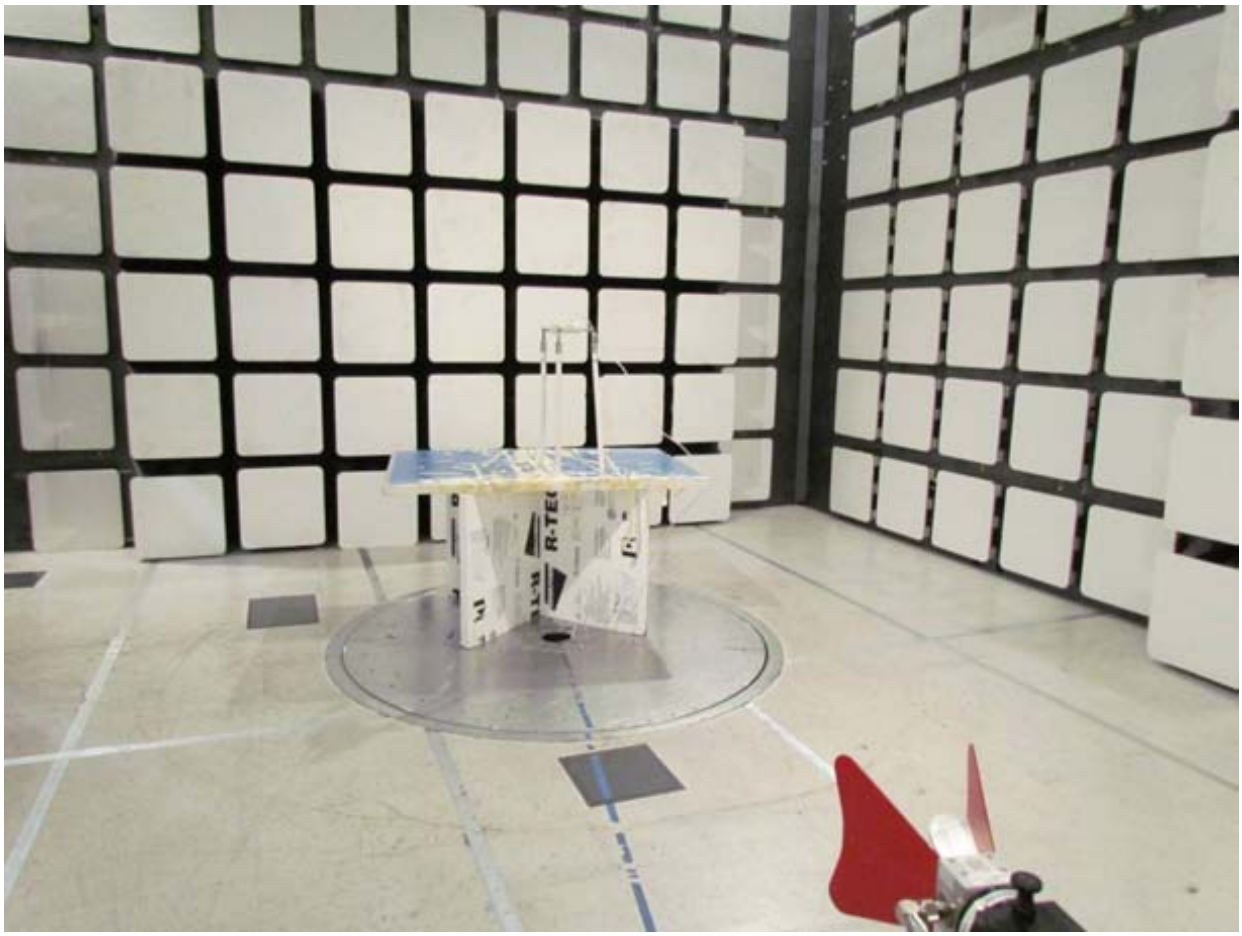
7.2. Test Setup - Digital Emissions below 1 GHz



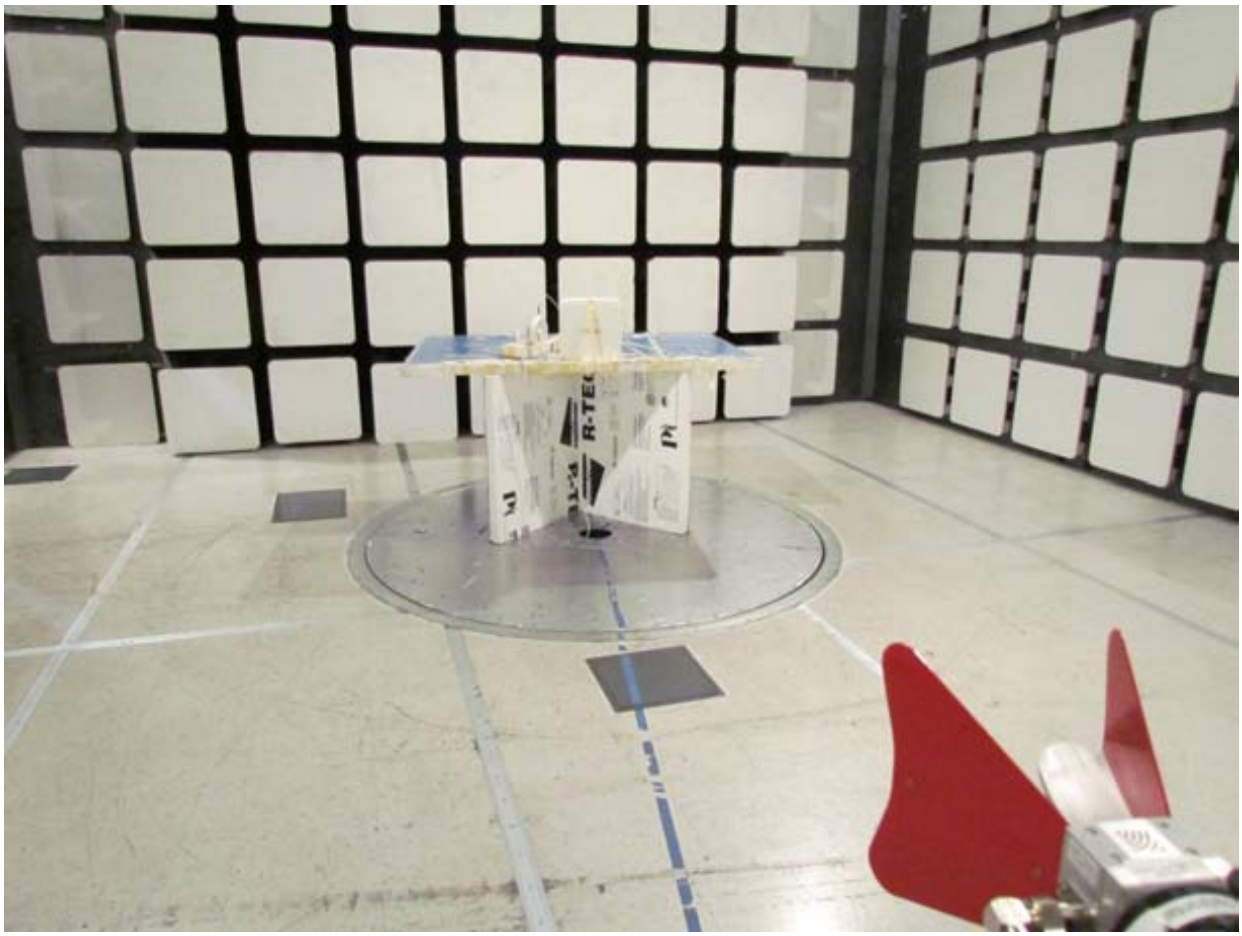
7.3. Radiated Emissions Test Setup >1 GHz – WLA-ANT-7360P-IN



7.4. Radiated Emissions Test Setup >1 GHz – WLA-ANT-7360A-OUT



7.5. Radiated Emissions Test Setup >1 GHz – WLA-ANT-77555-OUT



8. TEST EQUIPMENT

Asset #	Instrument	Manufacturer	Part #	Serial #
0088	Spectrum Analyzer	Hewlett Packard	8564E	3410A00141
0134	Amplifier	Com Power	PA 122	181910
0158	Barometer /Thermometer	Control Co.	4196	E2846
0287	EMI Receiver	Rhode & Schwartz	ESIB 40	100201
0252	SMA Cable	Megaphase	Sucoflex 104	None
0310	2m SMA Cable	Micro-Coax	UFA210A-0-0787-3G03G0	209089-001
0312	3m SMA Cable	Micro-Coax	UFA210A-1-1181-3G0300	209092-001
0313	Coupler	Hewlett Packard	86205A	3140A01285
0314	30dB N-Type Attenuator	ARRA	N9444-30	1623
0070	Power Meter	Hewlett Packard	437B	3125U11552
0116	Power Sensor	Hewlett Packard	8485A	3318A19694
0117	Power Sensor	Hewlett Packard	8487D	3318A00371
0184	Pulse Limiter	Rhode & Schwartz	ESH3Z2	357.8810.52
0190	LISN	Rhode & Schwartz	ESH3Z5	836679/006
0293	BNC Cable	Megaphase	1689 1GVT4	15F50B001
0301	5.6 GHz Notch Filter	Micro-Tronics	RBC50704	001
0302	5.25 GHz Notch Filter	Micro-Tronics	BRC50703	002
0303	5.8 GHz Notch Filter	Micro-Tronics	BRC50705	003
0304	2.4GHzHz Notch Filter	Micro-Tronics	--	001
0307	BNC Cable	Megaphase	1689 1GVT4	15F50B002
0335	1-18GHz Horn Antenna	ETS- Lindgren	3117	00066580
0337	Amplifier	MiCOM Labs	--	--
0338	Antenna	Sunol Sciences	JB-3	A052907

APPENDIX

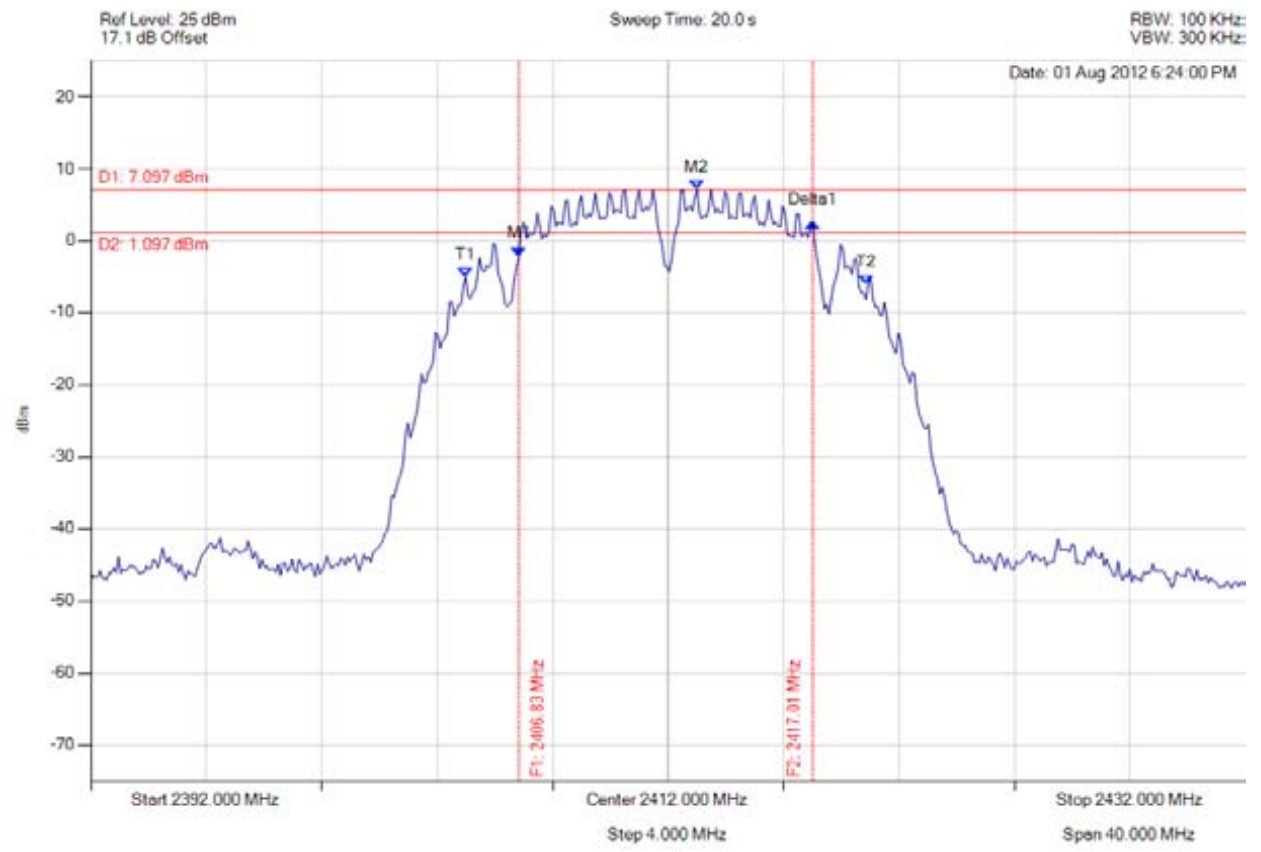
A. SUPPORTING INFORMATION

A.1. CONDUCTED TEST PLOTS

A.1.1. 6 dB & 99% Bandwidth

6 dB and 99% Bandwidth

Variant: 802.11b, Channel: 2412.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

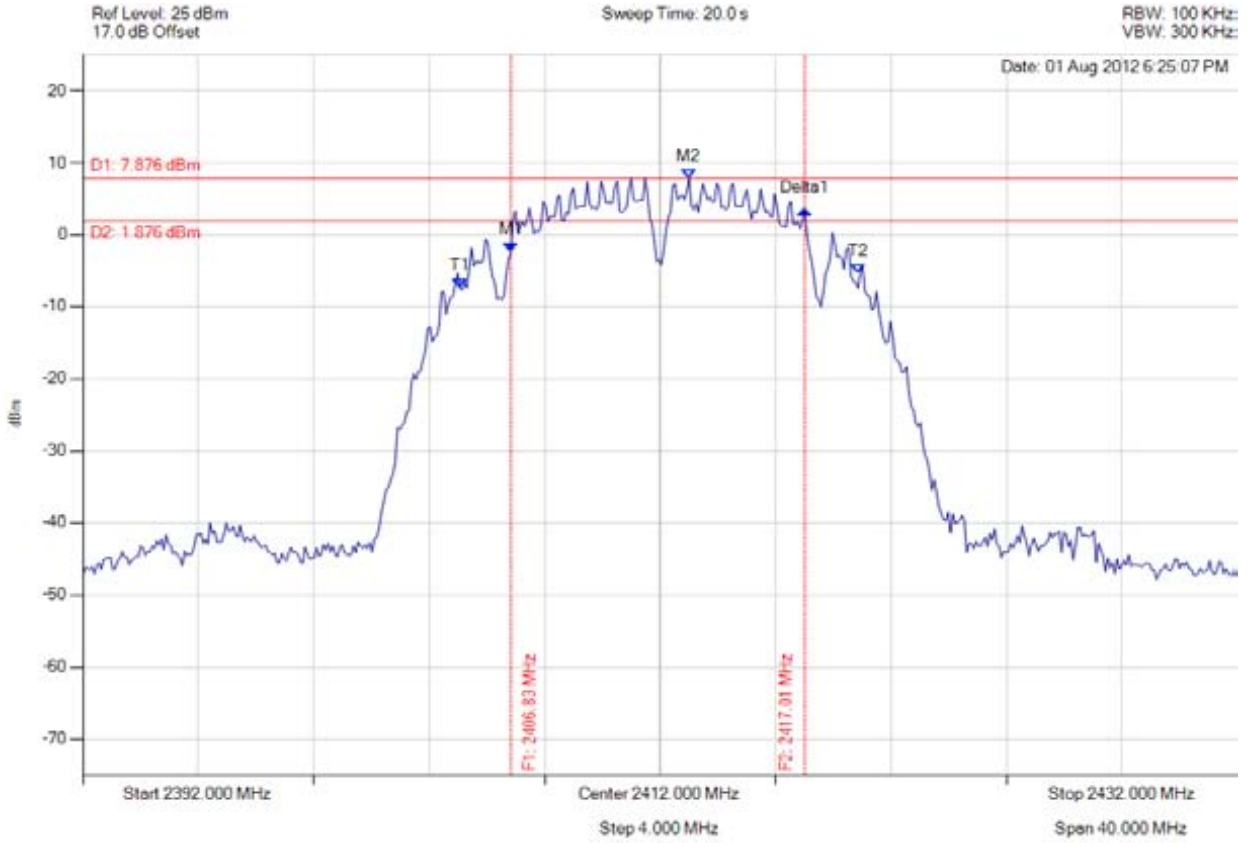


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2406.830 MHz : -2.116 dBm M2 : 2413.002 MHz : 7.097 dBm Delta1 : 10.180 MHz : 4.661 dBm T1 : 2404.986 MHz : -4.994 dBm T2 : 2418.854 MHz : -6.021 dBm OBW: 13.948 MHz	Measured 6 dB Bandwidth: 10.180 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6B Bandwidth: -9.68 MHz Measured 99% Bandwidth: 13.948 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11b, Channel: 2412.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

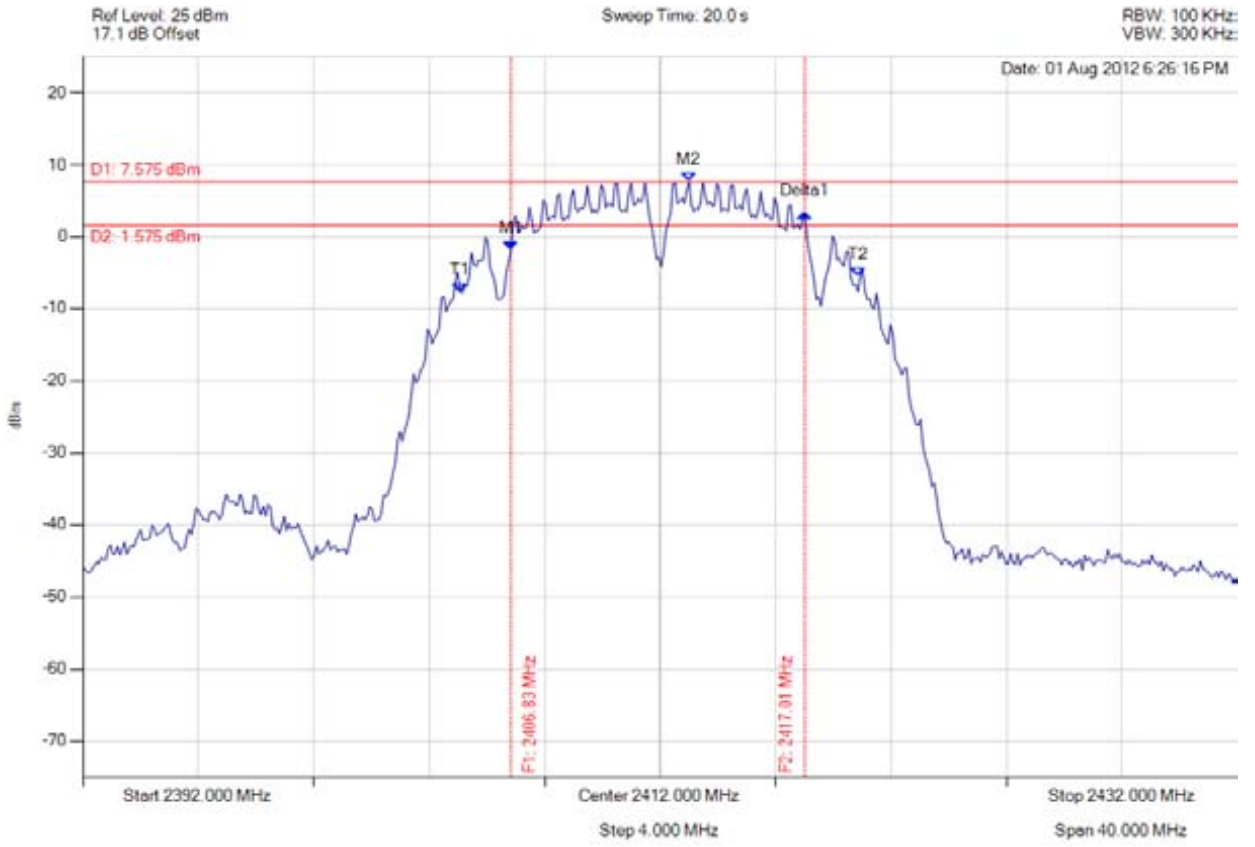


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2406.830 MHz : -2.303 dBm M2 : 2413.002 MHz : 7.876 dBm Delta1 : 10.180 MHz : 5.780 dBm T1 : 2405.066 MHz : -7.422 dBm T2 : 2418.854 MHz : -5.384 dBm OBW: 13.868 MHz	Measured 6 dB Bandwidth: 10.180 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6B Bandwidth: -9.68 MHz Measured 99% Bandwidth: 13.868 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11b, Channel: 2412.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

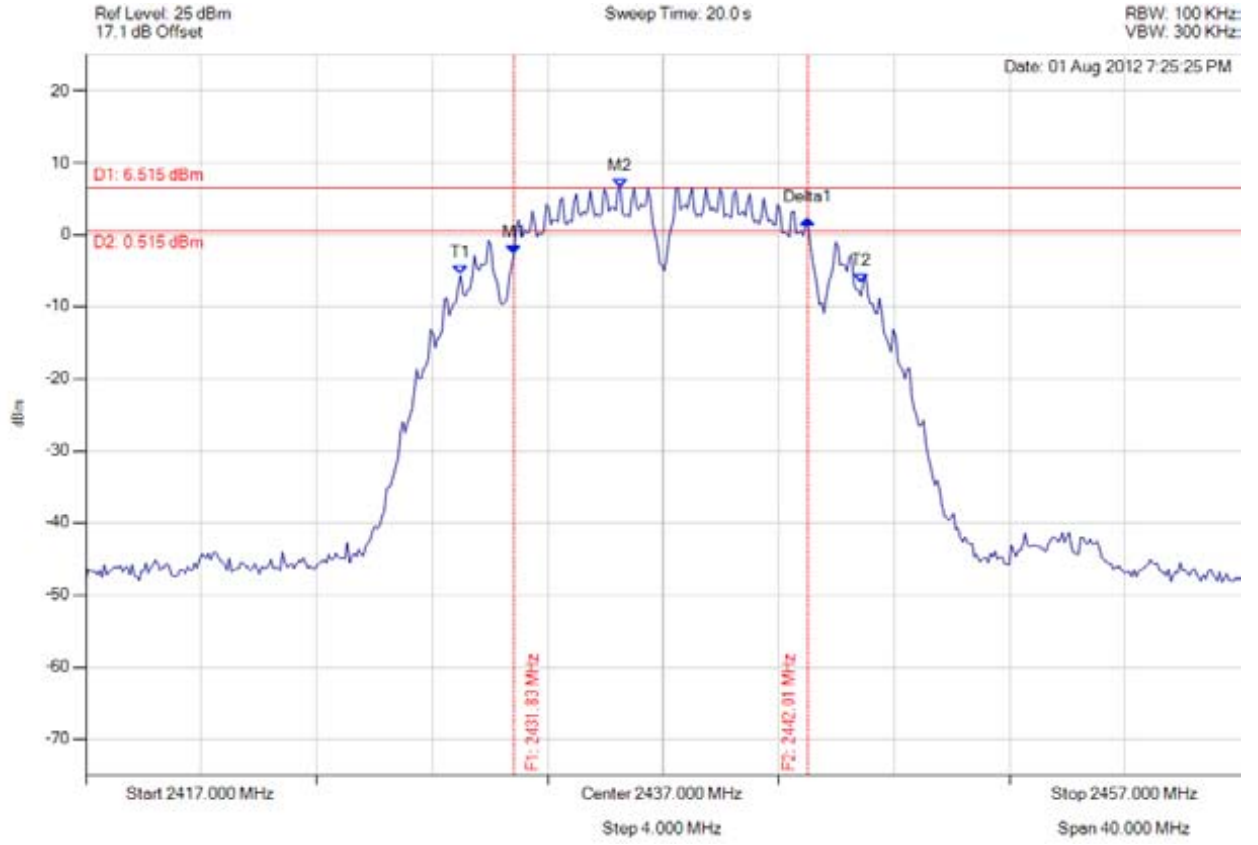


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2406.830 MHz : -1.890 dBm M2 : 2413.002 MHz : 7.575 dBm Delta1 : 10.180 MHz : 5.151 dBm T1 : 2405.066 MHz : -7.684 dBm T2 : 2418.854 MHz : -5.612 dBm OBW: 13.868 MHz	Measured 6 dB Bandwidth: 10.180 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6B Bandwidth: -9.68 MHz Measured 99% Bandwidth: 13.868 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11b, Channel: 2437.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

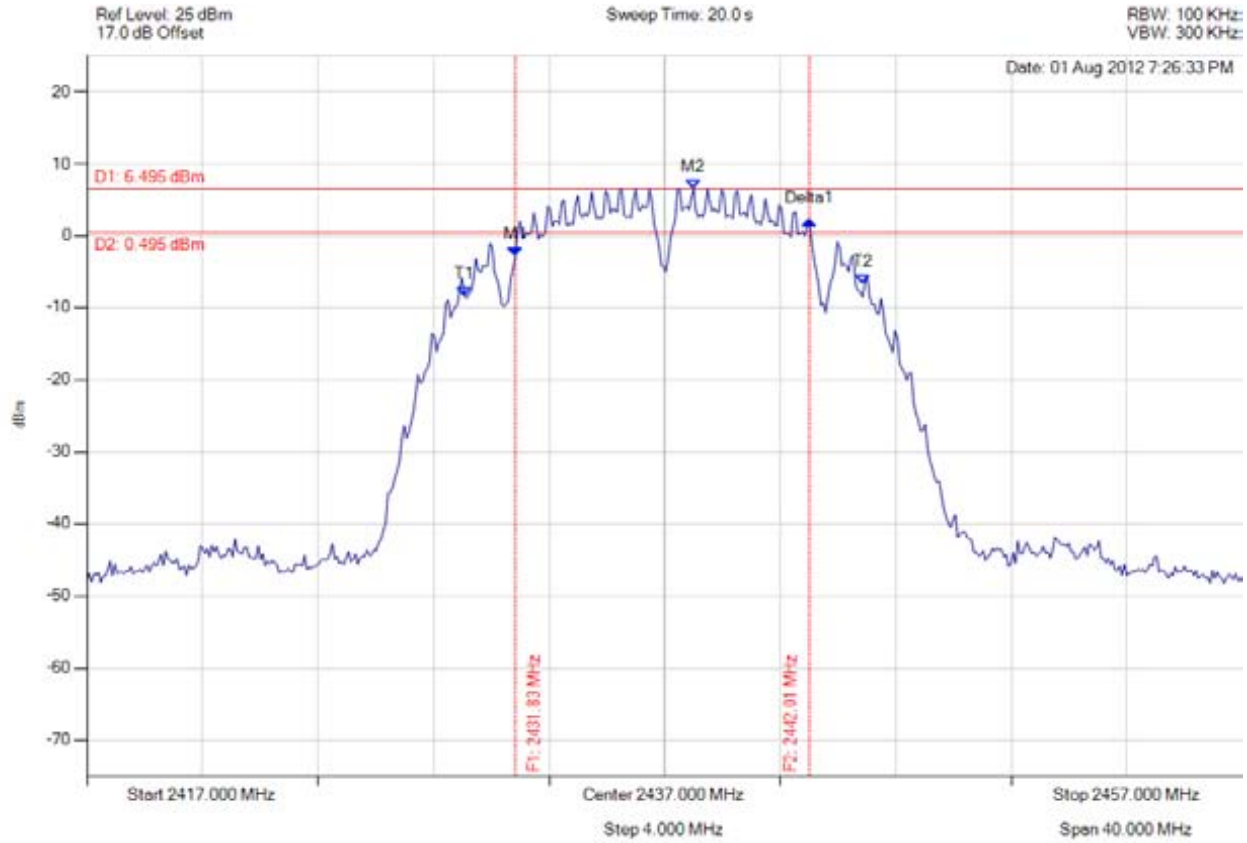


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2431.830 MHz : -2.679 dBm M2 : 2435.517 MHz : 6.515 dBm Delta1 : 10.180 MHz : 4.808 dBm T1 : 2429.986 MHz : -5.606 dBm T2 : 2443.854 MHz : -6.665 dBm OBW: 13.948 MHz	Measured 6 dB Bandwidth: 10.180 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6B Bandwidth: -9.68 MHz Measured 99% Bandwidth: 13.948 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11b, Channel: 2437.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

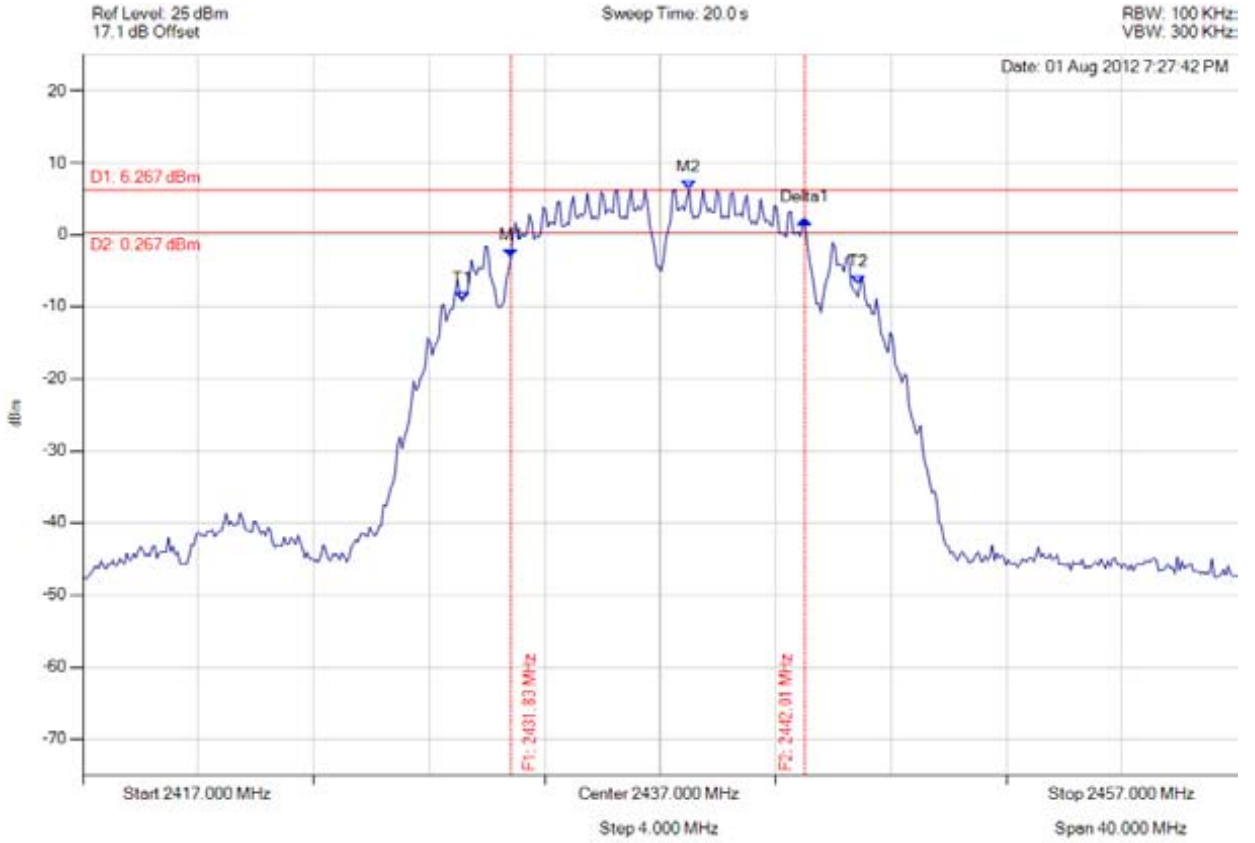


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2431.830 MHz : -2.936 dBm M2 : 2438.002 MHz : 6.495 dBm Delta1 : 10.180 MHz : 5.139 dBm T1 : 2430.066 MHz : -8.351 dBm T2 : 2443.854 MHz : -6.631 dBm OBW: 13.868 MHz	Measured 6 dB Bandwidth: 10.180 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6B Bandwidth: -9.68 MHz Measured 99% Bandwidth: 13.868 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11b, Channel: 2437.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

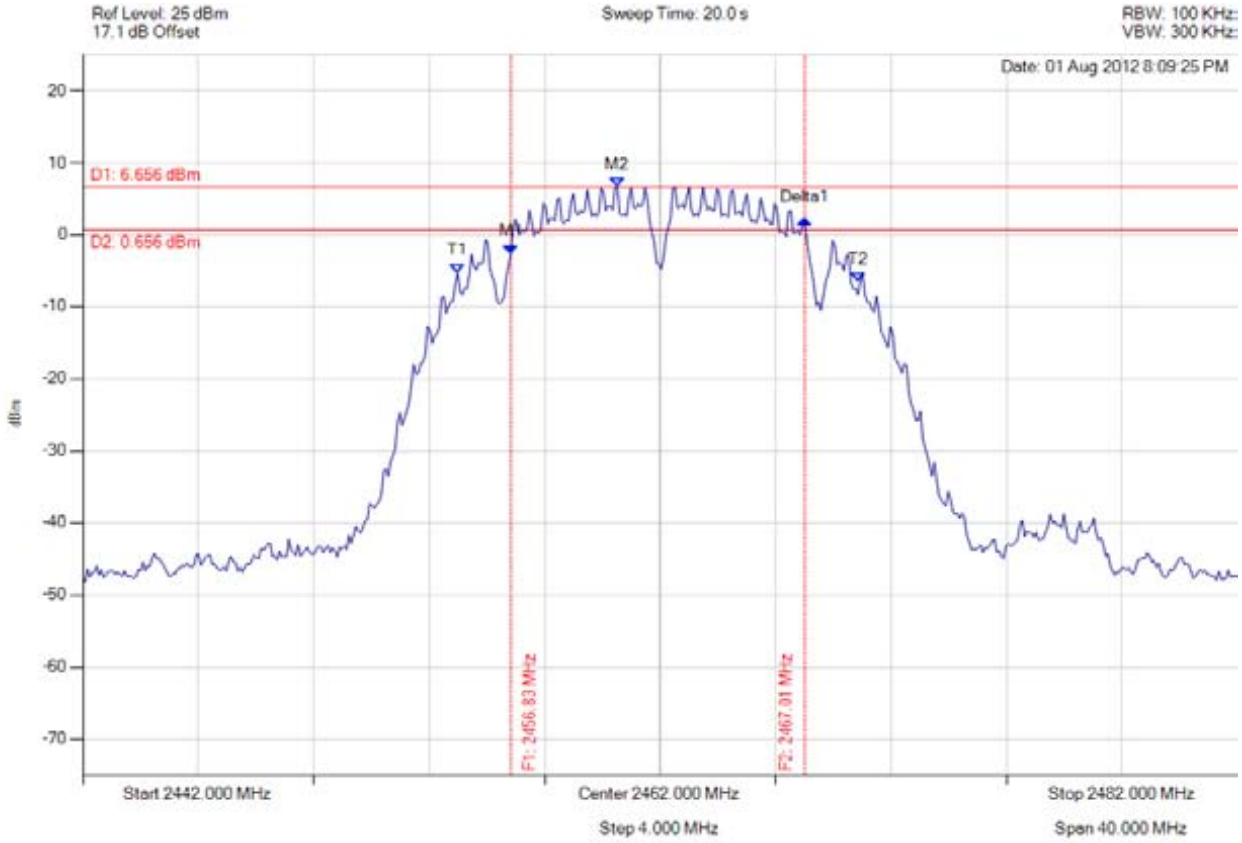


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2431.830 MHz : -3.245 dBm M2 : 2438.002 MHz : 6.267 dBm Delta1 : 10.180 MHz : 5.335 dBm T1 : 2430.146 MHz : -9.143 dBm T2 : 2443.854 MHz : -6.867 dBm OBW: 13.788 MHz	Measured 6 dB Bandwidth: 10.180 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6B Bandwidth: -9.68 MHz Measured 99% Bandwidth: 13.788 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11b, Channel: 2462.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2456.830 MHz : -2.622 dBm M2 : 2460.517 MHz : 6.656 dBm Delta1 : 10.180 MHz : 4.810 dBm T1 : 2454.986 MHz : -5.287 dBm T2 : 2468.854 MHz : -6.486 dBm OBW: 13.948 MHz	Measured 6 dB Bandwidth: 10.180 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6B Bandwidth: -9.68 MHz Measured 99% Bandwidth: 13.948 MHz

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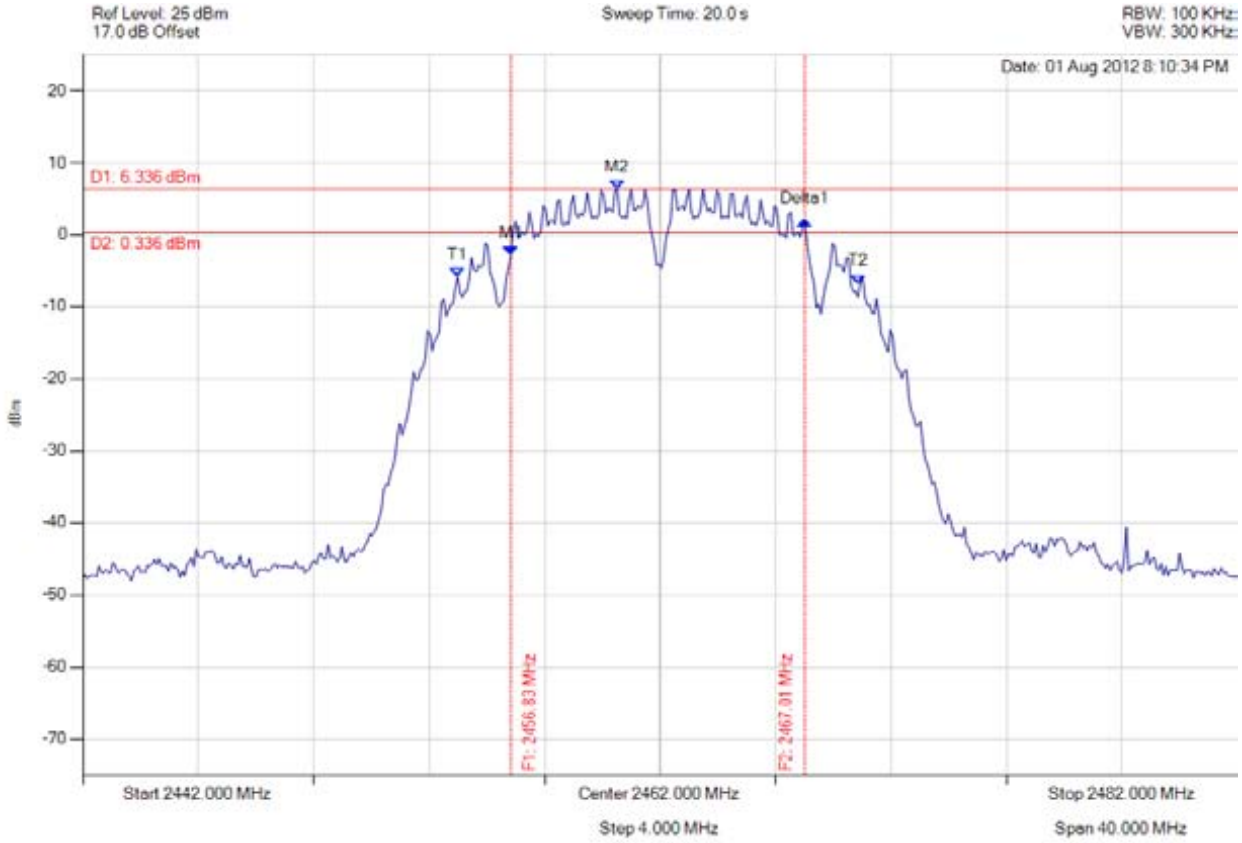
6 dB and 99% Bandwidth

Variant: 802.11b, Channel: 2462.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2456.830 MHz : -2.915 dBm M2 : 2460.517 MHz : 6.336 dBm Delta1 : 10.180 MHz : 4.840 dBm T1 : 2454.986 MHz : -5.832 dBm T2 : 2468.854 MHz : -6.783 dBm OBW: 13.948 MHz	Measured 6 dB Bandwidth: 10.180 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6B Bandwidth: -9.68 MHz Measured 99% Bandwidth: 13.948 MHz

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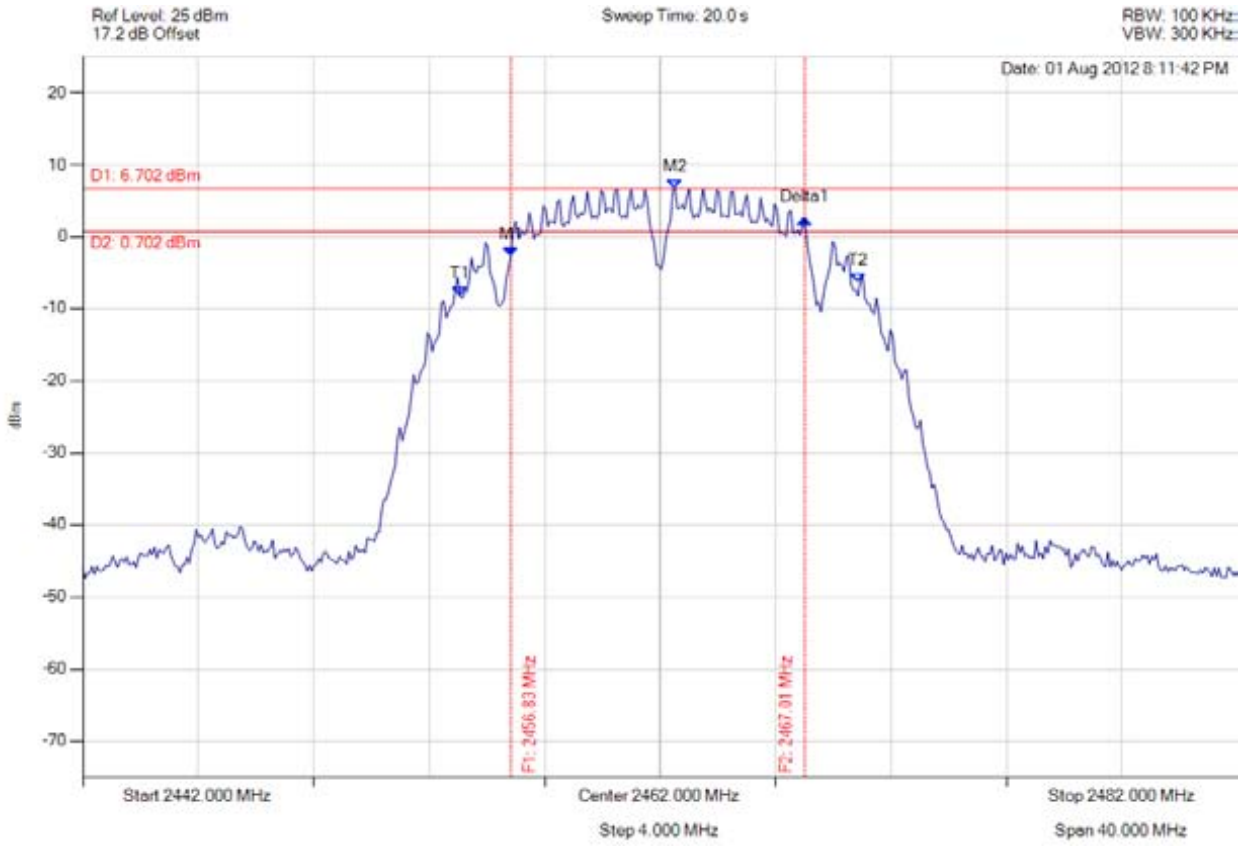
6 dB and 99% Bandwidth

Variant: 802.11b, Channel: 2462.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

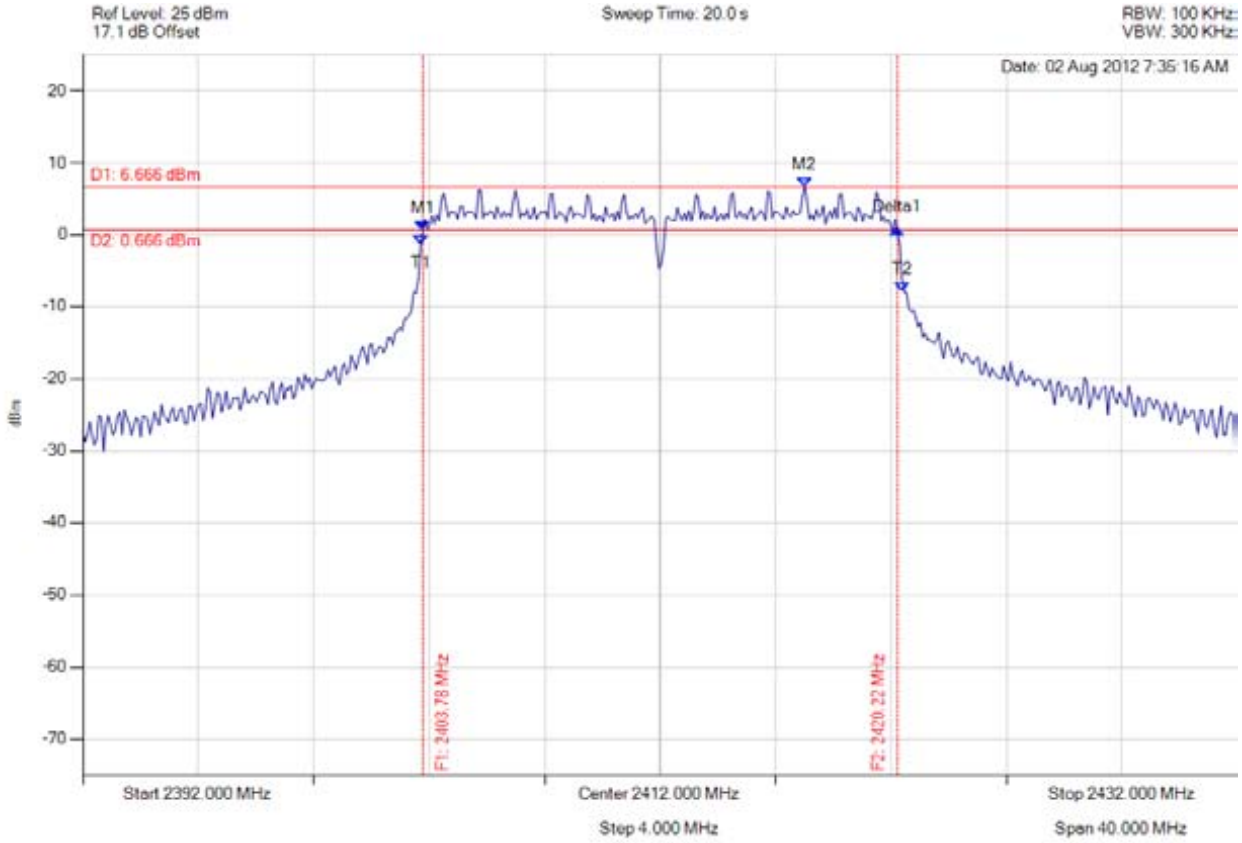


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2456.830 MHz : -2.694 dBm M2 : 2462.521 MHz : 6.702 dBm Delta1 : 10.180 MHz : 5.182 dBm T1 : 2455.066 MHz : -8.225 dBm T2 : 2468.854 MHz : -6.360 dBm OBW: 13.868 MHz	Measured 6 dB Bandwidth: 10.180 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -9.68 MHz Measured 99% Bandwidth: 13.868 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11g, Channel: 2412.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 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 : 0.619 dBm M2 : 2417.010 MHz : 6.666 dBm Delta1 : 16.433 MHz : 0.148 dBm T1 : 2403.703 MHz : -1.408 dBm T2 : 2420.377 MHz : -7.922 dBm OBW : 16.754 MHz	Measured 6 dB Bandwidth: 16.433 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.93 MHz Measured 99% Bandwidth: 16.754 MHz

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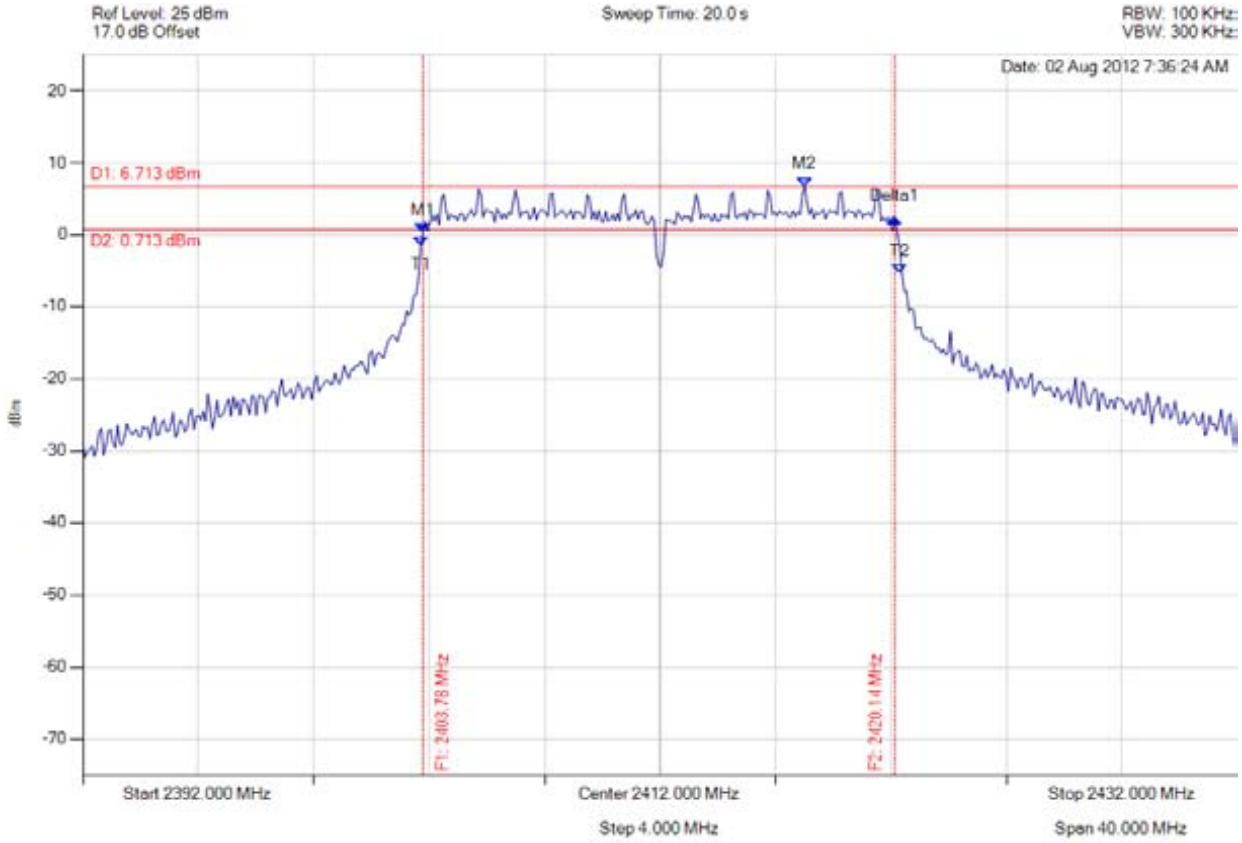
6 dB and 99% Bandwidth

Variant: 802.11g, Channel: 2412.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 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 : 0.233 dBm M2 : 2417.010 MHz : 6.713 dBm Delta1 : 16.353 MHz : 2.058 dBm T1 : 2403.703 MHz : -1.577 dBm T2 : 2420.297 MHz : -5.425 dBm OBW : 16.673 MHz	Measured 6 dB Bandwidth: 16.353 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.85 MHz Measured 99% Bandwidth: 16.673 MHz

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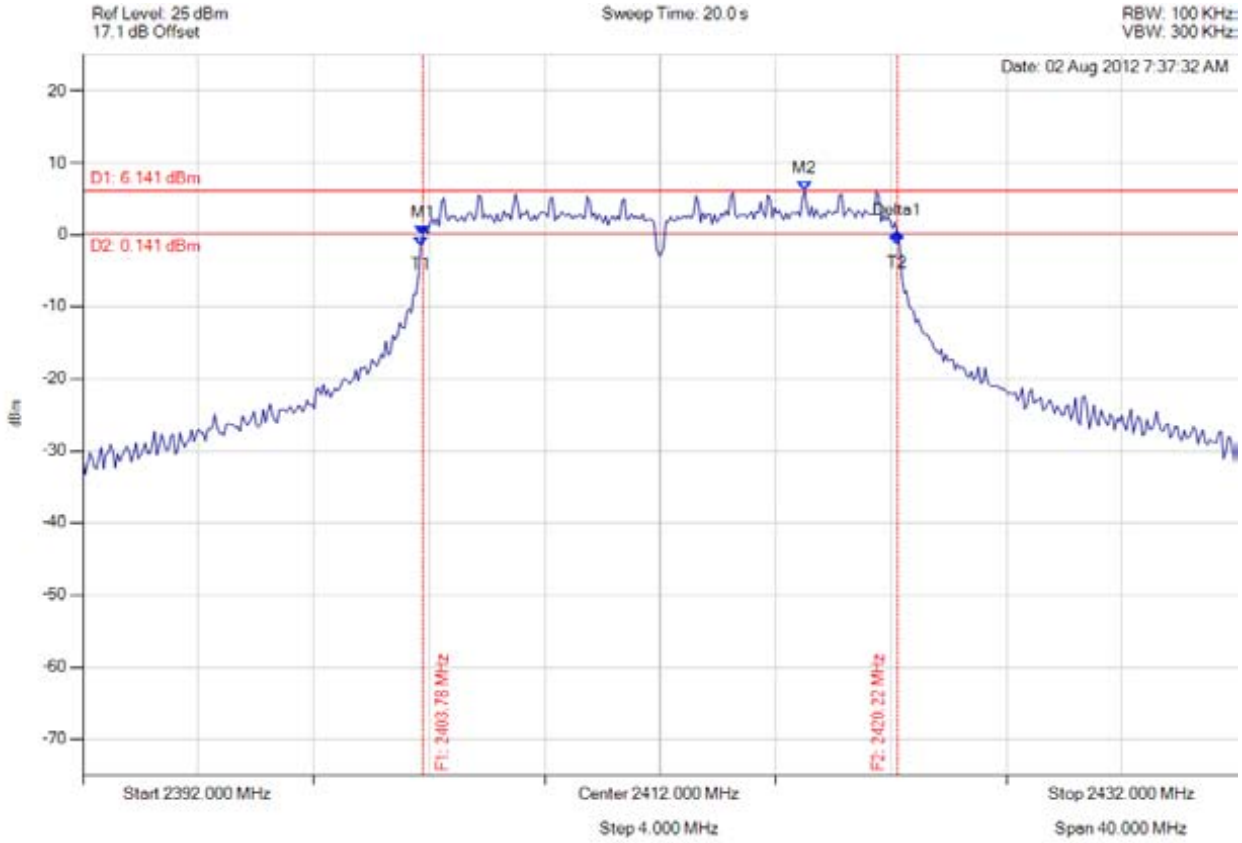
6 dB and 99% Bandwidth

Variant: 802.11g, Channel: 2412.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 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 : -0.054 dBm M2 : 2417.010 MHz : 6.141 dBm Delta1 : 16.433 MHz : 0.285 dBm T1 : 2403.703 MHz : -1.518 dBm T2 : 2420.216 MHz : -1.368 dBm OBW : 16.593 MHz	Measured 6 dB Bandwidth: 16.433 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.93 MHz Measured 99% Bandwidth: 16.593 MHz

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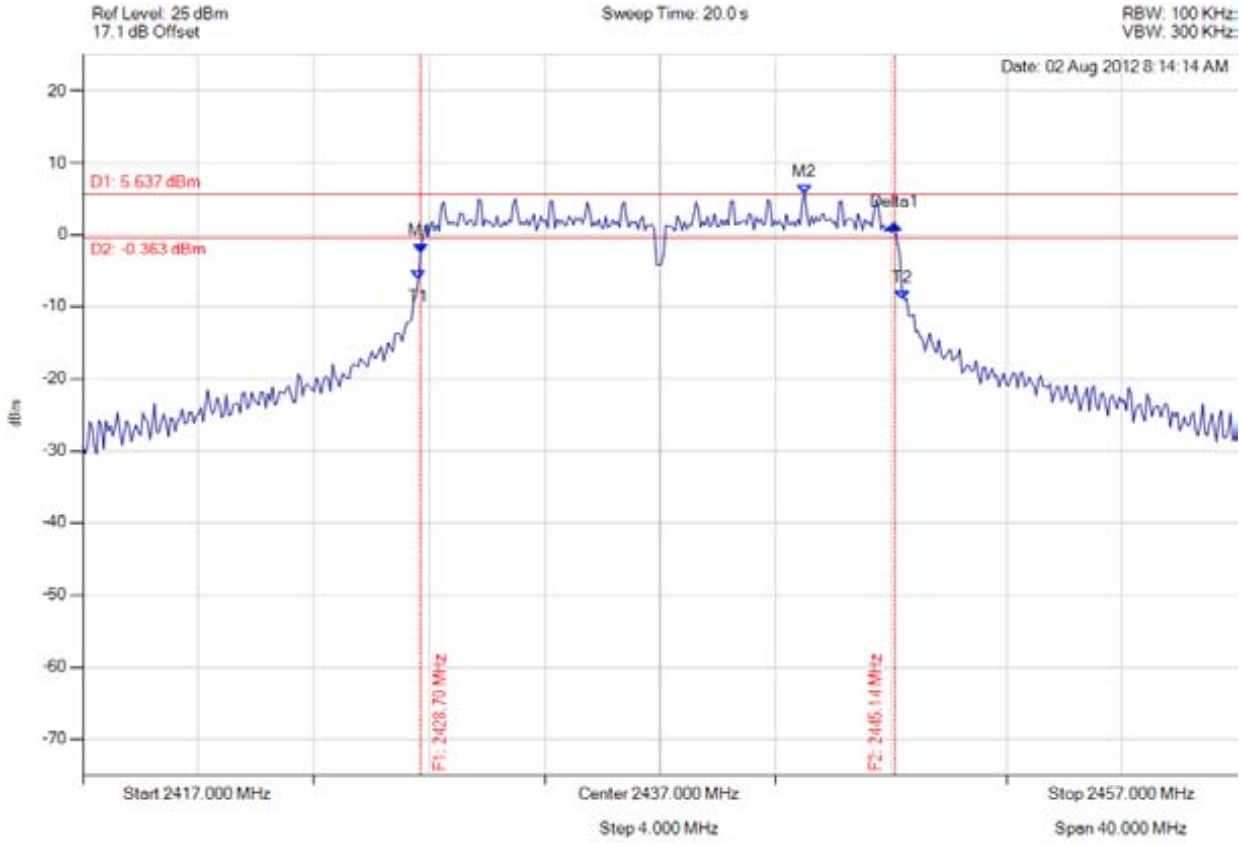
6 dB and 99% Bandwidth

Variant: 802.11g, Channel: 2437.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2428.703 MHz : -2.515 dBm M2 : 2442.010 MHz : 5.637 dBm Delta1 : 16.433 MHz : 3.990 dBm T1 : 2428.623 MHz : -6.141 dBm T2 : 2445.377 MHz : -9.051 dBm OBW : 16.834 MHz	Measured 6 dB Bandwidth: 16.433 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.93 MHz Measured 99% Bandwidth: 16.834 MHz

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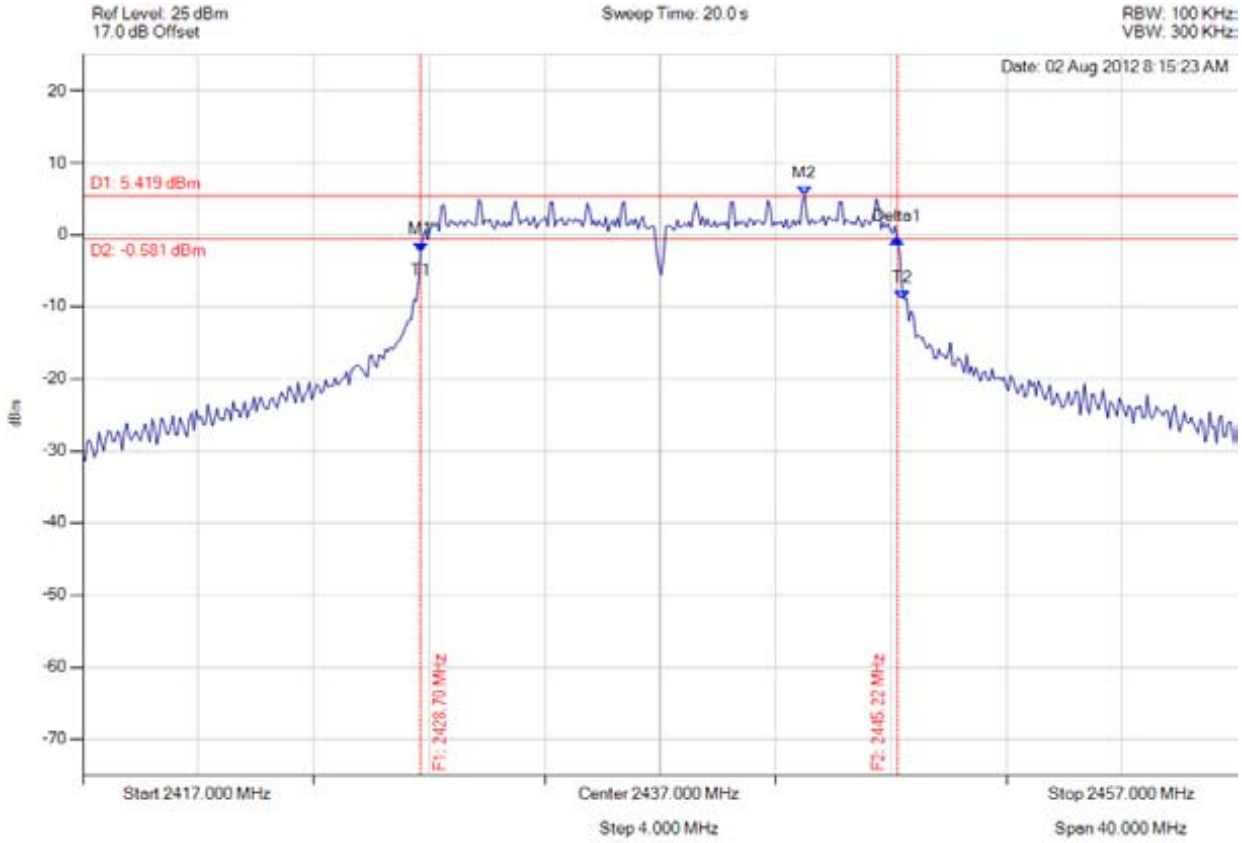
6 dB and 99% Bandwidth

Variant: 802.11g, Channel: 2437.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2428.703 MHz : -2.360 dBm M2 : 2442.010 MHz : 5.419 dBm Delta1 : 16.513 MHz : 1.798 dBm T1 : 2428.703 MHz : -2.360 dBm T2 : 2445.377 MHz : -8.974 dBm OBW : 16.754 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -16.01 MHz Measured 99% Bandwidth: 16.754 MHz

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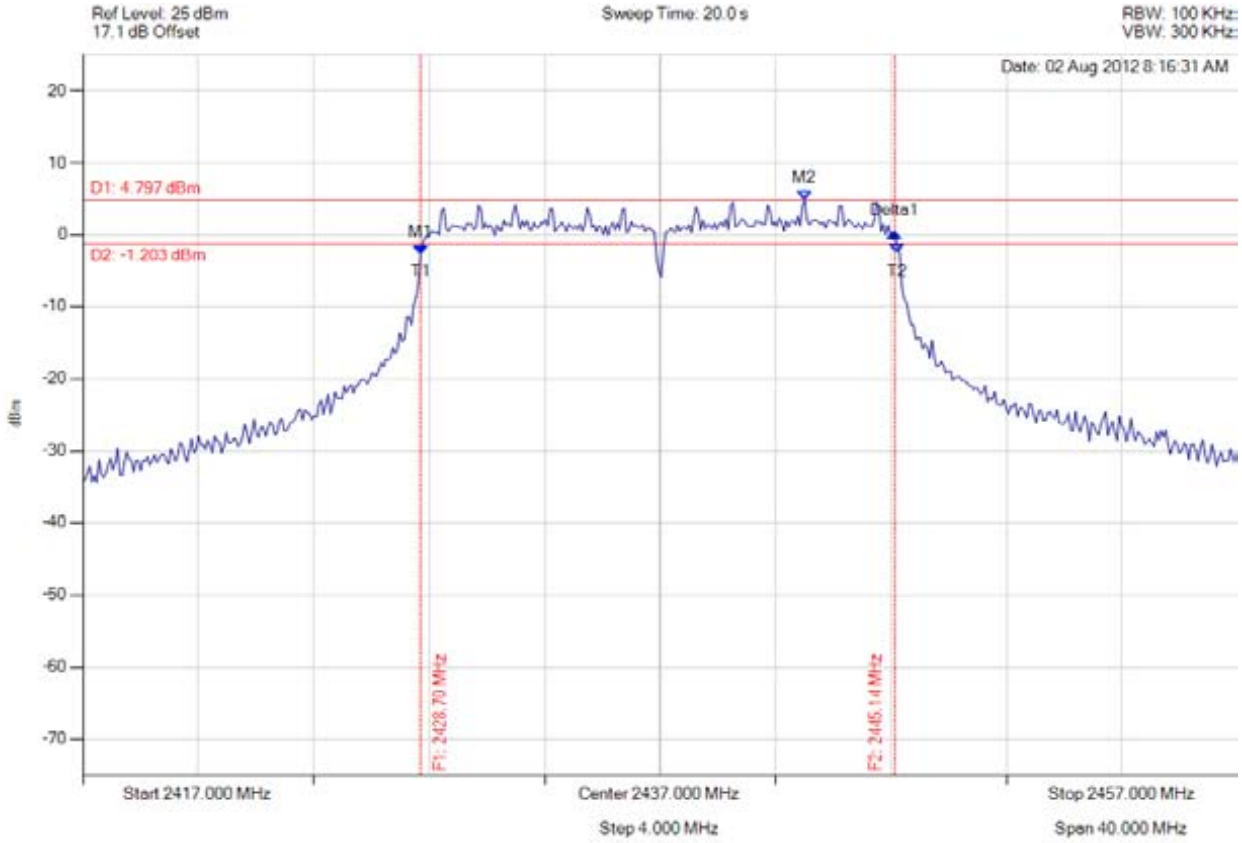
6 dB and 99% Bandwidth

Variant: 802.11g, Channel: 2437.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2428.703 MHz : -2.633 dBm M2 : 2442.010 MHz : 4.797 dBm Delta1 : 16.433 MHz : 2.914 dBm T1 : 2428.703 MHz : -2.633 dBm T2 : 2445.216 MHz : -2.549 dBm OBW : 16.593 MHz	Measured 6 dB Bandwidth: 16.433 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.93 MHz Measured 99% Bandwidth: 16.593 MHz

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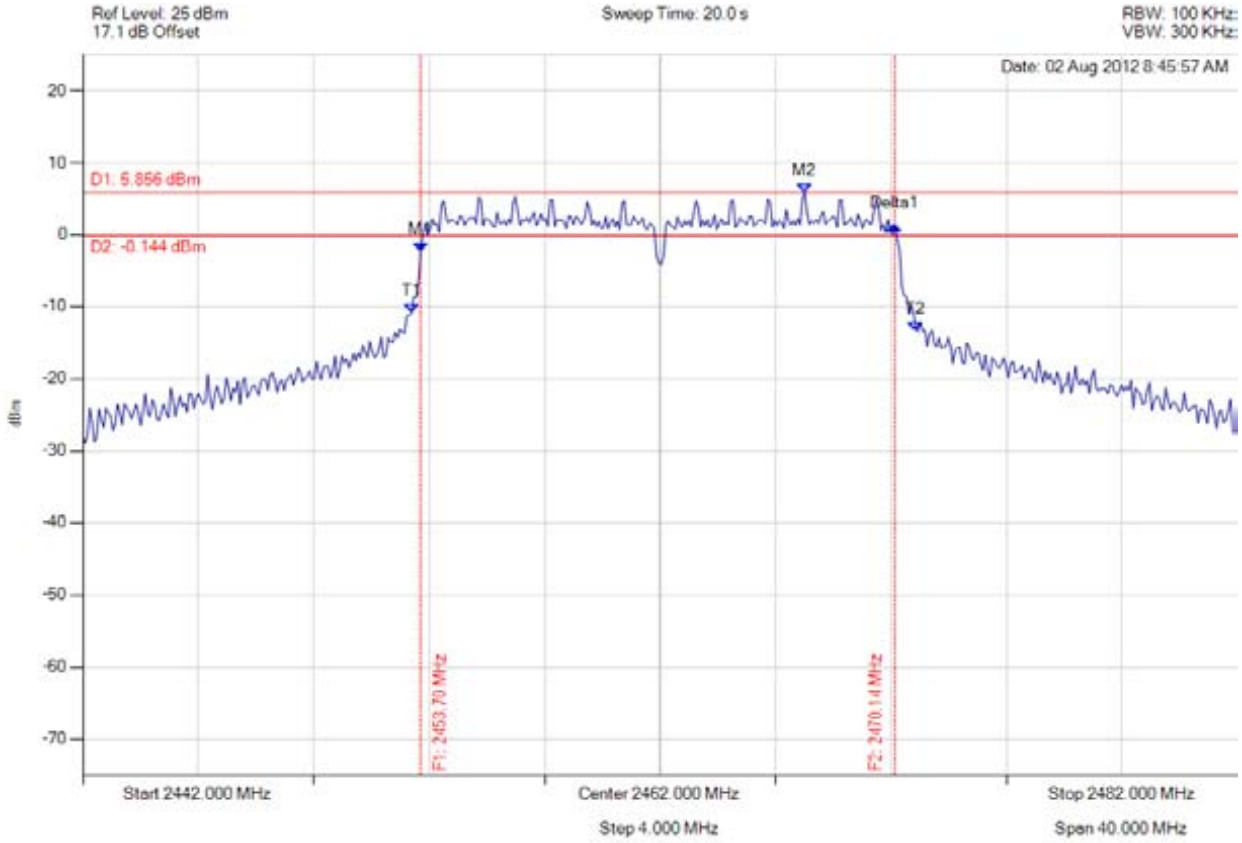
6 dB and 99% Bandwidth

Variant: 802.11g, Channel: 2462.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2453.703 MHz : -2.370 dBm M2 : 2467.010 MHz : 5.856 dBm Delta1 : 16.433 MHz : 3.701 dBm T1 : 2453.383 MHz : -10.914 dBm T2 : 2470.858 MHz : -13.310 dBm OBW : 17.555 MHz	Measured 6 dB Bandwidth: 16.433 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.93 MHz Measured 99% Bandwidth: 17.555 MHz

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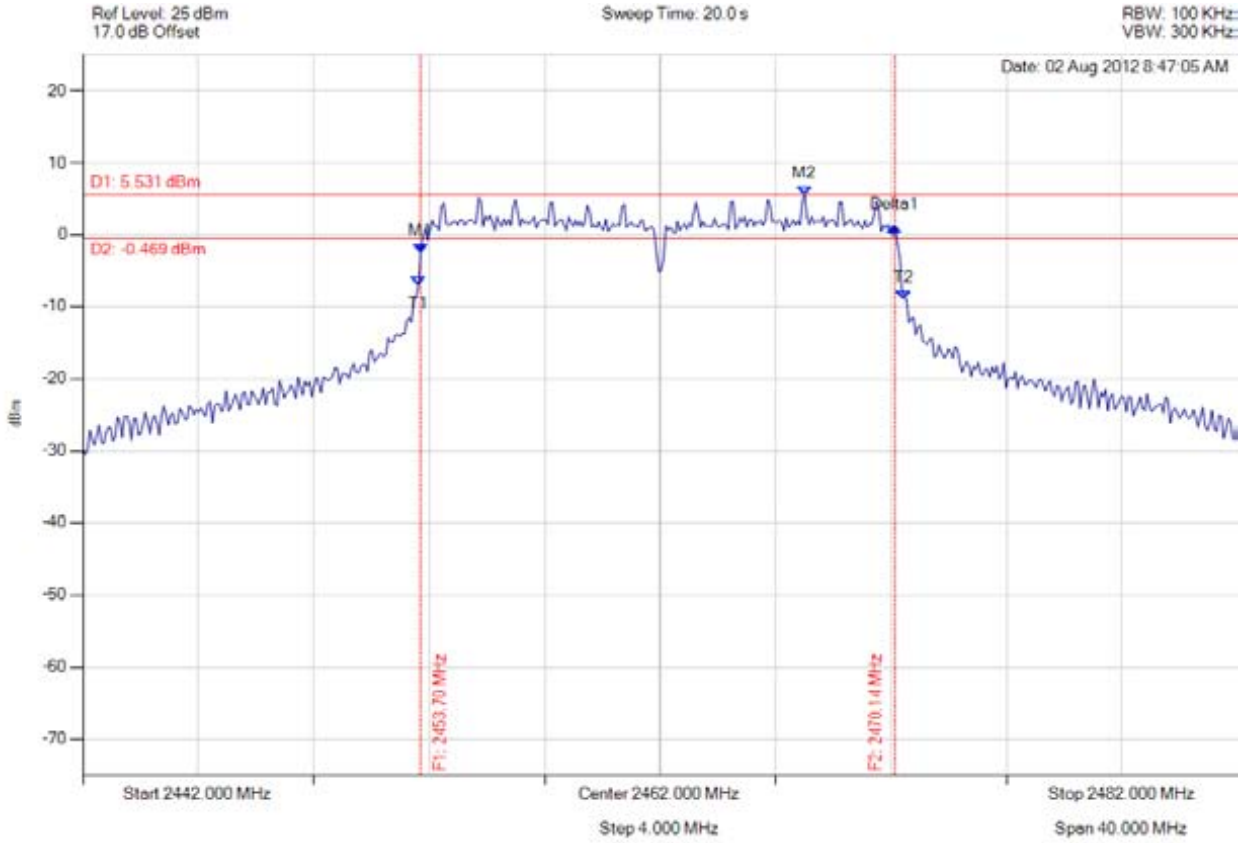
6 dB and 99% Bandwidth

Variant: 802.11g, Channel: 2462.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2453.703 MHz : -2.500 dBm M2 : 2467.010 MHz : 5.531 dBm Delta1 : 16.433 MHz : 3.636 dBm T1 : 2453.623 MHz : -7.072 dBm T2 : 2470.457 MHz : -9.023 dBm OBW : 16.914 MHz	Measured 6 dB Bandwidth: 16.433 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.93 MHz Measured 99% Bandwidth: 16.914 MHz

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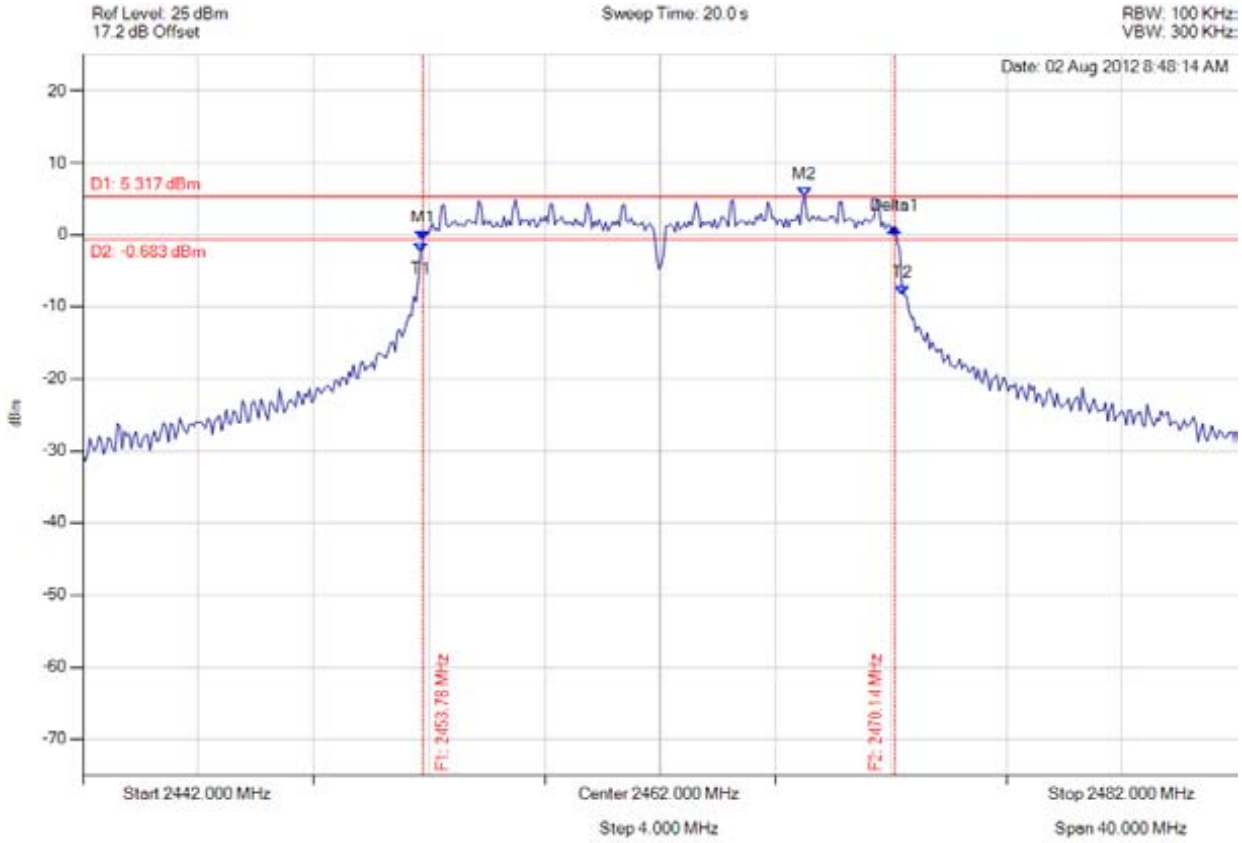
6 dB and 99% Bandwidth

Variant: 802.11g, Channel: 2462.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 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 : -0.755 dBm M2 : 2467.010 MHz : 5.317 dBm Delta1 : 16.353 MHz : 1.761 dBm T1 : 2453.703 MHz : -2.289 dBm T2 : 2470.377 MHz : -8.433 dBm OBW : 16.754 MHz	Measured 6 dB Bandwidth: 16.353 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.85 MHz Measured 99% Bandwidth: 16.754 MHz

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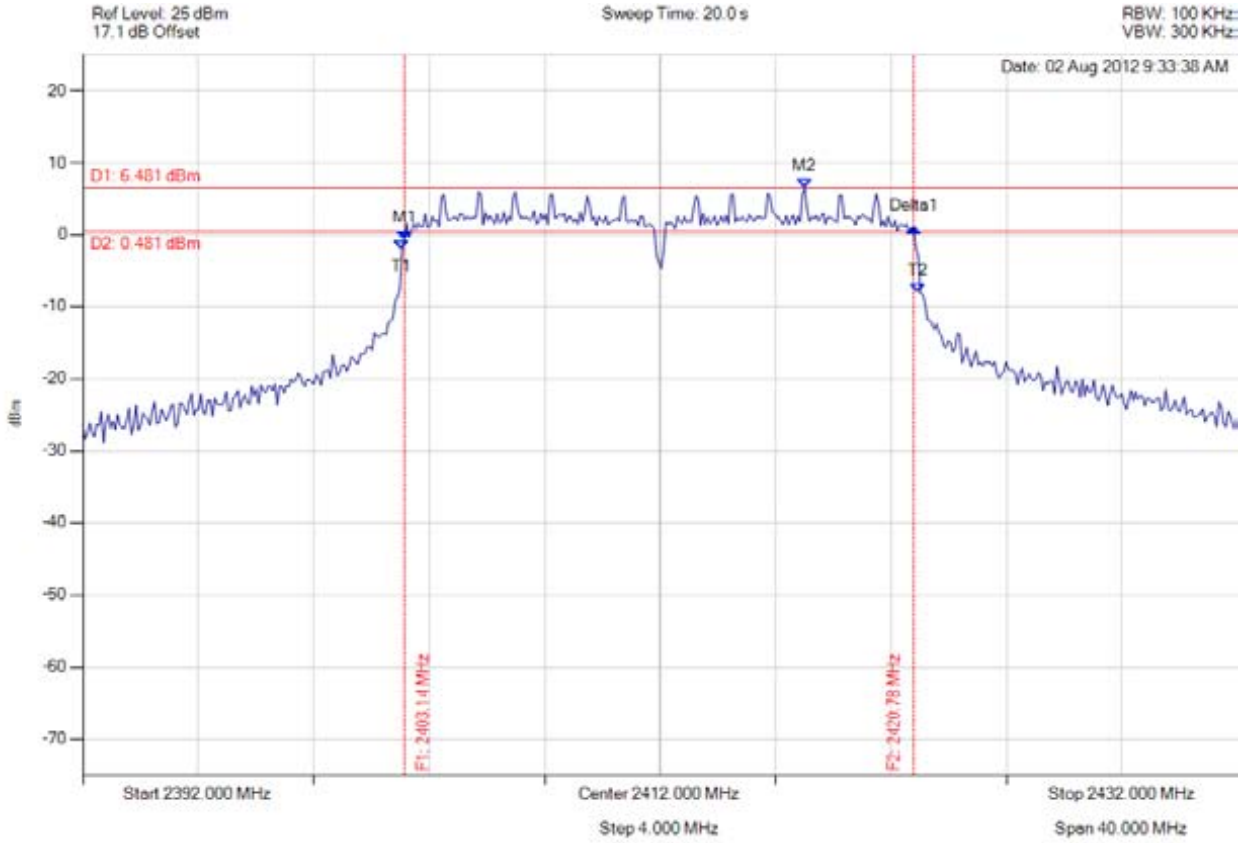
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 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 : -0.727 dBm M2 : 2417.010 MHz : 6.481 dBm Delta1 : 17.635 MHz : 1.747 dBm T1 : 2403.062 MHz : -1.990 dBm T2 : 2420.938 MHz : -8.012 dBm OBW : 17.956 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.956 MHz

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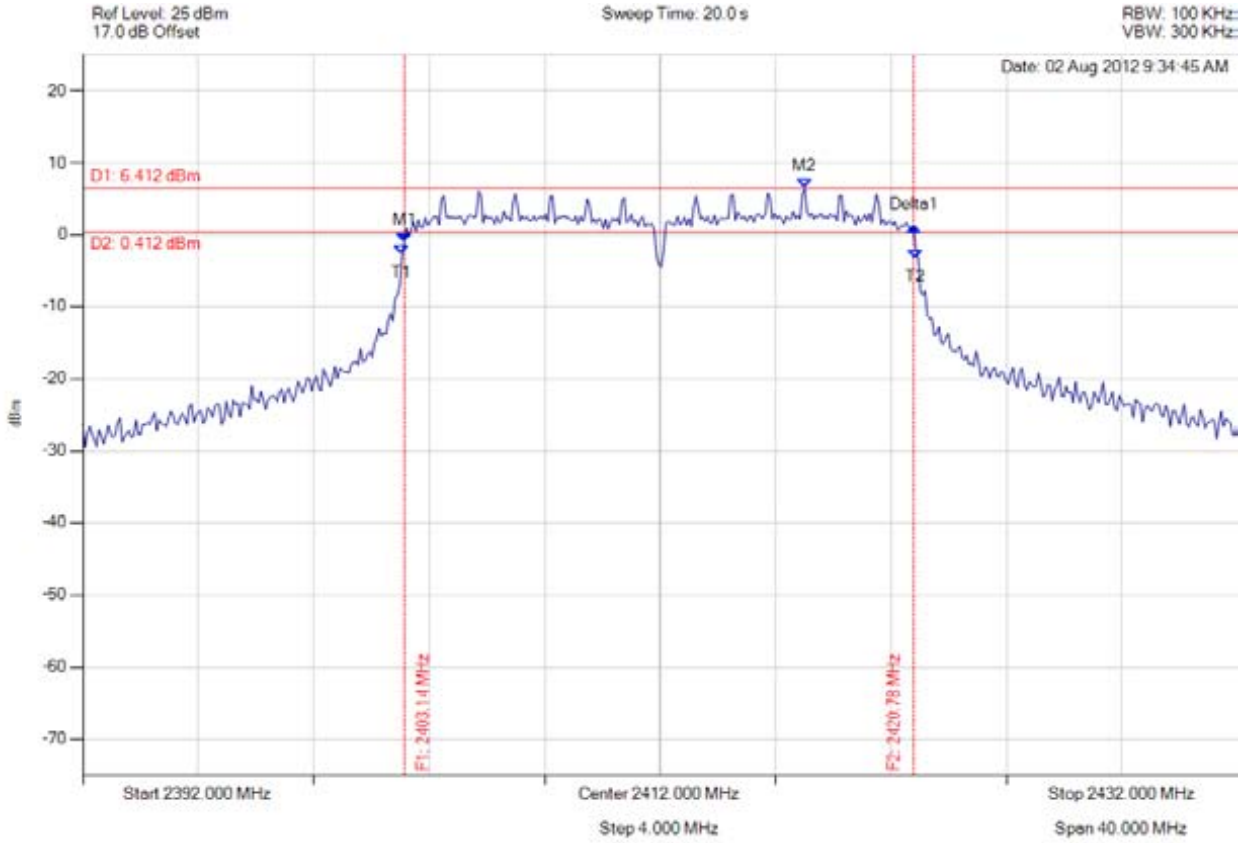
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 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 : -1.006 dBm M2 : 2417.010 MHz : 6.412 dBm Delta1 : 17.635 MHz : 2.125 dBm T1 : 2403.062 MHz : -2.696 dBm T2 : 2420.858 MHz : -3.287 dBm OBW : 17.876 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.876 MHz

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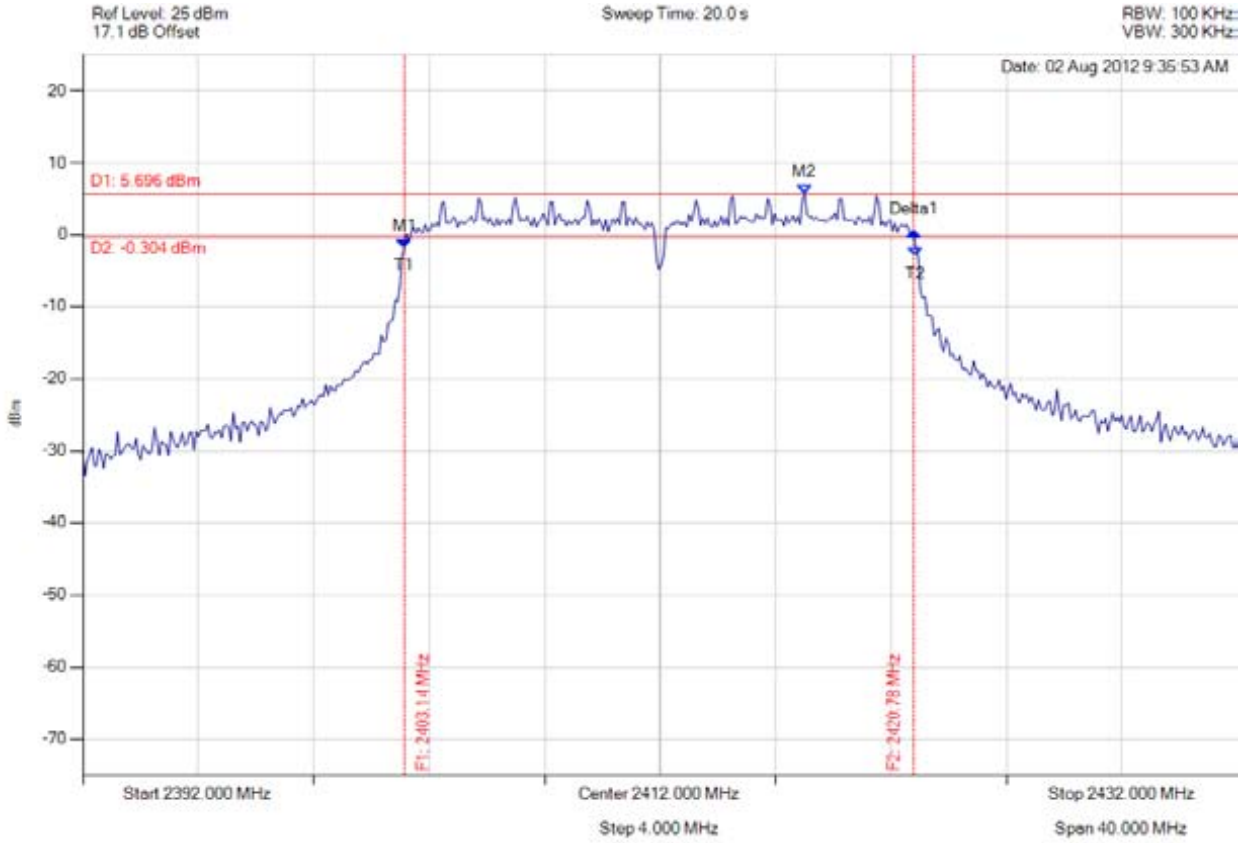
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 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 : -1.837 dBm M2 : 2417.010 MHz : 5.696 dBm Delta1 : 17.635 MHz : 2.359 dBm T1 : 2403.142 MHz : -1.837 dBm T2 : 2420.858 MHz : -2.954 dBm OBW : 17.796 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.796 MHz

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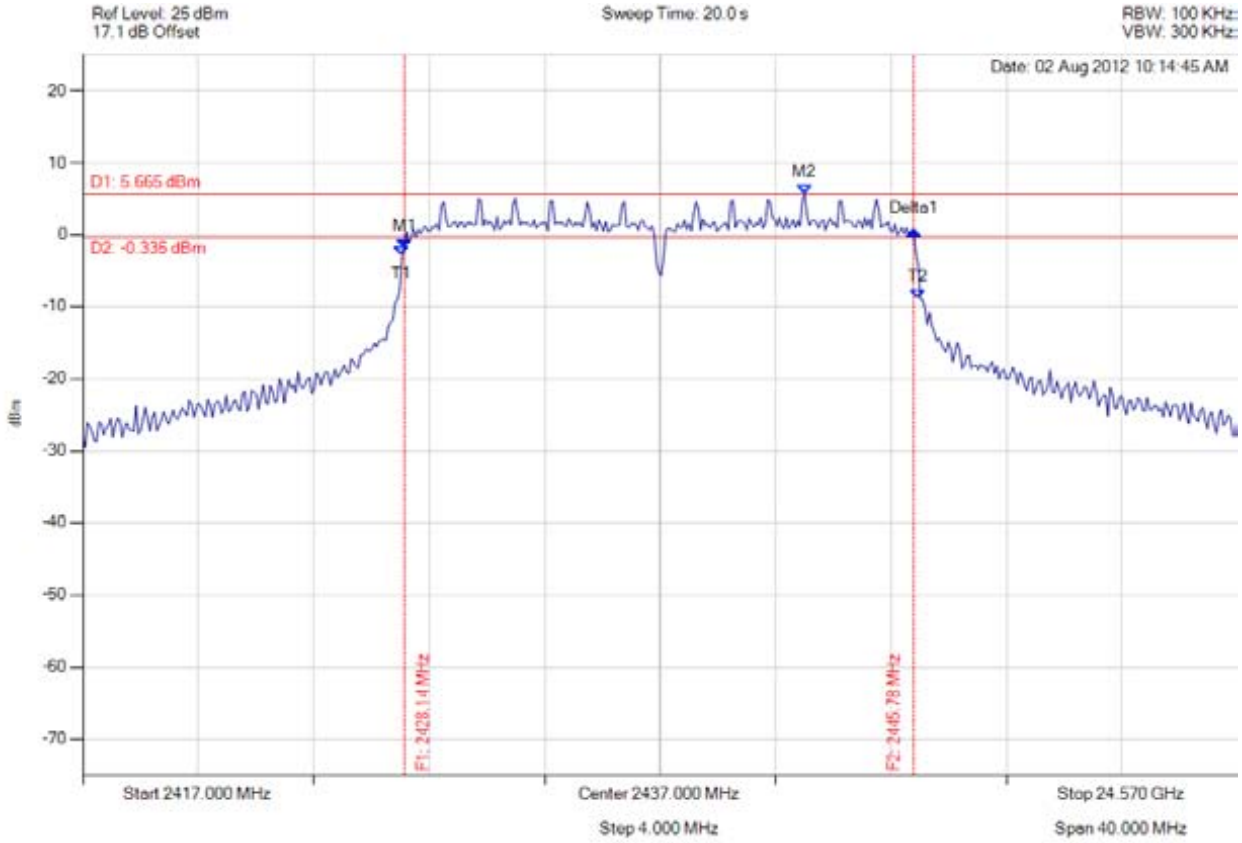
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 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 : -1.850 dBm M2 : 2442.010 MHz : 5.665 dBm Delta1 : 17.635 MHz : 2.467 dBm T1 : 2428.062 MHz : -2.877 dBm T2 : 2445.938 MHz : -8.909 dBm OBW : 17.956 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.956 MHz

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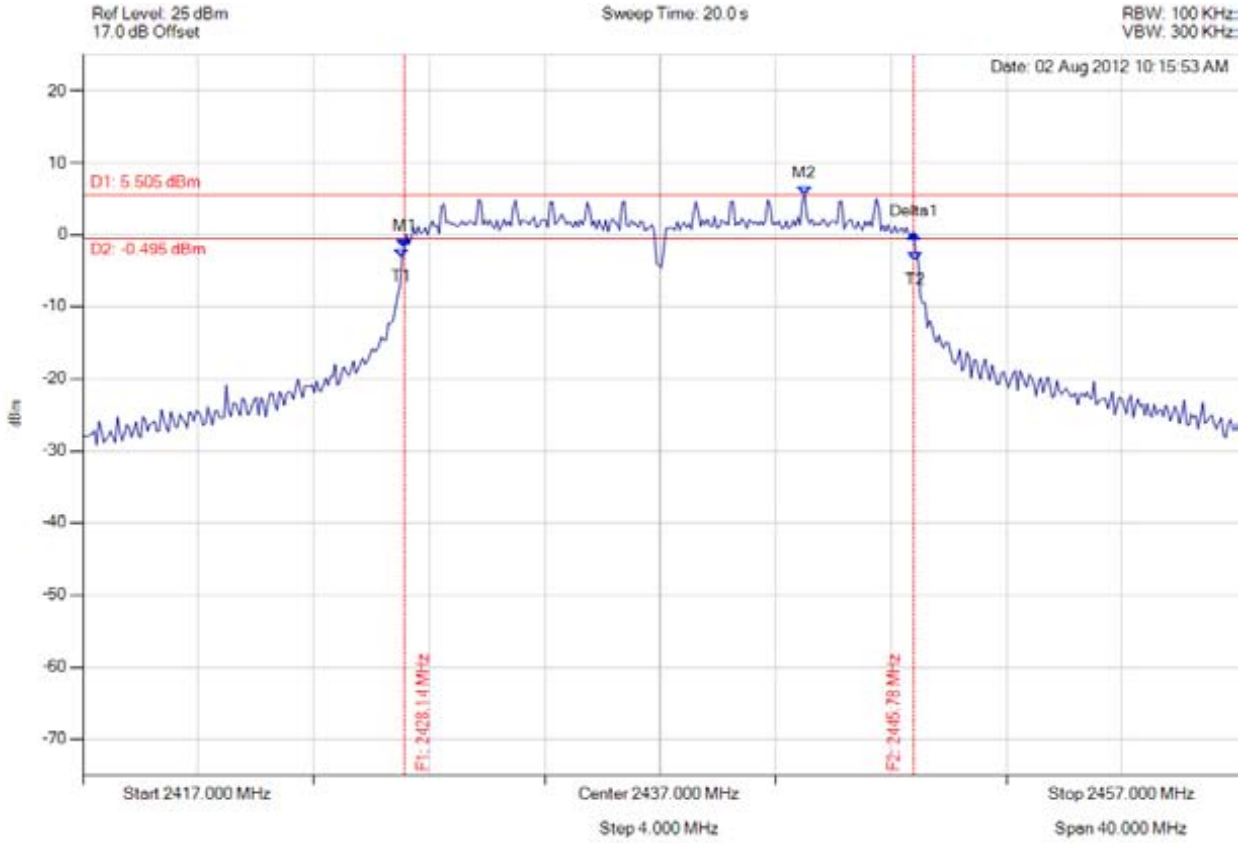
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 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 : -1.827 dBm M2 : 2442.010 MHz : 5.505 dBm Delta1 : 17.635 MHz : 1.995 dBm T1 : 2428.062 MHz : -3.230 dBm T2 : 2445.858 MHz : -3.737 dBm OBW : 17.876 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.876 MHz

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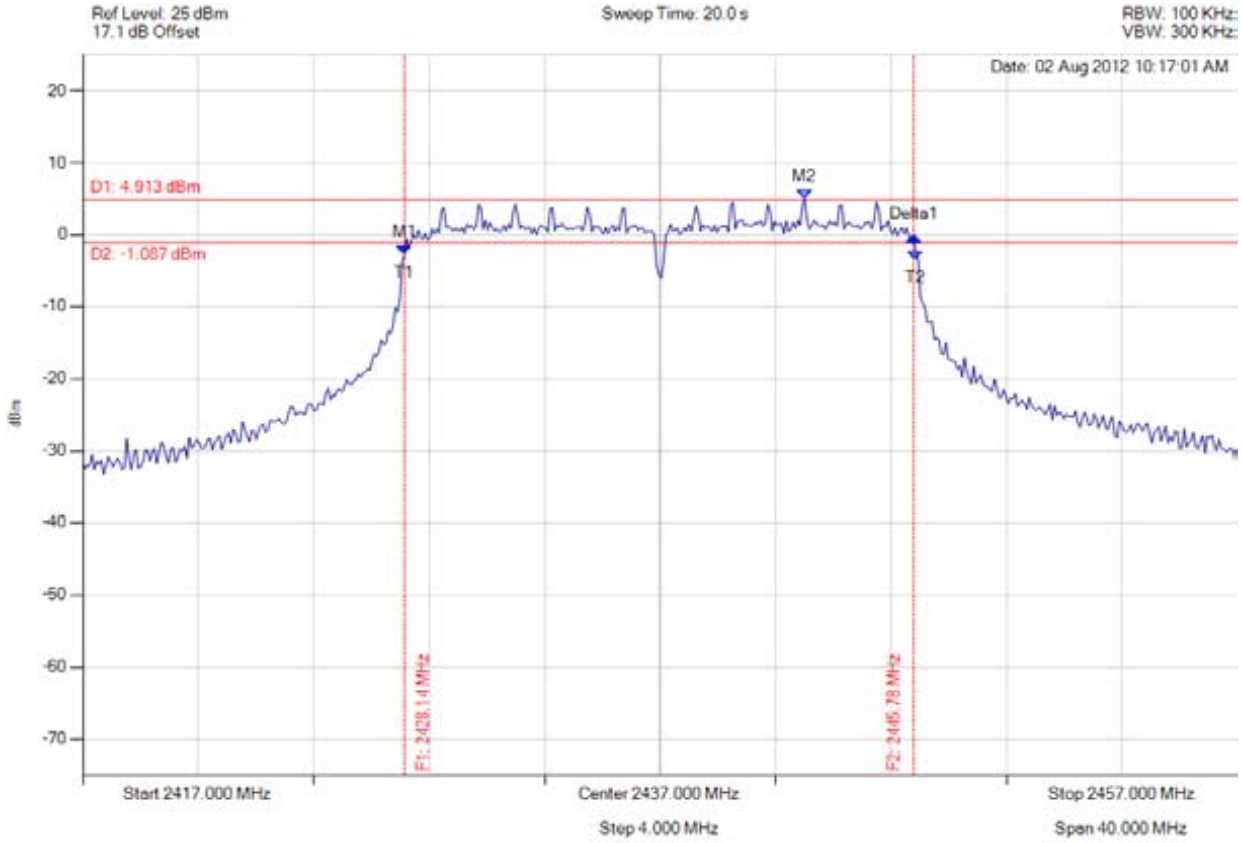
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 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 : -2.722 dBm M2 : 2442.010 MHz : 4.913 dBm Delta1 : 17.635 MHz : 2.569 dBm T1 : 2428.142 MHz : -2.722 dBm T2 : 2445.858 MHz : -3.487 dBm OBW : 17.796 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.796 MHz

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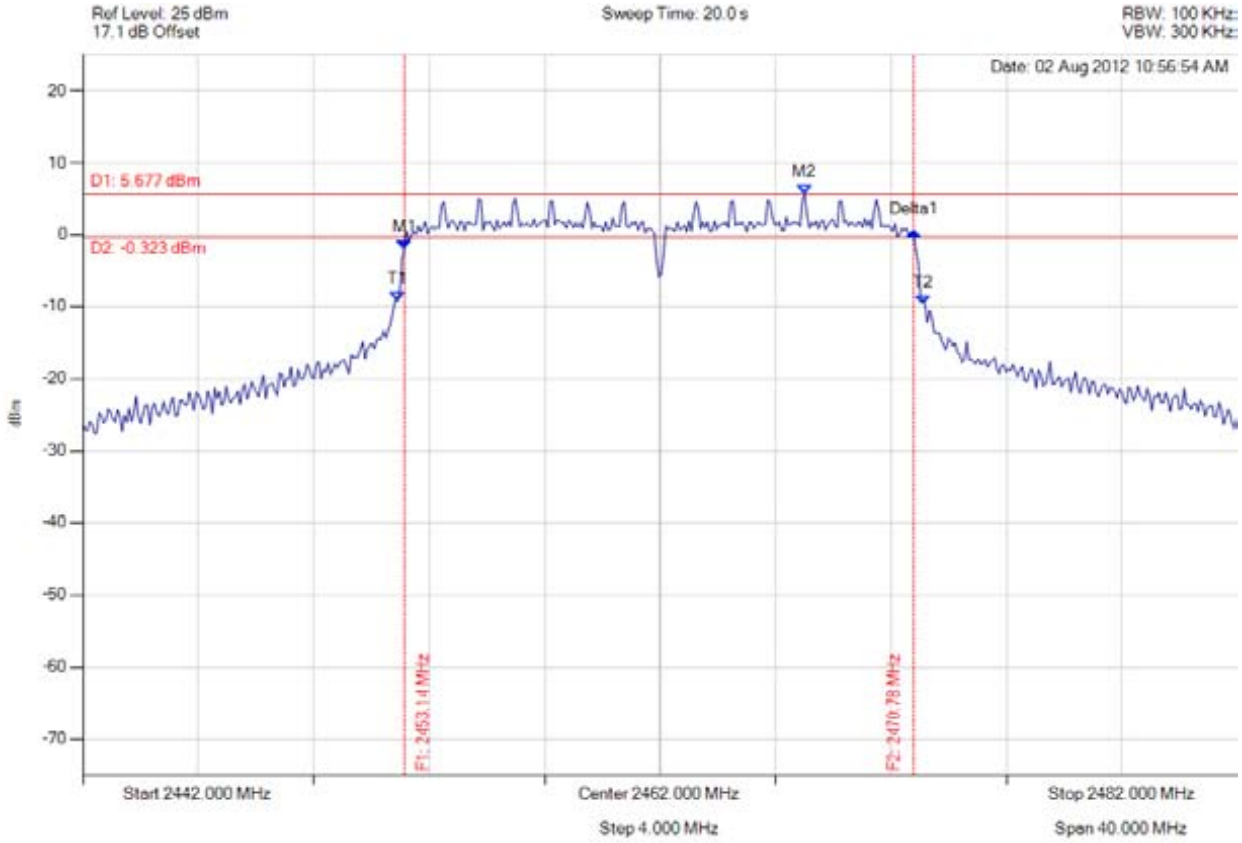
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 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 : -2.008 dBm M2 : 2467.010 MHz : 5.677 dBm Delta1 : 17.635 MHz : 2.447 dBm T1 : 2452.902 MHz : -9.279 dBm T2 : 2471.098 MHz : -9.767 dBm OBW : 18.277 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 18.277 MHz

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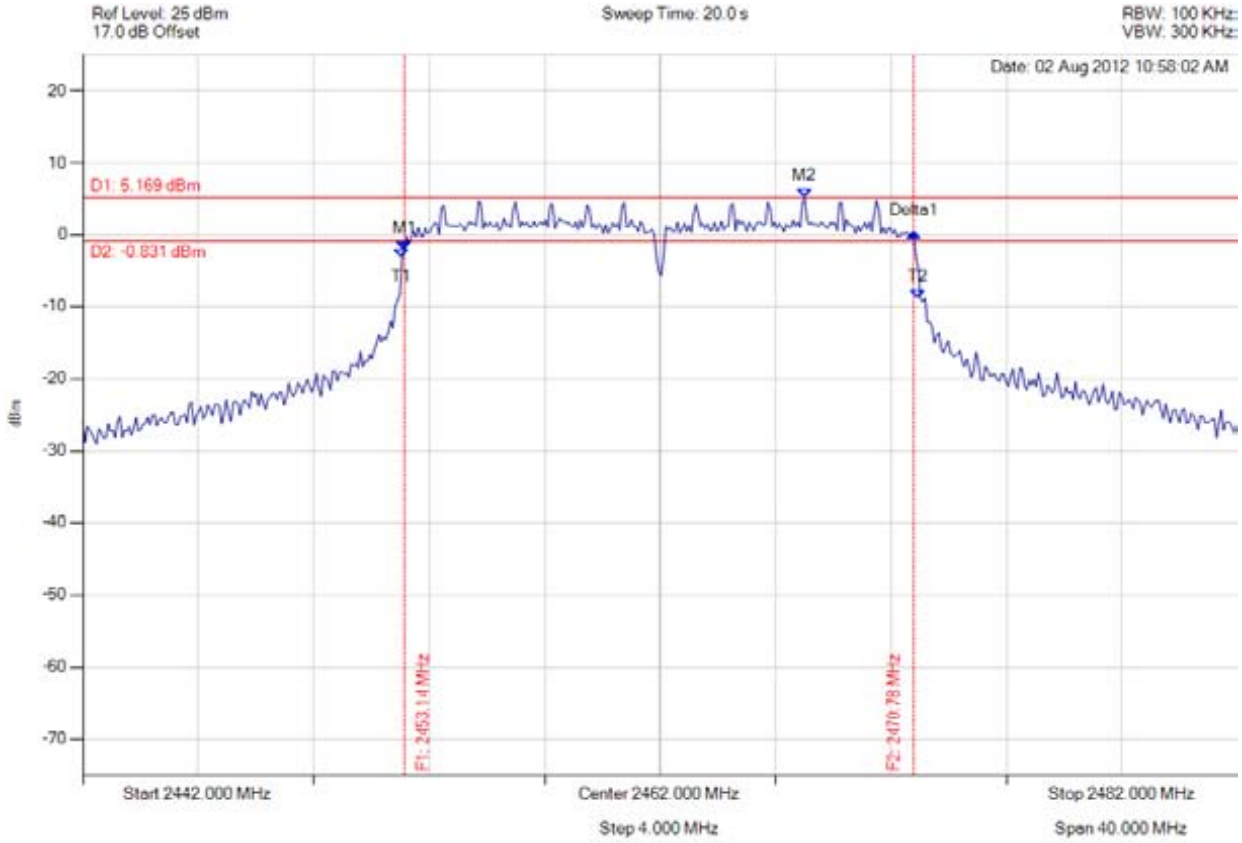
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 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 : -2.155 dBm M2 : 2467.010 MHz : 5.169 dBm Delta1 : 17.635 MHz : 2.424 dBm T1 : 2453.062 MHz : -3.216 dBm T2 : 2470.938 MHz : -8.945 dBm OBW : 17.956 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.956 MHz

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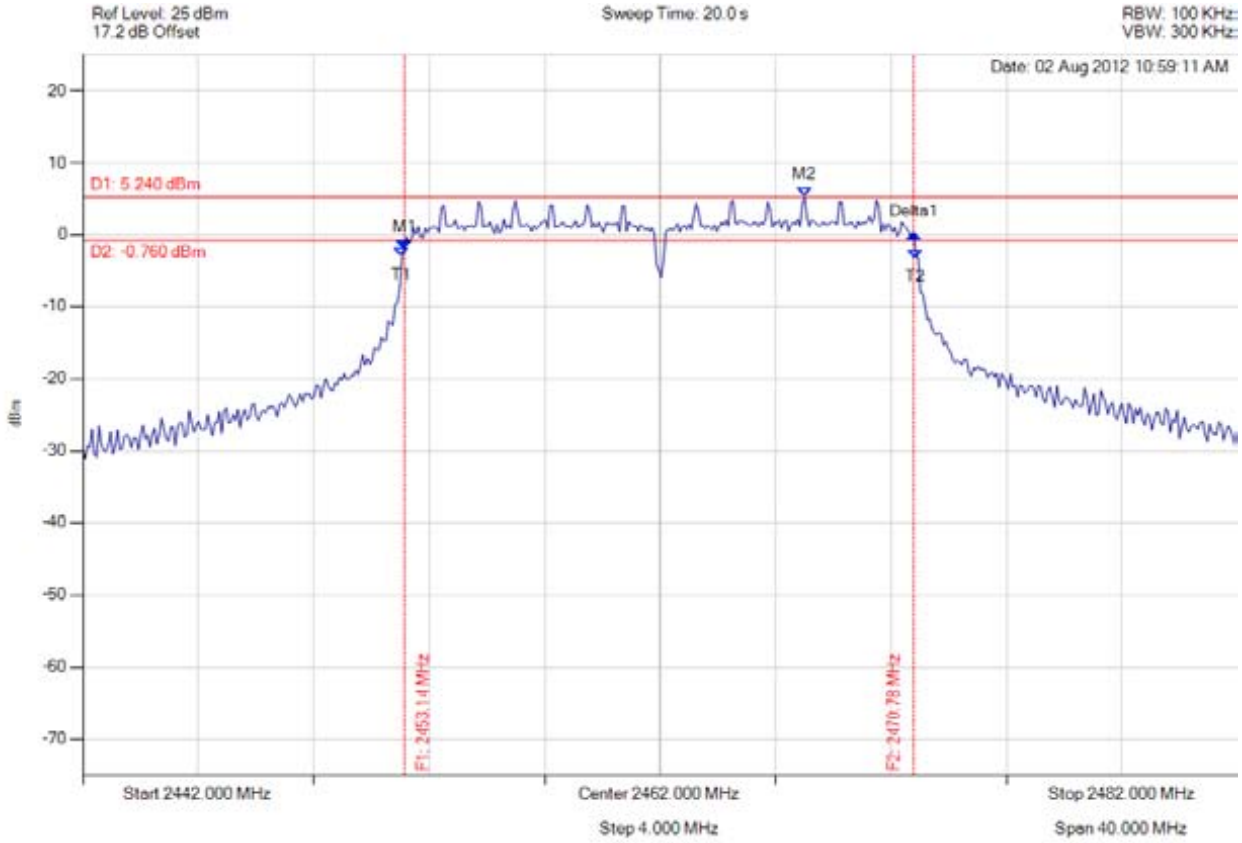
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 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 : -2.004 dBm M2 : 2467.010 MHz : 5.240 dBm Delta1 : 17.635 MHz : 2.148 dBm T1 : 2453.062 MHz : -3.011 dBm T2 : 2470.858 MHz : -3.314 dBm OBW : 17.876 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.876 MHz

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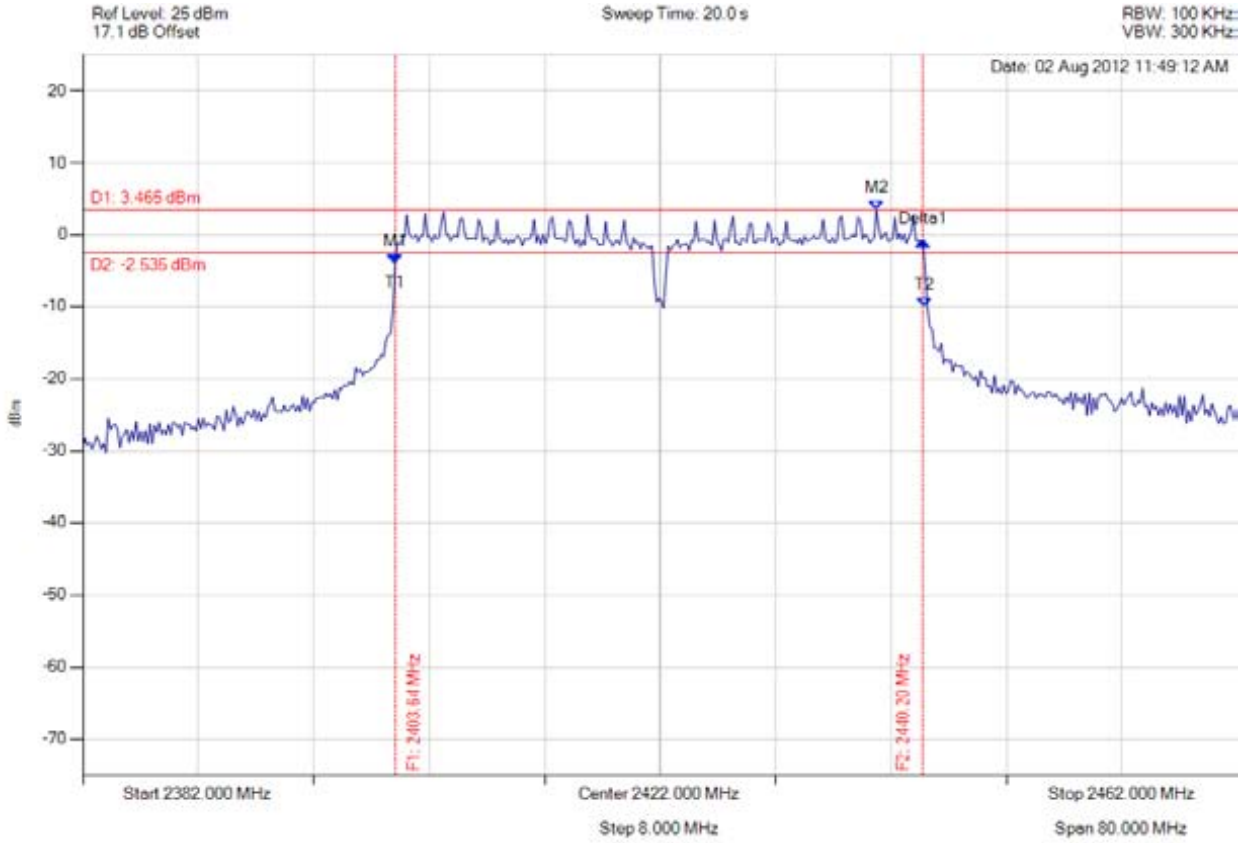
6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

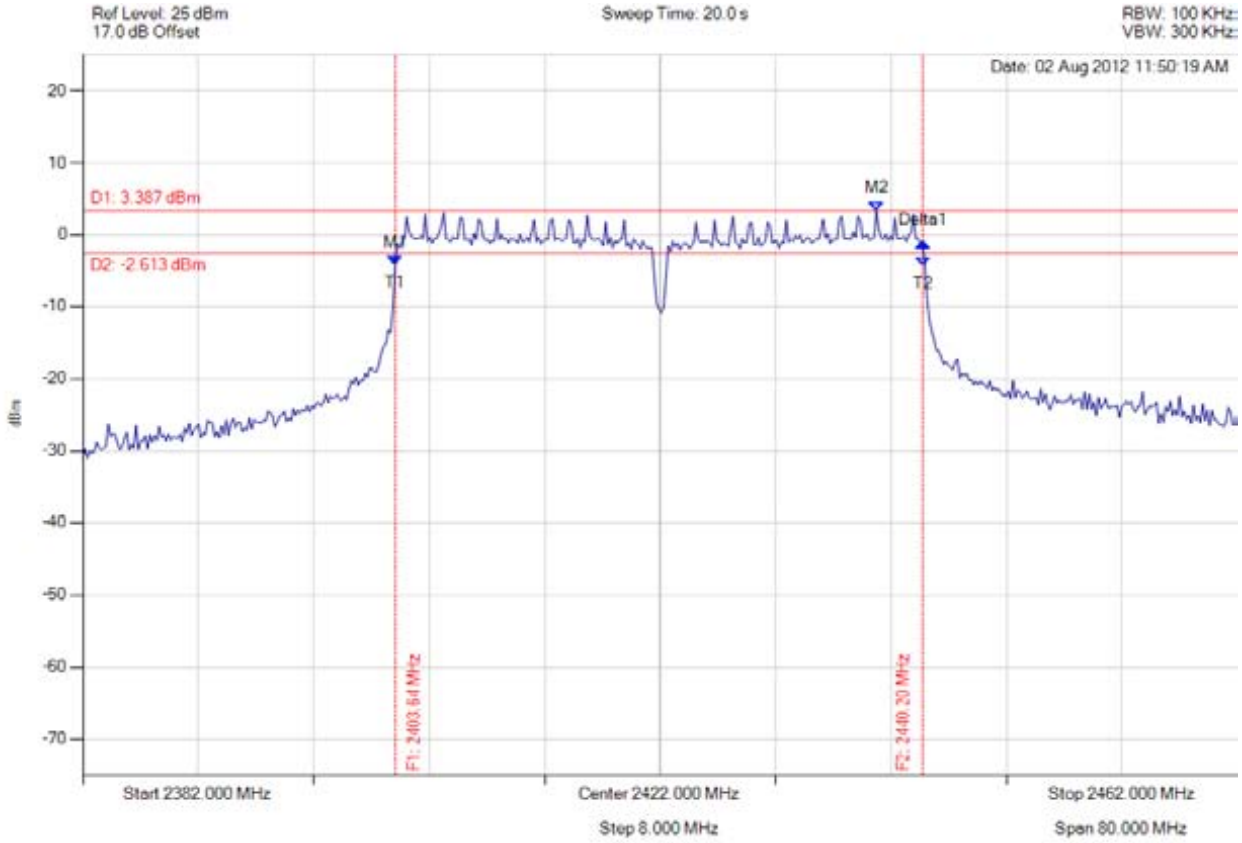


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.643 MHz : -4.078 dBm M2 : 2436.990 MHz : 3.465 dBm Delta1 : 36.553 MHz : 3.226 dBm T1 : 2403.643 MHz : -4.078 dBm T2 : 2440.357 MHz : -9.982 dBm OBW : 36.874 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.874 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

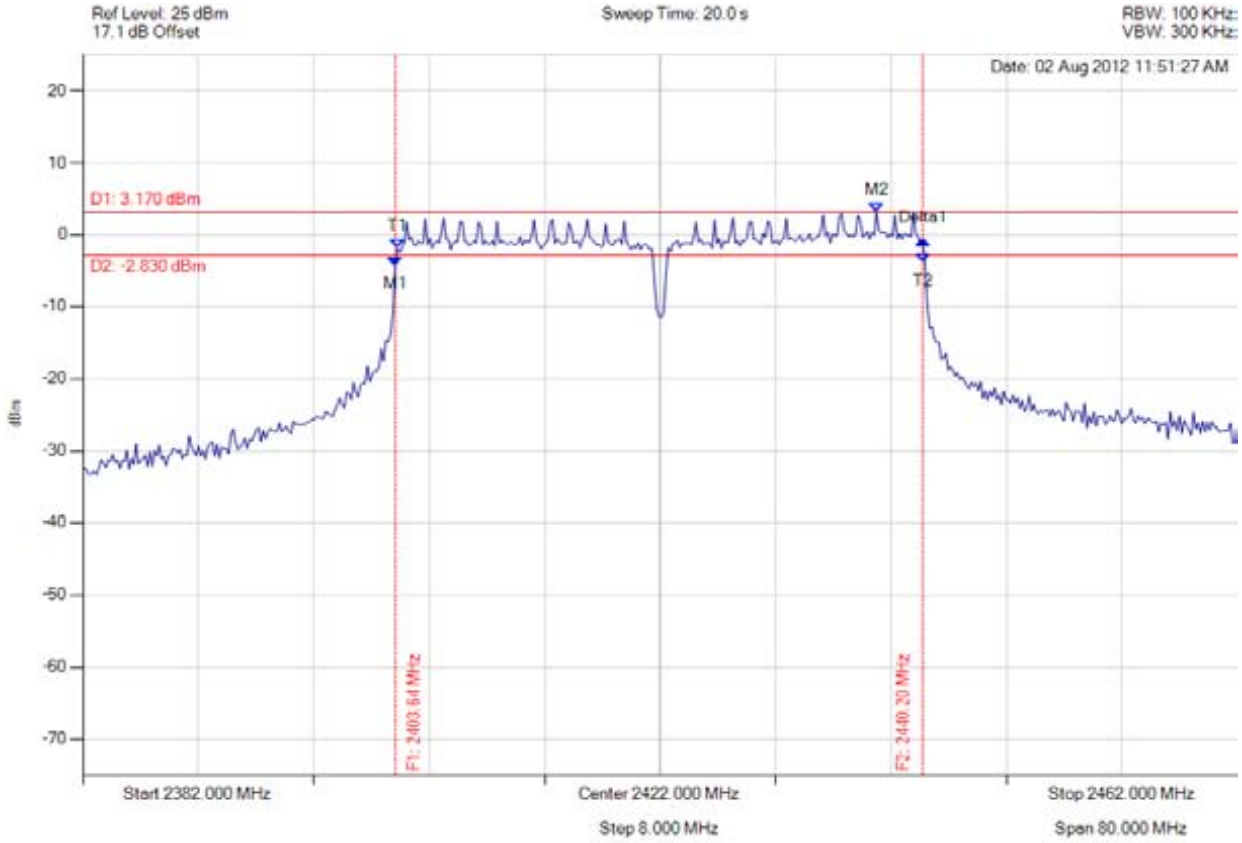


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.643 MHz : -4.168 dBm M2 : 2436.990 MHz : 3.387 dBm Delta1 : 36.553 MHz : 3.165 dBm T1 : 2403.643 MHz : -4.168 dBm T2 : 2440.196 MHz : -4.306 dBm OBW : 36.713 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.713 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

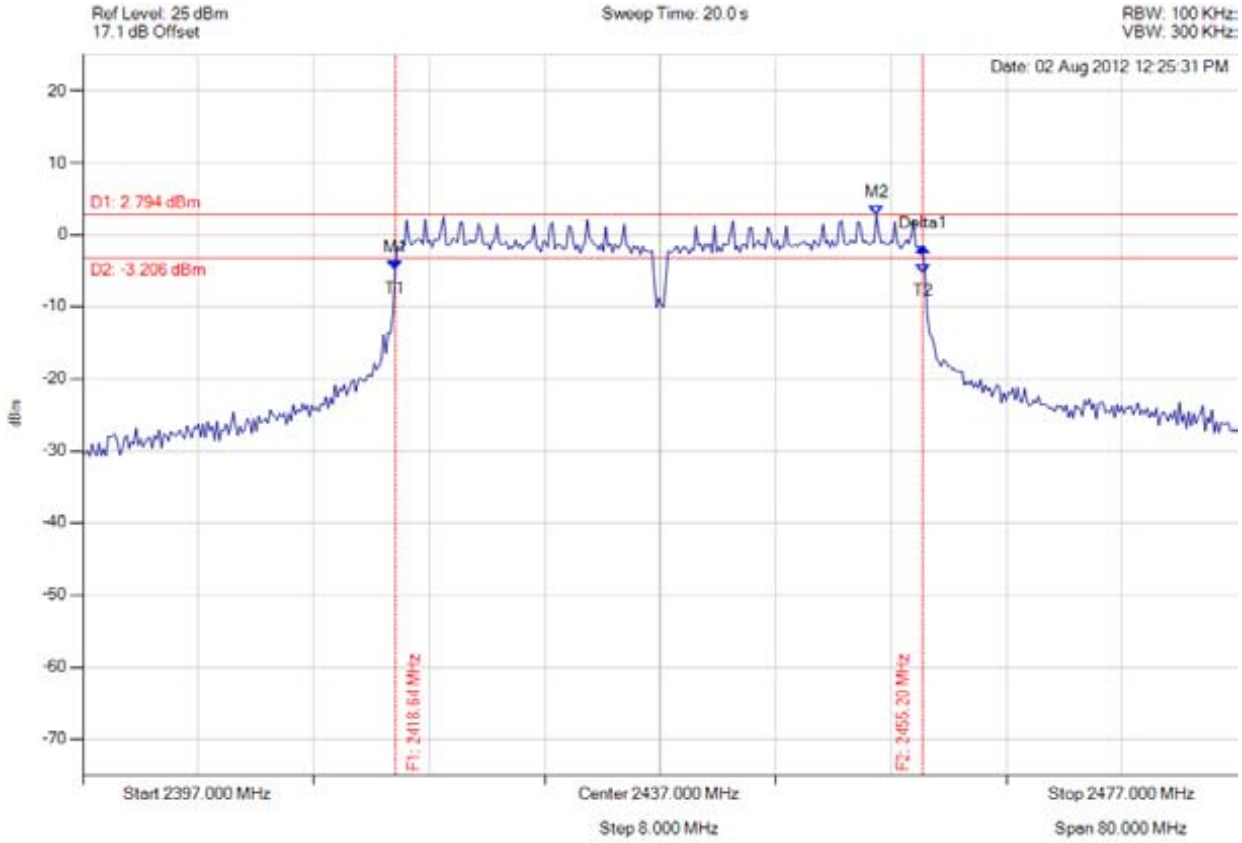


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.643 MHz : -4.327 dBm M2 : 2436.990 MHz : 3.170 dBm Delta1 : 36.553 MHz : 3.583 dBm T1 : 2403.804 MHz : -1.843 dBm T2 : 2440.196 MHz : -3.946 dBm OBW : 36.553 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.553 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 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 : -4.876 dBm M2 : 2451.990 MHz : 2.794 dBm Delta1 : 36.553 MHz : 3.258 dBm T1 : 2418.643 MHz : -4.876 dBm T2 : 2455.196 MHz : -5.315 dBm OBW : 36.713 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.713 MHz

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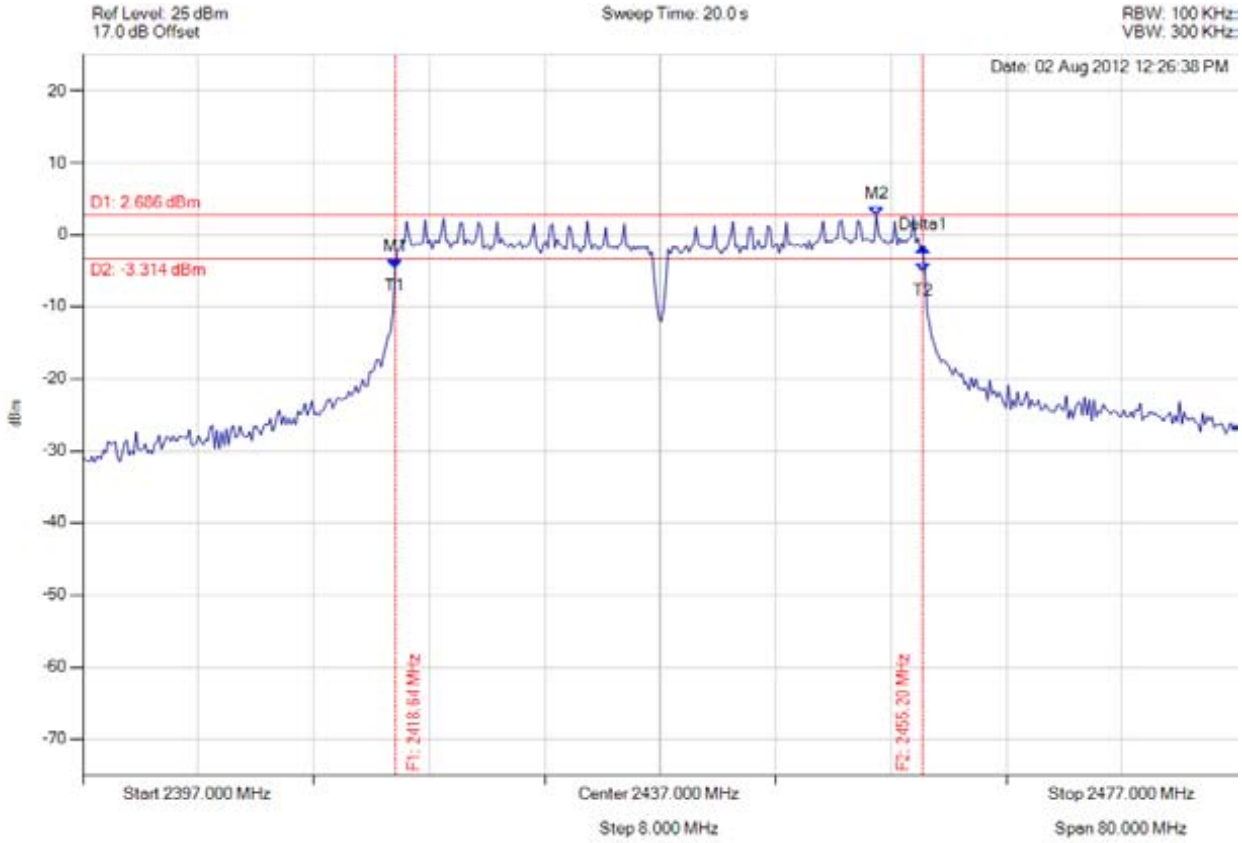
6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 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 : -4.634 dBm M2 : 2451.990 MHz : 2.686 dBm Delta1 : 36.553 MHz : 3.000 dBm T1 : 2418.643 MHz : -4.634 dBm T2 : 2455.196 MHz : -5.209 dBm OBW : 36.713 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.713 MHz

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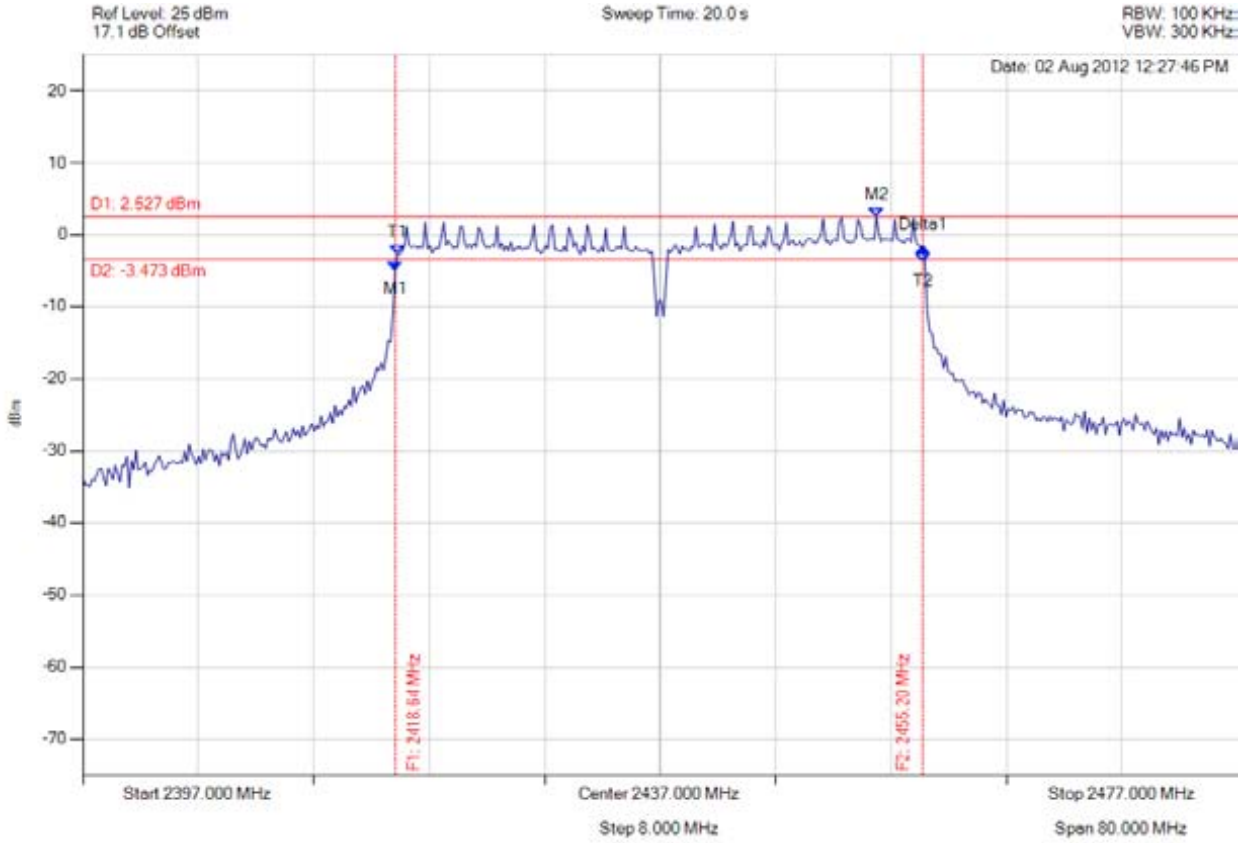
6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 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 : -4.957 dBm M2 : 2451.990 MHz : 2.527 dBm Delta1 : 36.553 MHz : 3.207 dBm T1 : 2418.804 MHz : -2.657 dBm T2 : 2455.196 MHz : -3.904 dBm OBW : 36.553 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.553 MHz

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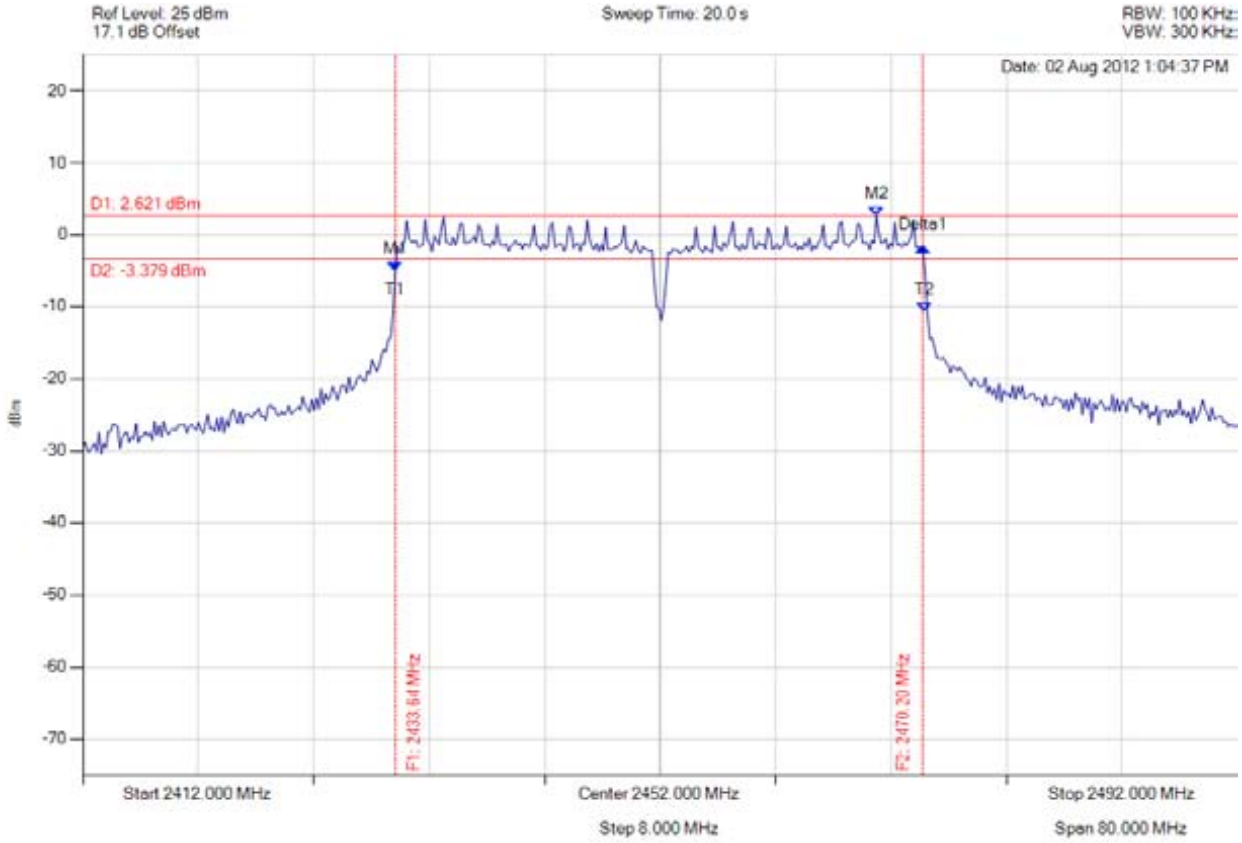
6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 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 : -5.081 dBm M2 : 2466.990 MHz : 2.621 dBm Delta1 : 36.553 MHz : 3.343 dBm T1 : 2433.643 MHz : -5.081 dBm T2 : 2470.357 MHz : -10.765 dBm OBW : 36.874 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.874 MHz

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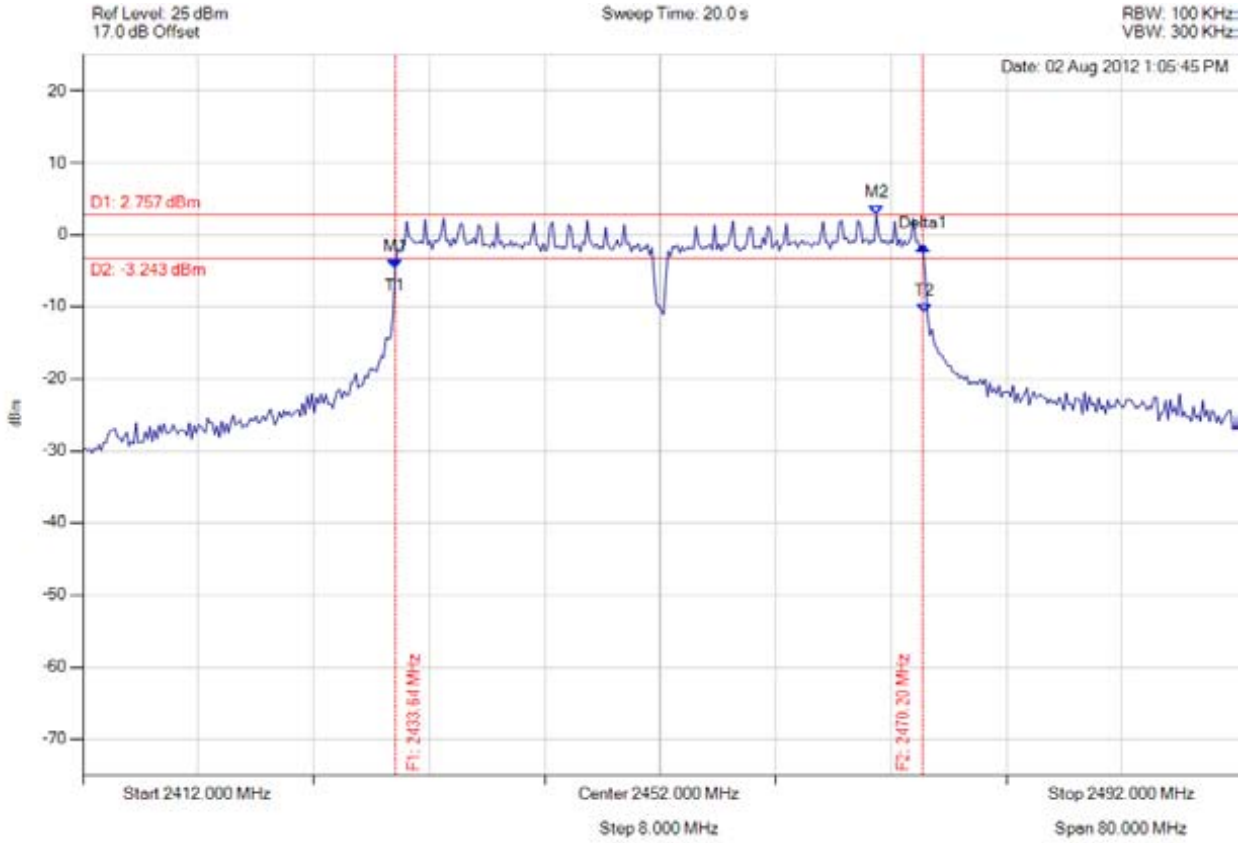
6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 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 : -4.670 dBm M2 : 2466.990 MHz : 2.757 dBm Delta1 : 36.553 MHz : 3.118 dBm T1 : 2433.643 MHz : -4.670 dBm T2 : 2470.357 MHz : -10.812 dBm OBW : 36.874 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.874 MHz

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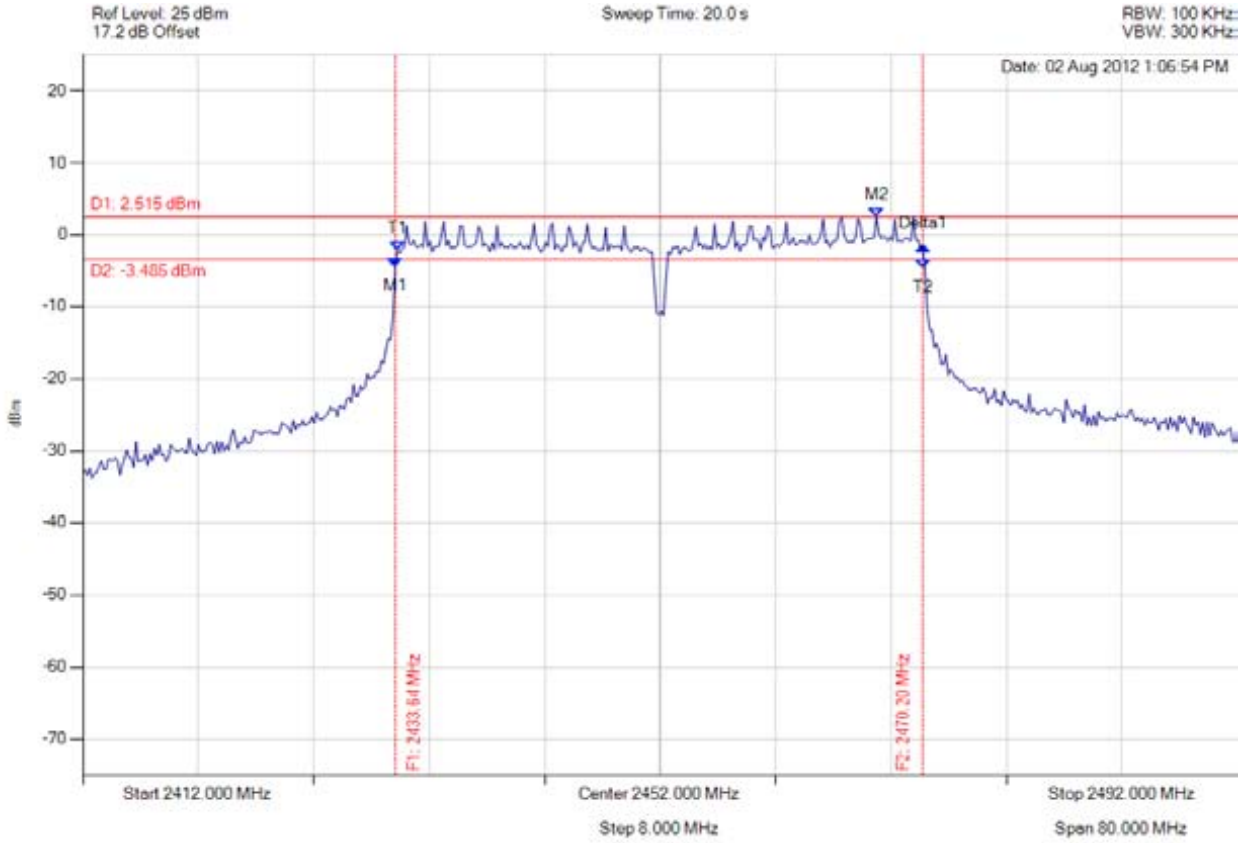
6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 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 : -4.552 dBm M2 : 2466.990 MHz : 2.515 dBm Delta1 : 36.553 MHz : 2.969 dBm T1 : 2433.804 MHz : -2.177 dBm T2 : 2470.196 MHz : -4.772 dBm OBW : 36.553 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.553 MHz

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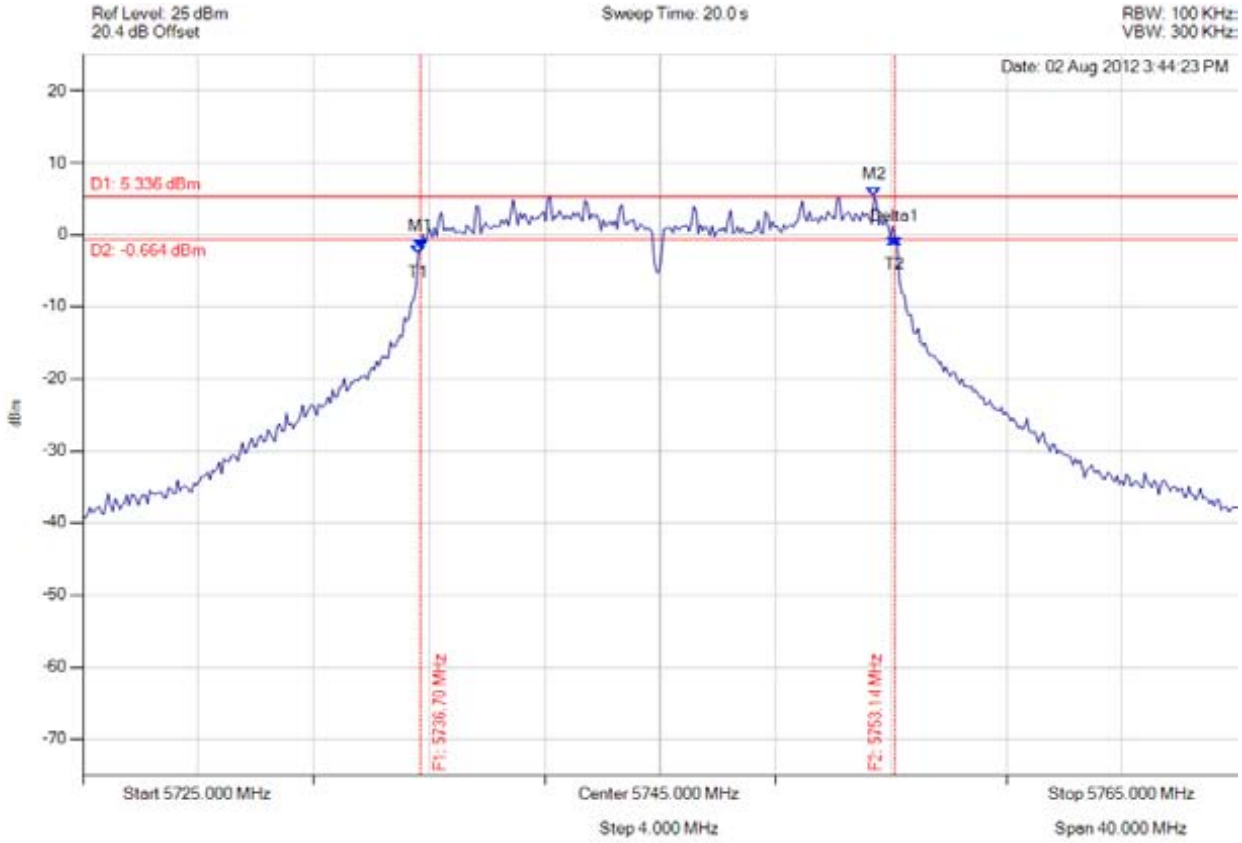
6 dB and 99% Bandwidth

Variant: 802.11a, Channel: 5745.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.703 MHz : -1.829 dBm M2 : 5752.415 MHz : 5.336 dBm Delta1 : 16.433 MHz : 1.287 dBm T1 : 5736.623 MHz : -2.765 dBm T2 : 5753.136 MHz : -1.577 dBm OBW : 16.593 MHz	Measured 6 dB Bandwidth: 16.433 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.93 MHz Measured 99% Bandwidth: 16.593 MHz

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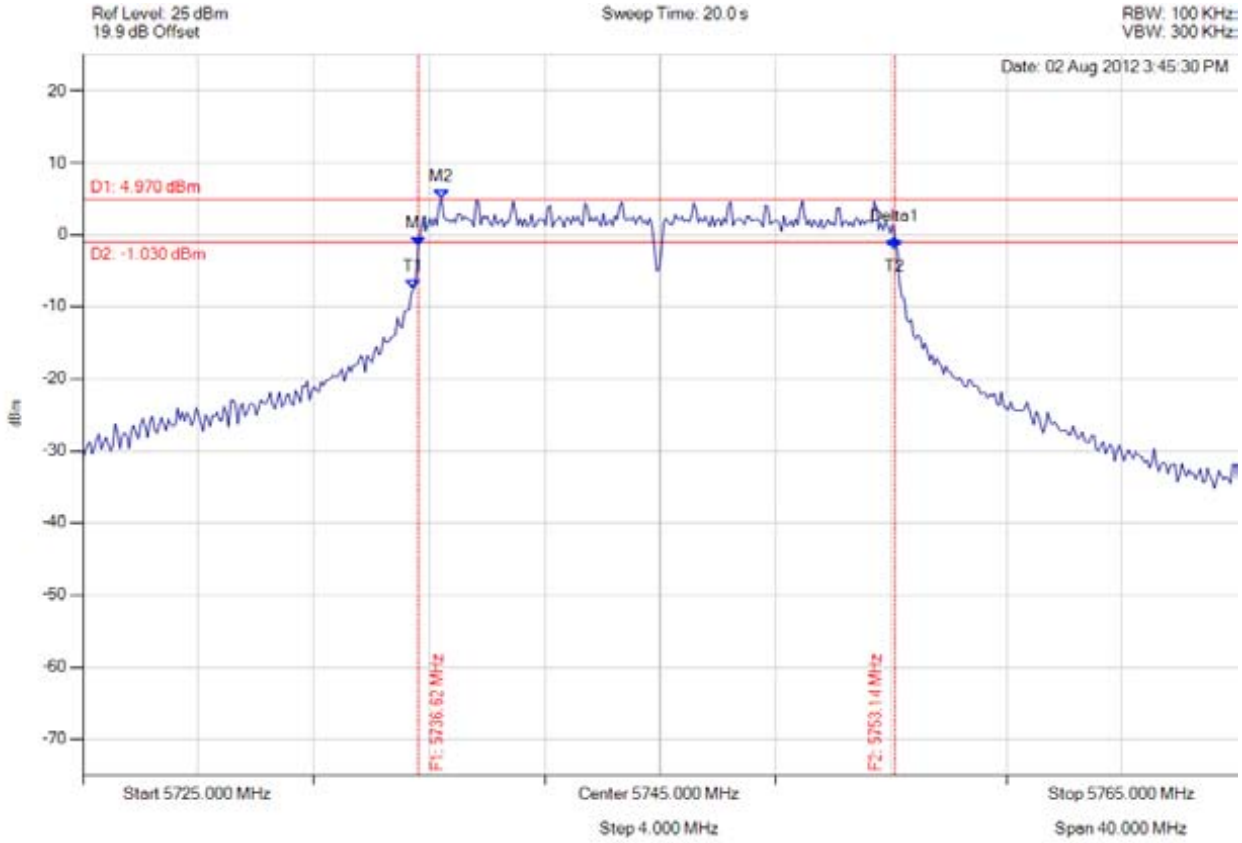
6 dB and 99% Bandwidth

Variant: 802.11a, Channel: 5745.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.623 MHz : -1.601 dBm M2 : 5737.425 MHz : 4.970 dBm Delta1 : 16.513 MHz : 1.013 dBm T1 : 5736.463 MHz : -7.558 dBm T2 : 5753.136 MHz : -2.004 dBm OBW : 16.754 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -16.01 MHz Measured 99% Bandwidth: 16.754 MHz

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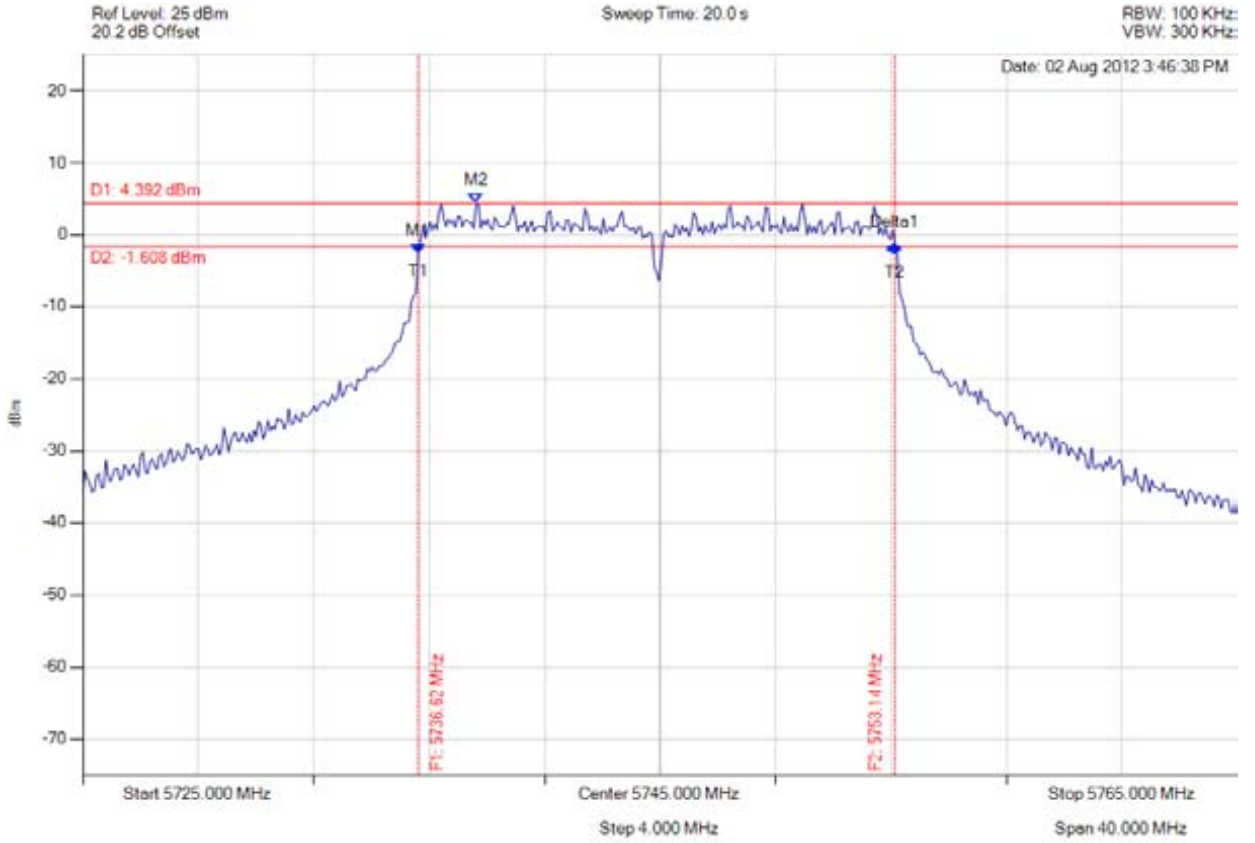
6 dB and 99% Bandwidth

Variant: 802.11a, Channel: 5745.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.623 MHz : -2.588 dBm M2 : 5738.627 MHz : 4.392 dBm Delta1 : 16.513 MHz : 1.234 dBm T1 : 5736.623 MHz : -2.588 dBm T2 : 5753.136 MHz : -2.785 dBm OBW : 16.593 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -16.01 MHz Measured 99% Bandwidth: 16.593 MHz

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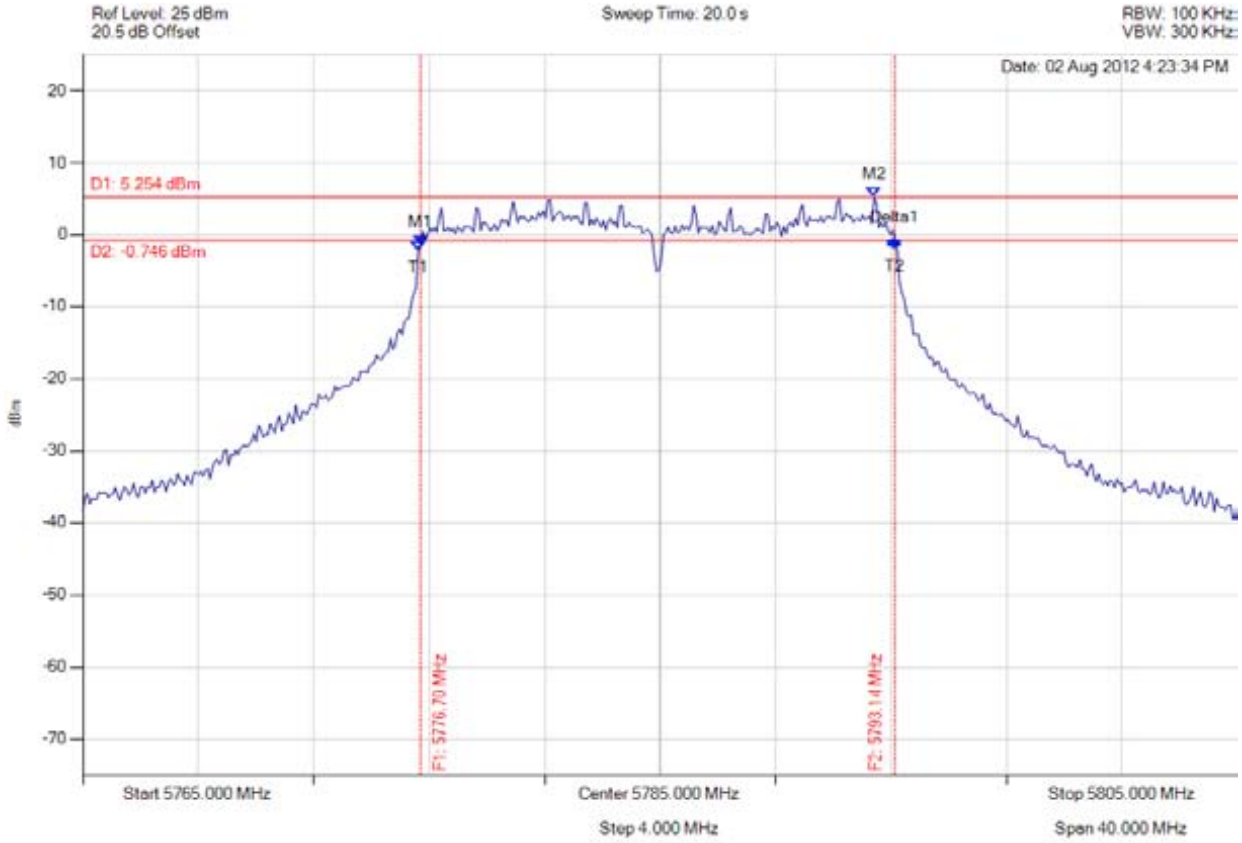
6 dB and 99% Bandwidth

Variant: 802.11a, Channel: 5785.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.703 MHz : -1.347 dBm M2 : 5792.415 MHz : 5.254 dBm Delta1 : 16.433 MHz : 0.604 dBm T1 : 5776.623 MHz : -2.138 dBm T2 : 5793.136 MHz : -1.974 dBm OBW : 16.593 MHz	Measured 6 dB Bandwidth: 16.433 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.93 MHz Measured 99% Bandwidth: 16.593 MHz

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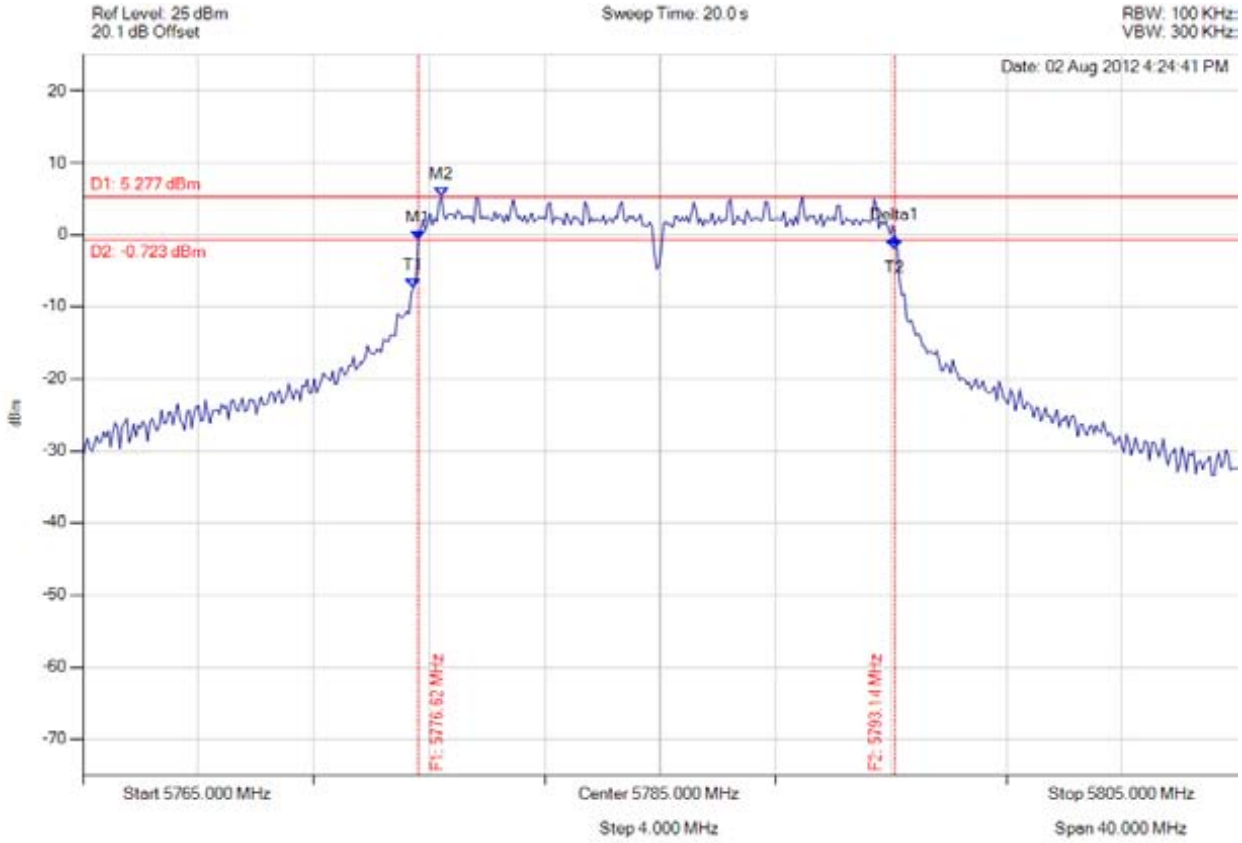
6 dB and 99% Bandwidth

Variant: 802.11a, Channel: 5785.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.623 MHz : -0.768 dBm M2 : 5777.425 MHz : 5.277 dBm Delta1 : 16.513 MHz : 0.421 dBm T1 : 5776.463 MHz : -7.361 dBm T2 : 5793.136 MHz : -2.024 dBm OBW : 16.754 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -16.01 MHz Measured 99% Bandwidth: 16.754 MHz

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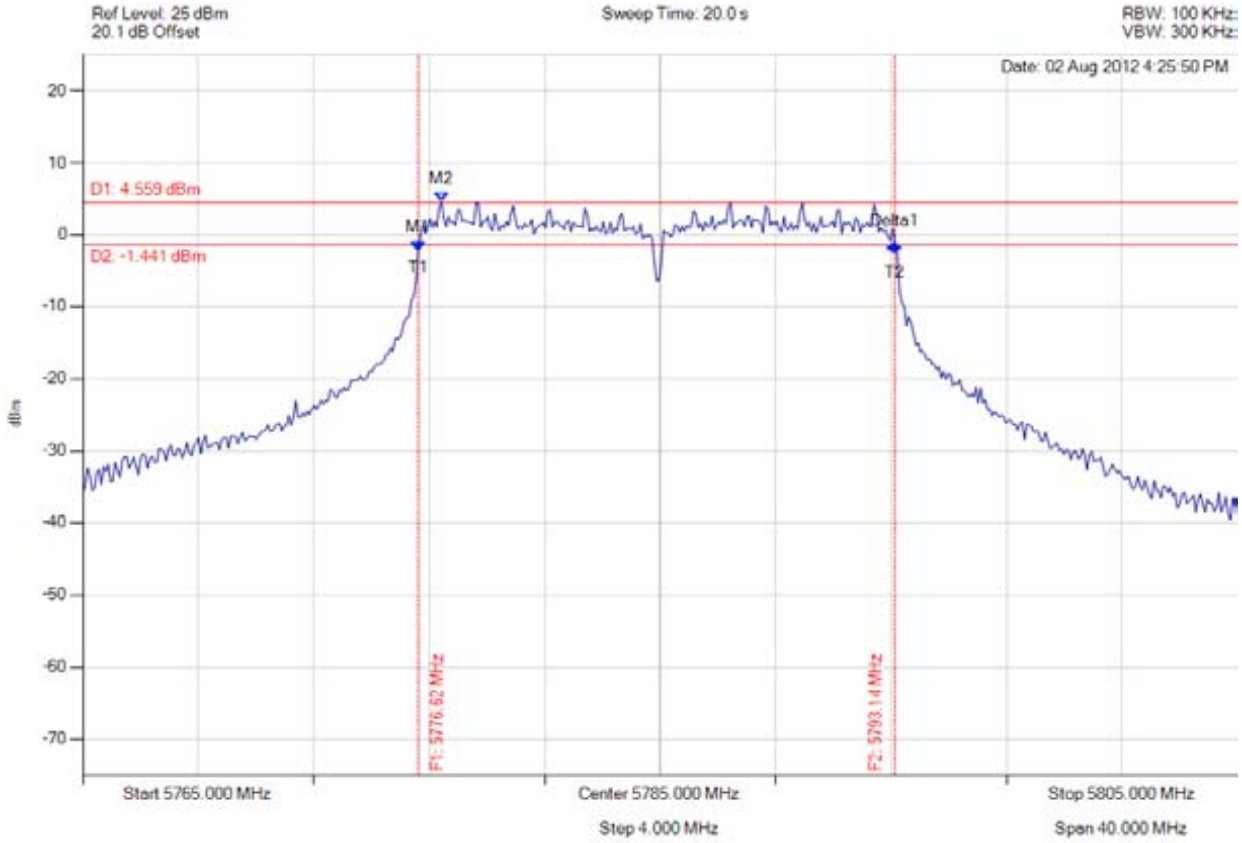
6 dB and 99% Bandwidth

Variant: 802.11a, Channel: 5785.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.623 MHz : -2.124 dBm M2 : 5777.425 MHz : 4.559 dBm Delta1 : 16.513 MHz : 0.960 dBm T1 : 5776.623 MHz : -2.124 dBm T2 : 5793.136 MHz : -2.742 dBm OBW : 16.593 MHz	Measured 6 dB Bandwidth: 16.513 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -16.01 MHz Measured 99% Bandwidth: 16.593 MHz

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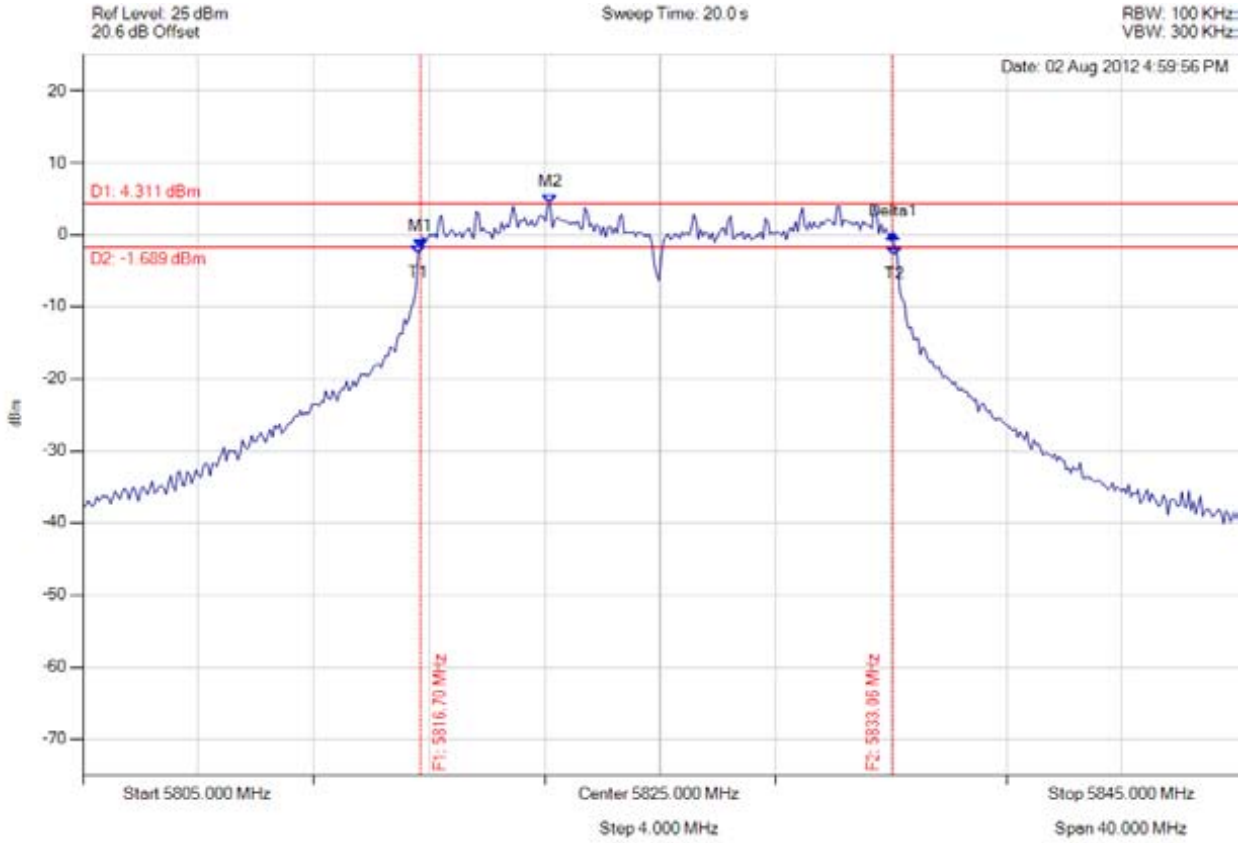
6 dB and 99% Bandwidth

Variant: 802.11a, Channel: 5825.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

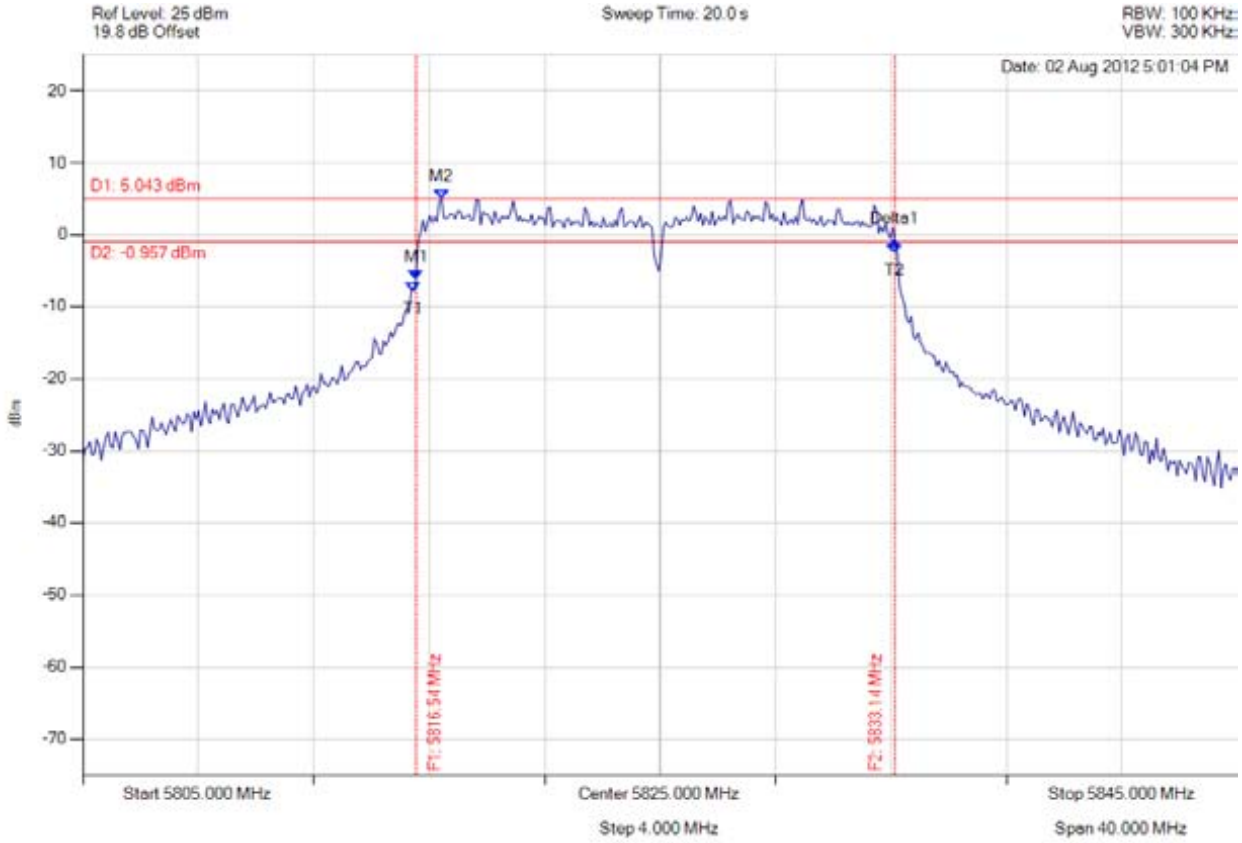


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5816.703 MHz : -1.880 dBm M2 : 5821.192 MHz : 4.311 dBm Delta1 : 16.353 MHz : 2.013 dBm T1 : 5816.623 MHz : -2.687 dBm T2 : 5833.136 MHz : -2.964 dBm OBW : 16.593 MHz	Measured 6 dB Bandwidth: 16.353 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.85 MHz Measured 99% Bandwidth: 16.593 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11a, Channel: 5825.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5816.543 MHz : -6.177 dBm M2 : 5817.425 MHz : 5.043 dBm Delta1 : 16.593 MHz : 5.271 dBm T1 : 5816.463 MHz : -7.796 dBm T2 : 5833.136 MHz : -2.488 dBm OBW : 16.754 MHz	Measured 6 dB Bandwidth: 16.593 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -16.09 MHz Measured 99% Bandwidth: 16.754 MHz

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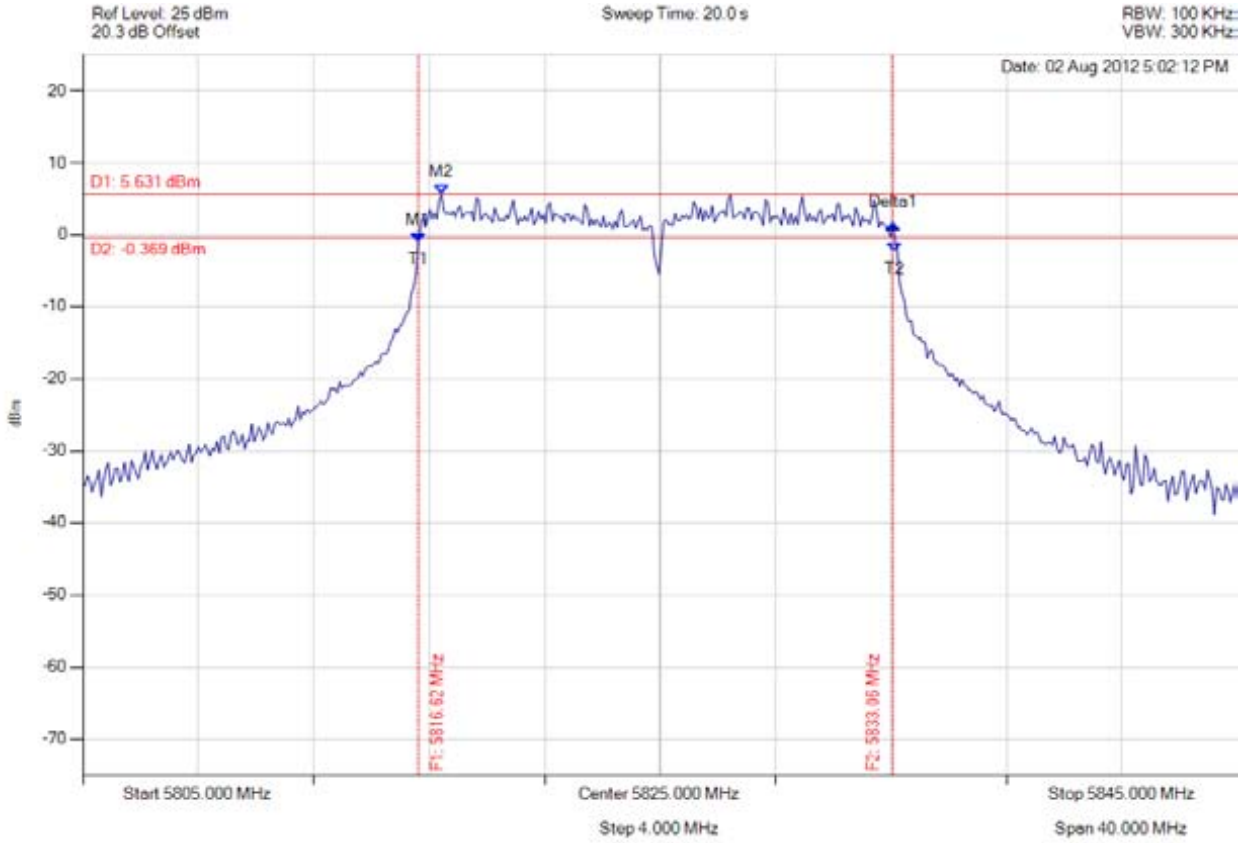
6 dB and 99% Bandwidth

Variant: 802.11a, Channel: 5825.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5816.623 MHz : -0.997 dBm M2 : 5817.425 MHz : 5.631 dBm Delta1 : 16.433 MHz : 2.491 dBm T1 : 5816.623 MHz : -0.997 dBm T2 : 5833.136 MHz : -2.311 dBm OBW : 16.593 MHz	Measured 6 dB Bandwidth: 16.433 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -15.93 MHz Measured 99% Bandwidth: 16.593 MHz

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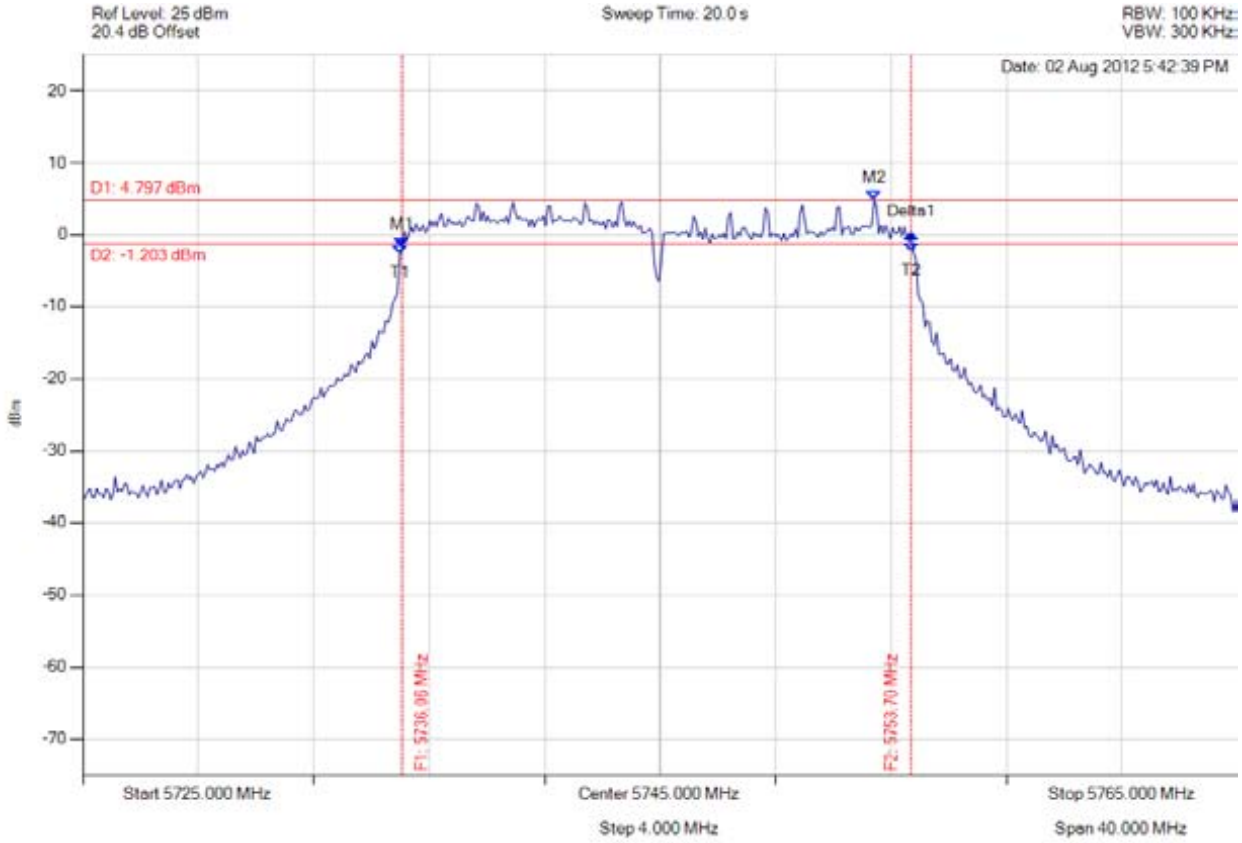
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.062 MHz : -1.638 dBm M2 : 5752.415 MHz : 4.797 dBm Delta1 : 17.635 MHz : 1.702 dBm T1 : 5735.982 MHz : -2.773 dBm T2 : 5753.697 MHz : -2.403 dBm OBW : 17.796 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.796 MHz

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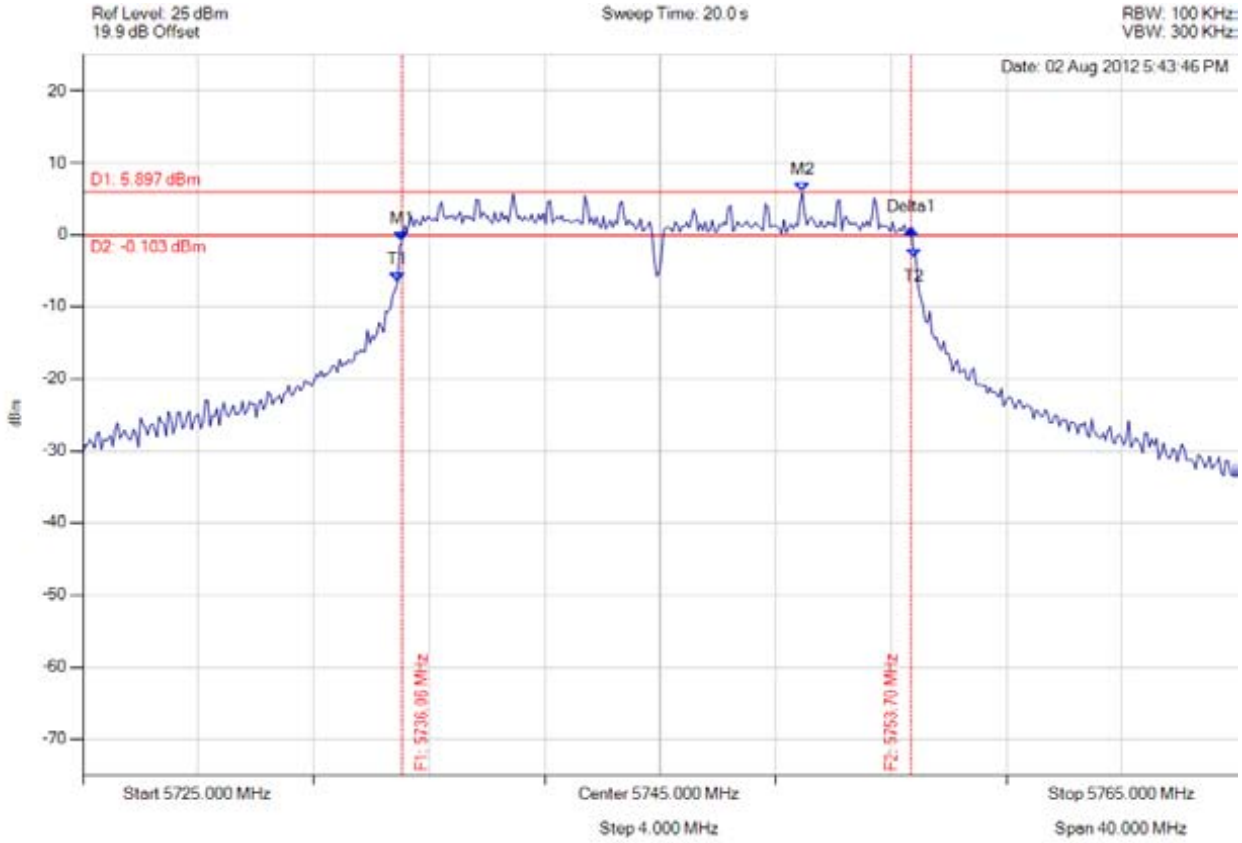
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.062 MHz : -0.812 dBm M2 : 5749.930 MHz : 5.897 dBm Delta1 : 17.635 MHz : 1.544 dBm T1 : 5735.902 MHz : -6.588 dBm T2 : 5753.778 MHz : -3.180 dBm OBW : 17.956 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.956 MHz

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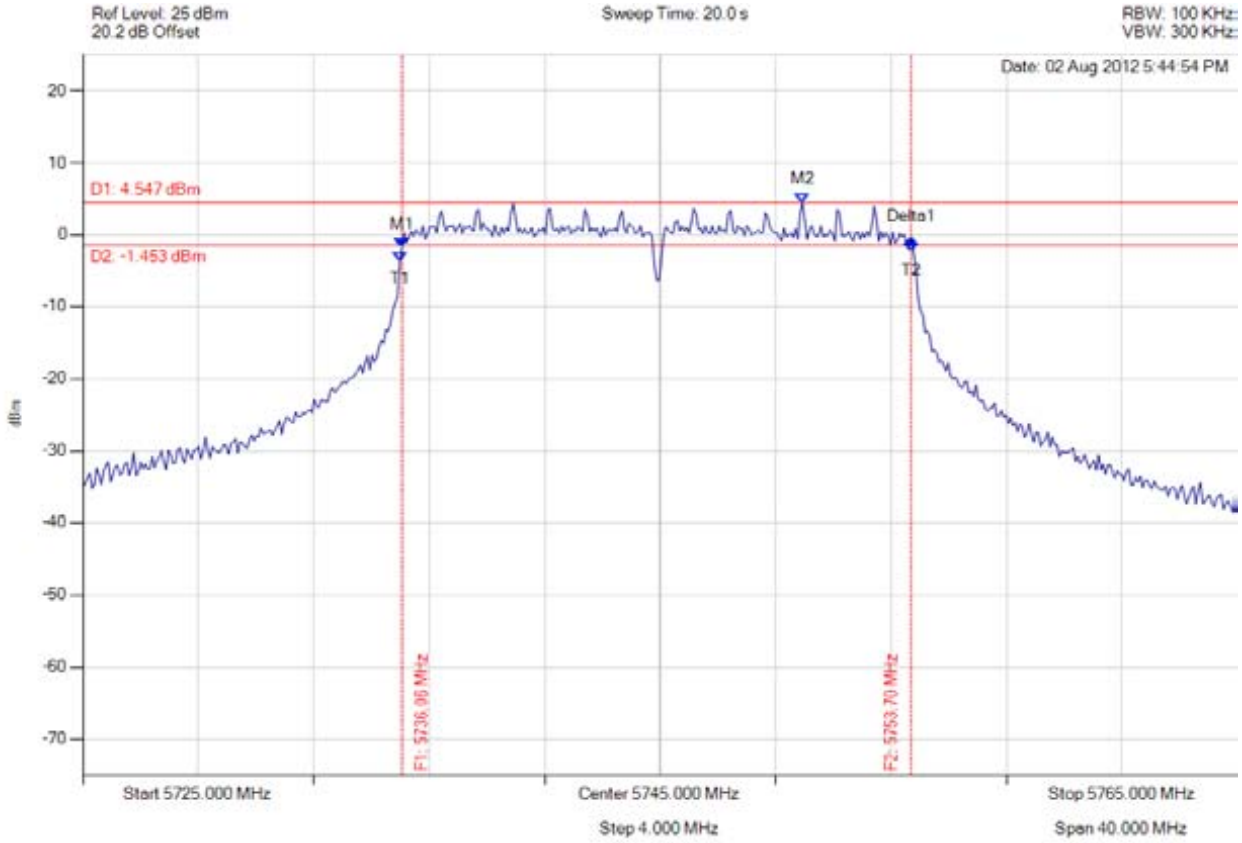
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.062 MHz : -1.652 dBm M2 : 5749.930 MHz : 4.547 dBm Delta1 : 17.635 MHz : 1.114 dBm T1 : 5735.982 MHz : -3.617 dBm T2 : 5753.697 MHz : -2.395 dBm OBW : 17.796 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.796 MHz

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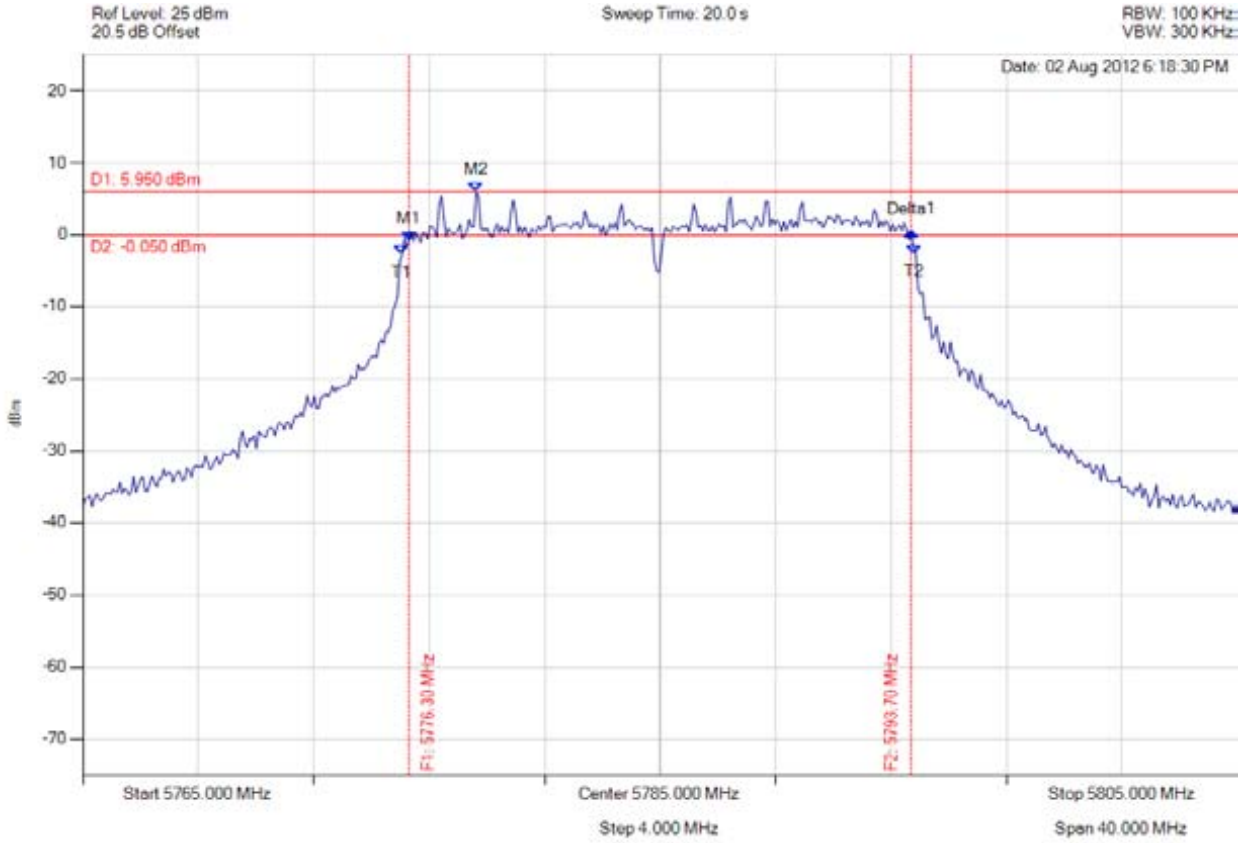
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.303 MHz : -0.859 dBm M2 : 5778.627 MHz : 5.950 dBm Delta1 : 17.395 MHz : 1.375 dBm T1 : 5776.062 MHz : -2.738 dBm T2 : 5793.778 MHz : -2.649 dBm OBW : 17.796 MHz	Measured 6 dB Bandwidth: 17.395 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -16.90 MHz Measured 99% Bandwidth: 17.796 MHz

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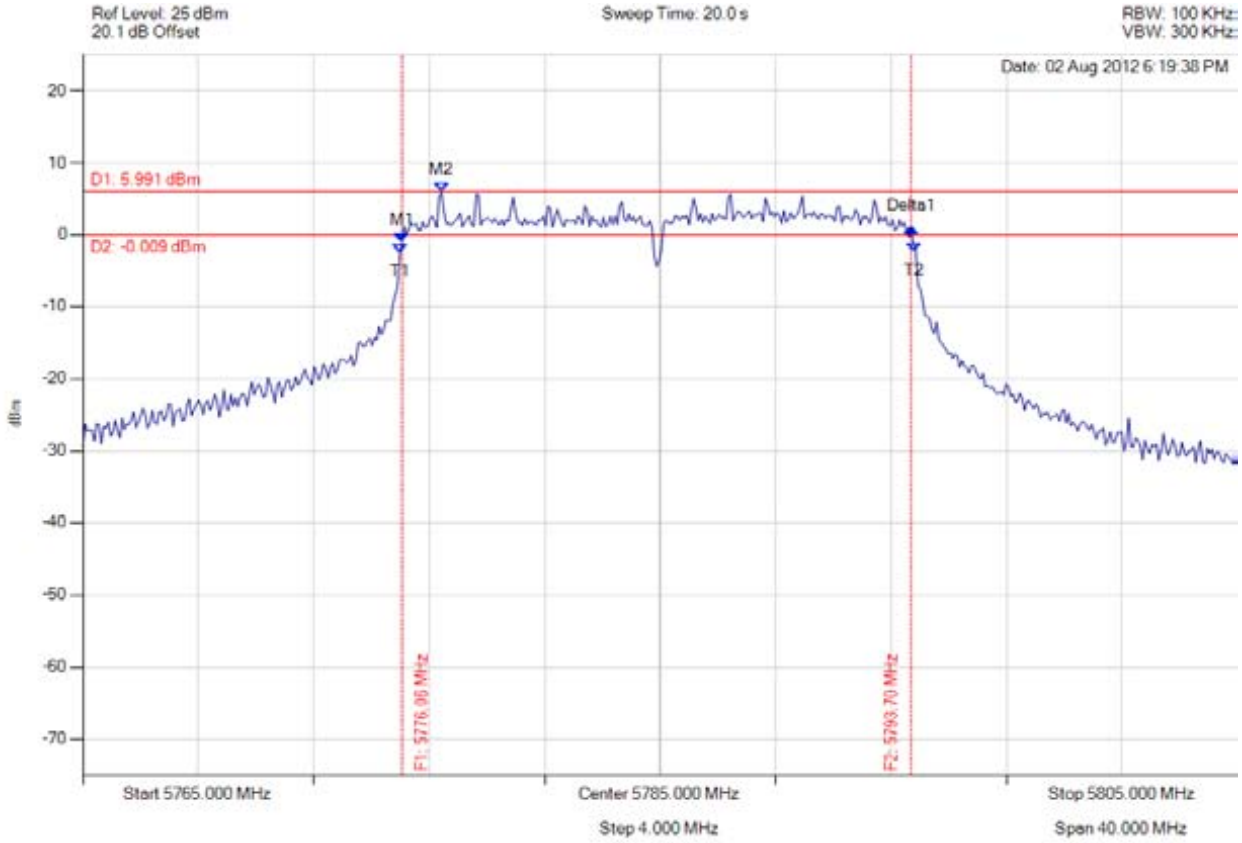
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.062 MHz : -0.999 dBm M2 : 5777.425 MHz : 5.991 dBm Delta1 : 17.635 MHz : 1.934 dBm T1 : 5775.982 MHz : -2.539 dBm T2 : 5793.778 MHz : -2.380 dBm OBW : 17.876 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.876 MHz

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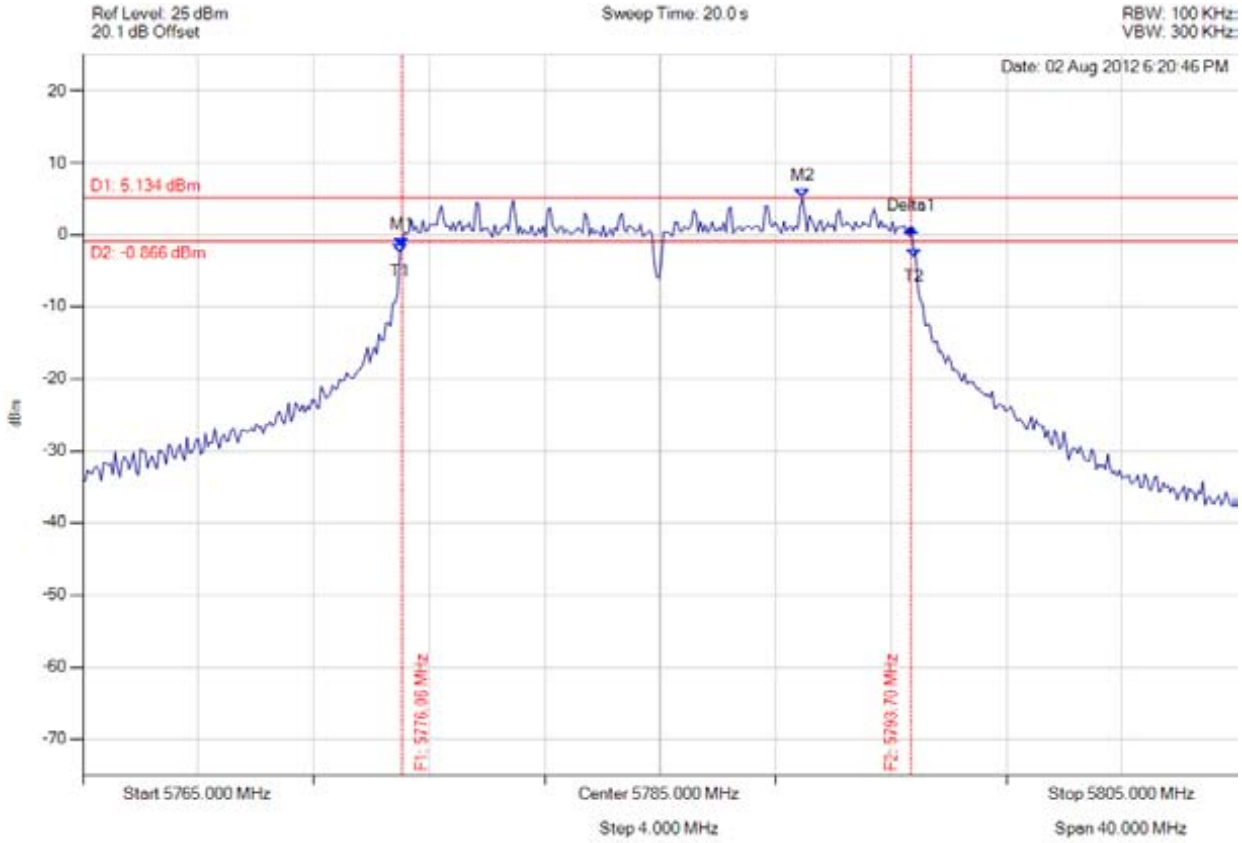
6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

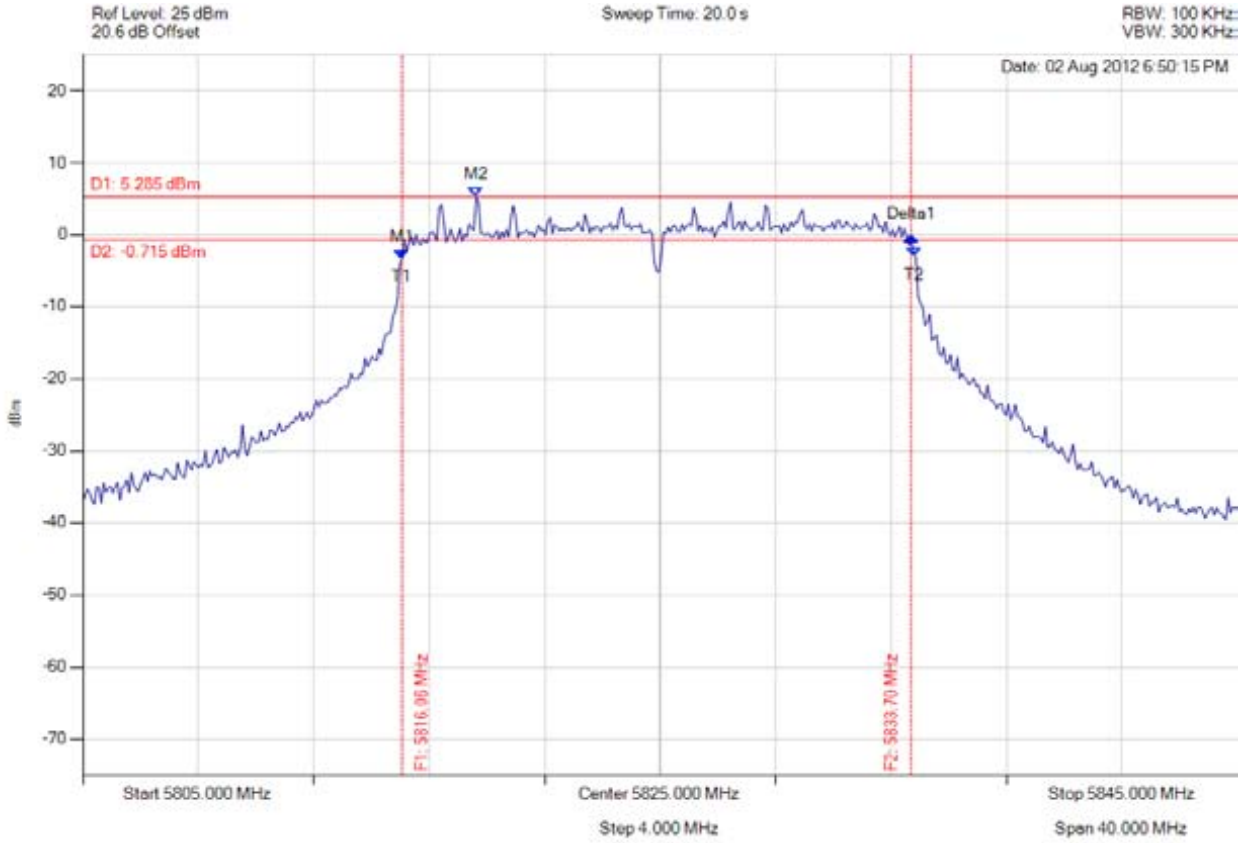


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.062 MHz : -1.636 dBm M2 : 5789.930 MHz : 5.134 dBm Delta1 : 17.635 MHz : 2.630 dBm T1 : 5775.982 MHz : -2.571 dBm T2 : 5793.778 MHz : -3.178 dBm OBW : 17.876 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.876 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

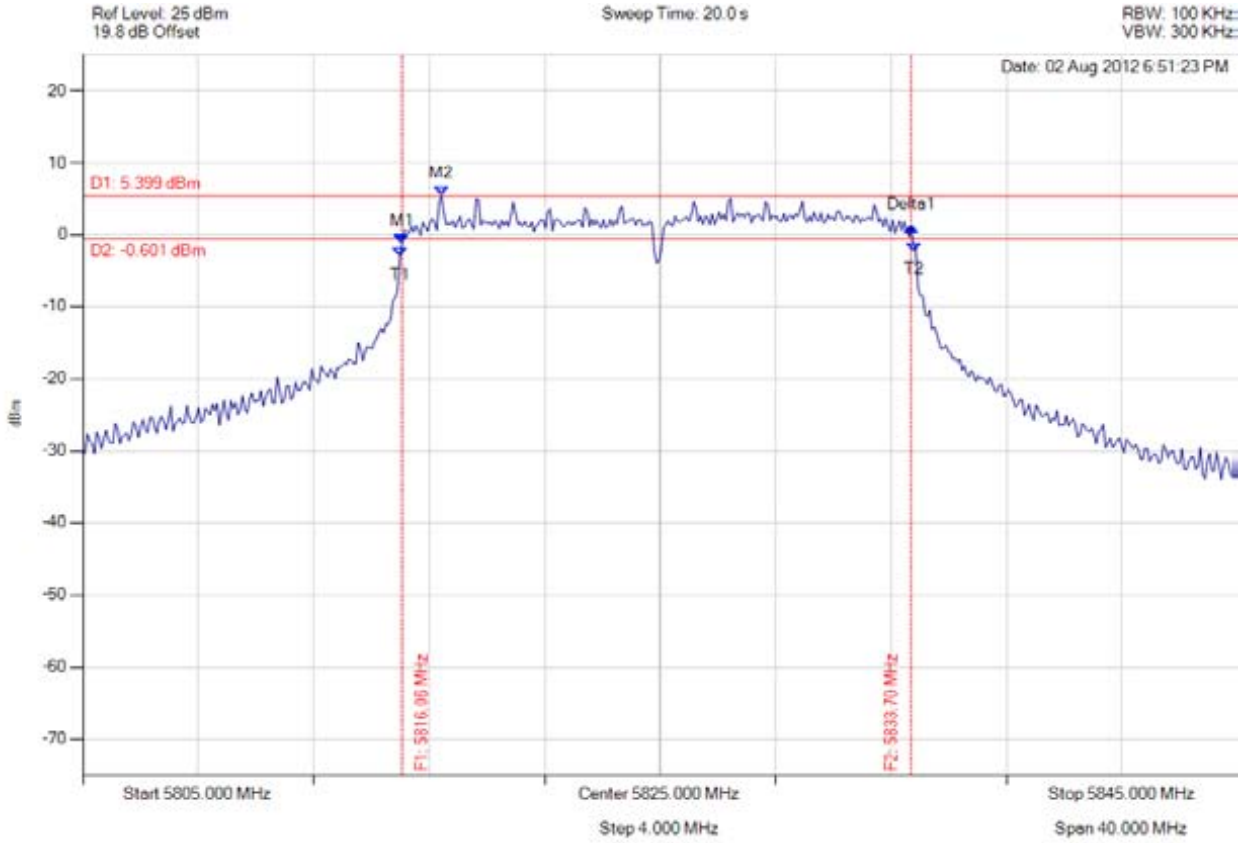


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5816.062 MHz : -3.340 dBm M2 : 5818.627 MHz : 5.285 dBm Delta1 : 17.635 MHz : 3.063 dBm T1 : 5816.062 MHz : -3.340 dBm T2 : 5833.778 MHz : -3.023 dBm OBW : 17.796 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.796 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

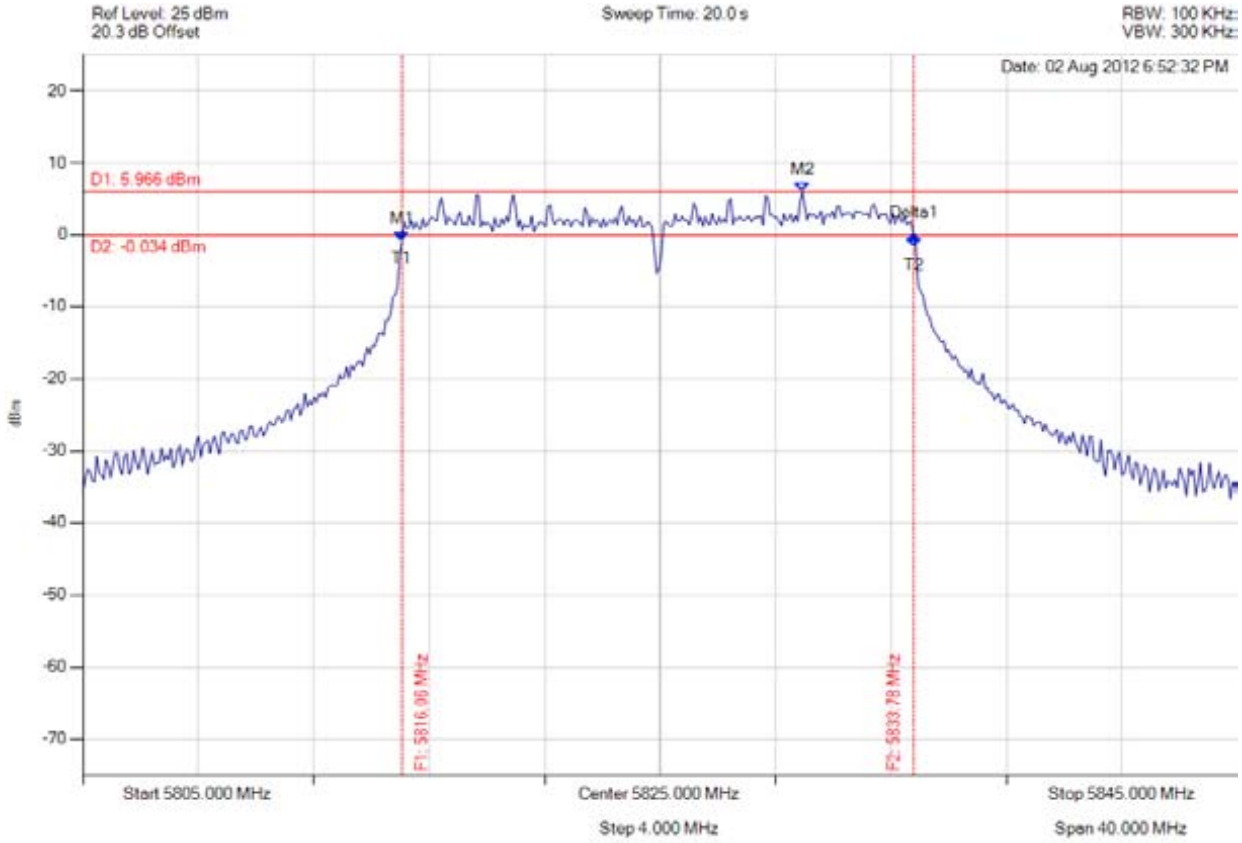


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5816.062 MHz : -1.248 dBm M2 : 5817.425 MHz : 5.399 dBm Delta1 : 17.635 MHz : 2.447 dBm T1 : 5815.982 MHz : -3.031 dBm T2 : 5833.778 MHz : -2.299 dBm OBW : 17.876 MHz	Measured 6 dB Bandwidth: 17.635 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.14 MHz Measured 99% Bandwidth: 17.876 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

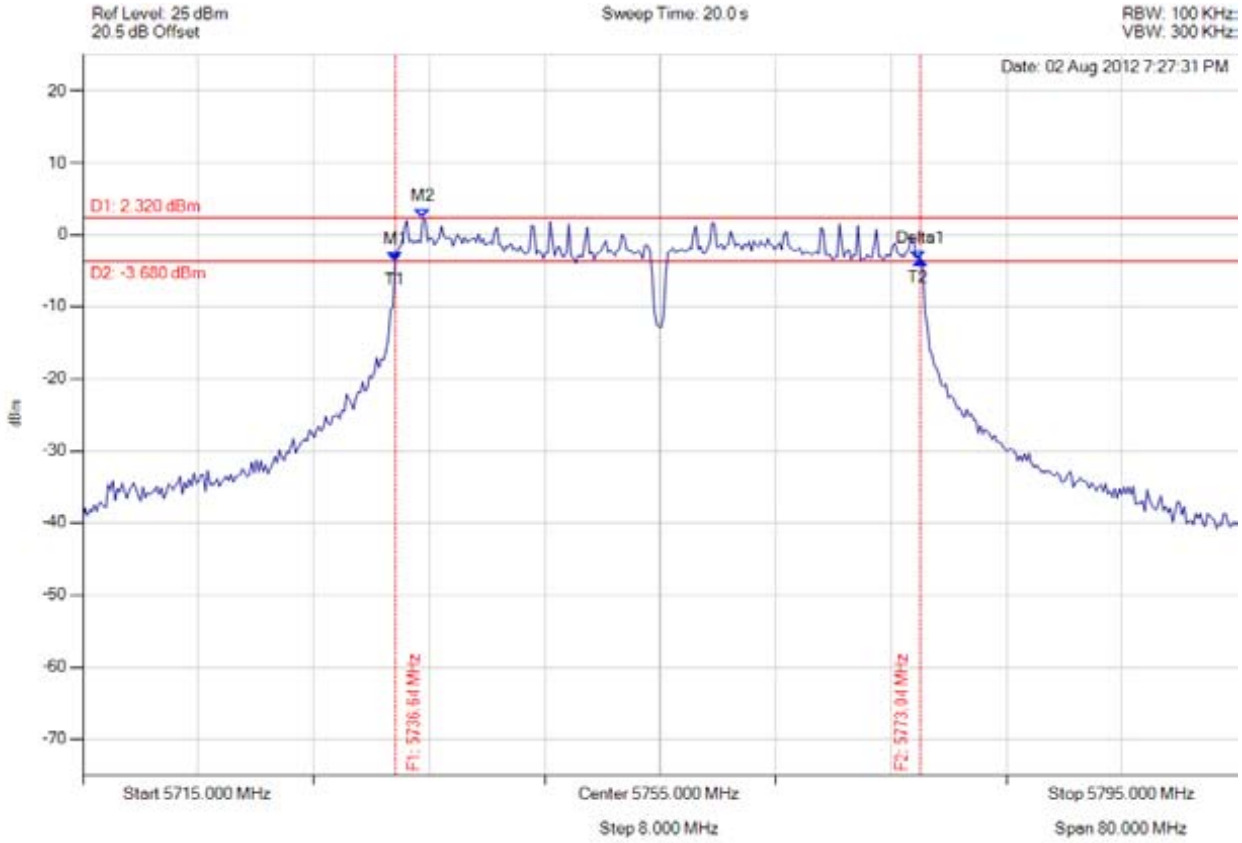


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5816.062 MHz : -0.796 dBm M2 : 5829.930 MHz : 5.966 dBm Delta1 : 17.715 MHz : 0.769 dBm T1 : 5816.062 MHz : -0.796 dBm T2 : 5833.778 MHz : -1.689 dBm OBW : 17.796 MHz	Measured 6 dB Bandwidth: 17.715 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -17.22 MHz Measured 99% Bandwidth: 17.796 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

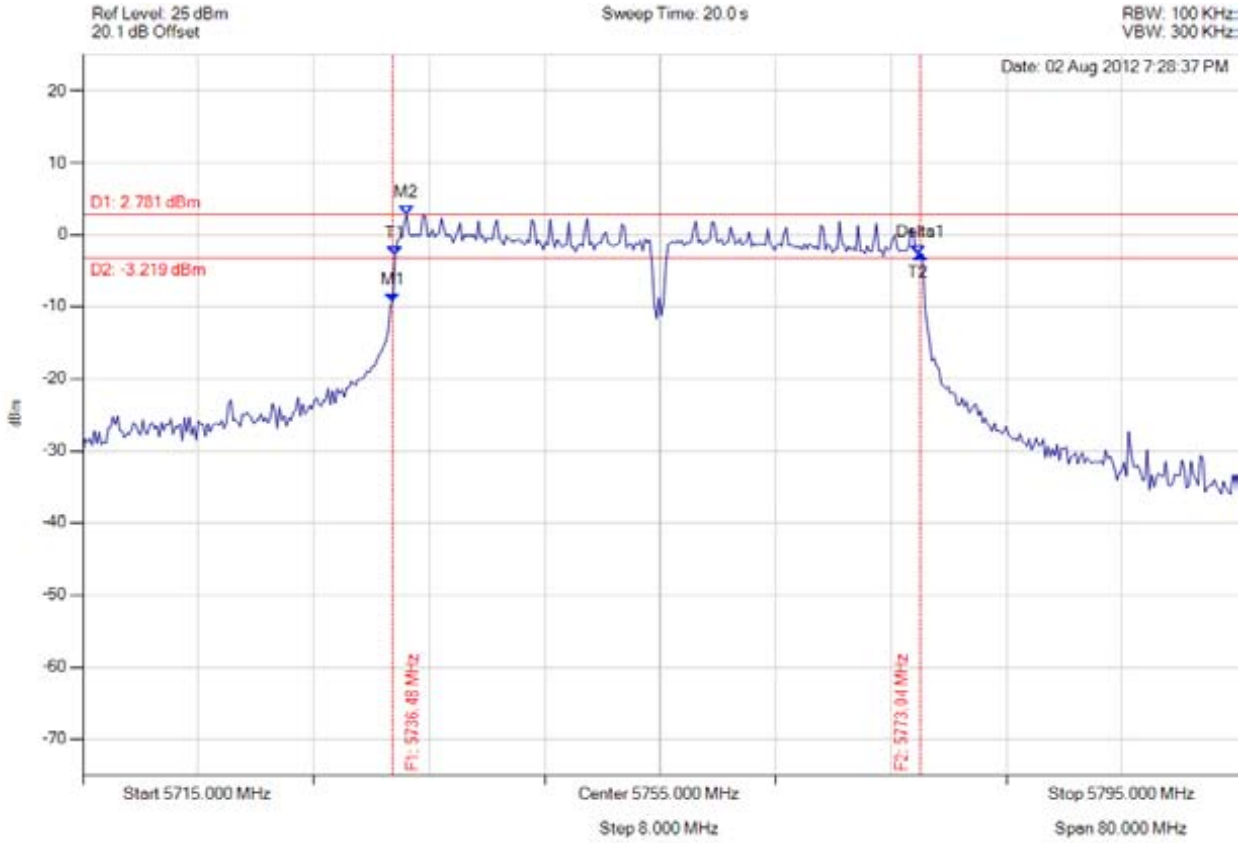


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.643 MHz : -3.725 dBm M2 : 5738.567 MHz : 2.320 dBm Delta1 : 36.393 MHz : 0.260 dBm T1 : 5736.643 MHz : -3.725 dBm T2 : 5772.876 MHz : -3.464 dBm OBW : 36.393 MHz	Measured 6 dB Bandwidth: 36.393 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -35.89 MHz Measured 99% Bandwidth: 36.393 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

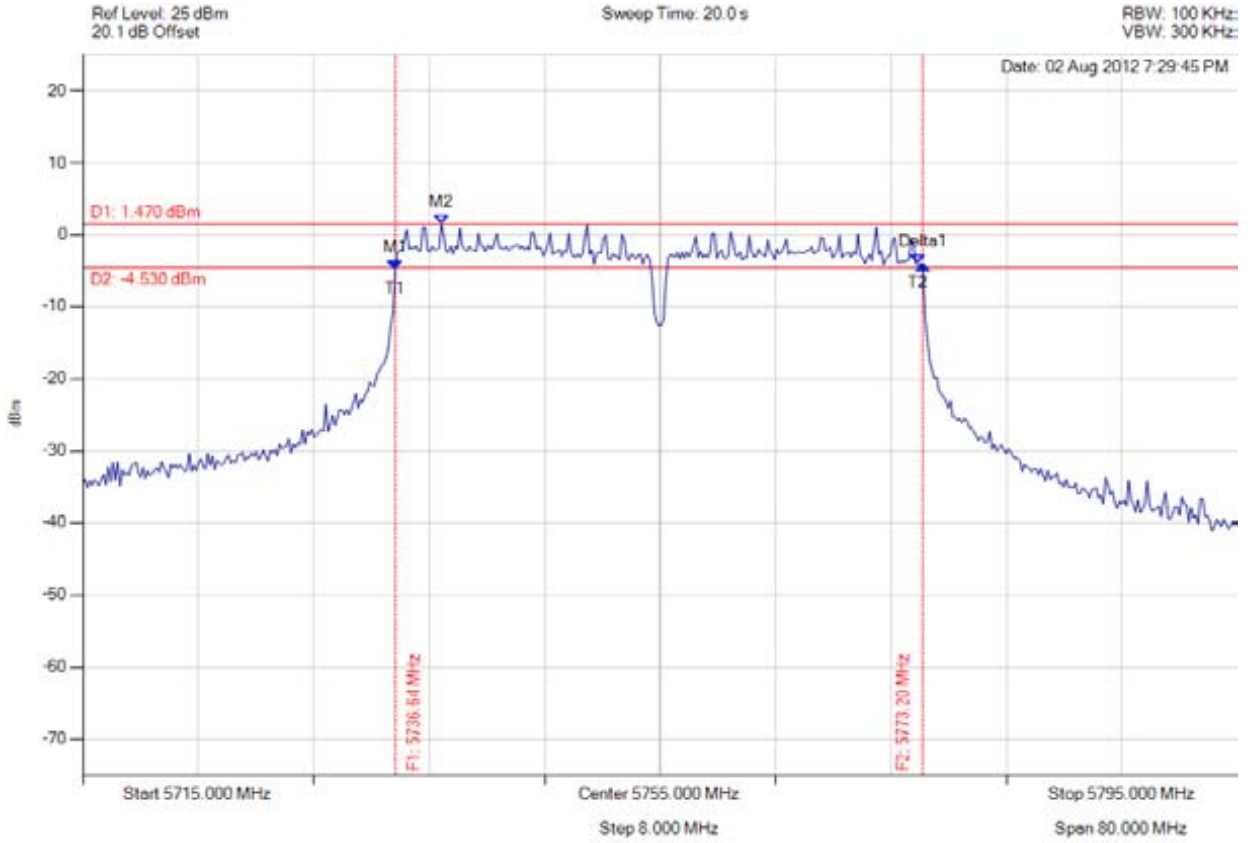


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.483 MHz : -9.366 dBm M2 : 5737.445 MHz : 2.781 dBm Delta1 : 36.553 MHz : 6.638 dBm T1 : 5736.643 MHz : -2.915 dBm T2 : 5772.876 MHz : -2.728 dBm OBW : 36.393 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.393 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

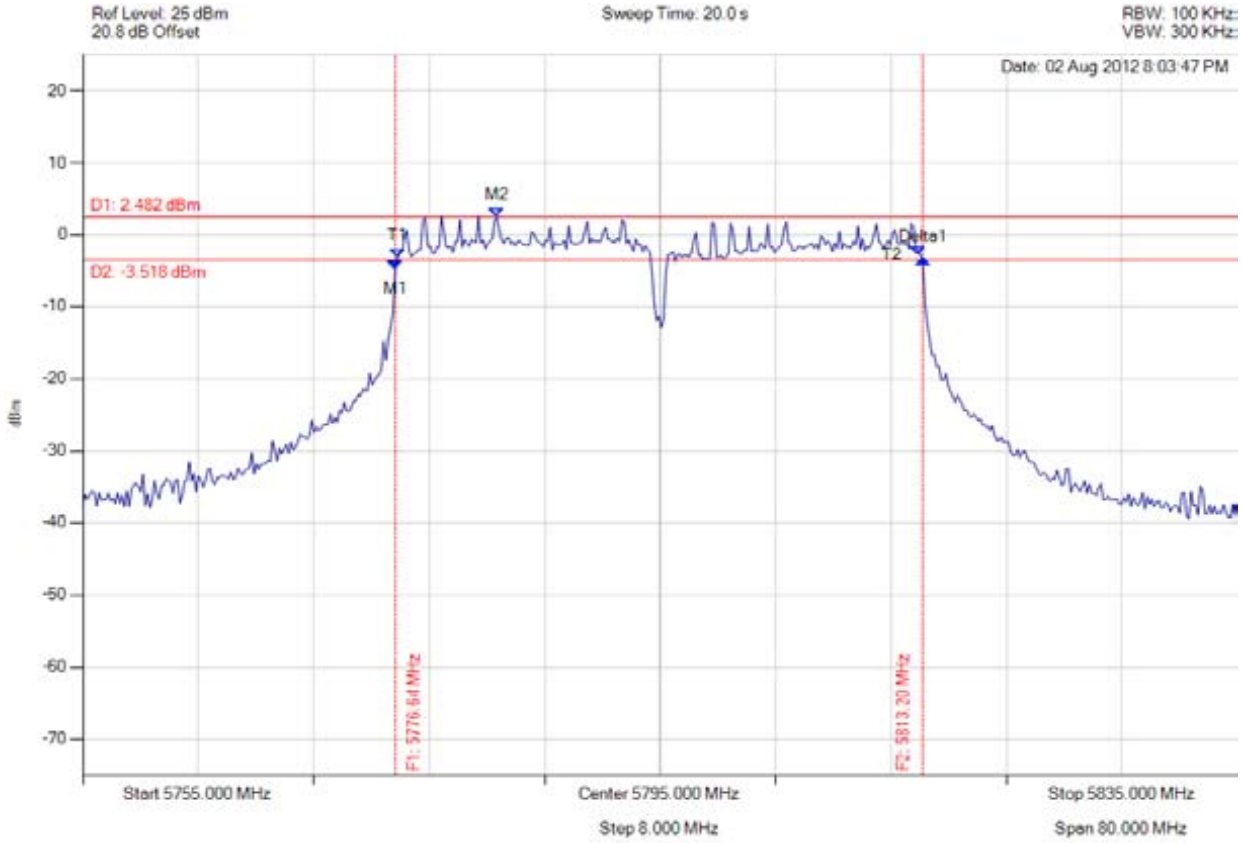


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5736.643 MHz : -4.918 dBm M2 : 5739.850 MHz : 1.470 dBm Delta1 : 36.553 MHz : 0.797 dBm T1 : 5736.643 MHz : -4.918 dBm T2 : 5772.876 MHz : -4.020 dBm OBW : 36.393 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.393 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

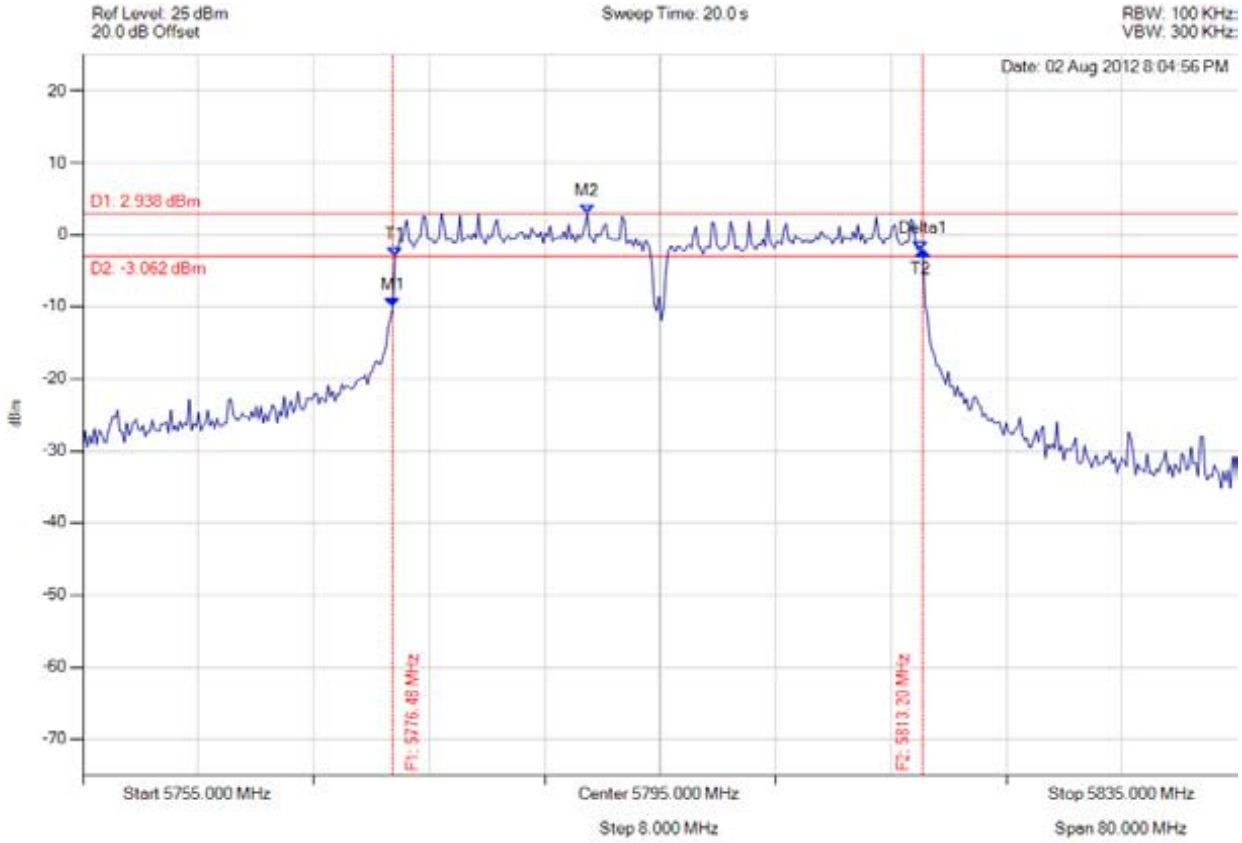


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.643 MHz : -4.914 dBm M2 : 5783.697 MHz : 2.482 dBm Delta1 : 36.553 MHz : 1.550 dBm T1 : 5776.804 MHz : -3.275 dBm T2 : 5812.876 MHz : -2.824 dBm OBW : 36.232 MHz	Measured 6 dB Bandwidth: 36.553 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.05 MHz Measured 99% Bandwidth: 36.232 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

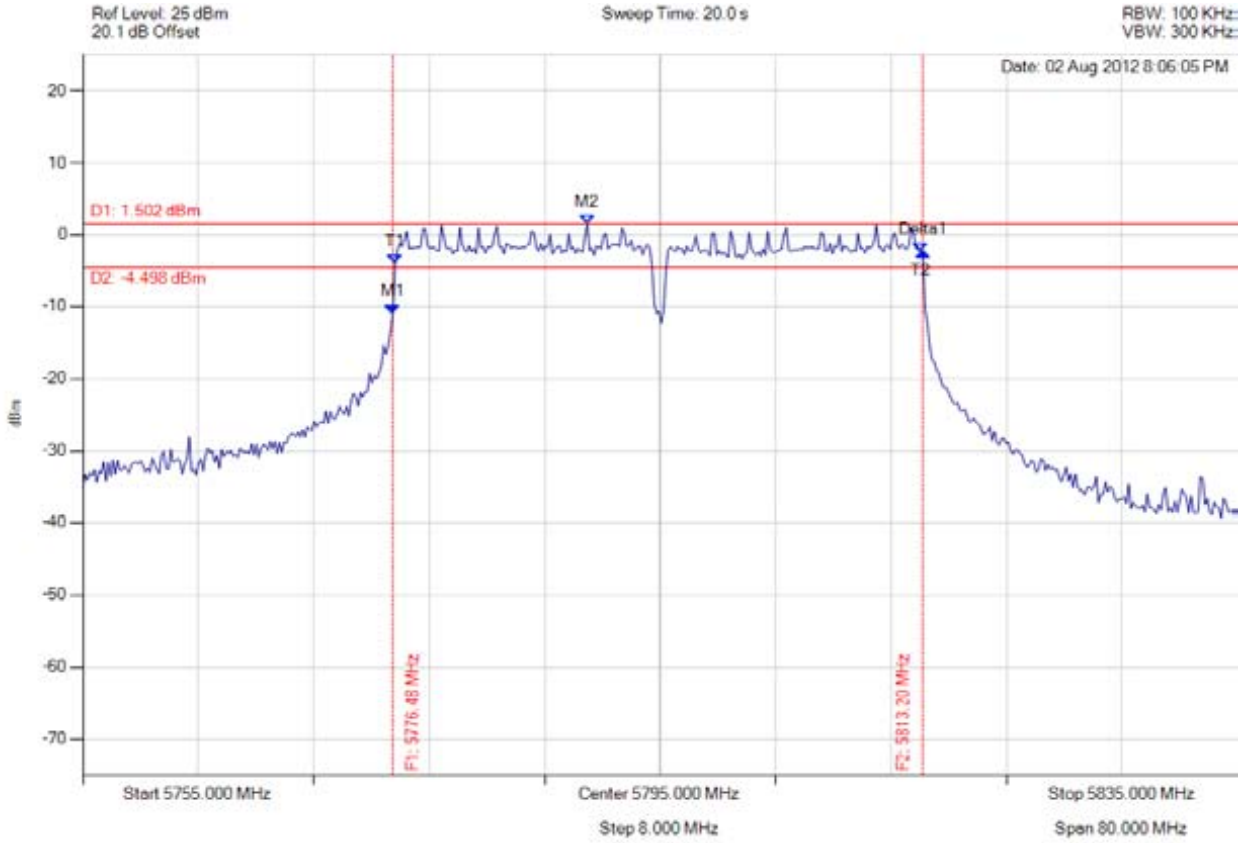


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.483 MHz : -10.084 dBm M2 : 5789.950 MHz : 2.938 dBm Delta1 : 36.713 MHz : 7.860 dBm T1 : 5776.643 MHz : -3.015 dBm T2 : 5813.036 MHz : -2.224 dBm OBW : 36.553 MHz	Measured 6 dB Bandwidth: 36.713 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.21 MHz Measured 99% Bandwidth: 36.553 MHz

Back to the Matrix

6 dB and 99% Bandwidth

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



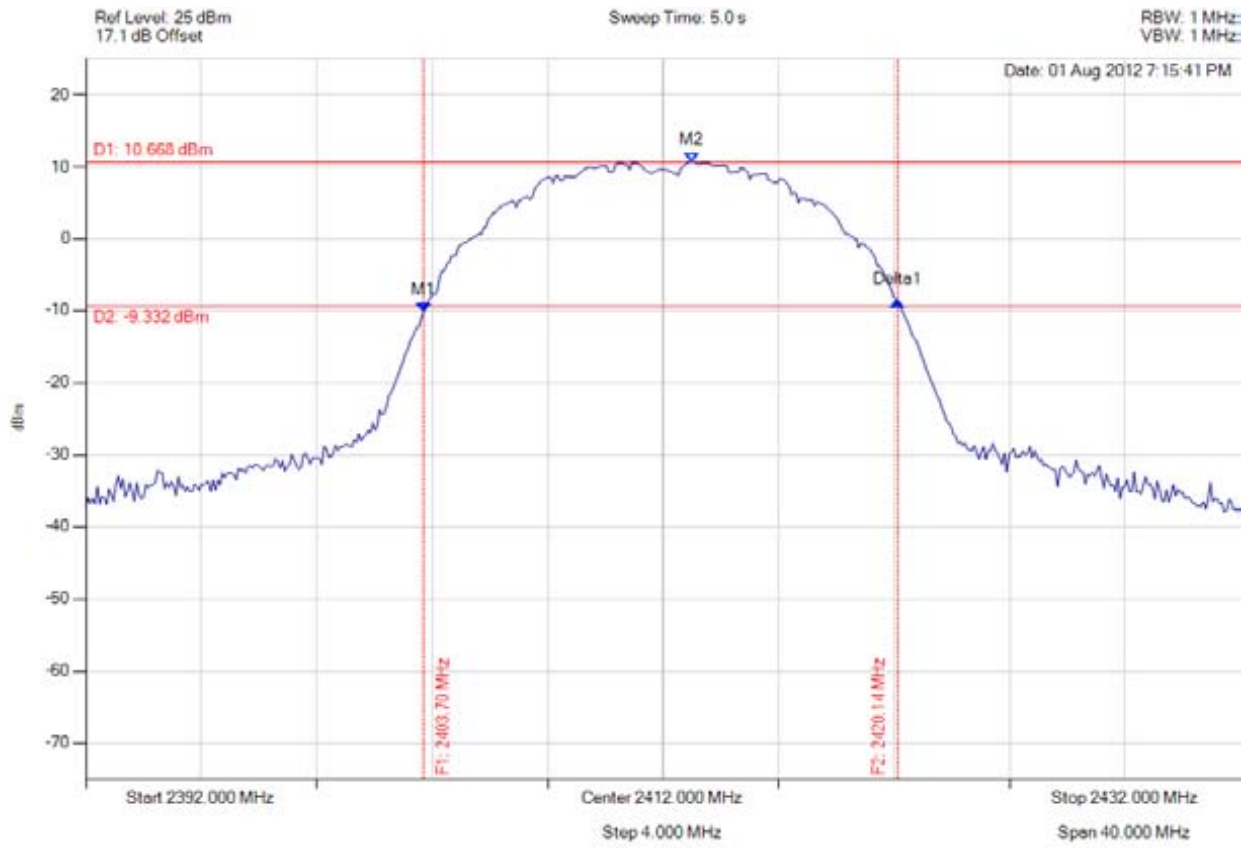
Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5776.483 MHz : -10.961 dBm M2 : 5789.950 MHz : 1.502 dBm Delta1 : 36.713 MHz : 8.538 dBm T1 : 5776.643 MHz : -4.060 dBm T2 : 5813.036 MHz : -2.423 dBm OBW : 36.553 MHz	Measured 6 dB Bandwidth: 36.713 MHz Limit 6 dB Bandwidth: 0.5 MHz Margin 6 dB Bandwidth: -36.21 MHz Measured 99% Bandwidth: 36.553 MHz

Back to the Matrix

A.1.2. Peak Output Power

Peak Output Power

Variant: 802.11b, Channel: 2412.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

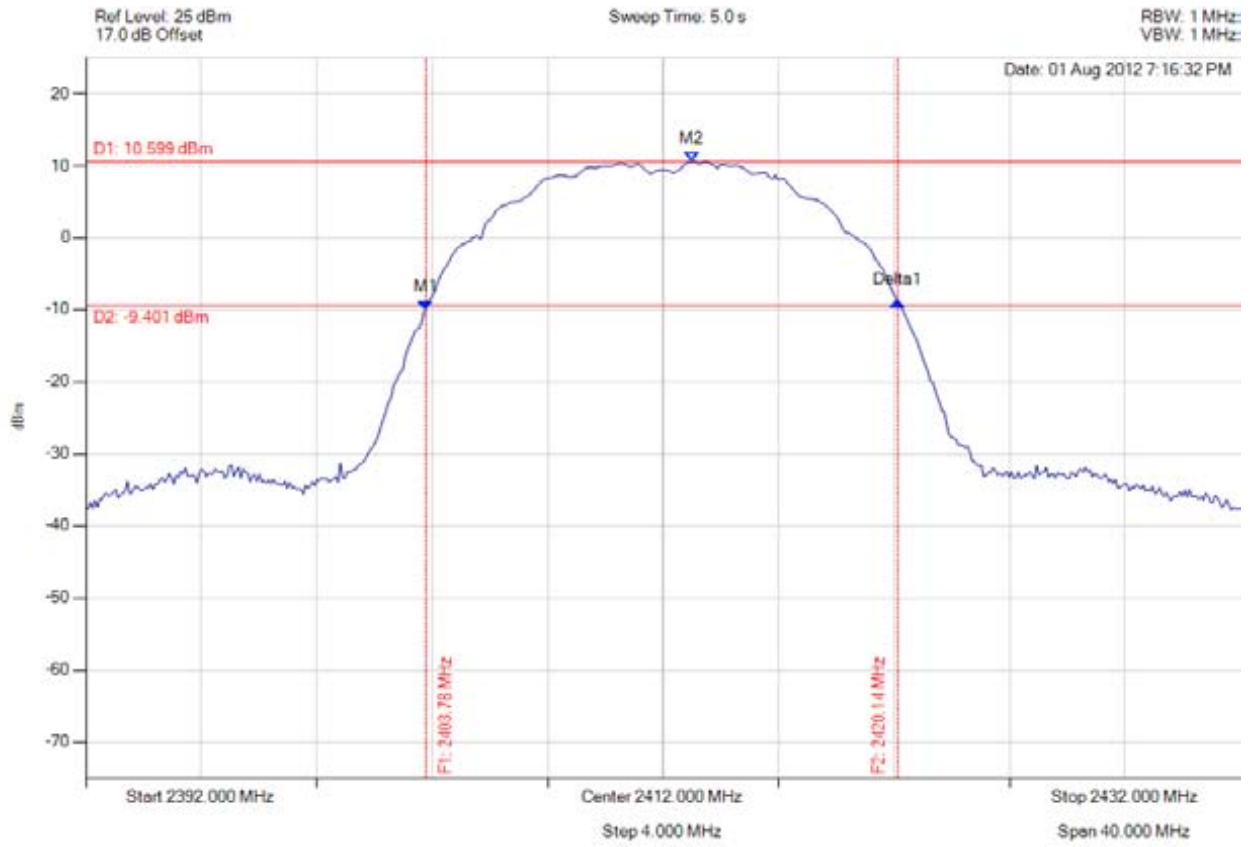


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.703 MHz : -10.135 dBm M2 : 2413.002 MHz : 10.668 dBm Delta1 : 16.433 MHz : 1.369 dB	Channel Power: 19.07 dBm Limit: 25.23 dBm Margin: -6.16 dB

Back to the Matrix

Peak Output Power

Variant: 802.11b, Channel: 2412.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

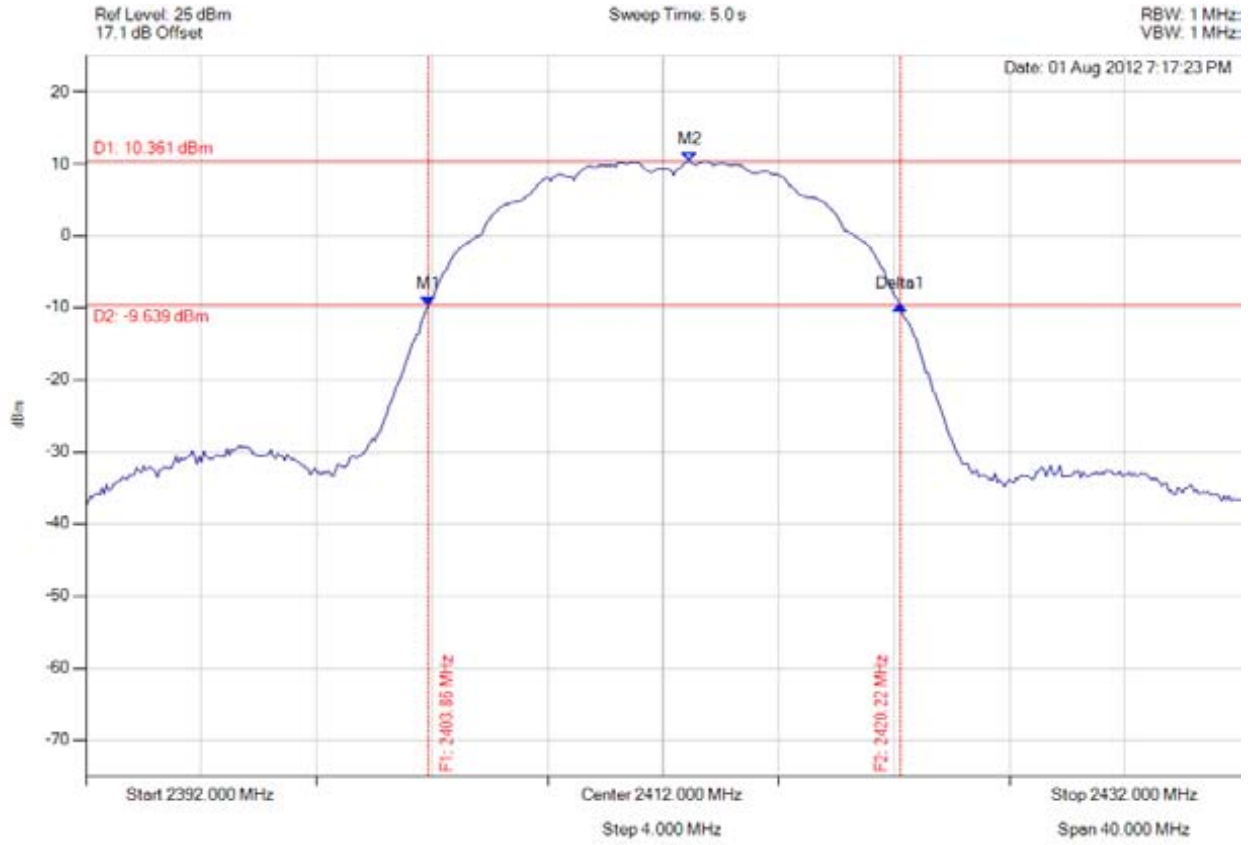


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.784 MHz : -9.966 dBm M2 : 2413.002 MHz : 10.599 dBm Delta1 : 16.353 MHz : 1.082 dB	Channel Power: 19.06 dBm Limit: 25.229 dBm Margin: -6.17 dB

Back to the Matrix

Peak Output Power

Variant: 802.11b, Channel: 2412.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

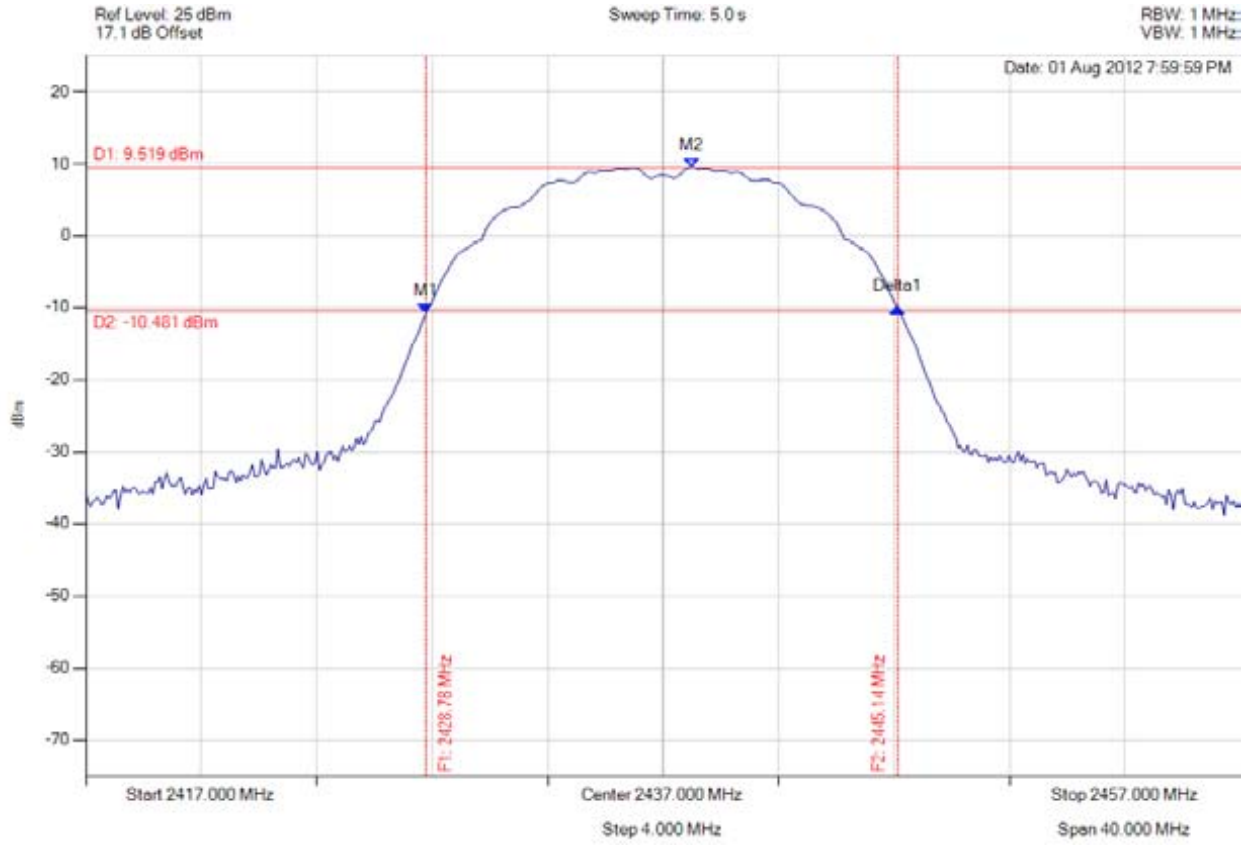


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2403.864 MHz : -9.681 dBm M2 : 2412.922 MHz : 10.361 dBm Delta1 : 16.353 MHz : 0.045 dB	Channel Power: 18.91 dBm Limit: 25.23 dBm Margin: -6.32 dB

Back to the Matrix

Peak Output Power

Variant: 802.11b, Channel: 2437.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 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 : -10.776 dBm M2 : 2438.002 MHz : 9.519 dBm Delta1 : 16.353 MHz : 0.805 dB	Channel Power: 18.019 dBm Limit: 25.23 dBm Margin: -7.21 dB

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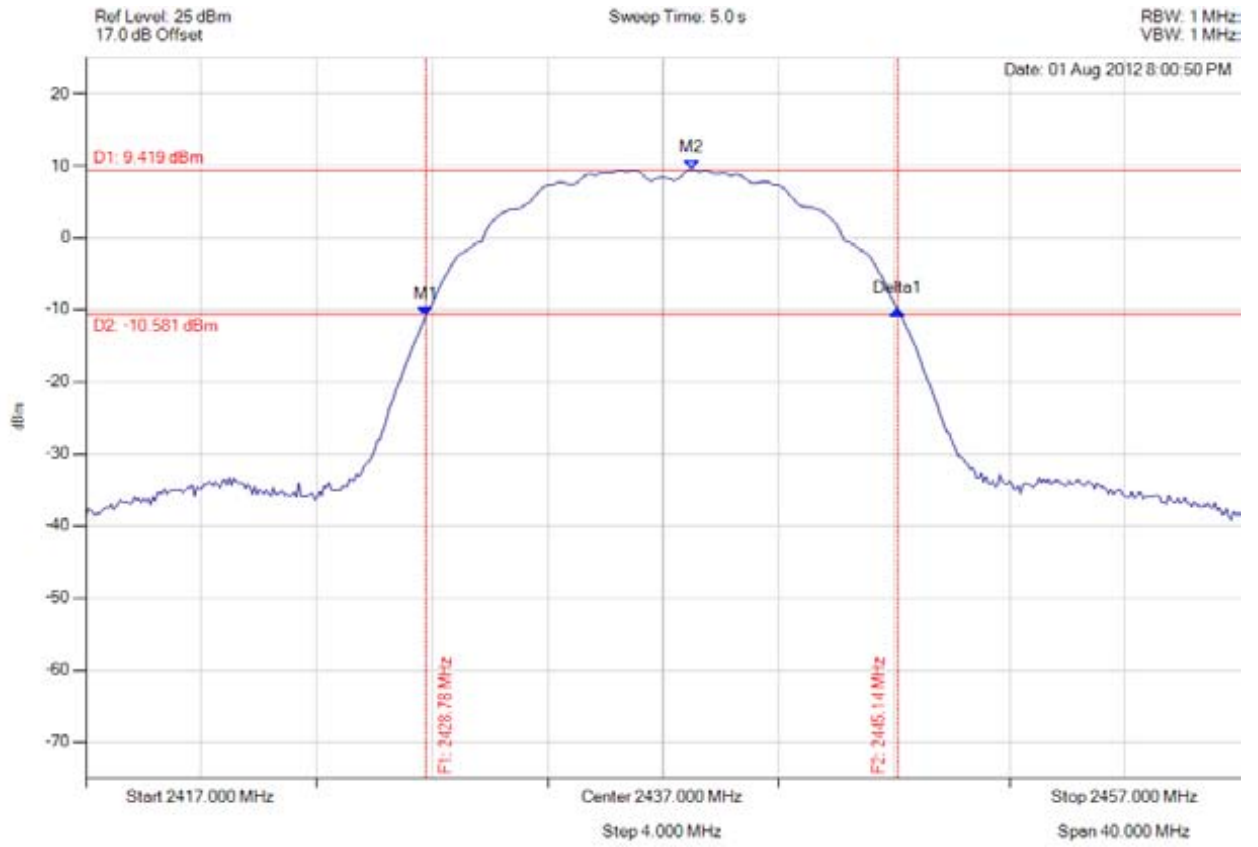
Peak Output Power

Variant: 802.11b, Channel: 2437.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

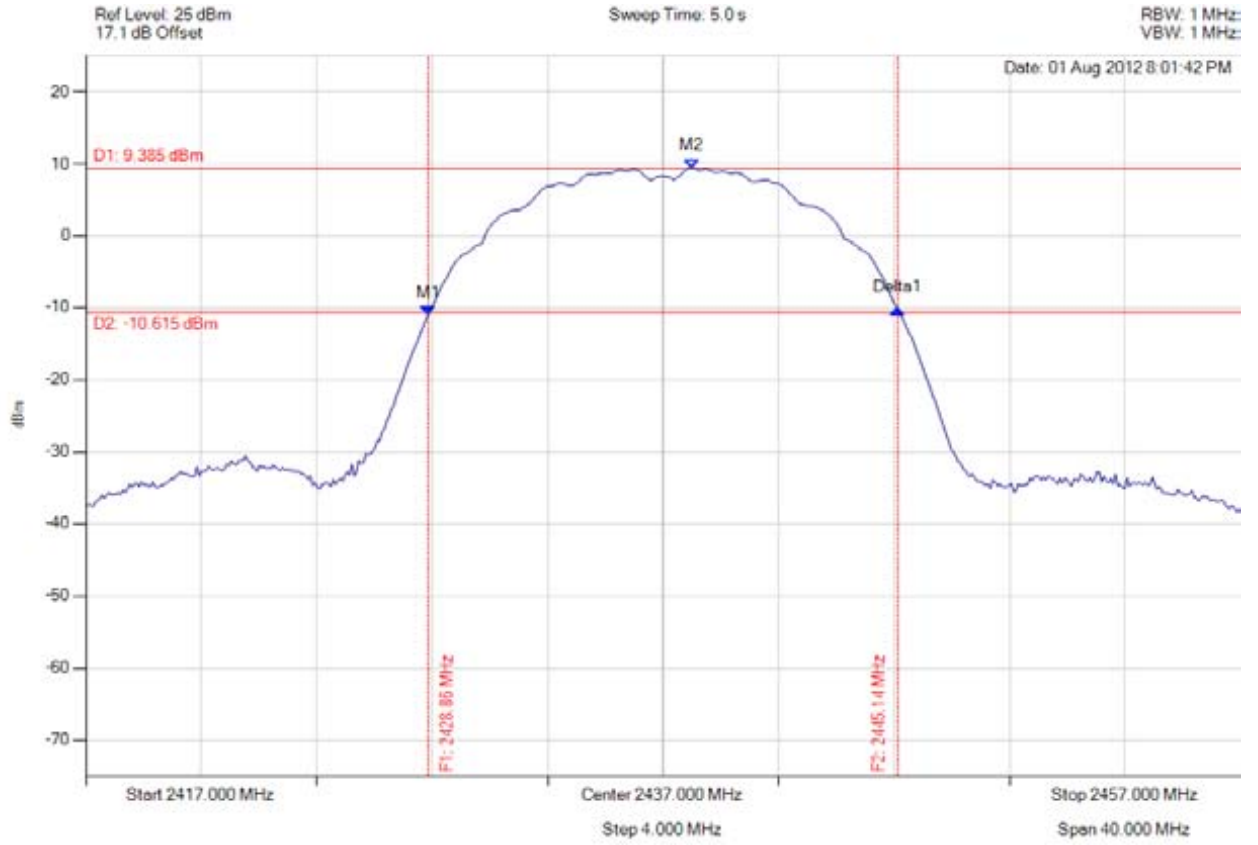


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2428.784 MHz : -10.818 dBm M2 : 2438.002 MHz : 9.419 dBm Delta1 : 16.353 MHz : 0.828 dB	Channel Power: 17.98 dBm Limit: 25.229 dBm Margin: -7.24 dB

Back to the Matrix

Peak Output Power

Variant: 802.11b, Channel: 2437.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2428.864 MHz : -10.979 dBm M2 : 2438.002 MHz : 9.385 dBm Delta1 : 16.273 MHz : 0.844 dB	Channel Power: 17.80 dBm Limit: 25.23 dBm Margin: -7.43 dB

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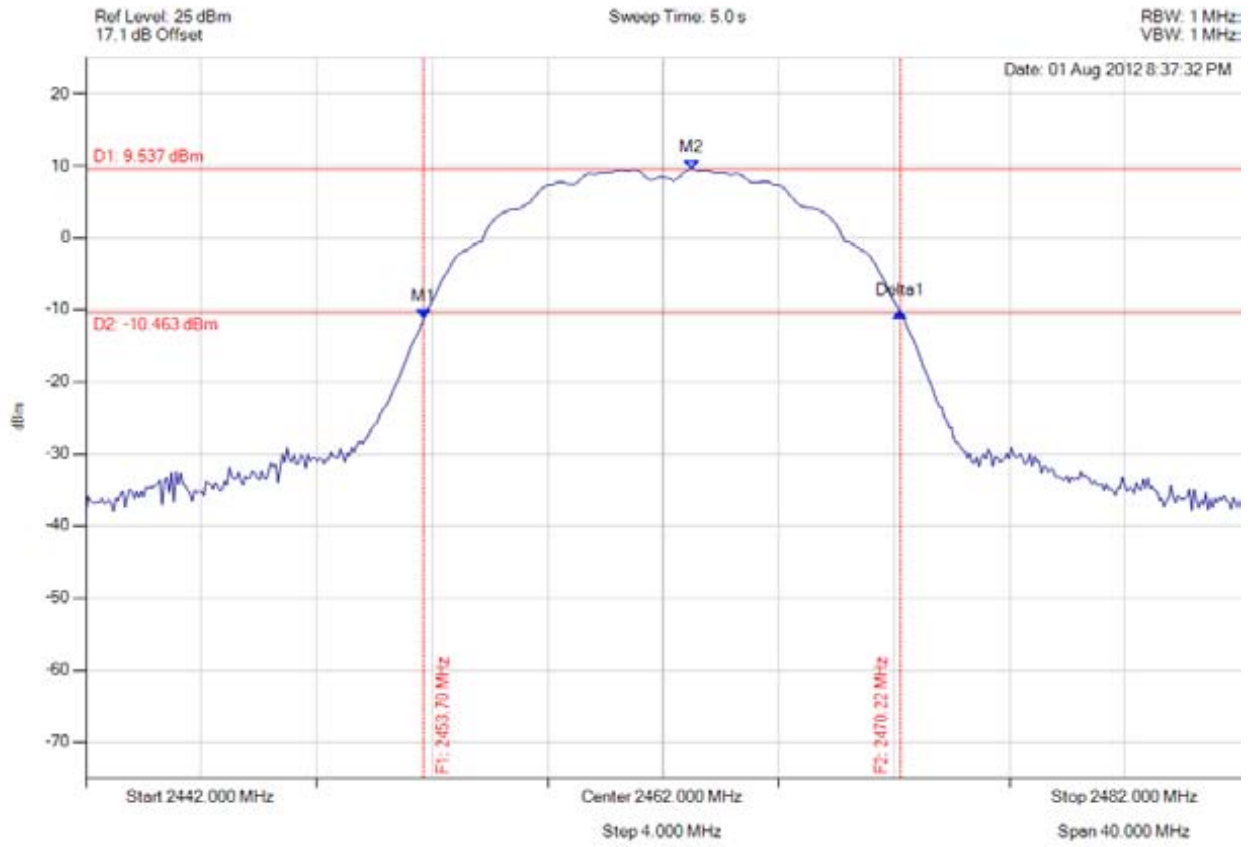
Peak Output Power

Variant: 802.11b, Channel: 2462.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2453.703 MHz : -11.243 dBm M2 : 2463.002 MHz : 9.537 dBm Delta1 : 16.513 MHz : 0.885 dB	Channel Power: 18.04 dBm Limit: 25.23 dBm Margin: -7.19 dB

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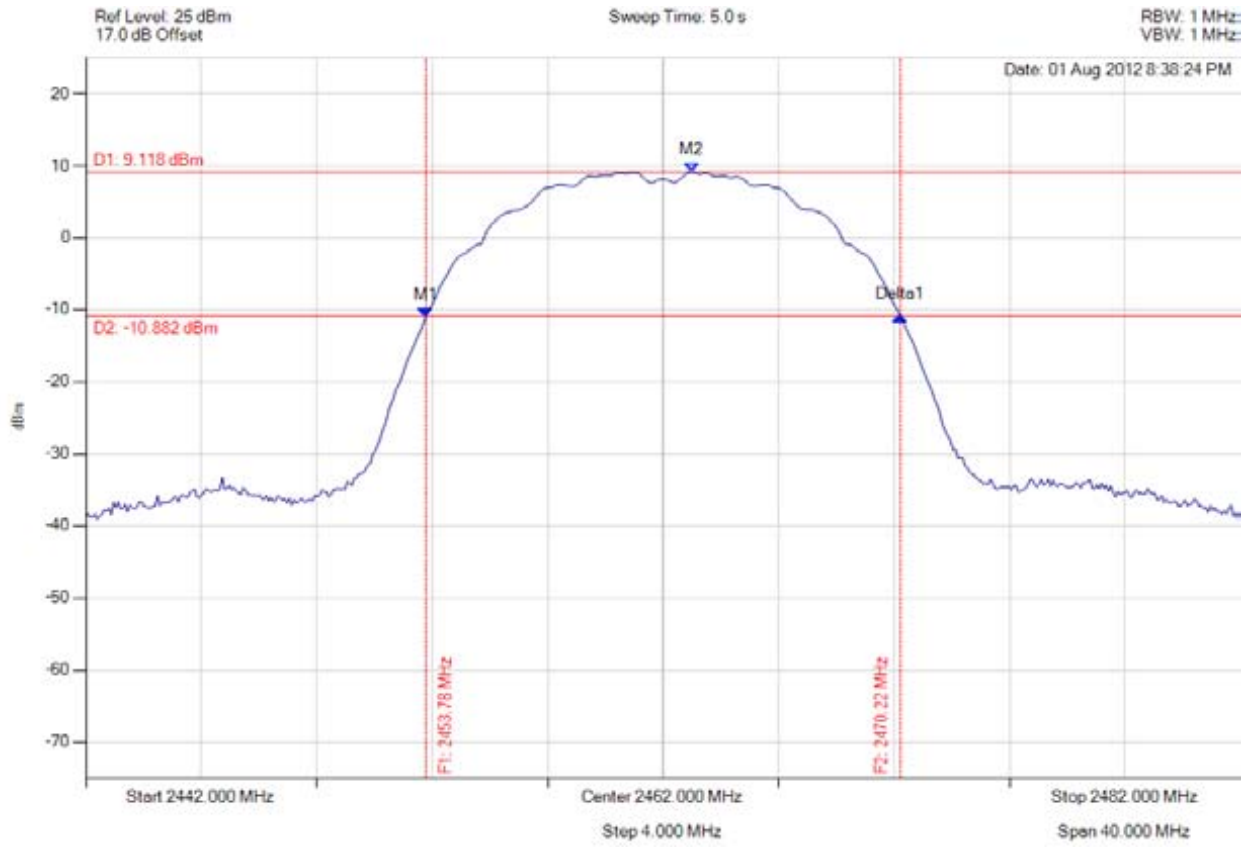
Peak Output Power

Variant: 802.11b, Channel: 2462.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 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 : -10.973 dBm M2 : 2463.002 MHz : 9.118 dBm Delta1 : 16.433 MHz : 0.167 dB	Channel Power: 17.66 dBm Limit: 25.229 dBm Margin: -7.57 dB

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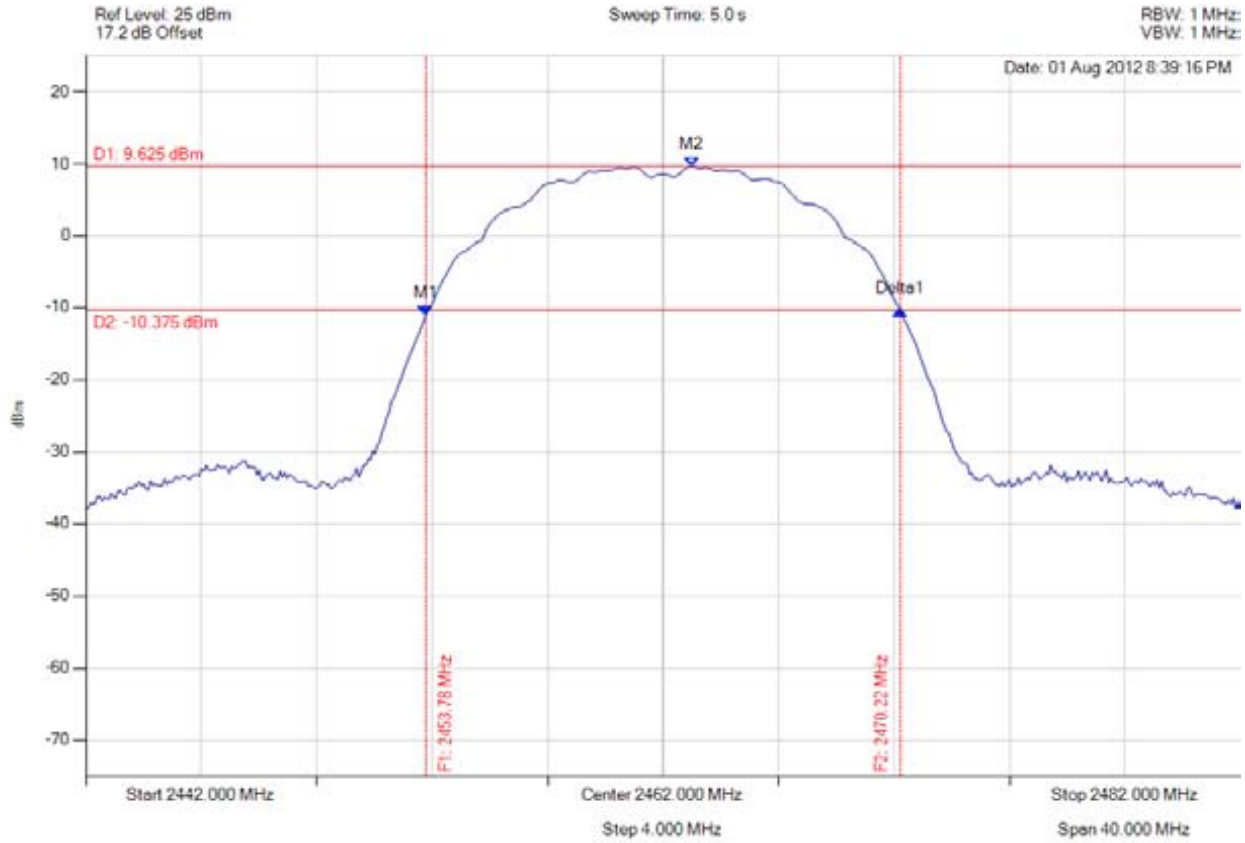
Peak Output Power

Variant: 802.11b, Channel: 2462.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 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 : -11.079 dBm M2 : 2463.002 MHz : 9.625 dBm Delta1 : 16.433 MHz : 0.767 dB	Channel Power: 18.10 dBm Limit: 25.229 dBm Margin: -7.13 dB

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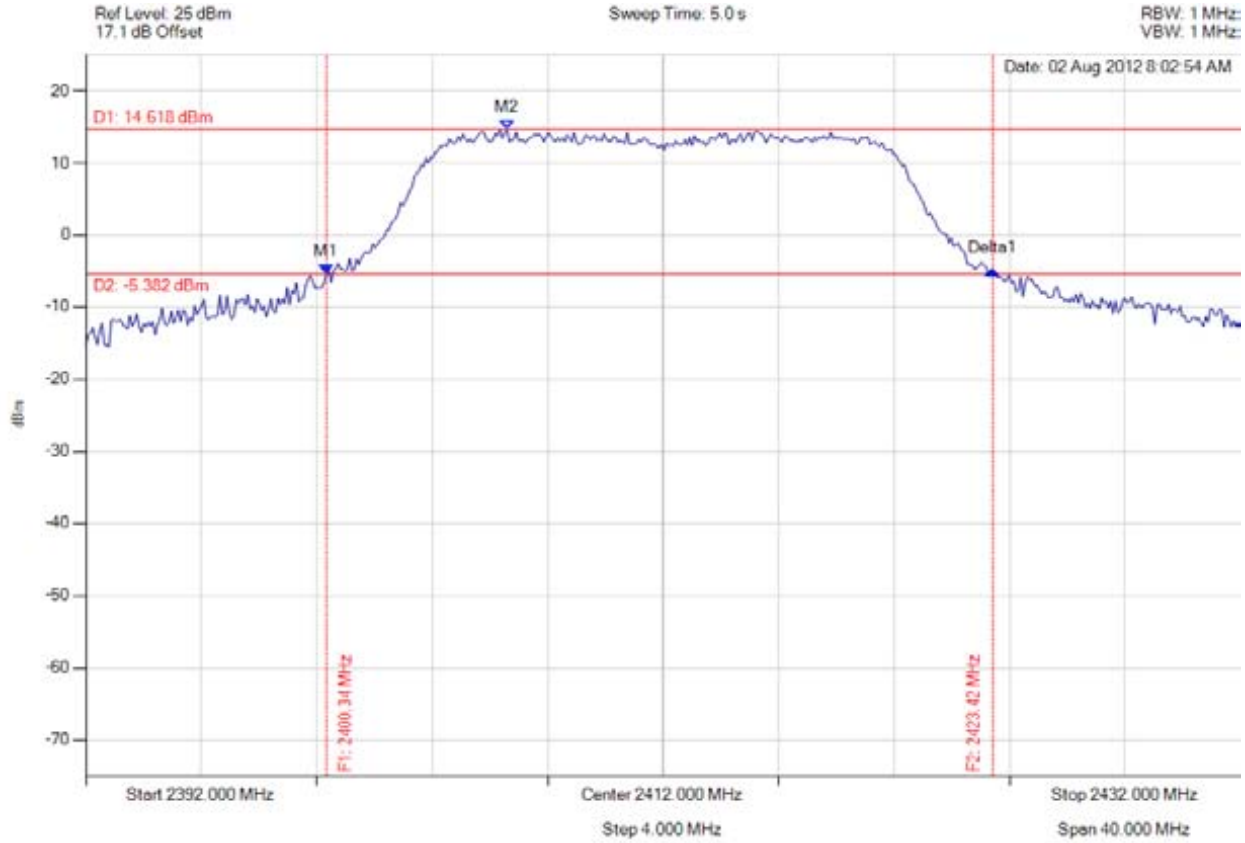
peak output power

Variant: 802.11g, Channel: 2412.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.337 MHz : -5.402 dBm M2 : 2406.589 MHz : 14.618 dBm Delta1 : 23.086 MHz : 0.494 dBm	Channel Power: 24.97 dBm Limit: 25.23 dBm Margin: -0.26 dB

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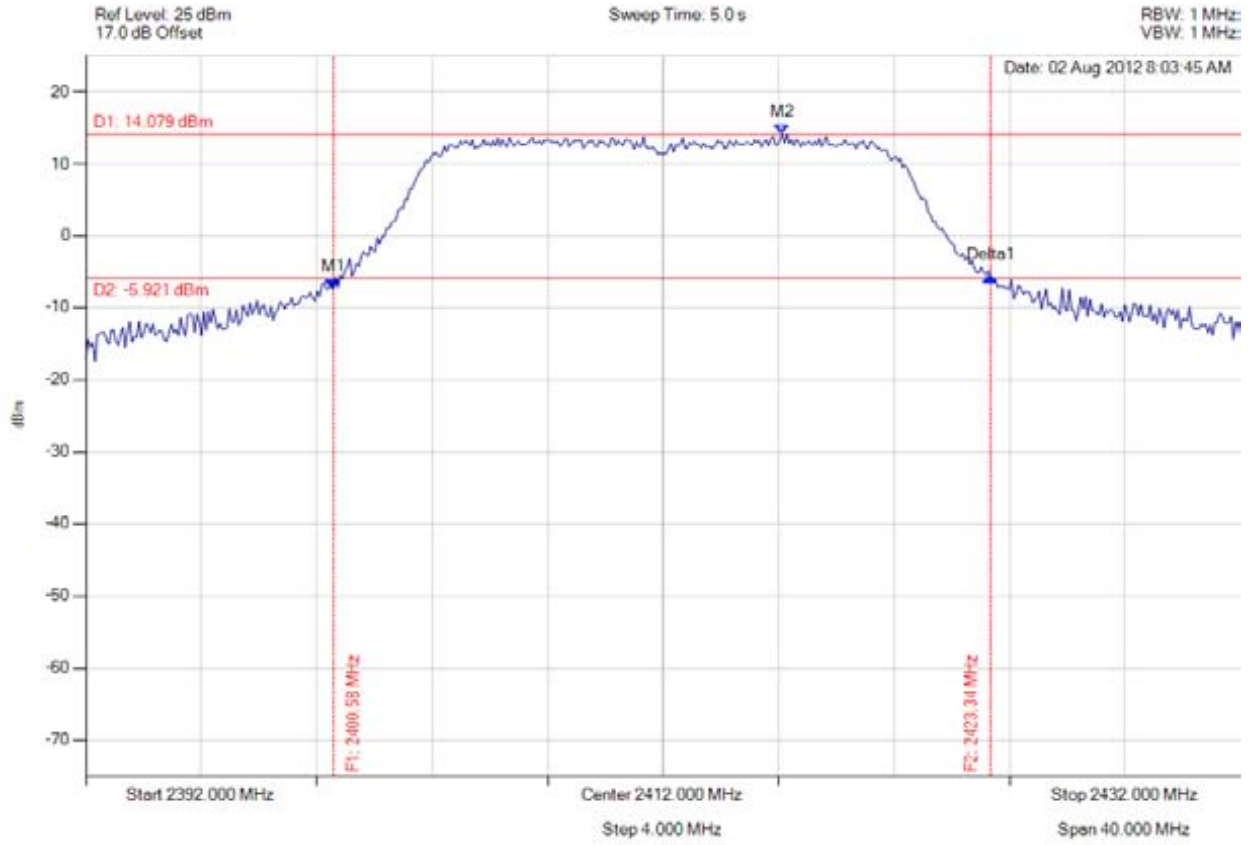
peak output power

Variant: 802.11g, Channel: 2412.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.577 MHz : -7.414 dBm M2 : 2416.128 MHz : 14.079 dBm Delta1 : 22.766 MHz : 1.753 dBm	Channel Power: 24.50 dBm Limit: 25.23 dBm Margin: -0.73 dB

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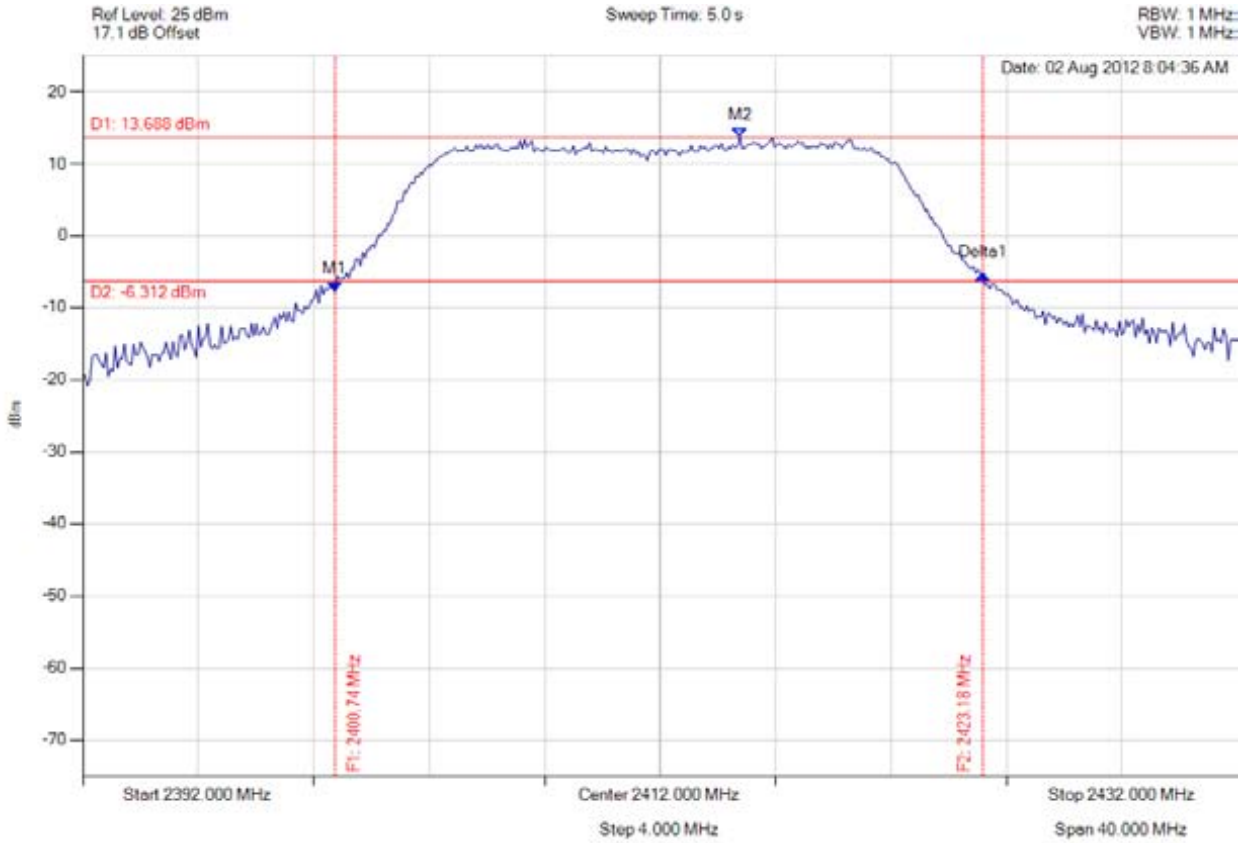
peak output power

Variant: 802.11g, Channel: 2412.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.737 MHz : -7.772 dBm M2 : 2414.766 MHz : 13.688 dBm Delta1 : 22.445 MHz : 2.416 dBm	Channel Power: 23.88 dBm Limit: 25.23 dBm Margin: -1.35 dB

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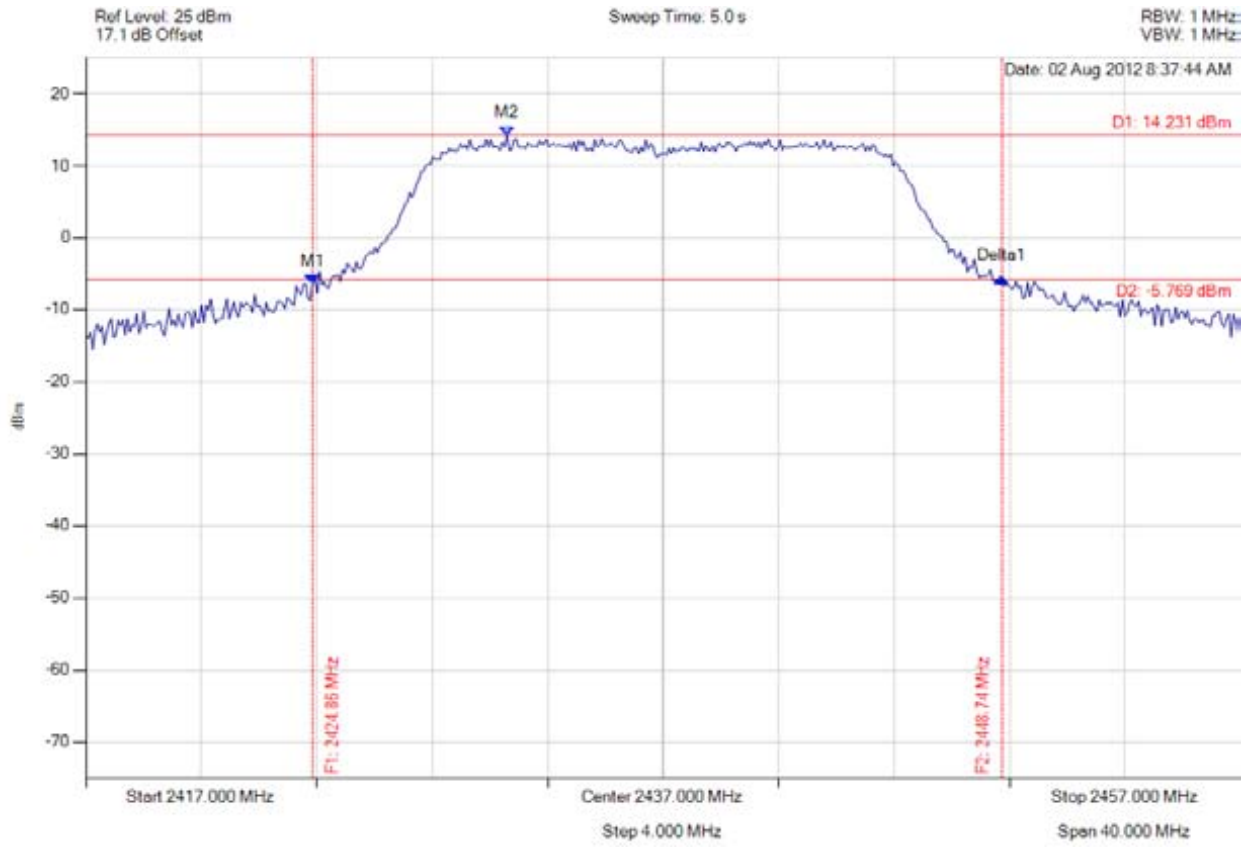
peak output power

Variant: 802.11g, Channel: 2437.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2424.856 MHz : -6.305 dBm M2 : 2431.589 MHz : 14.231 dBm Delta1 : 23.888 MHz : 0.813 dBm	Channel Power: 24.36 dBm Limit: 25.23 dBm Margin: -0.87 dB

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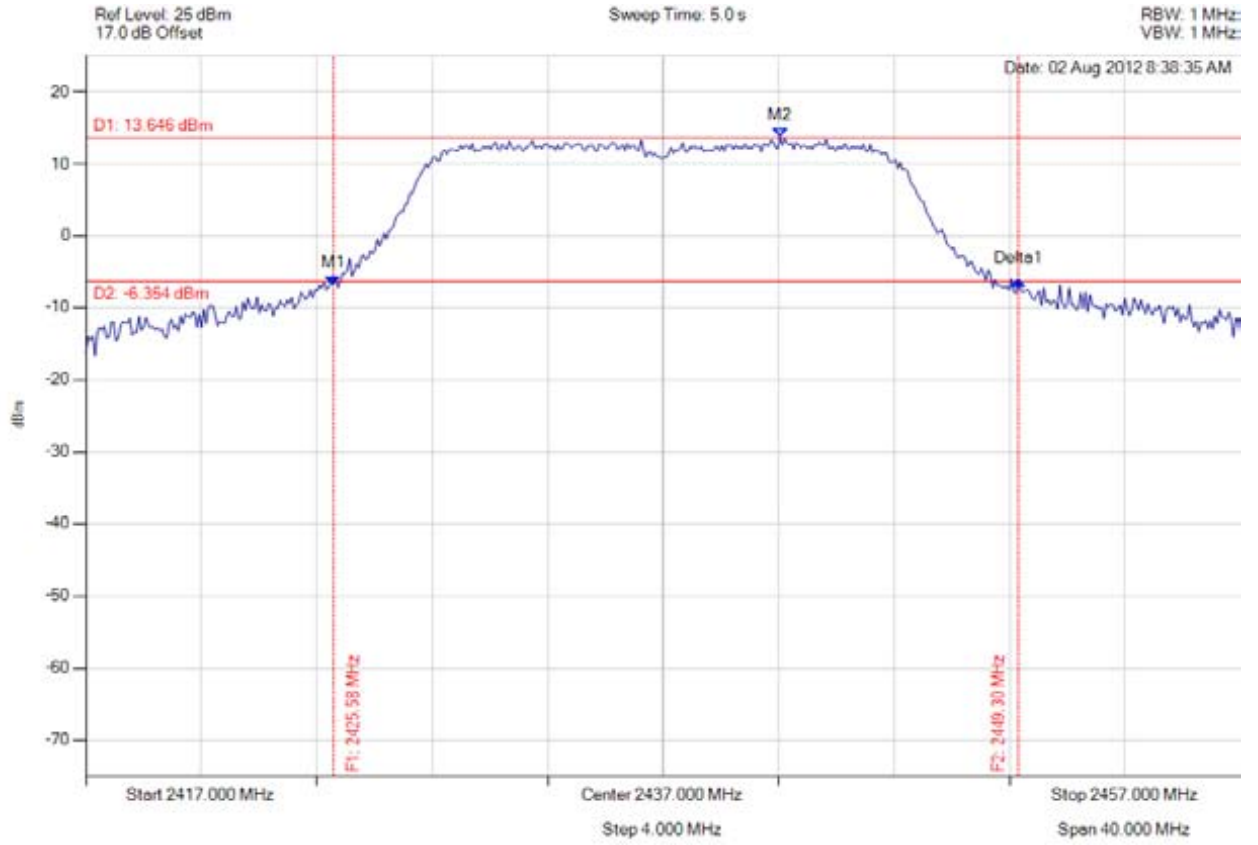
peak output power

Variant: 802.11g, Channel: 2437.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2425.577 MHz : -6.810 dBm M2 : 2441.048 MHz : 13.646 dBm Delta1 : 23.727 MHz : 0.608 dBm	Channel Power: 23.99 dBm Limit: 25.23 dBm Margin: -1.24 dB

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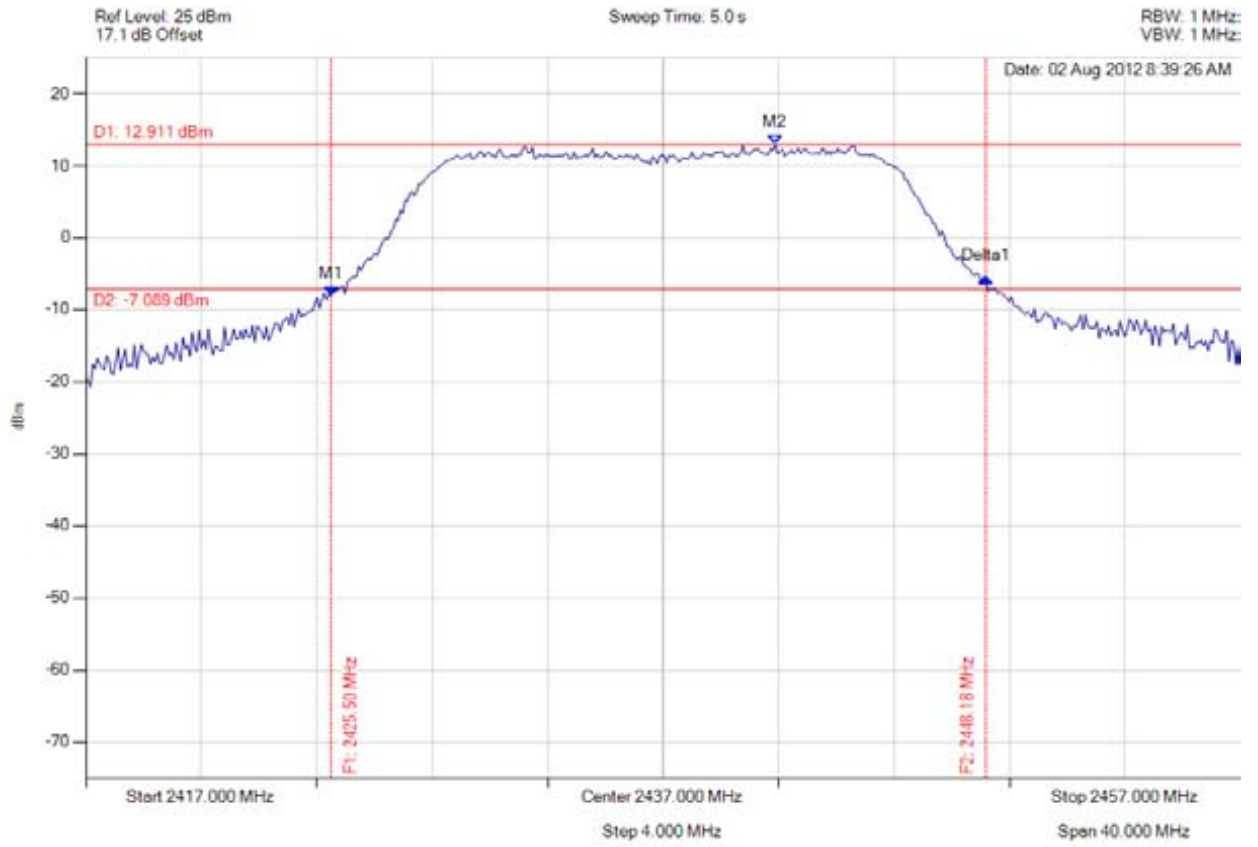
peak output power

Variant: 802.11g, Channel: 2437.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2425.497 MHz : -7.987 dBm M2 : 2440.888 MHz : 12.911 dBm Delta1 : 22.685 MHz : 2.440 dBm	Channel Power: 23.26 dBm Limit: 25.23 dBm Margin: -1.97 dB

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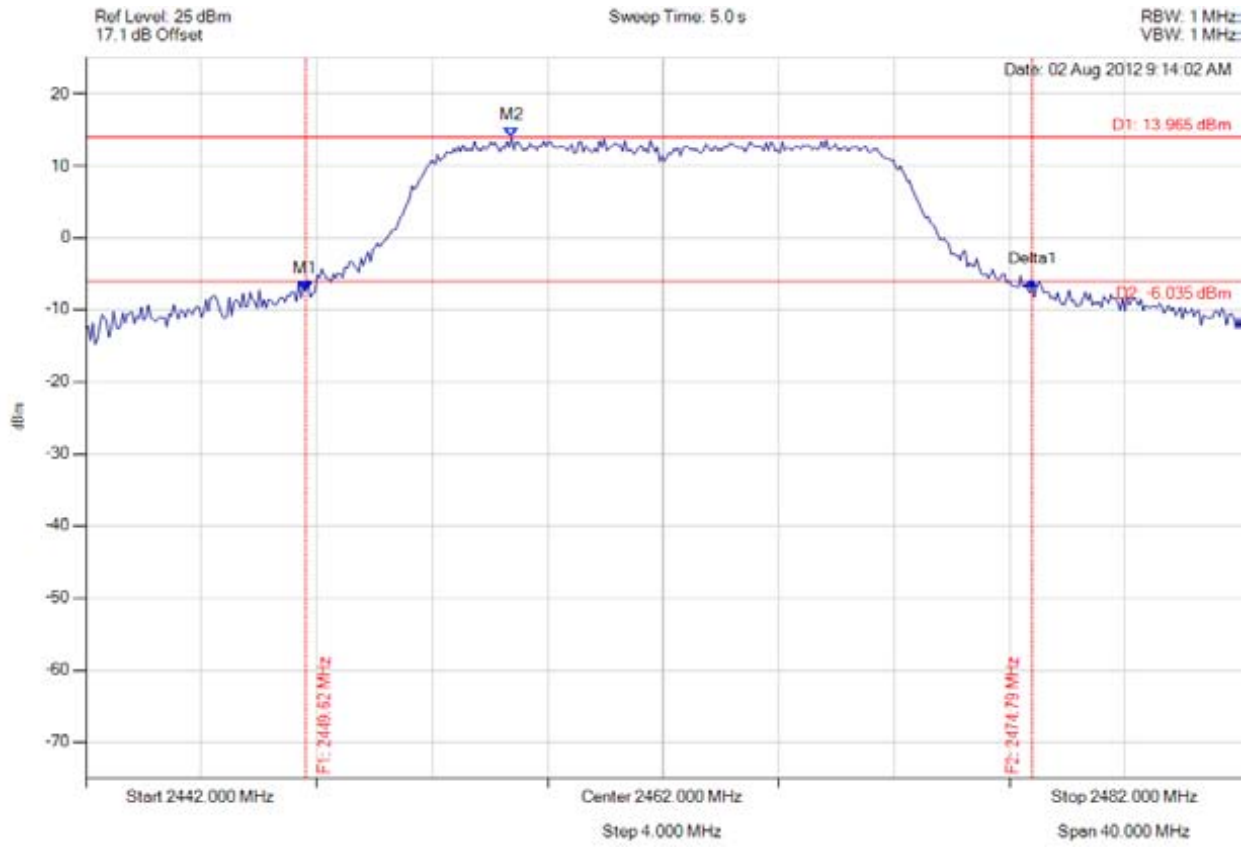
peak output power

Variant: 802.11g, Channel: 2462.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2449.615 MHz : -7.377 dBm M2 : 2456.749 MHz : 13.965 dBm Delta1 : 25.170 MHz : 1.413 dBm	Channel Power: 24.19 dBm Limit: 25.23 dBm Margin: -1.04 dB

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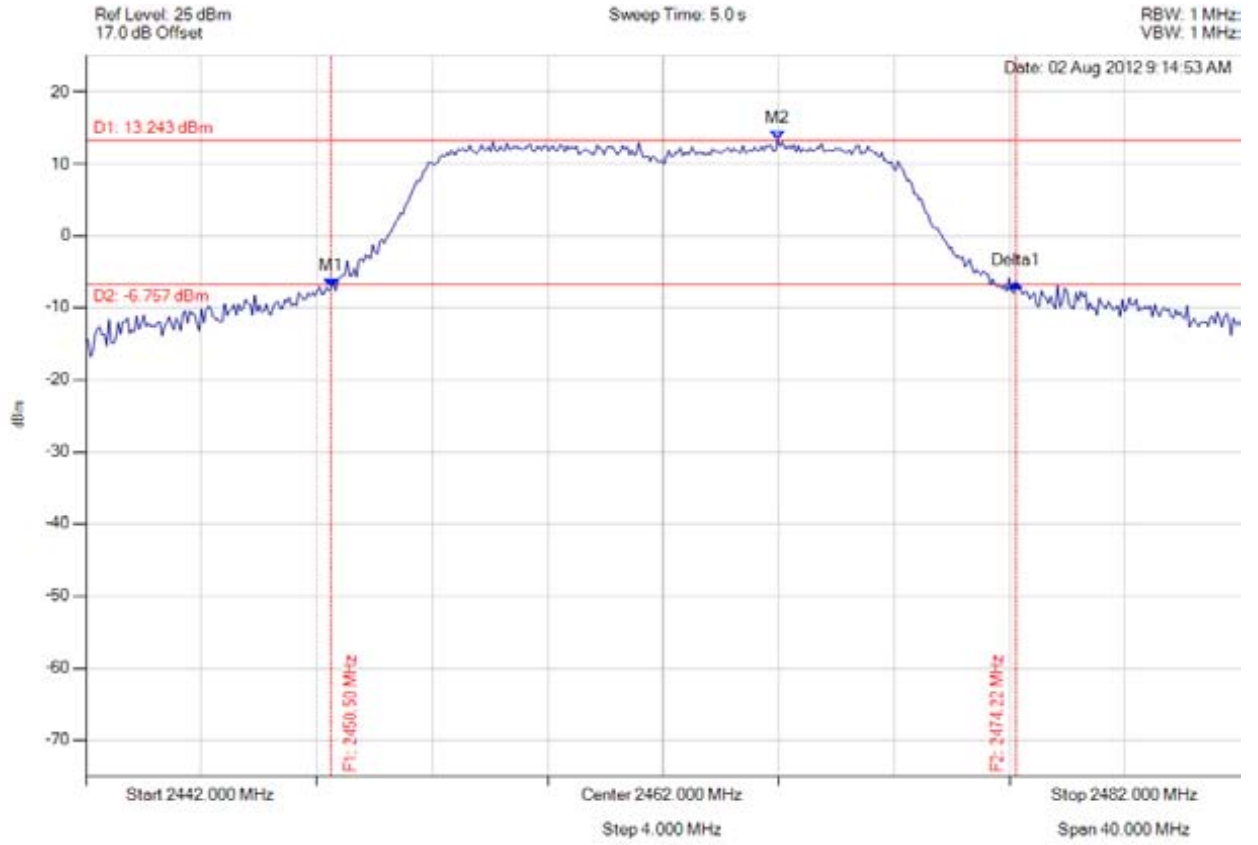
peak output power

Variant: 802.11g, Channel: 2462.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

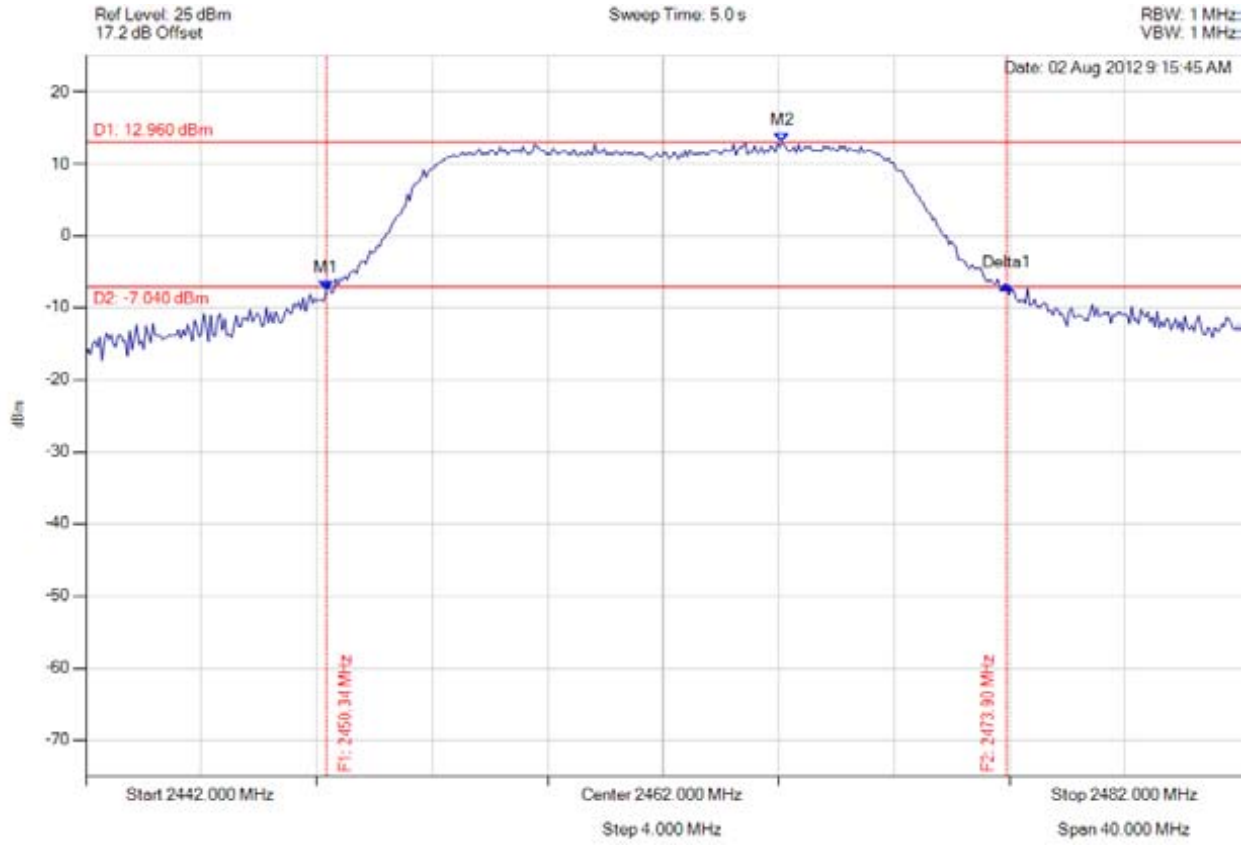


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.497 MHz : -7.229 dBm M2 : 2465.968 MHz : 13.243 dBm Delta1 : 23.727 MHz : 0.689 dBm	Channel Power: 23.60 dBm Limit: 25.23 dBm Margin: -1.63 dB

Back to the Matrix

peak output power

Variant: 802.11g, Channel: 2462.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

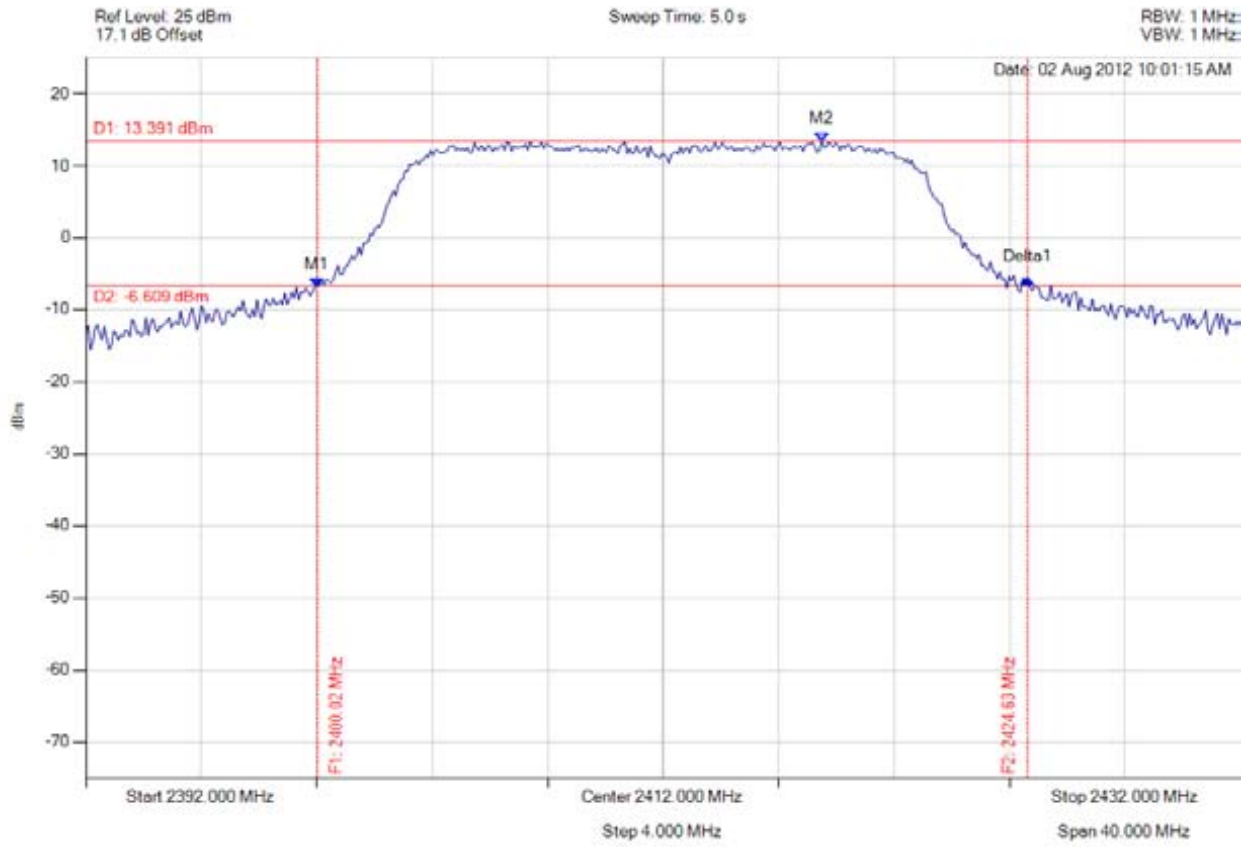


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2450.337 MHz : -7.477 dBm M2 : 2466.128 MHz : 12.960 dBm Delta1 : 23.567 MHz : 0.576 dBm	Channel Power: 23.41 dBm Limit: 25.23 dBm Margin: -1.82 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

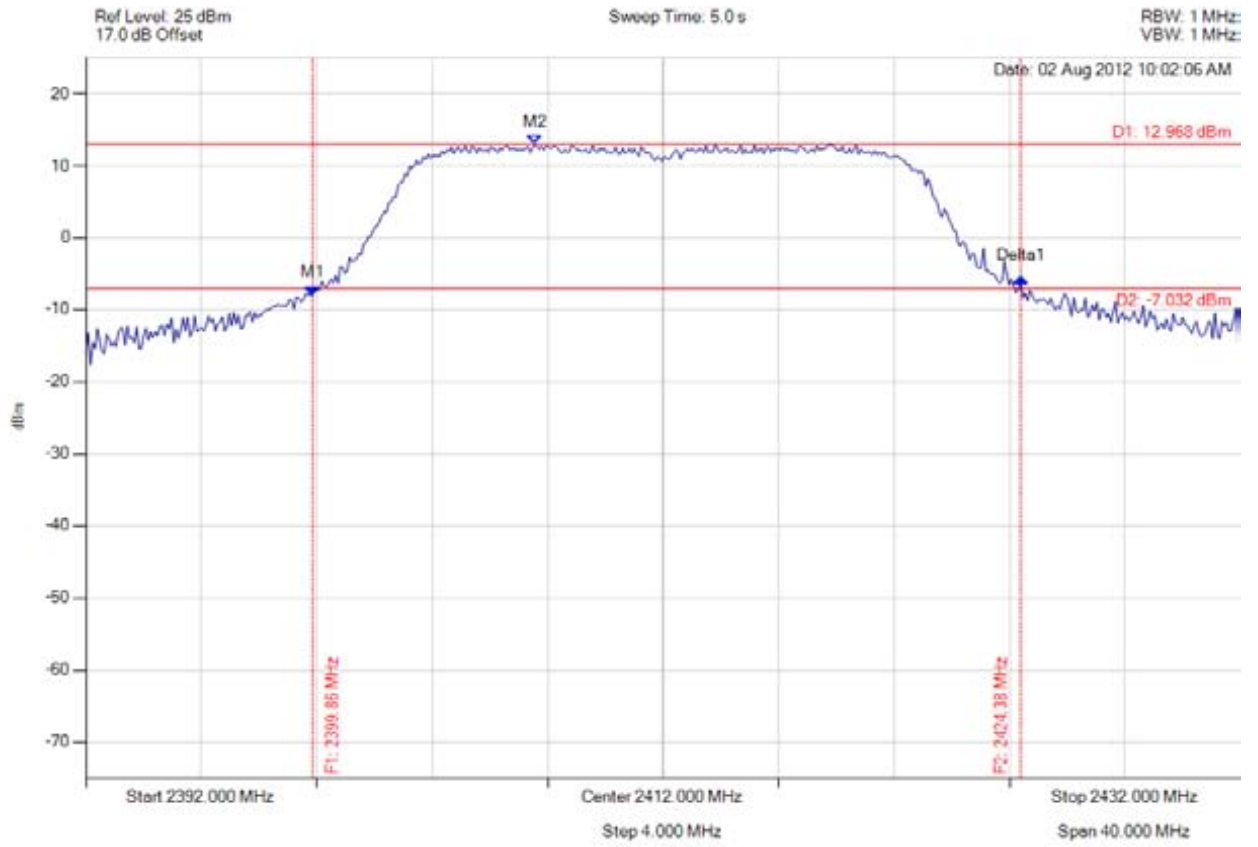


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.016 MHz : -6.846 dBm M2 : 2417.491 MHz : 13.391 dBm Delta1 : 24.609 MHz : 1.180 dBm	Channel Power: 24.37 dBm Limit: 25.23 dBm Margin: -0.86 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

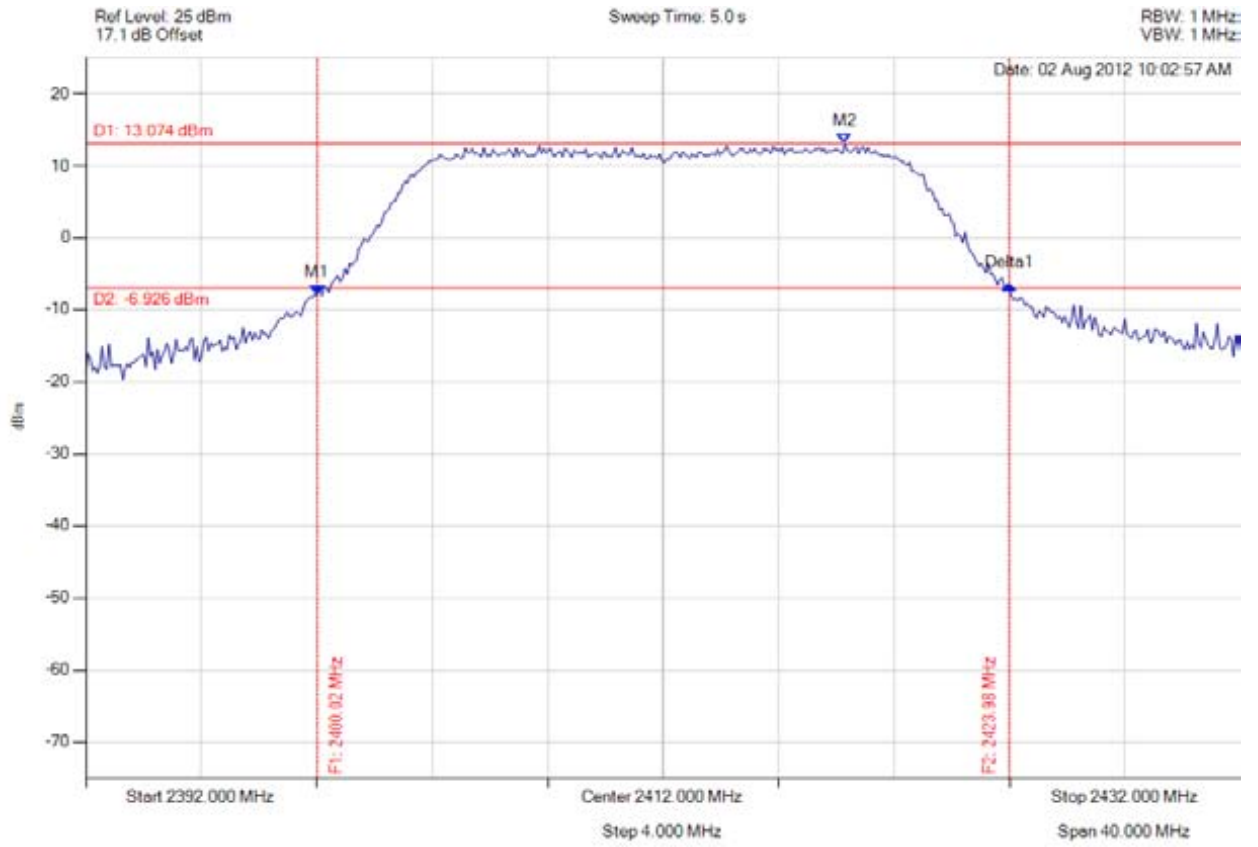


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2399.856 MHz : -7.963 dBm M2 : 2407.551 MHz : 12.968 dBm Delta1 : 24.529 MHz : 2.471 dBm	Channel Power: 24.11 dBm Limit: 25.23 dBm Margin: -1.12 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-20, Channel: 2412.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

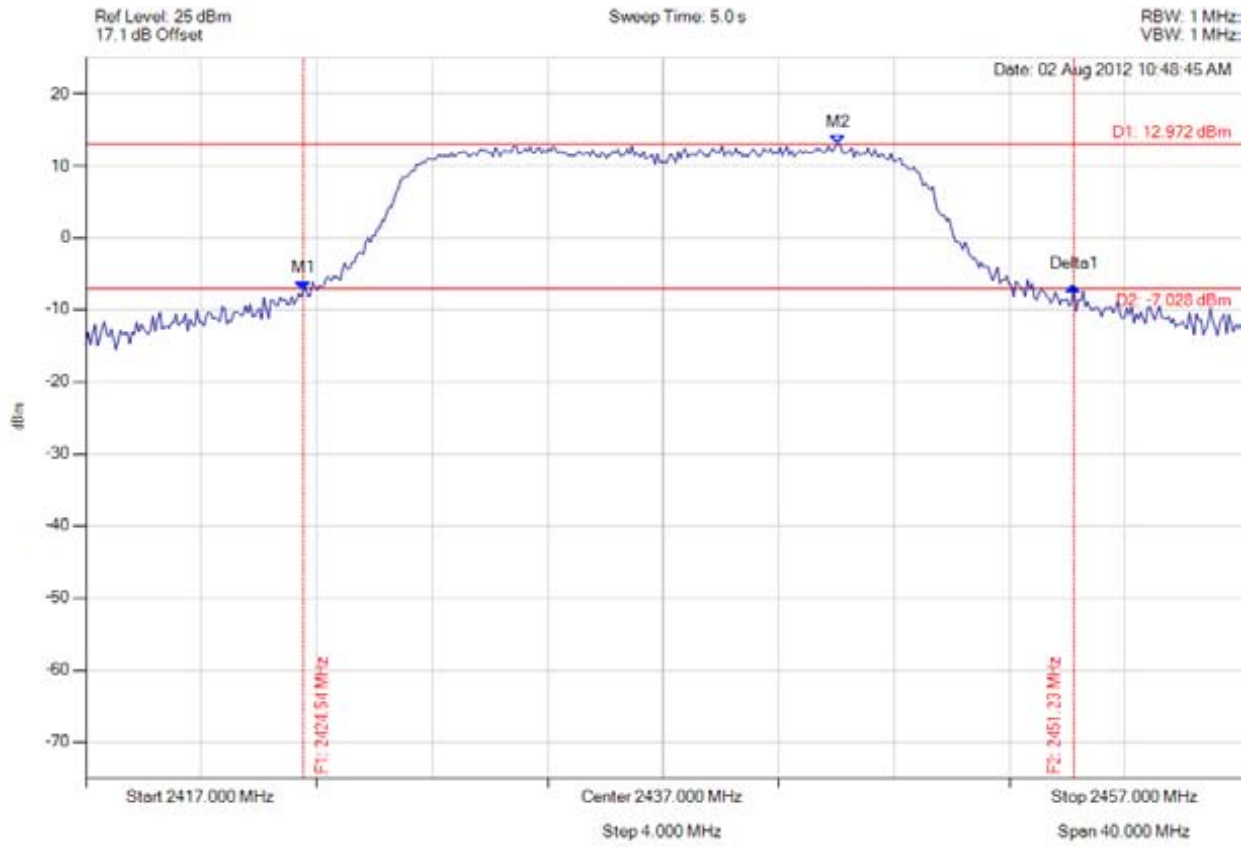


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2400.016 MHz : -7.912 dBm M2 : 2418.293 MHz : 13.074 dBm Delta1 : 23.968 MHz : 1.306 dBm	Channel Power: 23.73 dBm Limit: 25.23 dBm Margin: -1.50 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

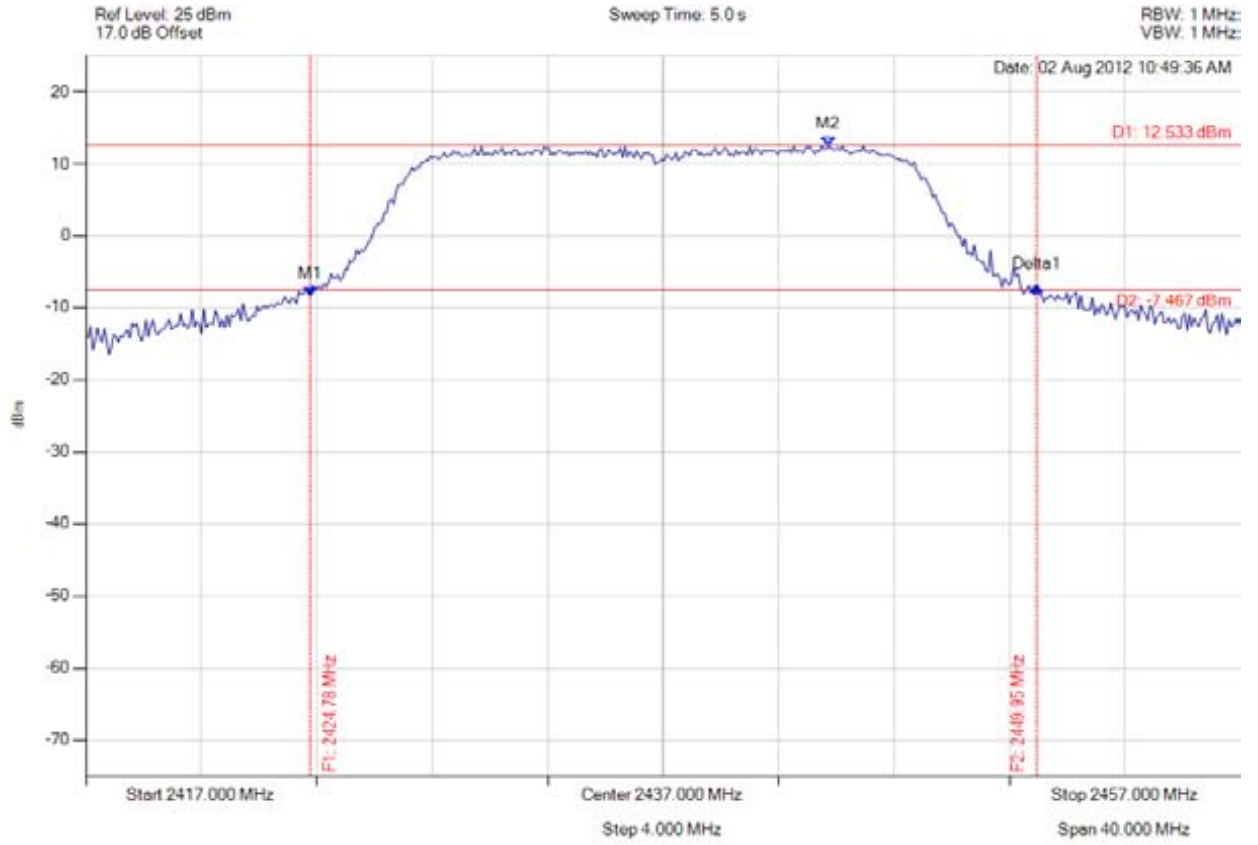


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2424.535 MHz : -7.284 dBm M2 : 2443.052 MHz : 12.972 dBm Delta1 : 26.693 MHz : 0.604 dBm	Channel Power: 23.78 dBm Limit: 25.23 dBm Margin: -1.45 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

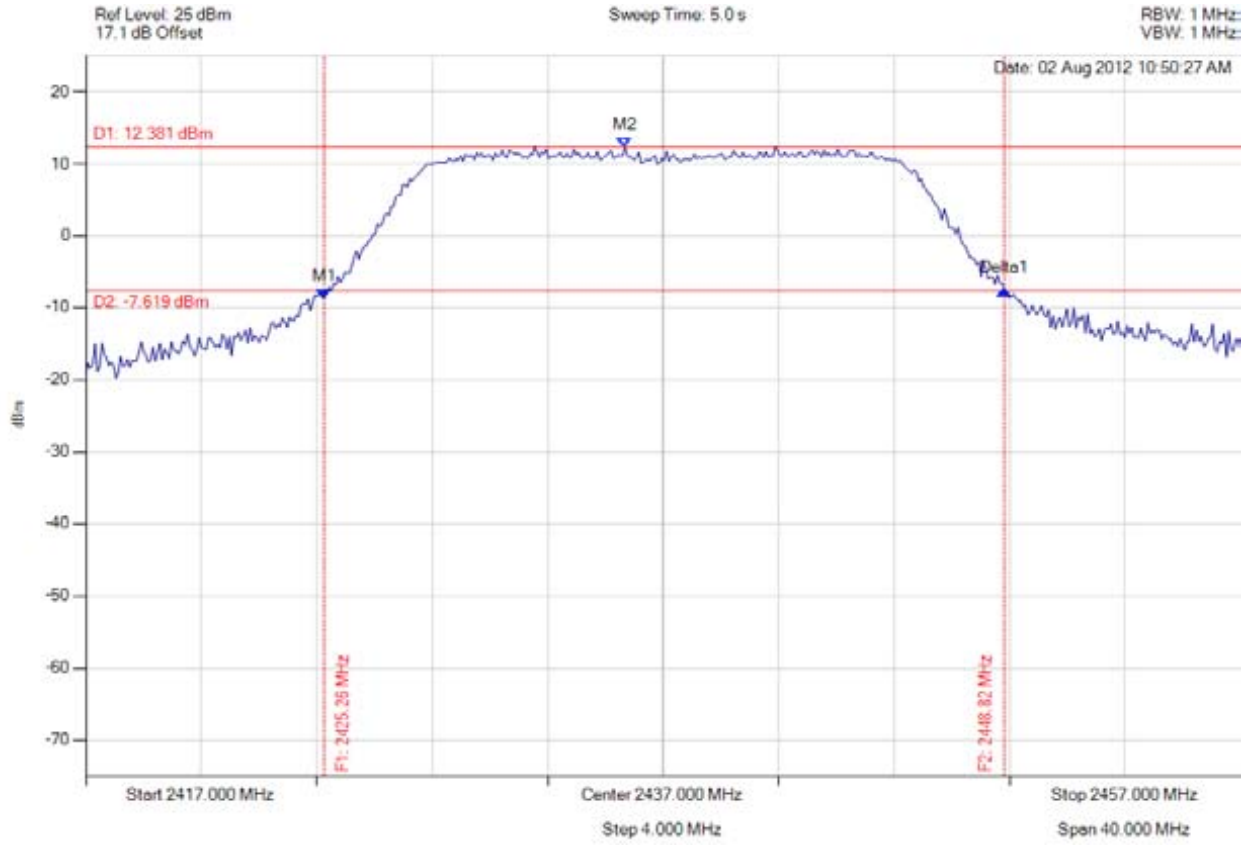


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2424.776 MHz : -8.301 dBm M2 : 2442.731 MHz : 12.533 dBm Delta1 : 25.170 MHz : 1.226 dBm	Channel Power: 23.56 dBm Limit: 25.23 dBm Margin: -1.67 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-20, Channel: 2437.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

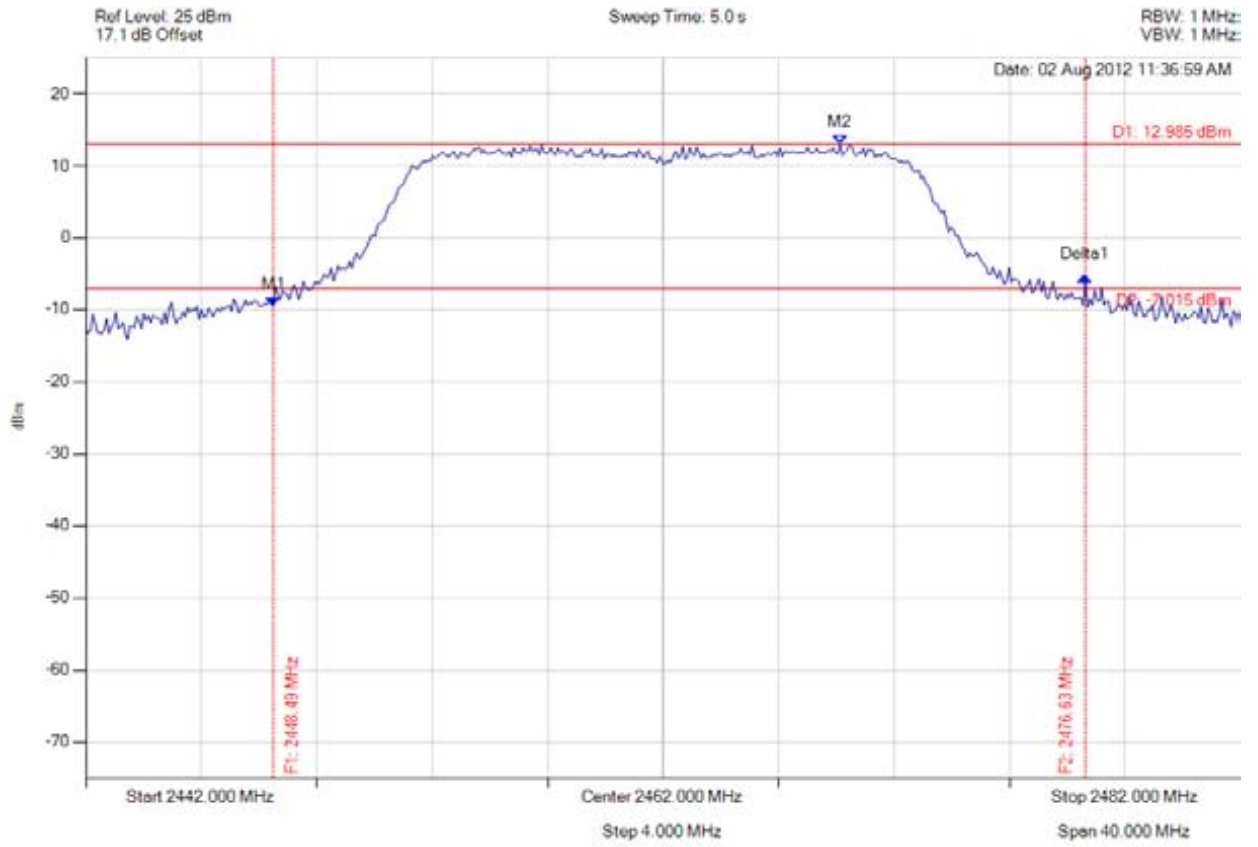


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2425.257 MHz : -8.774 dBm M2 : 2435.677 MHz : 12.381 dBm Delta1 : 23.567 MHz : 1.310 dBm	Channel Power: 23.06 dBm Limit: 25.23 dBm Margin: -2.17 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

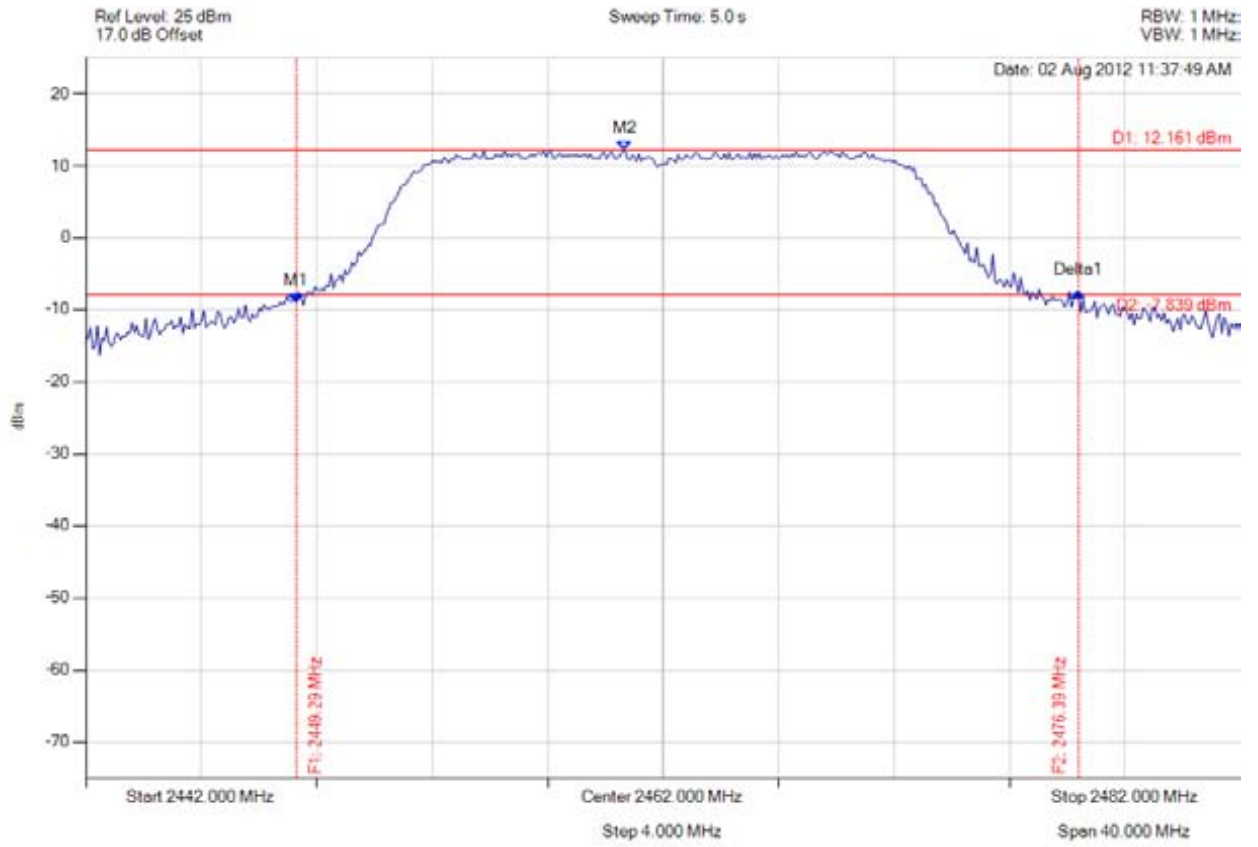


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2448.493 MHz : -9.478 dBm M2 : 2468.132 MHz : 12.985 dBm Delta1 : 28.136 MHz : 4.057 dBm	Channel Power: 23.75 dBm Limit: 25.23 dBm Margin: -1.48 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

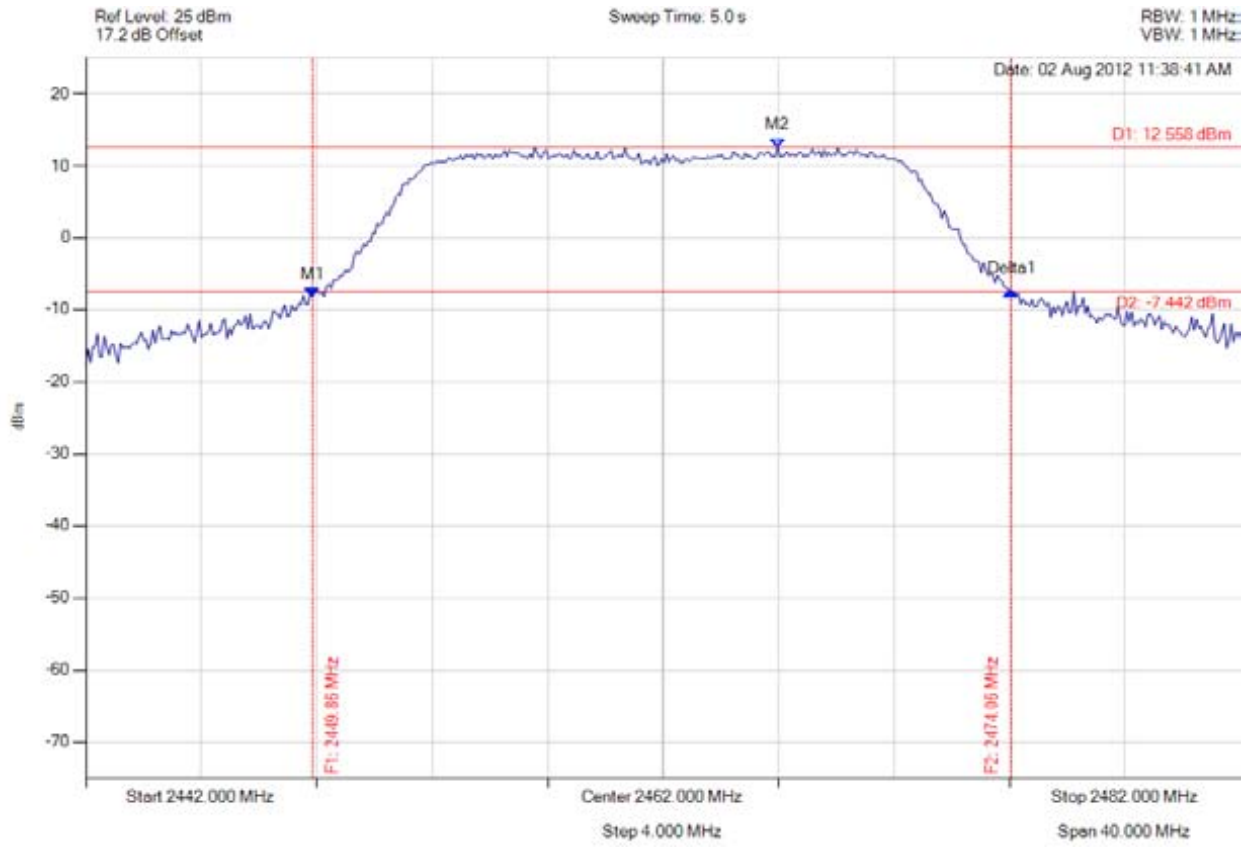


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2449.295 MHz : -9.006 dBm M2 : 2460.677 MHz : 12.161 dBm Delta1 : 27.094 MHz : 1.529 dBm	Channel Power: 23.27 dBm Limit: 25.23 dBm Margin: -1.96 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-20, Channel: 2462.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

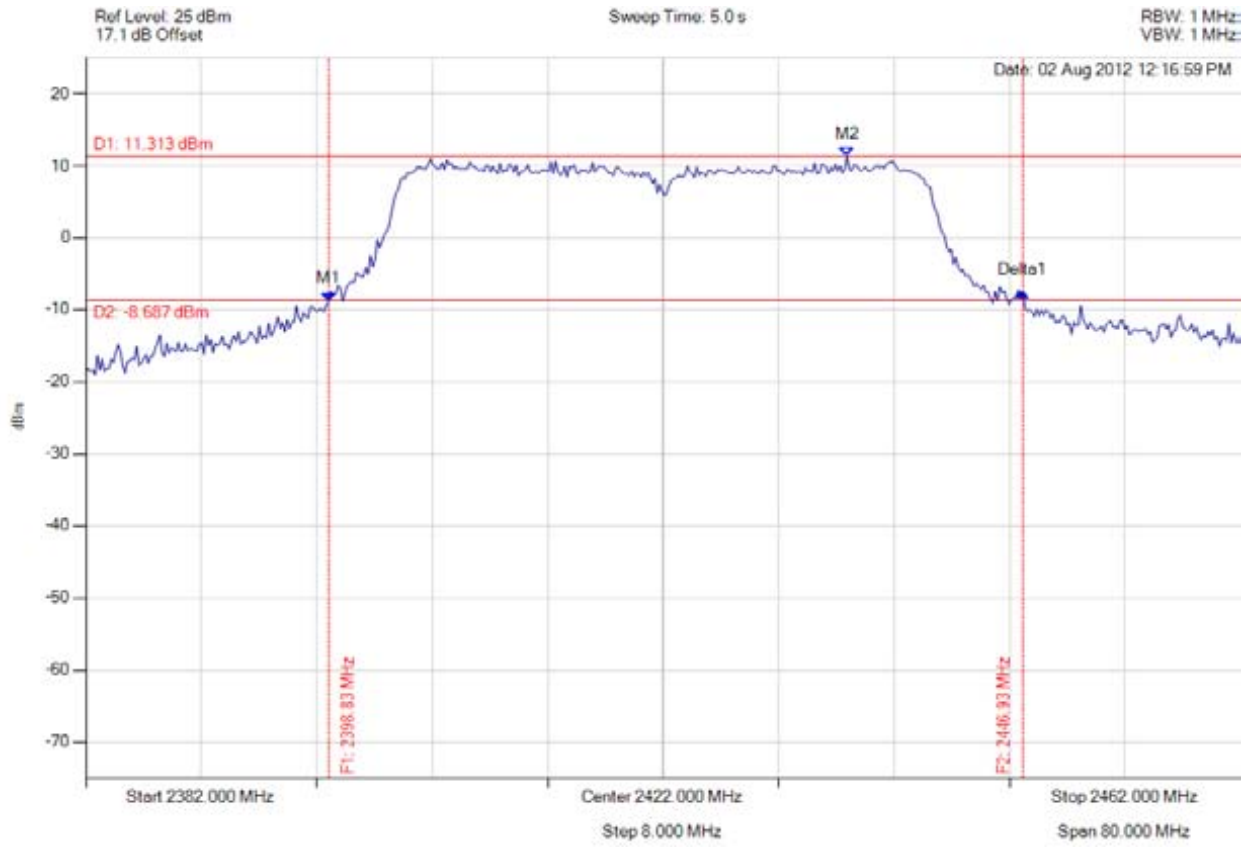


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2449.856 MHz : -8.205 dBm M2 : 2465.968 MHz : 12.558 dBm Delta1 : 24.208 MHz : 0.866 dBm	Channel Power: 23.33 dBm Limit: 25.23 dBm Margin: -1.90 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

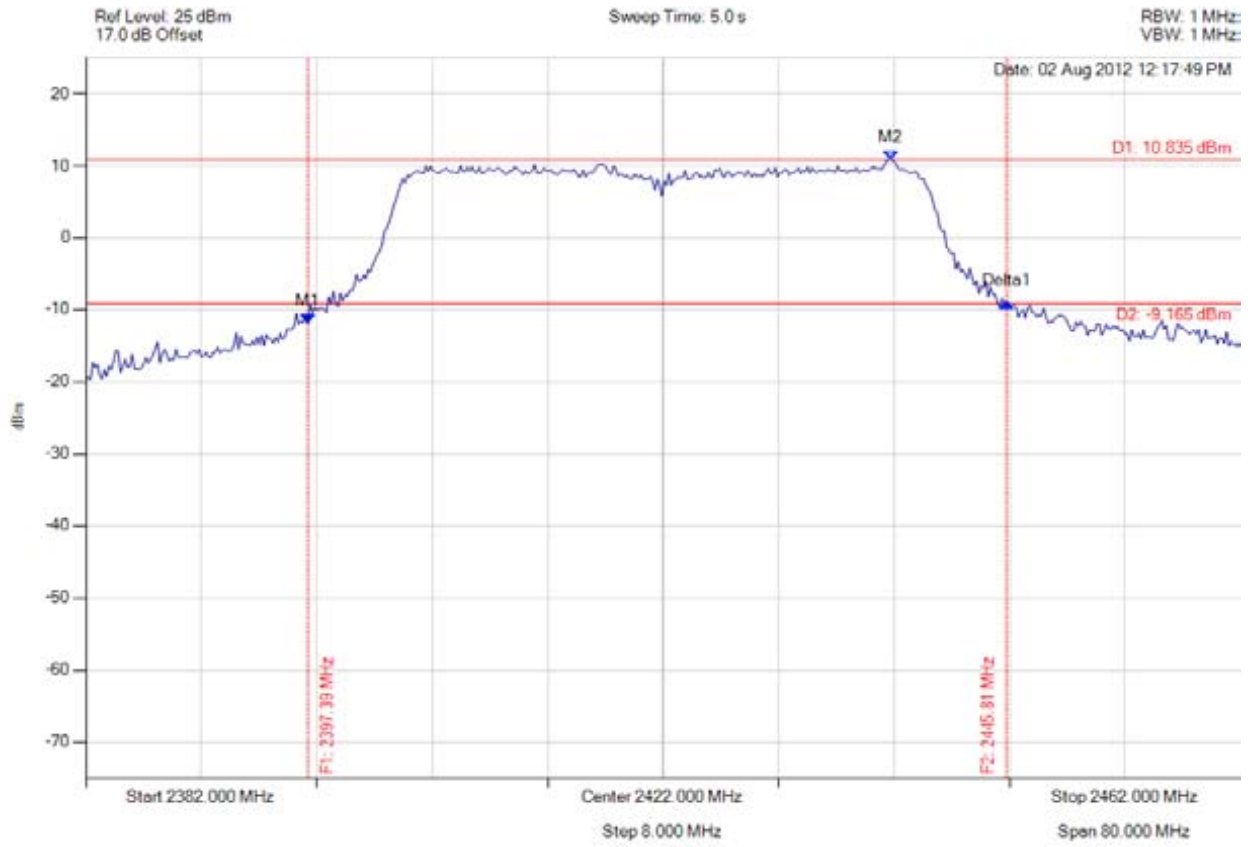


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2398.834 MHz : -8.795 dBm M2 : 2434.745 MHz : 11.313 dBm Delta1 : 48.096 MHz : 1.291 dBm	Channel Power: 24.56 dBm Limit: 25.23 dBm Margin: -0.67 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

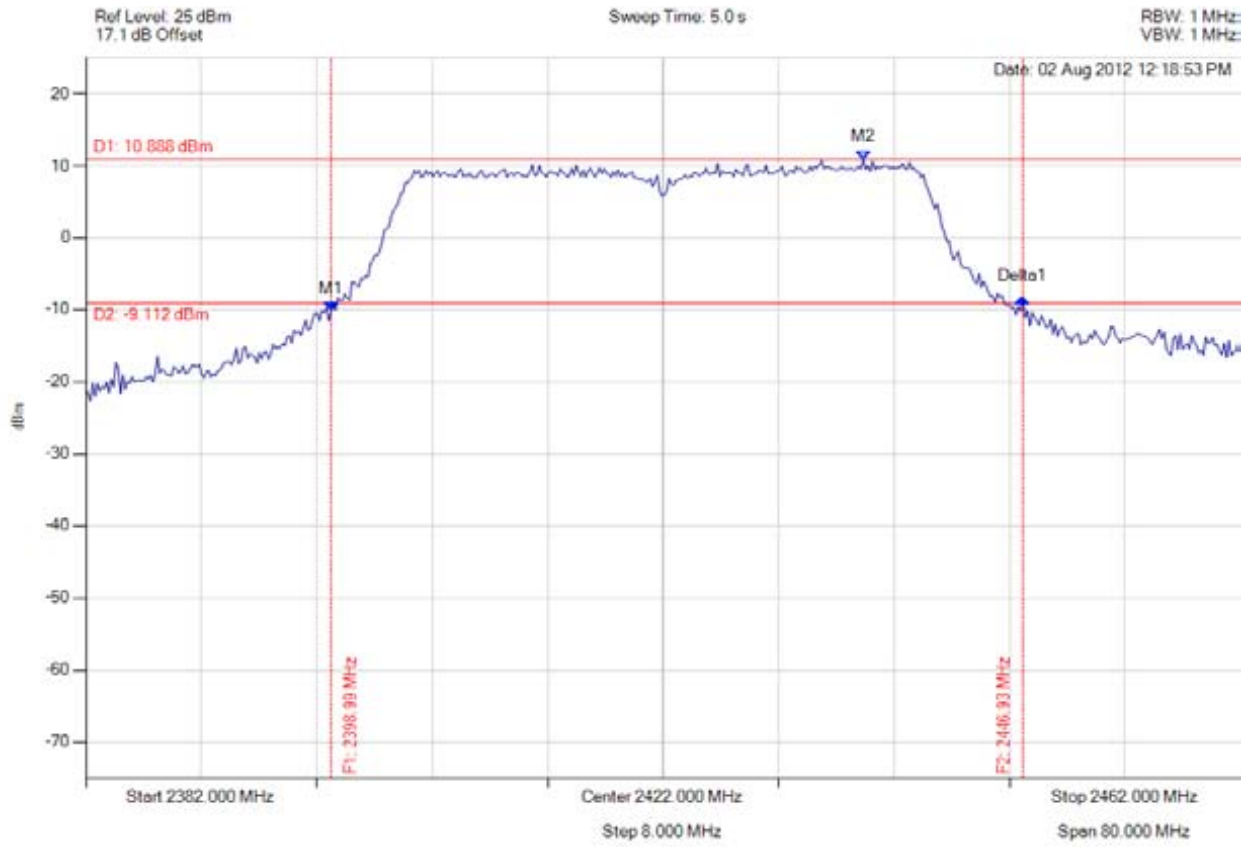


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2397.391 MHz : -11.904 dBm M2 : 2437.792 MHz : 10.835 dBm Delta1 : 48.417 MHz : 2.802 dBm	Channel Power: 24.32 dBm Limit: 25.23 dBm Margin: -0.91 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-40, Channel: 2422.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

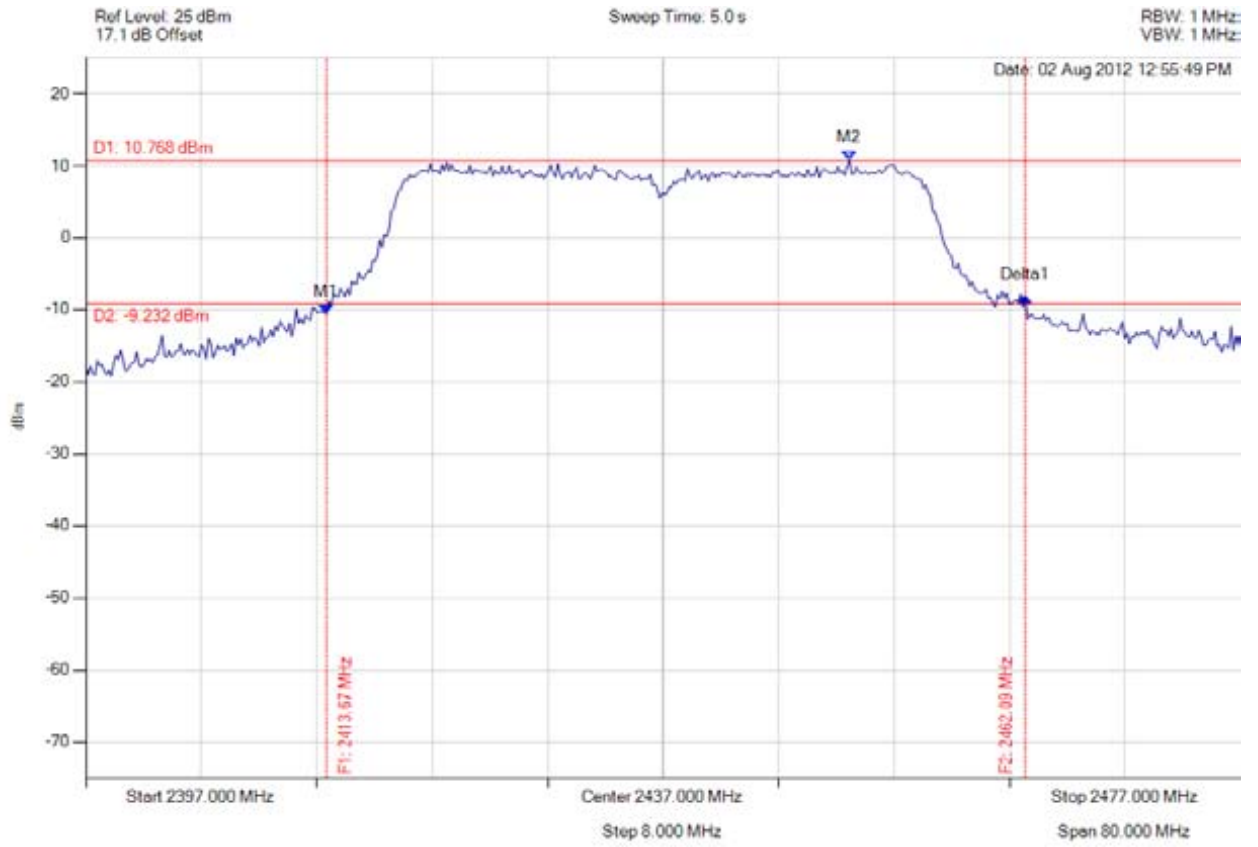


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2398.994 MHz : -10.206 dBm M2 : 2435.868 MHz : 10.888 dBm Delta1 : 47.936 MHz : 1.822 dBm	Channel Power: 24.24 dBm Limit: 25.23 dBm Margin: -0.99 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

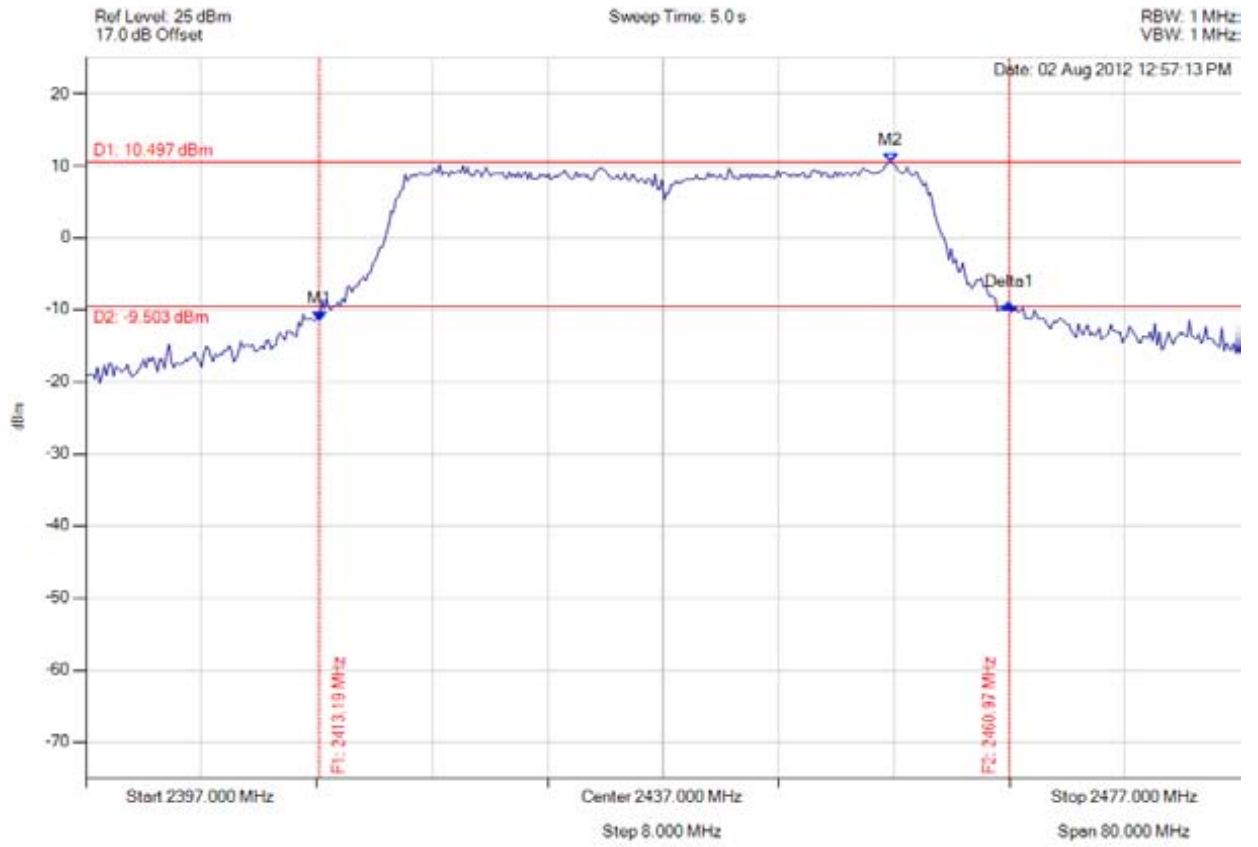


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2413.673 MHz : -10.564 dBm M2 : 2449.906 MHz : 10.768 dBm Delta1 : 48.417 MHz : 2.371 dBm	Channel Power: 24.08 dBm Limit: 25.23 dBm Margin: -1.15 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

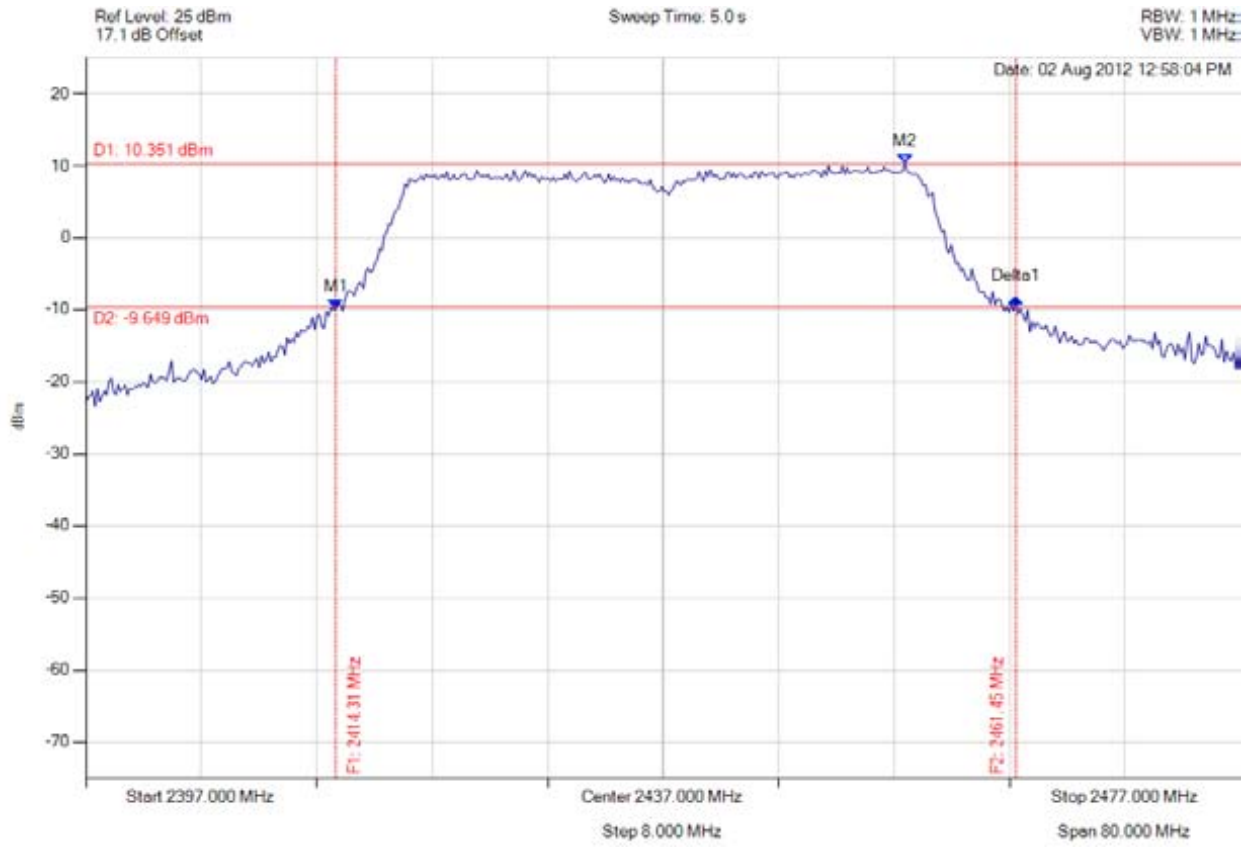


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2413.192 MHz : -11.506 dBm M2 : 2452.792 MHz : 10.497 dBm Delta1 : 47.776 MHz : 2.302 dBm	Channel Power: 23.90 dBm Limit: 25.23 dBm Margin: -1.33 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-40, Channel: 2437.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

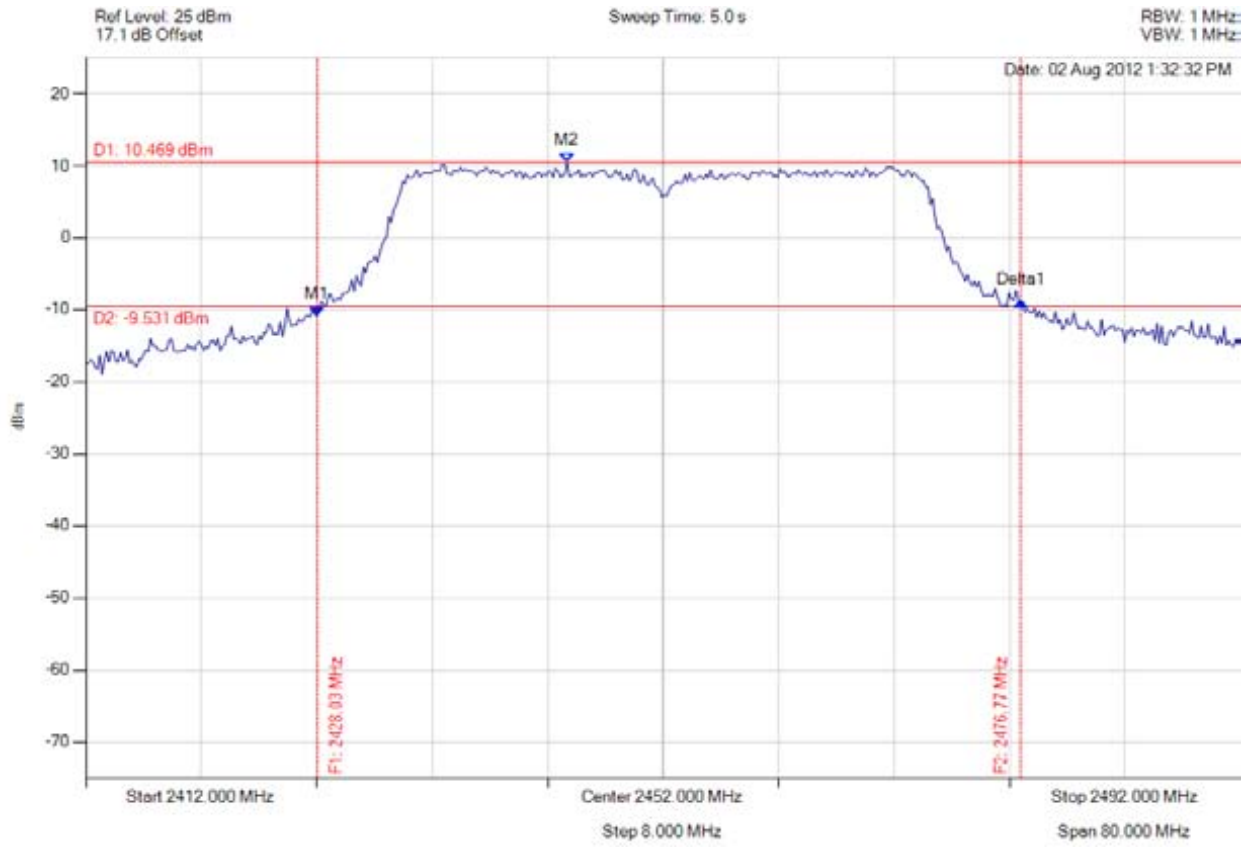


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2414.315 MHz : -9.934 dBm M2 : 2453.754 MHz : 10.351 dBm Delta1 : 47.134 MHz : 1.605 dBm	Channel Power: 23.70 dBm Limit: 25.23 dBm Margin: -1.53 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

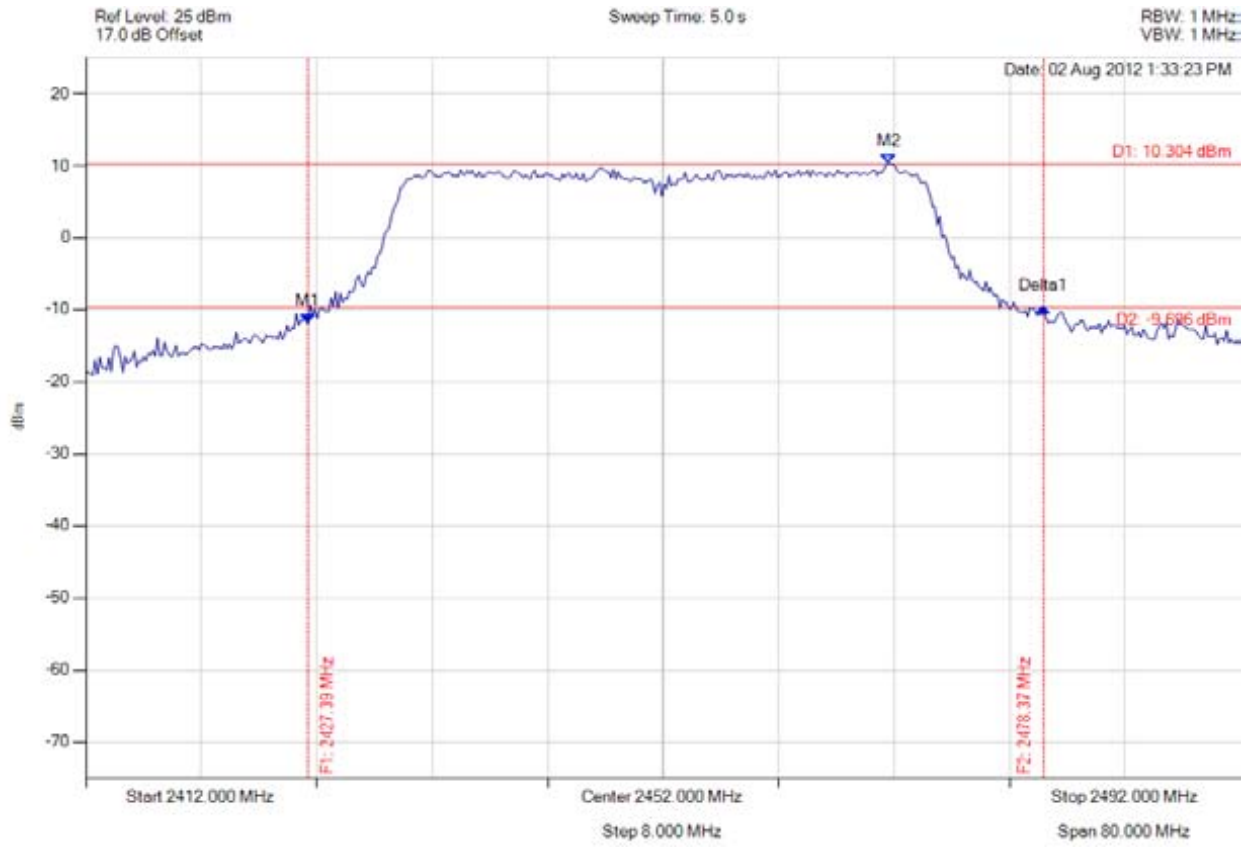


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2428.032 MHz : -10.802 dBm M2 : 2445.347 MHz : 10.469 dBm Delta1 : 48.737 MHz : 1.871 dBm	Channel Power: 23.98 dBm Limit: 25.23 dBm Margin: -1.25 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

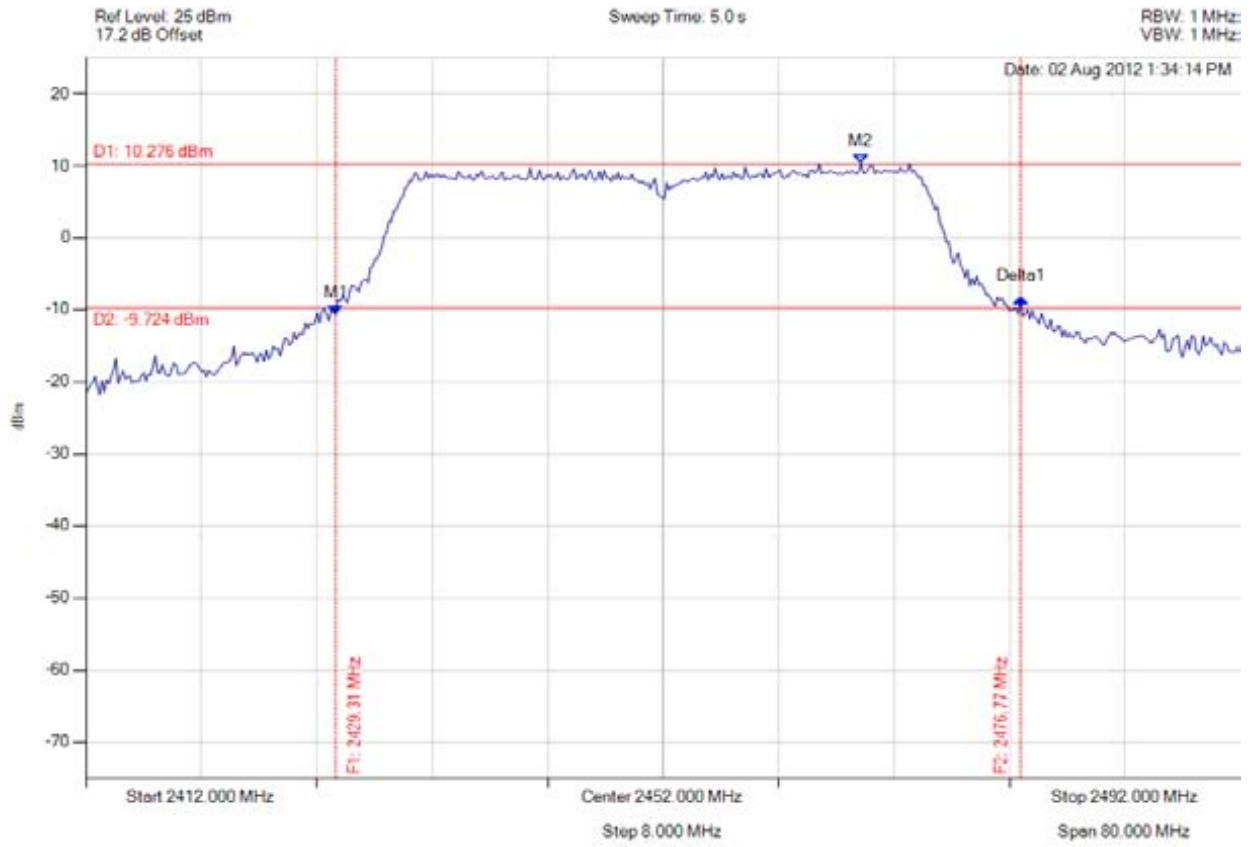


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2427.391 MHz : -11.941 dBm M2 : 2467.631 MHz : 10.304 dBm Delta1 : 50.982 MHz : 2.268 dBm	Channel Power: 23.87 dBm Limit: 25.23 dBm Margin: -1.36 dB

Back to the Matrix

Peak Output Power

Variant: 802.11n HT-40, Channel: 2452.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

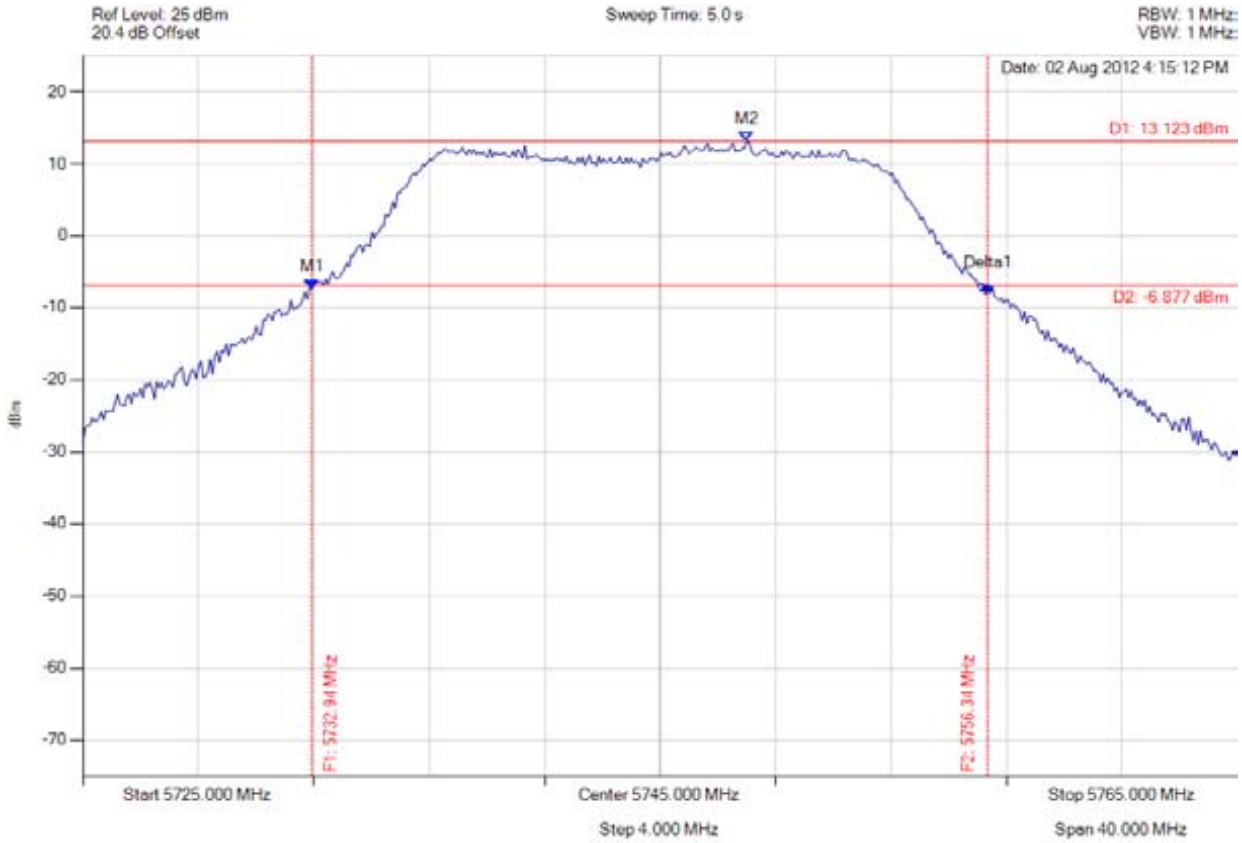


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 2429.315 MHz : -10.639 dBm M2 : 2465.707 MHz : 10.276 dBm Delta1 : 47.455 MHz : 2.306 dBm	Channel Power: 23.77 dBm Limit: 25.23 dBm Margin: -1.46 dB

Back to the Matrix

Peak Output Power

Variant: 802.11a, Channel: 5745.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

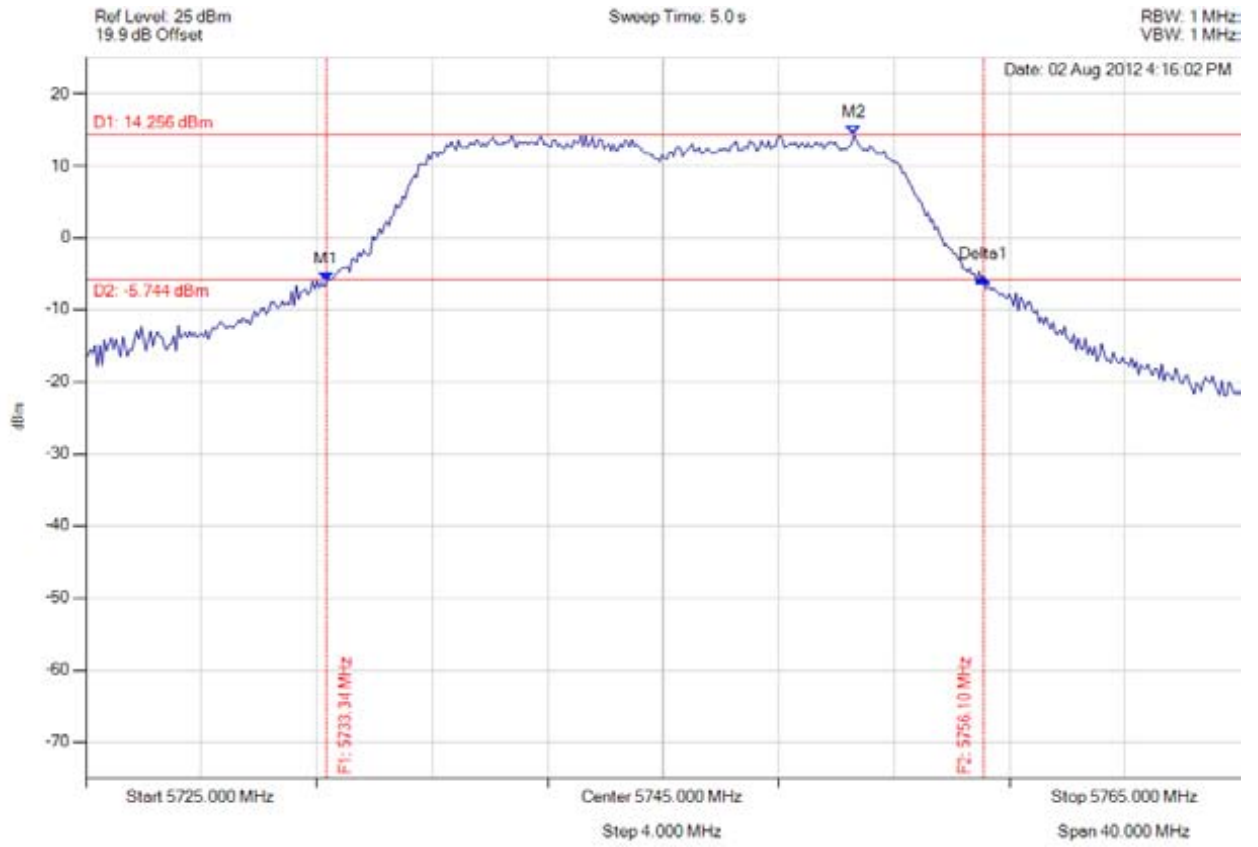


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5732.936 MHz : -7.314 dBm M2 : 5748.006 MHz : 13.123 dBm Delta1 : 23.407 MHz : 0.482 dBm	Channel Power: 22.98 dBm Limit: 25.23 dBm Margin: -2.25 dB

Back to the Matrix

Peak Output Power

Variant: 802.11a, Channel: 5745.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

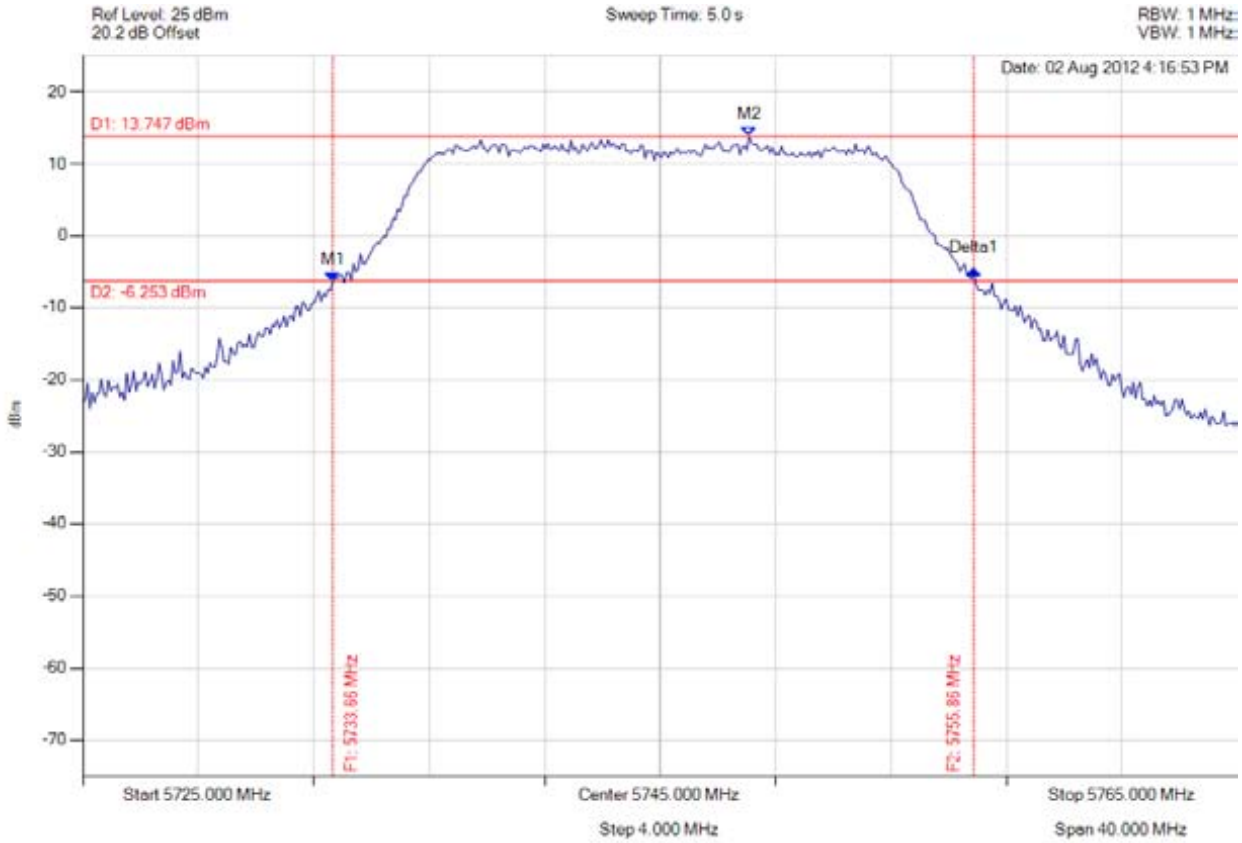


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5733.337 MHz : -6.114 dBm M2 : 5751.613 MHz : 14.256 dBm Delta1 : 22.766 MHz : 0.653 dBm	Channel Power: 24.48 dBm Limit: 25.23 dBm Margin: -0.75 dB

Back to the Matrix

Peak Output Power

Variant: 802.11a, Channel: 5745.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

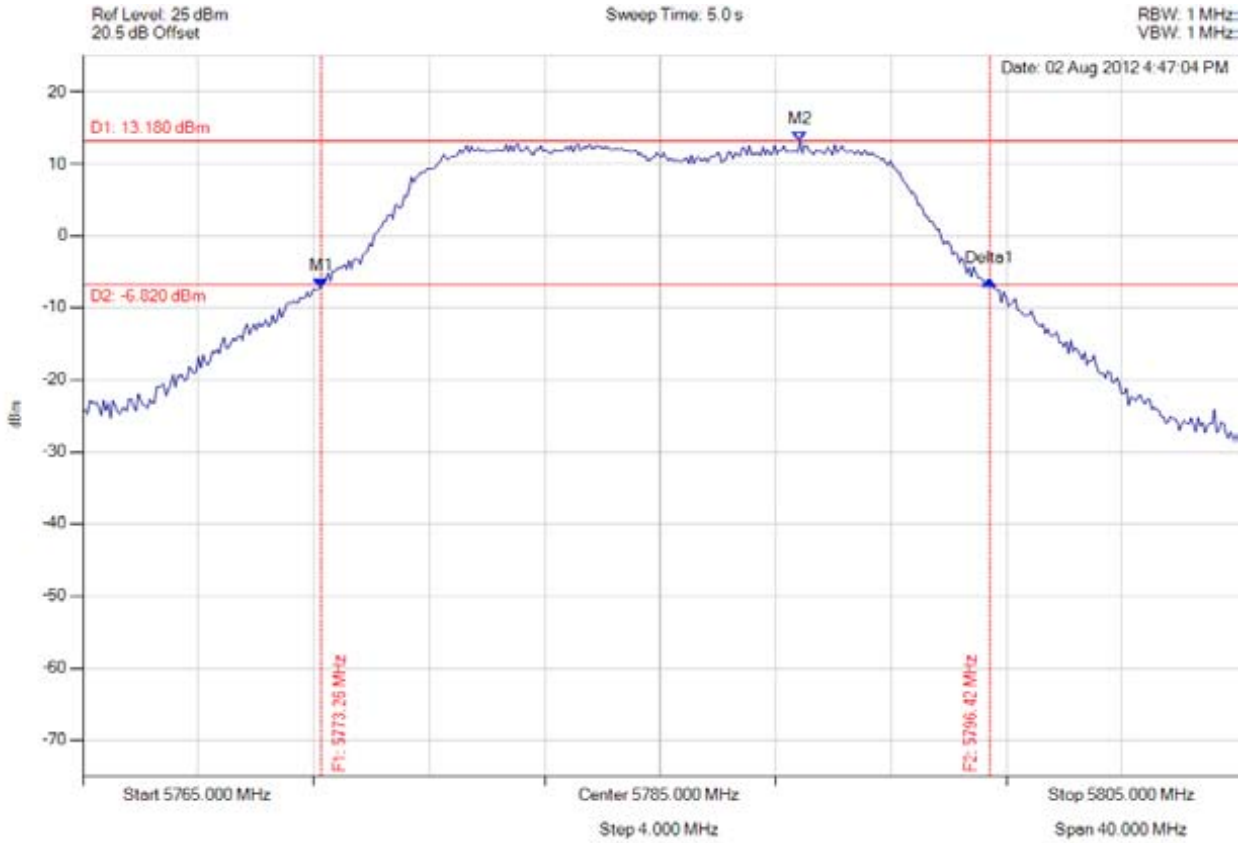


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5733.657 MHz : -6.332 dBm M2 : 5748.086 MHz : 13.747 dBm Delta1 : 22.204 MHz : 1.688 dBm	Channel Power: 23.70 dBm Limit: 25.23 dBm Margin: -1.53 dB

Back to the Matrix

Peak Output Power

Variant: 802.11a, Channel: 5785.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5773.257 MHz : -7.154 dBm M2 : 5789.850 MHz : 13.180 dBm Delta1 : 23.166 MHz : 0.972 dBm	Channel Power: 23.37 dBm Limit: 25.23 dBm Margin: -1.86 dB

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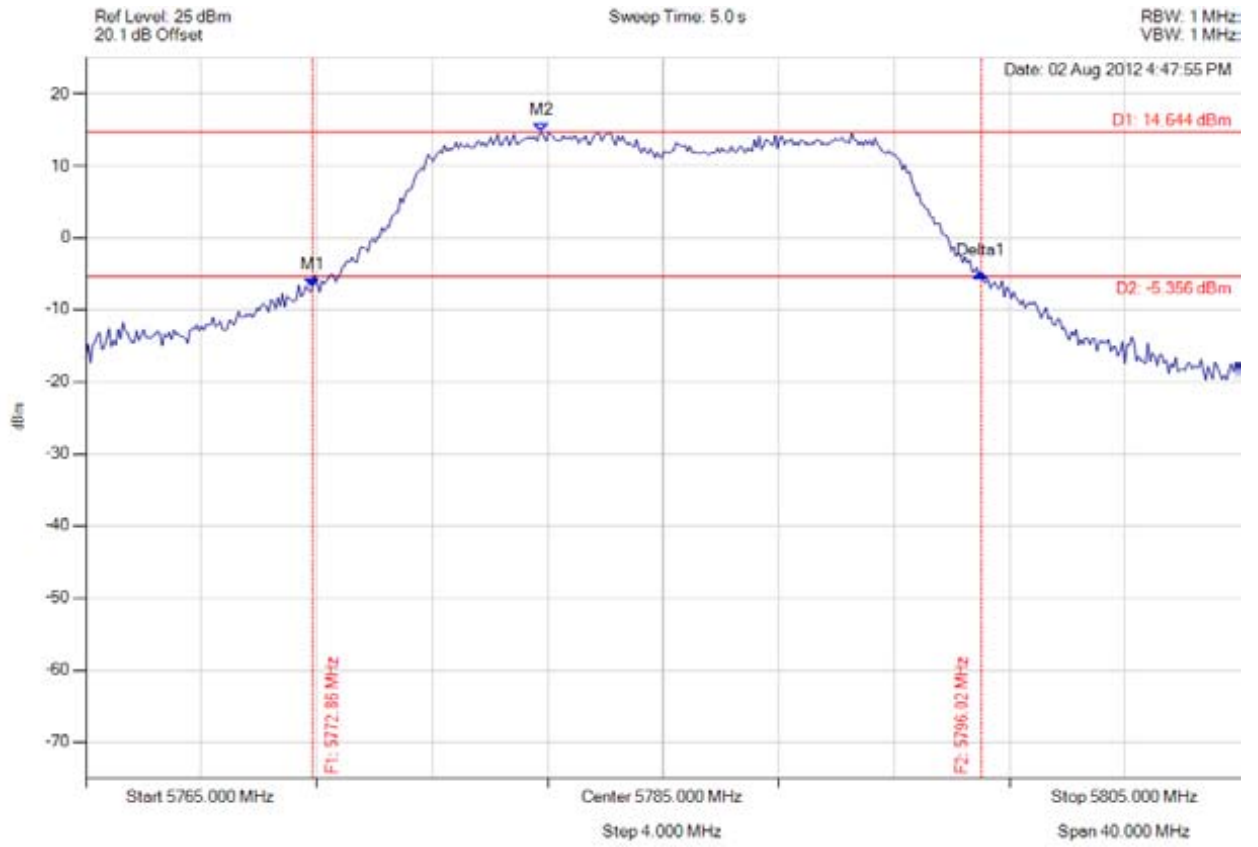
Peak Output Power

Variant: 802.11a, Channel: 5785.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5772.856 MHz : -6.928 dBm M2 : 5780.792 MHz : 14.644 dBm Delta1 : 23.166 MHz : 2.105 dBm	Channel Power: 24.83 dBm Limit: 25.23 dBm Margin: -0.40 dB

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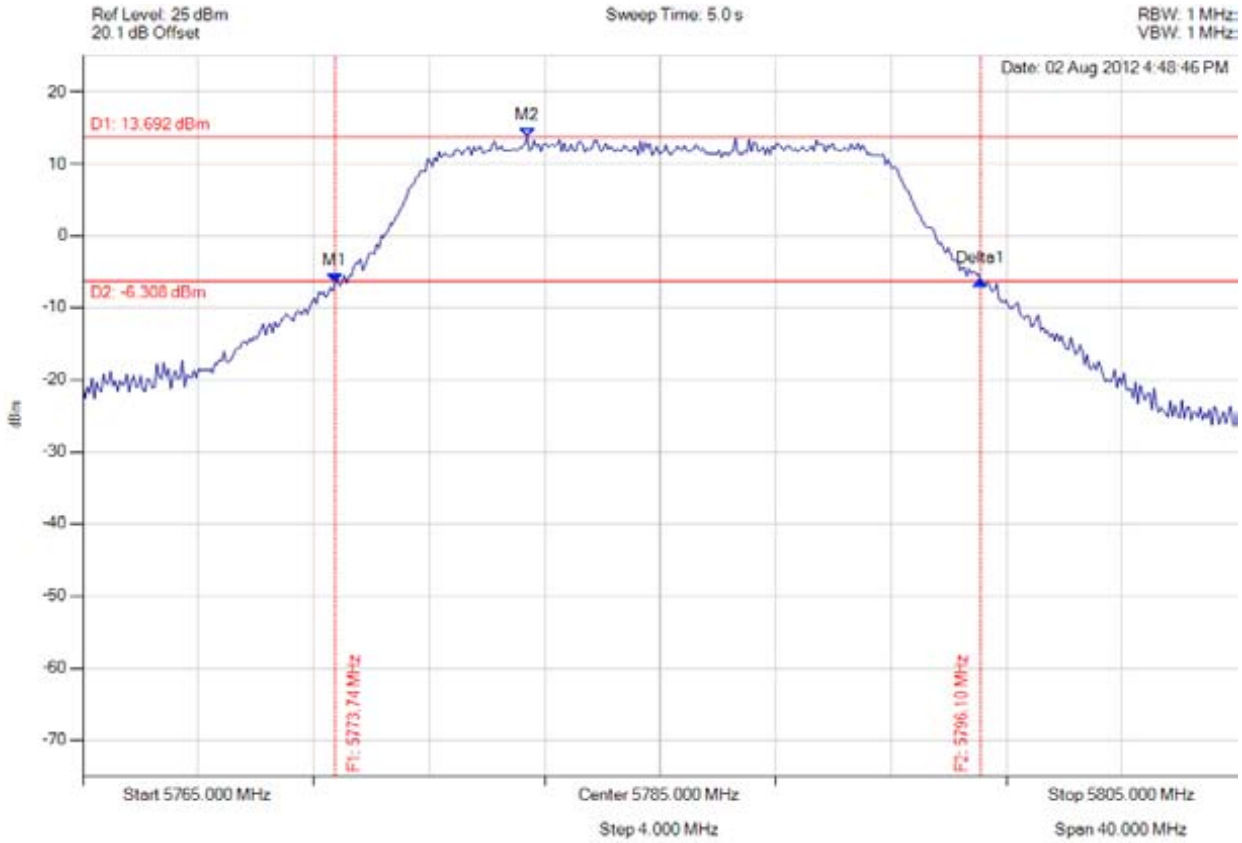
Peak Output Power

Variant: 802.11a, Channel: 5785.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc

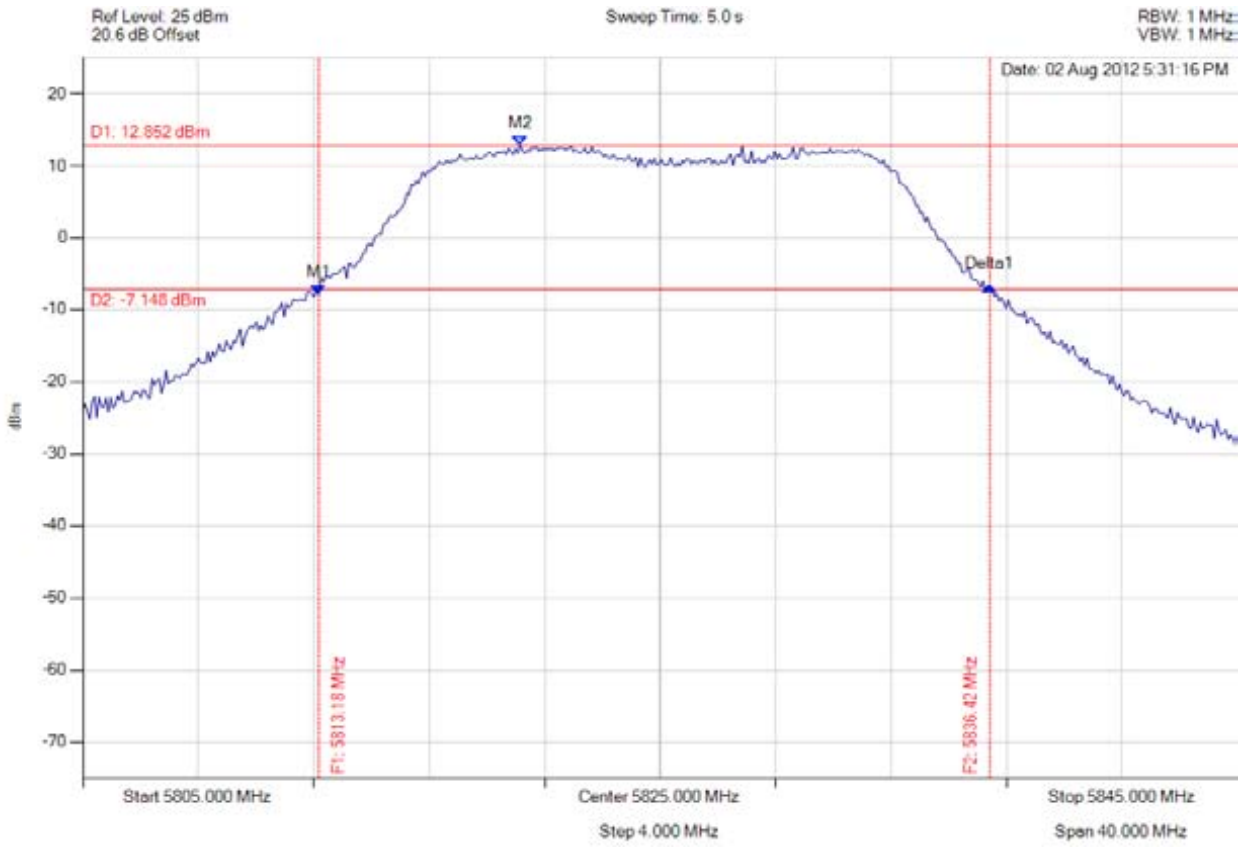


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5773.737 MHz : -6.574 dBm M2 : 5780.391 MHz : 13.692 dBm Delta1 : 22.365 MHz : 0.358 dBm	Channel Power: 23.77 dBm Limit: 25.23 dBm Margin: -1.46 dB

Back to the Matrix

Peak Output Power

Variant: 802.11a, Channel: 5825.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc

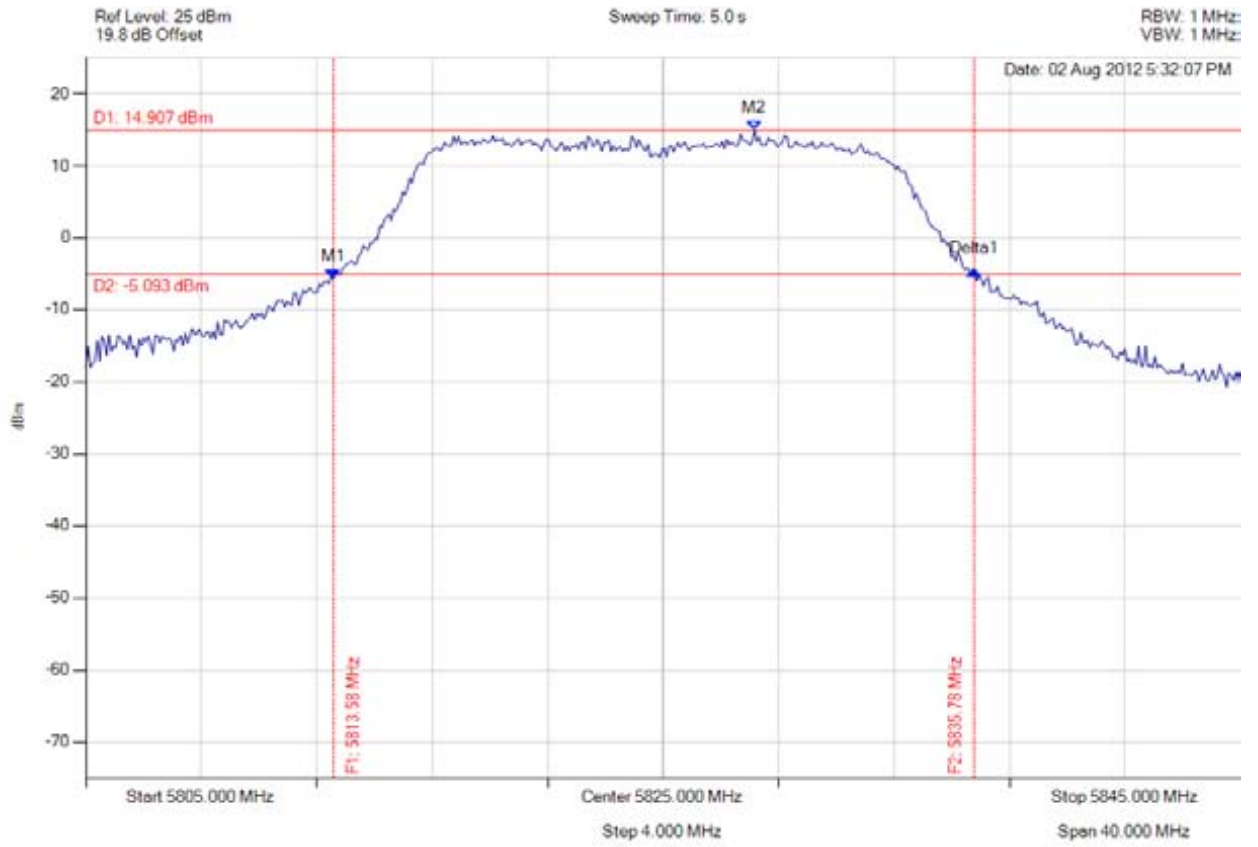


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5813.176 MHz : -7.916 dBm M2 : 5820.150 MHz : 12.852 dBm Delta1 : 23.246 MHz : 1.173 dBm	Channel Power: 23.15 dBm Limit: 25.23 dBm Margin: -2.08 dB

Back to the Matrix

Peak Output Power

Variant: 802.11a, Channel: 5825.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc

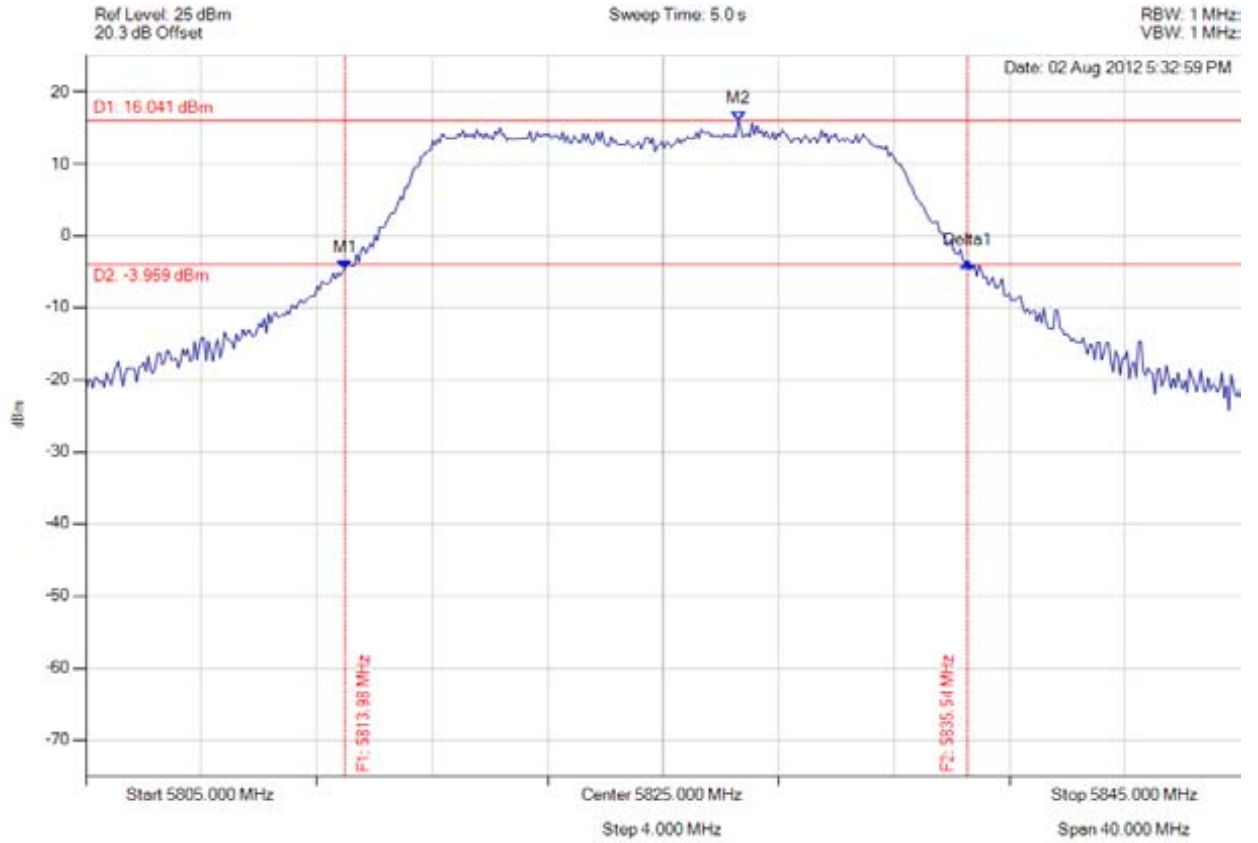


Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5813.577 MHz : -5.695 dBm M2 : 5828.166 MHz : 14.907 dBm Delta1 : 22.204 MHz : 1.104 dBm	Channel Power: 24.61 dBm Limit: 25.23 dBm Margin: -0.62 dB

Back to the Matrix

Peak Output Power

Variant: 802.11a, Channel: 5825.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5813.978 MHz : -4.654 dBm M2 : 5827.605 MHz : 16.041 dBm Delta1 : 21.563 MHz : 0.988 dBm	Channel Power: 25.29 dBm Limit: 25.23 dBm Margin: 0.06 dB

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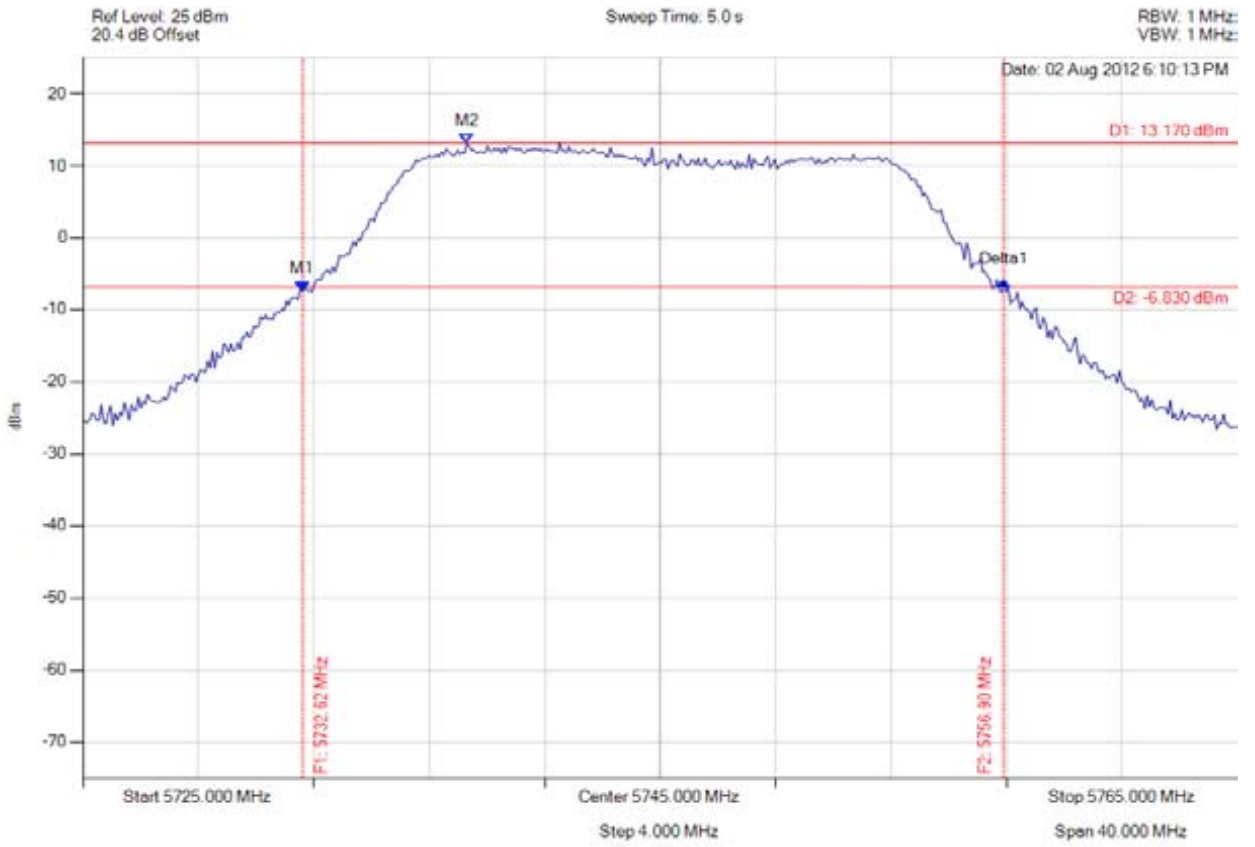
Peak Output Power

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5732.615 MHz : -7.408 dBm M2 : 5738.307 MHz : 13.170 dBm Delta1 : 24.289 MHz : 1.302 dBm	Channel Power: 23.30 dBm Limit: 25.23 dBm Margin: -1.93 dB

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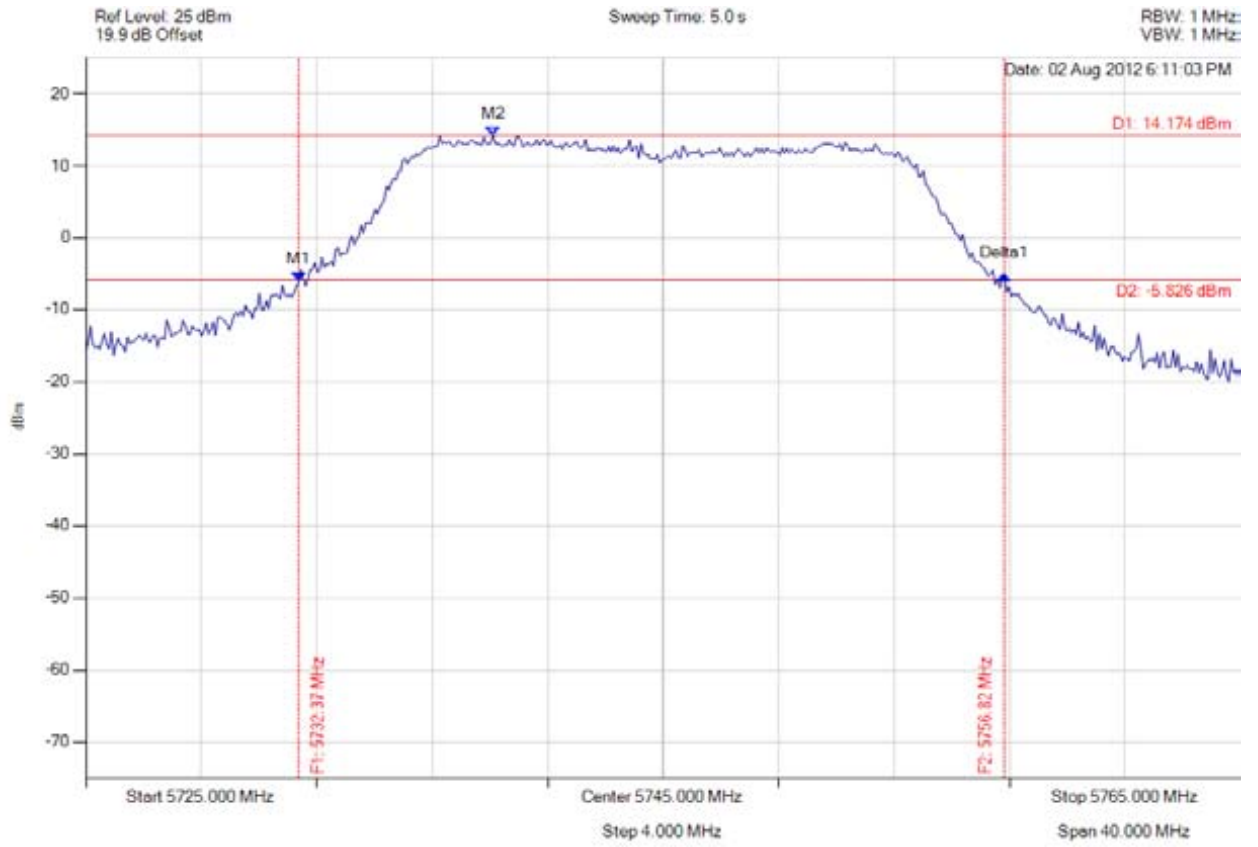
Peak Output Power

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5732.375 MHz : -6.059 dBm M2 : 5739.108 MHz : 14.174 dBm Delta1 : 24.449 MHz : 0.795 dBm	Channel Power: 24.49 dBm Limit: 25.23 dBm Margin: -0.74 dB

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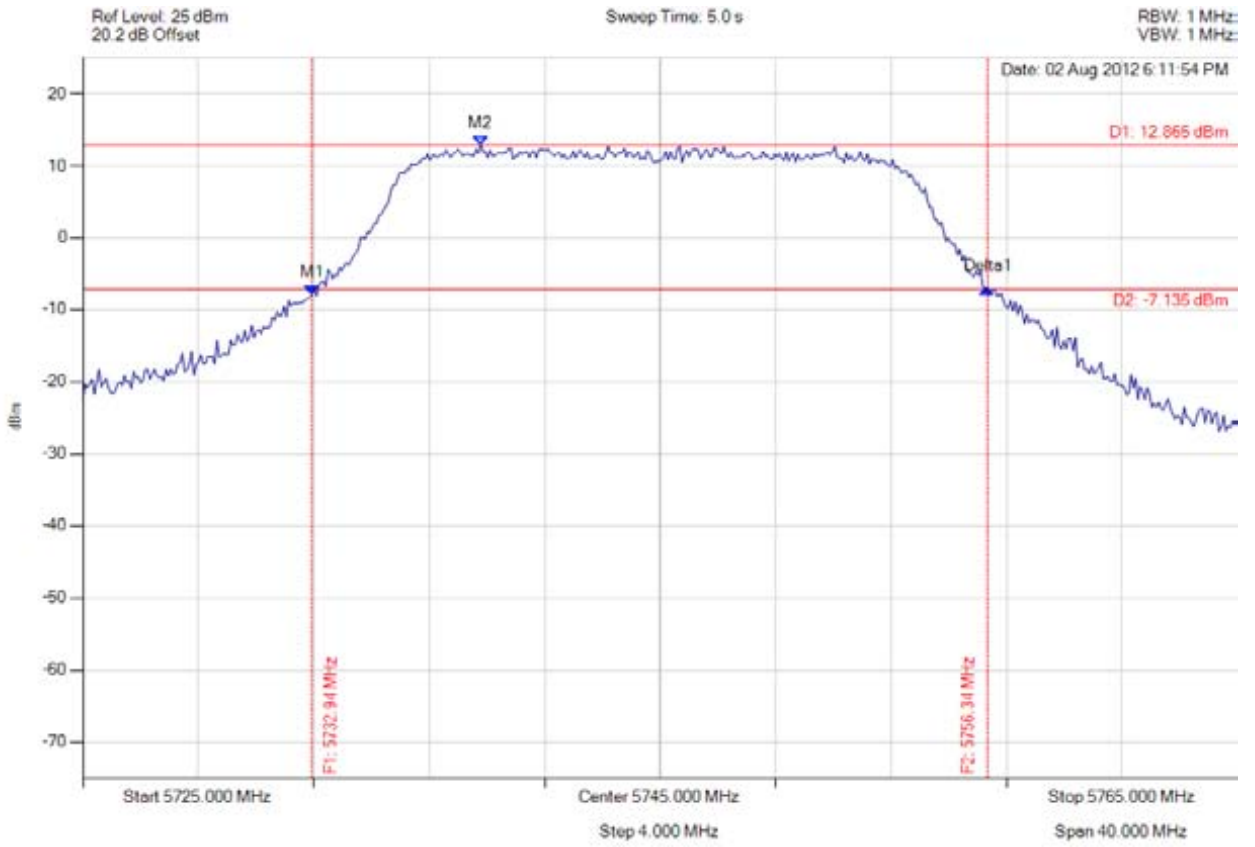
Peak Output Power

Variant: 802.11n HT-20, Channel: 5745.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5732.936 MHz : -7.943 dBm M2 : 5738.788 MHz : 12.865 dBm Delta1 : 23.407 MHz : 0.836 dBm	Channel Power: 23.50 dBm Limit: 25.23 dBm Margin: -1.73 dB

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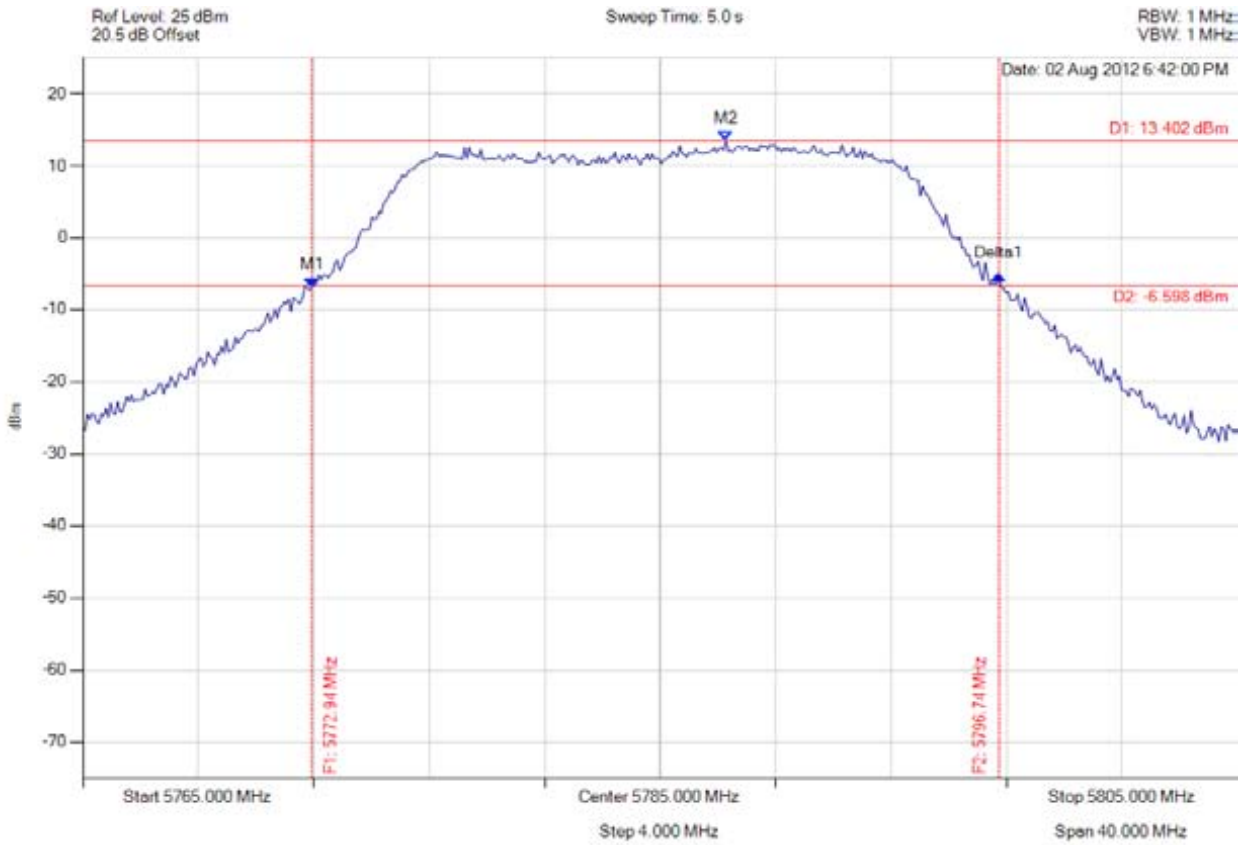
Peak Output Power

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5772.936 MHz : -6.895 dBm M2 : 5787.285 MHz : 13.402 dBm Delta1 : 23.808 MHz : 1.761 dBm	Channel Power: 23.53 dBm Limit: 25.23 dBm Margin: -1.70 dB

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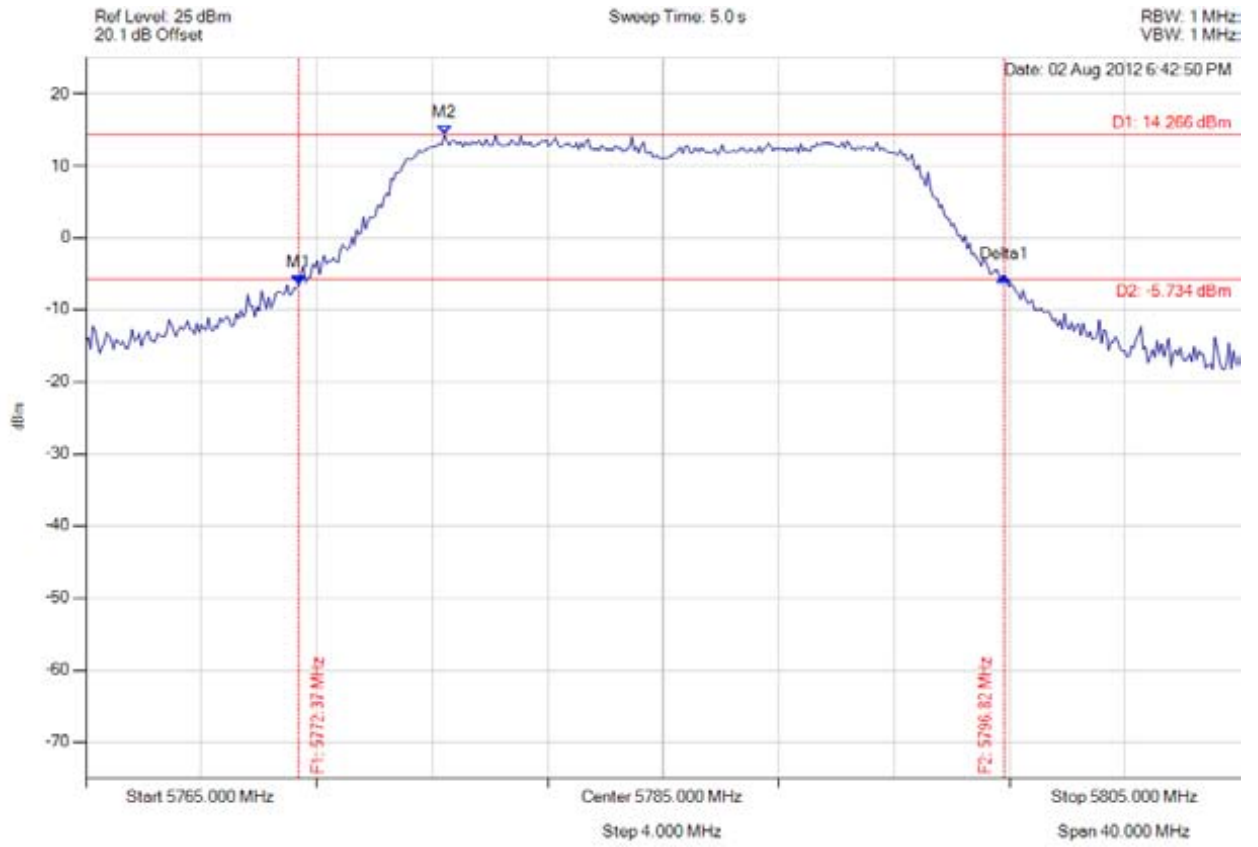
Peak Output Power

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5772.375 MHz : -6.613 dBm M2 : 5777.425 MHz : 14.266 dBm Delta1 : 24.449 MHz : 1.178 dBm	Channel Power: 24.66 dBm Limit: 25.23 dBm Margin: -0.57 dB

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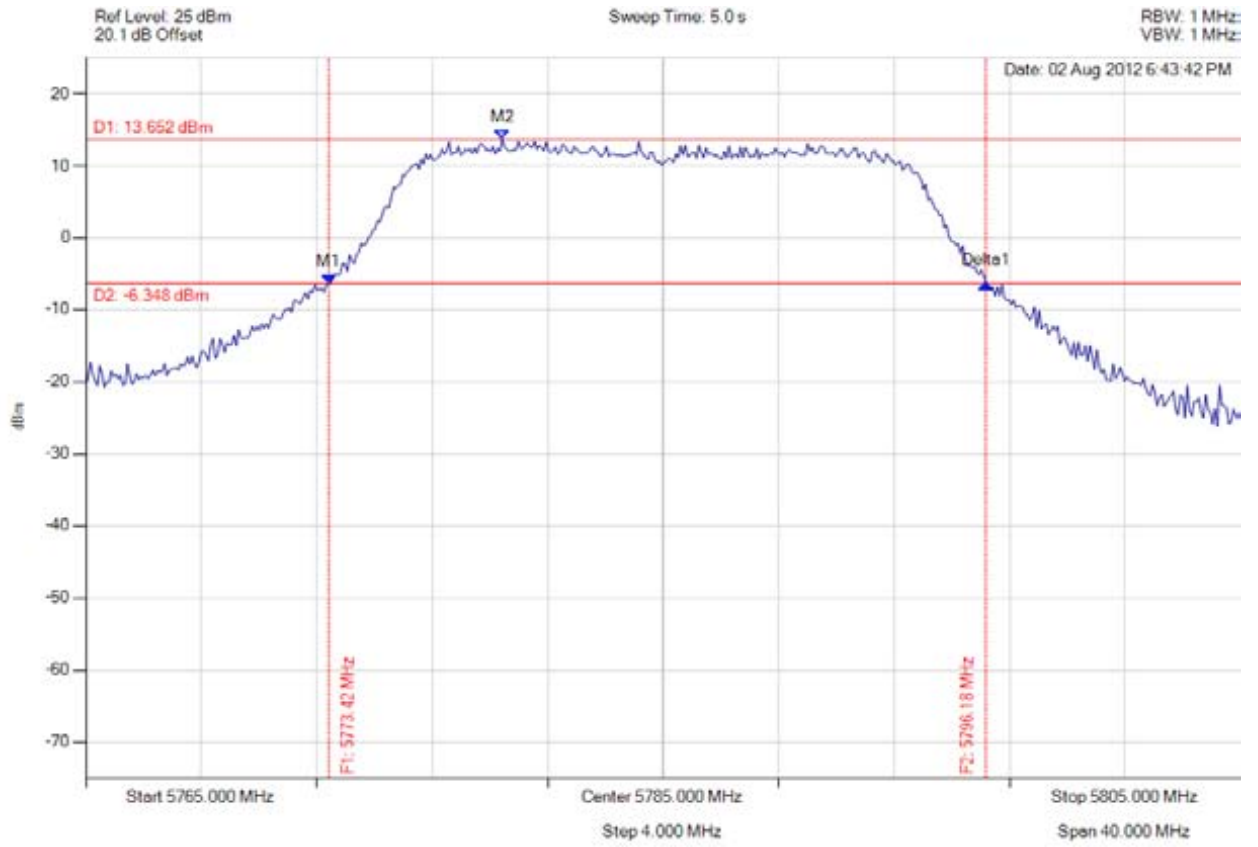
Peak Output Power

Variant: 802.11n HT-20, Channel: 5785.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5773.417 MHz : -6.352 dBm M2 : 5779.429 MHz : 13.652 dBm Delta1 : 22.766 MHz : 0.057 dBm	Channel Power: 23.85 dBm Limit: 25.23 dBm Margin: -1.38 dB

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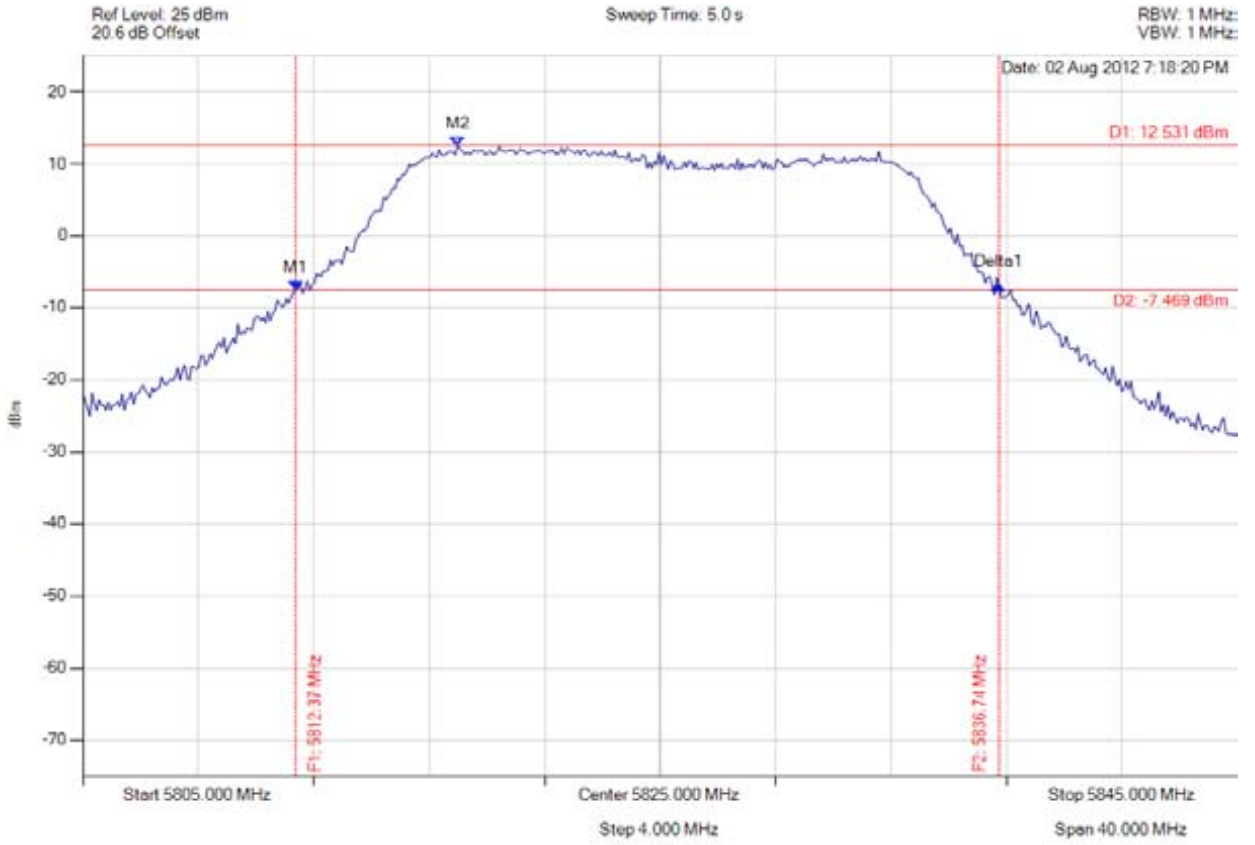
Peak Output Power

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5812.375 MHz : -7.583 dBm M2 : 5817.986 MHz : 12.531 dBm Delta1 : 24.369 MHz : 0.799 dBm	Channel Power: 22.89 dBm Limit: 25.23 dBm Margin: -2.34 dB

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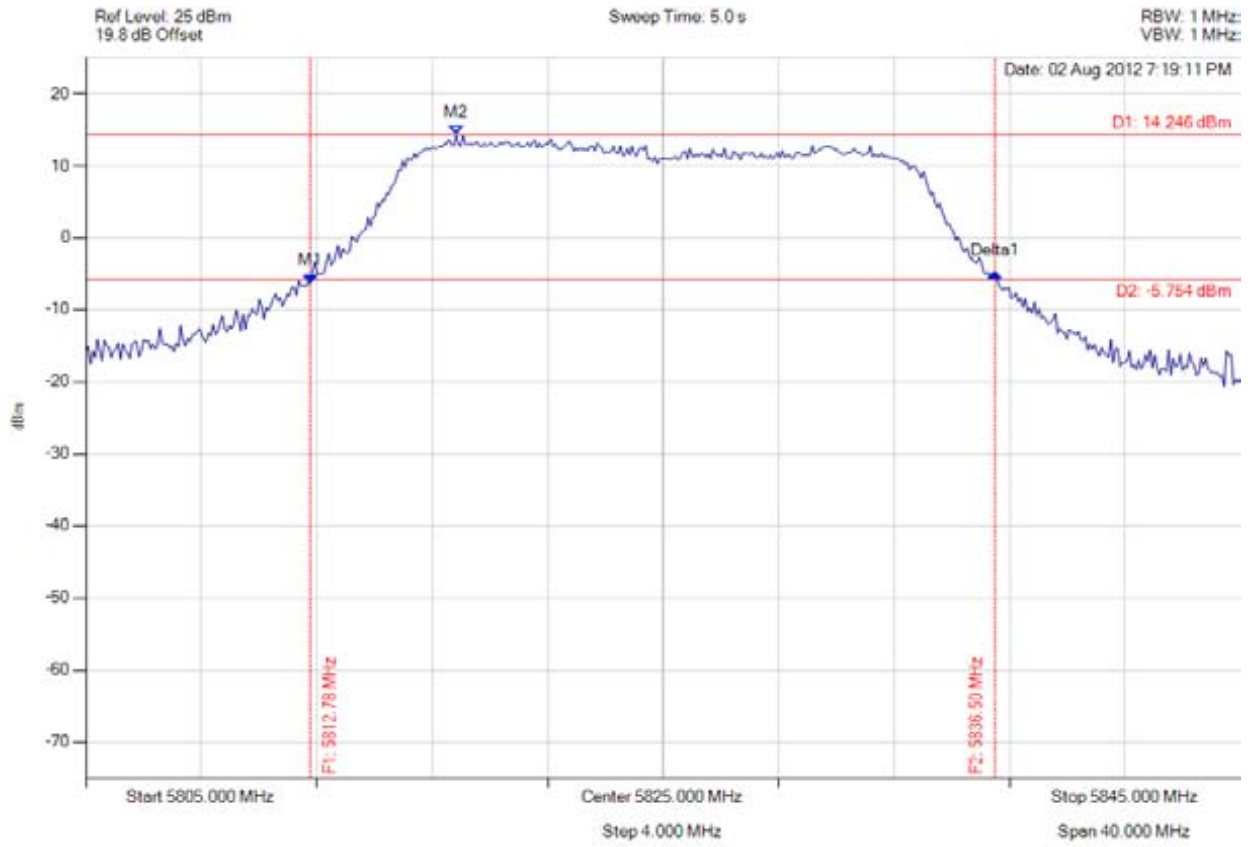
Peak Output Power

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5812.776 MHz : -6.289 dBm M2 : 5817.826 MHz : 14.246 dBm Delta1 : 23.727 MHz : 1.385 dBm	Channel Power: 24.21 dBm Limit: 25.23 dBm Margin: -1.02 dB

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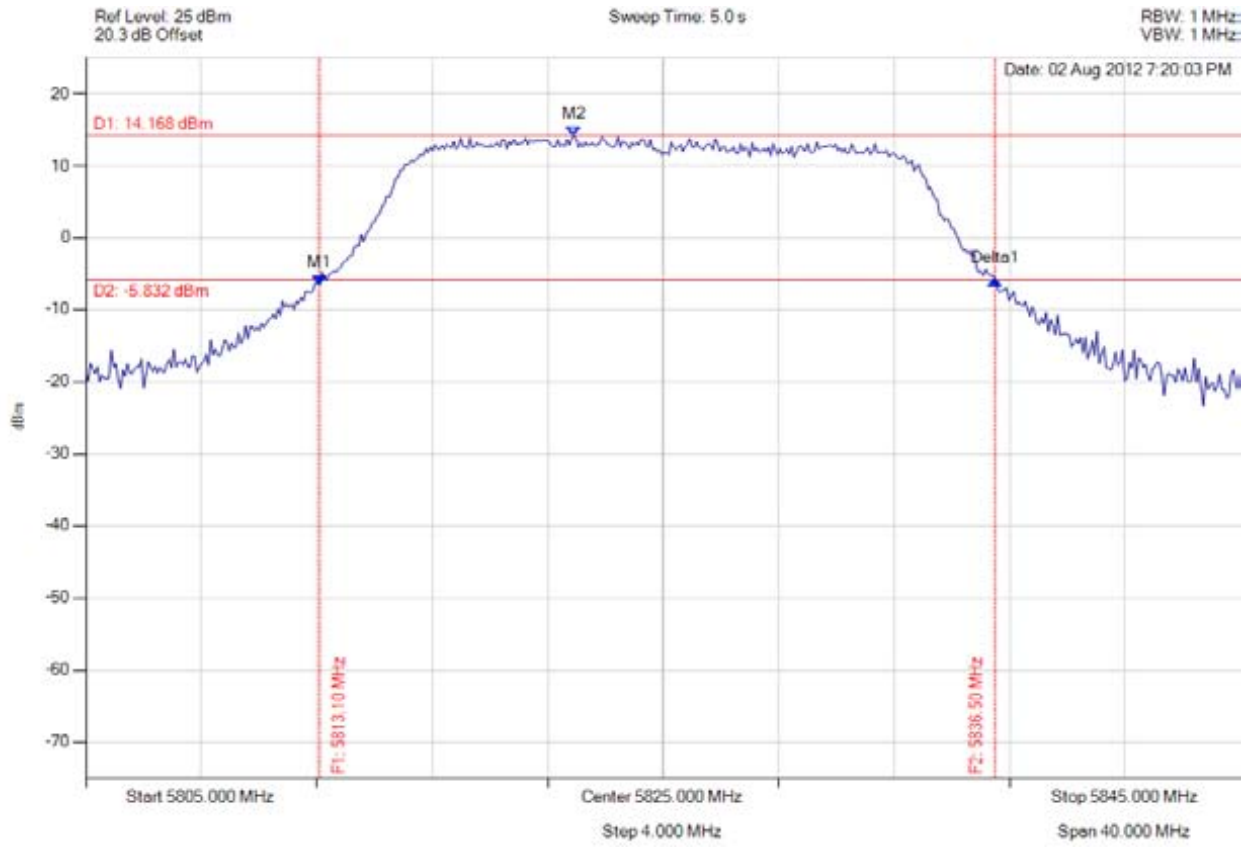
Peak Output Power

Variant: 802.11n HT-20, Channel: 5825.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5813.096 MHz : -6.515 dBm M2 : 5821.914 MHz : 14.168 dBm Delta1 : 23.407 MHz : 0.702 dBm	Channel Power: 24.68 dBm Limit: 25.23 dBm Margin: -0.55 dB

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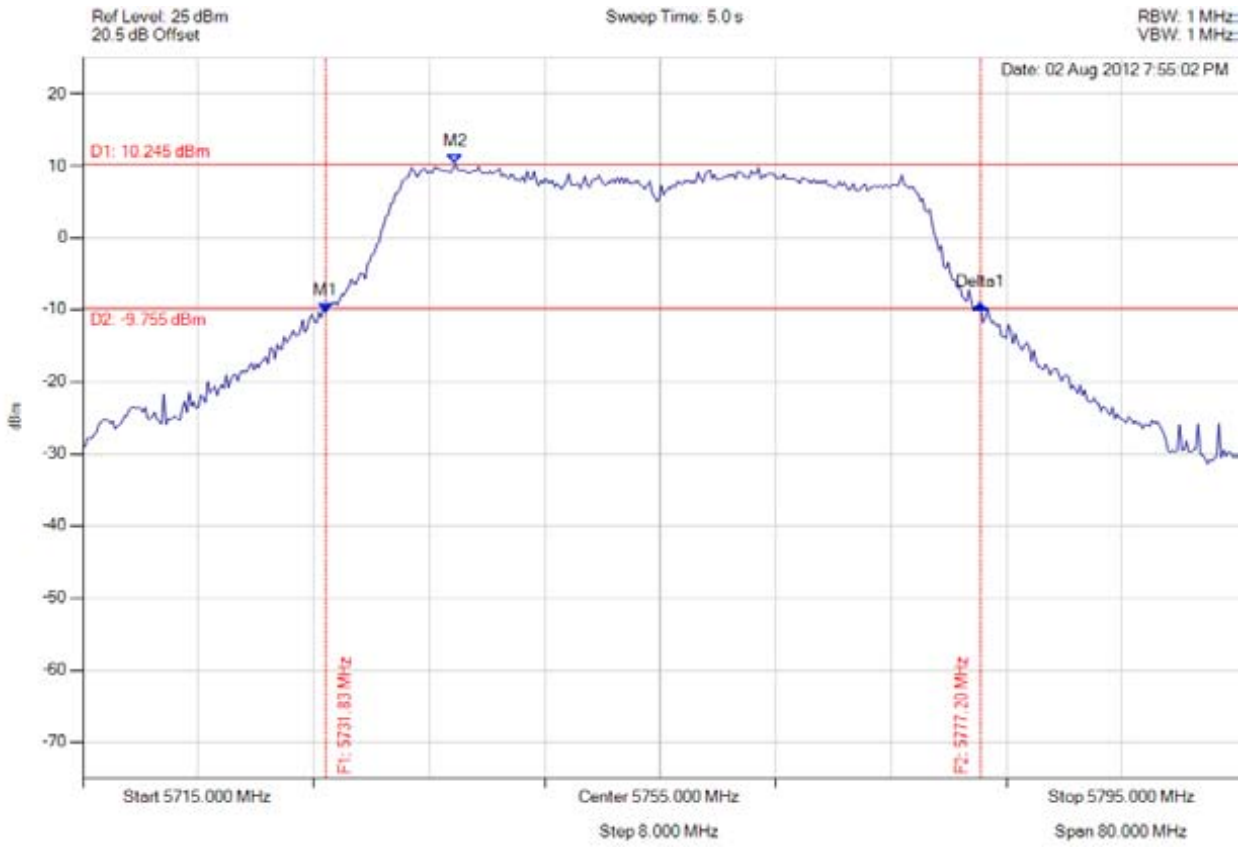
Peak Output Power

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5731.834 MHz : -10.334 dBm M2 : 5740.812 MHz : 10.245 dBm Delta1 : 45.371 MHz : 1.068 dBm	Channel Power: 23.31 dBm Limit: 25.23 dBm Margin: -1.92 dB

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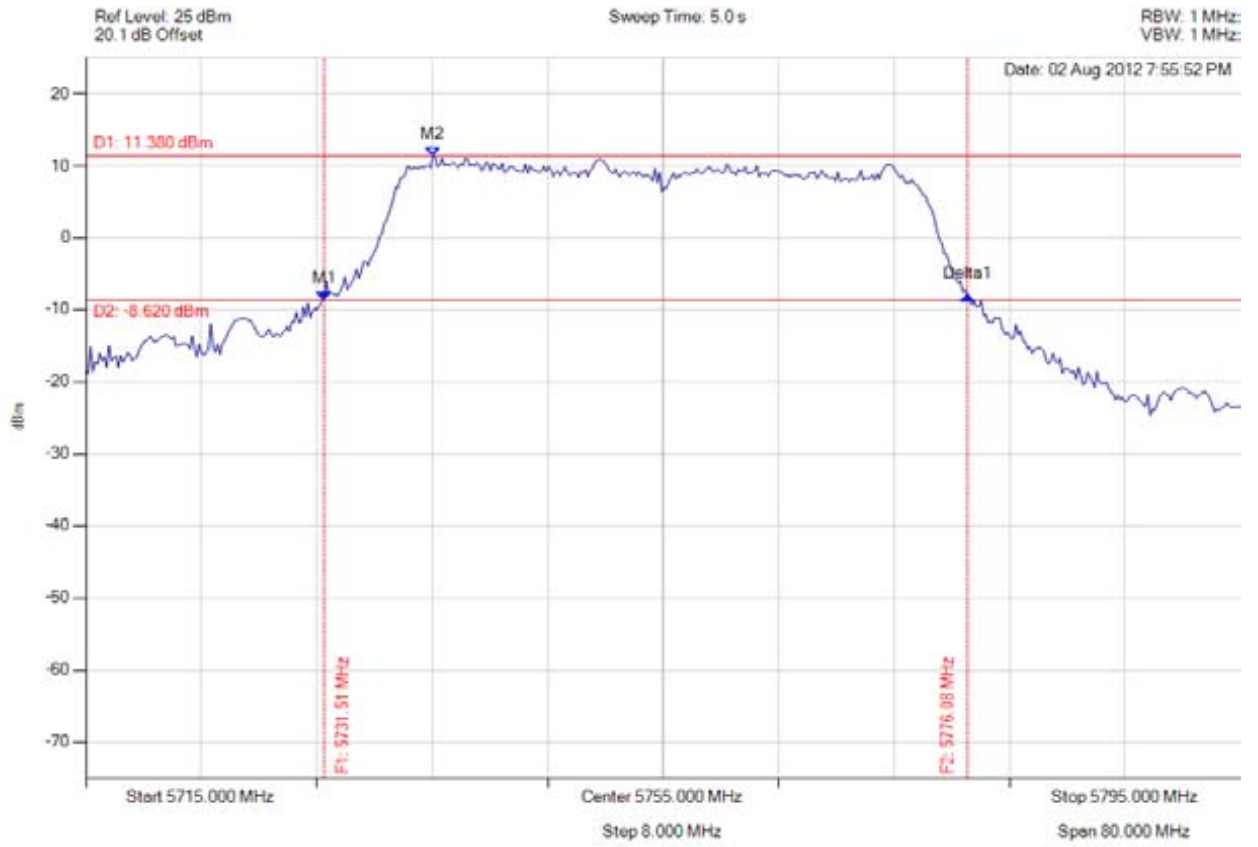
Peak Output Power

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5731.513 MHz : -8.638 dBm M2 : 5739.048 MHz : 11.380 dBm Delta1 : 44.569 MHz : 0.647 dBm	Channel Power: 24.39 dBm Limit: 25.23 dBm Margin: -0.84 dB

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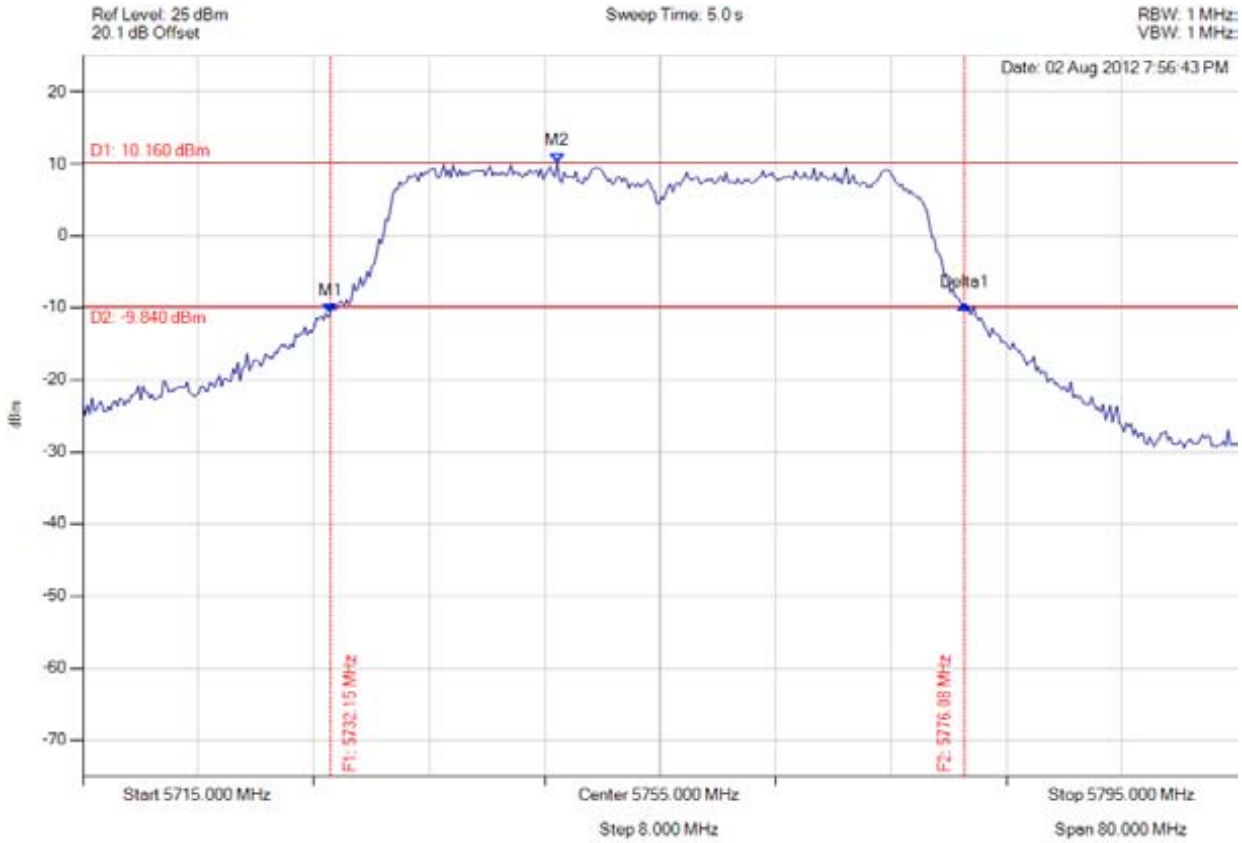
Peak Output Power

Variant: 802.11n HT-40, Channel: 5755.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5732.154 MHz : -10.637 dBm M2 : 5747.866 MHz : 10.160 dBm Delta1 : 43.928 MHz : 1.053 dBm	Channel Power: 23.23 dBm Limit: 25.23 dBm Margin: -2.00 dB

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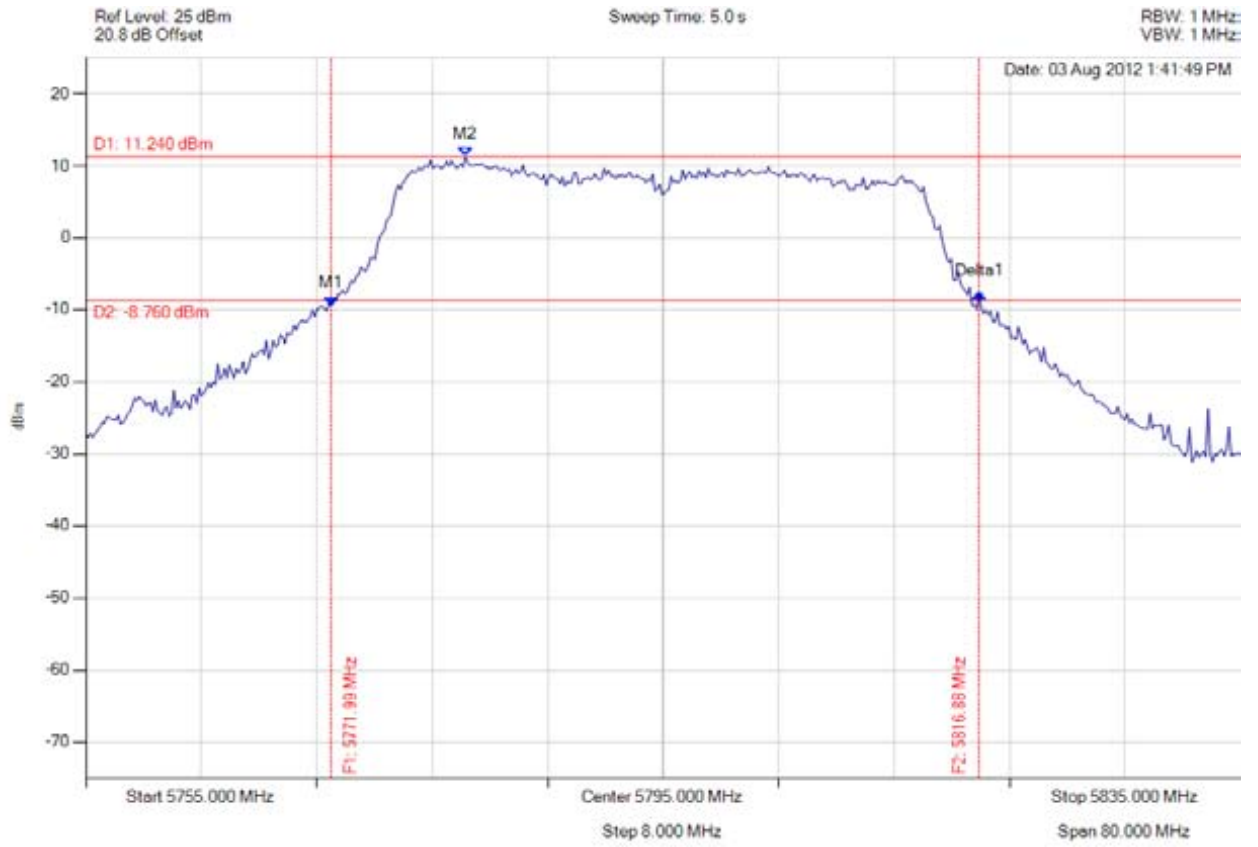
Peak Output Power

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain A, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5771.994 MHz : -9.460 dBm M2 : 5781.293 MHz : 11.240 dBm Delta1 : 44.890 MHz : 1.696 dBm	Channel Power: 23.87 dBm Limit: 25.23 dBm Margin: -1.36 dB

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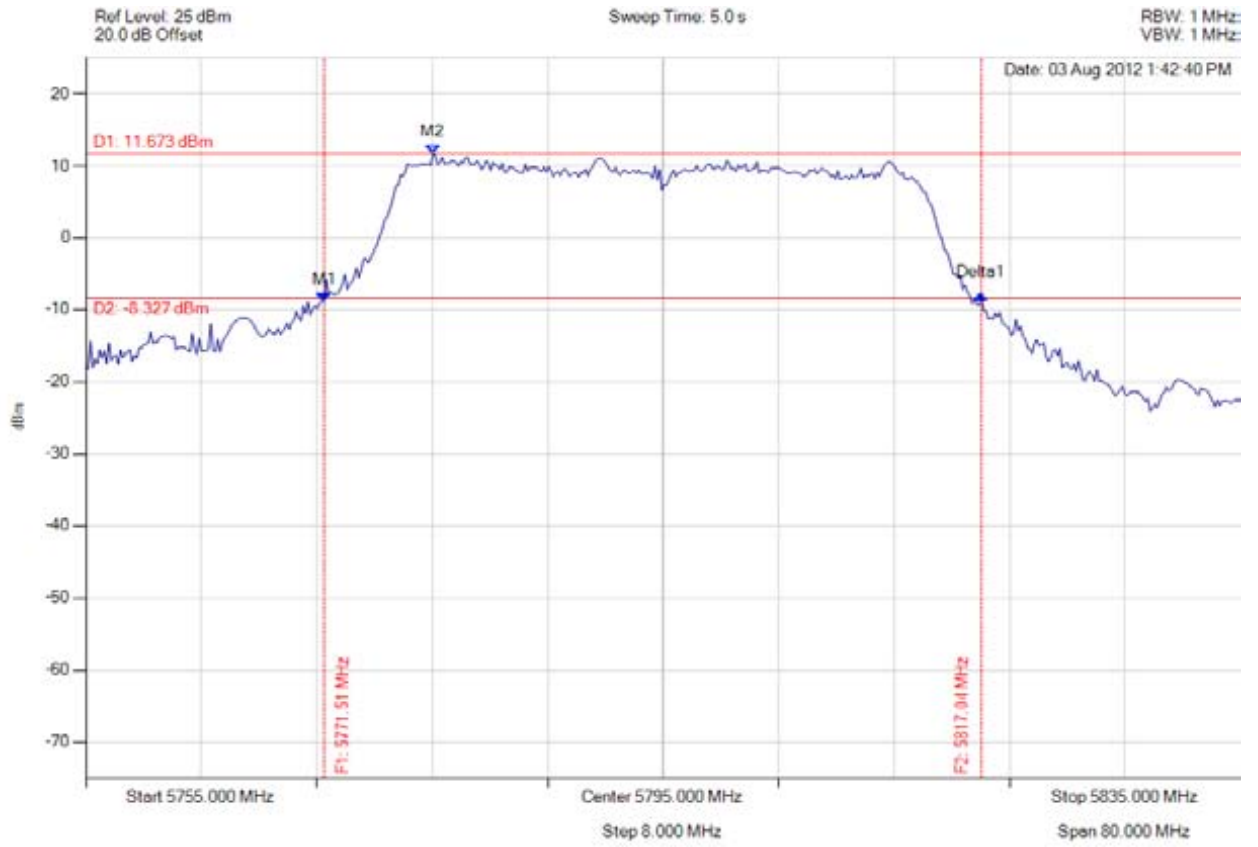
Peak Output Power

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain B, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5771.513 MHz : -8.945 dBm M2 : 5779.048 MHz : 11.673 dBm Delta1 : 45.531 MHz : 1.064 dBm	Channel Power: 24.67 dBm Limit: 25.23 dBm Margin: -0.56 dB

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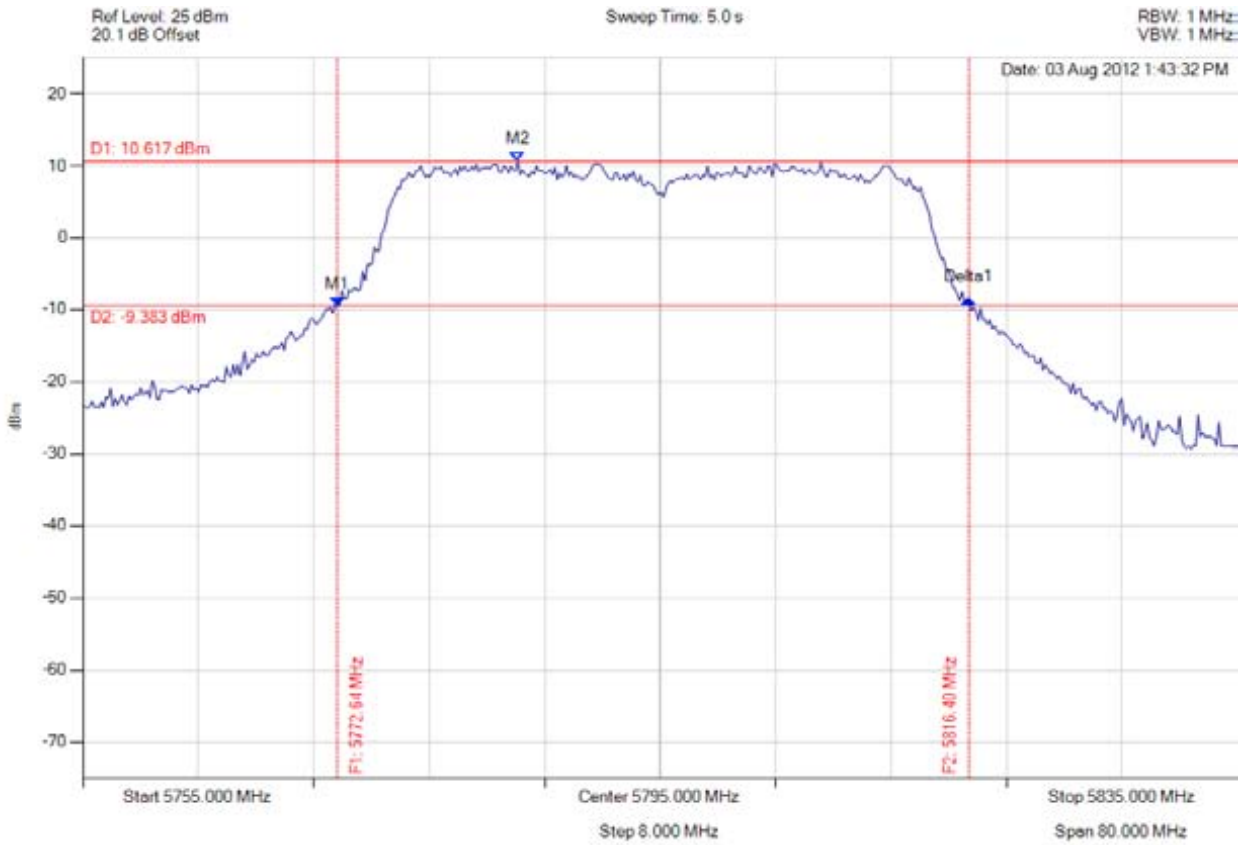
Peak Output Power

Variant: 802.11n HT-40, Channel: 5795.00 MHz, Chain C, Temp: Ambient, Voltage: 48.00 Vdc



Analyser Setup	Marker : Frequency : Amplitude	Test Results
Detector = MAX PEAK Sweep Count = 0 RF Atten (dB) = 20 Trace Mode = VIEW	M1 : 5772.635 MHz : -9.570 dBm M2 : 5785.140 MHz : 10.617 dBm Delta1 : 43.768 MHz : 1.005 dBm	Channel Power: 24.06 dBm Limit: 25.23 dBm Margin: -1.17 dB

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