COMPLIANCE WORLDWIDE INC.
TEST REPORT 216-13R2

In Accordance with the Requirements of

FCC PART 15.247, SUBPART C
INDUSTRY CANADA RSS 210, ISSUE 8

Low Power License-Exempt Radio Communication Devices
Intentional Radiators

Issued to

ARRIS International, Inc.
3871 Lakefield Drive, Suite 300
Suwanee, GA 30024

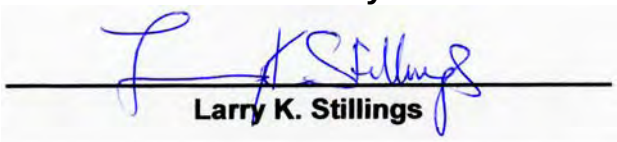
for the

Model MG2402G/CT

FCC ID: UID2402GCT
IC: 6670A-2402GCT

Report Issued on May 3, 2013
Report R1 Issued on June 18, 2013

Tested by



Larry K. Stillings

Reviewed By

Brian F. Breault

Table of Contents

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1. Scope

This test report certifies that the ARRIS MG2402G/CT, as tested, meets the FCC Part 15, Subpart C and Industry Canada RSS 210, Issue 8 requirements. The scope of this test report is limited to the test sample provided by the client, only in as much as that sample represents other production units. If any significant changes are made to the unit, the changes shall be evaluated and a retest may be required. Revision R1 updates the report per the TCB Response letter.

2. Product Details

2.1. Manufacturer: ARRIS International

2.2. Model Number: MG2402G/CT

2.3. Serial Number: D3VBND6B6700527

2.4. Description: The ARRIS Media Gateway, model MG2402 Provides a single point, triple play device to manage all content coming into the home as well as distribution of all content throughout the home.

2.5. Power Source: 120 Volts AC, 60 Hz

2.6. EMC Modifications: None

3. Product Configuration

3.1. Operational Characteristics & Software

Operating Instructions for Test

Connect the ARRIS MG2402 to the computer with an Ethernet cable.

To use QA tool on MG2402:

Open a command Window.

If the UUT is not ranged and registered, perform the following to stop it from scanning. If not, the UUT will eventually reboot. And the following sequence repeated.

telnet to 192.168.100.1,

Password: arristi

While the display is scrolling, enter, rf <cr> and then sc 0 <cr>

Open a NEW Command window.

telnet to 192.168.100.3 and at the hash prompt change directory with the command:

run:	cd /etc/Wireless/CLR260/		
then run:	./ce_host.sh start 24g	(2.4 GHz Radio)	or
	./ce_host.sh start 5g	(5 GHz Radio)	

to start the wifi. This command may not be necessary depending on the load, but it won't hurt to run it anyway.

then run:	./ated -i cei00 -e eth0	(2.4 GHz Radio)	or
	./ated -i ce00 -e eth0	(5 GHz Radio)	
turn off 5 GHz radio:	iwpriv cei00 set RadioOn=0	(2.4 GHz Radio)	or
turn off 2.4 GHz radio:	iwpriv ce00 set RadioOn=0	(5 GHz Radio)	

This will allow QA tool to communicate via the Ethernet port.

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3. Product Configuration

3.1. Operational Characteristics & Software (continued)

Operating Instructions for Test

Start the QA tool and select the appropriate Ethernet card and select OK.
Note: You do not have to check the iNiCMode box. BufferMode or EEPROM is checked by default.

Note: This sequence of commands can also be entered via the serial connector J4.

3.2. EUT Hardware

Manufacturer	Model/Part # / Options	Serial Number	Input Voltage	Frq (Hz)	Description/Function
ARRIS	MG2402G/CT	D3VBND6B6700527	120	60	Media Gateway

3.3. EUT CONNECTED Hardware

Manufacturer	Model	Serial Number	Description
Delta Electronics	EPS-3	GPGD2CP008X	AC Adapter, 12 VDC, 5.5 Amps
Delta Electronics	N/A	N/A	Detachable AC Power Cord

3.4. EUT Cables/Transducers

Cable Type	Length	Shield	From	To
Ethernet x4 Ports	2 M	No	EUT	1 – Vostro Laptop, 3 Unterminated
Telephone Cables x2	2 M	No	EUT	1 – Telephone, 1 Unterminated
eSATA Cable	2 M	Yes	EUT	1 – External Sata Drive
USB Cable x2	2 M	Yes	EUT	1 – USB Flash Drive, 1 Unterminated
Coaxial Cable	2 M	Yes	EUT	75 ohm termination
Power Cable	2 M + 1M	No	EUT	12 VDC Power Supply

3.5. Support Equipment

Manufacturer	Model/Part #	Input Voltage	Input Freq	Description/Function
Dell	Latitude D620	120V	60	Software Control via Serial Port
Dell	Vostro	120V	60	Ethernet Cable Config / Control
Emerson	EM-2115RW	N/A	N/A	Telephone
Kanguru	QS2	120V	60	eSata External Harddrive
Verbatim	4 GB	N/A	N/A	USB Flash Drive

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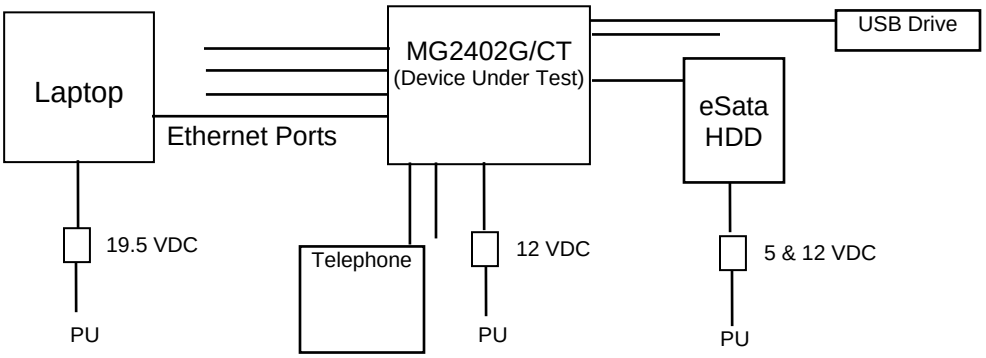
3. Product Configuration (continued)

3.6. Block Diagram



4. Measurements Parameters

4.1. Measurement Equipment Used to Perform Tests

Device	Manufacturer	Model No.	Serial No.	Cal Due
Spectrum Analyzer	Rohde & Schwarz	FSV40	100899	5/26/2013
Spectrum Analyzer	Agilent Technologies	E7405A	MY45115430	5/11/2013
EMI Receiver	Hewlett Packard	8546A	3650A00360	6/13/2014
Microwave Preamp	Hewlett Packard	83050A	3331A00404	6/6/2013
Loop Antenna	EMCO	6512	9309-1139	8/28/2014
Bilog Antenna	Com-Power	AC-220	25509	8/20/2013
Horn Antenna	ETS-Lindgren	3117	00143292	1/14/2015
Horn Antenna	Com-Power	AH-840	03075	8/27/2014
RF Signal Generator	Rohde & Schwarz	SMB 100A	175352	5/14/2014
2.4 GHz Notch Filter	Micro-Tronics	BRM50702	14	2/27/2013
5 GHz Notch Filter	Micro-Tronics	BRM50716-03	001	3/25/2013
LISN 50 Ω 50 µH, 9 kHz to 30 MHz	EMCO	3825/2	9109-1860	7/2/2013
RF Power Meter	Boonton	4220A	323203AC	6/13/2014
Power Sensor	Boonton	51081	29412	6/13/2014
Digital Barometer	Extech Instruments	SD700	Q590483	5/1/2013

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4. Measurements Parameters

4.2. Measurement & Equipment Setup

Test Dates:	March19th to April 30th, 2013 June 3rd to June 17th, 2013
Test Engineers:	Larry Stillings, Brian Breault
Normal Site Temperature (15 - 35°C):	21.7
Relative Humidity (20 -75%RH):	33%
Frequency Range:	150 kHz to 40 GHz
Measurement Distance:	3 Meters
EMI Receiver IF Bandwidth:	9 kHz – 150 kHz to 30 MHz 120 kHz – 30 MHz to 1 GHz 1 MHz – Above 1 GHz
EMI Receiver Avg Bandwidth:	30 kHz – 150 kHz to 30 MHz 300 kHz – 30 MHz to 1 GHz 3 MHz – Above 1 GHz
Detector Function:	Peak, QP - 150 kHz to 1 GHz Peak, Avg - Above 1 GHz Unless otherwise specified.

4.3. Measurement Procedures

Test measurements were made in accordance FCC Part 15.247, IC RSS-210 Annex II: Operation within the bands 902 - 928 MHz, 2400 - 2483.5 MHz, 5725 - 5850 MHz, and 24.0 - 24.25 GHz.

The test procedures detailed in the Federal Communications Commission Office of Engineering and Technology (FCC OET) Publication Number 558074, Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247, dated 10/4/2012 and FCC OET Publication Number 662911, Emissions Testing of Transmitters with Multiple Outputs in the Same Band, dated 9/26/2012 were used to generate the data in this test report

The test methods used to generate the data in this test report is in accordance with ANSI C63.4: 2009, American National Standard for Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

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4. Measurements Parameters

4.4. Measurement Uncertainty

The following uncertainties are expressed for an expansion/coverage factor of K=2.

RF Frequency	$\pm 1x10^{-8}$
Radiated Emission of Transmitter	$\pm$ 4.55 dB
Radiated Emission of Receiver	$\pm$ 4.55 dB
Temperature	$\pm 0.91^{o}$ C
Humidity	$\pm$ 5%

5. Choice of Equipment for Test Suits

5.1 Choice of Model

This test report is based on the test samples supplied by the manufacturer and are reported by the manufacturer to be equivalent to the production units.

5.2 Presentation

This test sample was tested complete with all required ancillary equipment. Refer to Section 3 of this report for product equipment configuration.

5.3 Choice of Operating Frequencies

The ARRIS MG2402, as tested, operates on 11 channels, from channels 1 to 11 in the 2.4 GHz band and 7 Channels 149 to 165 in the 5.8 GHz band.

In accordance with ANSI C63.4-2009, section 13.2.1, the choice of operating frequencies selected for the testing detailed in this report are outlined in the following tables:

Channel	Frequency (MHz)	802.11b,g & HT20	HT40
1	**2412**	**Tested**	Not Tested
2	2417	Not Tested	Not Tested
3	2422	Not Tested	**Tested**
4	2427	Not Tested	Not Tested
5	2432	Not Tested	Not Tested
6	**2437**	**Tested**	**Tested**
7	2442	Not Tested	Not Tested
8	2447	Not Tested	Not Tested
9	2452	Not Tested	**Tested**
10	2457	Not Tested	Not Tested
11	**2462**	**Tested**	Not Tested

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5. Choice of Equipment for Test Suits (continued)

5.3 Choice of Operating Frequencies (continued)

Channel	Frequency (MHz)	802.11a & HT20	HT40
149	**5745**	**Tested**	Not Tested
151	5755	Not Tested	**Tested**
153	5765	Not Tested	Not Tested
157	**5785**	**Tested**	Not Tested
159	5795	Not Tested	**Tested**
161	5805	Not Tested	Not Tested
165	**5825**	**Tested**	Not Tested

5.4 Modes of Operation

Upon receipt of the EUT, each of the modulation types and data rates for the modes supported by the device are evaluated. It was determined that the ARRIS MG2402 produced the worst case emissions in 802.11b mode using 1 MB Long PN9 data, 802.11g mode using 6 MB PN9 data, 802.11a mode using 6 MB PN9 data, 802.11n HT20 mode using 6.5 MB MCS0 data and in 802.11n HT40 mode using 13.5 MB MCS0 data. Refer to the following tables for the individual channel settings used for this test.

2.4 GHz Test Configurations

Frequency (MHz)	Modulation	Channel	Data Rate	Power Level Settings
				TX0/TX1/TX2
2412	CCK	1	1M	12 / 11 / 0F
2437	CCK	6	1M	16 / 15 / 13
2462	CCK	11	1M	17 / 14 / 13
2412	OFDM	1	6M	12 / 12 / 10
2437	OFDM	6	6M	16 / 15 / 13
2462	OFDM	11	6M	18 / 15 /14
2412	HT20	1	MCS0	12 / 11 / 0F
2437	HT20	6	MCS0	16 / 15 / 13
2462	HT20	11	MCS0	18 / 15 / 14
2422	HT40	3	6.5M	15 / 14 / 12
2437	HT40	6	6.5M	15 / 14 /13
2452	HT40	9	6.5M	17 / 15 / 13

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5. Choice of Equipment for Test Suits (continued)

5.4 Modes of Operation (continued)

5 GHz Test Configurations

Frequency (MHz)	Modulation	Channel	Data Rate	Power Level Settings
				TX0/TX1/TX2
5745	OFDM	149	6M	0D/0F/10
5785	OFDM	157	6M	0C/0B/0B
5825	OFDM	165	6M	0A/07/07
5745	HT20	149	6.5M	0D/0F/10
5785	HT20	157	6.5M	0C/0B/0B
5825	HT20	165	6.5M	0A/07/07
5755	HT40	151	MCS0	0D/0E/0F
5795	HT40	159	MCS0	0B/0A/0A

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6. Measurement Summary

Test Requirement	FCC Rule Reference	IC Rule Reference	Test Report Section	Result
Antenna Requirement	15.203	RSS-GEN 7.1.2	7.1	Compliant
Minimum 6 dB Bandwidth	15.247 (a) (2)	RSS-210 A8.2	7.2	Compliant
99% Power Bandwidth	N/A	RSS-GEN 4.6.1	7.3	Compliant
Maximum Peak Conducted Output Power	15.247 (b) (1)	RSS-210 A8.4 (4)	7.4	Compliant
Operation with directional antenna gains greater than 6 dBi	15.247 (b) (4)	RSS-GEN 7.1.2	7.5	Compliant
Spurious Radiated Emissions	15.247 (d)	RSS-GEN 4.9	7.6	Compliant
Spurious Radiated Emissions (> GHz) - Harmonic Measurements	15.247 (d)	RSS-210 A8.9	7.6	Compliant
Lower and Upper Band Edges	15.247 (d)	RSS-210 A8.5	7.7	Compliant
Power Spectral Density	15.247(e)		7.8	Compliant
Conducted Emissions	15.207	RSS-GEN	7.9	Compliant
Public Exposure to Radio Frequency Energy Levels	1.1307 (b) (1)	RSS-GEN 5.5 RSS-102	7.10	Compliant

7. Measurement Data

7.1. Antenna Requirement (15.203, RSS GEN 7.1.2)

Requirement: An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section.

Conclusion: The ARRIS MG2402 uses printed circuit board etched antennas. In addition, UFL connectors are provided for RF conducted measurements. The connectors are not user accessible."

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7. Measurement Data

7.2. Minimum 6 dB and 26 dB Bandwidths

Requirement: (15.247 (a) (2), RSS 210 A8.2(a))
Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number 558074, Section 7.0, DTS (6 dB) Channel Bandwidth..

Conclusion: The device under test meets the minimum 500 kHz 6 dB bandwidth requirement.

Measurement Results for 2400 to 2483.5 MHz Band

802.11b Mode Channel	Frequency (MHz)	-6 dB Bandwidth (kHz)			Minimum -6 dB Bandwidth (kHz)	Result
		J2400	J2401	J2402		
Low	2412	12240	12165	12105	>500	Compliant
Middle	2437	12135	12015	12165	>500	Compliant
High	2462	12378	12408	12378	>500	Compliant

802.11g Mode Channel	Frequency (MHz)	-6 dB Bandwidth (kHz)			Minimum -6 dB Bandwidth (kHz)	Result
		J2400	J2401	J2402		
Low	2412	16470	16485	16479	>500	Compliant
Middle	2437	16536	16491	16407	>500	Compliant
High	2462	16512	16500	16518	>500	Compliant

HT20 Mode Channel	Frequency (MHz)	-6 dB Bandwidth (kHz)			Minimum -6 dB Bandwidth (kHz)	Result
		J2400	J2401	J2402		
Low	2412	17.616	17.616	17.616	>500	Compliant
Middle	2437	17.621	17.651	17.631	>500	Compliant
High	2462	17.631	17.658	17.631	>500	Compliant

HT40 Mode Channel	Frequency (MHz)	-6 dB Bandwidth (kHz)			Minimum -6 dB Bandwidth (kHz)	Result
		J2400	J2401	J2402		
Low	2422	36282	36396	36204	>500	Compliant
Middle	2437	36216	36462	36402	>500	Compliant
High	2452	36396	36390	36390	>500	Compliant

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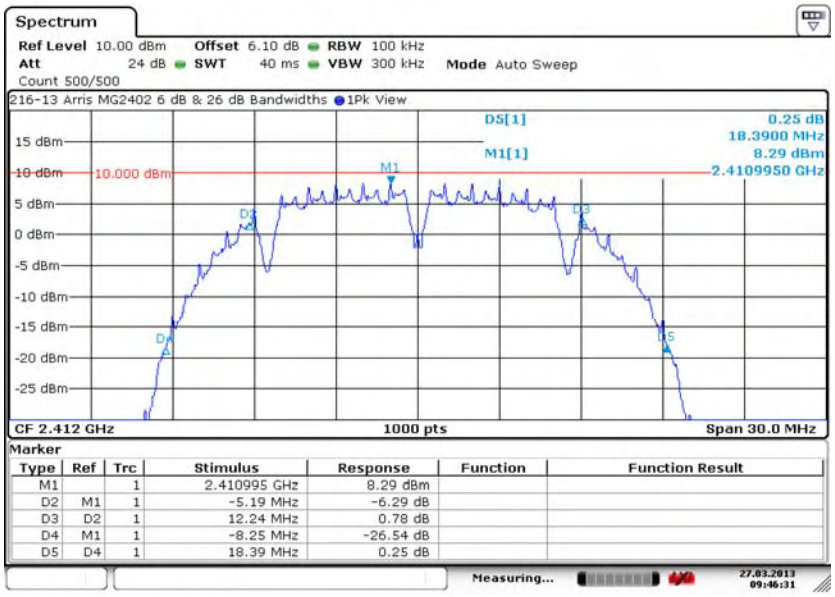
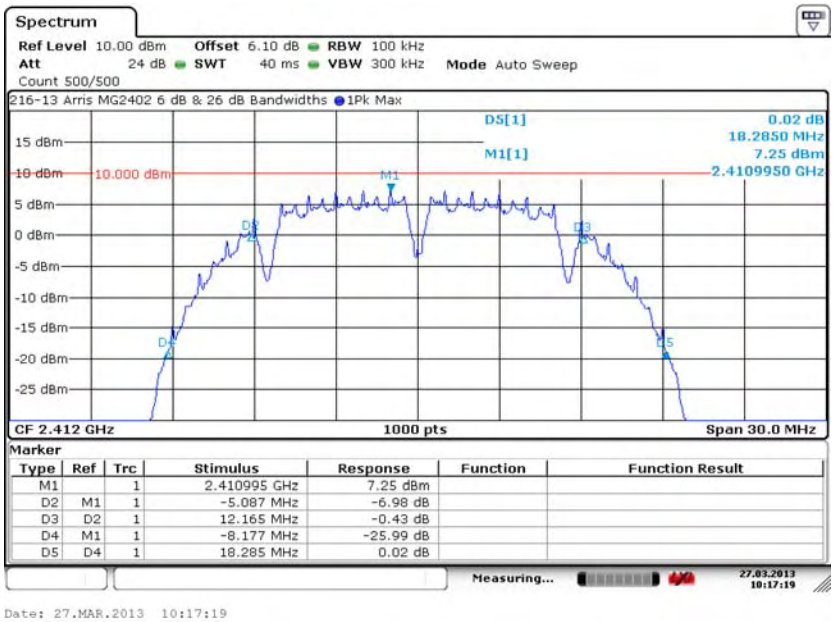
7. Measurement Data

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.1. 802.11b: Low Channel – 1, J2400



7.2.2. 802.11b: Low Channel – 1, J2401



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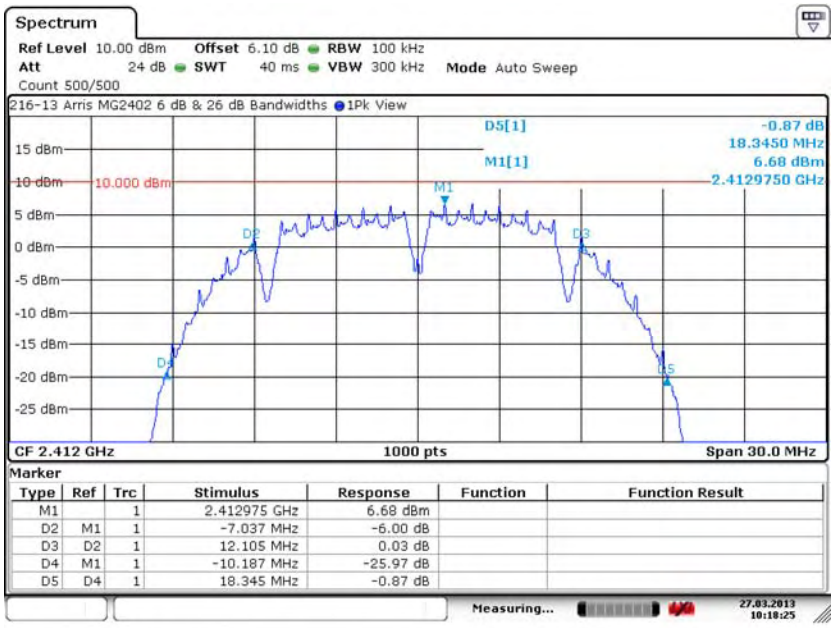
7. Measurement Data

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.3. 802.11b: Low Channel – 1, J2402



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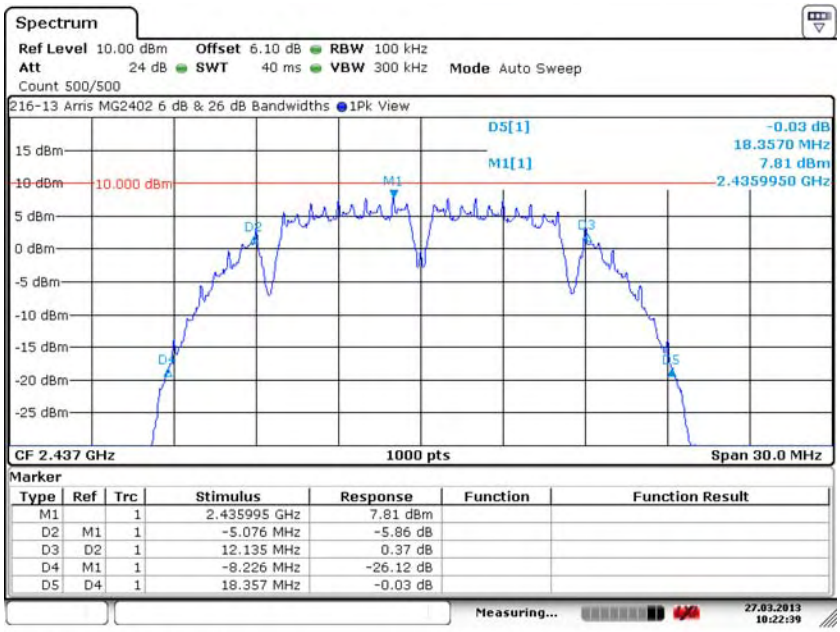
7.2.4. 802.11b: Middle Channel – 6, J2400



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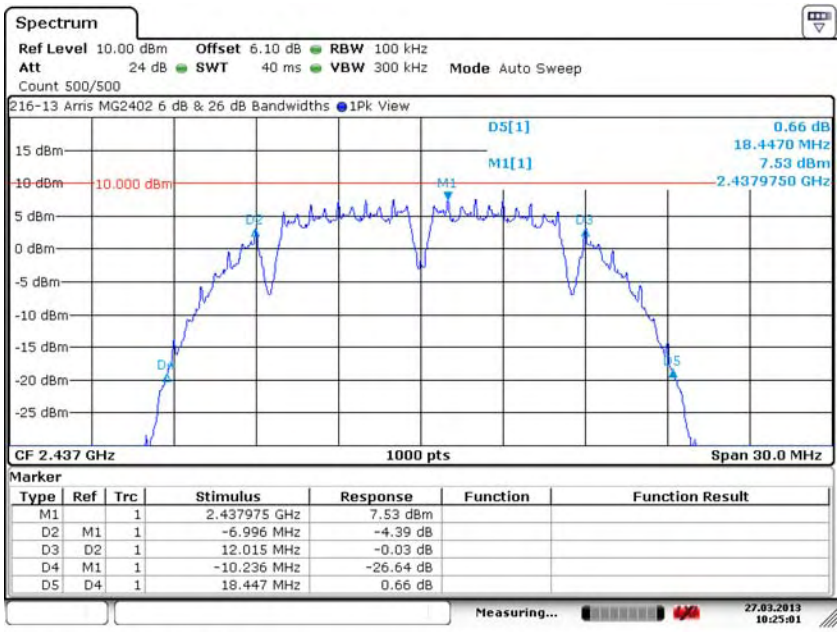
7. Measurement Data

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.5. 802.11b: Middle Channel – 6, J2401



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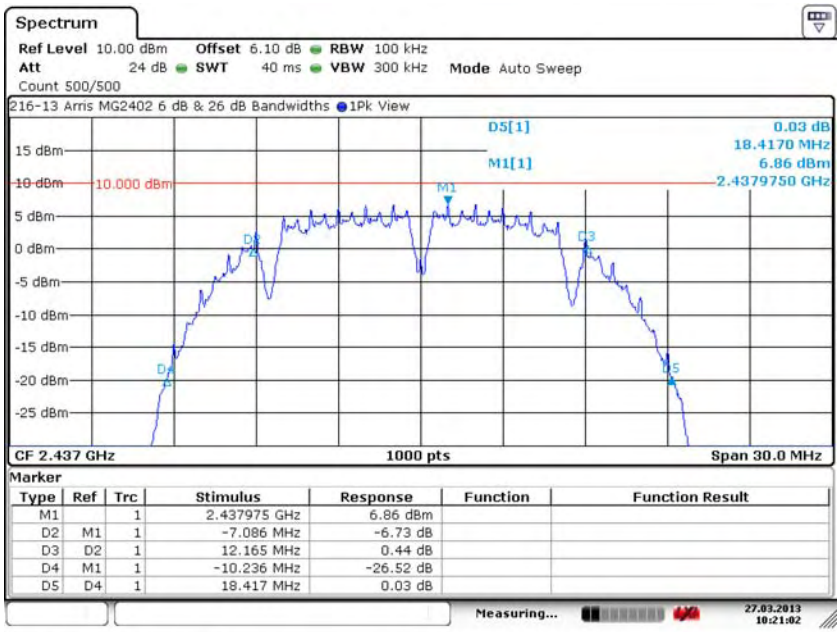
7.2.6. 802.11b: Middle Channel – 6, J2402



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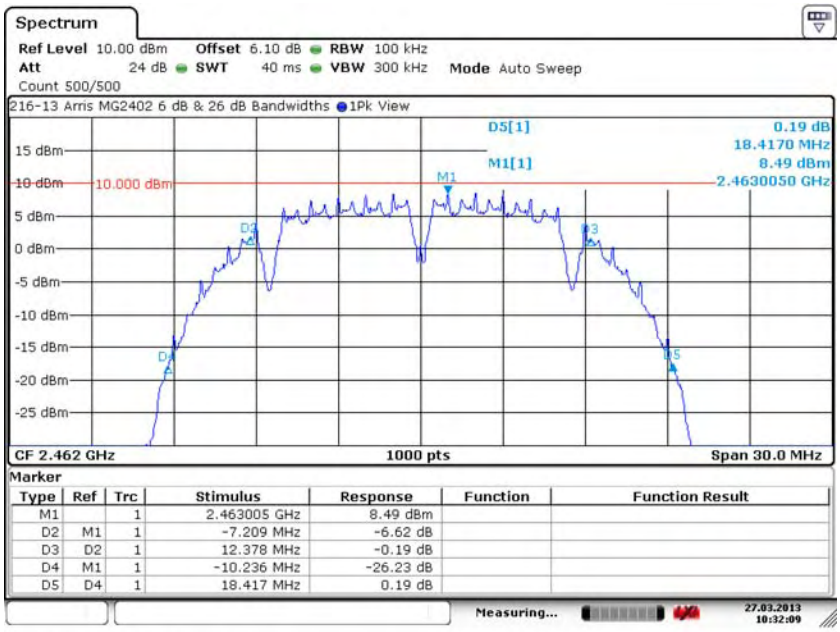
7. Measurement Data

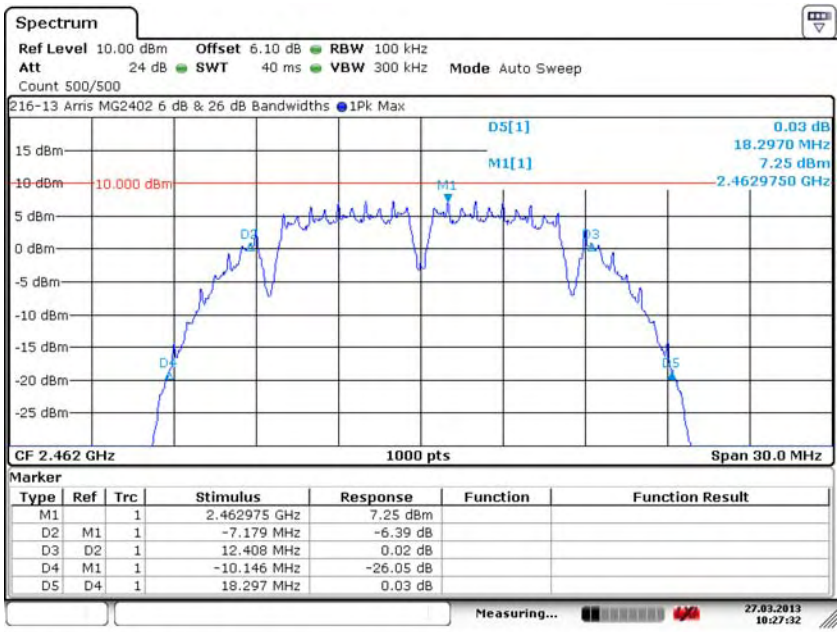
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.7. 802.11b: High Channel – 11, J2400



Date: 27.MAR.2013 10:32:09

7.2.8. 802.11b: High Channel – 11, J2401



Date: 27.MAR.2013 10:27:32

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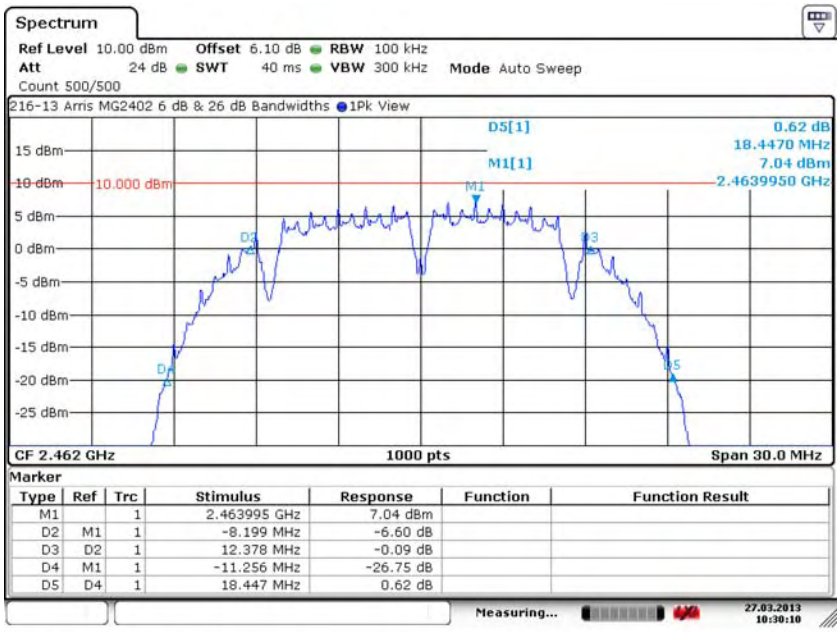
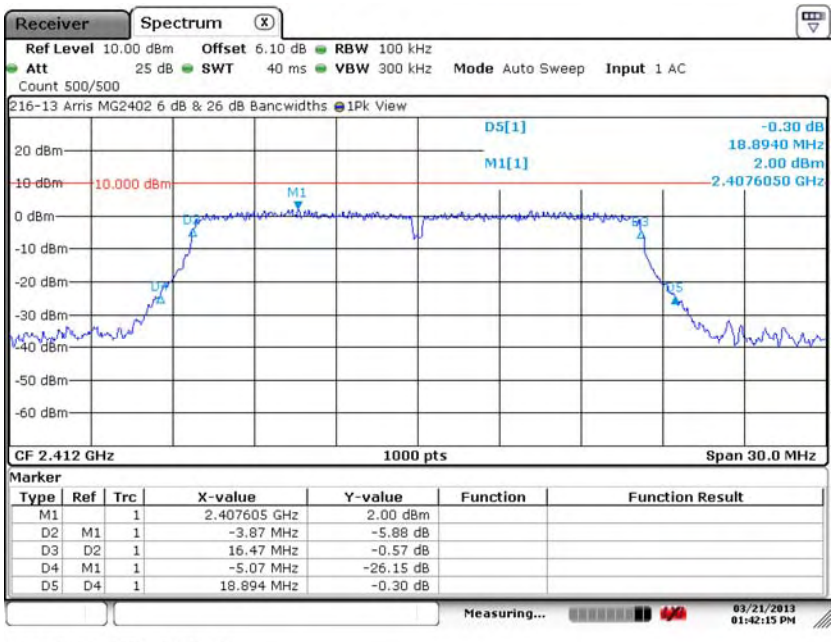
7. Measurement Data

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.9. 802.11b: High Channel – 11, J2402



7.2.10. 802.11g: Low Channel – 1, J2400



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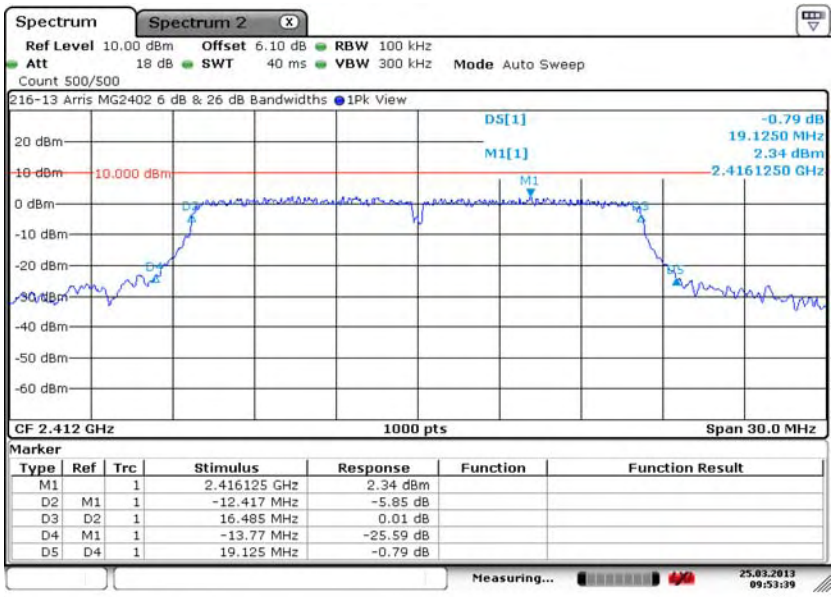
7. Measurement Data

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.11. 802.11g: Low Channel – 1, J2401



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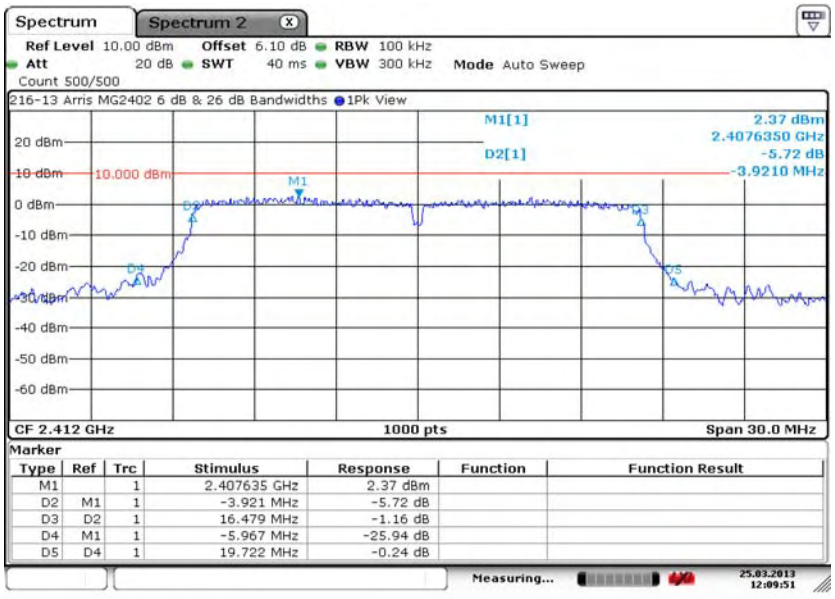
7.2.12. 802.11g: Low Channel – 1, J2402



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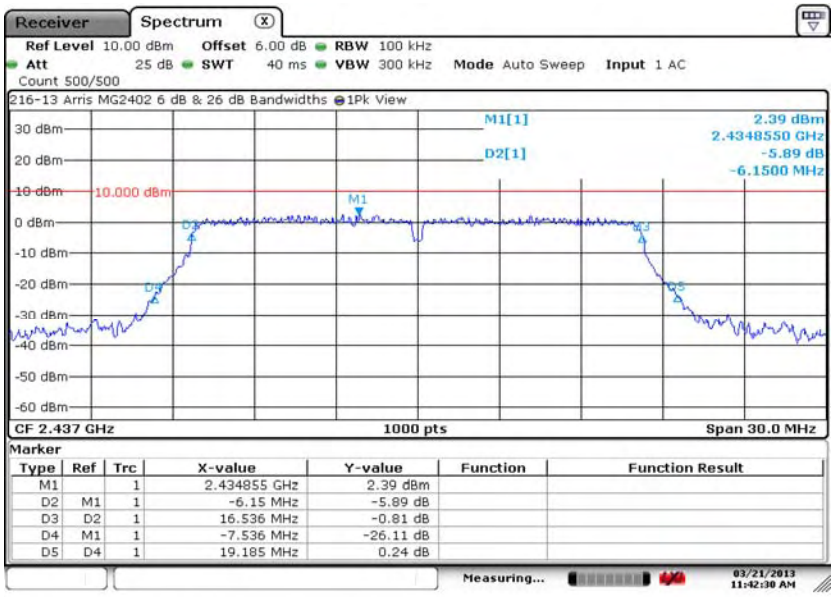
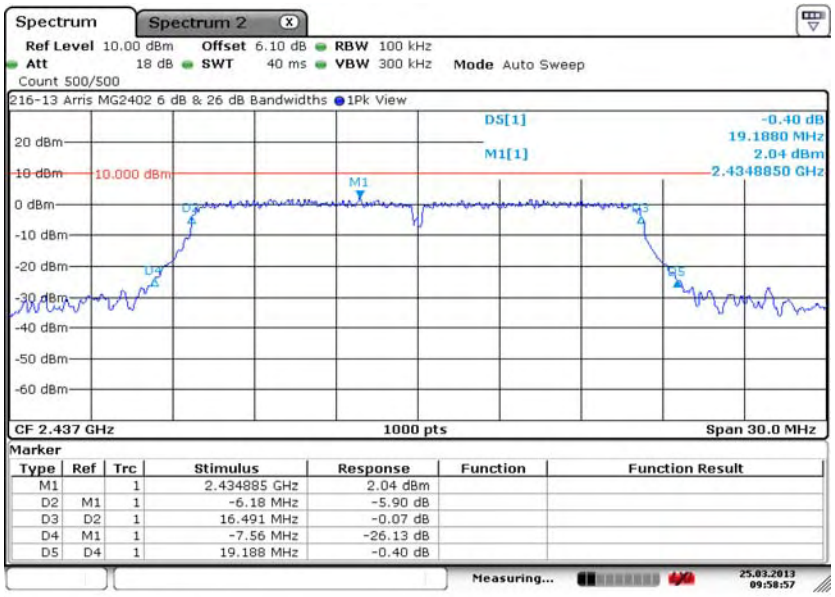
7. Measurement Data

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.13. 802.11g: Middle Channel – 6, J2400



7.2.14. 802.11g: Middle Channel – 6, J2401



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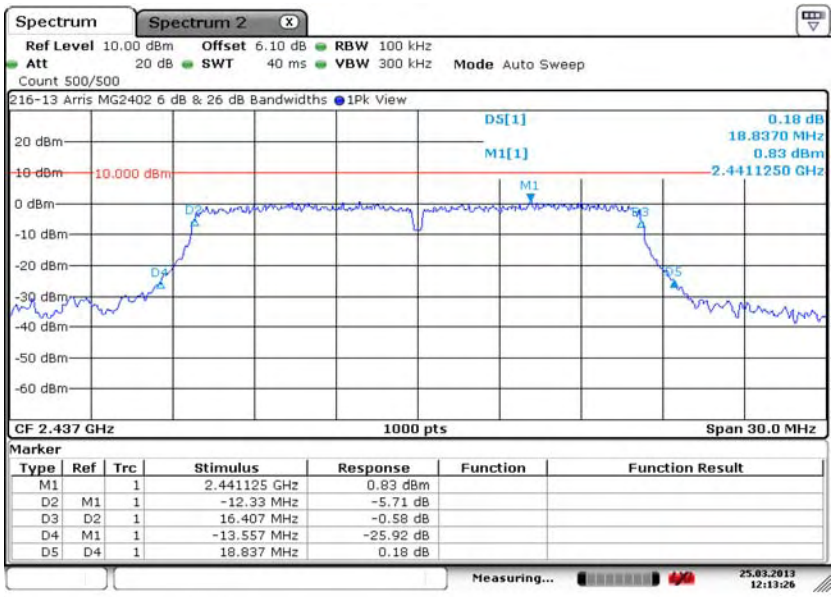
7. Measurement Data

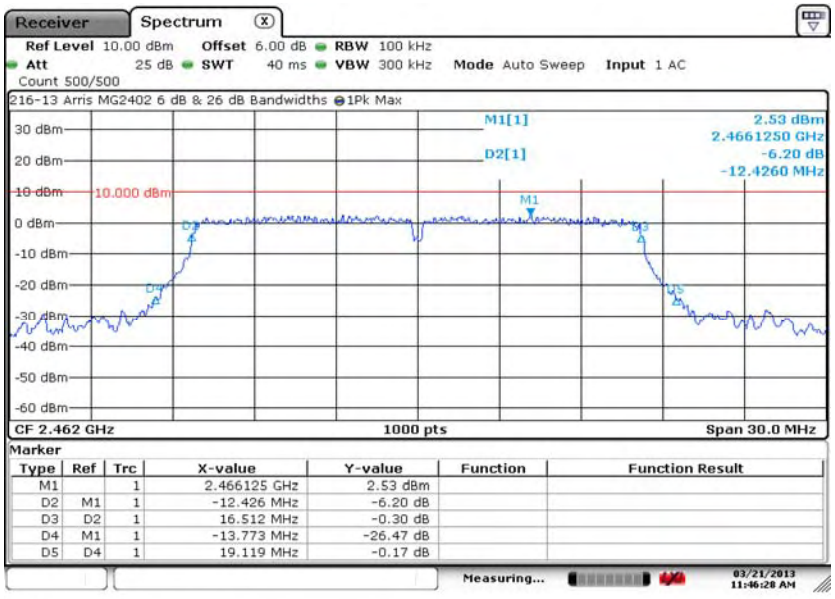
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.15. 802.11g: Middle Channel – 6, J2402



Date: 25.MAR.2013 12:13:26

7.2.16. 802.11g: High Channel – 11, J2400



Date: 21.MAR.2013 11:46:29

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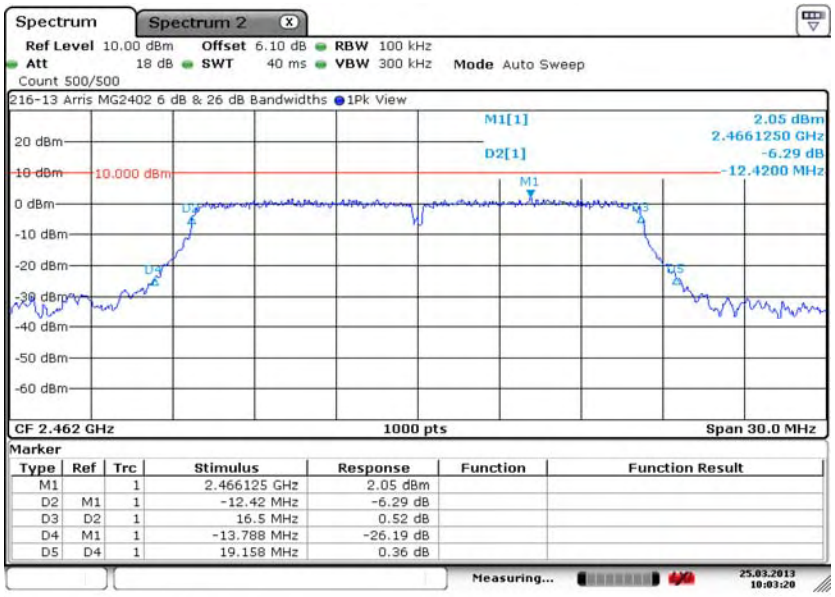
7. Measurement Data

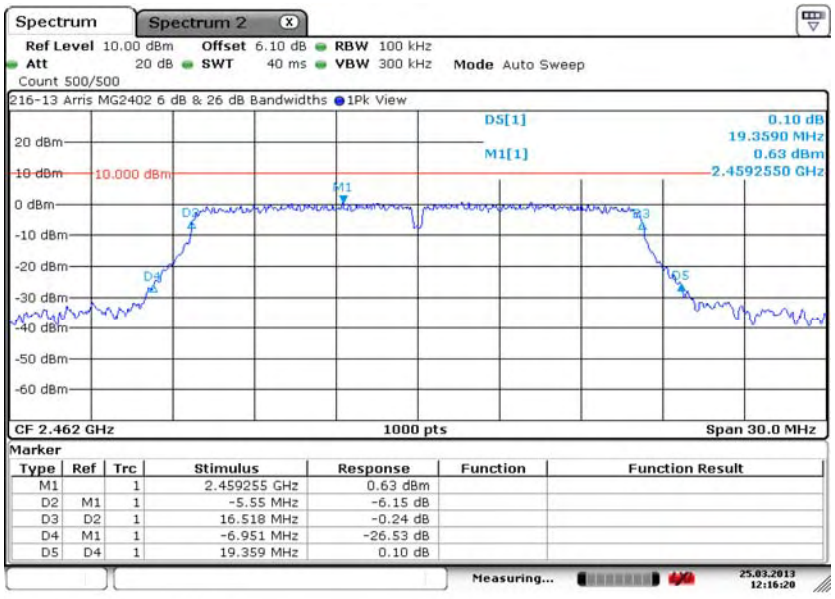
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.17. 802.11g: High Channel – 11, J2401



Date: 25.MAR.2013 10:03:20

7.2.18. 802.11g: High Channel – 11, J2402



Date: 25.MAR.2013 12:16:20

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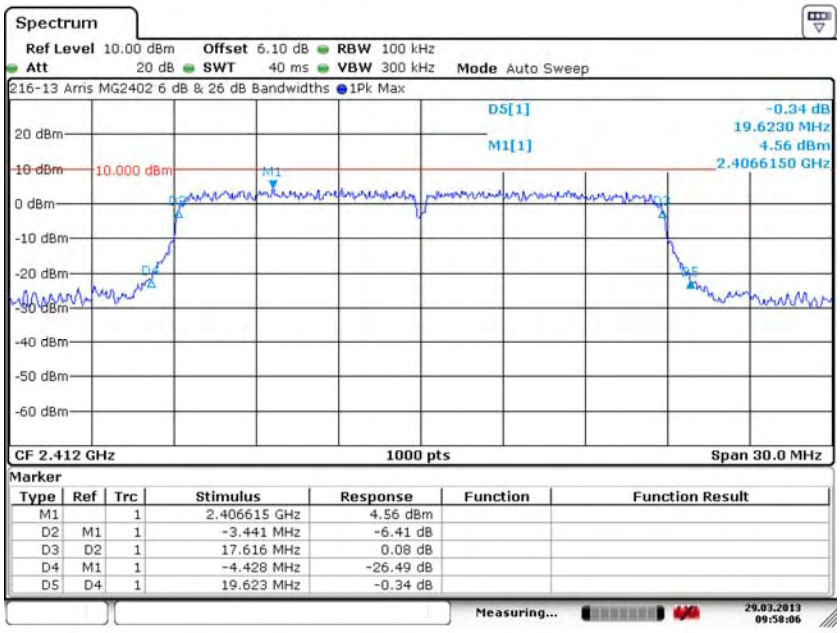
7. Measurement Data

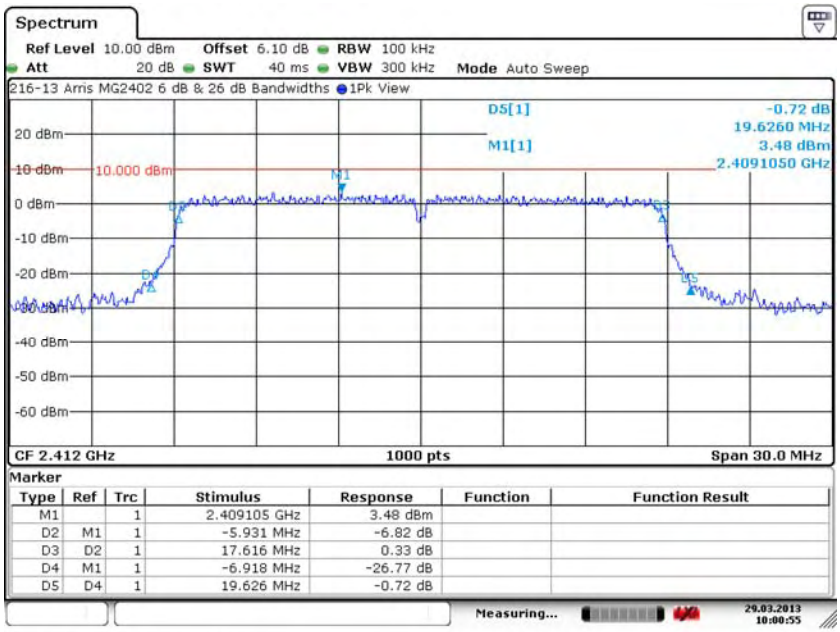
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.19. HT20: Low Channel – 1, J2400



Date: 29.MAR.2013 09:58:06

7.2.20. HT20: Low Channel – 1, J2401



Date: 29.MAR.2013 10:00:55

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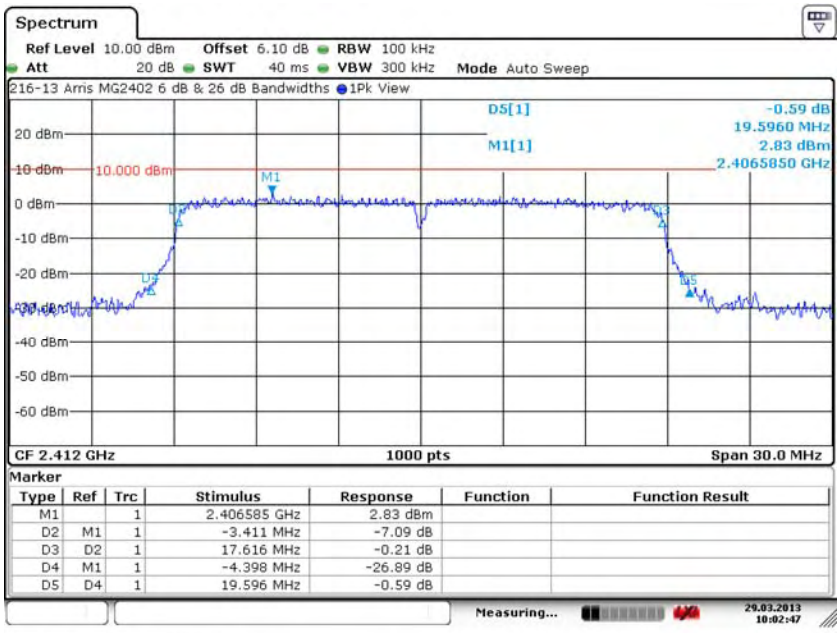
7. Measurement Data

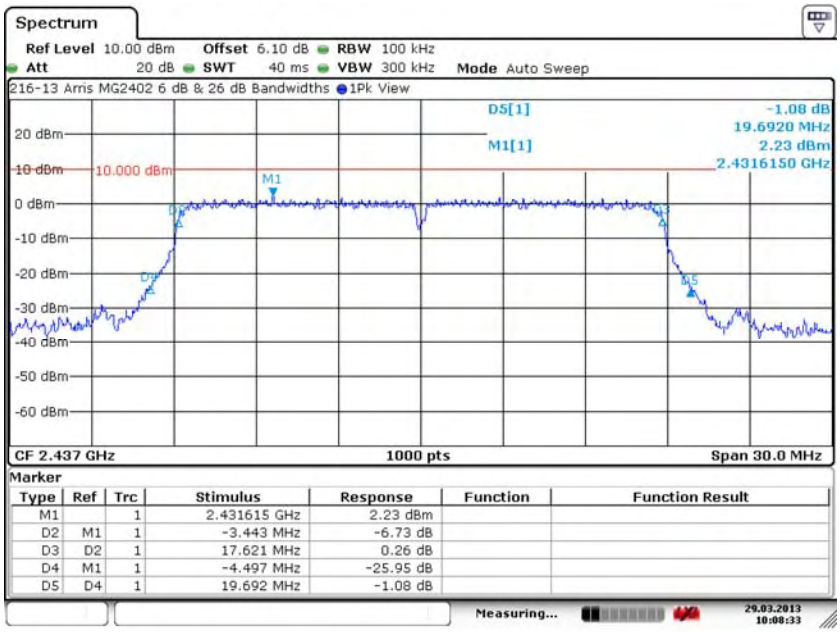
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.21. HT20: Low Channel – 1, J2402



Date: 29.MAR.2013 10:02:47

7.2.22. HT20: Mid Channel – 6, J2400



Date: 29.MAR.2013 10:08:33

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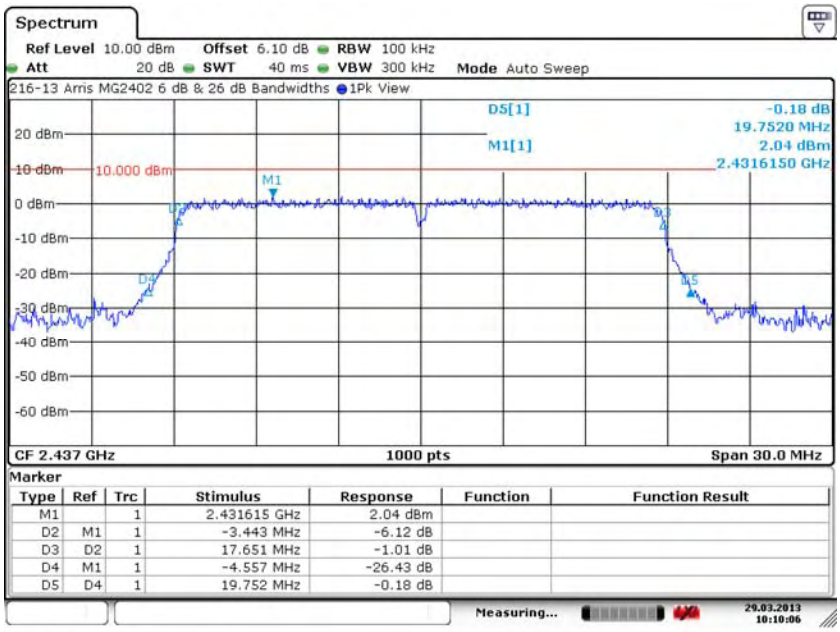
7. Measurement Data

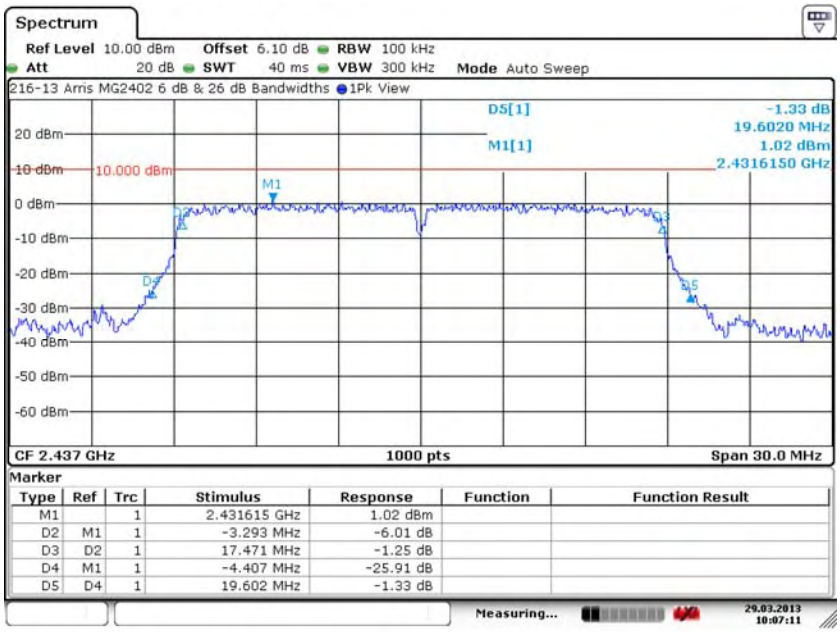
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.23. HT20: Mid Channel – 6, J2401



Date: 29.MAR.2013 10:10:05

7.2.24. HT20: Mid Channel – 6, J2402



Date: 29.MAR.2013 10:07:11

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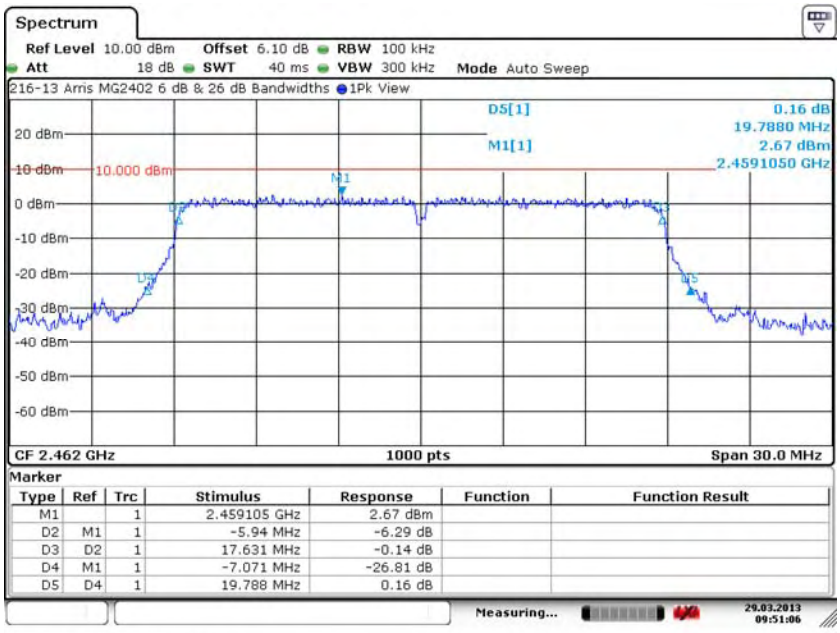
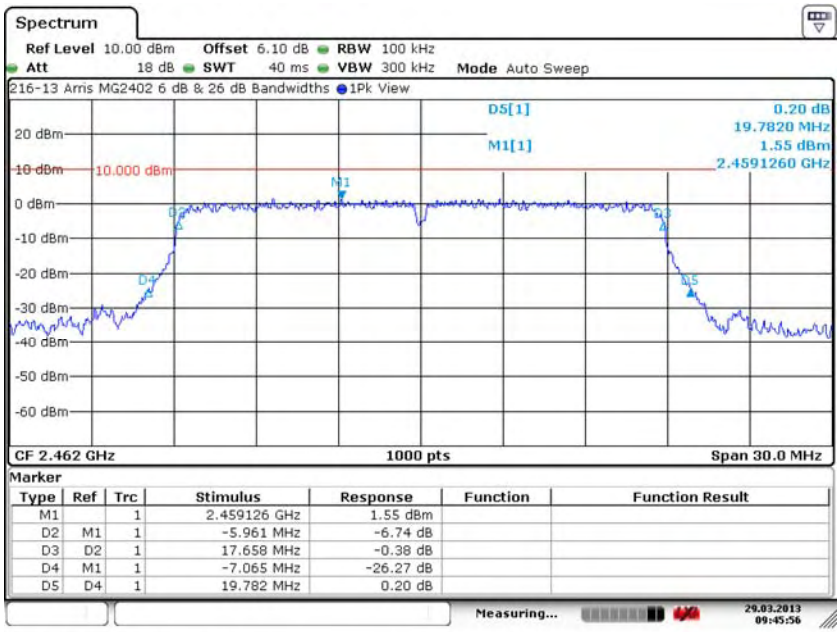
7. Measurement Data

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.25. HT20: High Channel – 11, J2400



7.2.26. HT20: High Channel – 11, J2401



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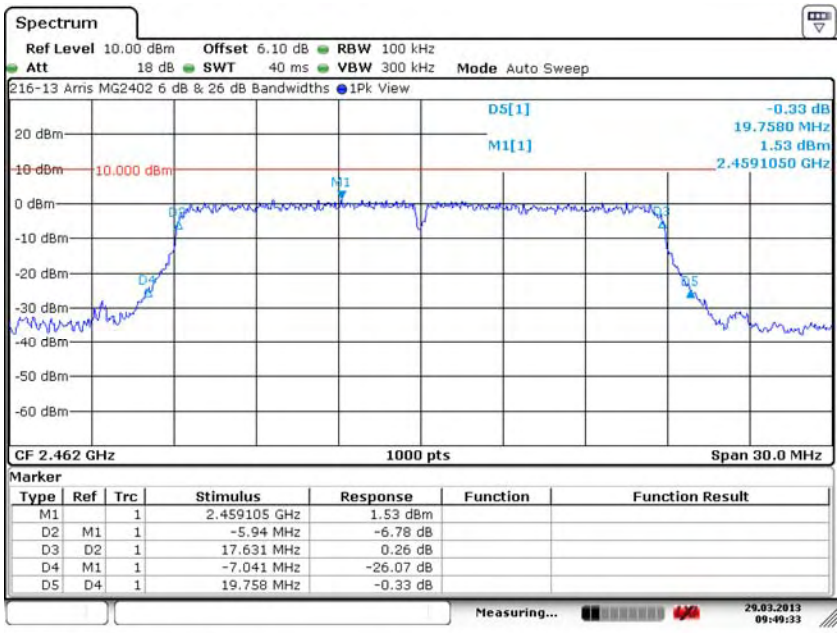
7. Measurement Data

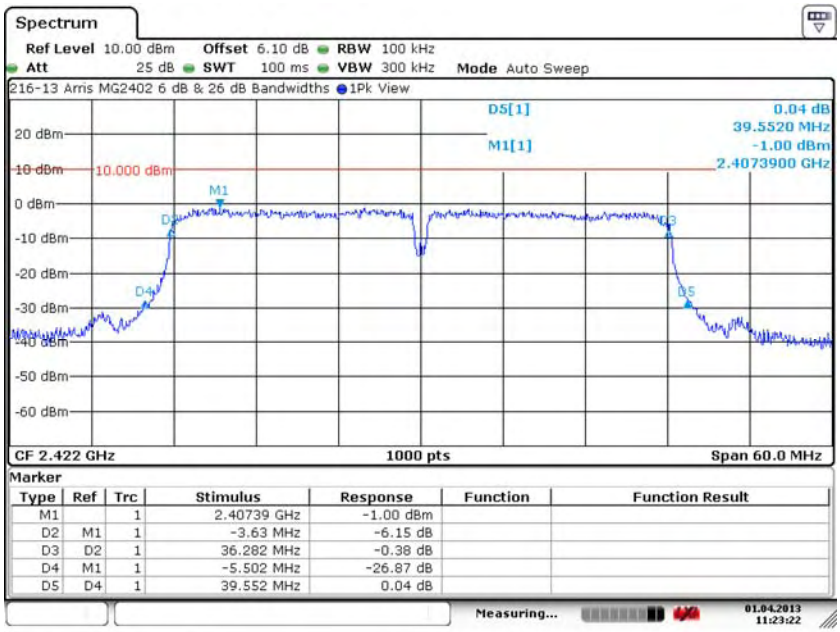
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.27. HT20: High Channel – 11, J2402



Date: 29.MAR.2013 09:49:33

7.2.28. HT40: Low Channel – 3, J2400



Date: 1.APR.2013 11:23:21

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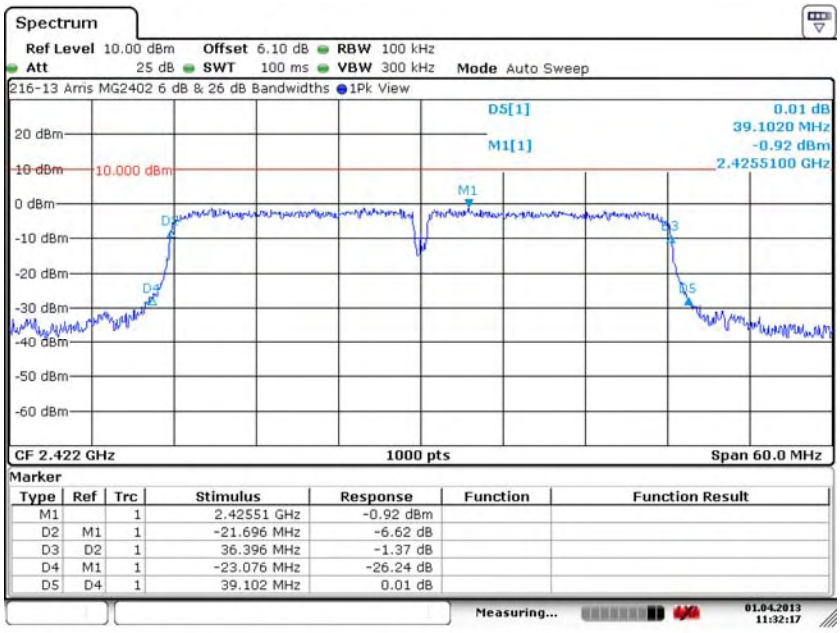
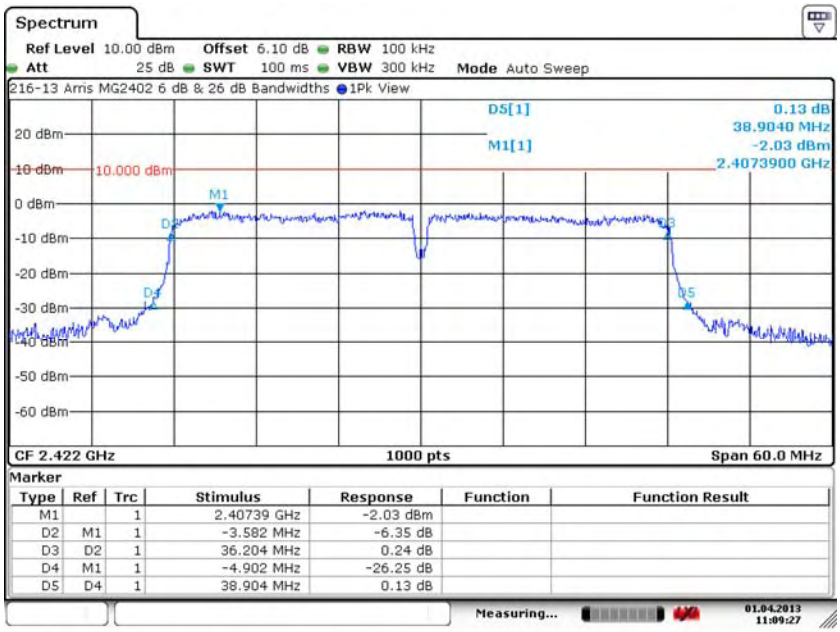
7. Measurement Data

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.29. HT40: Low Channel – 3, J2401



7.2.30. HT40: Low Channel – 3, J2402



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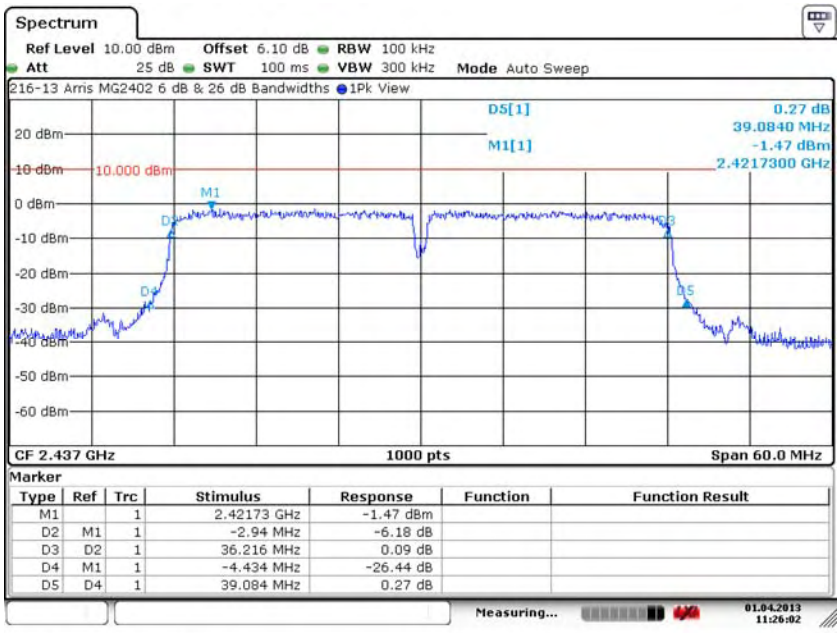
7. Measurement Data

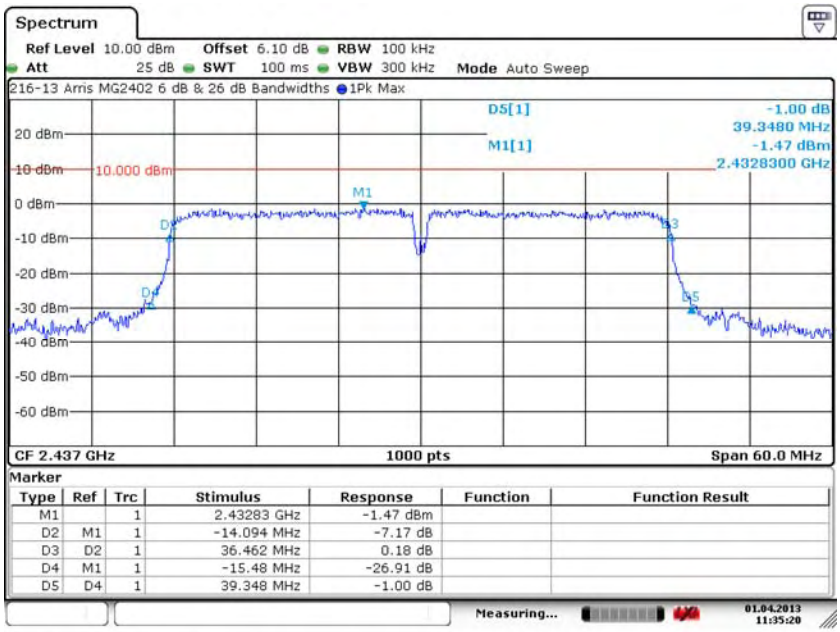
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.31. HT40: Mid Channel – 6, J2400



Date: 1.APR.2013 11:26:02

7.2.32. HT40: Mid Channel – 6, J2401



Date: 1.APR.2013 11:35:19

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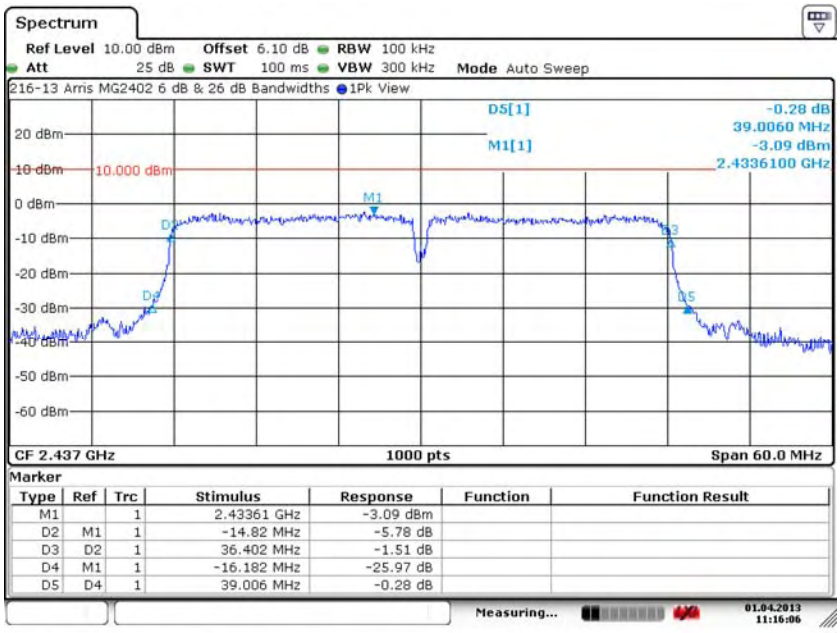
7. Measurement Data

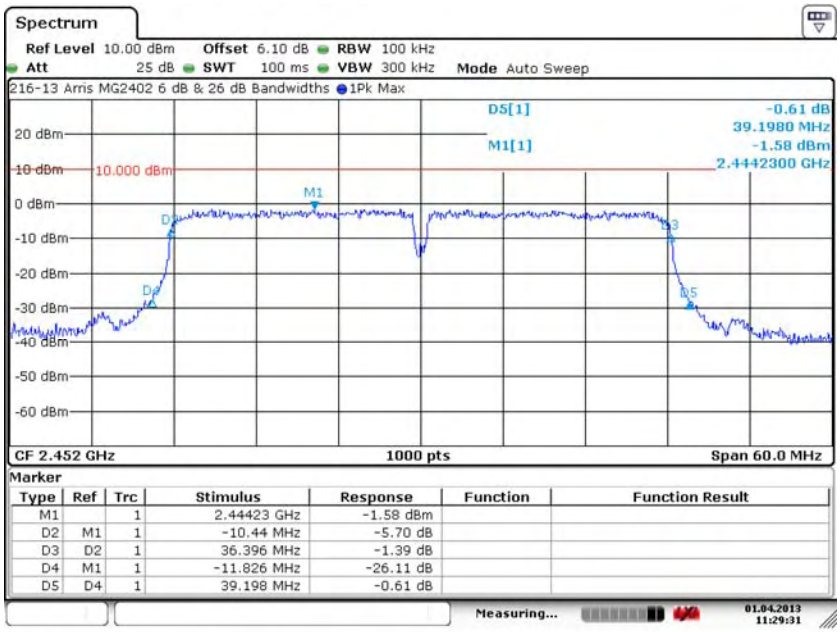
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.33. HT40: Mid Channel – 6, J2402



Date: 1.APR.2013 11:16:06

7.2.34. HT40: High Channel – 9, J2400



Date: 1.APR.2013 11:29:31

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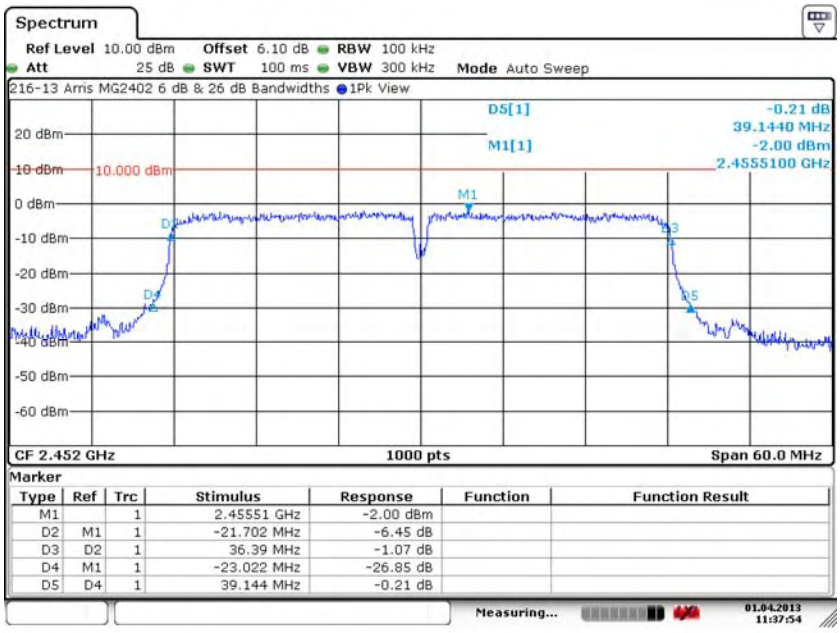
7. Measurement Data

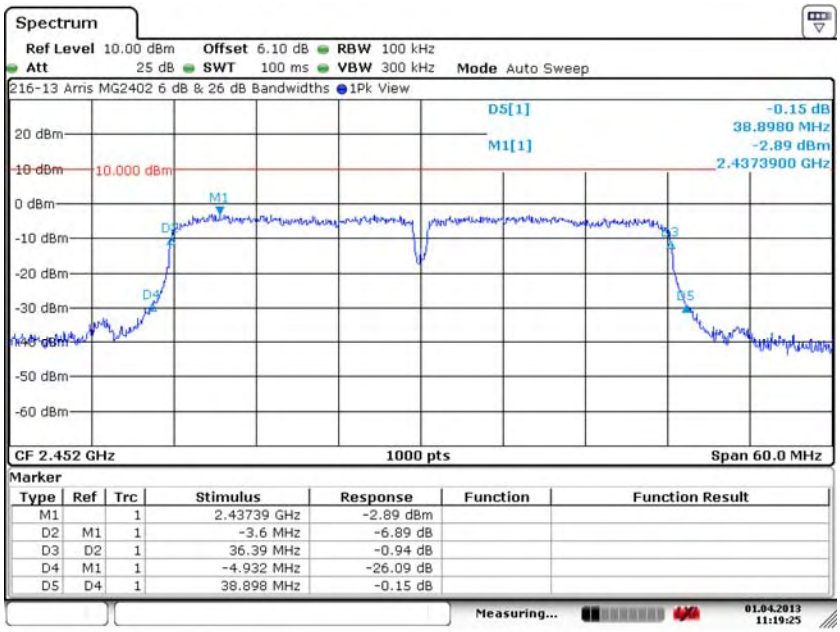
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.35. HT40: High Channel – 9, J2401



Date: 1.APR.2013 11:37:53

7.2.36. HT40: High Channel – 9, J2402



Date: 1.APR.2013 11:19:25

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7. Measurement Data

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

Requirement: (15.247 (a) (2), RSS 210 A8.2(a))
Systems using digital modulation techniques may operate in the 902 - 928 MHz, 2400 - 2483.5 MHz, and 5725 - 5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Procedure: This test was performed in accordance with the procedure detailed in FCC OET publication number 558074, Section 5.1, clause 5.1.1: Alternate EBW Measurement Procedure.

Conclusion: The device under test meets the minimum 500 kHz 6 dB bandwidth requirement.

Measurement Results for 5725 to 5850 MHz Band

802.11a Mode Channel	Frequency (MHz)	-6 dB Bandwidth (kHz)			Minimum -6 dB Bandwidth (kHz)	Result
		J5000	J5001	J5002		
Low	5745	16545	16407	16389	>500	Compliant
Middle	5785	16519	16429	16495	>500	Compliant
High	5825	16486	16504	16463	>500	Compliant

HT20 Mode Channel	Frequency (MHz)	-6 dB Bandwidth (kHz)			Minimum -6 dB Bandwidth (kHz)	Result
		J5000	J5001	J5002		
Low	5745	17571	17584	17584	>500	Compliant
Middle	5785	17565	17577	17571	>500	Compliant
High	5825	17578	17572	17560	>500	Compliant

HT40 Mode Channel	Frequency (MHz)	-6 dB Bandwidth (kHz)			Minimum -6 dB Bandwidth (kHz)	Result
		J5000	J5001	J5002		
Low	5755	35898	35862	40156	>500	Compliant
High	5795	39004	38812	38946	>500	Compliant

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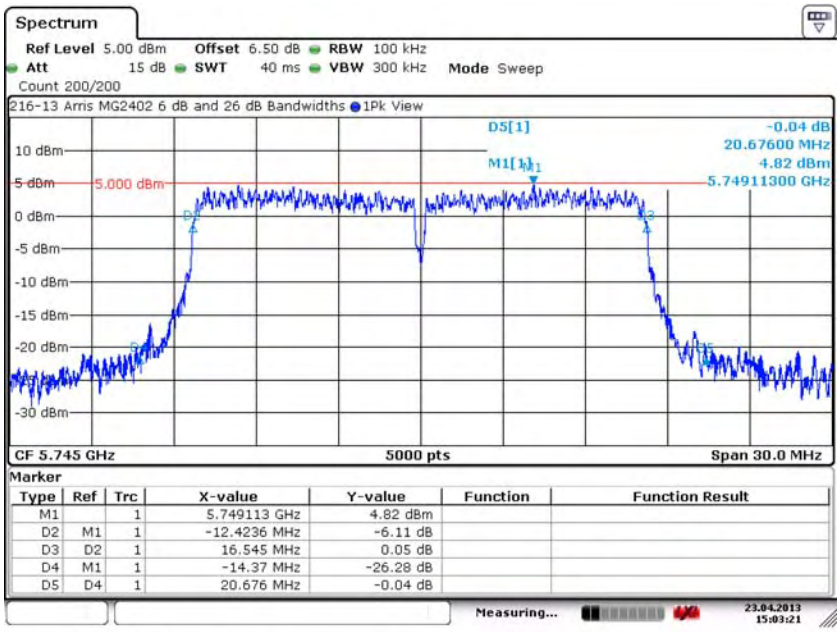
7. Measurement Data (continued)

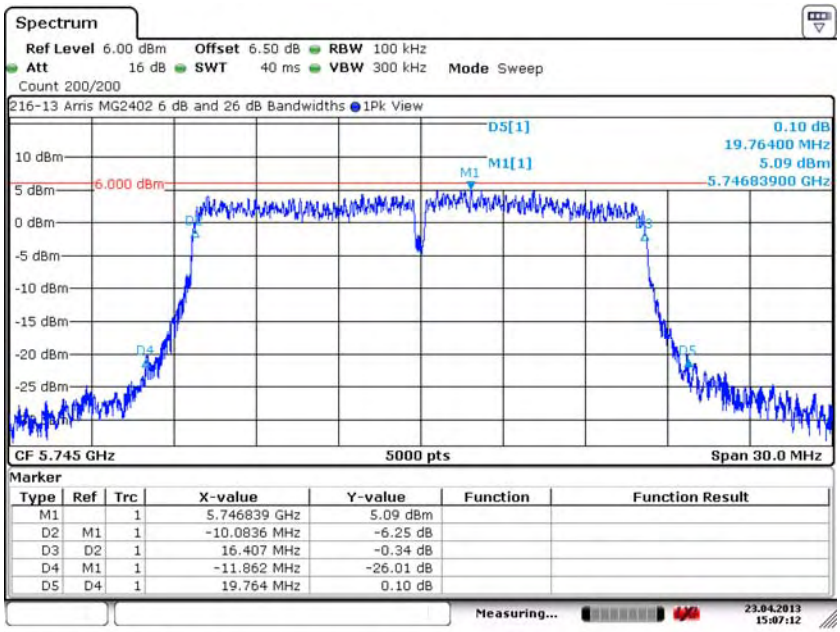
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.37. 802.11a: Low Channel – 149, J5000



Date: 23.APR.2013 15:03:21

7.2.38. 802.11a: Low Channel – 149, J5001



Date: 23.APR.2013 15:07:12

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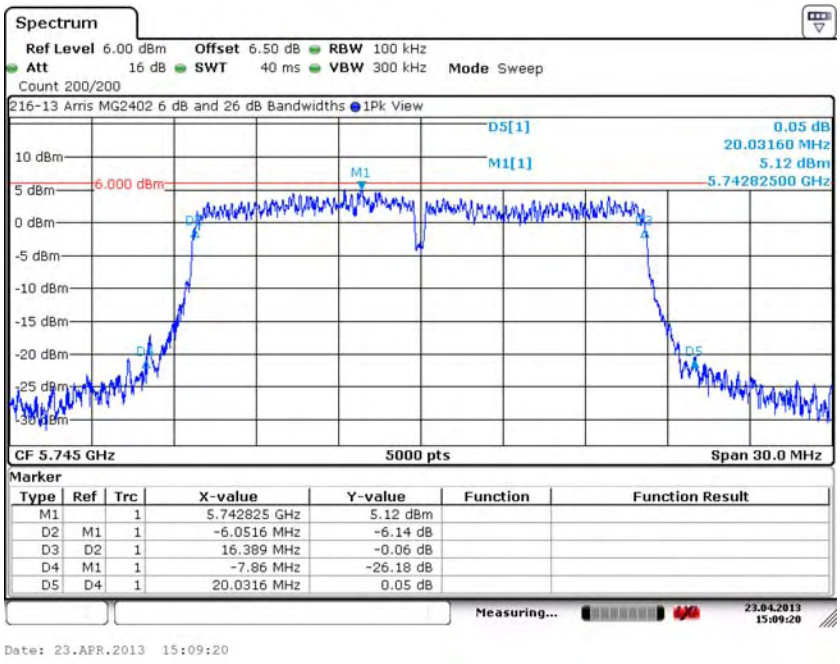
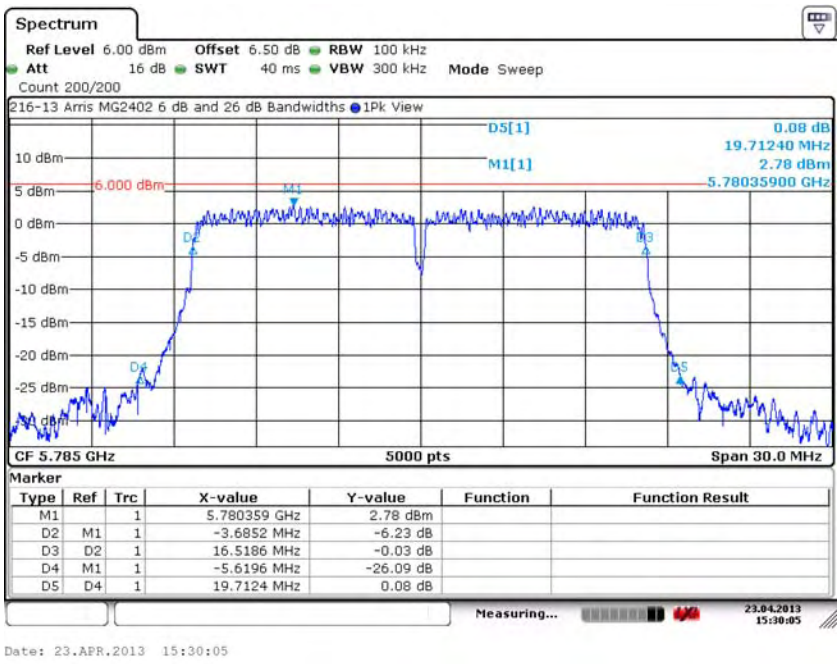
7. Measurement Data (continued)

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.39. 802.11a: Low Channel – 149, J5002



7.2.40. 802.11a: Middle Channel – 157, J5000



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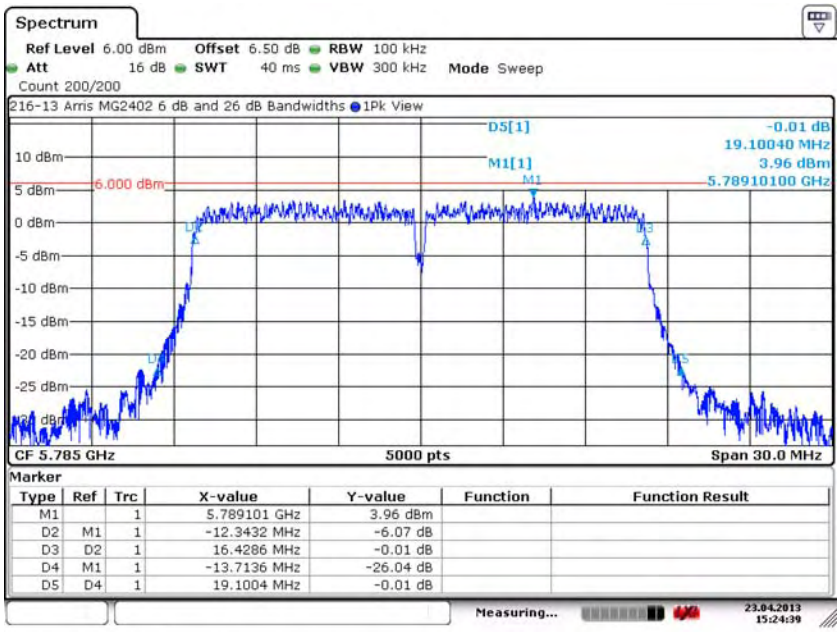
7. Measurement Data (continued)

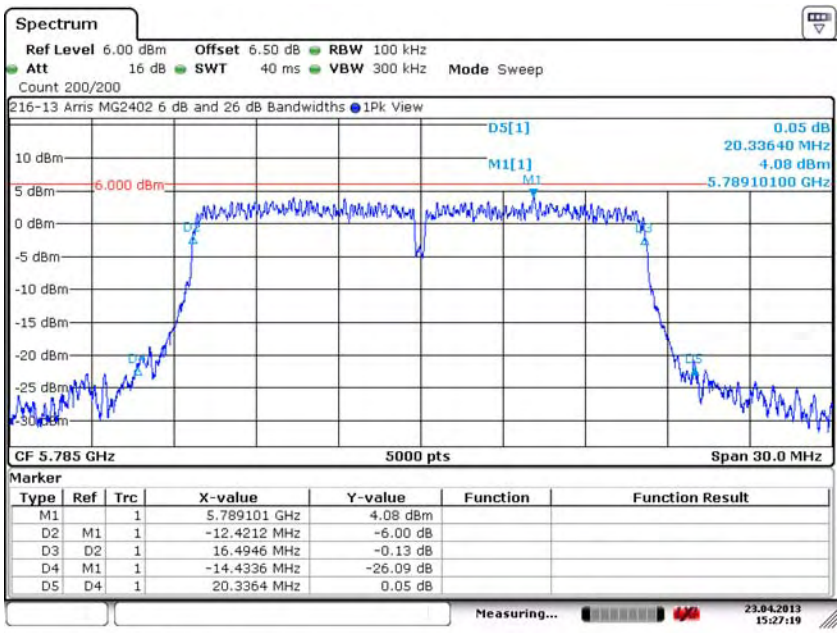
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.41. 802.11a: Middle Channel – 157, J5001



Date: 23.APR.2013 15:24:38

7.2.42. 802.11a: Middle Channel – 157, J5002



Date: 23.APR.2013 15:27:19

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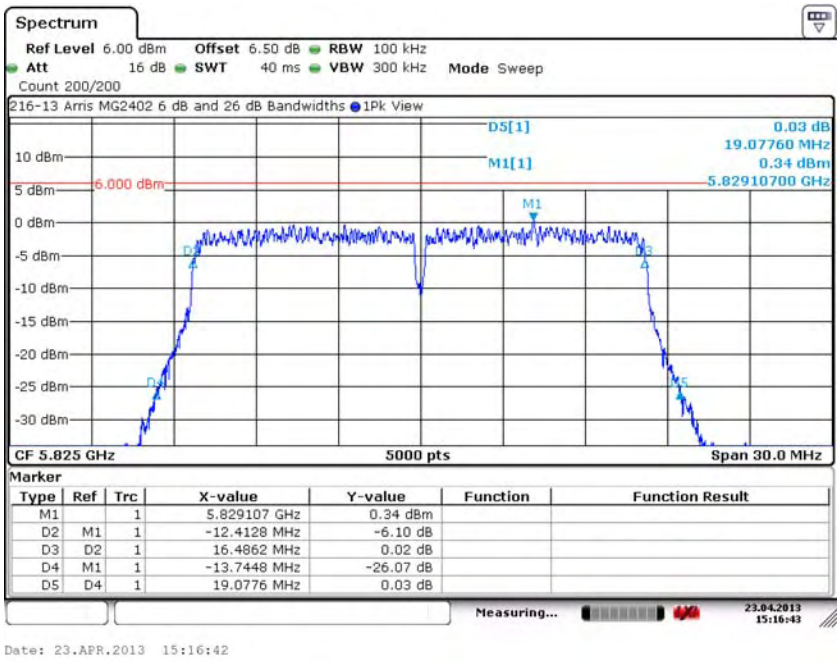
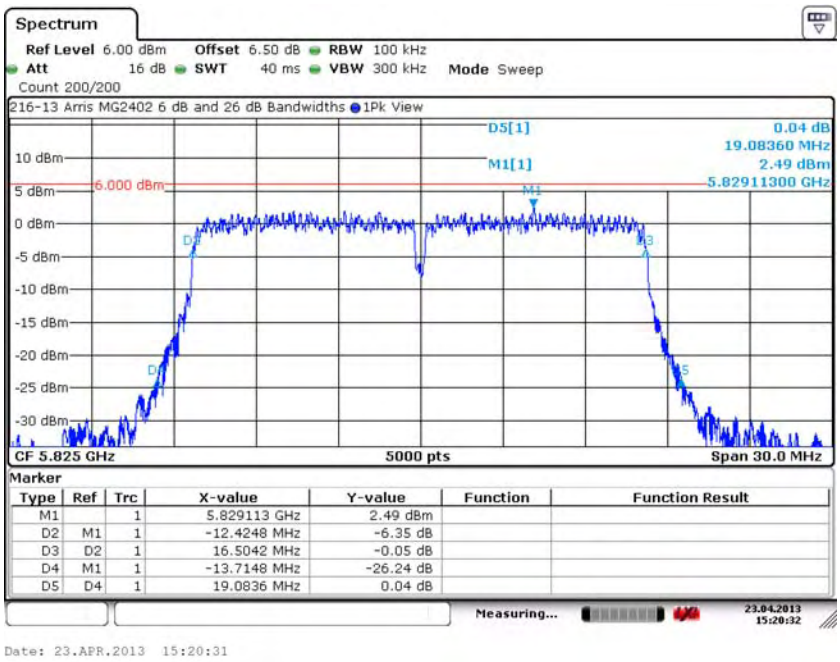
7. Measurement Data (continued)

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.43. 802.11a: High Channel – 165, J5000



7.2.44. 802.11a: High Channel – 165, J5001



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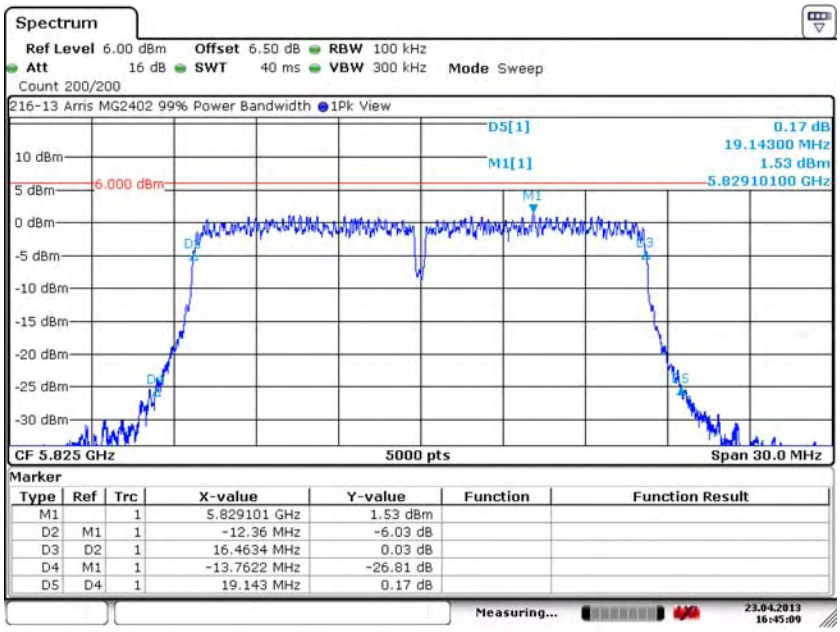
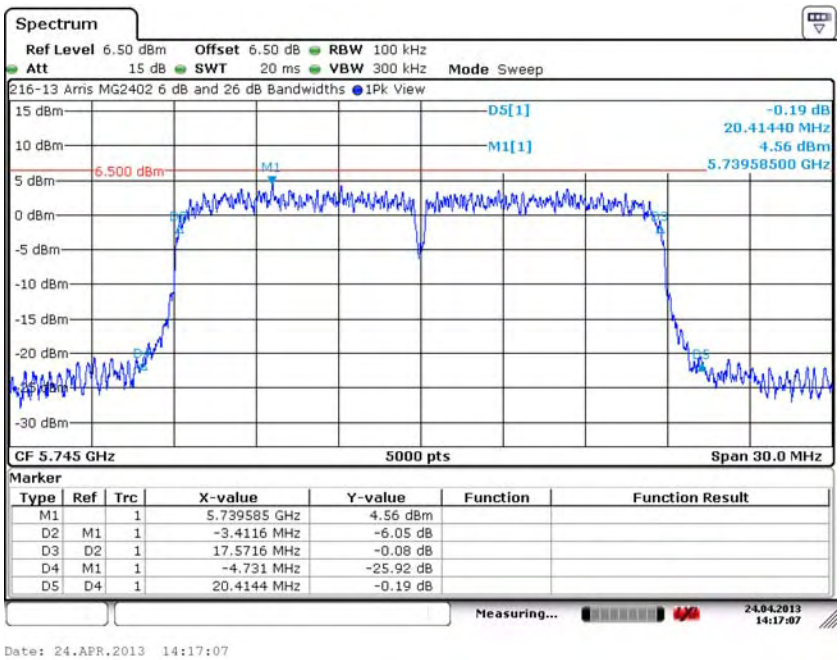
7. Measurement Data (continued)

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.45. 802.11a: High Channel – 165, J5002



7.2.46. HT20: Low Channel – 149, J5000



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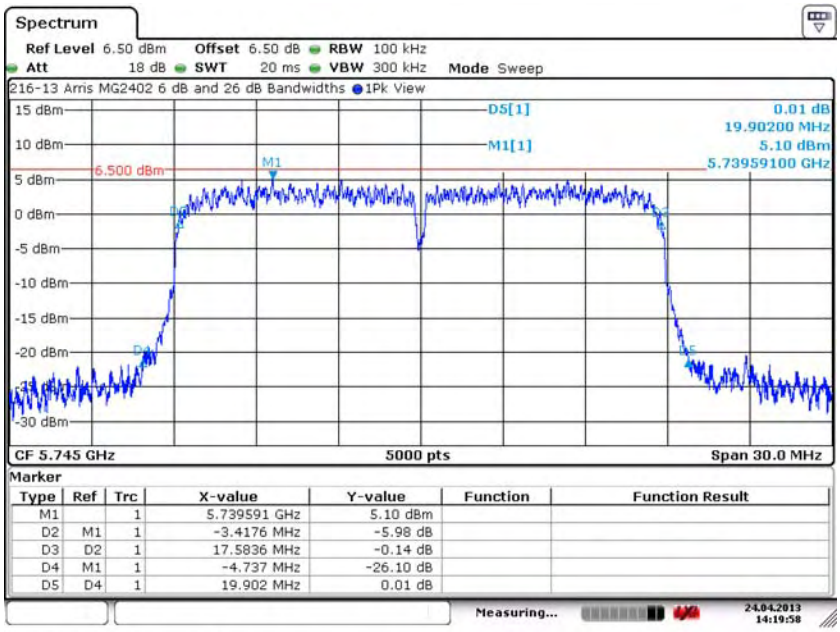
7. Measurement Data (continued)

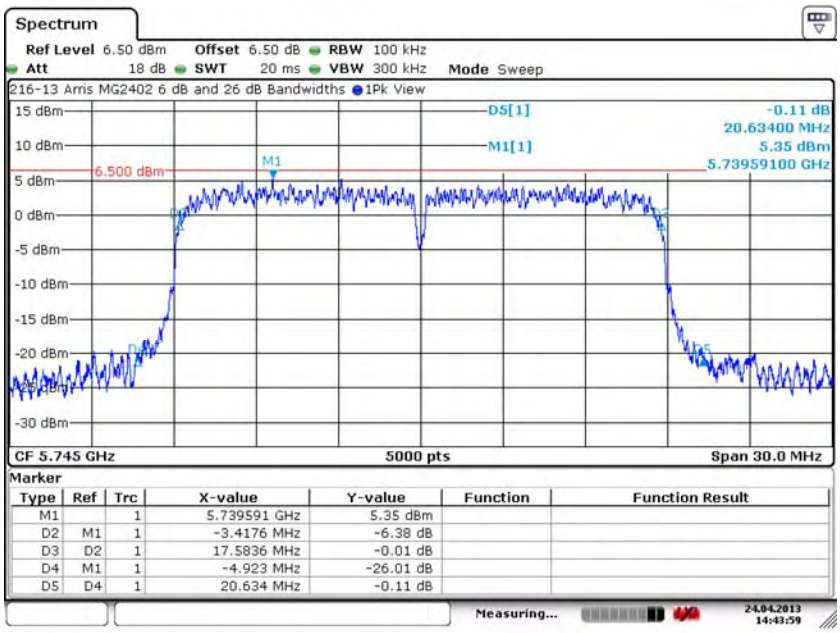
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.47. HT20: Low Channel – 149, J5001



Date: 24.APR.2013 14:19:58

7.2.48. HT20: Low Channel – 149, J5002



Date: 24.APR.2013 14:43:58

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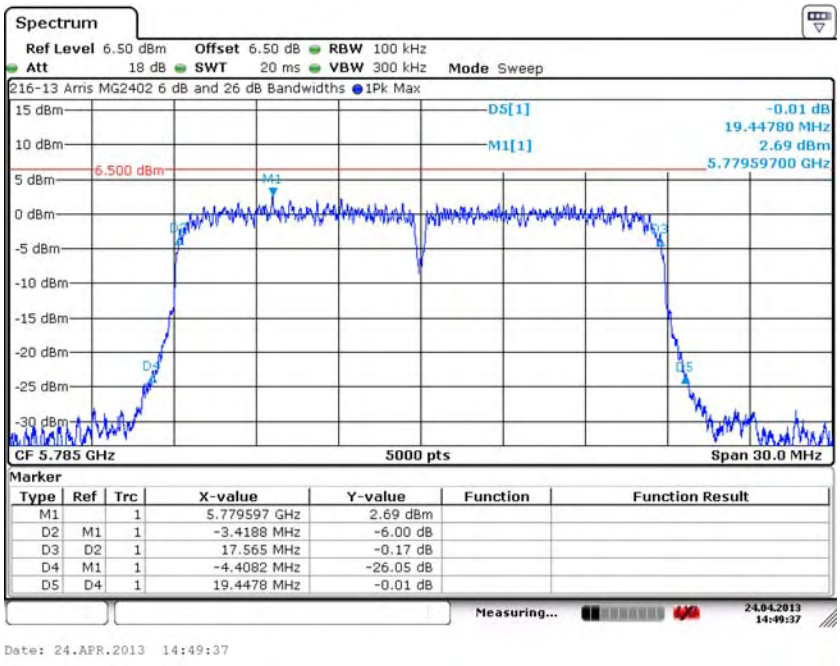
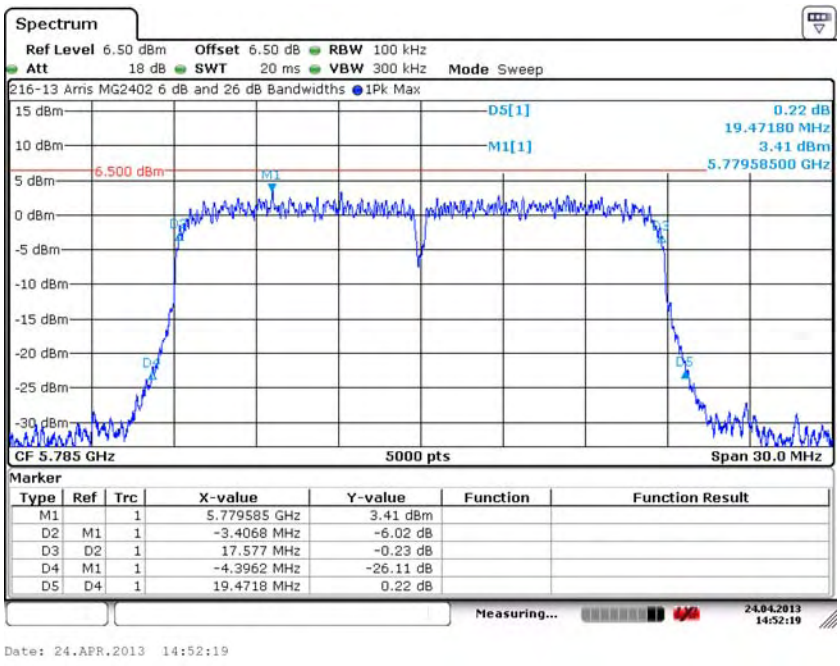
7. Measurement Data (continued)

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.49. HT20: Middle Channel – 157, J5000



7.2.50. HT20: Middle Channel – 157, J5001



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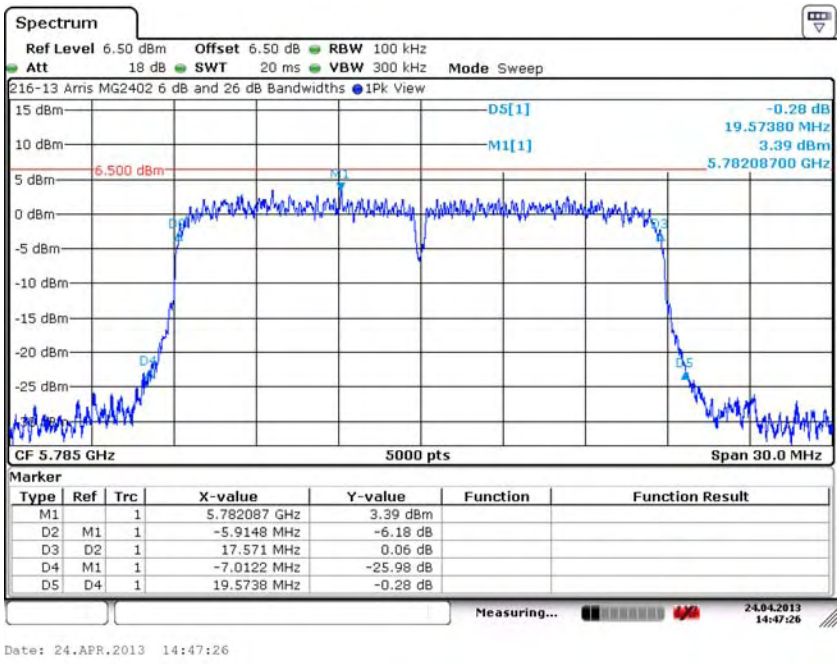
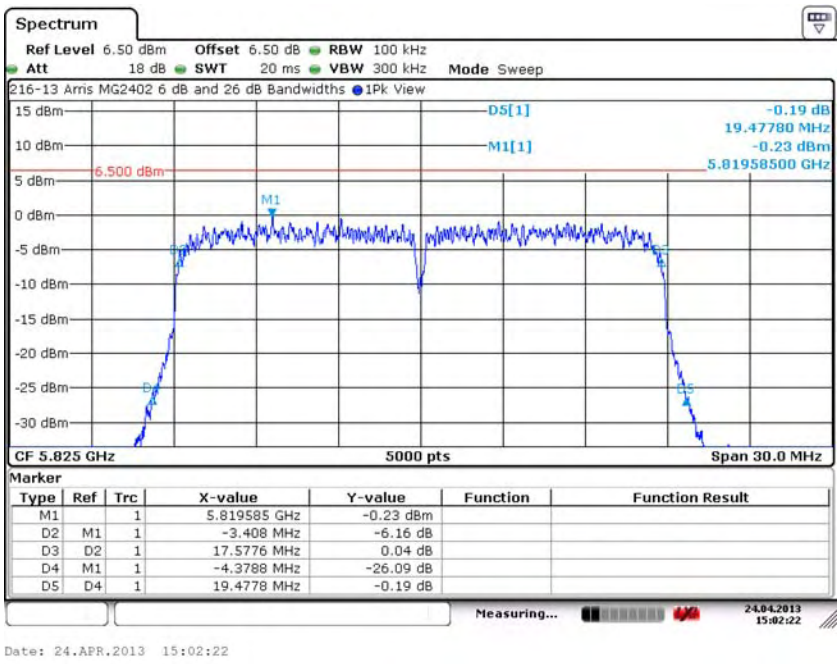
7. Measurement Data (continued)

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.51. HT20: Middle Channel – 157, J5002



7.2.52. HT20: High Channel – 165, J5000



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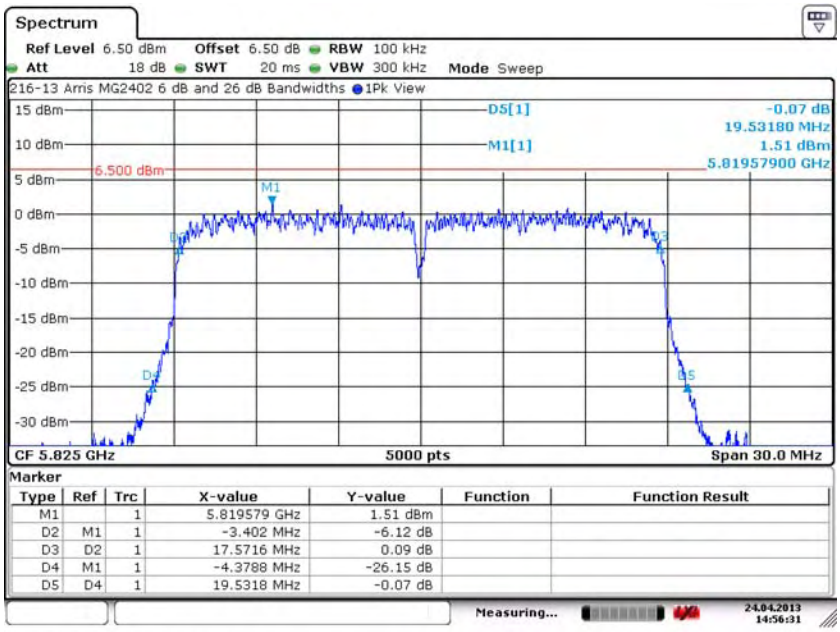
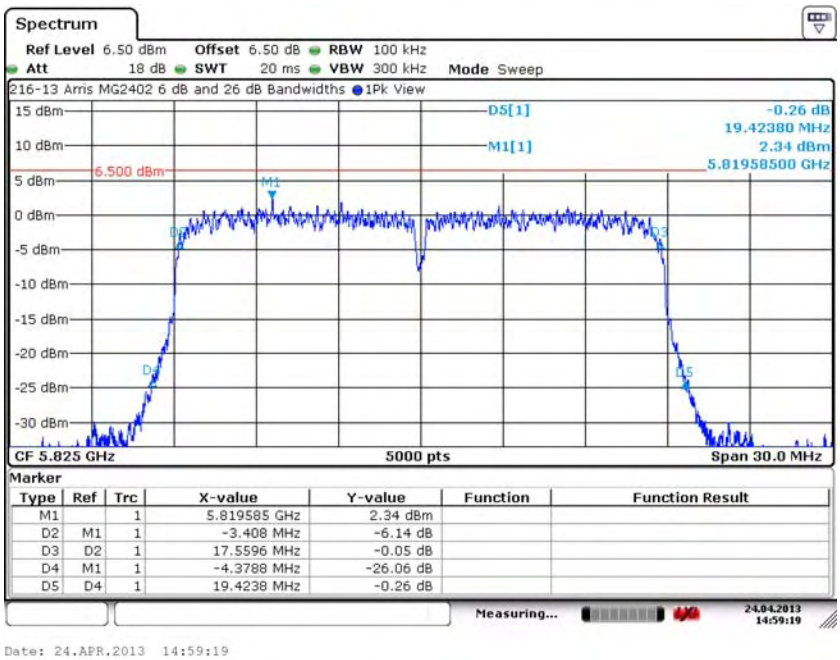
7. Measurement Data (continued)

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.53. HT20: High Channel – 165, J5001



7.2.54. HT20: High Channel – 165, J5002



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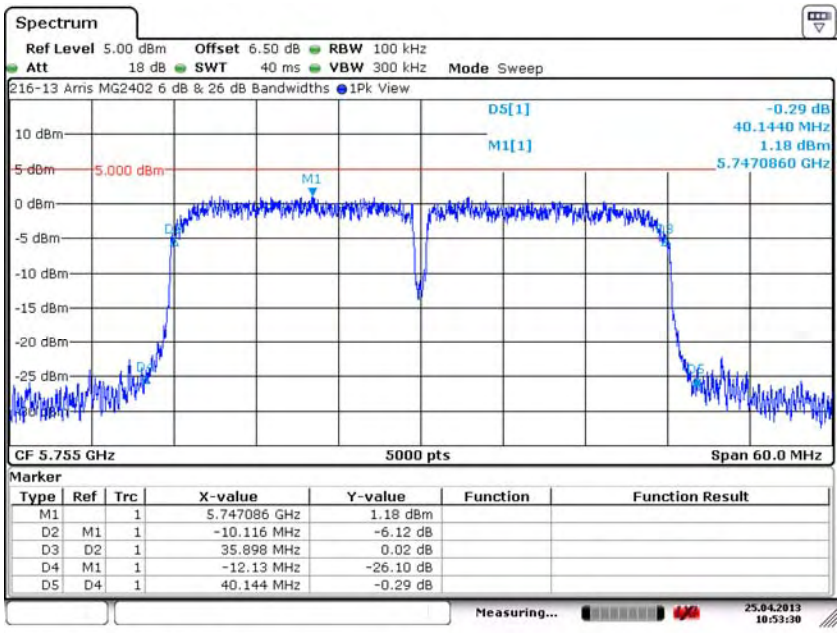
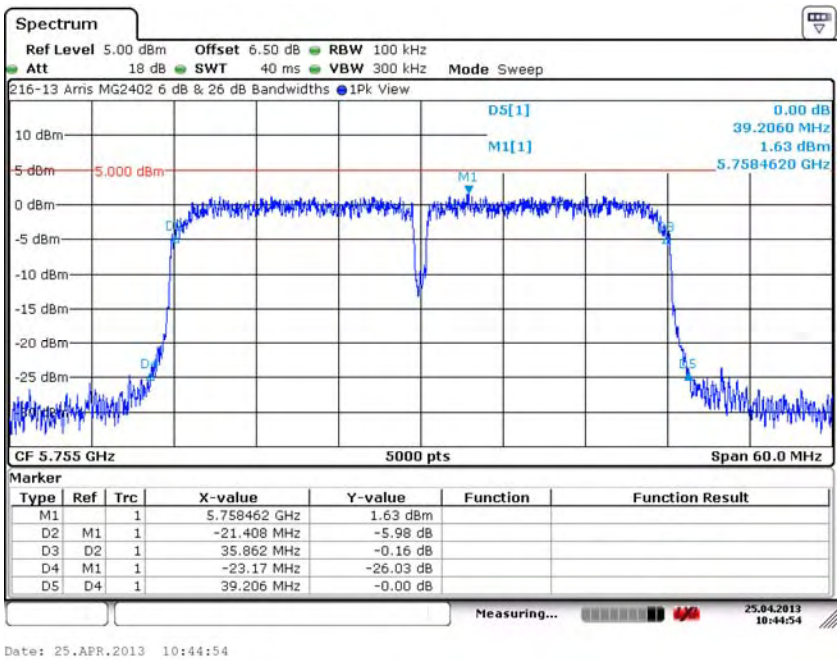
7. Measurement Data (continued)

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.55. HT40: Low Channel – 151, J5000



7.2.56. HT40: Low Channel – 151, J5001



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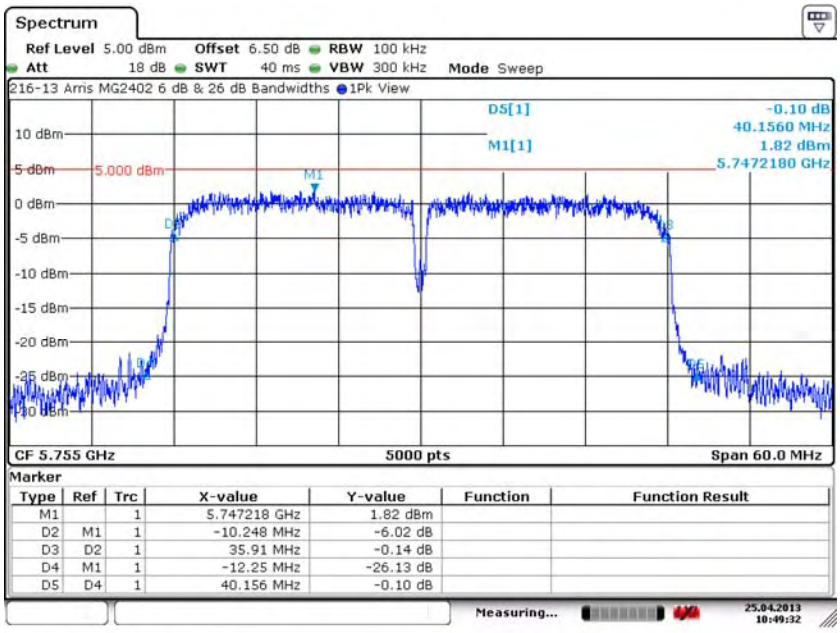
7. Measurement Data (continued)

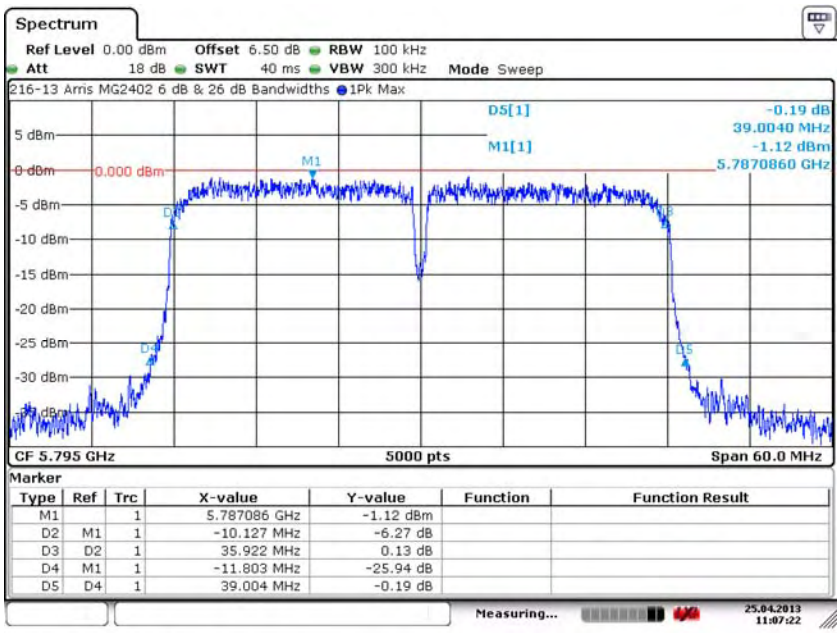
7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.57. HT40: Low Channel – 151, J5002



Date: 25.APR.2013 10:49:32

7.2.58. HT40: High Channel – 159, J5000



Date: 25.APR.2013 11:07:22

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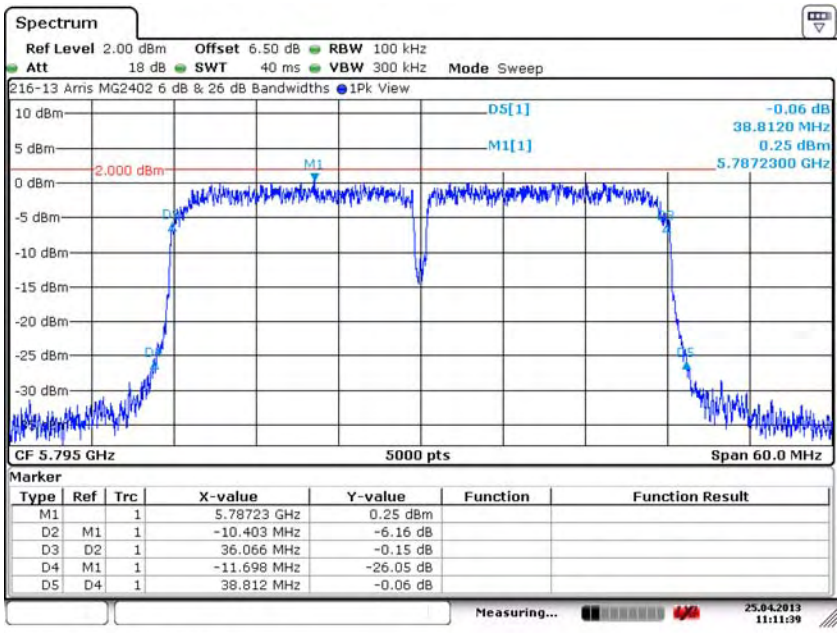
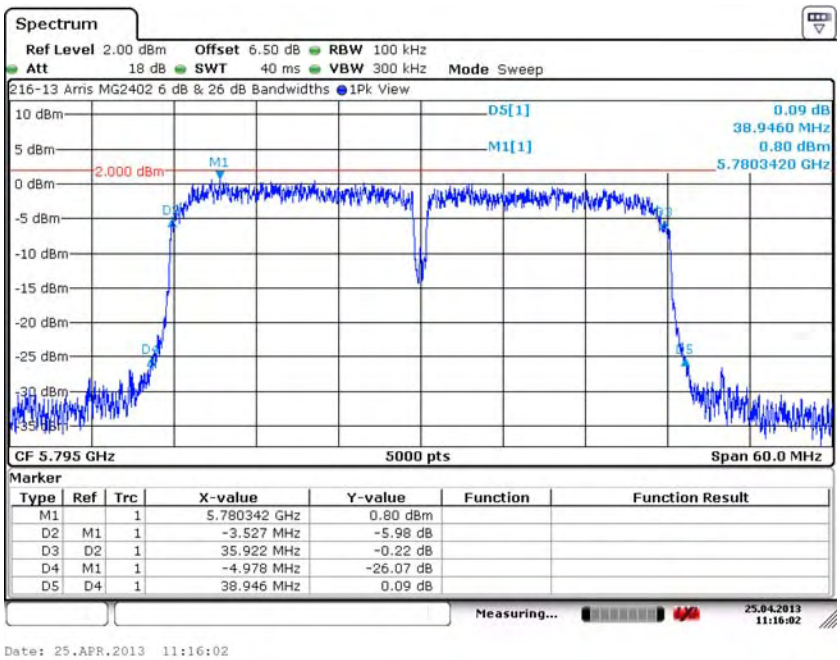
7. Measurement Data (continued)

7.2. Minimum 6 dB and 26 dB Bandwidths (15.247 (a) (2)) (continued)

7.2.59. HT40: High Channel – 159, J5002



7.2.60. HT40: High Channel – 159, J5002



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7. Measurement Data (continued)

7.3. 99% Bandwidth (RSS 210)

Requirement: 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.
The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth.

Procedure: This test was performed utilizing the automated 99% bandwidth function of the spectrum analyzer.

Conclusion: The device under test meets the required 99% bandwidth.

Measured results in 2400 to 2483.5 MHz Band

802.11b Mode Channel	Frequency (MHz)	99% Power Bandwidth (MHz)		
		J2400	J2401	J2402
Low	2412	15.000	15.030	14.940
Middle	2437	15.030	15.030	14.970
High	2462	15.030	15.000	14.940

802.11g Mode Channel	Frequency (MHz)	99% Power Bandwidth (MHz)		
		J2400	J2401	J2402
Low	2412	16.725	16.755	16.695
Middle	2437	16.740	16.770	16.725
High	2462	16.755	16.755	16.710

HT20 Mode Channel	Frequency (MHz)	99% Power Bandwidth (MHz)		
		J2400	J2401	J2402
Low	2412	17.415	17.415	17.415
Middle	2437	17.415	17.400	17.430
High	2462	17.415	17.415	17.430

HT40 Mode Channel	Frequency (MHz)	99% Power Bandwidth (MHz)		
		J2400	J2401	J2402
Low	2422	35.76	35.76	35.64
Middle	2437	35.79	35.76	35.67
High	2452	35.73	35.73	35.64

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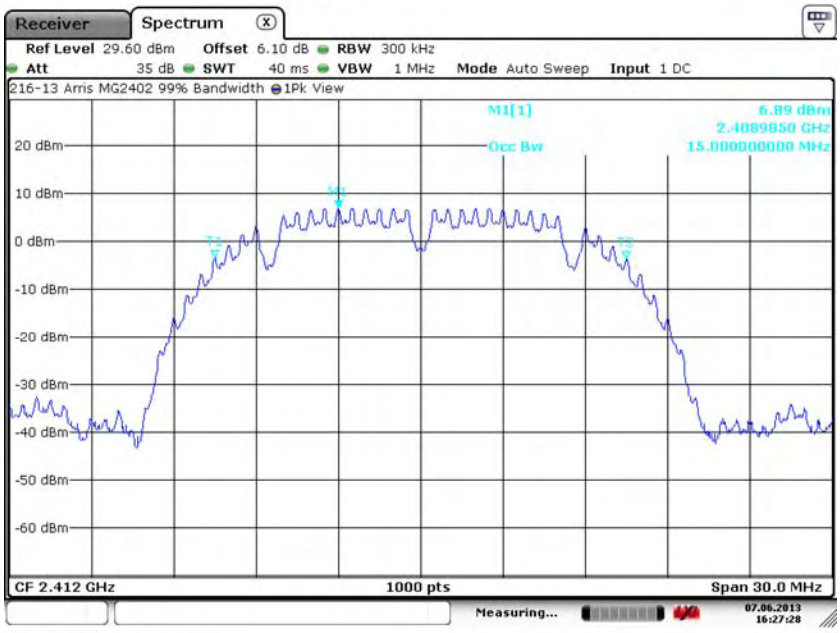
7. Measurement Data

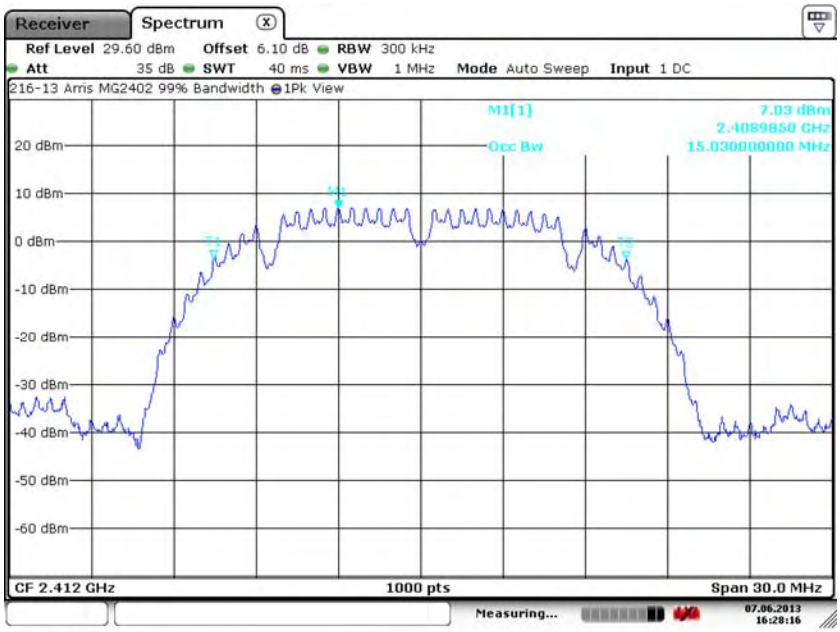
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.1. 802.11b: Low Channel – 1, J2400



Date: 7.JUN.2013 16:27:29

7.3.2. 802.11b: Low Channel – 1, J2401



Date: 7.JUN.2013 16:28:16

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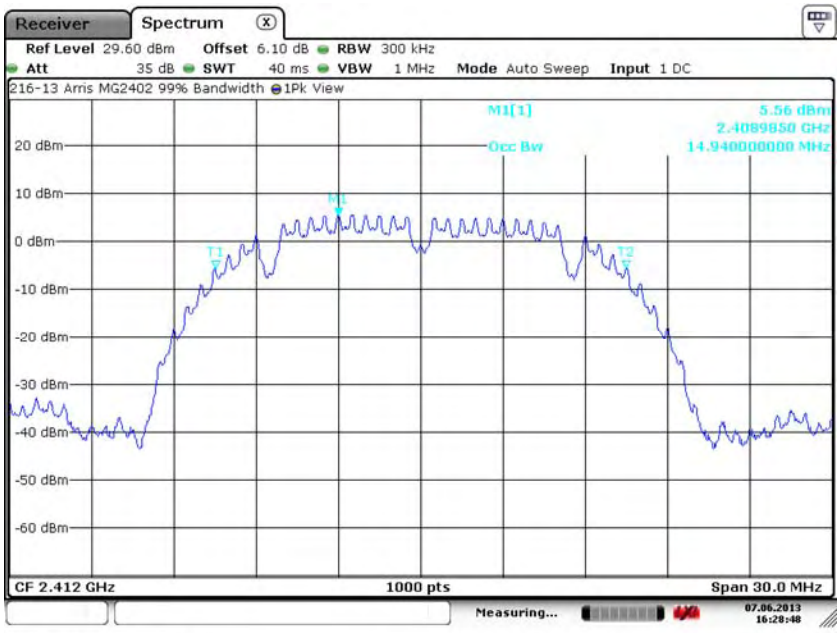
7. Measurement Data

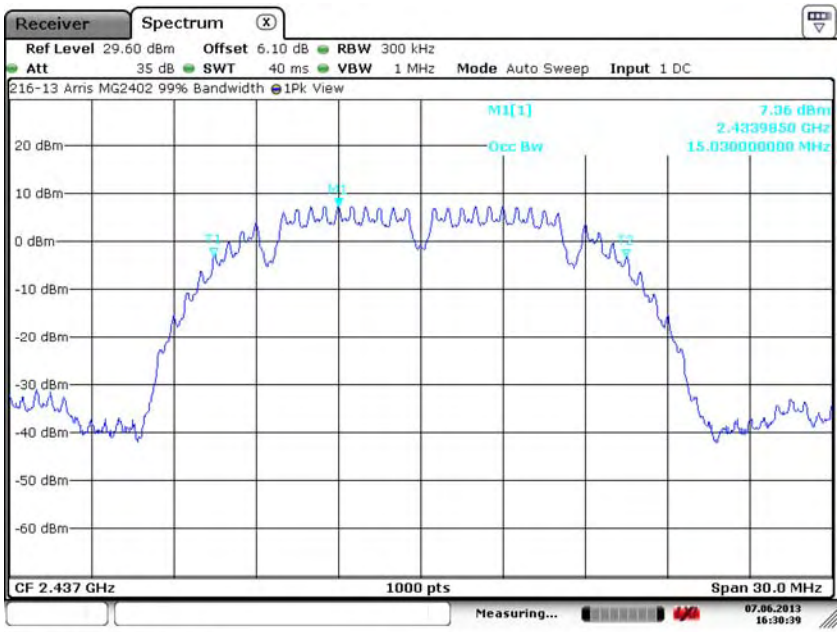
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.3. 802.11b: Low Channel – 1, J2402



Date: 7.JUN.2013 16:28:49

7.3.4. 802.11b: Middle Channel – 6, J2400



Date: 7.JUN.2013 16:30:39

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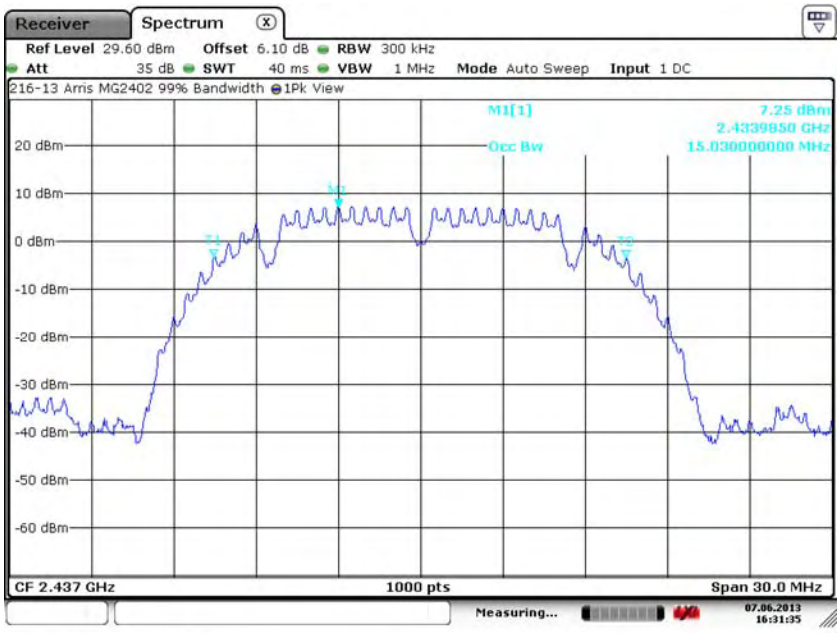
7. Measurement Data

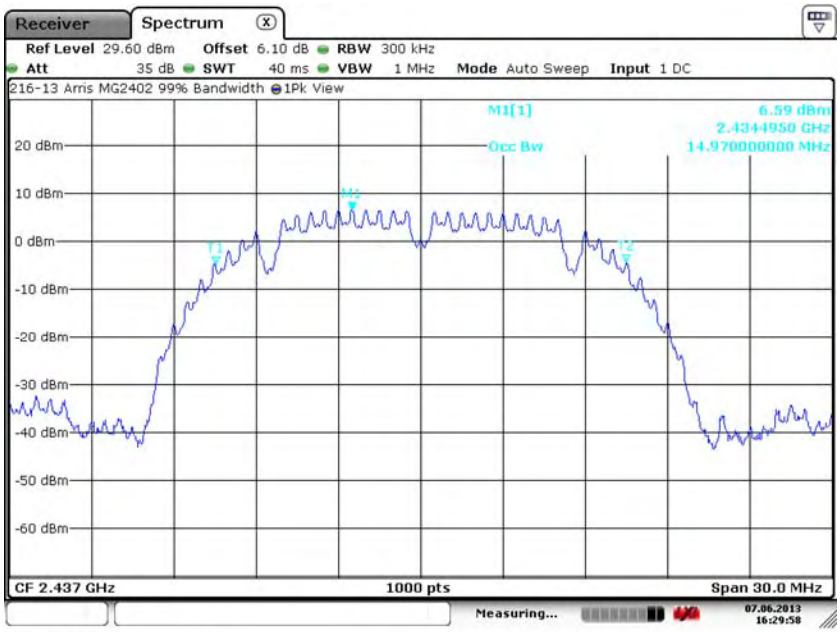
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.5. 802.11b: Middle Channel – 6, J2401



Date: 7.JUN.2013 16:31:35

7.3.6. 802.11b: Middle Channel – 6, J2402



Date: 7.JUN.2013 16:29:59

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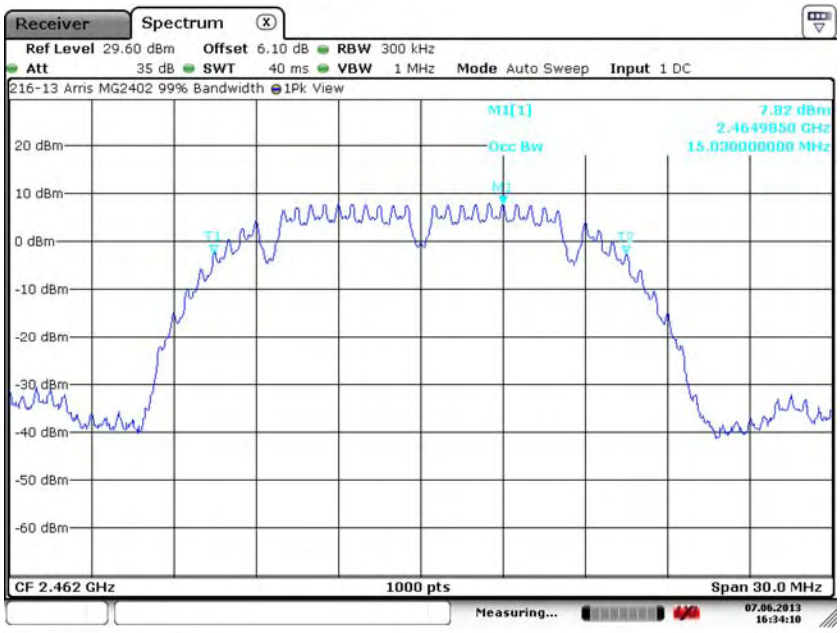
7. Measurement Data

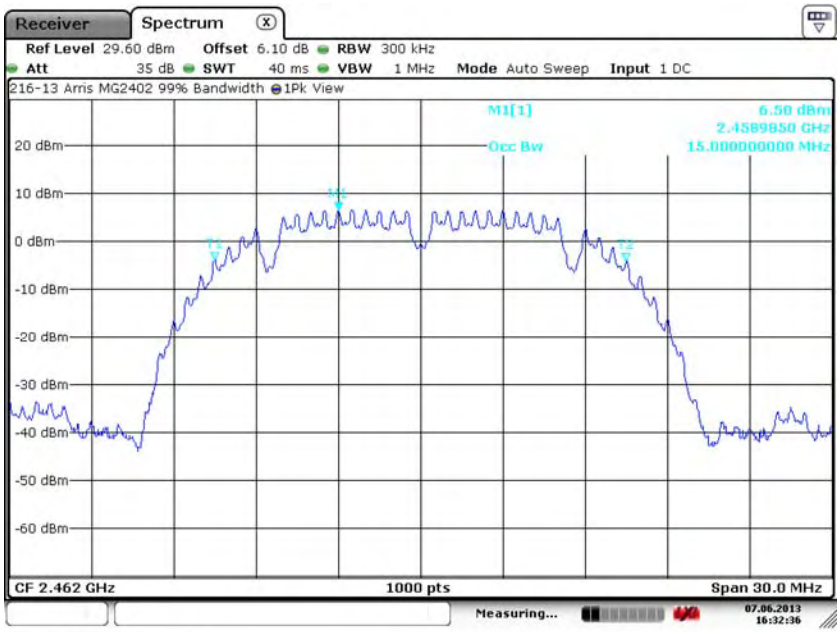
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.7. 802.11b: High Channel – 11, J2400



Date: 7.JUN.2013 16:34:10

7.3.8. 802.11b: High Channel – 11, J2401



Date: 7.JUN.2013 16:32:36

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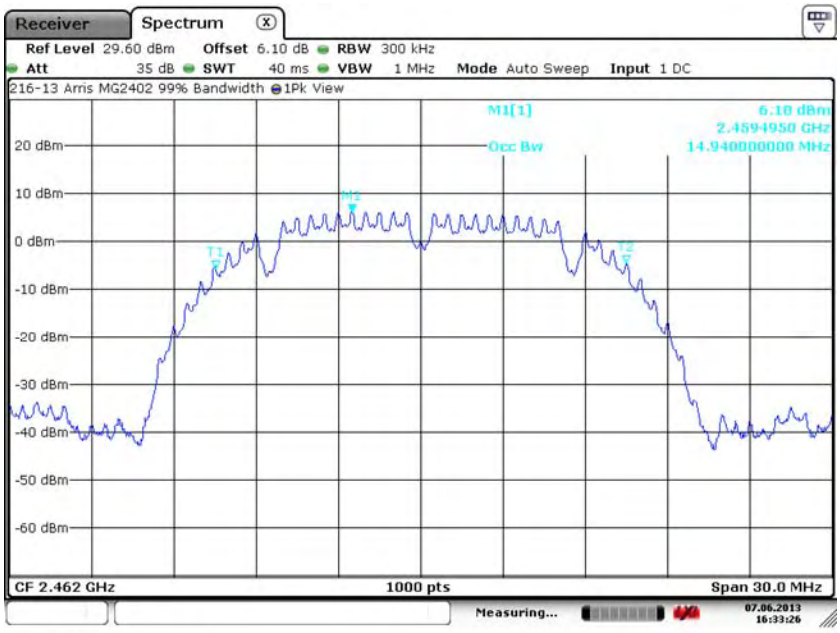
7. Measurement Data

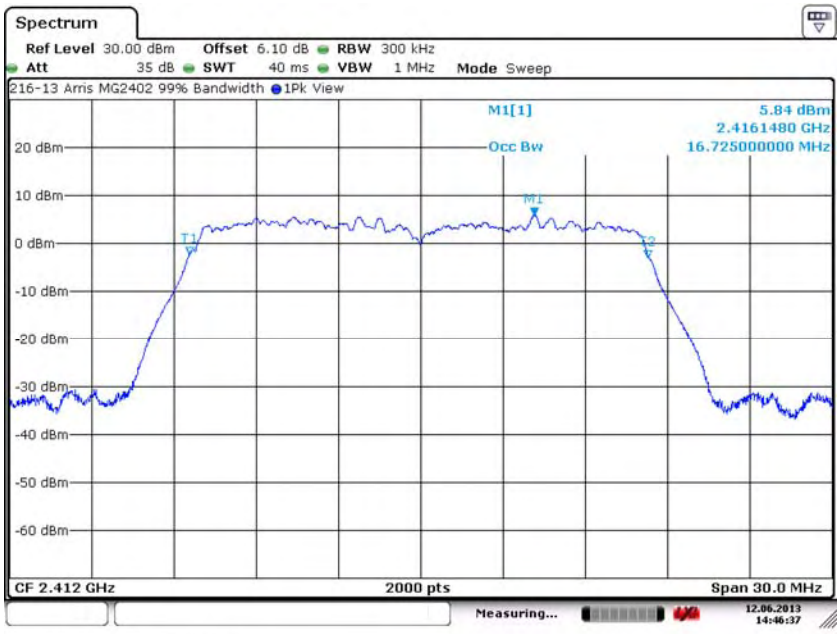
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.9. 802.11b: High Channel – 11, J2402



Date: 7.JUN.2013 16:33:27

7.3.10. 802.11g: Low Channel – 1, J2400



Date: 12.JUN.2013 14:46:37

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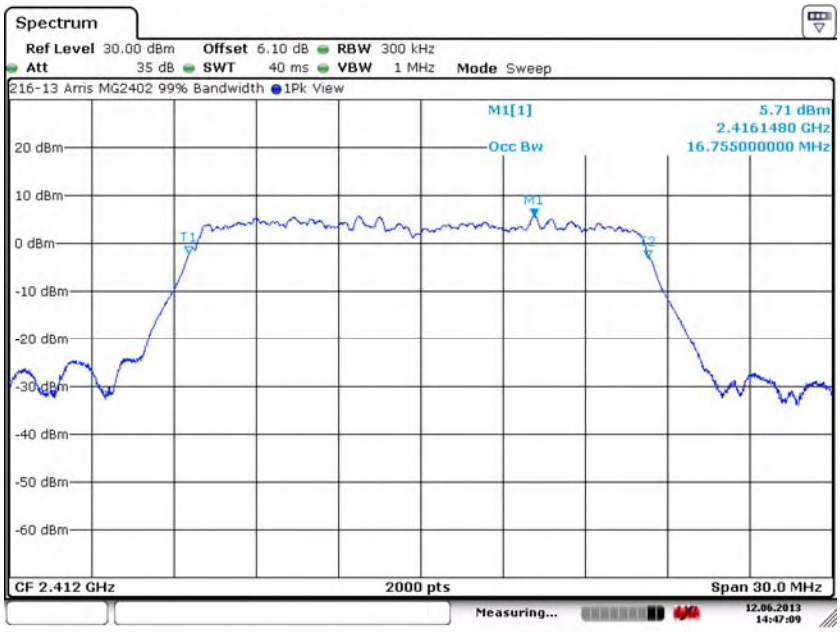
7. Measurement Data

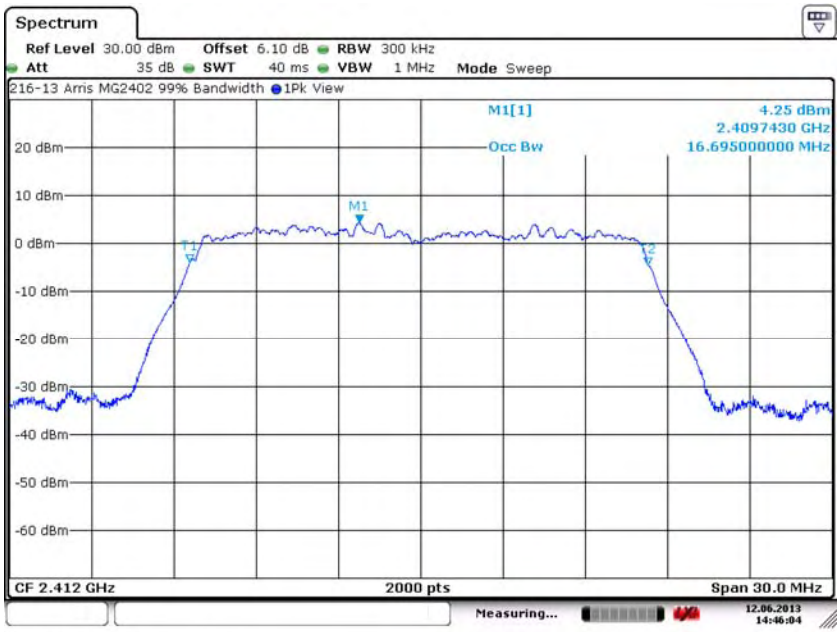
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.11. 802.11g: Low Channel – 1, J2401



Date: 12.JUN.2013 14:47:09

7.3.12. 802.11g: Low Channel – 1, J2402



Date: 12.JUN.2013 14:46:04

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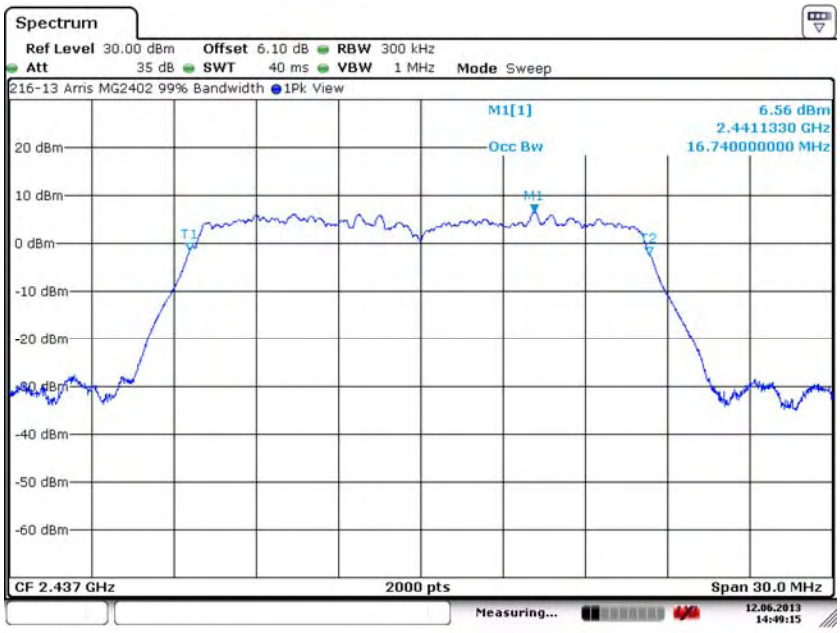
7. Measurement Data

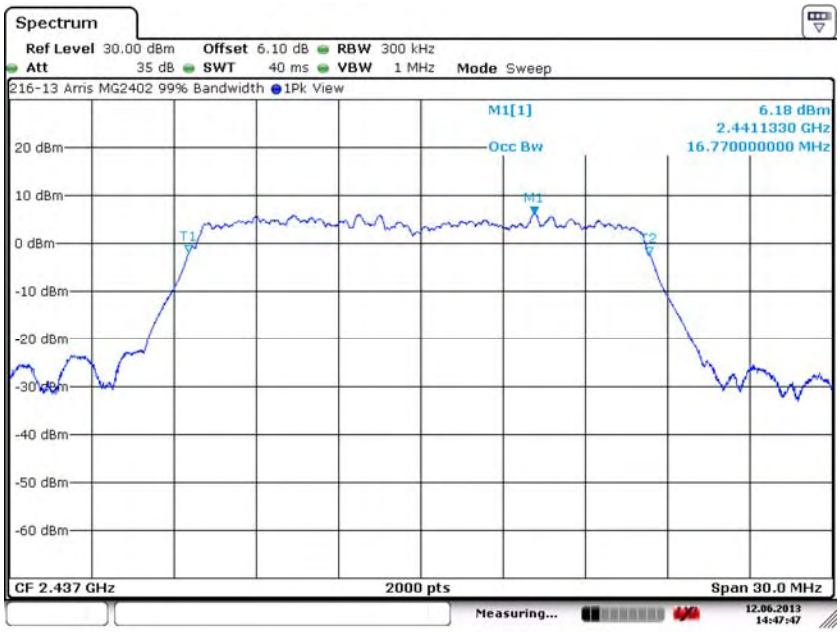
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.13. 802.11g: Middle Channel – 6, J2400



Date: 12.JUN.2013 14:49:16

7.3.14. 802.11g: Middle Channel – 6, J2401



Date: 12.JUN.2013 14:47:48

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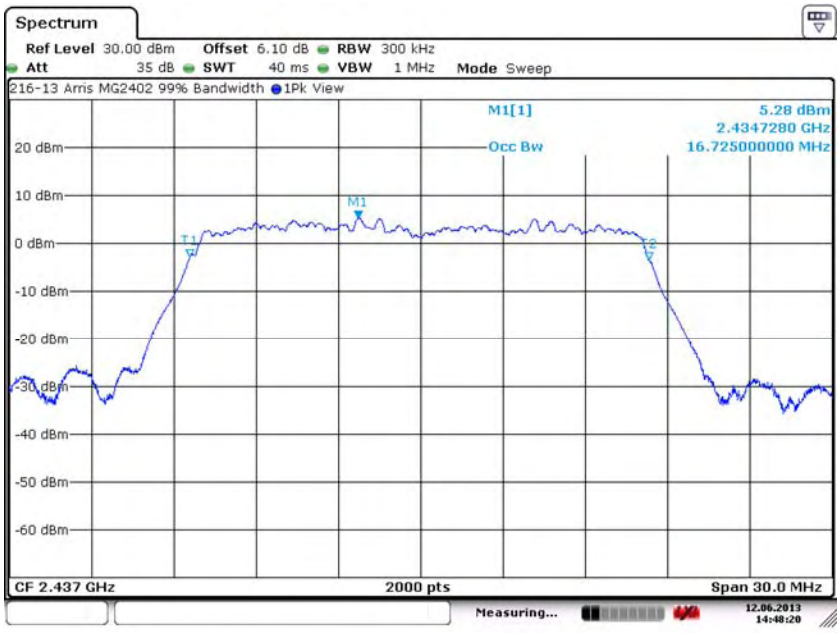
7. Measurement Data

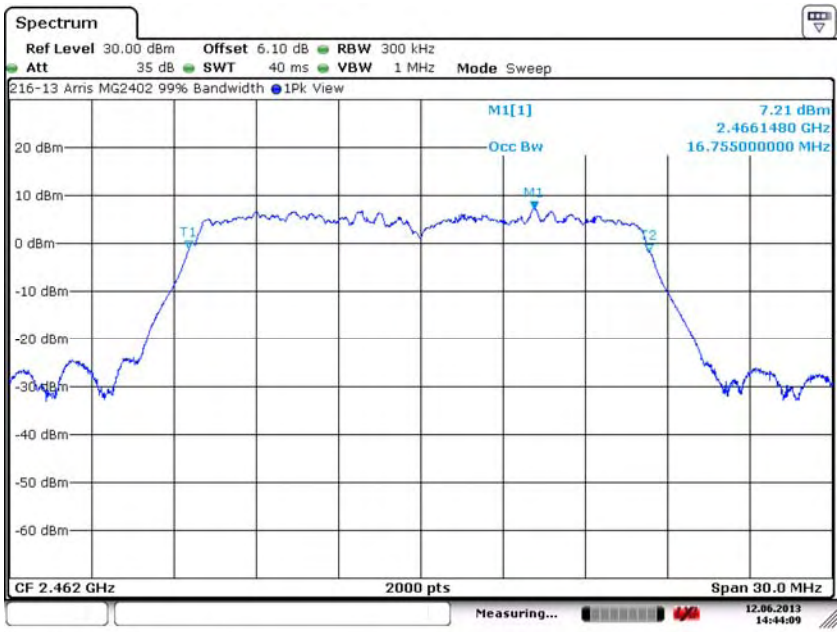
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.15. 802.11g: Middle Channel – 6, J2402



Date: 12.JUN.2013 14:48:20

7.3.16. 802.11g: High Channel – 11, J2400



Date: 12.JUN.2013 14:44:09

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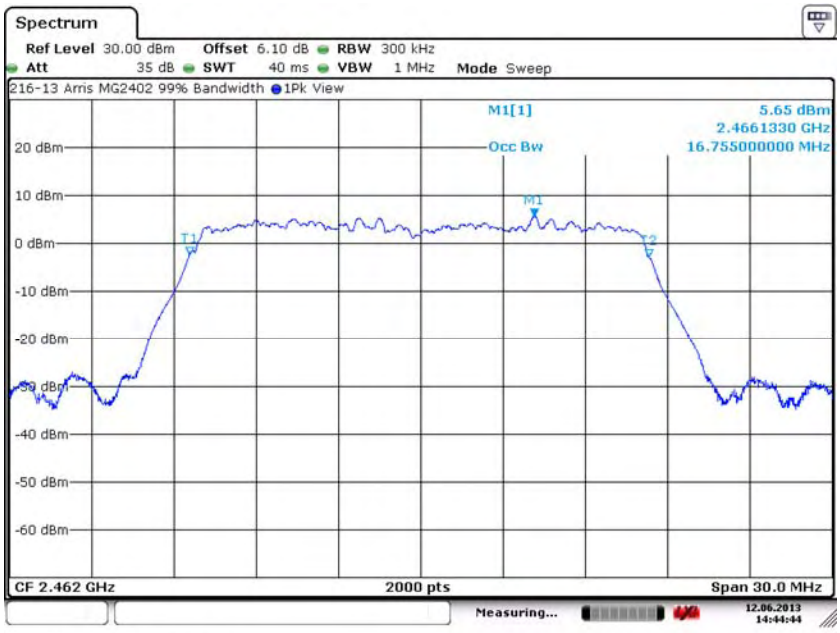
7. Measurement Data

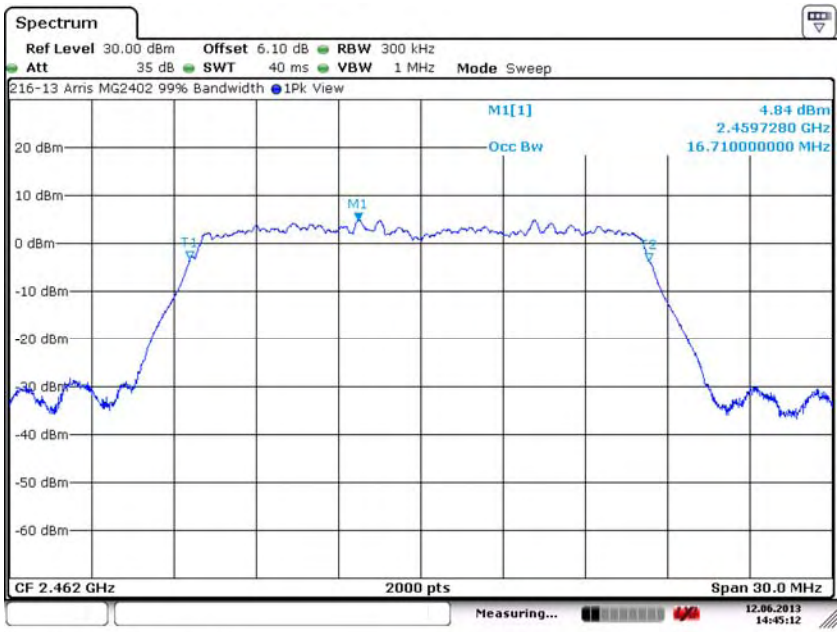
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.17. 802.11g: High Channel – 11, J2401



Date: 12.JUN.2013 14:44:44

7.3.18. 802.11g: High Channel – 11, J2402



Date: 12.JUN.2013 14:45:13

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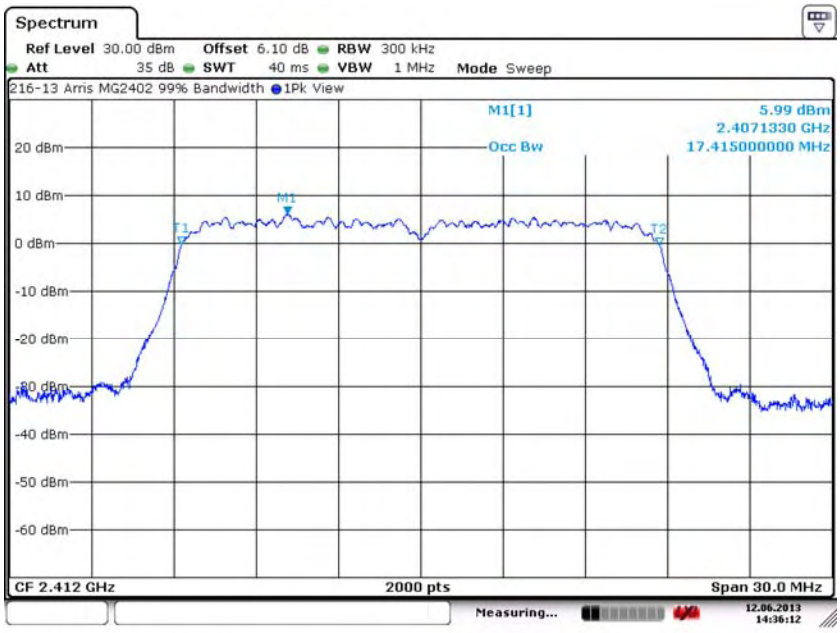
7. Measurement Data

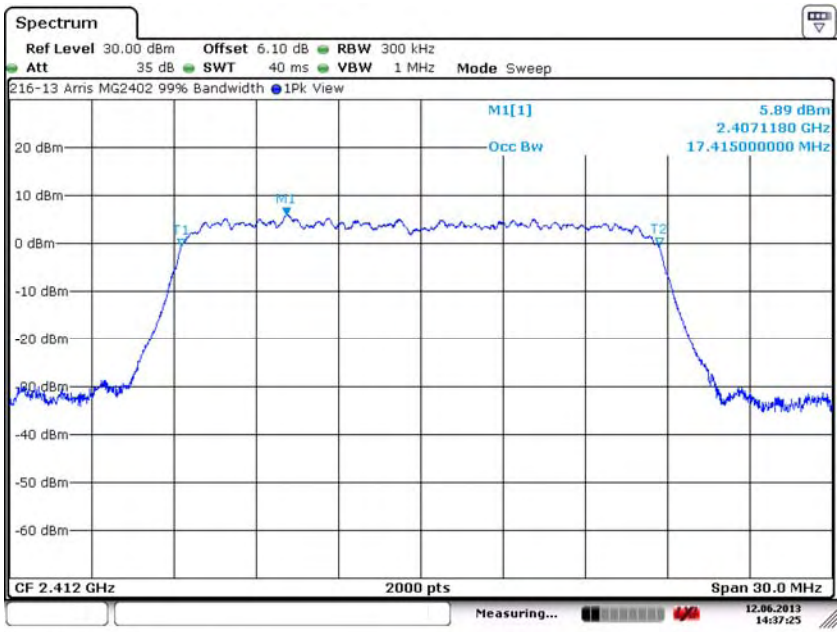
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.19. HT20: Low Channel – 1, J2400



Date: 12.JUN.2013 14:36:13

7.3.20. HT20: Low Channel – 1, J2401



Date: 12.JUN.2013 14:37:25

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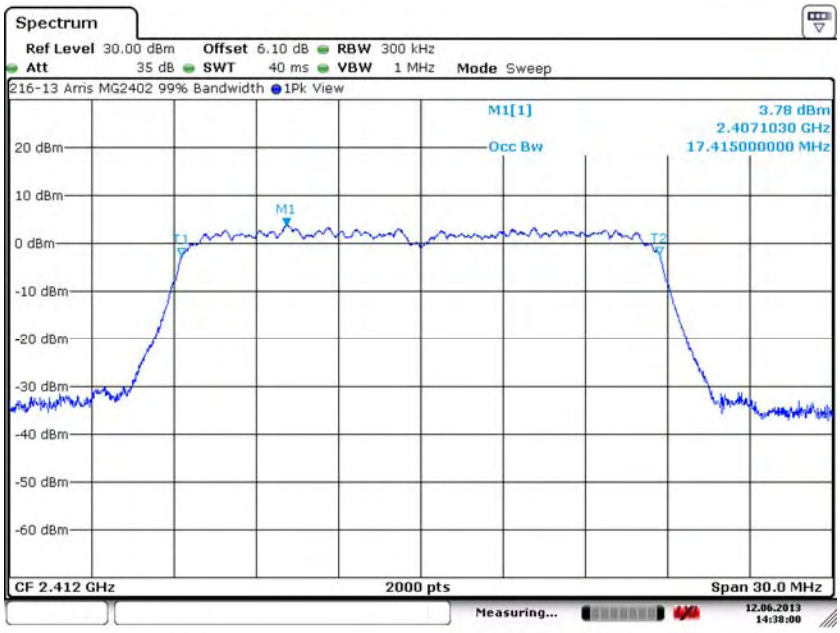
7. Measurement Data

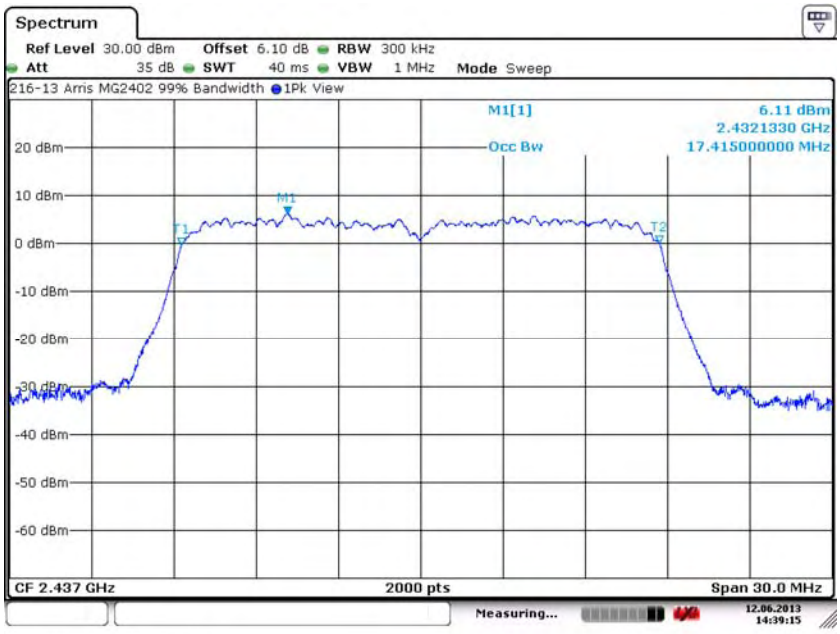
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.21. HT20: Low Channel – 1, J2402



Date: 12.JUN.2013 14:38:01

7.3.22. HT20: Mid Channel – 6, J2400



Date: 12.JUN.2013 14:39:16

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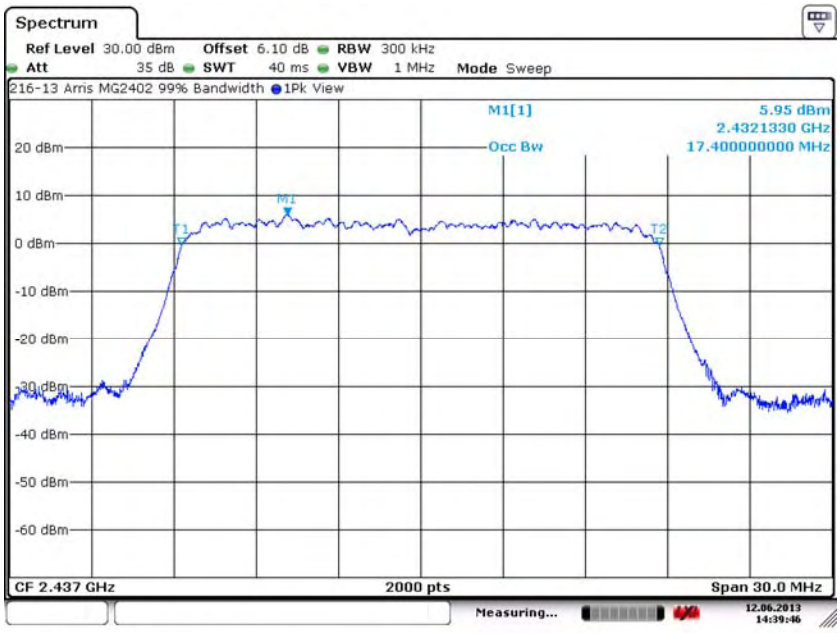
7. Measurement Data

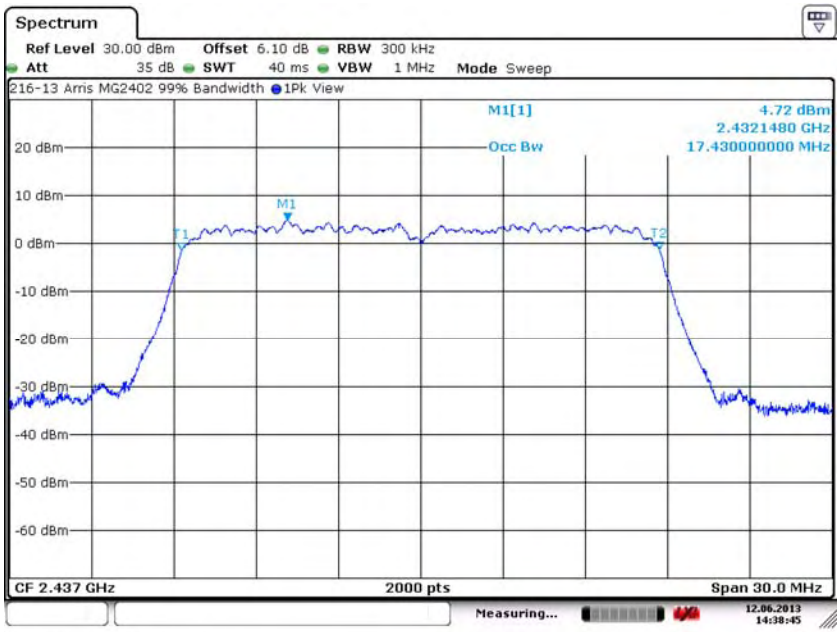
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.23. HT20: Mid Channel – 6, J2401



Date: 12.JUN.2013 14:39:46

7.3.24. HT20: Mid Channel – 6, J2402



Date: 12.JUN.2013 14:38:45

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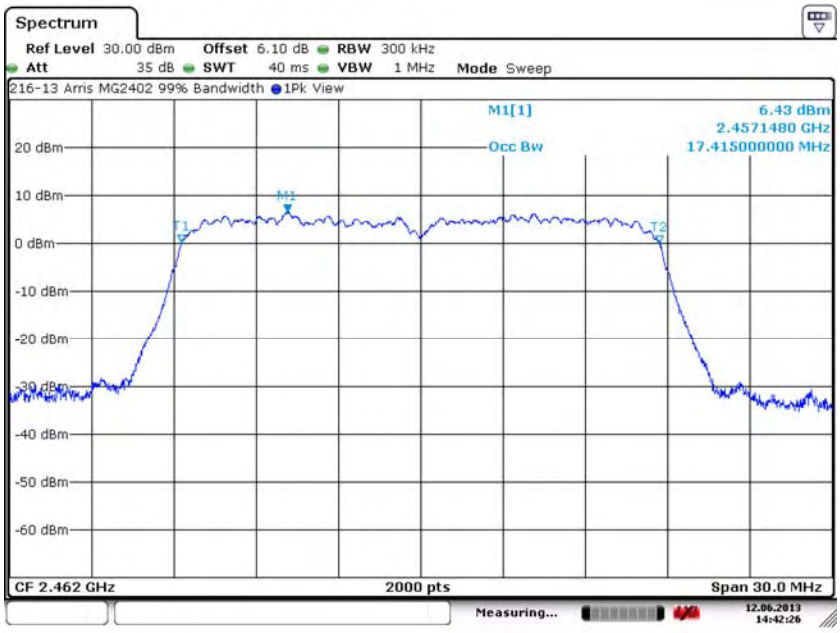
7. Measurement Data

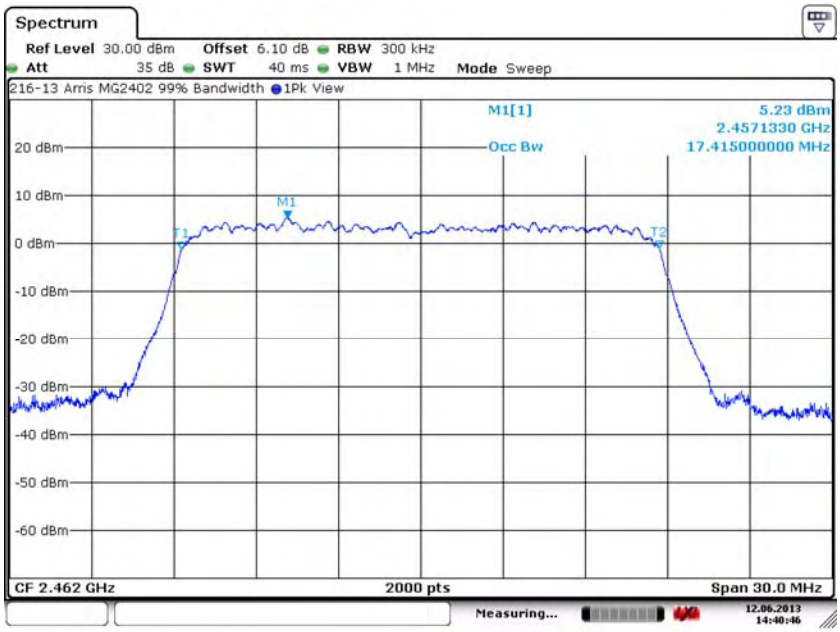
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.25. HT20: High Channel – 11, J2400



Date: 12.JUN.2013 14:42:26

7.3.26. HT20: High Channel – 11, J2401



Date: 12.JUN.2013 14:40:47

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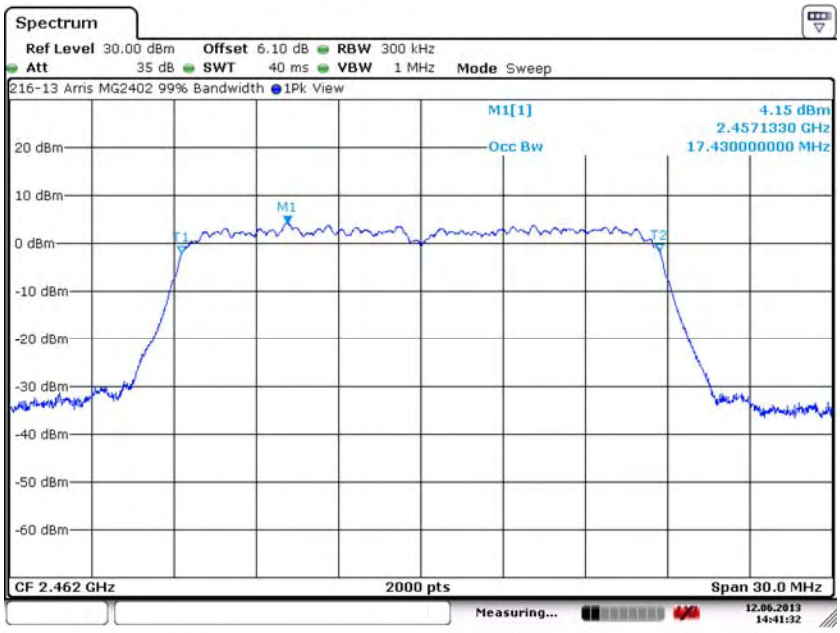
7. Measurement Data

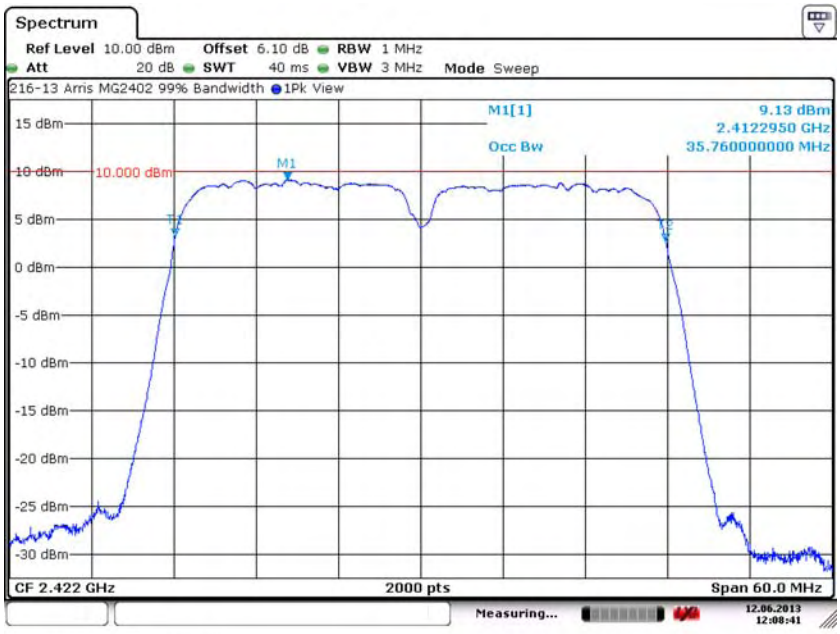
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.27. HT20: High Channel – 11, J2402



Date: 12.JUN.2013 14:41:32

7.3.28. HT40: Low Channel – 3, J2400



Date: 12.JUN.2013 12:08:41

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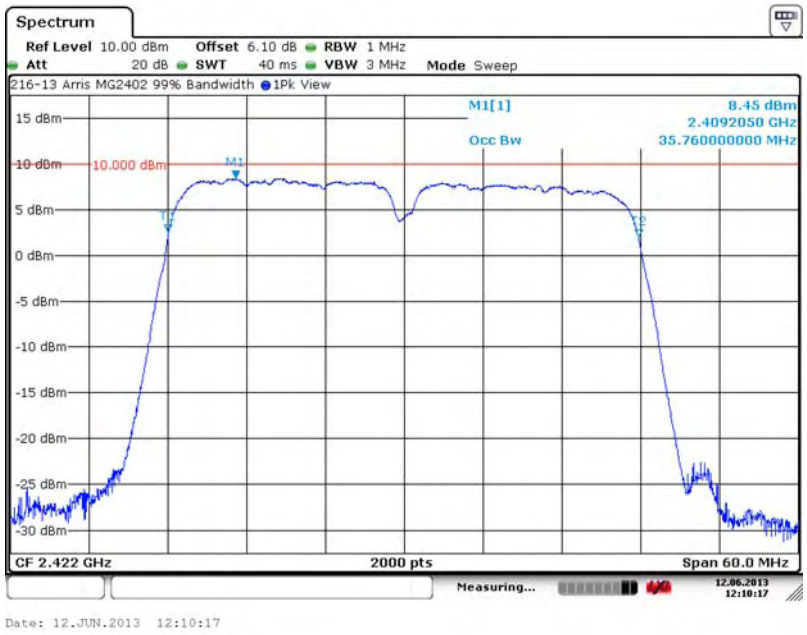
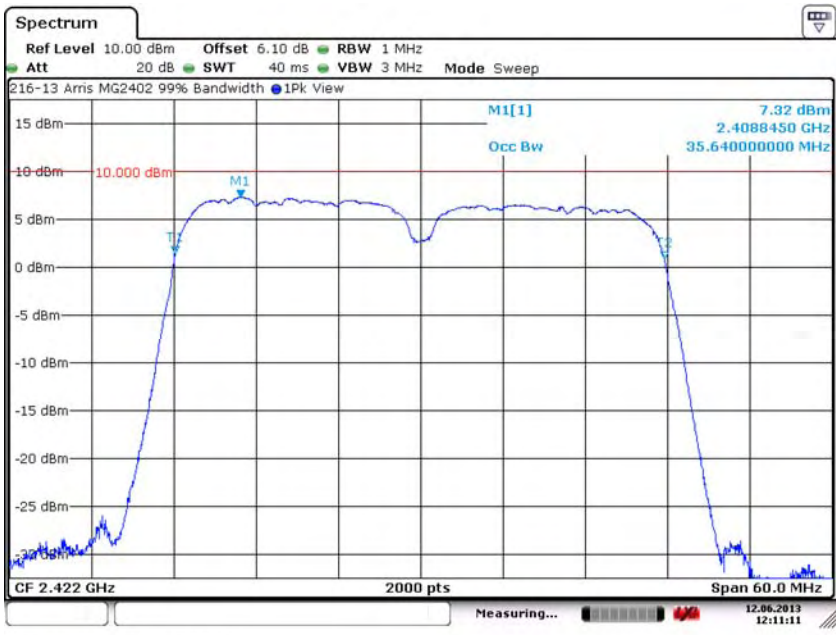
7. Measurement Data

7.3. 99% Bandwidth (RSS 210) (continued)

7.3.29. HT40: Low Channel – 3, J2401



7.3.30. HT40: Low Channel – 3, J2402



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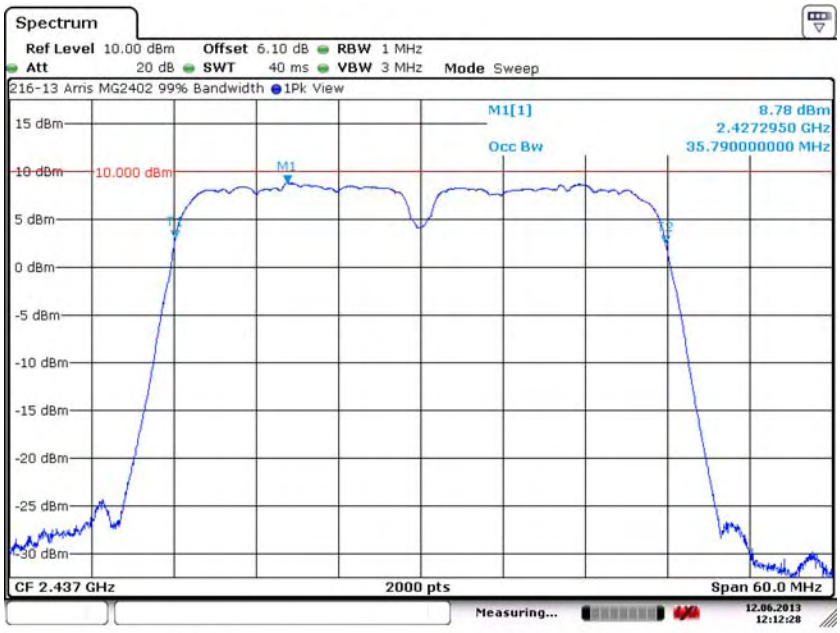
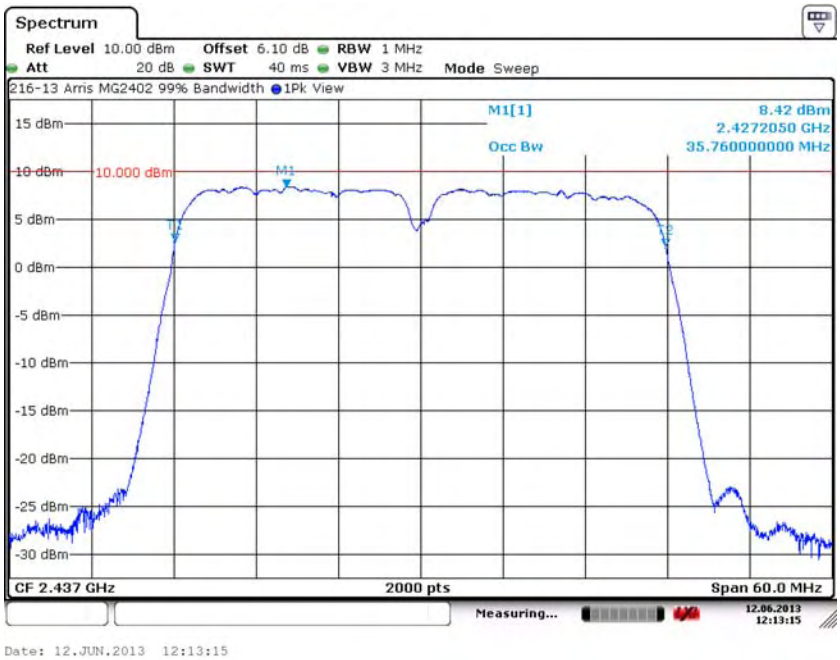
7. Measurement Data

7.3. 99% Bandwidth (RSS 210) (continued)

7.3.31. HT40: Mid Channel – 6, J2400



7.3.32. HT40: Mid Channel – 6, J2401



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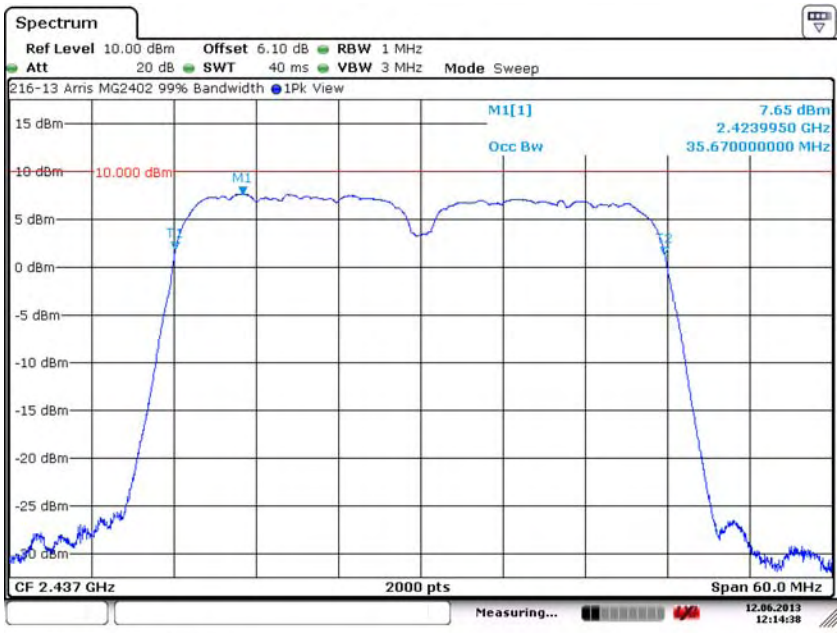
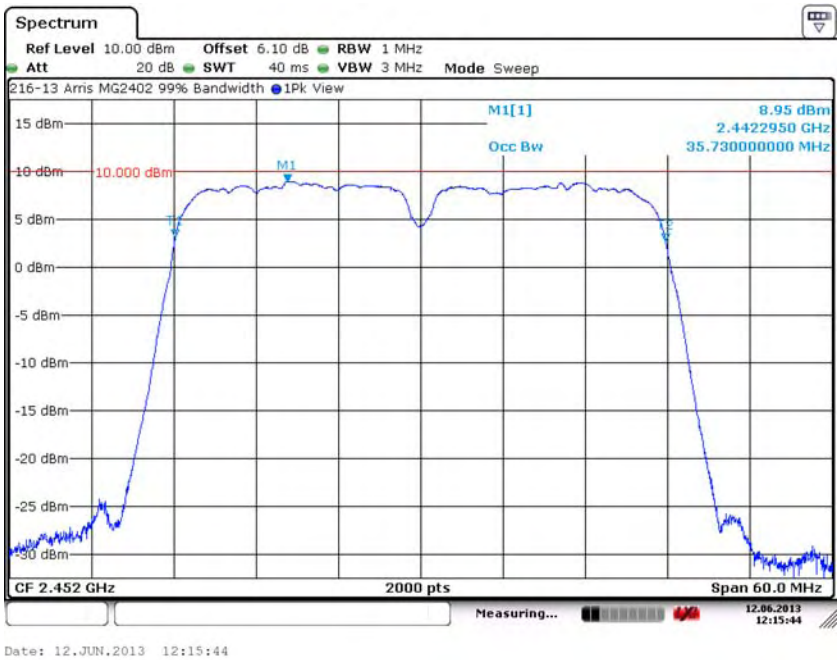
7. Measurement Data

7.3. 99% Bandwidth (RSS 210) (continued)

7.3.33. HT40: Mid Channel – 6, J2402



7.3.34. HT40: High Channel – 9, J2400



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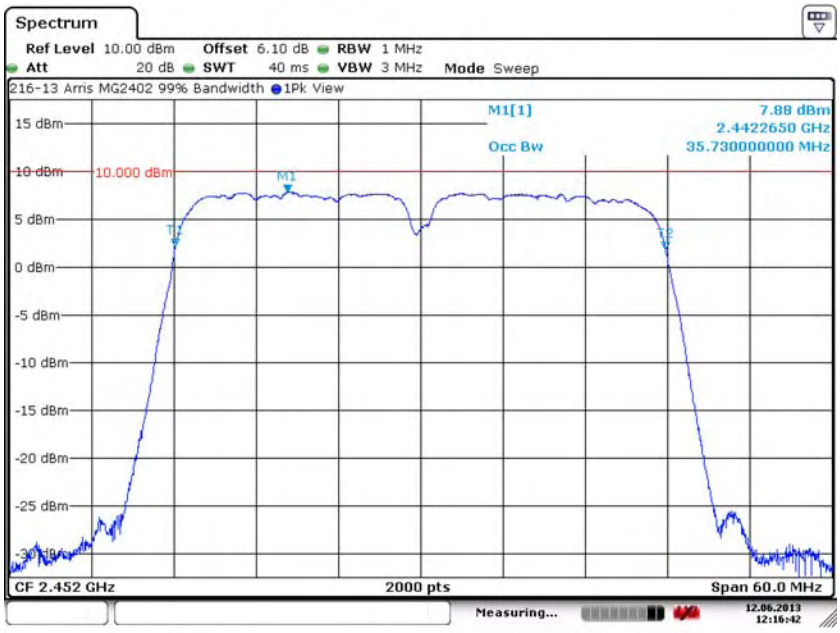
7. Measurement Data

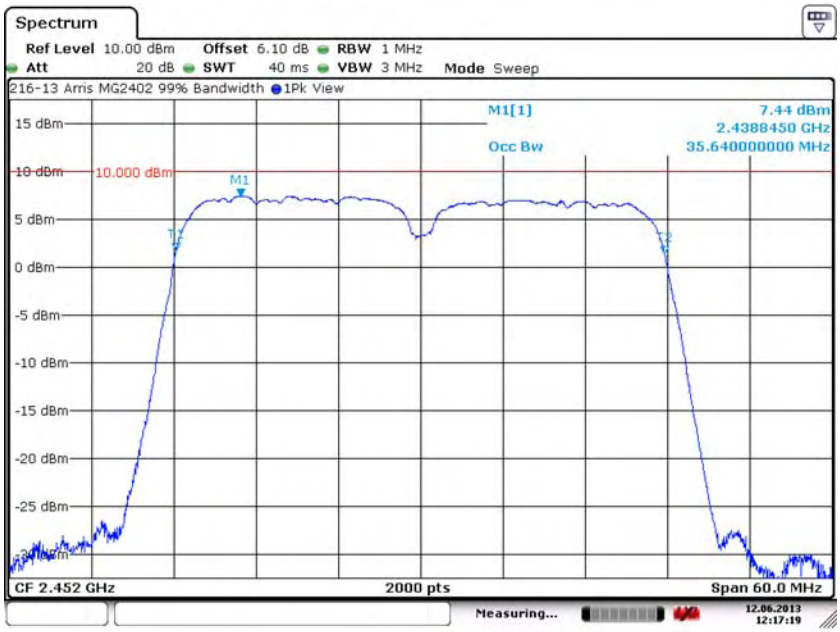
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.35. HT40: High Channel – 9, J2401



Date: 12.JUN.2013 12:16:42

7.3.36. HT40: High Channel – 9, J2402



Date: 12.JUN.2013 12:17:19

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7. Measurement Data (continued)

7.3. 99% Bandwidth (RSS 210) (cont)

Requirement: 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.
The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth.

Procedure: This test was performed utilizing the automated 99% bandwidth function of the spectrum analyzer.

Conclusion: The device under test meets the required 99% bandwidth.

Measured results in 5725 to 5850 MHz Band

802.11a Mode Channel	Frequency (MHz)	99% Power Bandwidth (MHz)		
		J5000	J5001	J5002
Low	5745	16.800	16.800	16.800
Middle	5785	16.740	16.635	16.740
High	5825	16.755	16.620	16.755

HT20 Mode Channel	Frequency (MHz)	99% Power Bandwidth (MHz)		
		J5000	J5001	J5002
Low	5745	17.490	17.475	17.490
Middle	5785	17.445	17.445	17.445
High	5825	17.445	17.445	17.430

HT40 Mode Channel	Frequency (MHz)	99% Power Bandwidth (MHz)		
		J5000	J5001	J5002
Low	5755	38.85	35.82	35.85
High	5795	35.79	35.79	35.82

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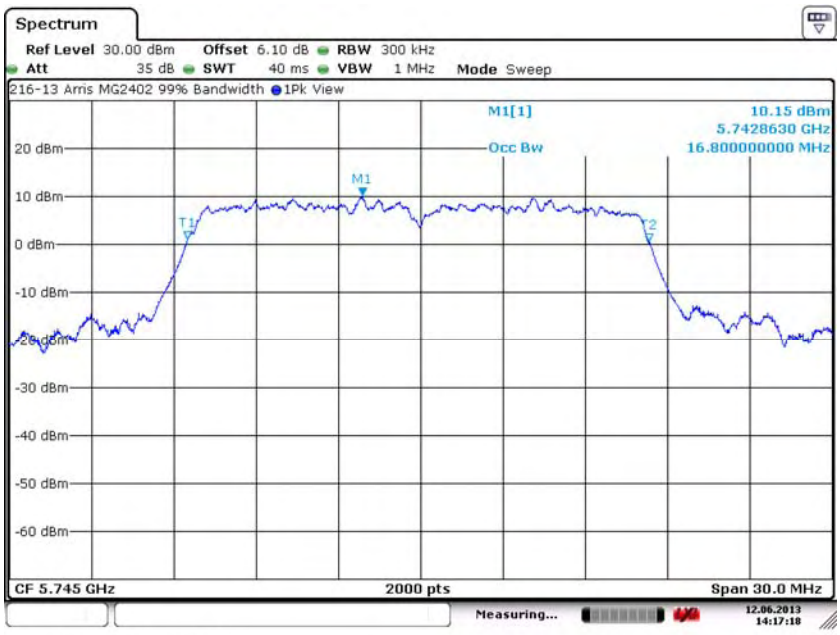
7. Measurement Data (continued)

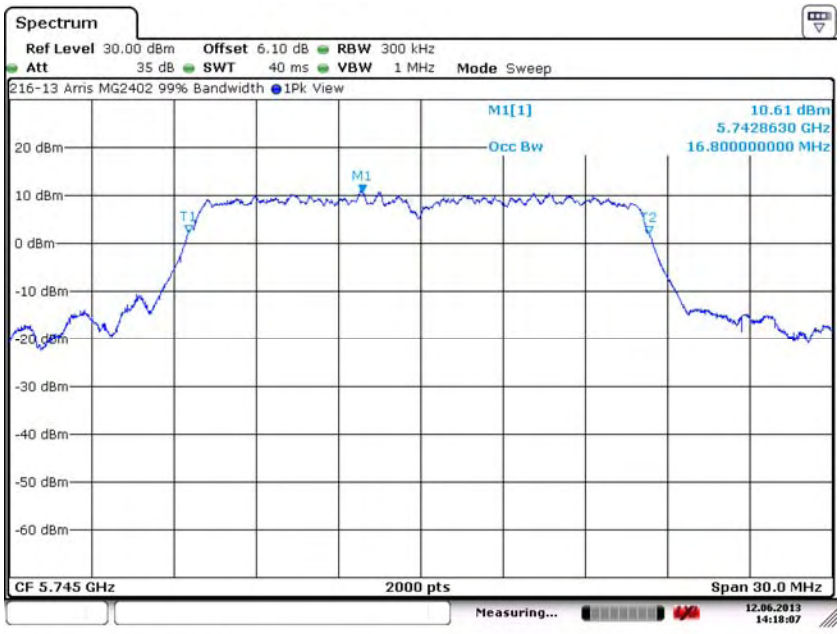
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.37. 802.11/a: Low Channel – 149, J5000



Date: 12.JUN.2013 14:17:18

7.3.38. 802.11/a: Low Channel – 149, J5001



Date: 12.JUN.2013 14:18:07

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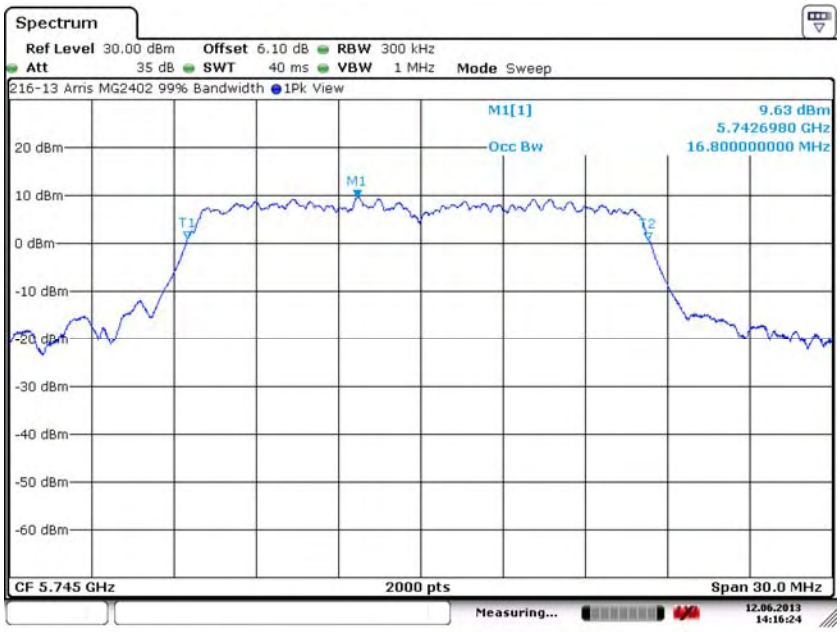
7. Measurement Data (continued)

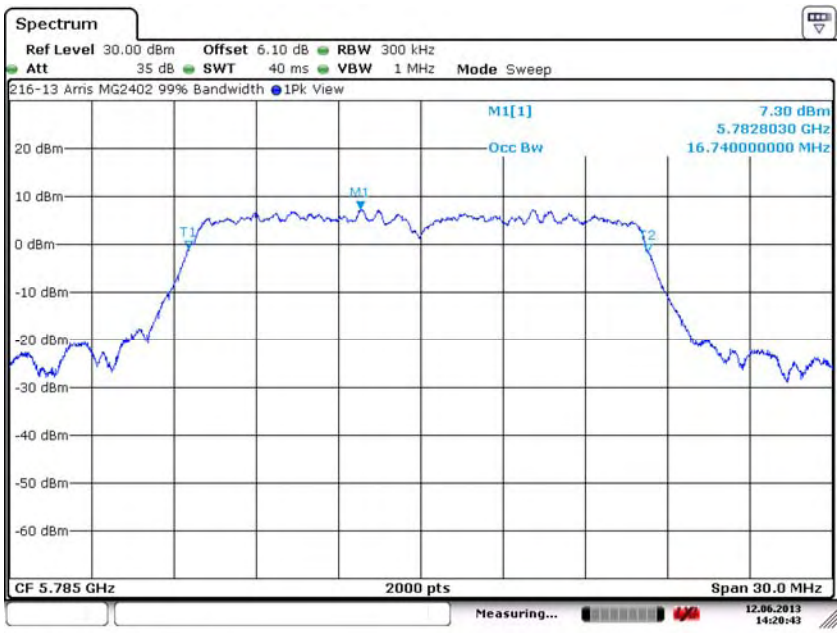
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.39. 802.11/a: Low Channel – 149, J5002



Date: 12.JUN.2013 14:16:24

7.3.40. 802.11/a: Middle Channel – 157, J5000



Date: 12.JUN.2013 14:20:43

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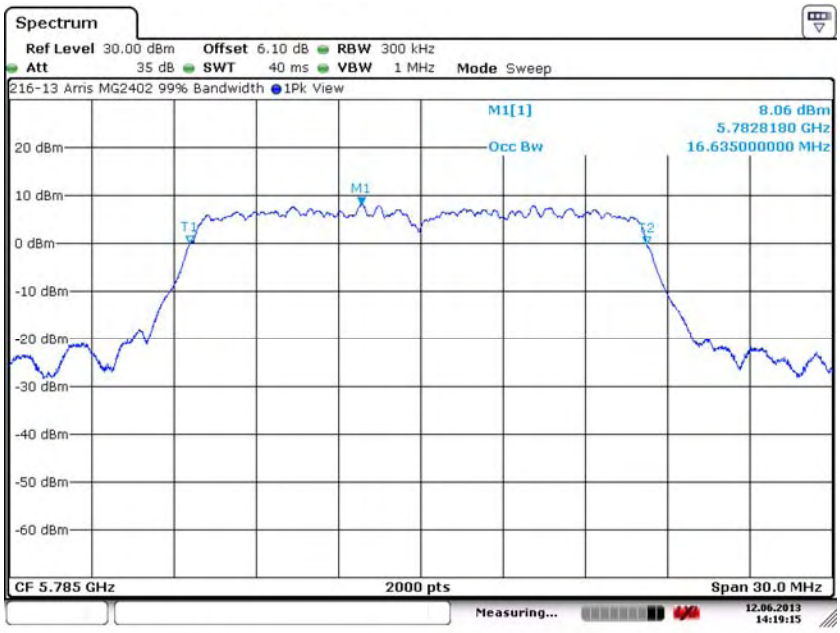
7. Measurement Data (continued)

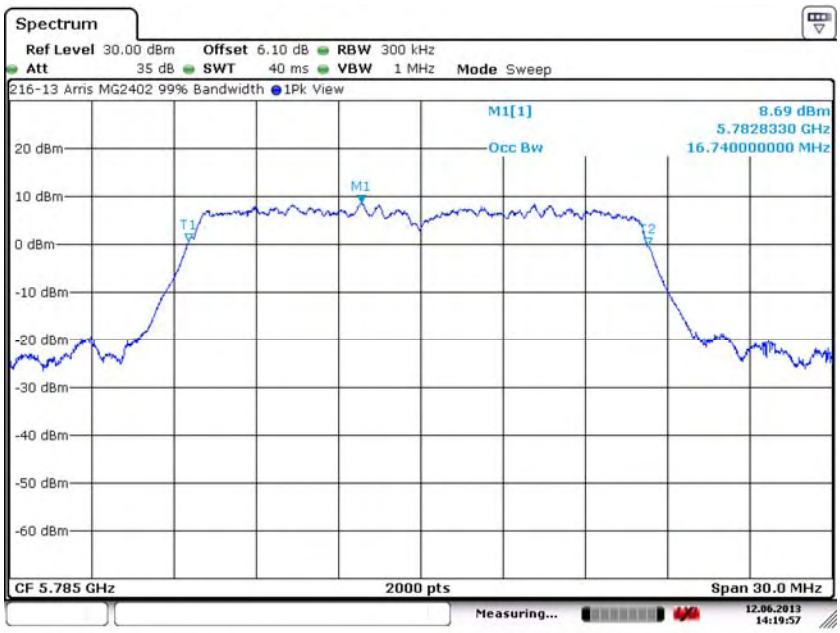
7.3. 99% Bandwidth (RSS 210) (continued)

7.3.41. 802.11/a: Middle Channel – 157, J5001



Date: 12.JUN.2013 14:19:15

7.3.42. 802.11/a: Middle Channel – 157, J5002



Date: 12.JUN.2013 14:19:57

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