

**TRaC Wireless Test Report** : TRA-007055WJP2

**Applicant** : Digi International Ltd.

**Apparatus** : Wi-i.MX53

**Specification** : Ordinance Regulating Radio Equipment  
Referenced under the Japanese Radio Law

**Authorised by** :



: Radio Product Manager

**Issue Date** : 8<sup>th</sup> July

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Section 1: Introduction

**1.1 General**

This report contains an assessment of an apparatus based upon tests carried out on samples submitted to the Laboratory.

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## **1.2 Tests Requested By**

This testing in this report was requested by:

Digi International Ltd.  
Beacon House  
Riverside Business Park  
Leeds Road  
Ilkley  
West Yorkshire  
LS29 8JZ  
United Kingdom

## **1.3 Manufacturer**

Digi International  
10000 W 75<sup>th</sup> Street  
Eden Prairie  
55344  
MN  
USA

## **1.4 Apparatus Assessed**

The following apparatus was assessed between 05/03/12 and 07/06/13

Wi-i.MX53

The above device is a Wi-Fi transmitter module capable of generating 802.11a and 802.11n HT20 signals.

### 1.5 Test Result Summary

Full details of test results are contained within Appendix A. The following table summarises the results of the assessment.

The statements relating to compliance with the standards below apply ONLY as qualified in the notes and deviations stated in sections 1.6 to 1.7 of this test report.

Full details of test results are contained within Appendix A. The following table summarises the results of the assessment.

This report contains an assessment of an apparatus against the applicable articles of the Ordinance Regulating Radio Equipment based upon tests carried out on samples submitted to the Laboratory.

Test Type	Application	Ordinance Reference	Appendix no in this report	Mod no.	Result
Antenna Power 5180MHz to 5320MHz	Test Fixture	49.20, 3) (f) (2) & (3)	A1/A2	0	Pass
Antenna Power 5500MHz to 5700 MHz	Test Fixture	Article 49.20, 3-2) (d) (2) & (3)	A3/A4	0	Pass
Tolerances of Antenna Power	Test Fixture	14, 7 (5)	A5	0	Pass
Maximum EIRP	Antenna or Test Fixture	49.20, 3) g and 49.20, 3-2) e	A6	0	Pass
Tolerance Of Occupied Bandwidth 5180MHz to 5320MHz	Test Fixture	6 Table 2 Note XXX 2 (2)	A7/A8	0	Pass
Tolerance Of Occupied Bandwidth 5500MHz to 5700 MHz	Test Fixture	6 Table 2 Note XXX 3 (2)	A9/A10	0	Pass
Tolerance Of Unwanted Emission Intensity	Test Fixture	7 Table 3, note 28	A11 to A14	0	Pass
Secondary Emissions	Test Fixture	24 (1 & 2)	A15 to A18	0	Pass
Tolerance Of Frequency	Test Fixture	5 Table 1 row 7 Item 10	A19/A20	0	Pass
Adjacent channel power 5180MHz to 5320MHz	Test Fixture	Article 49.20, 3) j	A21/A22	0	Pass
Adjacent channel power 5500MHz to 5700 MHz	Test Fixture	Article 49.20, 3-2) f	A23/A24	0	Pass

## 1.6 Summary Of Compliance

The samples, as assessed, satisfied the relevant articles of the Ordinance Regulating Radio Equipment, as detailed in section 2.1 of this test report.

## 1.7 Notes Relating To The Assessment

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

The results contained in this report relate only to the items tested and were obtained in the period between the date of initial receipt of samples and the date of issue of the report.

The apparatus was set up and exercised using the configurations, modes of operation and arrangements defined in this report only.

Particular operating modes, apparatus monitoring methods and performance criteria required by the standards tested to have been performed except where identified in Section 1.7 of this test report (Deviations from Test Standards).

For emissions testing, throughout this test report, "Pass" indicates that the results for the sample as tested were below the specified limit (refer also to Section 2, Measurement Uncertainty).

All testing with the exception of testing at the Open Area Test Site was performed under the following environmental conditions:

Temperature	: 15 to 23 °C
Humidity	: 63 to 73 %
Barometric Pressure	: 86 to 106 kPa

Note that temperature and humidity conditions can be found in the relevant test results appendix A.

All dates used in this report are in the format dd/mm/yy.

## 1.8 Deviations from Test Standards

No deviations were made from test standards

**Section 2:****Measurement Uncertainty****2.1 Measurement Uncertainty Values**

For any test data recorded in accordance with note (iii) of Section 2.1 the following measurement uncertainty was calculated:

Test type	Quantity	Quantity frequency range	Uncertainty
Radiated electric field emissions 3m alternative test site  Effective Radiated Power 3m alternative test site	Amplitude	30MHz to 300MHz Horizontal	±4.6dB
		30MHz to 300MHz Vertical	±5.1dB
		300MHz to 1000MHz Horizontal	±5.2dB
		300MHz to 1000MHz Vertical	±5.5dB
		1GHz to 26.5GHz Horizontal and Vertical	±4.1dB
Conducted emissions		N/A	±0.9 dB
Absolute RF power (via antenna connector)		N/A	±0.9 dB
PSD		N/A	±0.9 dB
Frequency Range	Frequency	9kHz to 26.5GHz	3.611kHz

**Section 3:**

**Modifications**

**3.1 Modifications Performed During Assessment**

No modifications were performed during the assessment



## Appendix A:

## Formal Emission Test Results

Abbreviations used in the tables in this appendix:

Spec	: Specification	ALSR	: Absorber Lined Screened Room
Mod	: Modification	OATS	: Open Area Test Site
EUT	: Equipment Under Test	ATS	: Alternative Test Site
SE	: Support Equipment		
		Ref	: Reference
		Freq	: Frequency
		MD	: Measurement Distance
		SD	: Spec Distance
L	: Live Power Line	Pol	: Polarisation
N	: Neutral Power Line	H	: Horizontal Polarisation
E	: Earth Power Line	V	: Vertical Polarisation
Pk	: Peak Detector	CDN	: Coupling & decoupling network
QP	: Quasi-Peak Detector		
Av	: Average Detector		

**A1 Antenna Power 5180MHz to 5320MHz 802.11a**

<b>Test Details: Antenna Power Wi-Fi device 802.11a CH36, CH48 and CH64</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 49.20, 3) (f) (2) & (3)
Frequency range	5180MHz – 5320MHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

<b>802.11a 6Mbps Antenna Port</b>								
Freq (MHz)	RBW (MHz)	Power meter (dBm)	Signal generator (dBm)	Result (dBm)	Result (mW/MHz)	Limit (mW/MHz)	Margin (mW/MHz)	Summary
5180	1	-31.2	-0.24	-0.91	0.81096	10	9.1890	Pass
5240	1	-30.5	-0.04	-0.68	0.85507	10	9.1449	Pass
5320	1	-30.6	0.36	-0.30	0.93325	10	9.0667	Pass

<b>802.11a 54Mbps Antenna Port</b>								
Freq (MHz)	RBW (MHz)	Power meter (dBm)	Signal generator (dBm)	Result (dBm)	Result (mW/MHz)	Limit (mW/MHz)	Margin (mW/MHz)	Summary
5180	1	-30.8	0.06	-0.61	0.86896	10	9.1310	Pass
5240	1	-30.7	-0.14	-0.78	0.83560	10	9.1644	Pass
5320	1	-30.4	0.56	-0.11	0.97499	10	9.0250	Pass

CH	Freq (MHz)
36	5180
48	5240
64	5320

**Article 49.20, 3) (f)**

- (2) For the antenna power of the transmitting equipment which uses the modulation method prescribed in Item C, (1)(ii) above, the mean power shall be 10 mW or less.
- (3) For the antenna power of the transmitting equipment which uses the modulation method prescribed in Item C, (1)(iii) and (2) above, the mean power shall be as follows;
- (i) For the Occupied Bandwidth is no greater than 19 MHz, the mean power within a bandwidth of 1 MHz shall be 10 mW or less.
- (ii) For the Occupied Bandwidth is greater than 19 MHz to 38 MHz, the mean power within a bandwidth of 1 MHz shall be 5 mW or less.

**A2 Antenna Power 5180MHz to 5320MHz 802.11n**

<b>Test Details: Antenna Power Wi-Fi device 802.11n CH36, CH48 and CH64</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 49.20, 3) (f) (2) & (3)
Frequency range	5180MHz – 5320MHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

<b>802.11n MCS0 Antenna Port</b>								
Freq (MHz)	RBW (MHz)	Power meter (dBm)	Signal generator (dBm)	Result (dBm)	Result (mW/MHz)	Limit (mW/MHz)	Margin (mW/MHz)	Summary
5180	1	-31.2	-0.24	-0.91	0.81096	10	9.1890	Pass
5240	1	-30.4	0.16	-0.48	0.89536	10	9.1046	Pass
5320	1	-30.7	0.36	-0.30	0.93325	10	9.0667	Pass

<b>802.11n MCS7 Antenna Port</b>								
Freq (MHz)	RBW (MHz)	Power meter (dBm)	Signal generator (dBm)	Result (dBm)	Result (mW/MHz)	Limit (mW/MHz)	Margin (mW/MHz)	Summary
5180	1	-31.2	-0.24	-0.91	0.81096	10	9.1890	Pass
5240	1	-30.8	-0.14	-0.78	0.83560	10	9.1644	Pass
5320	1	-30.4	0.56	-0.11	0.97499	10	9.0250	Pass

CH	Freq (MHz)
36	5180
48	5240
64	5320

**Article 49.20, 3) (f)**

- (2) For the antenna power of the transmitting equipment which uses the modulation method prescribed in Item C, (1)(ii) above, the mean power shall be 10 mW or less.
- (3) For the antenna power of the transmitting equipment which uses the modulation method prescribed in Item C, (1)(iii) and (2) above, the mean power shall be as follows;
- (i) For the Occupied Bandwidth is no greater than 19 MHz, the mean power within a bandwidth of 1 MHz shall be 10 mW or less.
- (ii) For the Occupied Bandwidth is greater than 19 MHz to 38 MHz, the mean power within a bandwidth of 1 MHz shall be 5 mW or less.

**A3 Antenna Power 5500MHz to 5700MHz 802.11a**

<b>Test Details: Antenna Power Wi-Fi device 802.11a CH100, CH120 and CH140</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 49.20, 3-2) (d) (2) & (3)
Frequency range	5500MHz – 5700MHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

<b>802.11a 6Mbps Antenna Port</b>								
Freq (MHz)	RBW (MHz)	Power meter (dBm)	Signal generator (dBm)	Result (dBm)	Result (mW/MHz)	Limit (mW/MHz)	Margin (mW/MHz)	Summary
5500	1	-30.8	-0.94	-1.61	0.69024	10	9.3098	Pass
5600	1	-33.0	-2.74	-3.46	0.45082	10	9.5492	Pass
5700	1	-36.2	-6.24	-7.00	0.19953	10	9.8005	Pass

<b>802.11a 54Mbps Antenna Port</b>								
Freq (MHz)	RBW (MHz)	Power meter (dBm)	Signal generator (dBm)	Result (dBm)	Result (mW/MHz)	Limit (mW/MHz)	Margin (mW/MHz)	Summary
5500	1	-31.0	-0.94	-1.61	0.69024	10	9.3098	Pass
5600	1	-33.1	-2.74	-3.46	0.45082	10	9.5492	Pass
5700	1	-36.2	-6.24	-7.00	0.19953	10	9.8005	Pass

CH	Freq (MHz)
100	5500
120	5600
140	5700

**Limits from Article 49.20, 3-2)**

d The antenna power of the transmitter shall be one of the items below.

- (1) For the antenna power of the transmitting equipment which uses the modulation method prescribed in Item b, (1)(i) above (the direct spread method), the mean power within a bandwidth of 1 MHz shall be 10 mW or less.
- (2) For the antenna power of the transmitting equipment which uses the modulation method prescribed in Item b, (1)(ii) above (The amplitude modulation method, phase

modulation method, frequency modulation method, pulse modulation method or combination of these methods), the mean power shall be 10 mW or less.

- (3) For the antenna power of the transmitting equipment which uses the modulation method prescribed in Item b, (1)(iii) and Item b, (2) above (OFDM), the mean power shall be as follows;
- (i) For the Occupied Bandwidth is no greater than 19.7 MHz, the mean power within a bandwidth of 1 MHz shall be 10 mW or less.
  - (ii) For the Occupied Bandwidth is greater than 19.7 MHz to 38 MHz, the mean power within a bandwidth of 1 MHz shall be 5 mW or less.

**A4 Antenna Power 5500MHz to 5700MHz 802.11n**

<b>Test Details: Antenna Power Wi-Fi device 802.11n CH100, CH120 and CH140</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 49.20, 3-2) (d) (2) & (3)
Frequency range	5500MHz – 5700MHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

<b>802.11n MCS0 Antenna Port</b>								
Freq (MHz)	RBW (MHz)	Power meter (dBm)	Signal generator (dBm)	Result (dBm)	Result (mW/MHz)	Limit (mW/MHz)	Margin (mW/MHz)	Summary
5500	1	-31.0	-0.94	-1.61	0.69024	10	9.3098	Pass
5600	1	-32.9	-2.64	-3.36	0.46132	10	9.5387	Pass
5700	1	-36.5	-6.44	-7.20	0.19055	10	9.8095	Pass

<b>802.11n MCS7 Antenna Port</b>								
Freq (MHz)	RBW (MHz)	Power meter (dBm)	Signal generator (dBm)	Result (dBm)	Result (mW/MHz)	Limit (mW/MHz)	Margin (mW/MHz)	Summary
5500	1	-31.1	-0.94	-1.61	0.69024	10	9.3098	Pass
5600	1	-32.4	-1.64	-2.36	0.58076	10	9.4192	Pass
5700	1	-35.3	-4.64	-5.39	0.28907	10	9.7109	Pass

CH	Freq (MHz)
100	5500
120	5600
140	5700

**Limits from Article 49.20, 3-2)**

d The antenna power of the transmitter shall be one of the items below.

- (1) For the antenna power of the transmitting equipment which uses the modulation method prescribed in Item b, (1)(i) above (the direct spread method), the mean power within a bandwidth of 1 MHz shall be 10 mW or less.
- (2) For the antenna power of the transmitting equipment which uses the modulation method prescribed in Item b, (1)(ii) above (The amplitude modulation method, phase

- modulation method, frequency modulation method, pulse modulation method or combination of these methods), the mean power shall be 10 mW or less.
- (3) For the antenna power of the transmitting equipment which uses the modulation method prescribed in Item b, (1)(iii) and Item b, (2) above (OFDM), the mean power shall be as follows;
- (i) For the Occupied Bandwidth is no greater than 19.7 MHz, the mean power within a bandwidth of 1 MHz shall be 10 mW or less.
  - (ii) For the Occupied Bandwidth is greater than 19.7 MHz to 38 MHz, the mean power within a bandwidth of 1 MHz shall be 5 mW or less.

**A5 Tolerances of Antenna Power**

<b>Software Setting used</b>	<b>TRaC max measured power (802.11n MCS7 mode)</b>	<b>Declared tolerance of power</b>	<b>-80% of Calculated Average</b>	<b>+20% of Calculated Average</b>
53	1.0mW	5mW/MHz	1.0mW	6.0mW

**Limit Article 14, (7) (5)**

The tolerance of antenna power shall have an upper limit = 20% and the lower limit = 80%



**A6 Maximum Equivalent Isotropic Radiated power**

The maximum measured antenna power was 1.0 mW/MHz

The maximum declared antenna gain for any antenna to be used with the EUT is 5dBi (3.2 numeric). Please refer to Annex D for Manufacturers data sheet.

Therefore the Maximum EIRP from the EUT is equal to 1.0 x antenna gain numeric.

Equal to 3.2mW/MHz EIRP

**Limit Article 49.20, 3)**

g The equivalent isotropic radiated power within a bandwidth of 1 MHz shall be as follows:

(1) In case of the Occupied Bandwidth is no greater than 19 MHz;

(i) When using emissions of a frequency of 5,180 MHz, 5,200 MHz, 5,220 MHz, or 5,240 MHz :

10 mW or lower

(ii) When using emissions of a frequency of 5,260 MHz, 5,280 MHz, 5,300 MHz or 5,320 MHz

(a) When equipped with a function that reduces the mean antenna power by 3 dB in the communication system specified in 1):

10 mW or lower

(b) Cases other than (a):

5 mW or lower

**Limit Article 49.20, 3-2)**

The equivalent isotropic radiated power within a bandwidth of 1 MHz shall be as follows:

(1) In case of the Occupied Bandwidth is no greater than 19.7 MHz;

(i) When equipped with a function that reduces the mean antenna power by 3 dB in the communication system specified in 1):

50 mW or lower

(ii) Cases other than (i):

25 mW or lower

**A7 Tolerance of Occupied Bandwidth 5180MHz to 5320MHz 802.11a.**

<b>Test Details: Wi-Fi device 802.11a CH36, CH48 and CH64</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 6 Table 2 Note XXX 2(2)
Frequency range	5180MHz – 5320MHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

Freq (MHz)	Occupied bandwidth (MHz)		Result
	6Mbps	54Mbps	
5180	16.4343	16.4307	Pass
5240	16.5194	16.5091	Pass
5320	16.3577	16.5327	Pass

**Limit Article 6 Table 2 Note XXX 2(2) of the Ordinance Regulating Radio Equipment**

The occupied bandwidth shall be less than 19MHz

**A8 Tolerance of Occupied Bandwidth 5180MHz to 5320MHz 802.11n**

<b>Test Details: Wi-Fi device 802.11n CH36, C48 and CH64</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 6 Table 2 Note XXX 2(2)
Frequency range	5180MHz – 5320MHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

Freq (MHz)	Occupied bandwidth (MHz)		Result
	MCS0	MCS7	
5180	17.6974	17.5931	Pass
5240	17.6024	17.3913	Pass
5320	17.5955	17.8620	Pass

**Limit Article 6 Table 2 Note XXX 2(2) of the Ordinance Regulating Radio Equipment**

The occupied bandwidth shall be less than 19MHz

**A9 Tolerance of Occupied Bandwidth 5500MHz to 5700MHz 802.11a.**

<b>Test Details: Wi-Fi device 802.11a CH100, CH120 and CH140</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 6 Table 2 Note XXX 3(2)
Frequency range	5500MHz – 5700MHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

Freq (MHz)	Occupied bandwidth (MHz)		Result
	6Mbps	54Mbps	
5500	16.8398	16.6508	Pass
5600	16.4878	16.5203	Pass
5700	16.2996	16.3522	Pass

**Limit Article 6 Table 2 Note XXX 3(2) of the Ordinance Regulating Radio Equipment**

The occupied bandwidth shall be less than 19.7MHz

**A10 Tolerance of Occupied Bandwidth 5500MHz to 5700MHz 802.11n**

<b>Test Details: Wi-Fi device 802.11n CH100, CH120 and CH140</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 6 Table 2 Note XXX 3(2)
Frequency range	5500MHz – 5700MHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

Freq (MHz)	Occupied bandwidth (MHz)		Result
	MCS0	MCS7	
5500	18.6770	18.3106	Pass
5600	17.6999	17.7306	Pass
5700	17.5961	17.4779	Pass

**Limit Article 6 Table 2 Note XXX 3(2) of the Ordinance Regulating Radio Equipment**

The occupied bandwidth shall be less than 19.7MHz

**A11 Tolerance of Unwanted Emissions Intensity 5180MHz to 5320MHz 802.11a**

Test Details: TX Mode: Wi-Fi device 802.11a CH36, CH48 and CH64	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 7 Table 3, Note 28
Frequency range	9kHz to 16GHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

## Transmitting Bottom Channel 36: 5180MHz @ 6Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.037670	Pk	200Hz	-101.29	-26	75.29	Pass
150kHz	30MHz	2.2900	Pk	9kHz	-97.85	-26	71.85	Pass
30MHz	1000MHz	503.70	Pk	1MHz	-84.29	-26	58.29	Pass
1000MHz	5000MHz	3453.0	Pk	1MHz	-60.69	-26	34.69	Pass
5000MHz	5140MHz	5140.0	Pk	1MHz	-55.49	-26	29.49	Pass
5360MHz	10000MHz	6907.0	Pk	1MHz	-65.58	-26	39.58	Pass
10000MHz	16000MHz	10360.0	Pk	1MHz	-70.79	-26	44.79	Pass

## Transmitting Bottom Channel 36: 5180MHz @ 54Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.016990	Pk	200Hz	-100.69	-26	74.69	Pass
150kHz	30MHz	19.1500	Pk	9kHz	-97.61	-26	71.61	Pass
30MHz	1000MHz	647.60	Pk	1MHz	-86.43	-26	60.43	Pass
1000MHz	5000MHz	3453.0	Pk	1MHz	-61.59	-26	35.59	Pass
5000MHz	5140MHz	5140.0	Pk	1MHz	-57.29	-26	31.29	Pass
5360MHz	10000MHz	6907.0	Pk	1MHz	-66.05	-26	40.05	Pass
10000MHz	16000MHz	10360.0	Pk	1MHz	-70.14	-26	44.14	Pass

## Transmitting Middle Channel 48: 5240MHz @ 6Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.011585	Pk	200Hz	-99.64	-26	73.64	Pass
150kHz	30MHz	25.8200	Pk	9kHz	-96.97	-26	70.97	Pass

30MHz	1000MHz	864.20	Pk	1MHz	-86.02	-26	60.02	Pass
1000MHz	5000MHz	3493.0	Pk	1MHz	-58.68	-26	32.68	Pass
5000MHz	5140MHz	5080.0	Pk	1MHz	-58.29	-26	32.29	Pass
5360MHz	10000MHz	5360.0	Pk	1MHz	-56.37	-26	30.37	Pass
10000MHz	16000MHz	10480.0	Pk	1MHz	-68.61	-26	42.61	Pass

Transmitting Middle Channel 48: 5240MHz @ 54Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.010880	Pk	200Hz	-101.09	-26	75.09	Pass
150kHz	30MHz	0.4000	Pk	9kHz	-94.00	-26	68.00	Pass
30MHz	1000MHz	477.80	Pk	1MHz	-83.67	-26	57.67	Pass
1000MHz	5000MHz	3493.0	Pk	1MHz	-58.81	-26	32.81	Pass
5000MHz	5140MHz	5119.9	Pk	1MHz	-57.83	-26	31.83	Pass
5360MHz	10000MHz	5360.0	Pk	1MHz	-55.16	-26	29.16	Pass
10000MHz	16000MHz	10480.0	Pk	1MHz	-68.42	-26	42.42	Pass

**Tolerance of Unwanted Emissions Intensity continued**

Transmitting Top Channel 64: 5320MHz @ 6Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.020515	Pk	200Hz	-101.73	-26	75.73	Pass
150kHz	30MHz	1.6900	Pk	9kHz	-94.60	-26	68.60	Pass
30MHz	1000MHz	489.10	Pk	1MHz	-85.03	-26	59.03	Pass
1000MHz	5000MHz	3547.0	Pk	1MHz	-50.99	-26	24.99	Pass
5000MHz	5140MHz	5066.7	Pk	1MHz	-59.48	-26	33.48	Pass
5360MHz	10000MHz	5360.0	Pk	1MHz	-53.44	-26	27.44	Pass
10000MHz	16000MHz	10640.0	Pk	1MHz	-68.43	-26	42.43	Pass

Transmitting Top Channel 64: 5320MHz @ 54Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.047070	Pk	200Hz	-104.34	-26	78.34	Pass
150kHz	30MHz	7.5100	Pk	9kHz	-98.56	-26	72.56	Pass
30MHz	1000MHz	759.10	Pk	1MHz	-85.02	-26	59.02	Pass
1000MHz	5000MHz	3547.0	Pk	1MHz	-50.66	-26	24.66	Pass
5000MHz	5140MHz	5066.7	Pk	1MHz	-59.56	-26	33.59	Pass
5360MHz	10000MHz	5360.0	Pk	1MHz	-51.05	-26	25.05	Pass
10000MHz	16000MHz	10640.0	Pk	1MHz	-68.46	-26	42.46	Pass

**Limit Article 7 Table 3 Note 28 of the Ordinance Regulating Radio Equipment**

Lower than 5,140 MHz and higher than 5,360 MHz
2.5µW



**A12 Tolerance of Unwanted Emissions Intensity 5180MHz to 5320MHz 802.11n**

Test Details: TX Mode: Wi-Fi device 802.11n CH36, CH48 and CH64	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 7 Table 3, Note 28
Frequency range	9kHz to 16GHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

## Transmitting Bottom Channel 36: 5180MHz (MCS0)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.024040	Pk	200Hz	-102.86	-26	76.86	Pass
150kHz	30MHz	0.5500	Pk	9kHz	-95.26	-26	69.26	Pass
30MHz	1000MHz	500.40	Pk	1MHz	-83.85	-26	57.85	Pass
1000MHz	5000MHz	3453.0	Pk	1MHz	-60.51	-26	34.51	Pass
5000MHz	5140MHz	5140.0	Pk	1MHz	-53.98	-26	27.98	Pass
5360MHz	10000MHz	5414.0	Pk	1MHz	-62.86	-26	36.86	Pass
10000MHz	16000MHz	10360.0	Pk	1MHz	-69.99	-26	43.99	Pass

## Transmitting Bottom Channel 36: 5180MHz (MCS7)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.020045	Pk	200Hz	-102.40	-26	76.40	Pass
150kHz	30MHz	17.0200	Pk	9kHz	-96.31	-26	70.31	Pass
30MHz	1000MHz	578.00	Pk	1MHz	-85.55	-26	59.55	Pass
1000MHz	5000MHz	3453.0	Pk	1MHz	-61.17	-26	35.17	Pass
5000MHz	5140MHz	5139.8	Pk	1MHz	-53.36	-26	27.36	Pass
5360MHz	10000MHz	5414.0	Pk	1MHz	-62.60	-26	36.60	Pass
10000MHz	16000MHz	10360.0	Pk	1MHz	-70.80	-26	44.80	Pass

## Transmitting Middle Channel 48: 5240MHz (MCS0)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.015580	Pk	200Hz	-101.06	-26	75.06	Pass
150kHz	30MHz	0.7500	Pk	9kHz	-92.99	-26	66.99	Pass

30MHz	1000MHz	764.00	Pk	1MHz	-83.40	-26	57.40	Pass
1000MHz	5000MHz	3493.0	Pk	1MHz	-58.63	-26	32.63	Pass
5000MHz	5140MHz	5119.7	Pk	1MHz	-58.30	-26	32.30	Pass
5360MHz	10000MHz	5360.0	Pk	1MHz	-56.15	-26	30.15	Pass
10000MHz	16000MHz	10480.0	Pk	1MHz	-66.94	-26	40.94	Pass

Transmitting Middle Channel 48: 5240MHz (MCS7)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.014405	Pk	200Hz	-99.13	-26	73.13	Pass
150kHz	30MHz	0.2000	Pk	9kHz	-95.04	-26	69.04	Pass
30MHz	1000MHz	479.40	Pk	1MHz	-85.28	-26	59.28	Pass
1000MHz	5000MHz	3493.0	Pk	1MHz	-58.85	-26	32.85	Pass
5000MHz	5140MHz	5119.9	Pk	1MHz	-59.10	-26	33.10	Pass
5360MHz	10000MHz	5360.0	Pk	1MHz	-55.68	-26	29.68	Pass
10000MHz	16000MHz	10480.0	Pk	1MHz	-69.40	-26	43.40	Pass

**Tolerance of Unwanted Emissions Intensity continued**

Transmitting Top Channel 64: 5320MHz (MCS0)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.010175	Pk	200Hz	-99.17	-26	73.17	Pass
150kHz	30MHz	13.8300	Pk	9kHz	-95.57	-26	69.57	Pass
30MHz	1000MHz	744.60	Pk	1MHz	-84.75	-26	58.75	Pass
1000MHz	5000MHz	3547.0	Pk	1MHz	-50.90	-26	24.90	Pass
5000MHz	5140MHz	5066.7	Pk	1MHz	-61.25	-26	35.25	Pass
5360MHz	10000MHz	5360.0	Pk	1MHz	-50.40	-26	24.40	Pass
10000MHz	16000MHz	10640.0	Pk	1MHz	-66.93	-26	40.93	Pass

Transmitting Top Channel 64: 5320MHz (MCS7)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.012290	Pk	200Hz	-100.98	-26	74.98	Pass
150kHz	30MHz	0.8000	Pk	9kHz	-94.08	-26	68.08	Pass
30MHz	1000MHz	482.70	Pk	1MHz	-84.07	-26	58.07	Pass
1000MHz	5000MHz	3547.0	Pk	1MHz	-50.64	-26	24.64	Pass
5000MHz	5140MHz	5066.7	Pk	1MHz	-59.21	-26	33.21	Pass
5360MHz	10000MHz	5360.0	Pk	1MHz	-49.73	-26	23.73	Pass
10000MHz	16000MHz	10640.0	Pk	1MHz	-68.01	-26	42.01	Pass

**Limit Article 7 Table 3 Note 28 of the Ordinance Regulating Radio Equipment**

Lower than 5,140 MHz and higher than 5,360 MHz
2.5µW

**A13 Tolerance of Unwanted Emissions Intensity 5500MHz to 5700MHz 802.11a**

Test Details: TX Mode: Wi-Fi device 802.11a CH100, CH120 and CH140	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 7 Table 3, Note 28
Frequency range	9kHz to 18GHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

## Transmitting Bottom Channel 100: 5500MHz @ 6Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.011820	Pk	200Hz	-100.26	-26	74.26	Pass
150kHz	30MHz	6.4200	Pk	9kHz	-97.99	-26	71.99	Pass
30MHz	1000MHz	233.70	Pk	1MHz	-85.92	-26	59.92	Pass
1000MHz	5000MHz	3667.0	Pk	1MHz	-48.00	-26	22.00	Pass
5000MHz	5460MHz	5460.0	Pk	1MHz	-50.36	-26	24.36	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-69.29	-26	43.29	Pass
10000MHz	18000MHz	11000.0	Pk	1MHz	-68.15	-26	42.15	Pass

## Transmitting Bottom Channel 100: 5500MHz @ 54Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.018870	Pk	200Hz	-100.99	-26	74.99	Pass
150kHz	30MHz	18.7100	Pk	9kHz	-97.35	-26	71.35	Pass
30MHz	1000MHz	633.00	Pk	1MHz	-85.89	-26	59.89	Pass
1000MHz	5000MHz	3667.0	Pk	1MHz	-47.85	-26	21.85	Pass
5000MHz	5460MHz	5460.0	Pk	1MHz	-50.67	-26	24.67	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-70.56	-26	44.56	Pass
10000MHz	18000MHz	11000.0	Pk	1MHz	-66.19	-26	40.19	Pass

## Transmitting Middle Channel 120: 5600MHz @ 6Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.013465	Pk	200Hz	-101.89	-26	75.89	Pass
150kHz	30MHz	0.0150	Pk	9kHz	-94.18	-26	68.18	Pass

30MHz	1000MHz	371.10	Pk	1MHz	-84.81	-26	58.81	Pass
1000MHz	5000MHz	3733.0	Pk	1MHz	-45.12	-26	19.12	Pass
5000MHz	5460MHz	5440.1	Pk	1MHz	-56.01	-26	30.01	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-70.52	-26	44.52	Pass
10000MHz	18000MHz	11200.0	Pk	1MHz	-60.89	-26	34.89	Pass

Transmitting Middle Channel 120: 5600MHz @ 54Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.016520	Pk	200Hz	-99.81	-26	73.81	Pass
150kHz	30MHz	1.3900	Pk	9kHz	-97.47	-26	71.47	Pass
30MHz	1000MHz	495.60	Pk	1MHz	-84.26	-26	58.26	Pass
1000MHz	5000MHz	3733.0	Pk	1MHz	-45.01	-26	19.01	Pass
5000MHz	5460MHz	5440.1	Pk	1MHz	-58.80	-26	32.80	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-70.07	-26	44.07	Pass
10000MHz	18000MHz	11200.0	Pk	1MHz	-61.27	-26	35.27	Pass

**Tolerance of Unwanted Emissions Intensity continued**

Transmitting Top Channel 140: 5700MHz @ 6Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.017695	Pk	200Hz	-100.85	-26	74.85	Pass
150kHz	30MHz	3.6300	Pk	9kHz	-97.41	-26	71.41	Pass
30MHz	1000MHz	487.50	Pk	1MHz	-84.38	-26	58.38	Pass
1000MHz	5000MHz	3800.0	Pk	1MHz	-42.29	-26	16.29	Pass
5000MHz	5460MHz	5240.0	Pk	1MHz	-61.79	-26	35.79	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-66.92	-26	40.92	Pass
10000MHz	18000MHz	11400.0	Pk	1MHz	-64.19	-26	38.19	Pass

Transmitting Top Channel 140: 5700MHz @ 54Mbps

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.010410	Pk	200Hz	-98.81	-26	72.81	Pass
150kHz	30MHz	0.5000	Pk	9kHz	-95.42	-26	69.42	Pass
30MHz	1000MHz	374.40	Pk	1MHz	-83.79	-26	57.79	Pass
1000MHz	5000MHz	3800.0	Pk	1MHz	-42.17	-26	16.17	Pass
5000MHz	5460MHz	5240.0	Pk	1MHz	-61.04	-26	35.04	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-66.32	-26	40.32	Pass
10000MHz	18000MHz	11400.0	Pk	1MHz	-64.80	-26	38.80	Pass

**Limit Article 7 Table 3 Note 28 of the Ordinance Regulating Radio Equipment**

Lower than 5,420 MHz and higher than 5,760 MHz
2.5µW

**A14 Tolerance of Unwanted Emissions Intensity 5500MHz to 5700MHz 802.11n**

Test Details: TX Mode: Wi-Fi device 802.11n CH100, CH120 and CH140	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 7 Table 3, Note 28
Frequency range	9kHz to 18GHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	None
SE isolated from EUT	None
EUT set up	Refer to Appendix C

## Transmitting Bottom Channel 100: 5500MHz (MCS0)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.055765	Pk	200Hz	-102.31	-26	76.31	Pass
150kHz	30MHz	1.6900	Pk	9kHz	-96.24	-26	70.24	Pass
30MHz	1000MHz	359.80	Pk	1MHz	-84.37	-26	58.37	Pass
1000MHz	5000MHz	3667.0	Pk	1MHz	-48.08	-26	22.08	Pass
5000MHz	5460MHz	5460.0	Pk	1MHz	-49.38	-26	23.68	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-68.59	-26	42.59	Pass
10000MHz	18000MHz	11000.0	Pk	1MHz	-65.31	-26	39.31	Pass

## Transmitting Bottom Channel 100: 5500MHz (MCS7)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.021690	Pk	200Hz	-101.73	-26	75.73	Pass
150kHz	30MHz	0.4500	Pk	9kHz	-91.74	-26	65.74	Pass
30MHz	1000MHz	616.80	Pk	1MHz	-83.77	-26	57.77	Pass
1000MHz	5000MHz	3667.0	Pk	1MHz	-47.89	-26	21.89	Pass
5000MHz	5460MHz	5460.0	Pk	1MHz	-51.17	-26	25.17	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-68.47	-26	42.47	Pass
10000MHz	18000MHz	11000.0	Pk	1MHz	-66.72	-26	40.72	Pass

## Transmitting Middle Channel 120: 5600MHz (MCS0)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.025450	Pk	200Hz	-101.18	-26	75.18	Pass
150kHz	30MHz	0.2000	Pk	9kHz	-92.81	-26	66.81	Pass

30MHz	1000MHz	413.20	Pk	1MHz	-83.51	-26	57.51	Pass
1000MHz	5000MHz	3733.0	Pk	1MHz	-45.26	-26	19.26	Pass
5000MHz	5460MHz	5440.1	Pk	1MHz	-56.85	-26	30.85	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-70.06	-26	44.06	Pass
10000MHz	18000MHz	11200.0	Pk	1MHz	-64.52	-26	38.52	Pass

Transmitting Middle Channel 120: 5600MHz (MCS7)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.010410	Pk	200Hz	-100.42	-26	74.42	Pass
150kHz	30MHz	0.3000	Pk	9kHz	-92.33	-26	66.33	Pass
30MHz	1000MHz	713.80	Pk	1MHz	-83.21	-26	57.21	Pass
1000MHz	5000MHz	3733.0	Pk	1MHz	-45.15	-26	19.15	Pass
5000MHz	5460MHz	5440.1	Pk	1MHz	-56.66	-26	30.66	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-69.55	-26	43.55	Pass
10000MHz	18000MHz	11200.0	Pk	1MHz	-61.69	-26	35.69	Pass



**Tolerance of Unwanted Emissions Intensity continued**

Transmitting Top Channel 140: 5700MHz (MCS0)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.013935	Pk	200Hz	-102.17	-26	76.17	Pass
150kHz	30MHz	1.5900	Pk	9kHz	-93.84	-26	67.84	Pass
30MHz	1000MHz	515.00	Pk	1MHz	-85.02	-26	59.02	Pass
1000MHz	5000MHz	3800.0	Pk	1MHz	-42.32	-26	16.32	Pass
5000MHz	5460MHz	5259.9	Pk	1MHz	-61.54	-26	35.54	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-63.13	-26	37.13	Pass
10000MHz	18000MHz	11400.0	Pk	1MHz	-64.18	-26	38.18	Pass

Transmitting Top Channel 140: 5700MHz (MCS7)

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.012995	Pk	200Hz	-99.37	-26	73.37	Pass
150kHz	30MHz	18.8100	Pk	9kHz	-96.05	-26	70.05	Pass
30MHz	1000MHz	636.20	Pk	1MHz	-86.36	-26	60.36	Pass
1000MHz	5000MHz	3800.0	Pk	1MHz	-42.32	-26	16.32	Pass
5000MHz	5460MHz	5240.0	Pk	1MHz	-61.71	-26	35.71	Pass
5740MHz	10000MHz	5740.0	Pk	1MHz	-63.80	-26	37.80	Pass
10000MHz	18000MHz	11400.0	Pk	1MHz	-62.86	-26	36.86	Pass

**Limit Article 7 Table 3 Note 28 of the Ordinance Regulating Radio Equipment**

Lower than 5,420 MHz and higher than 5,760 MHz
2.5µW

**A15 Limit of Secondary Emissions 5180MHz to 5320MHz 802.11a**

Preview measurement of secondary radio emissions was performed using a peak detector with the RBW set to 100kHz and the VBW>RBW. Frequencies were scanned up through to the 4<sup>th</sup> harmonic with the EUT in receive mode on its lowest, centre and highest receive frequency in turn. Formal measurements were made using a RBW of 100 kHz for frequencies below 1 GHz and 1 MHz for frequencies above 1 GHz.

Test Details: Receive Mode: Wi-Fi device 802.11a CH36, CH48 and CH64	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 24 (1 & 2)
Frequency range	9kHz to 18 GHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	REF1270
SE isolated from EUT	None
EUT set up	Refer to Appendix C

The worst-case emission measurements for spurious emissions and harmonics are listed below:

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.032735	Sample	200Hz	-101.53	-54	47.53	Pass
150kHz	30MHz	7.0200	Sample	9kHz	-96.64	-54	42.64	Pass
30MHz	1000MHz	430.90	Sample	100kHz	-84.21	-54	30.21	Pass
1000MHz	5000MHz	3253.0	Sample	1MHz	-80.53	-47	33.53	Pass
5000MHz	10000MHz	7108.0	Sample	1MHz	-80.65	-47	33.65	Pass
10000MHz	18000MHz	15800.0	Sample	1MHz	-78.18	-47	31.18	Pass

**Limit Article 24 (1 & 2) of the Ordinance Regulating Radio Equipment**

Frequency range	Limit
9kHz to 1 GHz	4 nW (-54dBm)
Above 1 GHz	20nW (-47dBm)

**A16 Limit of Secondary Emissions 5180MHz to 5320MHz 802.11n**

Preview measurement of secondary radio emissions was performed using a peak detector with the RBW set to 100kHz and the VBW>RBW. Frequencies were scanned up through to the 4<sup>th</sup> harmonic with the EUT in receive mode on its lowest, centre and highest receive frequency in turn. Formal measurements were made using a RBW of 100 kHz for frequencies below 1 GHz and 1MHz for frequencies above 1 GHz.

<b>Test Details: Receive Mode: Wi-Fi device 802.11n CH36, CH48 and CH64</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 24 (1 & 2)
Frequency range	9kHz to 18 GHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	REF1270
SE isolated from EUT	None
EUT set up	Refer to Appendix C

The worst-case emission measurements for spurious emissions and harmonics are listed below:

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.032735	Sample	200Hz	-101.53	-54	47.53	Pass
150kHz	30MHz	7.0200	Sample	9kHz	-96.64	-54	42.64	Pass
30MHz	1000MHz	430.90	Sample	100kHz	-84.21	-54	30.21	Pass
1000MHz	5000MHz	3253.0	Sample	1MHz	-80.53	-47	33.53	Pass
5000MHz	10000MHz	7108.0	Sample	1MHz	-80.65	-47	33.65	Pass
10000MHz	18000MHz	15800.0	Sample	1MHz	-78.18	-47	31.18	Pass

**Limit Article 24 (1 & 2) of the Ordinance Regulating Radio Equipment**

Frequency range	Limit
9kHz to 1 GHz	4 nW (-54dBm)
Above 1 GHz	20nW (-47dBm)

**A17 Limit of Secondary Emissions 5500MHz to 5700MHz 802.11a**

Preview measurement of secondary radio emissions was performed using a peak detector with the RBW set to 100kHz and the VBW>RBW. Frequencies were scanned up through to the 4<sup>th</sup> harmonic with the EUT in receive mode on its lowest, centre and highest receive frequency in turn. Formal measurements were made using a RBW of 100 kHz for frequencies below 1 GHz and 1 MHz for frequencies above 1 GHz.

<b>Test Details: Receive Mode: Wi-Fi device 802.11a CH100, CH120 and CH140</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 24 (1 & 2)
Frequency range	9kHz to 18 GHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	REF1270
SE isolated from EUT	None
EUT set up	Refer to Appendix C

The worst-case emission measurements for spurious emissions and harmonics are listed below:

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.032735	Sample	200Hz	-101.53	-54	47.53	Pass
150kHz	30MHz	7.0200	Sample	9kHz	-96.64	-54	42.64	Pass
30MHz	1000MHz	430.90	Sample	100kHz	-84.21	-54	30.21	Pass
1000MHz	5000MHz	3253.0	Sample	1MHz	-80.53	-47	33.53	Pass
5000MHz	10000MHz	7108.0	Sample	1MHz	-80.65	-47	33.65	Pass
10000MHz	18000MHz	15800.0	Sample	1MHz	-78.18	-47	31.18	Pass

**Limit Article 24 (1 & 2) of the Ordinance Regulating Radio Equipment**

Frequency range	Limit
9kHz to 1 GHz	4 nW (-54dBm)
Above 1 GHz	20nW (-47dBm)

**A18 Limit of Secondary Emissions 5500MHz to 5700MHz 802.11n**

Preview measurement of secondary radio emissions was performed using a peak detector with the RBW set to 100kHz and the VBW>RBW. Frequencies were scanned up through to the 4<sup>th</sup> harmonic with the EUT in receive mode on its lowest, centre and highest receive frequency in turn. Formal measurements were made using a RBW of 100 kHz for frequencies below 1 GHz and 1MHz for frequencies above 1 GHz.

<b>Test Details: Receive Mode: Wi-Fi device 802.11n CH100, CH120 and CH140</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 24 (1 & 2)
Frequency range	9kHz to 18 GHz
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	REF1270
SE isolated from EUT	None
EUT set up	Refer to Appendix C

The worst-case emission measurements for spurious emissions and harmonics are listed below:

Freq range (MHz)		Measured Frequency (MHz)	Detector (Peak or Sample)	RBW	Result (dBm)	Limit dBm	Margin dB	Summary
From	To							
9kHz	150kHz	0.032735	Sample	200Hz	-101.53	-54	47.53	Pass
150kHz	30MHz	7.0200	Sample	9kHz	-96.64	-54	42.64	Pass
30MHz	1000MHz	430.90	Sample	100kHz	-84.21	-54	30.21	Pass
1000MHz	5000MHz	3253.0	Sample	1MHz	-80.53	-47	33.53	Pass
5000MHz	10000MHz	7108.0	Sample	1MHz	-80.65	-47	33.65	Pass
10000MHz	18000MHz	15800.0	Sample	1MHz	-78.18	-47	31.18	Pass

**Limit Article 24 (1 & 2) of the Ordinance Regulating Radio Equipment**

Frequency range	Limit
9kHz to 1 GHz	4 nW (-54dBm)
Above 1 GHz	20nW (-47dBm)

**A19 Tolerance of Frequency 5180MHz to 5320MHz 802.11a/n**

<b>Test Details: Transmit</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 5 Table 1 Row 7 Item 10
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	REF1270
SE isolated from EUT	None
EUT set up	Refer to Appendix C

Test Conditions	Channel 36	Channel 48	Channel 64
Wanted Frequency (MHz)	5180	5240	5320
Frequency Error (ppm)	19.4	19.8	19.2
Result	Pass	Pass	Pass
Limit	±50 ppm		

**Limit Article 5 Table 1 Row 7 Item 10 of the Ordinance Regulating Radio Equipment**

±50 ppm

**A20 Tolerance of Frequency 5500MHz to 5700MHz 802.11a/n**

<b>Test Details: Transmit</b>	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 5 Table 1 Row 7 Item 10
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	REF1270
SE isolated from EUT	None
EUT set up	Refer to Appendix C

Test Conditions	Channel 100	Channel 120	Channel 140
Wanted Frequency (MHz)	5500	5600	5700
Frequency Error (ppm)	18.9	19.2	19.5
Result	Pass	Pass	Pass
Limit	±50 ppm		

**Limit Article 5 Table 1 Row 7 Item 10 of the Ordinance Regulating Radio Equipment**

±50 ppm

**A21 Adjacent Channel Leakage Power 5180MHz to 5320MHz 802.11a**

Test Details: Transmit Mode: Wi-Fi device 802.11a CH36, CH48 and CH64	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 49.20, 3) j
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	REF1270
SE isolated from EUT	None
EUT set up	Refer to Appendix C

Carrier Freq (MHz)	Freq Offset (MHz)	6Mbps		54Mbps		Limit (dBc)	Result
		Lower Channel (dBc)	Upper Channel (dBc)	Lower Channel (dBc)	Upper Channel (dBc)		
5180	20	-31.48	-31.34	-31.09	-31.03	-25	Pass
	40	-49.02	-46.93	-50.14	-48.18	-40	Pass
5240	20	-29.51	-29.49	-30.48	-30.25	-25	Pass
	40	-47.55	-47.19	-48.56	-48.20	-40	Pass
5320	20	-28.21	-27.19	-30.10	-28.26	-25	Pass
	40	-47.40	-45.91	-48.04	-46.80	-40	Pass

**Limit Article 49.20, 3)**

j The Adjacent Channel Leakage Power shall be as follows;

- (1) In case of the Occupied Bandwidth is no greater than 18 MHz; The mean power radiated within a bandwidth of  $\pm 9$  MHz of the frequencies 20 MHz and 40 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.
- (2) In case of the Occupied Bandwidth is greater than 18 MHz to 19 MHz; The mean power radiated within a bandwidth of  $\pm 9.5$  MHz of the frequencies 20 MHz and 40 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.
- (3) In case of the Occupied Bandwidth is greater than 19 MHz to 38 MHz; The mean power radiated within a bandwidth of  $\pm 19$  MHz of the frequencies 40 MHz and 80 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.



**A22 Adjacent Channel Leakage Power 5180MHz to 5320MHz 802.11n**

Test Details: Transmit Mode: Wi-Fi device 802.11n CH36, CH48 and CH64	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 49.20, 3) j
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	REF1270
SE isolated from EUT	None
EUT set up	Refer to Appendix C

Carrier Freq (MHz)	Freq Offset (MHz)	MCS0		MCS7		Limit (dBc)	Result
		Lower Channel (dBc)	Upper Channel (dBc)	Lower Channel (dBc)	Upper Channel (dBc)		
5180	20	-31.17	-29.68	-30.67	-29.16	-25	Pass
	40	-47.93	-47.37	-47.26	-46.11	-40	Pass
5240	20	-28.80	-28.08	-29.19	-29.59	-25	Pass
	40	-47.25	-45.99	-47.16	-46.45	-40	Pass
5320	20	-29.40	-26.18	-28.76	-27.01	-25	Pass
	40	-46.26	-44.86	-46.75	-45.19	-40	Pass

**Limit Article 49.20, 3)**

- j The Adjacent Channel Leakage Power shall be as follows;
- (1) In case of the Occupied Bandwidth is no greater than 18 MHz; The mean power radiated within a bandwidth of  $\pm 9$  MHz of the frequencies 20 MHz and 40 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.
  - (2) In case of the Occupied Bandwidth is greater than 18 MHz to 19 MHz; The mean power radiated within a bandwidth of  $\pm 9.5$  MHz of the frequencies 20 MHz and 40 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.
  - (3) In case of the Occupied Bandwidth is greater than 19 MHz to 38 MHz; The mean power radiated within a bandwidth of  $\pm 19$  MHz of the frequencies 40 MHz and 80 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.

**A23 Adjacent Channel Leakage Power 5500MHz to 5700MHz 802.11a**

Test Details: Transmit Mode: Wi-Fi device 802.11a CH100, CH120 and CH140	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 49.20, 3-2) f
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	REF1270
SE isolated from EUT	None
EUT set up	Refer to Appendix C

Carrier Freq (MHz)	Freq Offset (MHz)	6Mbps		54Mbps		Limit (dBc)	Result
		Lower Channel (dBc)	Upper Channel (dBc)	Lower Channel (dBc)	Upper Channel (dBc)		
5500	20	-26.14	-26.51	-26.38	-25.87	-25	Pass
	40	-45.62	-45.94	-45.09	-45.29	-40	Pass
5600	20	-28.60	-28.03	-28.69	-28.78	-25	Pass
	40	-47.28	-48.17	-48.06	-49.11	-40	Pass
5700	20	-33.43	-34.49	-34.10	-34.76	-25	Pass
	40	-52.00	-52.69	-52.89	-53.04	-40	Pass

**Limit Article 49.20, 3-2)**

- f The Adjacent Channel Leakage Power shall be as follows;
  - (1) In case of the modulation type is not OFDM; The mean power radiated within a bandwidth of  $\pm 9$  MHz of the frequencies 20 MHz and 40 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.
  - (2) In case of the modulation type is OFDM, shall be as follows;
    - (i) In case of the Occupied Bandwidth is 19.7 MHz or less; The mean power radiated within a bandwidth of  $\pm 9.5$  MHz of the frequencies 20 MHz and 40 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.
    - (ii) In case of the Occupied Bandwidth is greater than 19.7 MHz to 38 MHz; The mean power radiated within a bandwidth of  $\pm 19$  MHz of the frequencies 40 MHz and 80 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.

**A24 Adjacent Channel Leakage Power 5500MHz to 5700MHz 802.11n**

Test Details: Transmit Mode: Wi-Fi device 802.11n CH100, CH120 and CH140	
Standard	Ordinance Regulating Radio Equipment
Reference clause	Article 49.20, 3-2) f
Application	Temporary Antenna Connector
EUT sample number	TRA-007055S17
Modification state	0
SE in test environment	REF1270
SE isolated from EUT	None
EUT set up	Refer to Appendix C

Carrier Freq (MHz)	Freq Offset (MHz)	MCS0		MCS7		Limit (dBc)	Result
		Lower Channel (dBc)	Upper Channel (dBc)	Lower Channel (dBc)	Upper Channel (dBc)		
5500	20	-25.01	-25.19	-25.58	-25.30	-25	Pass
	40	-44.69	-44.10	-45.27	-44.53	-40	Pass
5600	20	-27.02	-26.66	-27.43	-27.51	-25	Pass
	40	-46.27	-46.73	-46.22	-47.61	-40	Pass
5700	20	-32.58	-33.17	-32.28	-33.40	-25	Pass
	40	-50.96	-50.64	-51.59	-49.79	-40	Pass

**Limit Article 49.20, 3-2)**

- f The Adjacent Channel Leakage Power shall be as follows;
- (1) In case of the modulation type is not OFDM; The mean power radiated within a bandwidth of  $\pm 9$  MHz of the frequencies 20 MHz and 40 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.
  - (2) In case of the modulation type is OFDM, shall be as follows;
    - (i) In case of the Occupied Bandwidth is 19.7 MHz or less; The mean power radiated within a bandwidth of  $\pm 9.5$  MHz of the frequencies 20 MHz and 40 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.
    - (ii) In case of the Occupied Bandwidth is greater than 19.7 MHz to 38 MHz; The mean power radiated within a bandwidth of  $\pm 19$  MHz of the frequencies 40 MHz and 80 MHz distant from the frequency of the carrier shall be lower than the mean power of the carrier by 25 dB and 40 dB.

**Appendix B:**

**Supporting Graphical Data**

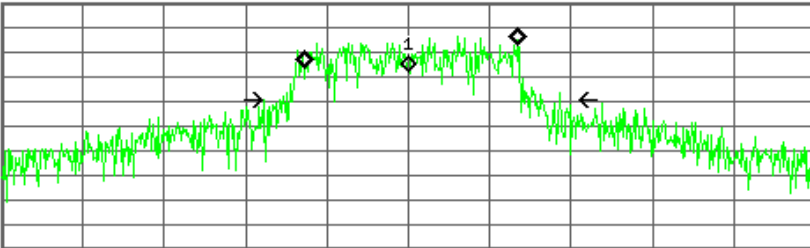
This appendix contains graphical data obtained during testing.

Notes:

- a) The graphical data in this appendix is preview data. For details of formal results, refer to Appendix A
- b) The time and date on the plots do not necessarily equate to the time of the test.
- c) Appendix C details the numbering system used to identify the sample and its modification state.
- d) The plots presented in this appendix may not be a complete record of the measurements performed, but are a representative sample, relative to the final assessment.

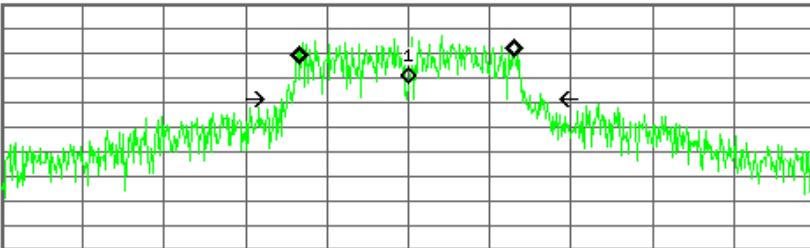


Agilent 11:31:17 Jun 14, 2013

<p style="text-align: center;"><b>Ch Freq</b> 5.24 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;"><input type="text"/></span></p> <p style="text-align: center; font-size: 1.2em;"><b>Center 5.24000000 GHz</b></p> <p style="text-align: right;">Mkr1 5.240 0 GHz -21.96 dBm</p> <p>Ref 5.661 dBm #Atten 28 dB</p> <div style="border: 1px solid black; padding: 2px;"> <p>#Samp <input type="text"/></p> <p>Log <input type="text"/></p> <p>10 <input type="text"/></p> <p>dB/ <input type="text"/></p>  </div> <p style="text-align: center;">Center 5.240 0 GHz <span style="float: right;">Span 60 MHz</span></p> <p>#Res BW 30 kHz <span style="margin-left: 100px;">#VBW 30 kHz</span> <span style="float: right;">Sweep 254.2 ms (601 pts)</span></p> <div style="border: 2px solid green; padding: 5px; margin-top: 5px;"> <p style="font-size: 1.1em;"><b>Occupied Bandwidth</b> <span style="float: right;"><b>Occ BW % Pwr</b> 95.00 %</span></p> <p style="font-size: 1.2em; text-align: center;">15.8213 MHz <span style="float: right;"><b>x dB</b> -26.00 dB</span></p> <p><b>Transmit Freq Error</b> 162.739 kHz</p> <p><b>x dB Bandwidth</b> 20.758 MHz*</p> </div> <p style="color: green; font-weight: bold; margin-top: 5px;">File Operation Status, A:\SBC36RS7.6IF file saved</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left; padding: 2px;">Meas Control</th> </tr> <tr> <td style="width: 50%; padding: 2px;">Restart</td> <td style="width: 50%; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">Measure</td> <td style="padding: 2px;">Single <u>Cont</u></td> </tr> <tr> <td style="padding: 2px;">Resume</td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;"></td> </tr> </table>	Meas Control		Restart		Measure	Single <u>Cont</u>	Resume									
Meas Control																	
Restart																	
Measure	Single <u>Cont</u>																
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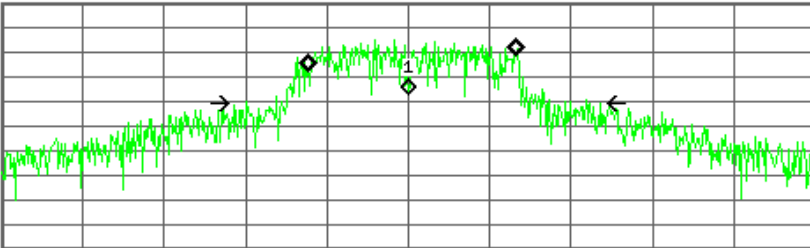
95% Spreading Bandwidth – 802.11a CH48 (5240MHz) 6Mbps

Agilent 11:32:06 Jun 14, 2013

<p style="text-align: center;"><b>Ch Freq</b> 5.24 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;"><input type="text"/></span></p> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: center; font-size: 1.2em;"><b>Center 5.24000000 GHz</b></p> <p style="text-align: right;">Mkr1 5.240 0 GHz -26.56 dBm</p> <p>Ref 5.661 dBm #Atten 28 dB</p> <div style="border: 1px solid black; padding: 2px;"> <p>#Samp <input type="text"/></p> <p>Log <input type="text"/></p> <p>10 <input type="text"/></p> <p>dB/ <input type="text"/></p>  </div> <p style="text-align: center;">Center 5.240 0 GHz <span style="float: right;">Span 60 MHz</span></p> <p>#Res BW 30 kHz <span style="margin-left: 100px;">#VBW 30 kHz</span> <span style="float: right;">Sweep 254.2 ms (601 pts)</span></p> <div style="border: 2px solid green; padding: 5px; margin-top: 5px;"> <p style="font-size: 1.1em;"><b>Occupied Bandwidth</b> <span style="float: right;"><b>Occ BW % Pwr</b> 95.00 %</span></p> <p style="font-size: 1.2em; text-align: center;">15.8270 MHz <span style="float: right;"><b>x dB</b> -26.00 dB</span></p> <p><b>Transmit Freq Error</b> -135.190 kHz</p> <p><b>x dB Bandwidth</b> 19.218 MHz*</p> </div> <p style="color: green; font-weight: bold; margin-top: 5px;">File Operation Status, A:\SBC48R06.6IF file saved</p> </div>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: left; padding: 2px;">Meas Control</th> </tr> <tr> <td style="width: 50%; padding: 2px;">Restart</td> <td style="width: 50%; padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;">Measure</td> <td style="padding: 2px;">Single <u>Cont</u></td> </tr> <tr> <td style="padding: 2px;">Resume</td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;"></td> </tr> <tr> <td style="padding: 2px;"></td> <td style="padding: 2px;"></td> </tr> </table>	Meas Control		Restart		Measure	Single <u>Cont</u>	Resume									
Meas Control																	
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Measure	Single <u>Cont</u>																
Resume																	

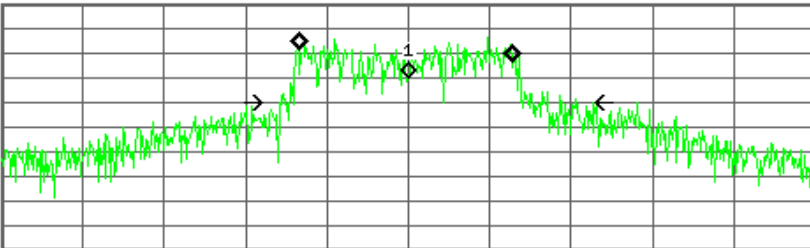
95% Spreading Bandwidth – 802.11a CH48 (5240MHz) 54Mbps

Agilent 11:35:45 Jun 14, 2013

<b>Ch Freq</b> 5.32 GHz		<b>Trig</b> RF B	<b>Meas Control</b>	
Occupied Bandwidth		[Progress Bar]		<b>Restart</b>
<b>Center</b> 5.32000000 GHz			<b>Measure</b> Single <a href="#">Cont</a>	
Ref 5.661 dBm #Atten 28 dB		Mkr1 5.320 0 GHz -31.25 dBm		<b>Resume</b>
#Samp Log 10 dB/				
Center 5.320 0 GHz		Span 60 MHz		
#Res BW 30 kHz		#VBW 30 kHz		Sweep 254.2 ms (601 pts)
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 95.00 %		
15.2631 MHz		<b>x dB</b> -26.00 dB		
<b>Transmit Freq Error</b> 248.856 kHz				
<b>x dB Bandwidth</b> 25.330 MHz*				
<b>File Operation Status, A:\SBC48RS7.GIF file saved</b>				

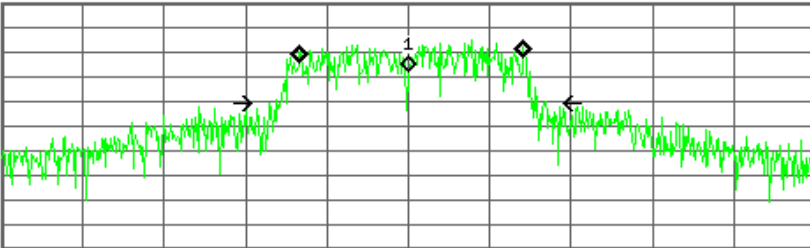
95% Spreading Bandwidth – 802.11a CH64 (5320MHz) 6Mbps

Agilent 11:37:19 Jun 14, 2013

<b>Ch Freq</b> 5.32 GHz		<b>Trig</b> RF B	<b>Meas Control</b>	
Occupied Bandwidth		[Progress Bar]		<b>Restart</b>
<b>Center</b> 5.32000000 GHz			<b>Measure</b> Single <a href="#">Cont</a>	
Ref 5.661 dBm #Atten 28 dB		Mkr1 5.320 0 GHz -24.02 dBm		<b>Resume</b>
#Samp Log 10 dB/				
Center 5.320 0 GHz		Span 60 MHz		
#Res BW 30 kHz		#VBW 30 kHz		Sweep 254.2 ms (601 pts)
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 95.00 %		
15.7532 MHz		<b>x dB</b> -26.00 dB		
<b>Transmit Freq Error</b> -260.054 kHz				
<b>x dB Bandwidth</b> 21.923 MHz*				
<b>File Operation Status, A:\SBC64R06.GIF file saved</b>				

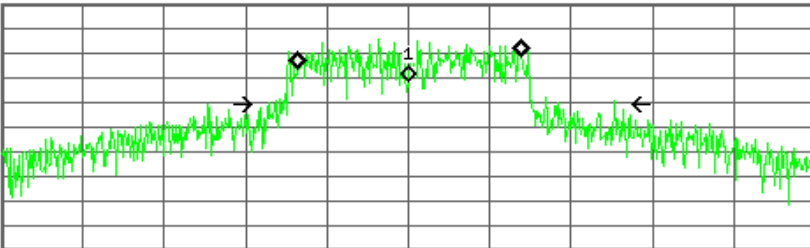
95% Spreading Bandwidth – 802.11a CH64 (5320MHz) 54Mbps

Agilent 11:29:08 Jun 14, 2013

<p style="text-align: center;"><b>Ch Freq</b> 5.18 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;">Mkr1 5.180 0 GHz</span></p> <hr/> <p>Ref 5.661 dBm #Atten 28 dB <span style="float: right;">-22.22 dBm</span></p> <p>#Samp Log 10 dB/</p>  <p style="text-align: center;">Center 5.180 0 GHz <span style="float: right;">Span 60 MHz</span></p> <p>#Res BW 30 kHz #VBW 30 kHz Sweep 254.2 ms (601 pts)</p>	<p style="text-align: center;"><b>Meas Control</b></p> <p style="text-align: center; border: 1px solid black; padding: 5px;">Restart</p> <hr/> <p style="text-align: center; border: 1px solid black; padding: 5px;">Measure Single <a href="#">Cont</a></p> <hr/> <p style="text-align: center; border: 1px solid black; padding: 5px;">Resume</p> <hr/>								
<table style="width: 100%; border: 1px solid black;"> <tr> <td style="width: 50%;"><b>Occupied Bandwidth</b></td> <td style="width: 50%;"><b>Occ BW % Pwr</b> 95.00 %</td> </tr> <tr> <td style="text-align: center; font-size: 1.2em;">16.5744 MHz</td> <td style="text-align: center;"><b>x dB</b> -26.00 dB</td> </tr> <tr> <td><b>Transmit Freq Error</b> 177.590 kHz</td> <td></td> </tr> <tr> <td><b>x dB Bandwidth</b> 20.359 MHz*</td> <td></td> </tr> </table>	<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 95.00 %	16.5744 MHz	<b>x dB</b> -26.00 dB	<b>Transmit Freq Error</b> 177.590 kHz		<b>x dB Bandwidth</b> 20.359 MHz*		
<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 95.00 %								
16.5744 MHz	<b>x dB</b> -26.00 dB								
<b>Transmit Freq Error</b> 177.590 kHz									
<b>x dB Bandwidth</b> 20.359 MHz*									
<p style="color: green;">File Operation Status, A:\SBC36R54.GIF file saved</p>									

95% Spreading Bandwidth – 802.11n CH36 (5180MHz) MCS0

Agilent 11:30:14 Jun 14, 2013

<p style="text-align: center;"><b>Ch Freq</b> 5.18 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;">Mkr1 5.180 0 GHz</span></p> <hr/> <p>Ref 5.661 dBm #Atten 28 dB <span style="float: right;">-25.82 dBm</span></p> <p>#Samp Log 10 dB/</p>  <p style="text-align: center;">Center 5.180 0 GHz <span style="float: right;">Span 60 MHz</span></p> <p>#Res BW 30 kHz #VBW 30 kHz Sweep 254.2 ms (601 pts)</p>	<p style="text-align: center;"><b>Meas Control</b></p> <p style="text-align: center; border: 1px solid black; padding: 5px;">Restart</p> <hr/> <p style="text-align: center; border: 1px solid black; padding: 5px;">Measure Single <a href="#">Cont</a></p> <hr/> <p style="text-align: center; border: 1px solid black; padding: 5px;">Resume</p> <hr/>								
<table style="width: 100%; border: 1px solid black;"> <tr> <td style="width: 50%;"><b>Occupied Bandwidth</b></td> <td style="width: 50%;"><b>Occ BW % Pwr</b> 95.00 %</td> </tr> <tr> <td style="text-align: center; font-size: 1.2em;">16.4453 MHz</td> <td style="text-align: center;"><b>x dB</b> -26.00 dB</td> </tr> <tr> <td><b>Transmit Freq Error</b> 37.937 kHz</td> <td></td> </tr> <tr> <td><b>x dB Bandwidth</b> 25.558 MHz*</td> <td></td> </tr> </table>	<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 95.00 %	16.4453 MHz	<b>x dB</b> -26.00 dB	<b>Transmit Freq Error</b> 37.937 kHz		<b>x dB Bandwidth</b> 25.558 MHz*		
<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 95.00 %								
16.4453 MHz	<b>x dB</b> -26.00 dB								
<b>Transmit Freq Error</b> 37.937 kHz									
<b>x dB Bandwidth</b> 25.558 MHz*									
<p style="color: green;">File Operation Status, A:\SBC36RS0.GIF file saved</p>									

95% Spreading Bandwidth – 802.11n CH36 (5180MHz) MCS7



Agilent 11:33:34 Jun 14, 2013

<b>Ch Freq</b> 5.24 GHz		<b>Trig</b> RF B	<b>Meas Control</b>	
Occupied Bandwidth				<b>Restart</b>
				<b>Measure</b> Single <a href="#">Cont</a>
				<b>Resume</b>
Ref 5.661 dBm #Atten 28 dB		Mkr1 5.240 0 GHz -24.52 dBm		
#Samp				
Log				
10 dB/				
Center 5.240 0 GHz		Span 60 MHz		
#Res BW 30 kHz		#VBW 30 kHz Sweep 254.2 ms (601 pts)		
<b>Occupied Bandwidth</b> <span style="font-size: 1.2em;">16.6190 MHz</span>		<b>Occ BW % Pwr</b> 95.00 % <b>x dB</b> -26.00 dB		
<b>Transmit Freq Error</b> 77.271 kHz <b>x dB Bandwidth</b> 23.763 MHz*				
File Operation Status, A:\SBC48R54.GIF file saved				

95% Spreading Bandwidth – 802.11n CH48 (5240MHz) MCS0

Agilent 11:34:35 Jun 14, 2013

<b>Ch Freq</b> 5.24 GHz		<b>Trig</b> RF B	<b>Meas Control</b>	
Occupied Bandwidth				<b>Restart</b>
				<b>Measure</b> Single <a href="#">Cont</a>
				<b>Resume</b>
Ref 5.661 dBm #Atten 28 dB		Mkr1 5.240 0 GHz -23.12 dBm		
#Samp				
Log				
10 dB/				
Center 5.240 0 GHz		Span 60 MHz		
#Res BW 30 kHz		#VBW 30 kHz Sweep 254.2 ms (601 pts)		
<b>Occupied Bandwidth</b> <span style="font-size: 1.2em;">17.0455 MHz</span>		<b>Occ BW % Pwr</b> 95.00 % <b>x dB</b> -26.00 dB		
<b>Transmit Freq Error</b> 176.750 kHz <b>x dB Bandwidth</b> 25.098 MHz*				
File Operation Status, A:\SBC48RS0.GIF file saved				

95% Spreading Bandwidth – 802.11n CH48 (5240MHz) MCS7









Agilent 11:42:09 Jun 14, 2013

<b>Ch Freq</b> 5.5 GHz <span style="float: right;"><b>Trig</b> RF B</span>		<b>Meas Control</b>	
Occupied Bandwidth <span style="float: right;">[ ] [ ]</span>		<b>Restart</b>	
Mkr1 5.500 0 GHz		<b>Measure</b>	
-19.16 dBm		Single <u>Cont</u>	
Ref 5.661 dBm #Atten 28 dB		<b>Resume</b>	
#Samp Log 10 dB/			
Center 5.500 0 GHz <span style="float: right;">Span 60 MHz</span>			
#Res BW 30 kHz <span style="float: right;">#VBW 30 kHz Sweep 254.2 ms (601 pts)</span>			
<b>Occupied Bandwidth</b> <span style="float: right;"><b>Occ BW % Pwr</b> 95.00 %</span> <span style="font-size: 1.2em;">16.6837 MHz</span> <span style="float: right;"><b>x dB</b> -26.00 dB</span>			
<b>Transmit Freq Error</b> 145.050 kHz <b>x dB Bandwidth</b> 30.633 MHz*			
File Operation Status, A:\SB100R54.GIF file saved			

95% Spreading Bandwidth – 802.11n CH100 (5500MHz) MCS0

Agilent 11:43:35 Jun 14, 2013

<b>Ch Freq</b> 5.5 GHz <span style="float: right;"><b>Trig</b> RF B</span>		<b>Meas Control</b>	
Occupied Bandwidth <span style="float: right;">[ ] [ ]</span>		<b>Restart</b>	
Mkr1 5.500 0 GHz		<b>Measure</b>	
-25.78 dBm		Single <u>Cont</u>	
Ref 5.661 dBm #Atten 28 dB		<b>Resume</b>	
#Samp Log 10 dB/			
Center 5.500 0 GHz <span style="float: right;">Span 60 MHz</span>			
#Res BW 30 kHz <span style="float: right;">#VBW 30 kHz Sweep 254.2 ms (601 pts)</span>			
<b>Occupied Bandwidth</b> <span style="float: right;"><b>Occ BW % Pwr</b> 95.00 %</span> <span style="font-size: 1.2em;">16.9012 MHz</span> <span style="float: right;"><b>x dB</b> -26.00 dB</span>			
<b>Transmit Freq Error</b> -341.177 kHz <b>x dB Bandwidth</b> 32.120 MHz*			
File Operation Status, A:\SB100RS0.GIF file saved			

95% Spreading Bandwidth – 802.11n CH100 (5500MHz) MCS7



Agilent 11:51:25 Jun 14, 2013

<b>Ch Freq</b> 5.7 GHz		<b>Trig</b> RF B	<b>Meas Control</b>	
Occupied Bandwidth		[ ] [ ]		<b>Restart</b>
				<b>Measure</b> Single <a href="#">Cont</a>
Ref 5.661 dBm #Atten 28 dB		Mkr1 5.700 0 GHz -31.90 dBm		<b>Resume</b>
#Samp				
Log				
10 dB/				
Center 5.700 0 GHz		Span 60 MHz		
#Res BW 30 kHz	#VBW 30 kHz	Sweep 254.2 ms (601 pts)		
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 95.00 %		
16.3857 MHz		<b>x dB</b> -26.00 dB		
<b>Transmit Freq Error</b> -143.401 kHz				
<b>x dB Bandwidth</b> 19.765 MHz*				
File Operation Status, A:\SCREN837.GIF file saved				

95% Spreading Bandwidth – 802.11n CH140 (5700MHz) MCS0

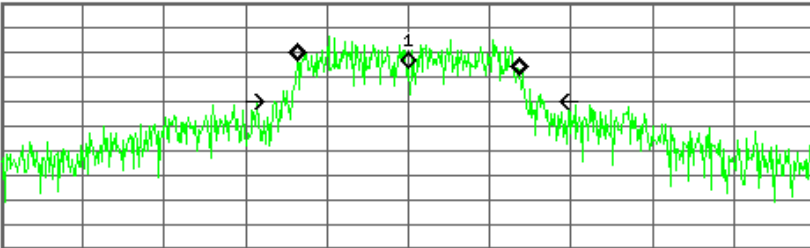
Agilent 11:52:14 Jun 14, 2013

<b>Ch Freq</b> 5.7 GHz		<b>Trig</b> RF B	<b>Meas Control</b>	
Occupied Bandwidth		[ ] [ ]		<b>Restart</b>
				<b>Measure</b> Single <a href="#">Cont</a>
Ref 5.661 dBm #Atten 28 dB		Mkr1 5.700 0 GHz -36.23 dBm		<b>Resume</b>
#Samp				
Log				
10 dB/				
Center 5.700 0 GHz		Span 60 MHz		
#Res BW 30 kHz	#VBW 30 kHz	Sweep 254.2 ms (601 pts)		
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 95.00 %		
16.7209 MHz		<b>x dB</b> -26.00 dB		
<b>Transmit Freq Error</b> -116.122 kHz				
<b>x dB Bandwidth</b> 19.318 MHz*				
File Operation Status, A:\SB140RS0.GIF file saved				

95% Spreading Bandwidth – 802.11n CH140 (5700MHz) MCS7

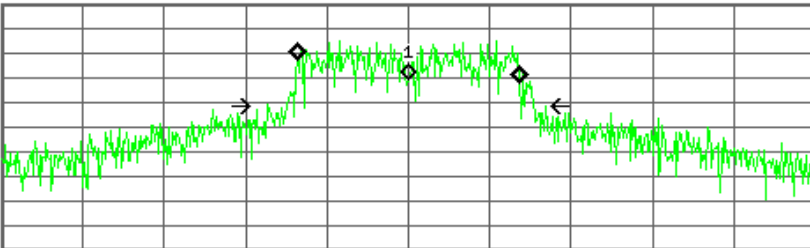


Agilent 14:53:31 Jun 11, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.18 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;">[ ] [ ]</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: center; font-size: 1.2em;"><b>Center 5.18000000 GHz</b></p> </div> <div style="margin-top: 5px;"> <p>Ref 5.661 dBm    #Atten 28 dB <span style="float: right;">Mkr1 5.180 0 GHz -20.43 dBm</span></p> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 5px;"> <p>#Samp</p> <p>Log</p> <p>10</p> <p>dB/</p> </div>  </div> <div style="margin-top: 5px; font-size: 0.8em;"> <p>Center 5.180 0 GHz <span style="float: right;">Span 60 MHz</span></p> <p>#Res BW 30 kHz <span style="margin-left: 100px;">#VBW 30 kHz</span> <span style="float: right;">Sweep 254.2 ms (601 pts)</span></p> </div> </div>	<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">Restart</div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">                 Measure Single <span style="float: right;">Cont</span> </div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">Resume</div>								
<div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Occupied Bandwidth</b></td> <td style="width: 50%;"><b>Occ BW % Pwr</b> 99.00 %</td> </tr> <tr> <td style="text-align: center; font-size: 1.2em;">16.4343 MHz</td> <td style="text-align: center;">x dB -26.00 dB</td> </tr> <tr> <td><b>Transmit Freq Error</b> 6.759 kHz</td> <td></td> </tr> <tr> <td><b>x dB Bandwidth</b> 19.194 MHz*</td> <td></td> </tr> </table> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px; color: green; font-weight: bold;">                 File Operation Status, A:\OBC14R11.6IF file saved             </div>		<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %	16.4343 MHz	x dB -26.00 dB	<b>Transmit Freq Error</b> 6.759 kHz		<b>x dB Bandwidth</b> 19.194 MHz*	
<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %								
16.4343 MHz	x dB -26.00 dB								
<b>Transmit Freq Error</b> 6.759 kHz									
<b>x dB Bandwidth</b> 19.194 MHz*									

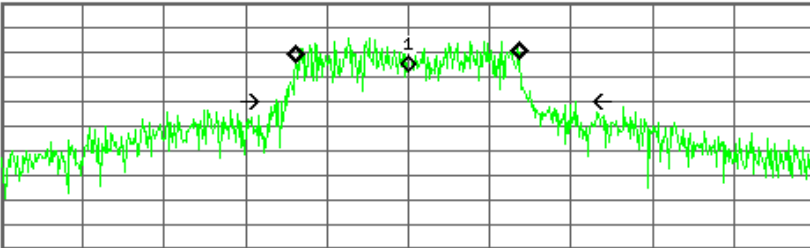
99.5% Occupied Bandwidth – 802.11a CH36 (5180MHz) 6Mbps

Agilent 14:54:58 Jun 11, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.18 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;">[ ] [ ]</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: center; font-size: 1.2em;"><b>Center 5.18000000 GHz</b></p> </div> <div style="margin-top: 5px;"> <p>Ref 5.661 dBm    #Atten 28 dB <span style="float: right;">Mkr1 5.180 0 GHz -24.87 dBm</span></p> <div style="display: flex; align-items: flex-start;"> <div style="margin-right: 5px;"> <p>#Samp</p> <p>Log</p> <p>10</p> <p>dB/</p> </div>  </div> <div style="margin-top: 5px; font-size: 0.8em;"> <p>Center 5.180 0 GHz <span style="float: right;">Span 60 MHz</span></p> <p>#Res BW 30 kHz <span style="margin-left: 100px;">#VBW 30 kHz</span> <span style="float: right;">Sweep 254.2 ms (601 pts)</span></p> </div> </div>	<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">Restart</div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">                 Measure Single <span style="float: right;">Cont</span> </div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">Resume</div>								
<div style="border: 1px solid black; padding: 5px; margin-top: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Occupied Bandwidth</b></td> <td style="width: 50%;"><b>Occ BW % Pwr</b> 99.00 %</td> </tr> <tr> <td style="text-align: center; font-size: 1.2em;">16.4307 MHz</td> <td style="text-align: center;">x dB -26.00 dB</td> </tr> <tr> <td><b>Transmit Freq Error</b> 4.151 kHz</td> <td></td> </tr> <tr> <td><b>x dB Bandwidth</b> 19.611 MHz*</td> <td></td> </tr> </table> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px; color: green; font-weight: bold;">                 File Operation Status, A:\OBC36R06.6IF file saved             </div>		<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %	16.4307 MHz	x dB -26.00 dB	<b>Transmit Freq Error</b> 4.151 kHz		<b>x dB Bandwidth</b> 19.611 MHz*	
<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %								
16.4307 MHz	x dB -26.00 dB								
<b>Transmit Freq Error</b> 4.151 kHz									
<b>x dB Bandwidth</b> 19.611 MHz*									

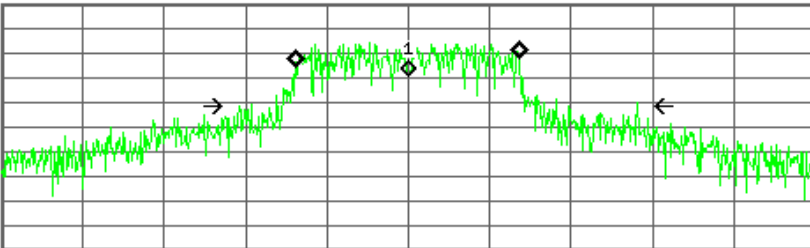
99.5% Occupied Bandwidth – 802.11a CH36 (5180MHz) 54Mbps

Agilent 14:58:04 Jun 11, 2013

<b>Ch Freq</b> 5.24 GHz		<b>Trig</b> RF B	<b>Meas Control</b>	
Occupied Bandwidth				<b>Restart</b>
<b>Center</b> 5.24000000 GHz				<b>Measure</b> Single <a href="#">Cont</a>
Ref 5.661 dBm #Atten 28 dB		Mkr1 5.240 0 GHz -21.94 dBm		<b>Resume</b>
#Samp				
Log				
10				
dB/	Center 5.240 0 GHz Span 60 MHz			
	#Res BW 30 kHz	#VBW 30 kHz Sweep 254.2 ms (601 pts)		
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 99.00 %		
<b>16.5194 MHz</b>		<b>x dB</b> -26.00 dB		
<b>Transmit Freq Error</b> -49.693 kHz				
<b>x dB Bandwidth</b> 22.151 MHz*				
<b>File Operation Status, A:\OBC36RS7.6IF file saved</b>				

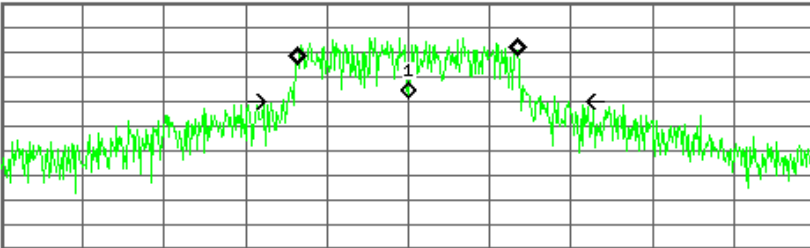
99.5% Occupied Bandwidth – 802.11a CH48 (5240MHz) 6Mbps

Agilent 14:58:52 Jun 11, 2013

<b>Ch Freq</b> 5.24 GHz		<b>Trig</b> RF B	<b>Meas Control</b>	
Occupied Bandwidth				<b>Restart</b>
<b>Center</b> 5.24000000 GHz				<b>Measure</b> Single <a href="#">Cont</a>
Ref 5.661 dBm #Atten 28 dB		Mkr1 5.240 0 GHz -23.89 dBm		<b>Resume</b>
#Samp				
Log				
10				
dB/	Center 5.240 0 GHz Span 60 MHz			
	#Res BW 30 kHz	#VBW 30 kHz Sweep 254.2 ms (601 pts)		
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 99.00 %		
<b>16.5091 MHz</b>		<b>x dB</b> -26.00 dB		
<b>Transmit Freq Error</b> -58.453 kHz				
<b>x dB Bandwidth</b> 29.432 MHz*				
<b>File Operation Status, A:\OBC48R06.6IF file saved</b>				

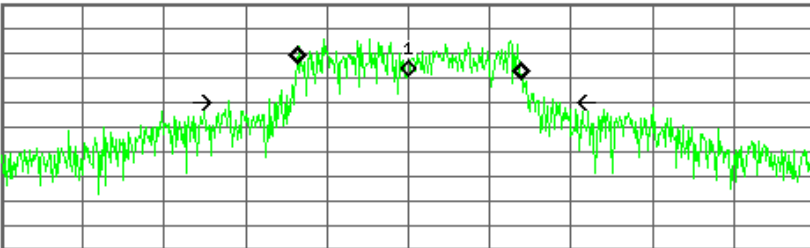
99.5% Occupied Bandwidth – 802.11a CH48 (5240MHz) 54Mbps

Agilent 15:02:37 Jun 11, 2013

<b>Ch Freq</b> 5.32 GHz		<b>Trig</b> RF B	<b>Meas Control</b>
Occupied Bandwidth			
<b>Center 5.32000000 GHz</b>			
Ref 5.661 dBm #Atten 28 dB		Mkr1 5.320 0 GHz -32.90 dBm	
#Samp Log 10 dB/			
Center 5.320 0 GHz		Span 60 MHz	
#Res BW 30 kHz	#VBW 30 kHz	Sweep 254.2 ms (601 pts)	
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 99.00 %	
<b>16.3577 MHz</b>		<b>x dB</b> -26.00 dB	
<b>Transmit Freq Error</b> -41.509 kHz			
<b>x dB Bandwidth</b> 21.040 MHz*			
<b>File Operation Status, A:\OBC48RS7.6IF file saved</b>			

99.5% Occupied Bandwidth - 802.11a CH64 (5320MHz) 6Mbps

Agilent 15:03:37 Jun 11, 2013

<b>Ch Freq</b> 5.32 GHz		<b>Trig</b> RF B	<b>Meas Control</b>
Occupied Bandwidth			
<b>Center 5.32000000 GHz</b>			
Ref 5.661 dBm #Atten 28 dB		Mkr1 5.320 0 GHz -23.76 dBm	
#Samp Log 10 dB/			
Center 5.320 0 GHz		Span 60 MHz	
#Res BW 30 kHz	#VBW 30 kHz	Sweep 254.2 ms (601 pts)	
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 99.00 %	
<b>16.5327 MHz</b>		<b>x dB</b> -26.00 dB	
<b>Transmit Freq Error</b> 56.861 kHz			
<b>x dB Bandwidth</b> 24.445 MHz*			
<b>File Operation Status, A:\OBC64R06.6IF file saved</b>			

99.5% Occupied Bandwidth - 802.11a CH64 (5320MHz) 54Mbps



Agilent 15:00:24 Jun 11, 2013

<b>Ch Freq</b> 5.24 GHz		<b>Trig</b> RF B	<b>Meas Control</b>  <input type="button" value="Restart"/>  <input type="button" value="Measure"/> <small>Single Cont</small>  <input type="button" value="Resume"/>
Occupied Bandwidth <span style="float: right;">█</span>			
Mkr1 5.240 0 GHz -21.88 dBm			
Ref 5.661 dBm #Atten 28 dB			
#Samp			<input type="button" value="Resume"/>
Log			
10 dB/			
Center 5.240 0 GHz		Span 60 MHz	
#Res BW 30 kHz		#VBW 30 kHz Sweep 254.2 ms (601 pts)	
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 99.00 %	
<b>17.6024 MHz</b>		<b>x dB</b> -26.00 dB	
<b>Transmit Freq Error</b> 13.920 kHz			
<b>x dB Bandwidth</b> 25.674 MHz*			
File Operation Status, A:\OBC48R54.GIF file saved			

99.5% Occupied Bandwidth – 802.11n CH48 (5240MHz) MCS0

Agilent 15:01:08 Jun 11, 2013

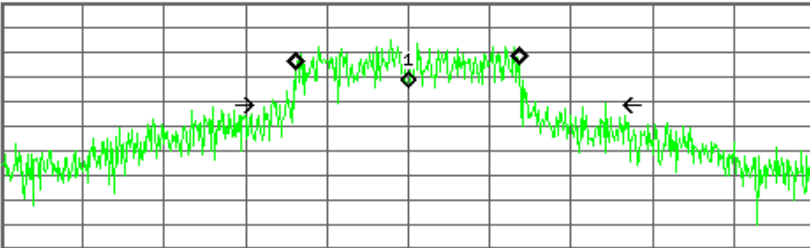
<b>Ch Freq</b> 5.24 GHz		<b>Trig</b> RF B	<b>Meas Control</b>  <input type="button" value="Restart"/>  <input type="button" value="Measure"/> <small>Single Cont</small>  <input type="button" value="Resume"/>
Occupied Bandwidth <span style="float: right;">█</span>			
Mkr1 5.240 0 GHz -19.02 dBm			
Ref 5.661 dBm #Atten 28 dB			
#Samp			<input type="button" value="Resume"/>
Log			
10 dB/			
Center 5.240 0 GHz		Span 60 MHz	
#Res BW 30 kHz		#VBW 30 kHz Sweep 254.2 ms (601 pts)	
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 99.00 %	
<b>17.3913 MHz</b>		<b>x dB</b> -26.00 dB	
<b>Transmit Freq Error</b> 30.888 kHz			
<b>x dB Bandwidth</b> 24.640 MHz*			
File Operation Status, A:\OBC48RS0.GIF file saved			

99.5% Occupied Bandwidth – 802.11n CH48 (5240MHz) MCS7



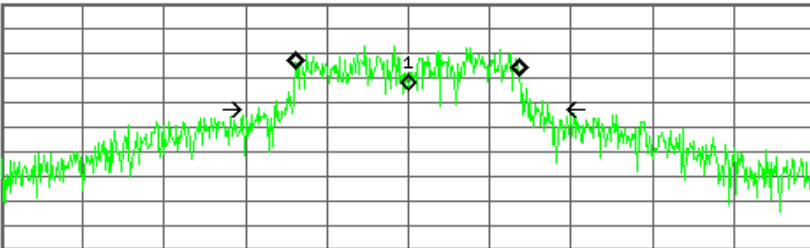


Agilent 15:10:47 Jun 11, 2013

<p style="text-align: center;"><b>Ch Freq</b> 5.6 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;">[ ] [ ]</span></p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>Center 5.60000000 GHz</b></p> <p style="text-align: right;">Mkr1 5.600 0 GHz -28.30 dBm</p> <p>Ref 5.661 dBm #Atten 28 dB</p> <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">#Samp Log 10 dB/</div>  </div> <p style="text-align: center; font-size: small;">Center 5.600 0 GHz <span style="float: right;">Span 60 MHz</span> #Res BW 30 kHz #VBW 30 kHz Sweep 254.2 ms (601 pts)</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="padding: 2px;"><b>Occupied Bandwidth</b></td> <td style="text-align: right; padding: 2px;"><b>Occ BW % Pwr</b> 99.00 %</td> </tr> <tr> <td style="text-align: center; padding: 2px;"><b>16.4878 MHz</b></td> <td style="text-align: right; padding: 2px;"><b>x dB</b> -26.00 dB</td> </tr> <tr> <td style="padding: 2px;"><b>Transmit Freq Error</b> -39.411 kHz</td> <td></td> </tr> <tr> <td style="padding: 2px;"><b>x dB Bandwidth</b> 24.686 MHz*</td> <td></td> </tr> </table> <p style="color: green; font-weight: bold; margin-top: 5px;">File Operation Status, A:\OB100RS7.6IF file saved</p>	<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %	<b>16.4878 MHz</b>	<b>x dB</b> -26.00 dB	<b>Transmit Freq Error</b> -39.411 kHz		<b>x dB Bandwidth</b> 24.686 MHz*		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 5px;"><b>Meas Control</b></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><b>Restart</b></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><b>Measure</b> <small>Single <a href="#">Cont</a></small></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><b>Resume</b></td> </tr> <tr> <td style="height: 20px;"></td> </tr> <tr> <td style="height: 20px;"></td> </tr> <tr> <td style="height: 20px;"></td> </tr> <tr> <td style="height: 20px;"></td> </tr> </table>	<b>Meas Control</b>	<b>Restart</b>	<b>Measure</b> <small>Single <a href="#">Cont</a></small>	<b>Resume</b>				
<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %																
<b>16.4878 MHz</b>	<b>x dB</b> -26.00 dB																
<b>Transmit Freq Error</b> -39.411 kHz																	
<b>x dB Bandwidth</b> 24.686 MHz*																	
<b>Meas Control</b>																	
<b>Restart</b>																	
<b>Measure</b> <small>Single <a href="#">Cont</a></small>																	
<b>Resume</b>																	

99.5% Occupied Bandwidth – 802.11a CH120 (5600MHz) 6Mbps

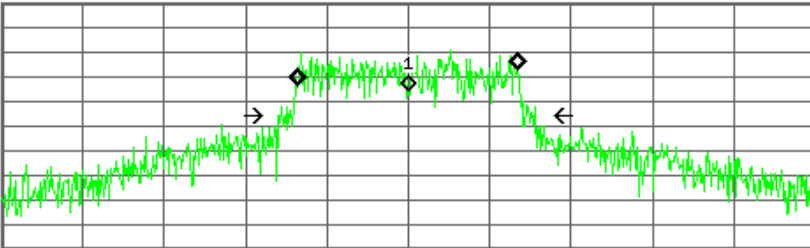
Agilent 15:12:27 Jun 11, 2013

<p style="text-align: center;"><b>Ch Freq</b> 5.6 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;">[ ] [ ]</span></p> <p style="text-align: center; border: 1px solid black; padding: 2px;"><b>Center 5.60000000 GHz</b></p> <p style="text-align: right;">Mkr1 5.600 0 GHz -29.04 dBm</p> <p>Ref 5.661 dBm #Atten 28 dB</p> <div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-size: small; margin-right: 5px;">#Samp Log 10 dB/</div>  </div> <p style="text-align: center; font-size: small;">Center 5.600 0 GHz <span style="float: right;">Span 60 MHz</span> #Res BW 30 kHz #VBW 30 kHz Sweep 254.2 ms (601 pts)</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 5px;"> <tr> <td style="padding: 2px;"><b>Occupied Bandwidth</b></td> <td style="text-align: right; padding: 2px;"><b>Occ BW % Pwr</b> 99.00 %</td> </tr> <tr> <td style="text-align: center; padding: 2px;"><b>16.5203 MHz</b></td> <td style="text-align: right; padding: 2px;"><b>x dB</b> -26.00 dB</td> </tr> <tr> <td style="padding: 2px;"><b>Transmit Freq Error</b> -63.138 kHz</td> <td></td> </tr> <tr> <td style="padding: 2px;"><b>x dB Bandwidth</b> 21.494 MHz*</td> <td></td> </tr> </table> <p style="color: green; font-weight: bold; margin-top: 5px;">File Operation Status, A:\OB120R06.6IF file saved</p>	<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %	<b>16.5203 MHz</b>	<b>x dB</b> -26.00 dB	<b>Transmit Freq Error</b> -63.138 kHz		<b>x dB Bandwidth</b> 21.494 MHz*		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center; padding: 5px;"><b>Meas Control</b></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><b>Restart</b></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><b>Measure</b> <small>Single <a href="#">Cont</a></small></td> </tr> <tr> <td style="text-align: center; padding: 5px;"><b>Resume</b></td> </tr> <tr> <td style="height: 20px;"></td> </tr> <tr> <td style="height: 20px;"></td> </tr> <tr> <td style="height: 20px;"></td> </tr> <tr> <td style="height: 20px;"></td> </tr> </table>	<b>Meas Control</b>	<b>Restart</b>	<b>Measure</b> <small>Single <a href="#">Cont</a></small>	<b>Resume</b>				
<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %																
<b>16.5203 MHz</b>	<b>x dB</b> -26.00 dB																
<b>Transmit Freq Error</b> -63.138 kHz																	
<b>x dB Bandwidth</b> 21.494 MHz*																	
<b>Meas Control</b>																	
<b>Restart</b>																	
<b>Measure</b> <small>Single <a href="#">Cont</a></small>																	
<b>Resume</b>																	

99.5% Occupied Bandwidth – 802.11a CH120 (5600MHz) 54Mbps

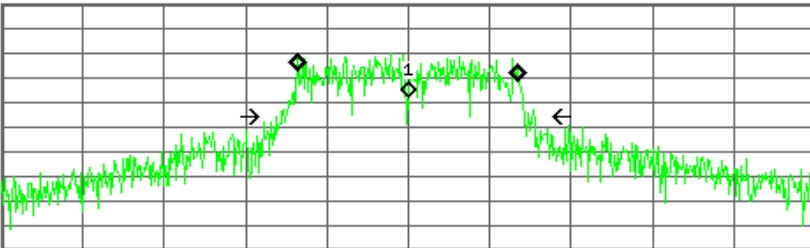


Agilent 15:35:16 Jun 11, 2013

<p style="text-align: center;"><b>Ch Freq</b> 5.7 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;"><input type="text"/></span></p> <p style="text-align: center; font-size: 1.2em;"><b>Center 5.70000000 GHz</b></p> <p style="text-align: right;">Mkr1 5.700 0 GHz</p> <p>Ref 5.661 dBm #Atten 28 dB <span style="float: right;">-30.36 dBm</span></p> <div style="border: 1px solid black; padding: 2px;"> <p>#Samp <input type="text"/></p> <p>Log <input type="text"/></p> <p>10 <input type="text"/></p> <p>dB/ <input type="text"/></p>  </div> <p style="text-align: center;">Center 5.700 0 GHz <span style="float: right;">Span 60 MHz</span></p> <p>#Res BW 30 kHz #VBW 30 kHz Sweep 254.2 ms (601 pts)</p> <div style="border: 2px solid green; padding: 5px;"> <p><b>Occupied Bandwidth</b> <span style="float: right;"><b>Occ BW % Pwr</b> 99.00 %</span></p> <p style="text-align: center; font-size: 1.2em;">16.2996 MHz <span style="float: right;"><b>x dB</b> -26.00 dB</span></p> <p><b>Transmit Freq Error</b> -29.325 kHz</p> <p><b>x dB Bandwidth</b> 18.921 MHz*</p> </div> <p style="color: green; font-weight: bold;">File Operation Status, A:\OB120RS7.6IF file saved</p>	<p style="text-align: center; border: 1px solid black; background-color: #f0f0f0;"><b>Meas Control</b></p> <p style="text-align: center; border: 1px solid black; background-color: #f0f0f0;">Restart</p> <p style="text-align: center; border: 1px solid black; background-color: #f0f0f0;">Measure Single <a href="#">Cont</a></p> <p style="text-align: center; border: 1px solid black; background-color: #f0f0f0;">Resume</p>
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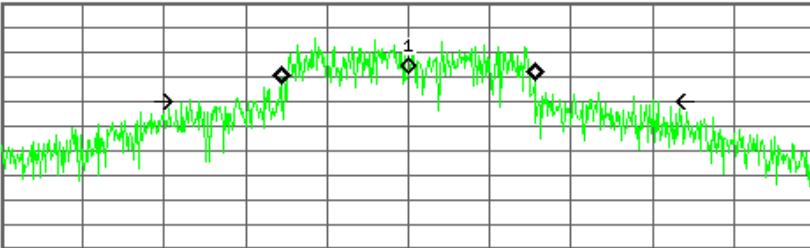
99.5% Occupied Bandwidth - 802.11a CH140 (5700MHz) 6Mbps

Agilent 15:37:30 Jun 11, 2013

<p style="text-align: center;"><b>Ch Freq</b> 5.7 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;"><input type="text"/></span></p> <p style="text-align: center; font-size: 1.2em;"><b>Center 5.70000000 GHz</b></p> <p style="text-align: right;">Mkr1 5.700 0 GHz</p> <p>Ref 5.661 dBm #Atten 28 dB <span style="float: right;">-32.14 dBm</span></p> <div style="border: 1px solid black; padding: 2px;"> <p>#Samp <input type="text"/></p> <p>Log <input type="text"/></p> <p>10 <input type="text"/></p> <p>dB/ <input type="text"/></p>  </div> <p style="text-align: center;">Center 5.700 0 GHz <span style="float: right;">Span 60 MHz</span></p> <p>#Res BW 30 kHz #VBW 30 kHz Sweep 254.2 ms (601 pts)</p> <div style="border: 2px solid green; padding: 5px;"> <p><b>Occupied Bandwidth</b> <span style="float: right;"><b>Occ BW % Pwr</b> 99.00 %</span></p> <p style="text-align: center; font-size: 1.2em;">16.3522 MHz <span style="float: right;"><b>x dB</b> -26.00 dB</span></p> <p><b>Transmit Freq Error</b> -55.844 kHz</p> <p><b>x dB Bandwidth</b> 19.069 MHz*</p> </div> <p style="color: green; font-weight: bold;">File Operation Status, A:\OB140R06.6IF file saved</p>	<p style="text-align: center; border: 1px solid black; background-color: #f0f0f0;"><b>Meas Control</b></p> <p style="text-align: center; border: 1px solid black; background-color: #f0f0f0;">Restart</p> <p style="text-align: center; border: 1px solid black; background-color: #f0f0f0;">Measure Single <a href="#">Cont</a></p> <p style="text-align: center; border: 1px solid black; background-color: #f0f0f0;">Resume</p>
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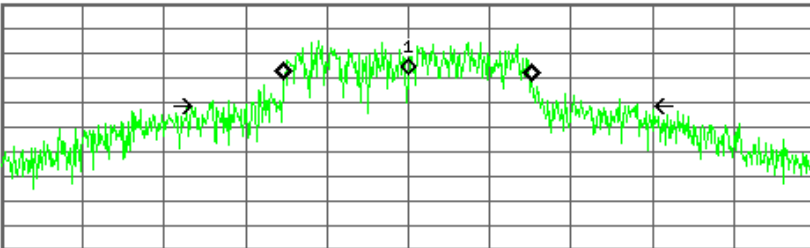
99.5% Occupied Bandwidth - 802.11a CH140 (5700MHz) 54Mbps

Agilent 15:08:58 Jun 11, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.5 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;">█</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: right;">Mkr1 5.500 0 GHz -23.21 dBm</p> <p>Ref 5.661 dBm #Atten 28 dB</p> <div style="border: 1px solid black; padding: 2px;"> <p>#Samp Log 10 dB/</p>  </div> <p style="text-align: center;">Center 5.500 0 GHz <span style="float: right;">Span 60 MHz</span></p> <p>#Res BW 30 kHz #VBW 30 kHz Sweep 254.2 ms (601 pts)</p> </div> <div style="border: 2px solid green; padding: 5px; margin-top: 5px;"> <p><b>Occupied Bandwidth</b> <span style="float: right;"><b>Occ BW % Pwr</b> 99.00 %</span></p> <p style="text-align: center; font-size: 1.2em;"><b>18.6770 MHz</b> <span style="float: right;"><b>x dB</b> -26.00 dB</span></p> <p><b>Transmit Freq Error</b> -36.619 kHz</p> <p><b>x dB Bandwidth</b> 34.523 MHz*</p> </div> <div style="border: 1px solid green; padding: 2px; margin-top: 5px; color: green;"> <p><b>File Operation Status, A:\OB100R54.6IF file saved</b></p> </div>	<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Restart</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"> <p style="text-align: center;"><b>Measure</b></p> <p style="text-align: center;">Single <a href="#">Cont</a></p> </div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Resume</b></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div>
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99.5% Occupied Bandwidth – 802.11n CH100 (5500MHz) MCS0

Agilent 15:09:40 Jun 11, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.5 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;">█</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: right;">Mkr1 5.500 0 GHz -23.01 dBm</p> <p>Ref 5.661 dBm #Atten 28 dB</p> <div style="border: 1px solid black; padding: 2px;"> <p>#Samp Log 10 dB/</p>  </div> <p style="text-align: center;">Center 5.500 0 GHz <span style="float: right;">Span 60 MHz</span></p> <p>#Res BW 30 kHz #VBW 30 kHz Sweep 254.2 ms (601 pts)</p> </div> <div style="border: 2px solid green; padding: 5px; margin-top: 5px;"> <p><b>Occupied Bandwidth</b> <span style="float: right;"><b>Occ BW % Pwr</b> 99.00 %</span></p> <p style="text-align: center; font-size: 1.2em;"><b>18.3106 MHz</b> <span style="float: right;"><b>x dB</b> -26.00 dB</span></p> <p><b>Transmit Freq Error</b> -42.177 kHz</p> <p><b>x dB Bandwidth</b> 31.616 MHz*</p> </div> <div style="border: 1px solid green; padding: 2px; margin-top: 5px; color: green;"> <p><b>File Operation Status, A:\OB100RS0.6IF file saved</b></p> </div>	<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Restart</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"> <p style="text-align: center;"><b>Measure</b></p> <p style="text-align: center;">Single <a href="#">Cont</a></p> </div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Resume</b></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div>
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99.5% Occupied Bandwidth – 802.11n CH100 (5500MHz) MCS7

Agilent 15:13:26 Jun 11, 2013

<b>Ch Freq</b> 5.6 GHz <span style="float: right;"><b>Trig</b> RF B</span>		<b>Meas Control</b>	
Occupied Bandwidth <input style="width: 100px;" type="text"/>		<b>Restart</b>	
Mkr1 5.600 0 GHz		<b>Measure</b>	
-24.56 dBm		Single <u>Cont</u>	
Ref 5.661 dBm #Atten 28 dB		<b>Resume</b>	
#Samp Log 10 dB/			
Center 5.600 0 GHz <span style="float: right;">Span 60 MHz</span>			
#Res BW 30 kHz <span style="float: right;">#VBW 30 kHz</span>		Sweep 254.2 ms (601 pts)	
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 99.00 %	
17.6999 MHz		<b>x dB</b> -26.00 dB	
<b>Transmit Freq Error</b> -39.072 kHz			
<b>x dB Bandwidth</b> 28.330 MHz*			
File Operation Status, A:\OB120R54.GIF file saved			

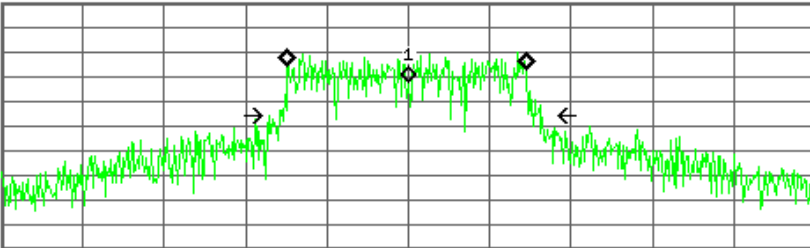
99.5% Occupied Bandwidth – 802.11n CH120 (5600MHz) MCS0

Agilent 15:14:26 Jun 11, 2013

<b>Ch Freq</b> 5.6 GHz <span style="float: right;"><b>Trig</b> RF B</span>		<b>File</b>	
Occupied Bandwidth <input style="width: 100px;" type="text"/>		<b>Catalog&gt;</b>	
Mkr1 5.600 0 GHz		<b>Save&gt;</b>	
-27.48 dBm		<b>Load&gt;</b>	
Ref 5.661 dBm #Atten 28 dB		<b>Delete&gt;</b>	
#Samp Log 10 dB/		<b>Copy&gt;</b>	
Center 5.600 0 GHz <span style="float: right;">Span 60 MHz</span>		<b>Rename&gt;</b>	
#Res BW 30 kHz <span style="float: right;">#VBW 30 kHz</span>		<b>More</b>	
Sweep 254.2 ms (601 pts)		1 of 2	
<b>Occupied Bandwidth</b>		<b>Occ BW % Pwr</b> 99.00 %	
17.7306 MHz		<b>x dB</b> -26.00 dB	
<b>Transmit Freq Error</b> -48.384 kHz			
<b>x dB Bandwidth</b> 29.936 MHz*			
File Operation Status, A:\OB120RS0.GIF file saved			

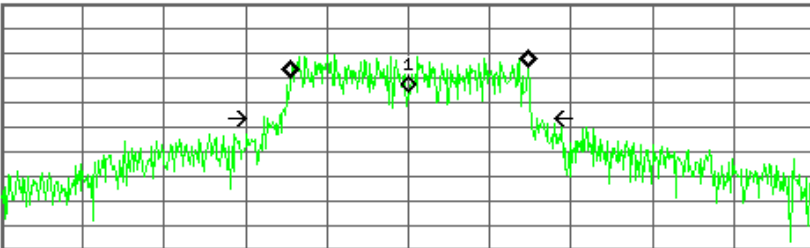
99.5% Occupied Bandwidth – 802.11n CH120 (5600MHz) MCS7

Agilent 15:39:42 Jun 11, 2013

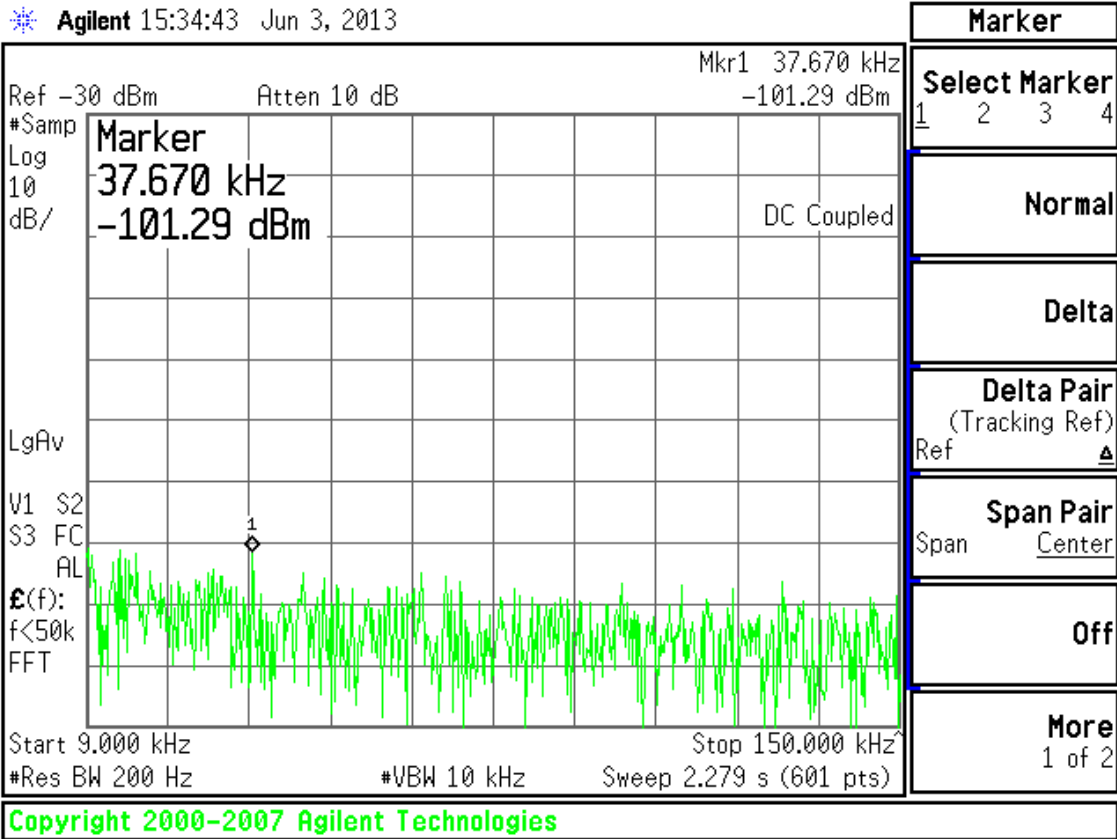
<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.7 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;">[ ] [ ]</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: right;">Mkr1 5.700 0 GHz -26.55 dBm</p> <p>Ref 5.661 dBm #Atten 28 dB</p> <div style="display: flex; align-items: center;"> <div style="font-size: small; margin-right: 5px;">#Samp Log 10 dB/</div>  </div> <p style="font-size: small; margin-top: 5px;">Center 5.700 0 GHz <span style="float: right;">Span 60 MHz</span> #Res BW 30 kHz #VBW 30 kHz Sweep 254.2 ms (601 pts)</p> </div> <div style="border: 2px solid green; padding: 5px; margin-top: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Occupied Bandwidth</b></td> <td style="width: 50%;"><b>Occ BW % Pwr</b> 99.00 %</td> </tr> <tr> <td style="text-align: center; font-size: large;">17.5961 MHz</td> <td style="text-align: center;"><b>x dB</b> -26.00 dB</td> </tr> <tr> <td><b>Transmit Freq Error</b> -108.834 kHz</td> <td></td> </tr> <tr> <td><b>x dB Bandwidth</b> 19.309 MHz*</td> <td></td> </tr> </table> </div> <div style="border: 1px solid green; padding: 2px; margin-top: 5px; font-size: small;"> <p>File Operation Status, A:\OB140R54.GIF file saved</p> </div>	<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %	17.5961 MHz	<b>x dB</b> -26.00 dB	<b>Transmit Freq Error</b> -108.834 kHz		<b>x dB Bandwidth</b> 19.309 MHz*		<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Restart</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"> <b>Measure</b> Single <a href="#">Cont</a> </div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Resume</b></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div>
<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %								
17.5961 MHz	<b>x dB</b> -26.00 dB								
<b>Transmit Freq Error</b> -108.834 kHz									
<b>x dB Bandwidth</b> 19.309 MHz*									

99.5% Occupied Bandwidth - 802.11n CH140 (5700MHz) MCS0

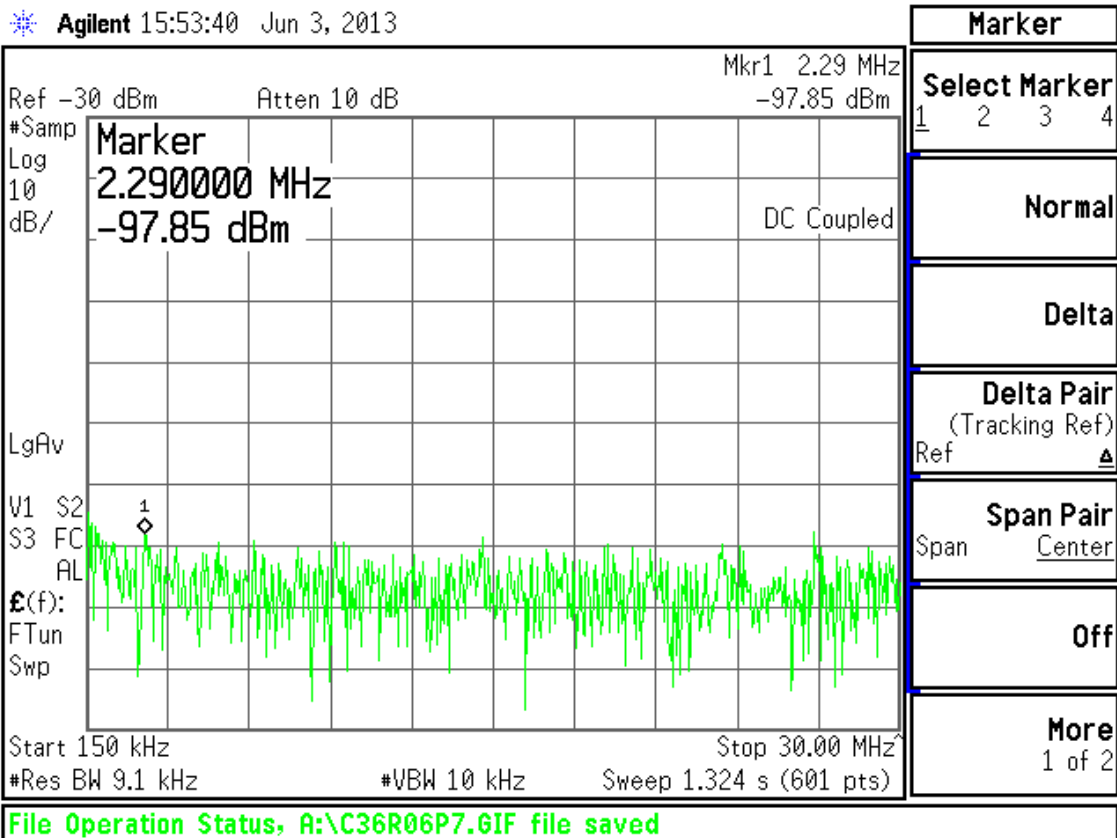
Agilent 15:40:54 Jun 11, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.7 GHz <span style="float: right;"><b>Trig</b> RF B</span></p> <p>Occupied Bandwidth <span style="float: right;">[ ] [ ]</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: right;">Mkr1 5.700 0 GHz -30.05 dBm</p> <p>Ref 5.661 dBm #Atten 28 dB</p> <div style="display: flex; align-items: center;"> <div style="font-size: small; margin-right: 5px;">#Samp Log 10 dB/</div>  </div> <p style="font-size: small; margin-top: 5px;">Center 5.700 0 GHz <span style="float: right;">Span 60 MHz</span> #Res BW 30 kHz #VBW 30 kHz Sweep 254.2 ms (601 pts)</p> </div> <div style="border: 2px solid green; padding: 5px; margin-top: 5px;"> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Occupied Bandwidth</b></td> <td style="width: 50%;"><b>Occ BW % Pwr</b> 99.00 %</td> </tr> <tr> <td style="text-align: center; font-size: large;">17.4779 MHz</td> <td style="text-align: center;"><b>x dB</b> -26.00 dB</td> </tr> <tr> <td><b>Transmit Freq Error</b> 66.949 kHz</td> <td></td> </tr> <tr> <td><b>x dB Bandwidth</b> 20.228 MHz*</td> <td></td> </tr> </table> </div> <div style="border: 1px solid green; padding: 2px; margin-top: 5px; font-size: small;"> <p>File Operation Status, A:\OB140RS0.GIF file saved</p> </div>	<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %	17.4779 MHz	<b>x dB</b> -26.00 dB	<b>Transmit Freq Error</b> 66.949 kHz		<b>x dB Bandwidth</b> 20.228 MHz*		<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Restart</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"> <b>Measure</b> Single <a href="#">Cont</a> </div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;"><b>Resume</b></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div>
<b>Occupied Bandwidth</b>	<b>Occ BW % Pwr</b> 99.00 %								
17.4779 MHz	<b>x dB</b> -26.00 dB								
<b>Transmit Freq Error</b> 66.949 kHz									
<b>x dB Bandwidth</b> 20.228 MHz*									

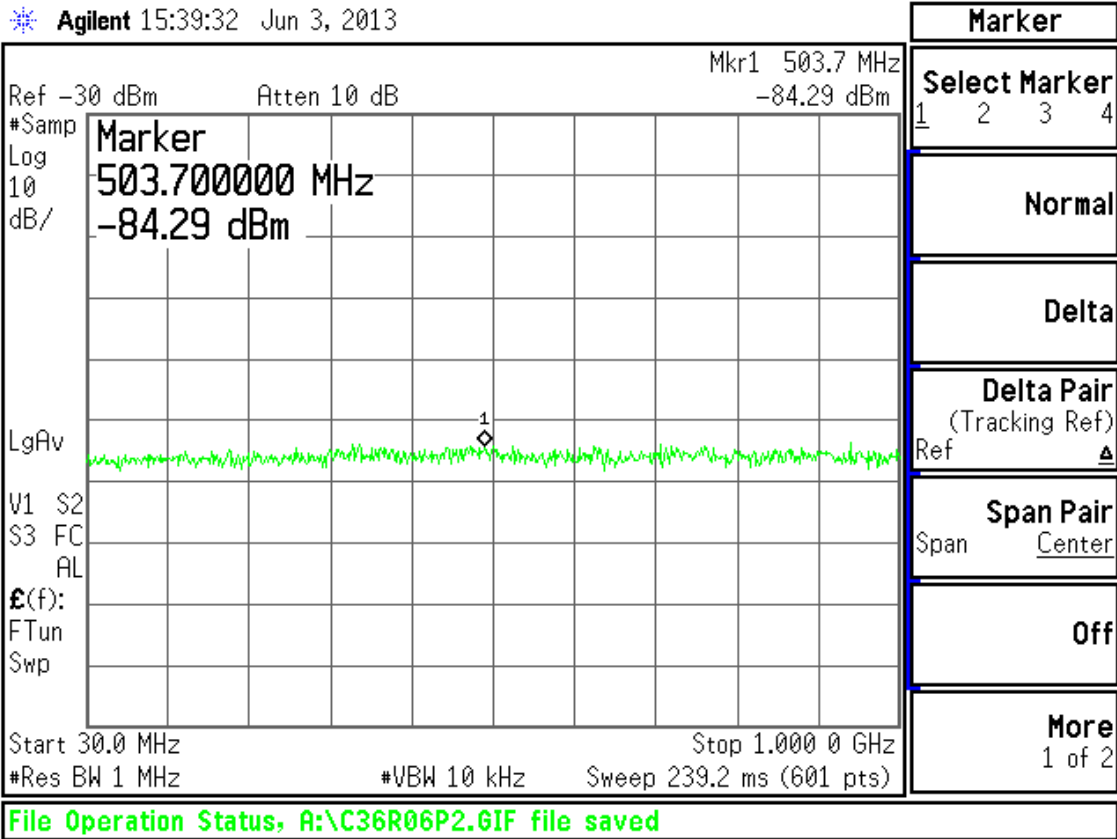
99.5% Occupied Bandwidth - 802.11n CH140 (5700MHz) MCS7



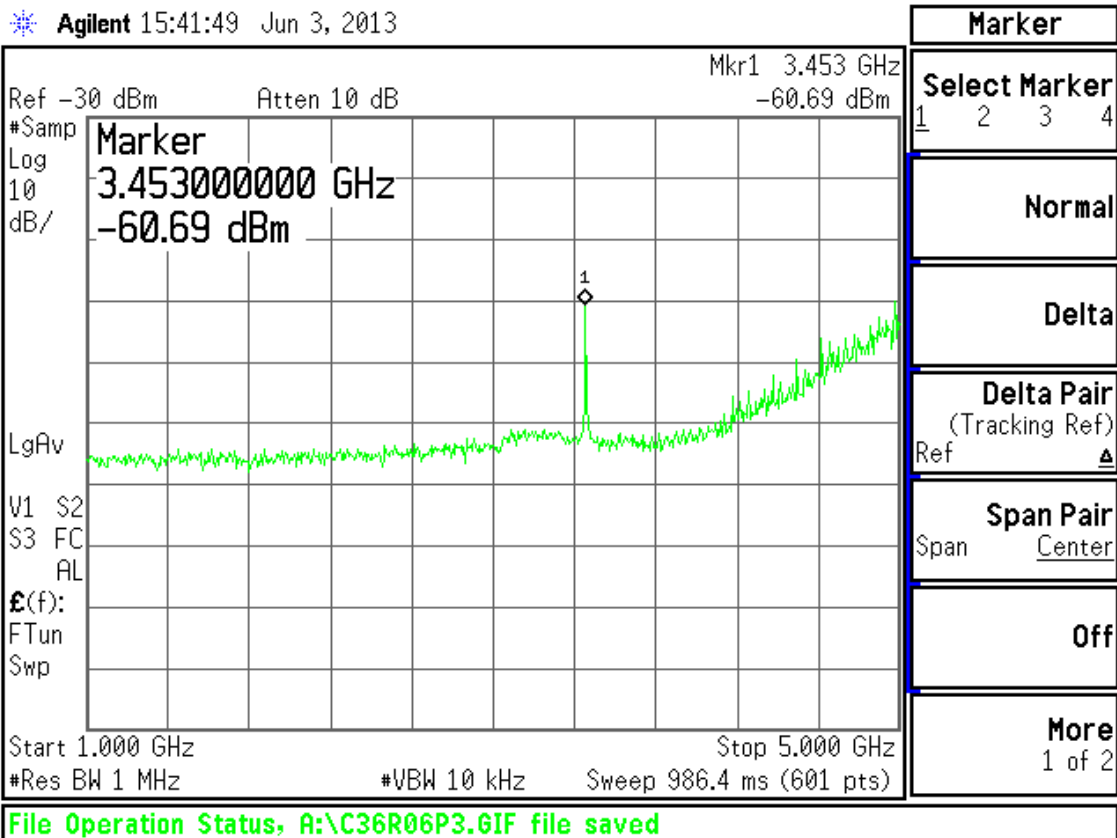
CH36 802.11a Tx Conducted Emissions @ 6Mbps



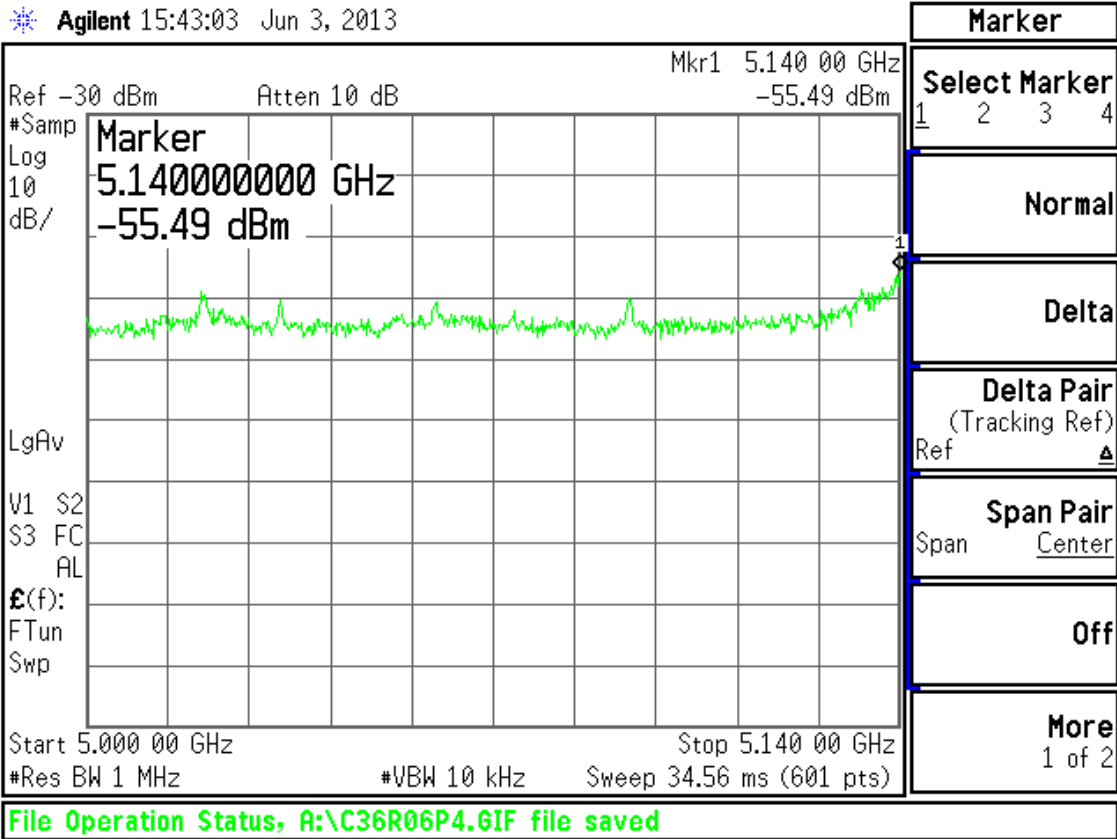
CH36 802.11a Tx Conducted Emissions @ 6Mbps



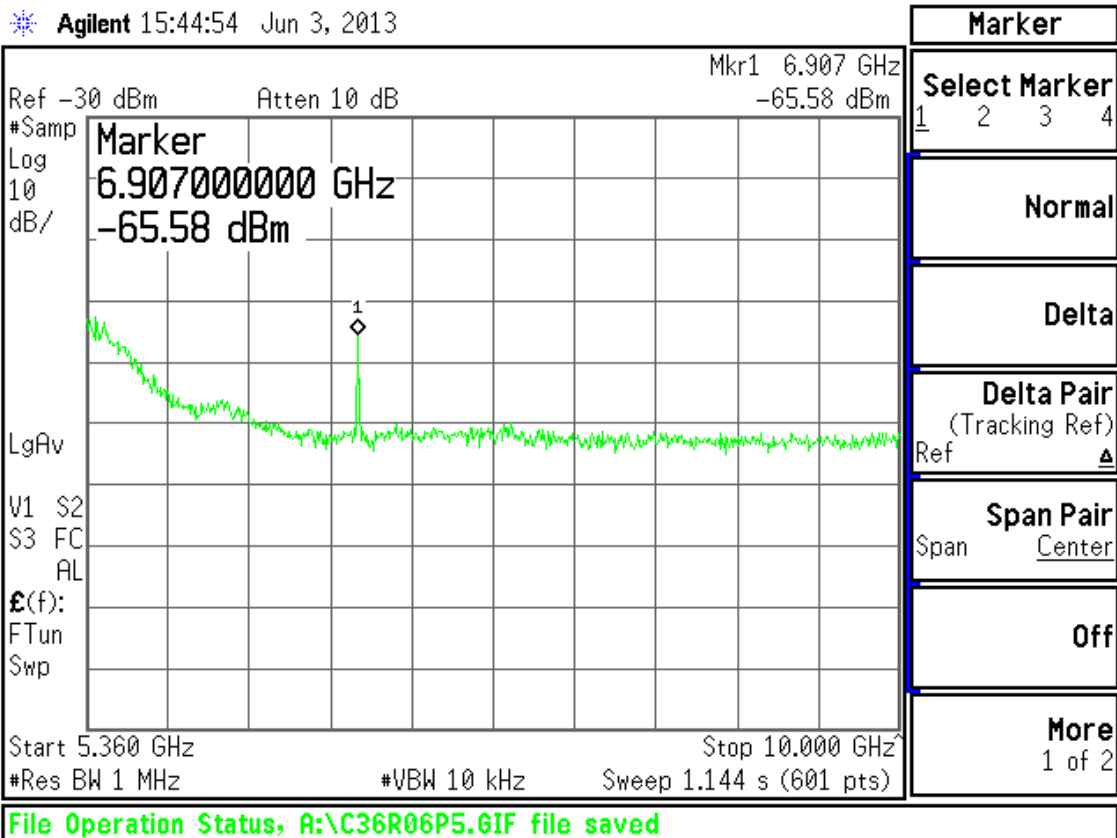
CH36 802.11a Tx Conducted Emissions @ 6Mbps



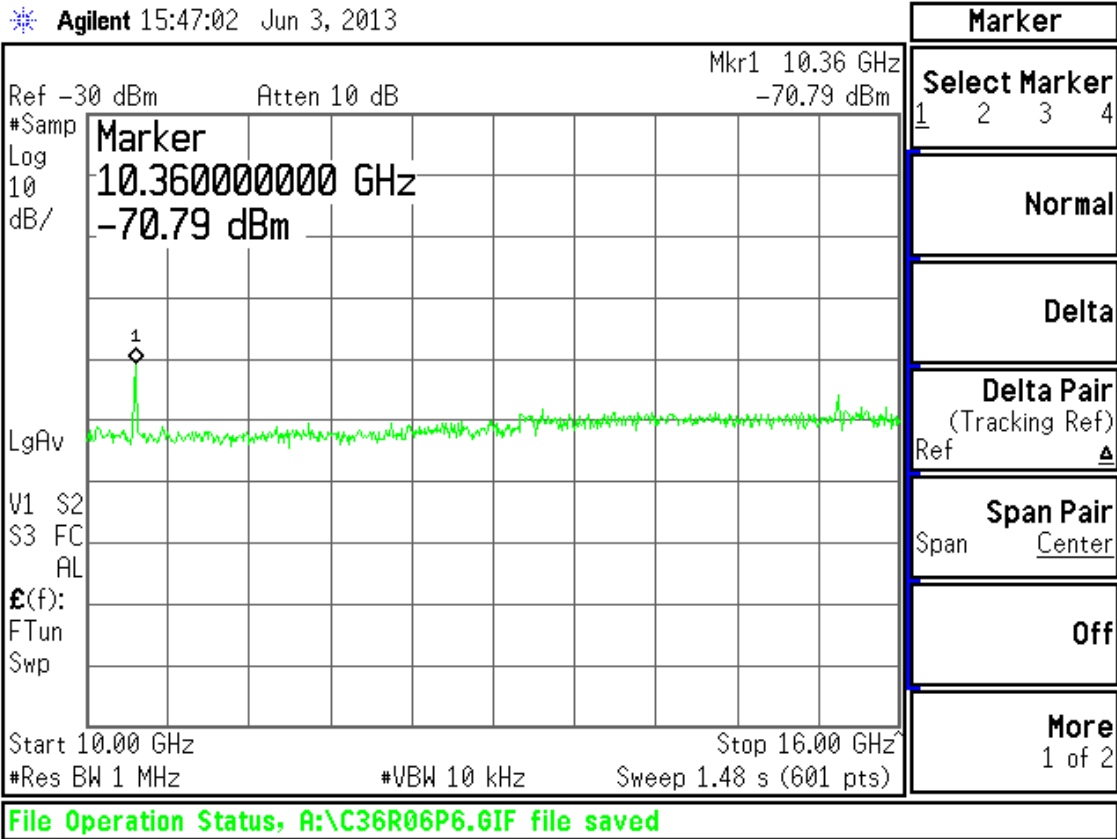
CH36 802.11a Tx Conducted Emissions @ 6Mbps



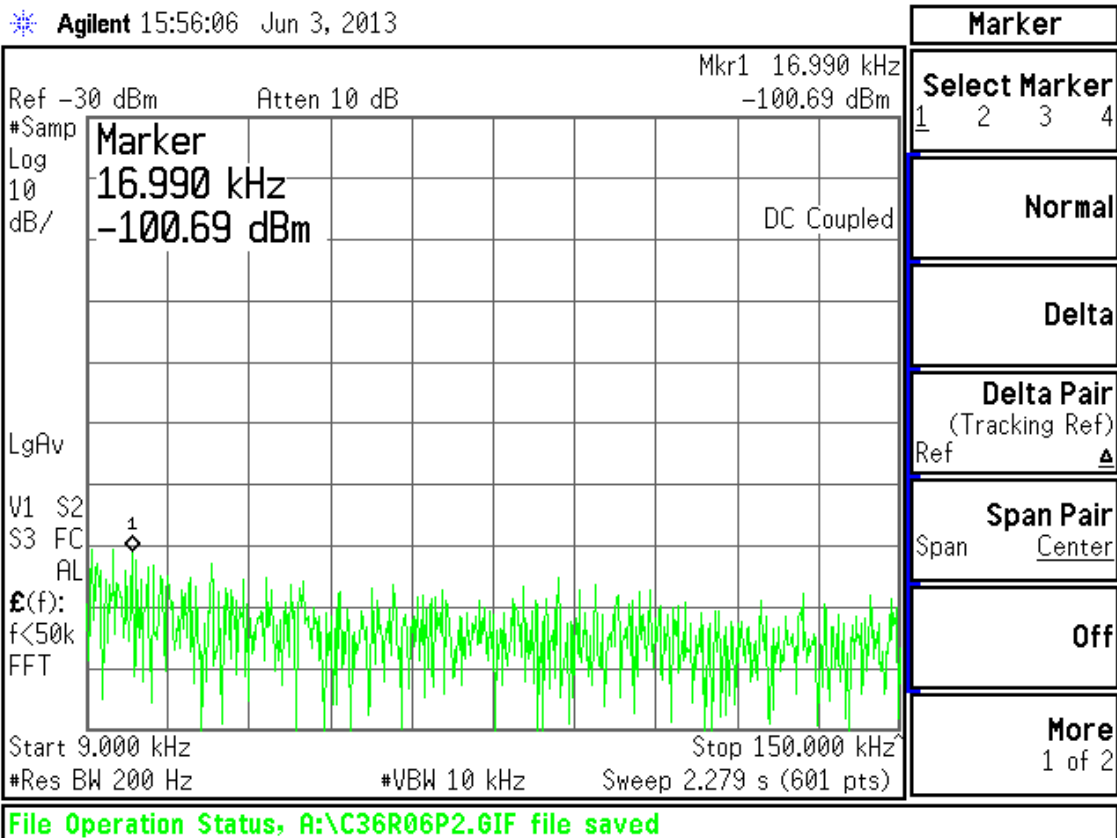
CH36 802.11a Tx Conducted Emissions @ 6Mbps



CH36 802.11a Tx Conducted Emissions @ 6Mbps

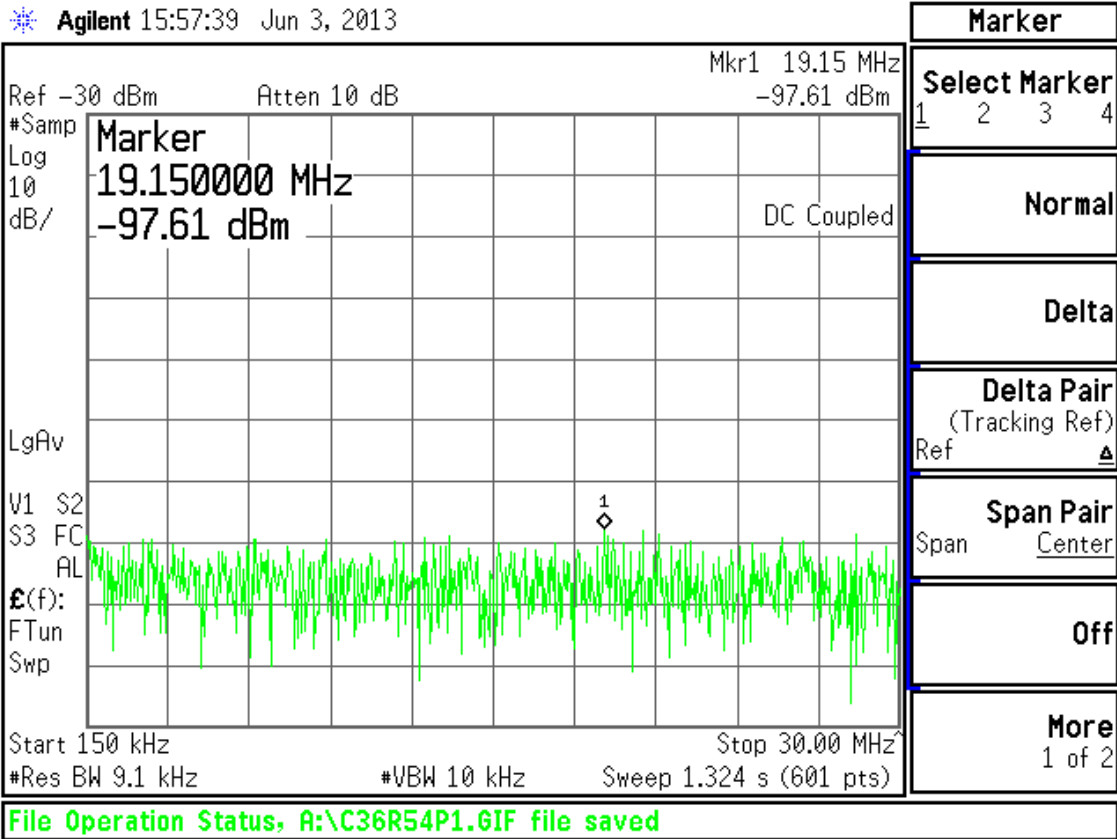


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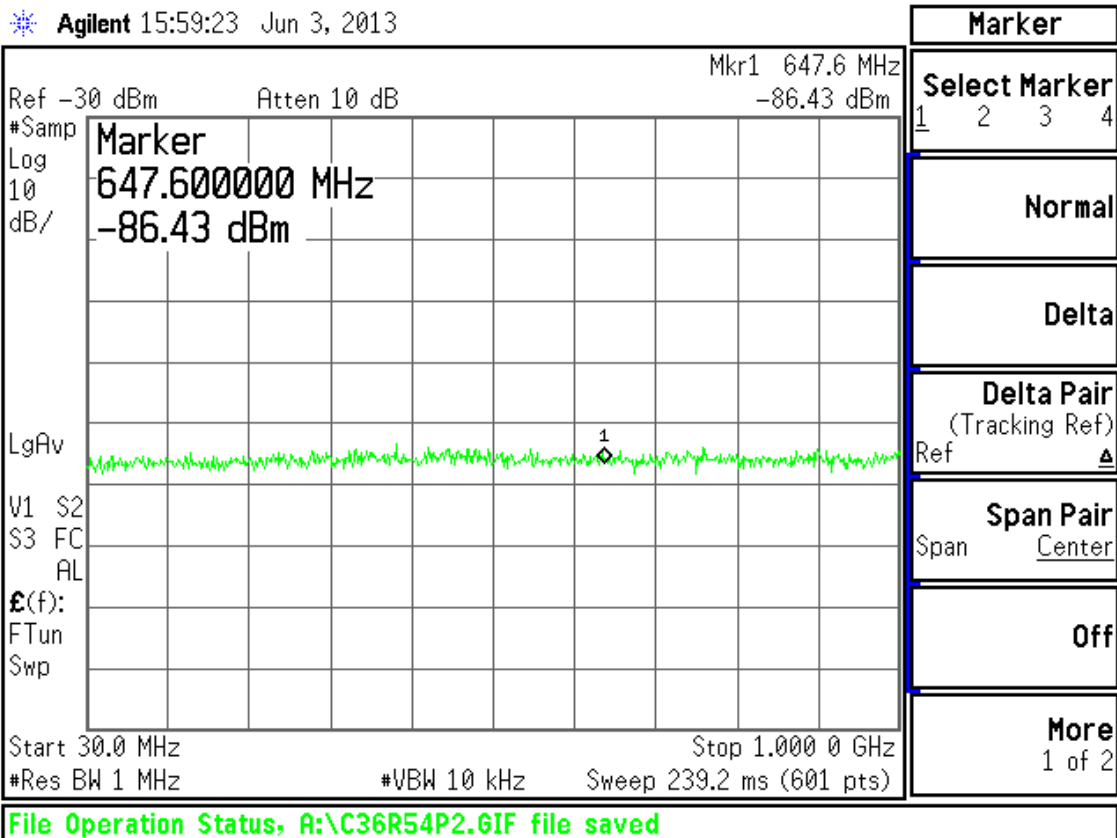


CH36 802.11a Tx Conducted Emissions @ 54Mbps

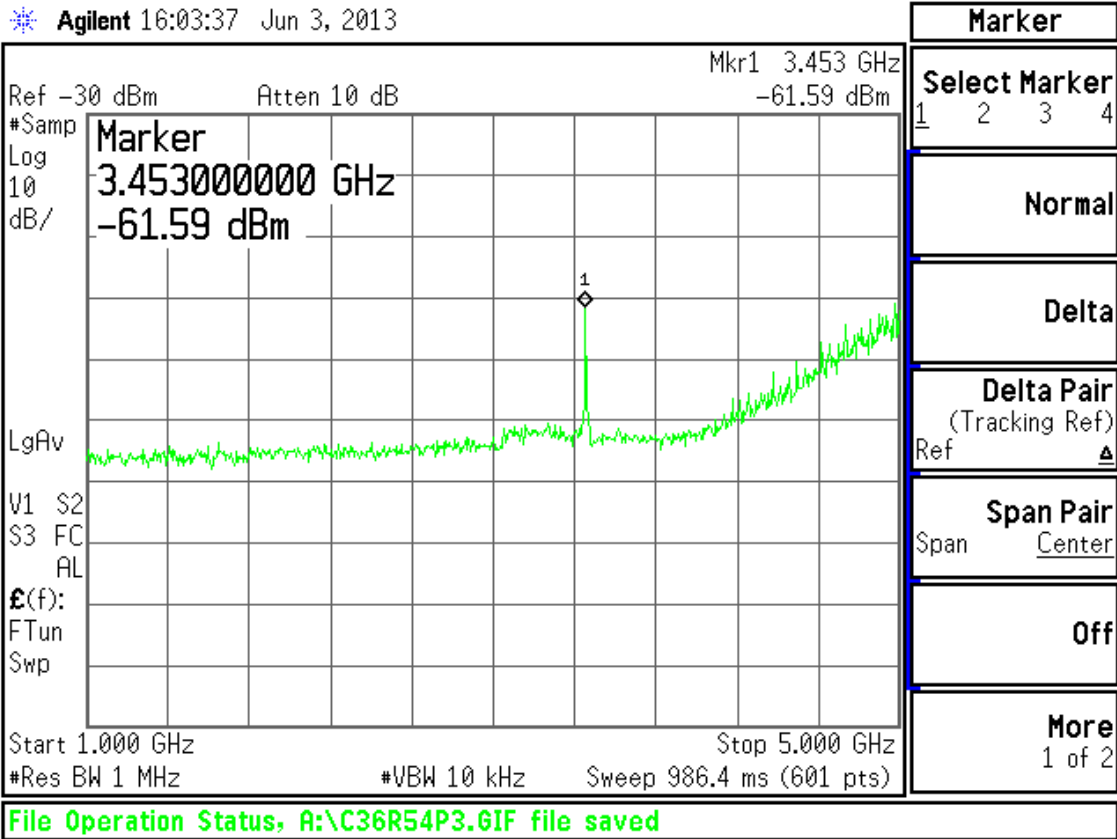




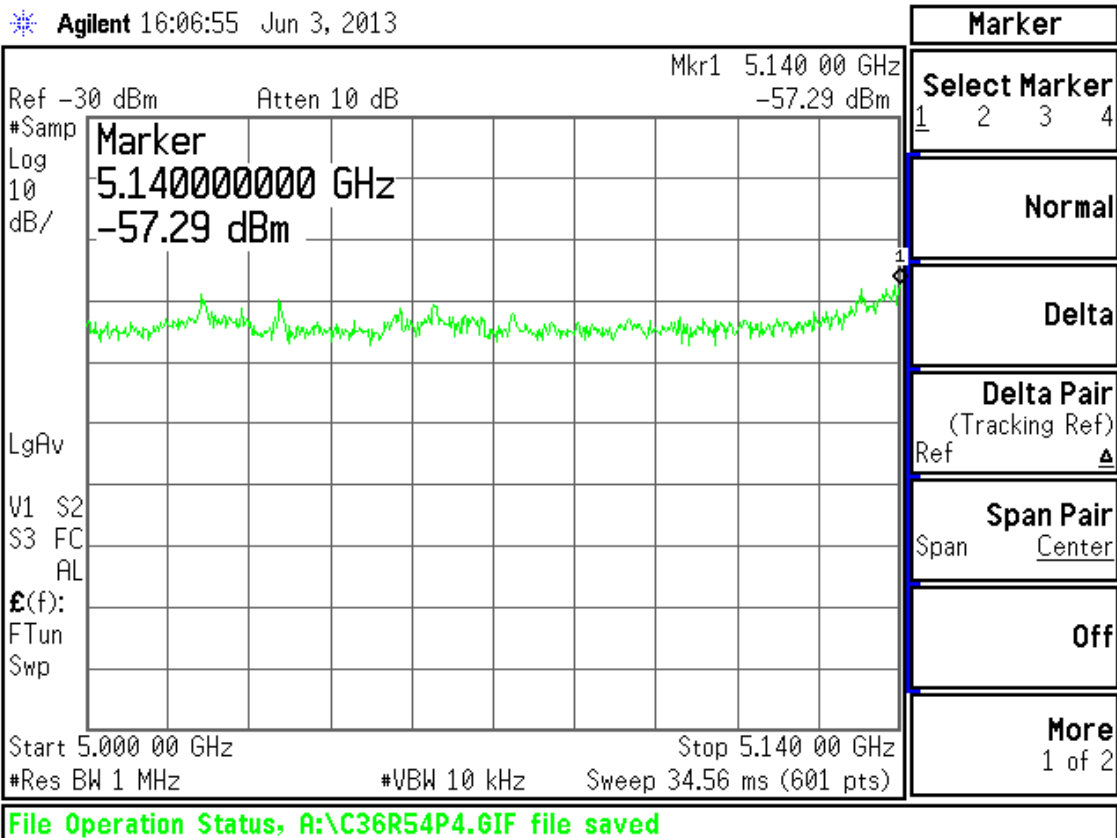
CH36 802.11a Tx Conducted Emissions @ 54Mbps



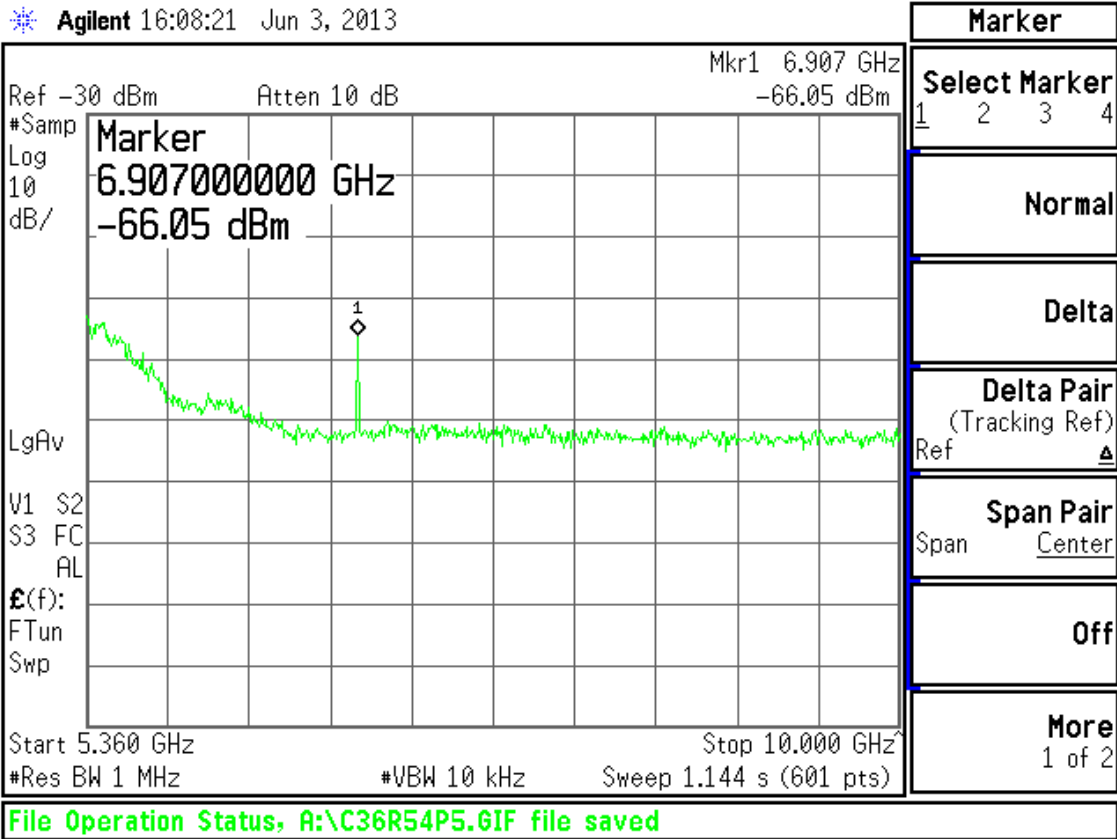
CH36 802.11a Tx Conducted Emissions @ 54Mbps



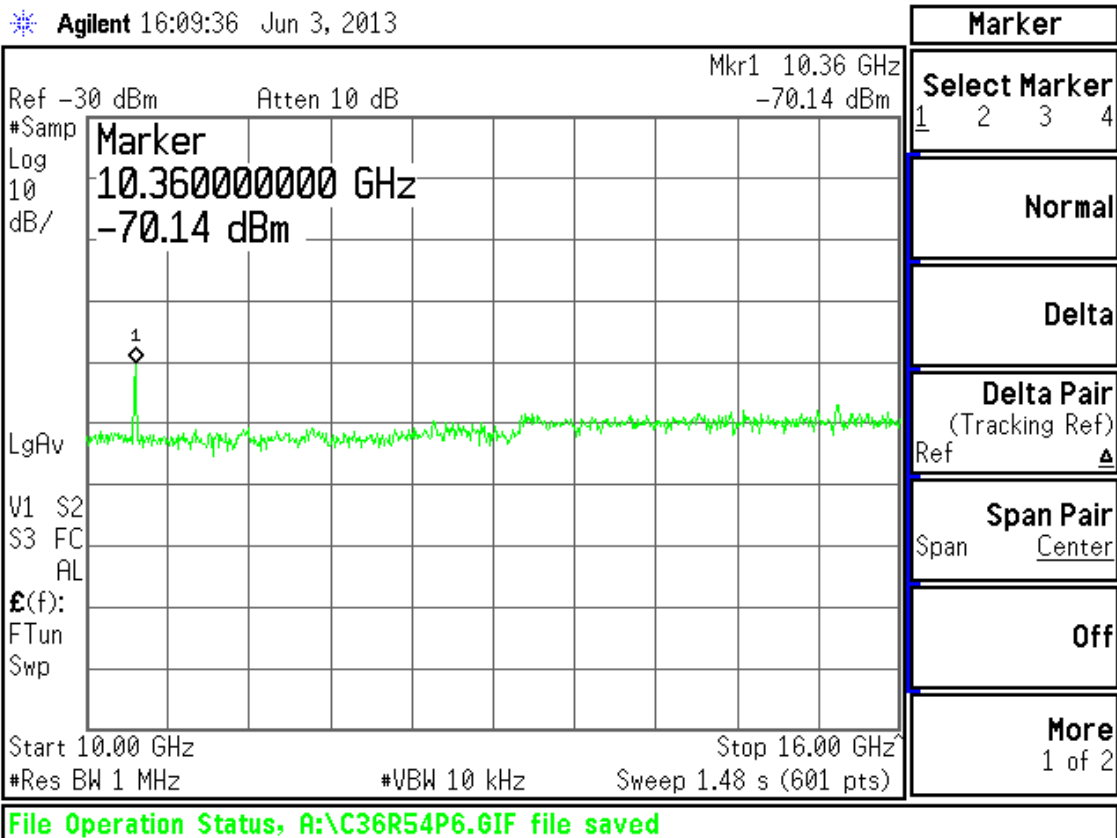
CH36 802.11a Tx Conducted Emissions @ 54Mbps



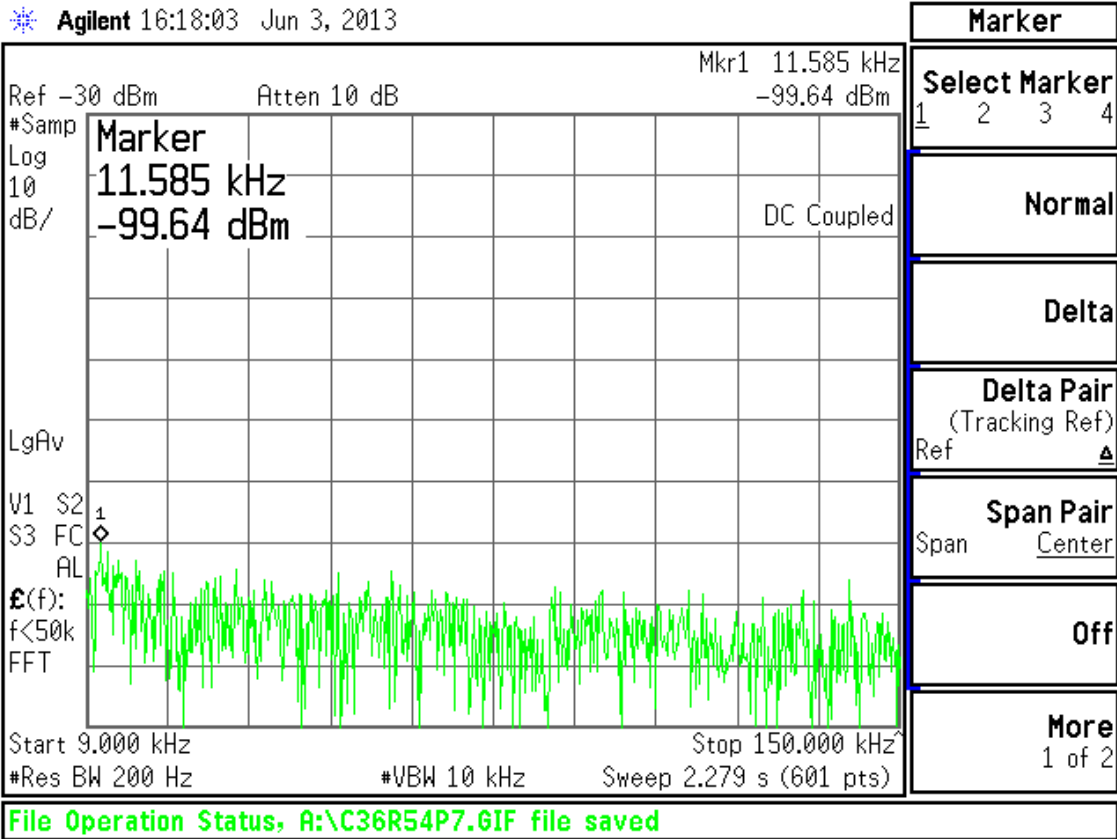
CH36 802.11a Tx Conducted Emissions @ 54Mbps



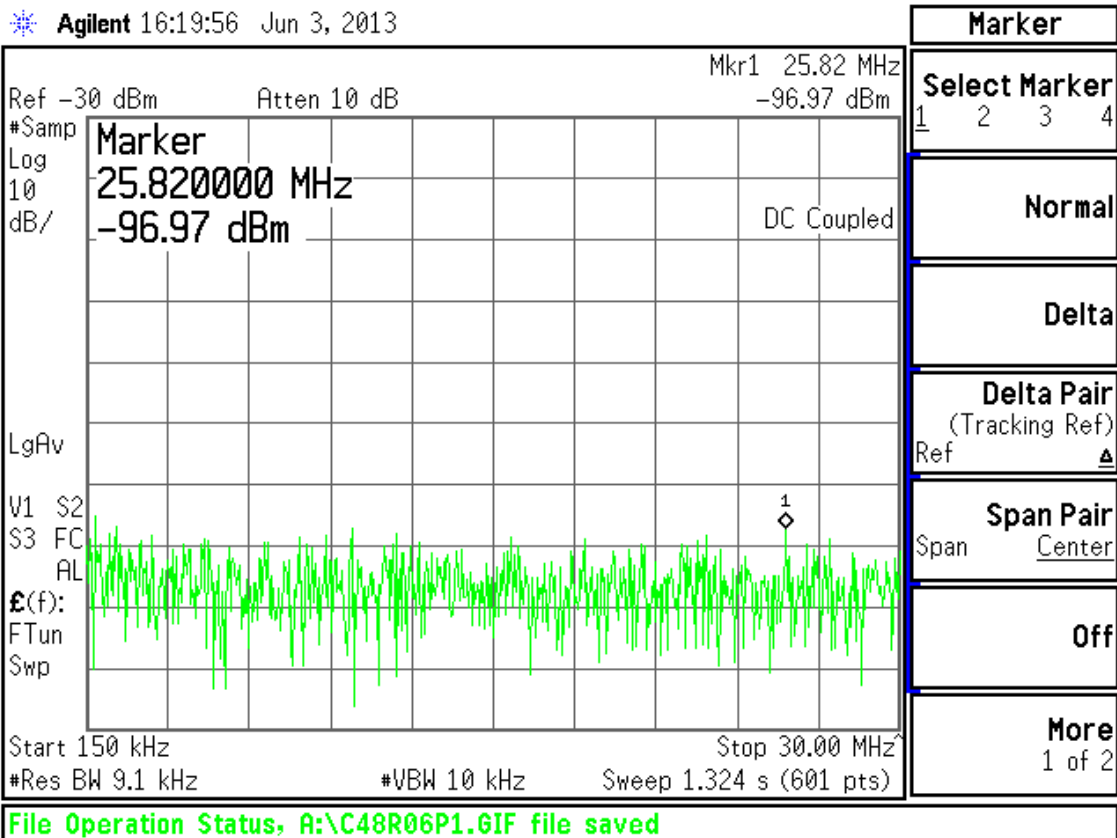
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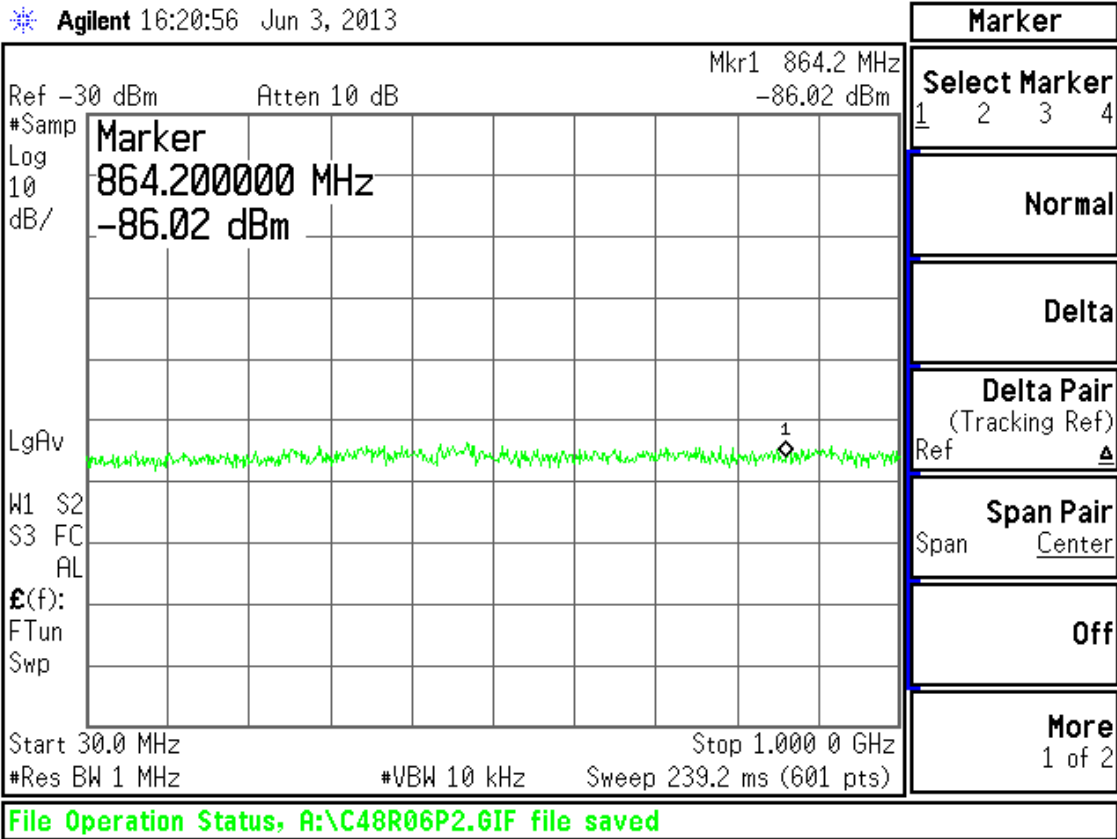
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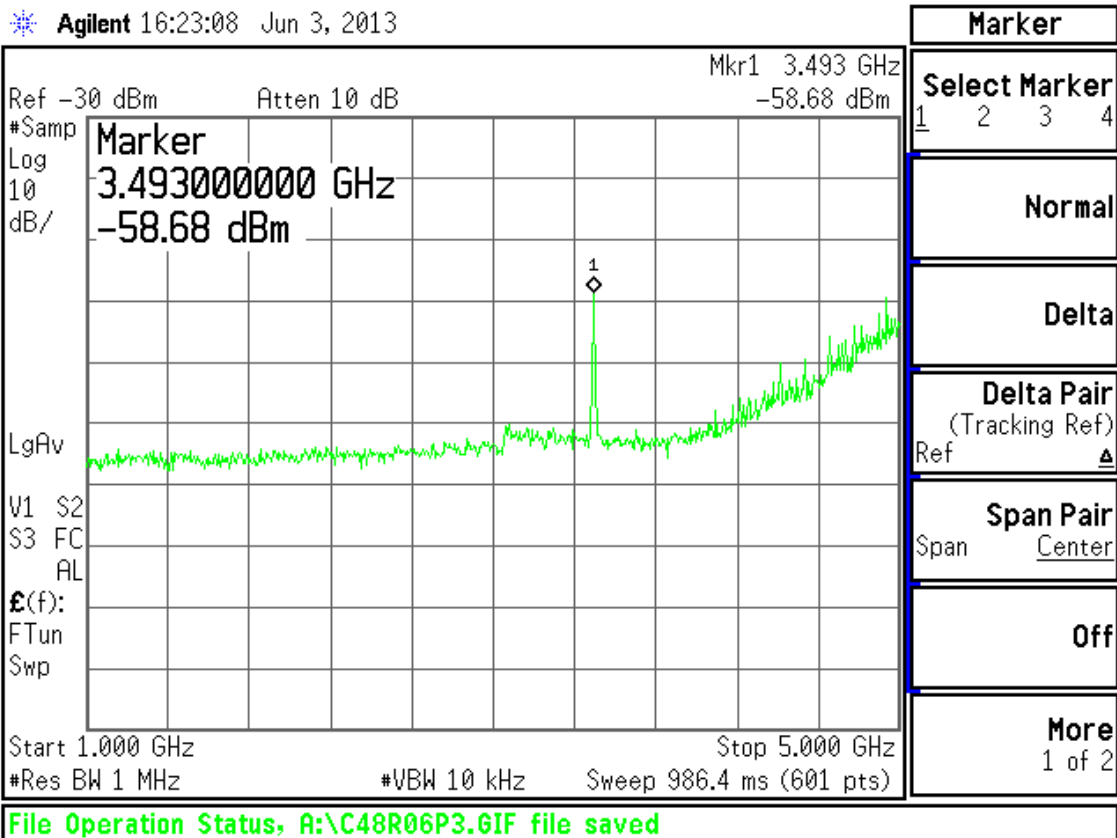
CH48 802.11a Tx Conducted Emissions @ 6Mbps



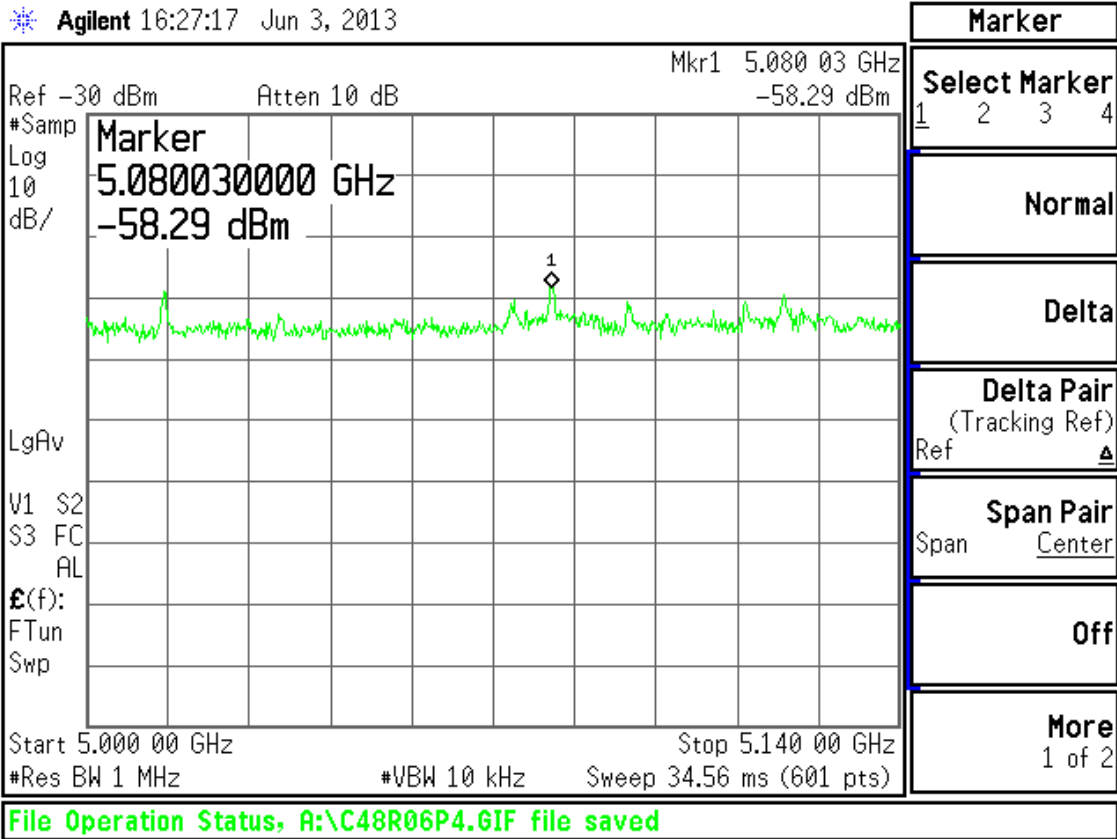
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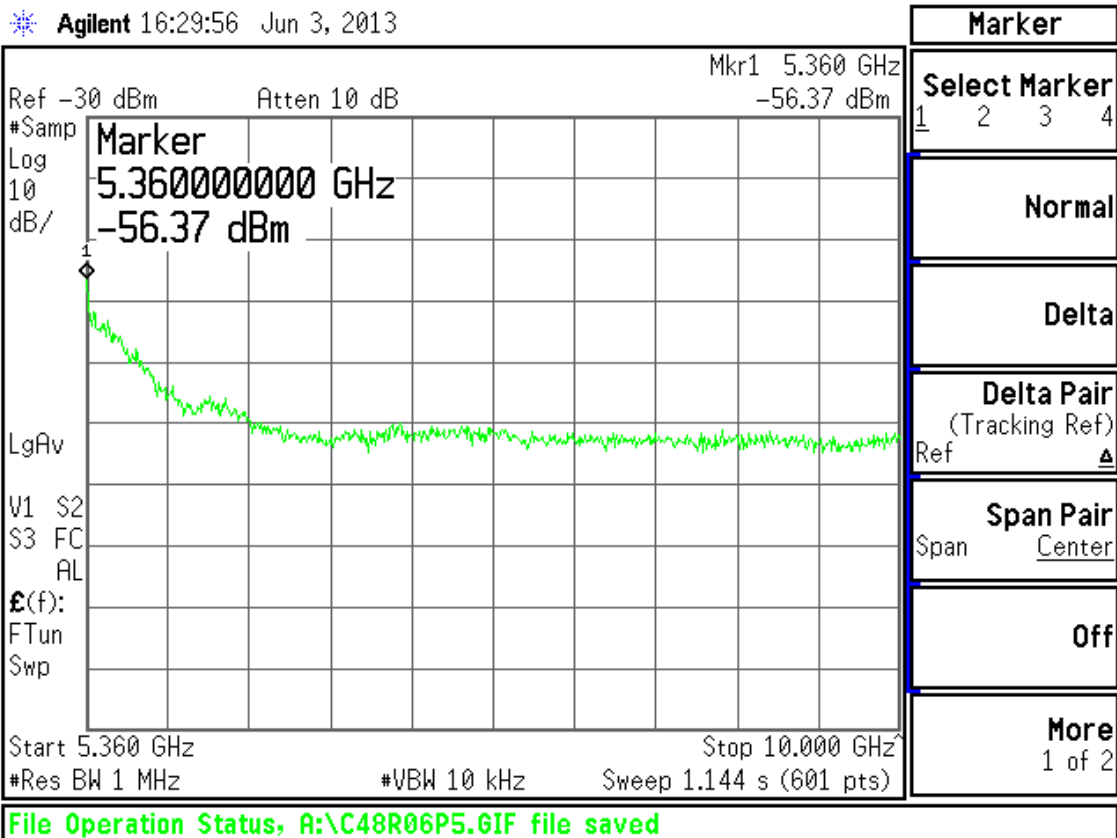
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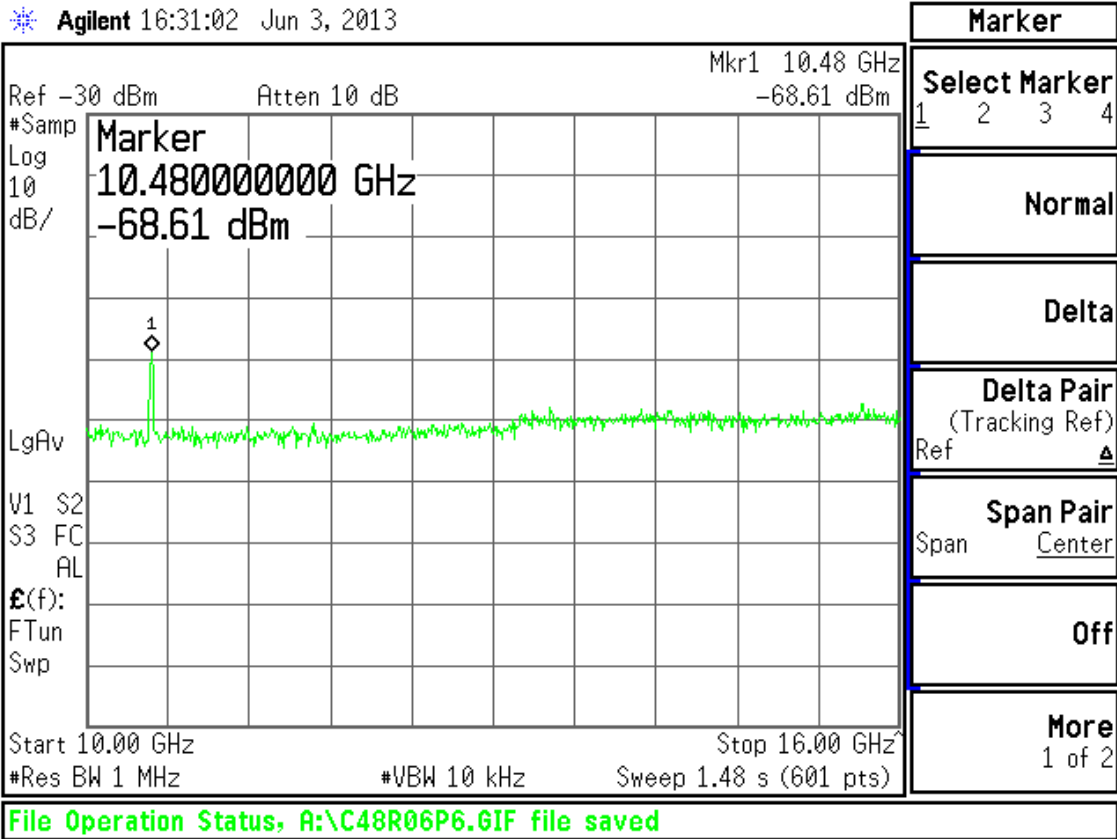
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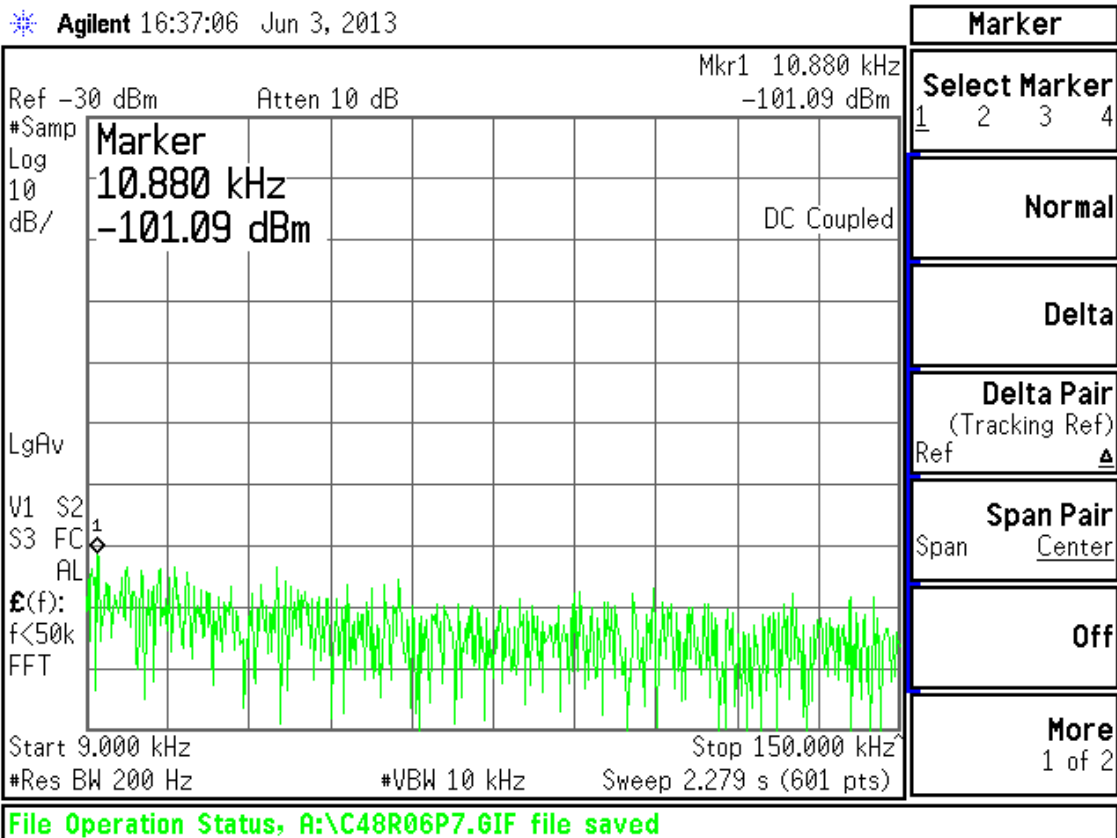
CH48 802.11a Tx Conducted Emissions @ 6Mbps



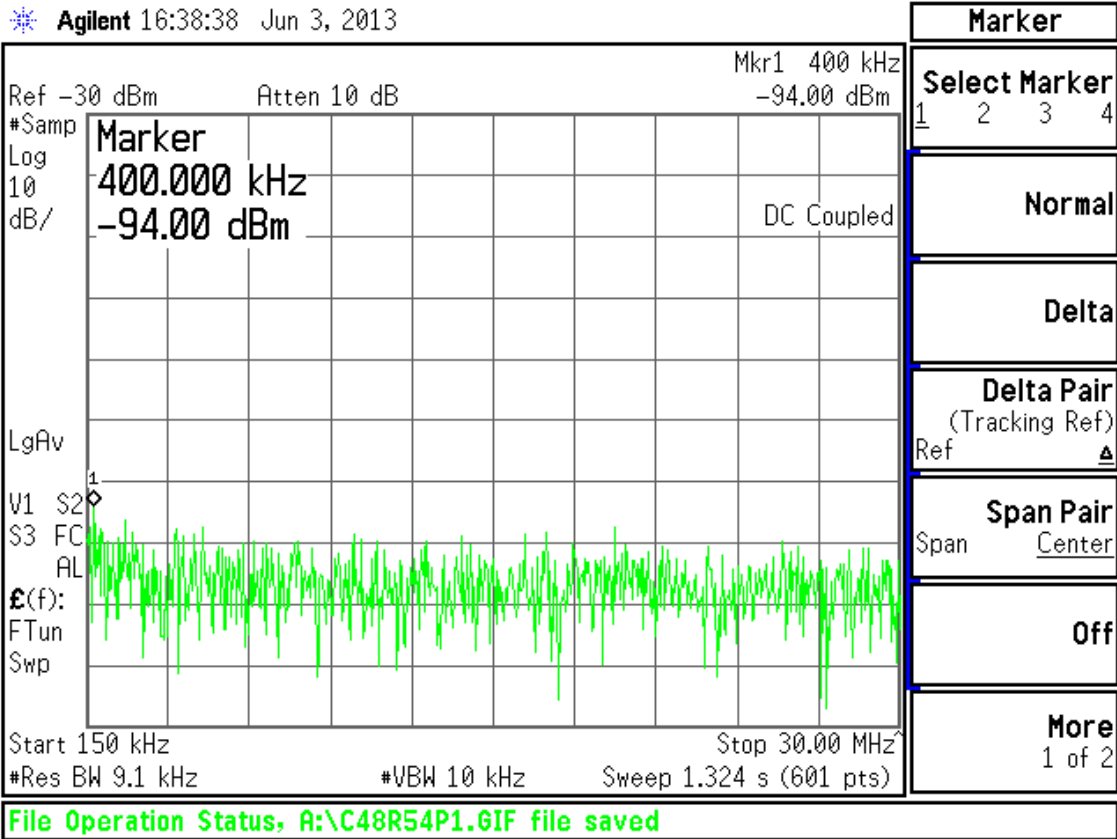
CH48 802.11a Tx Conducted Emissions @ 6Mbps



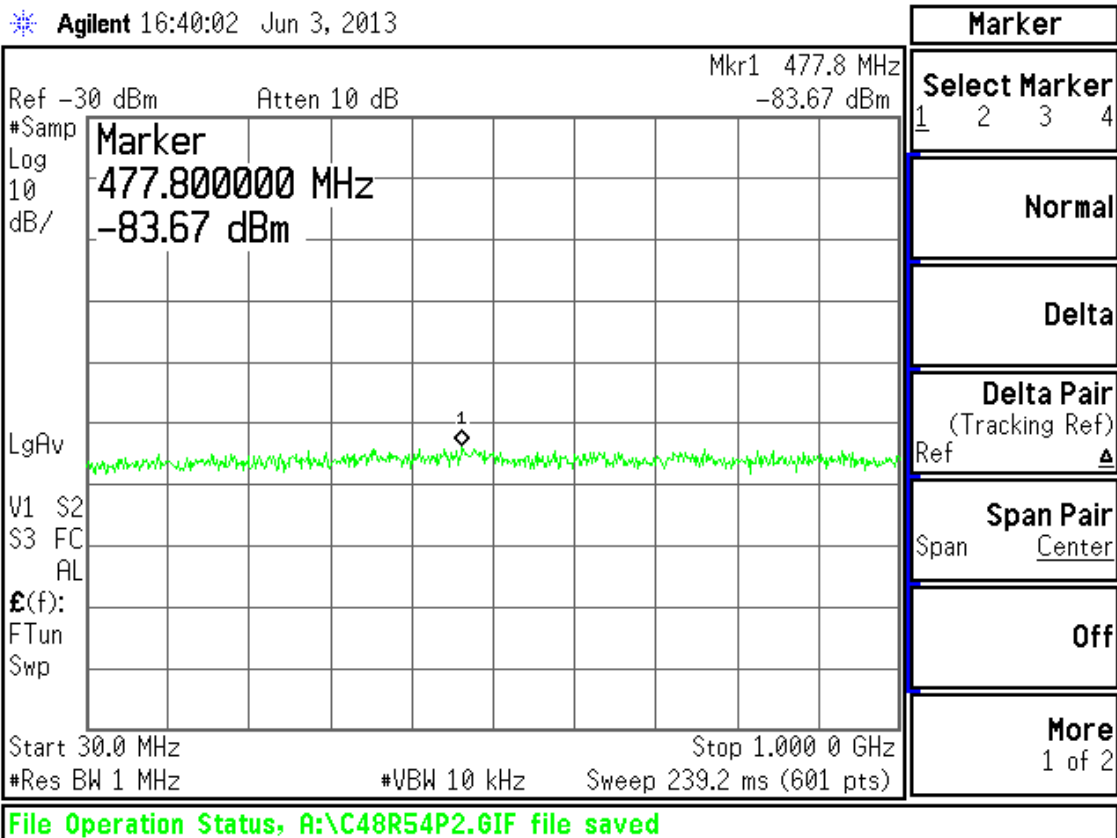
CH48 802.11a Tx Conducted Emissions @ 6Mbps



CH48 802.11a Tx Conducted Emissions @ 54Mbps

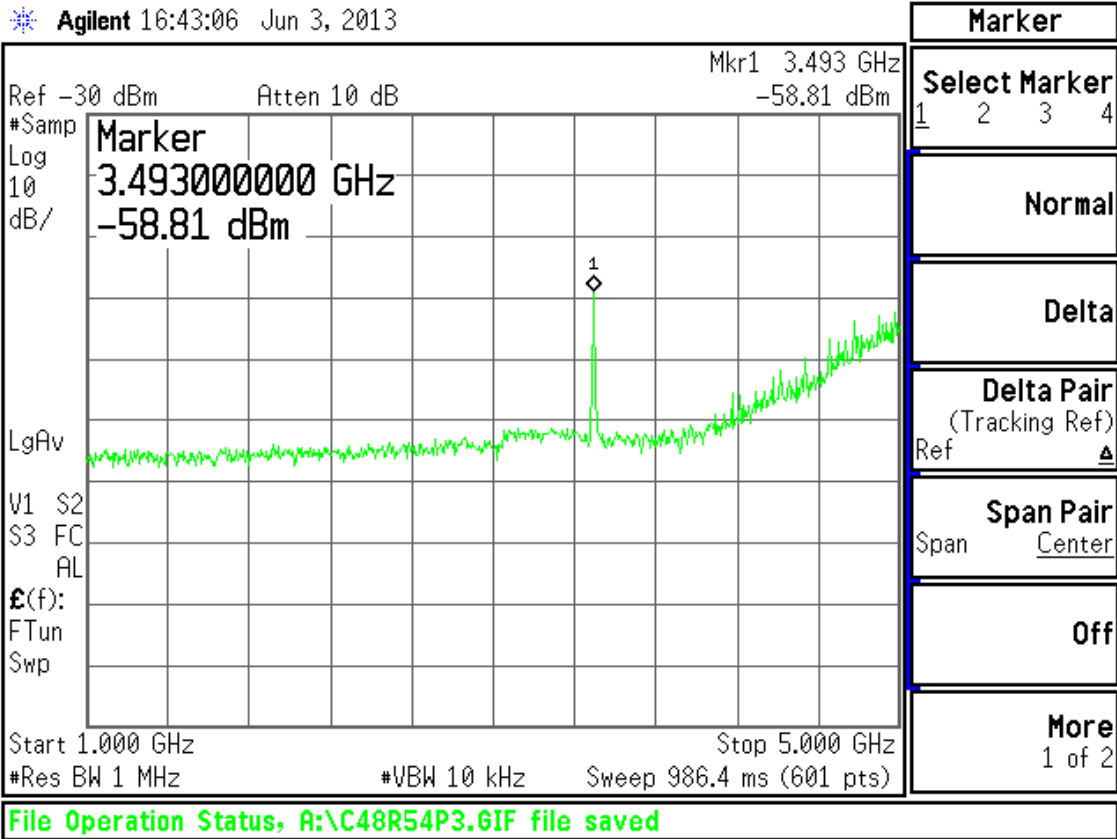


CH48 802.11a Tx Conducted Emissions @ 54Mbps

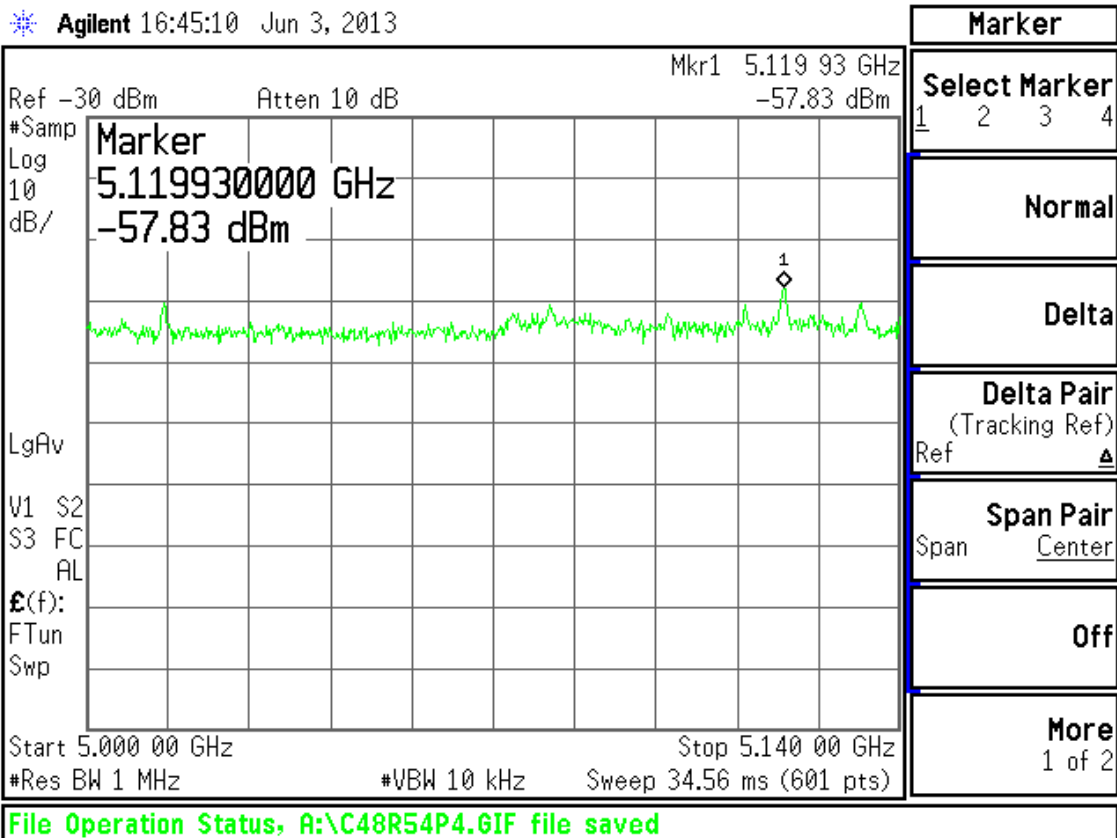


CH48 802.11a Tx Conducted Emissions @ 54Mbps

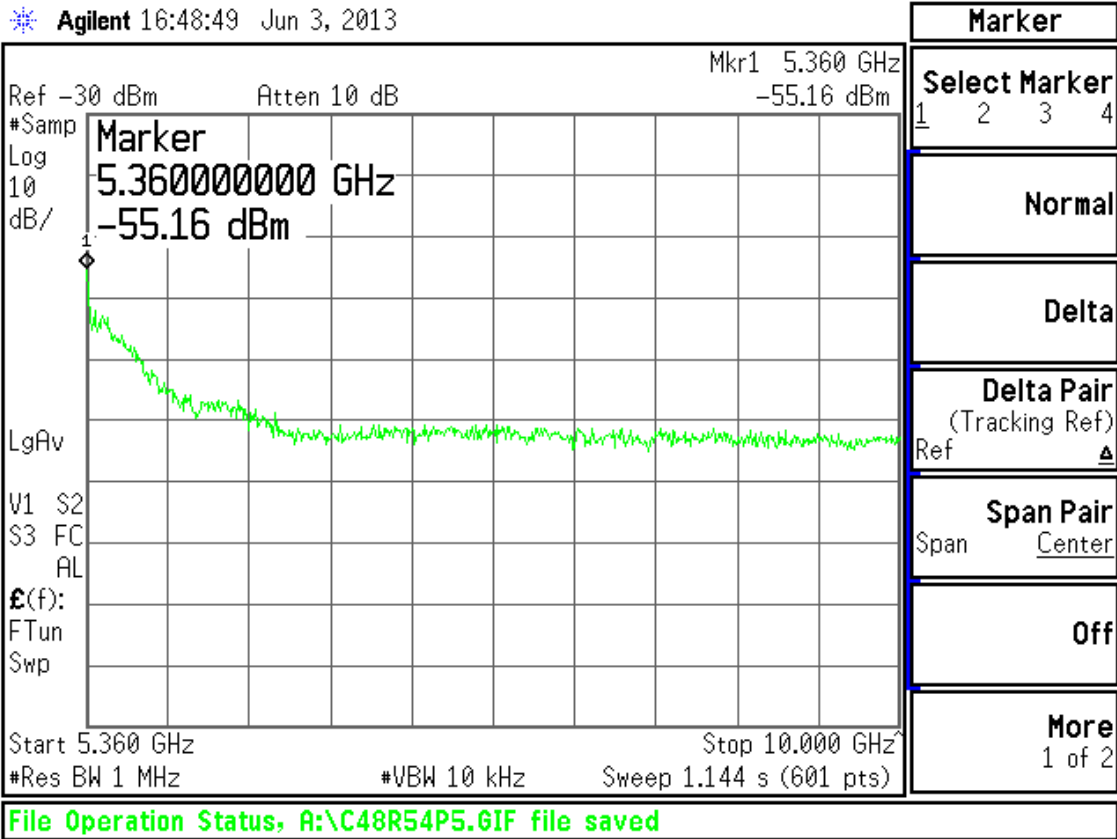




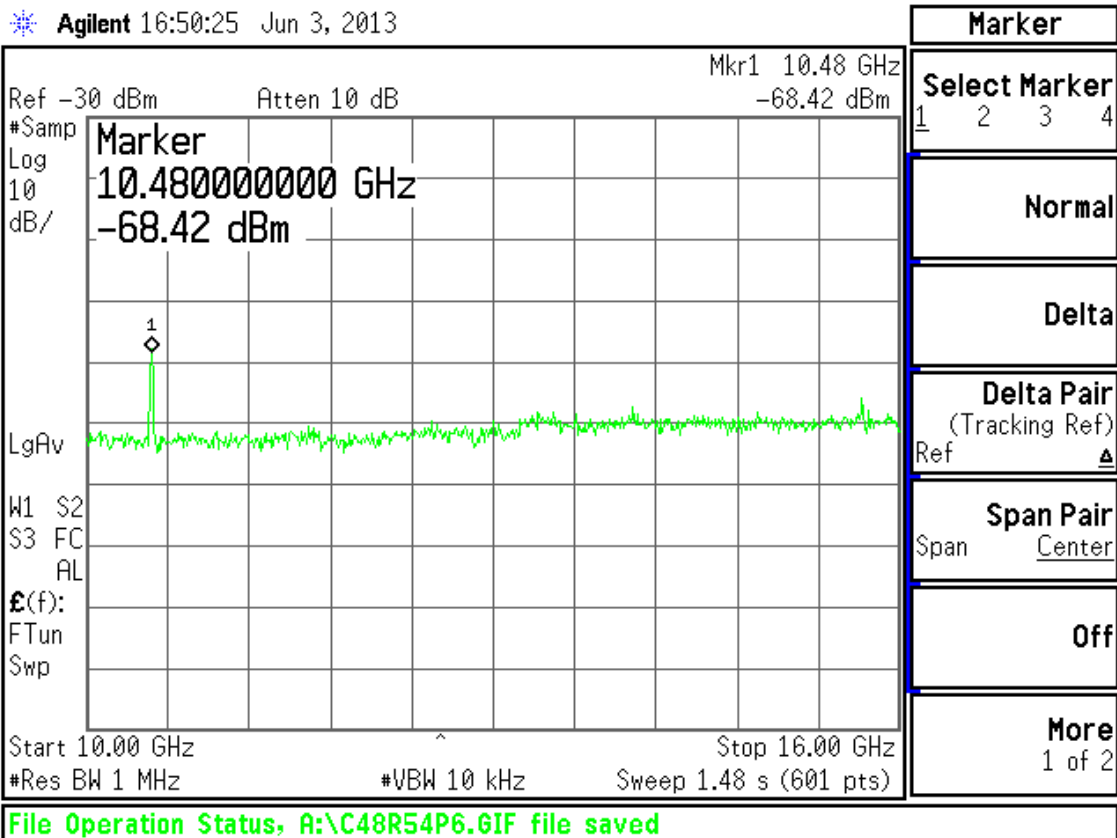
CH48 802.11a Tx Conducted Emissions @ 54Mbps



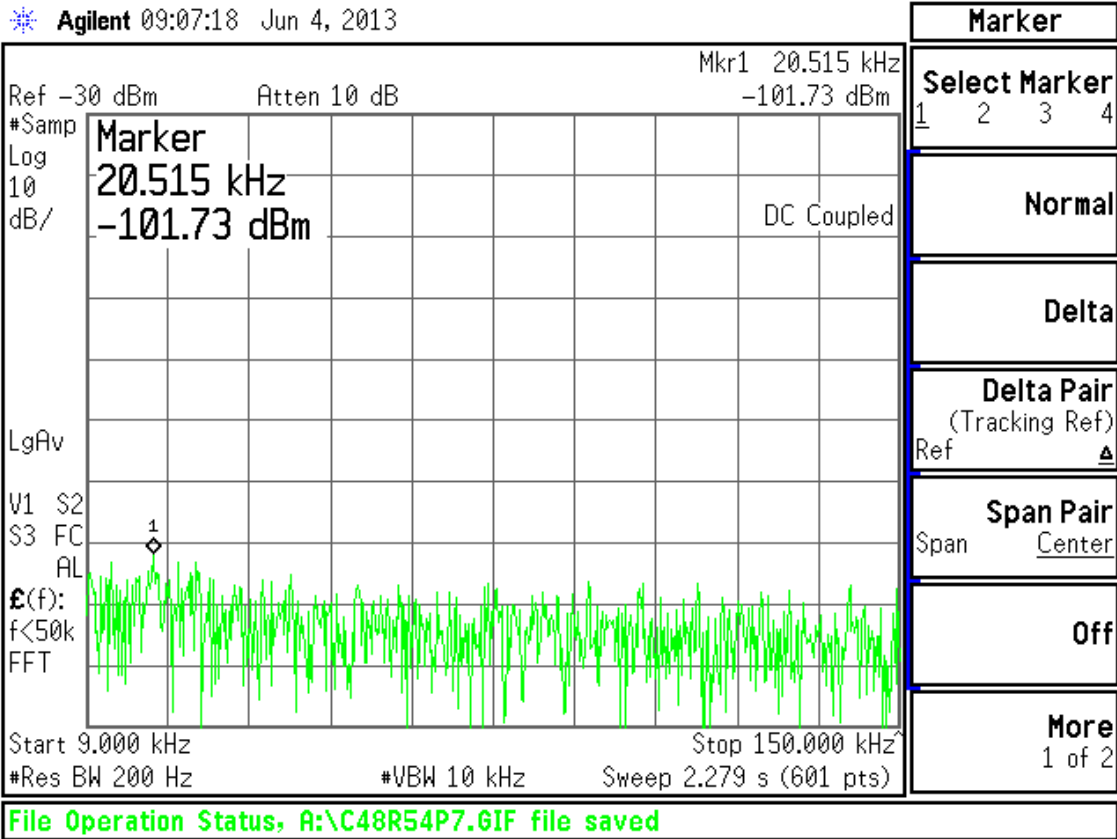
CH48 802.11a Tx Conducted Emissions @ 54Mbps



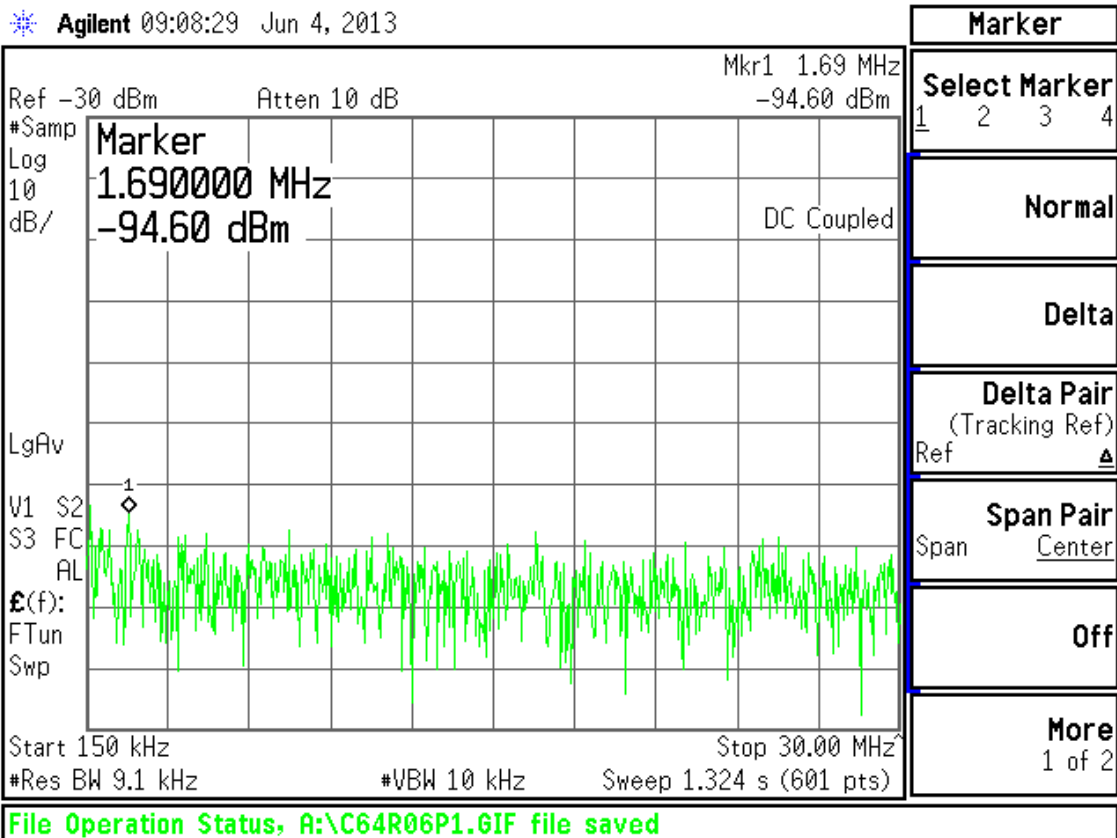
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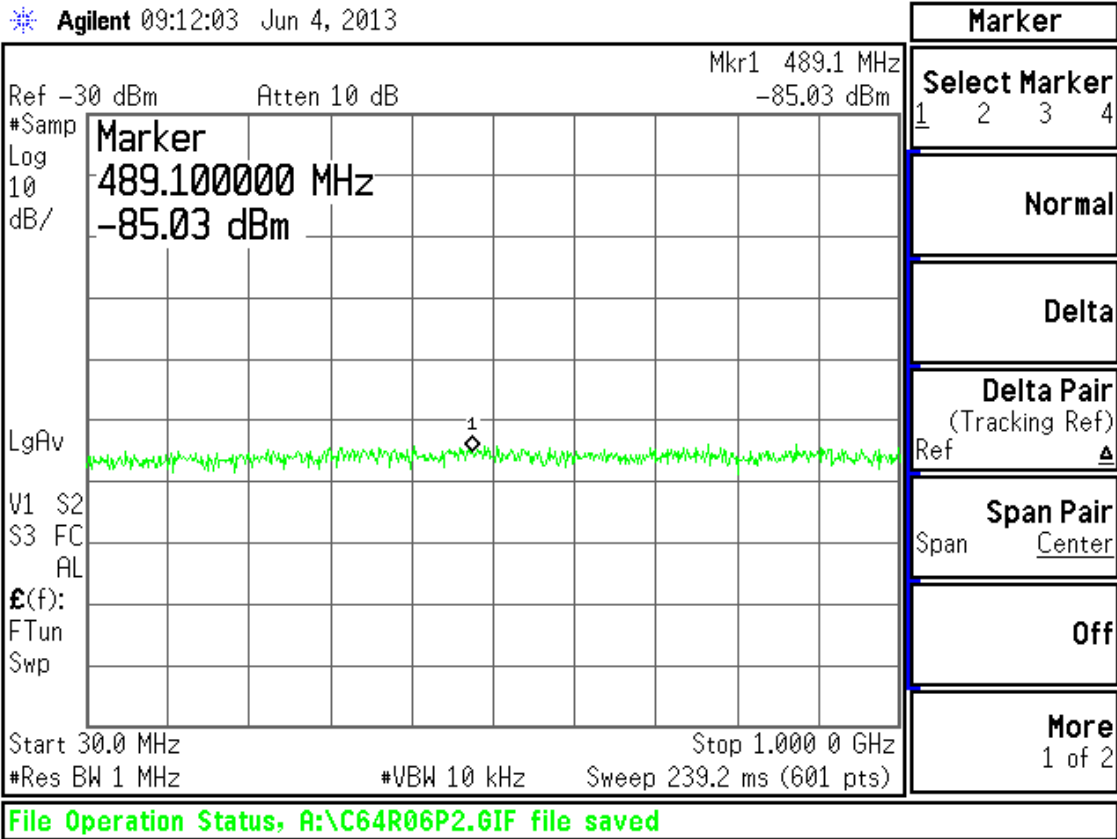
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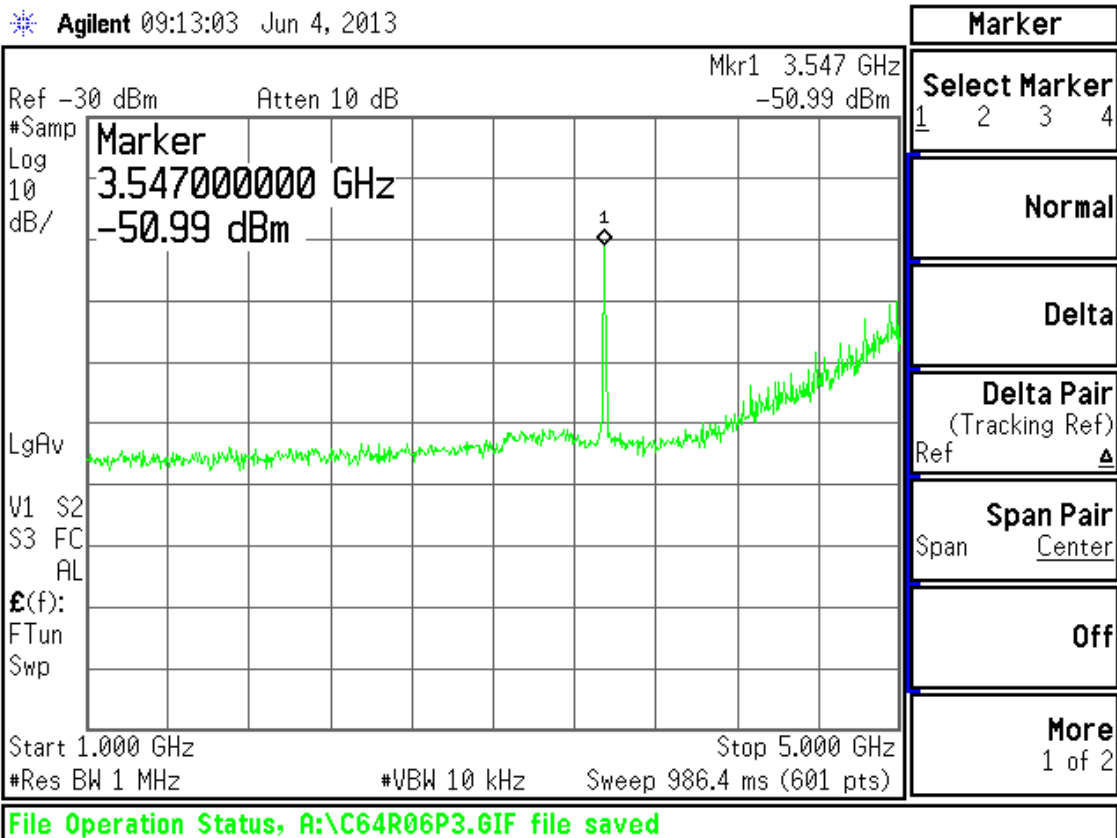
CH64 802.11a Tx Conducted Emissions @ 6Mbps



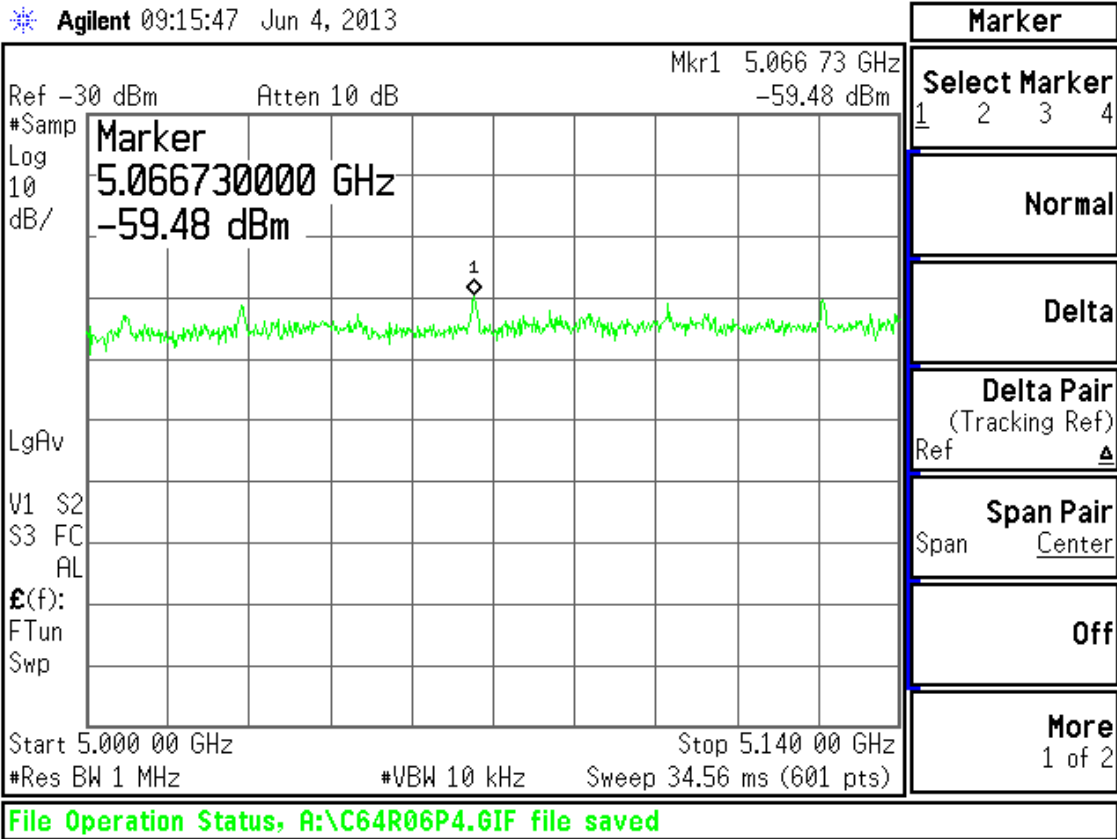
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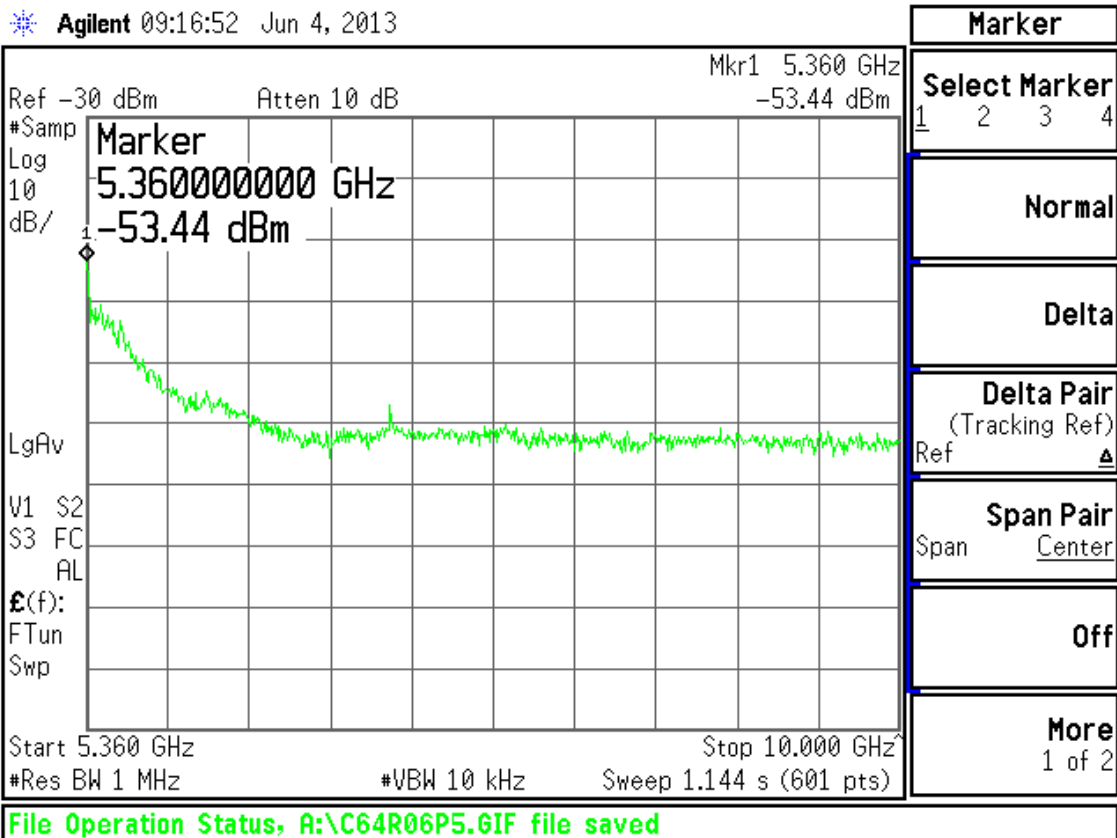
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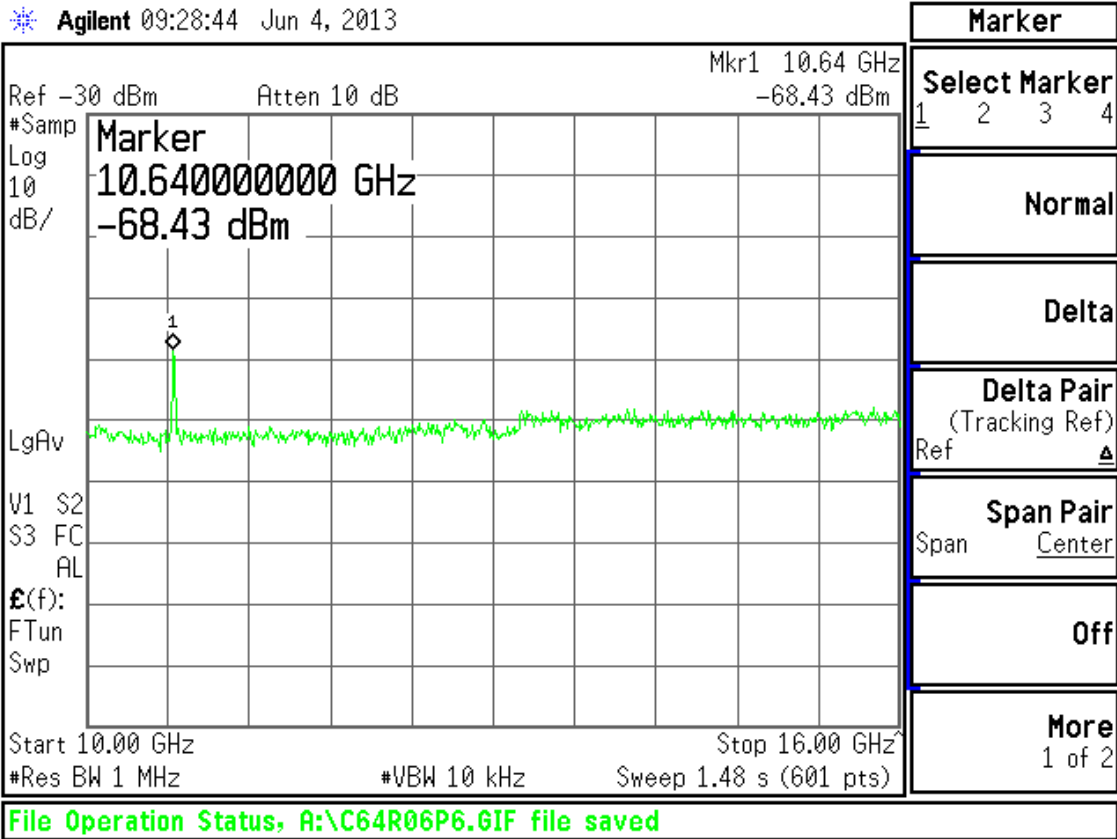
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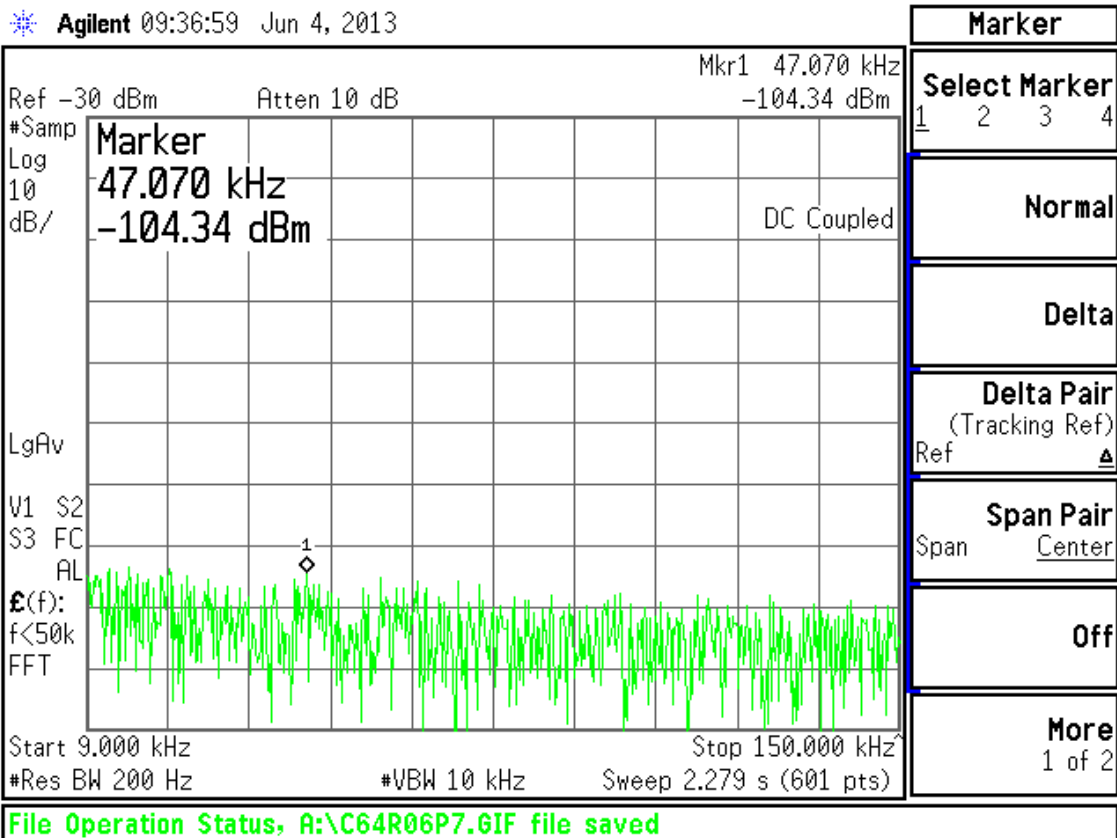
CH64 802.11a Tx Conducted Emissions @ 6Mbps



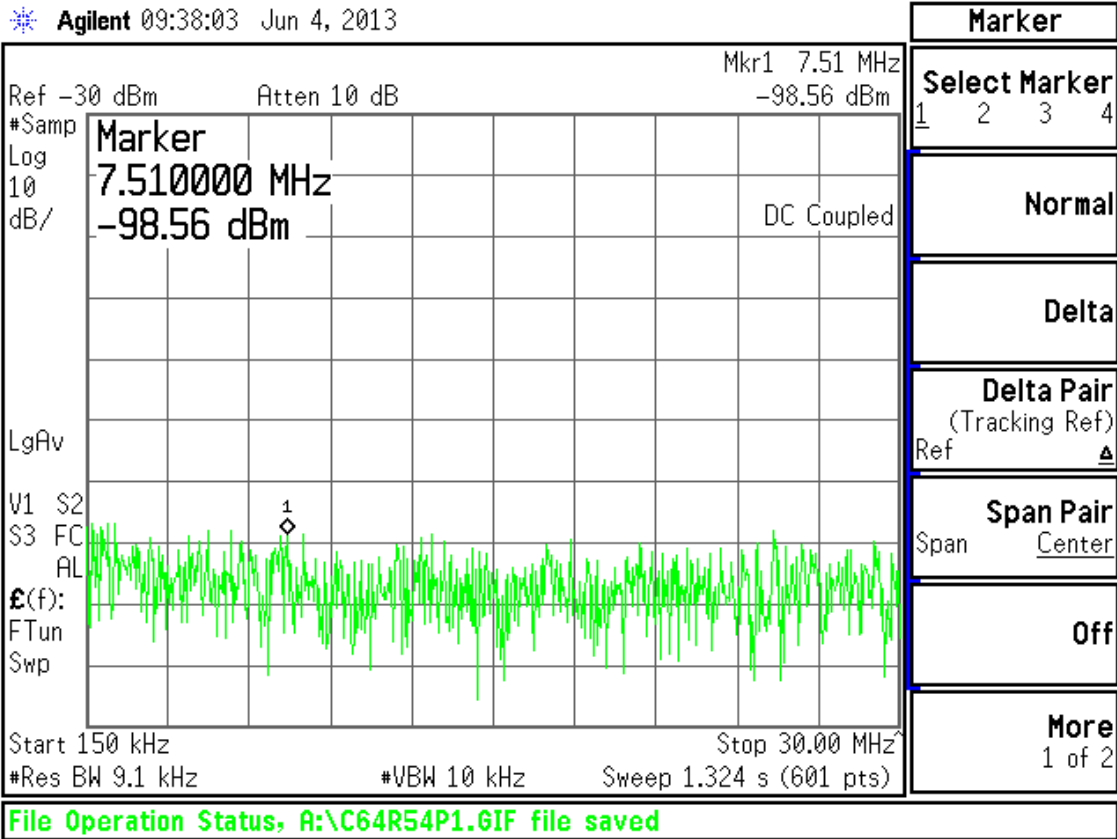
CH64 802.11a Tx Conducted Emissions @ 6Mbps



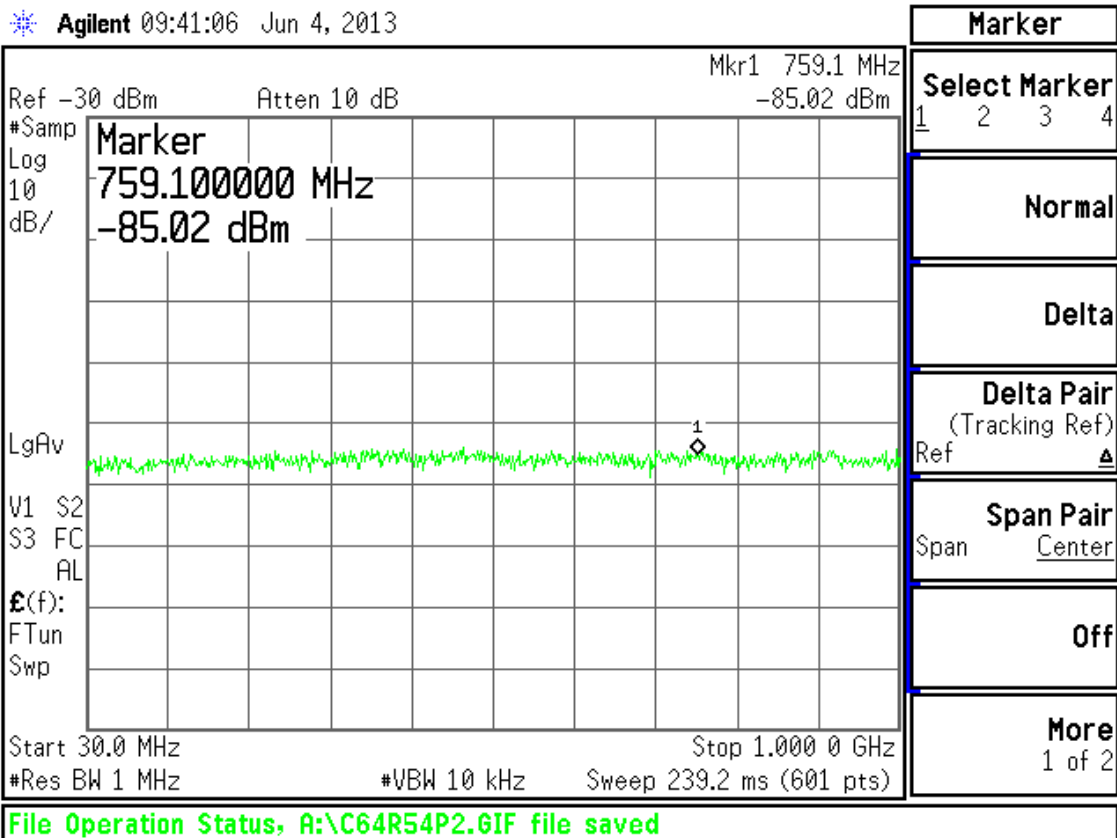
CH64 802.11a Tx Conducted Emissions @ 6Mbps



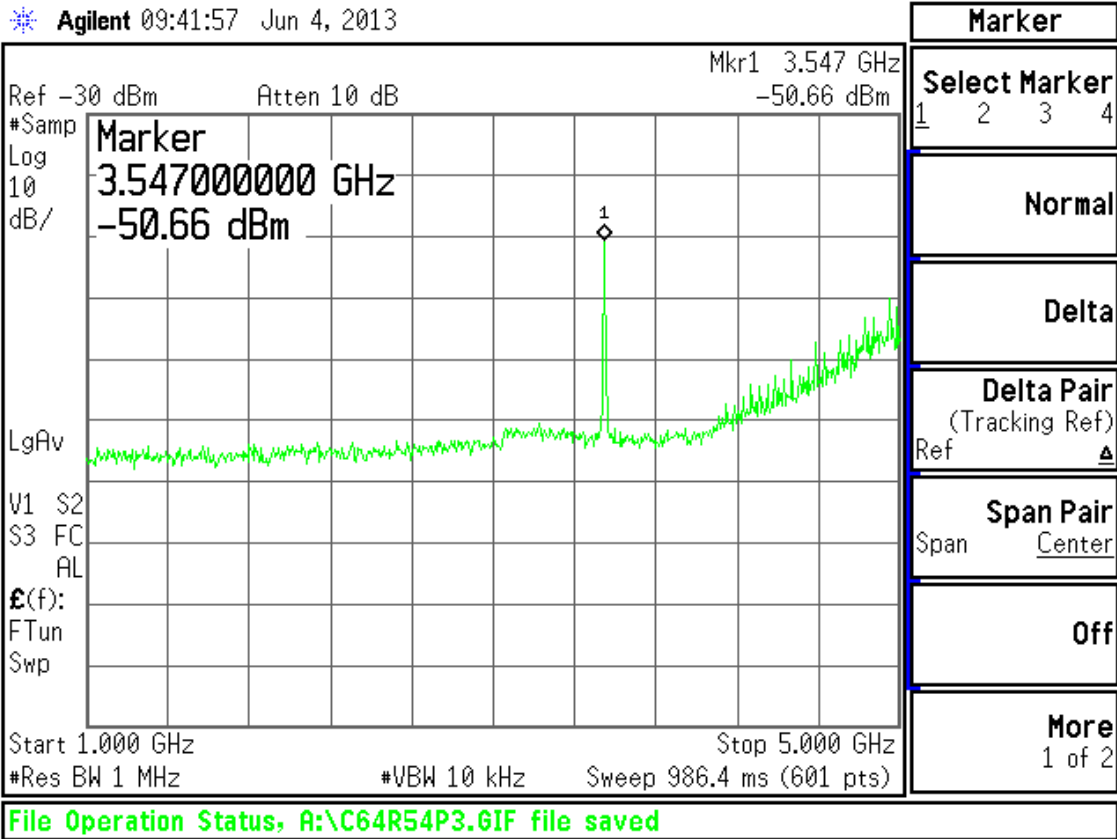
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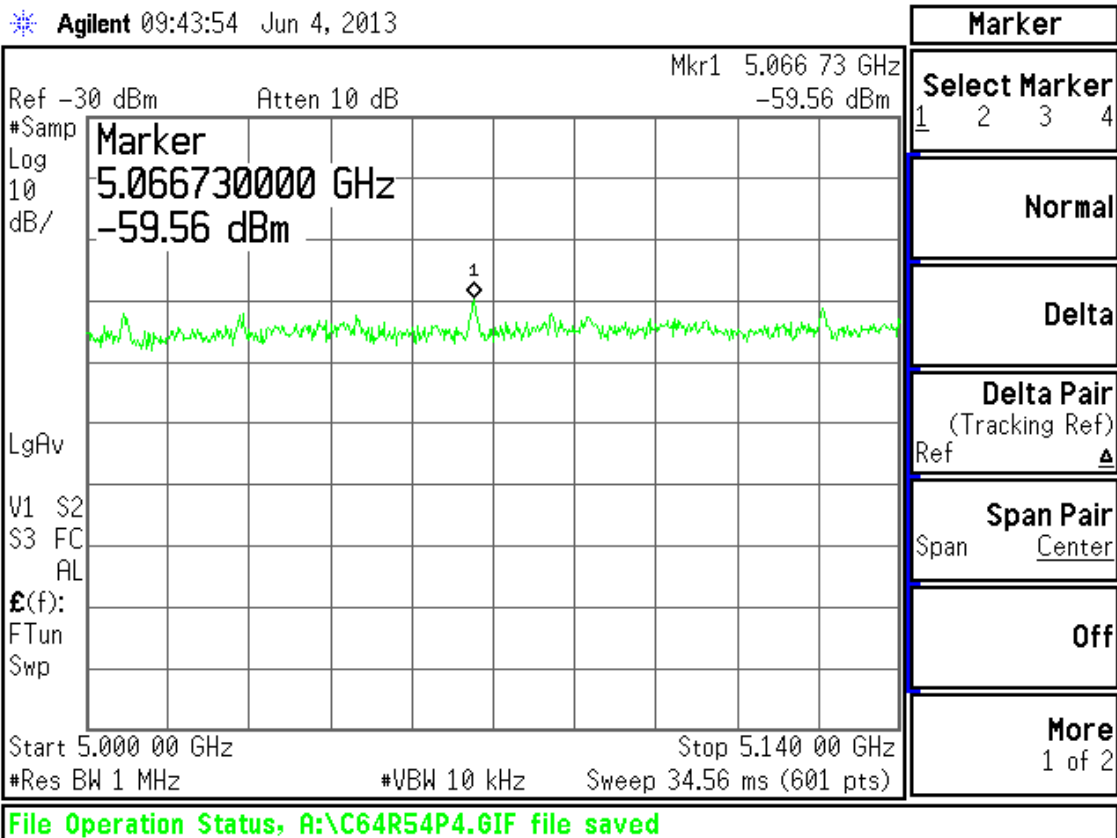
CH64 802.11a Tx Conducted Emissions @ 54Mbps



CH64 802.11a Tx Conducted Emissions @ 54Mbps

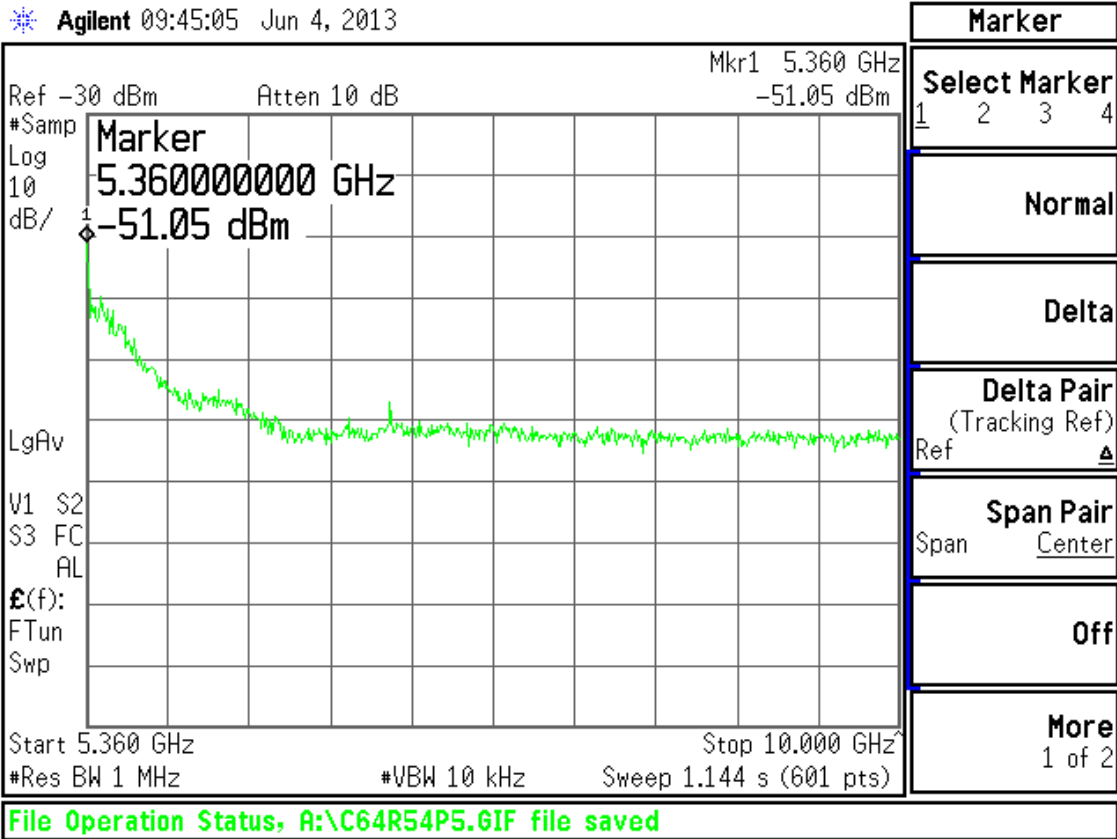


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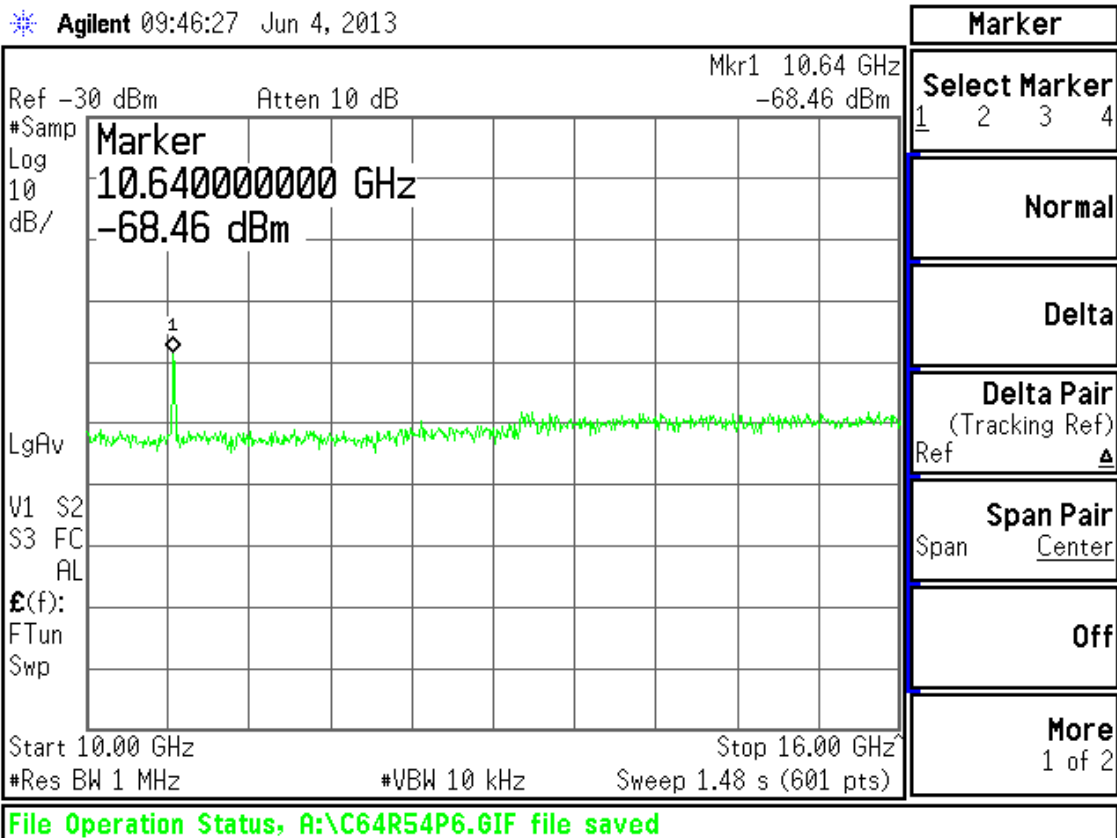


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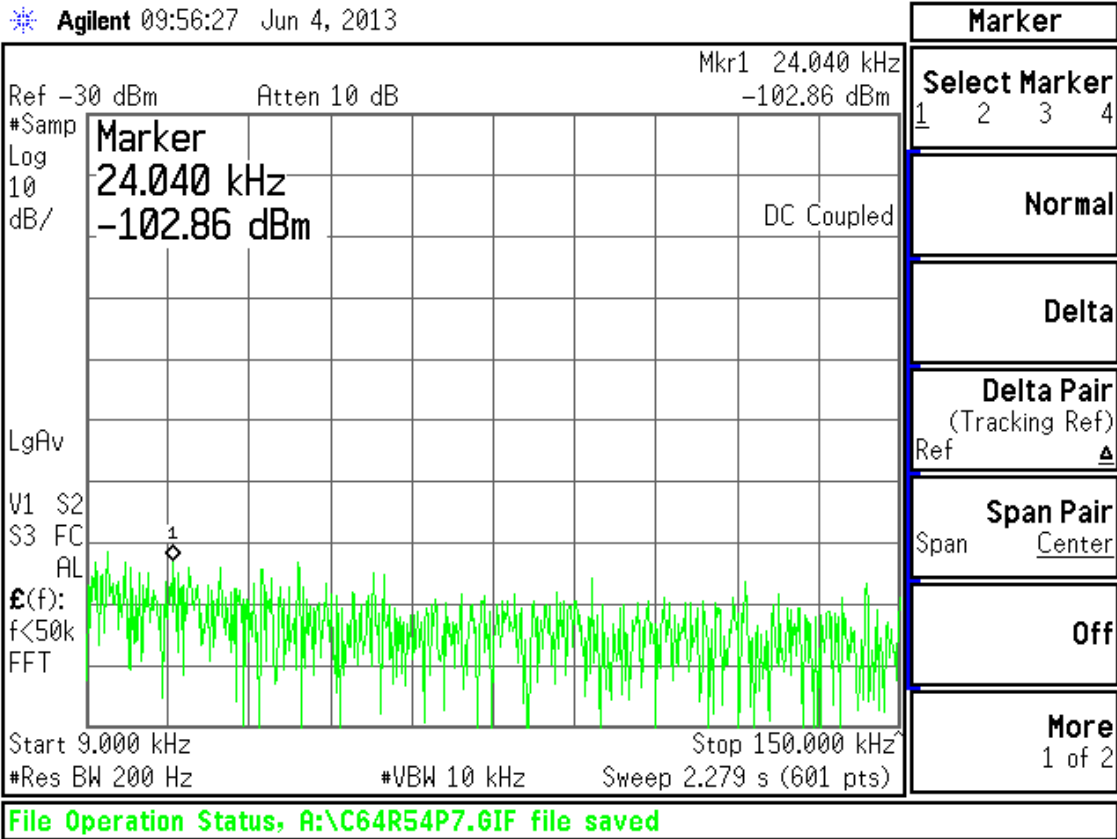




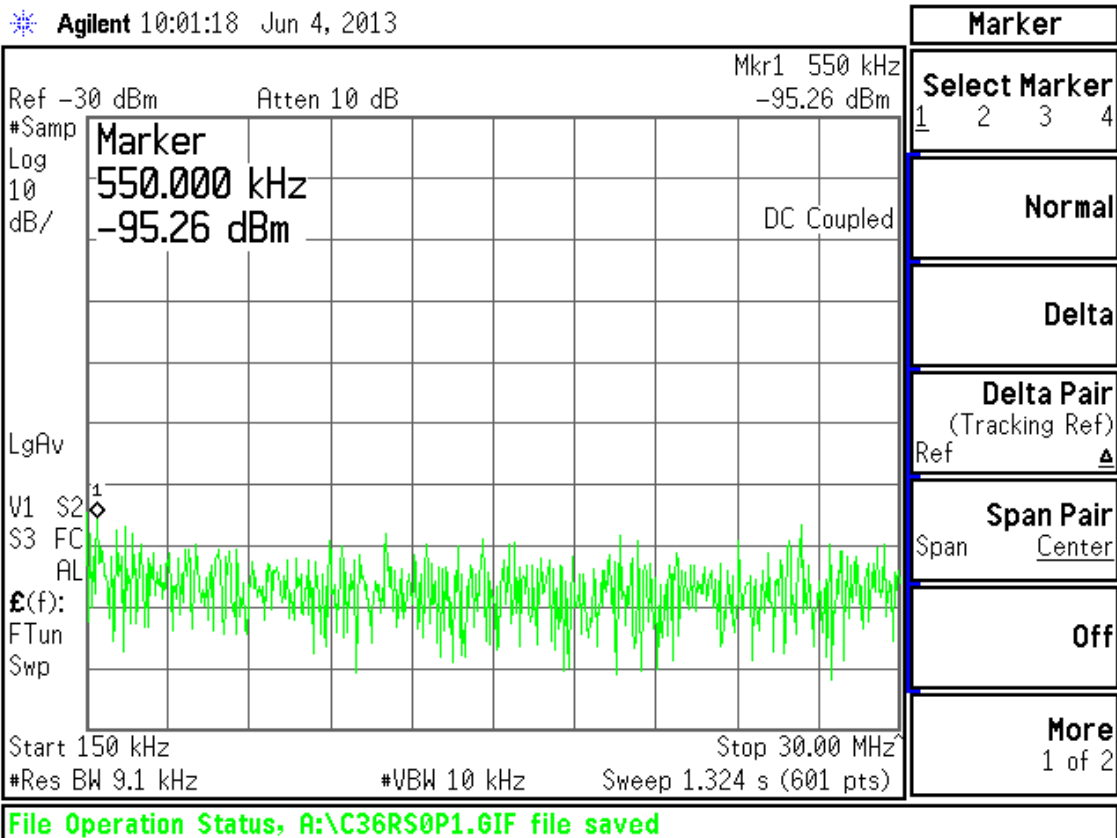
CH64 802.11a Tx Conducted Emissions @ 54Mbps



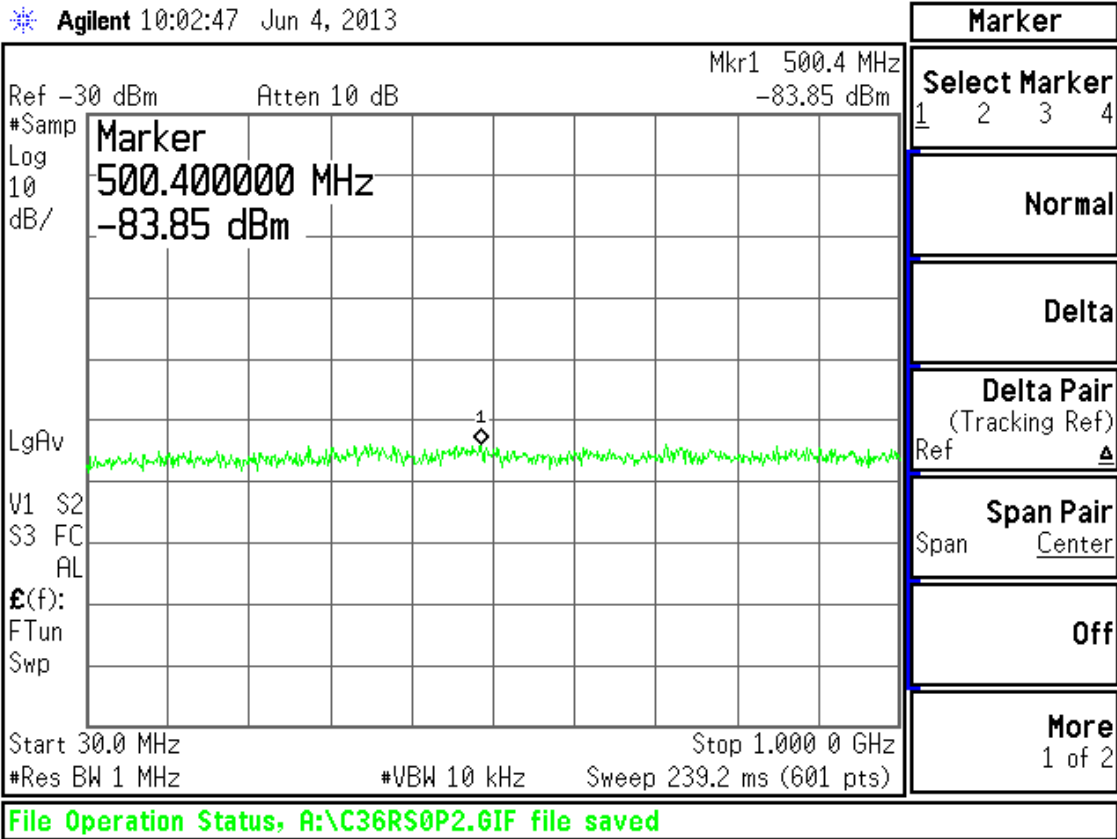
CH64 802.11a Tx Conducted Emissions @ 54Mbps



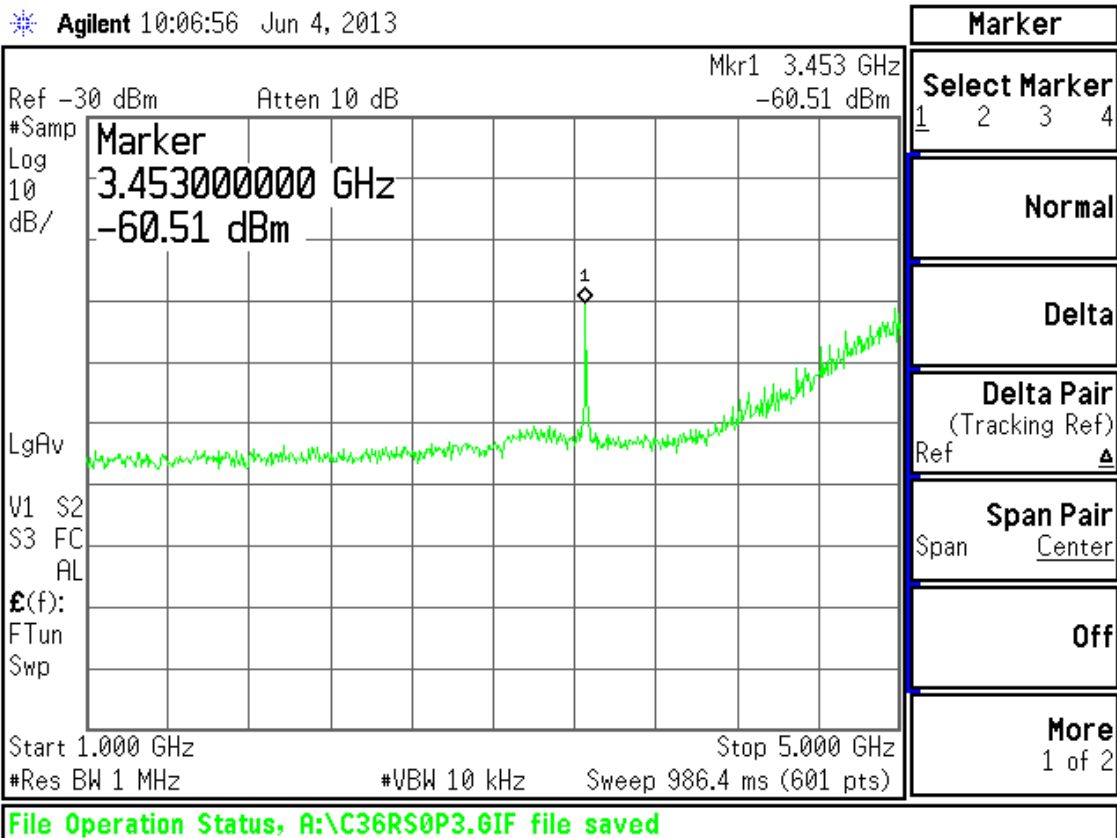
CH36 802.11n Tx Conducted Emissions (MCS0)



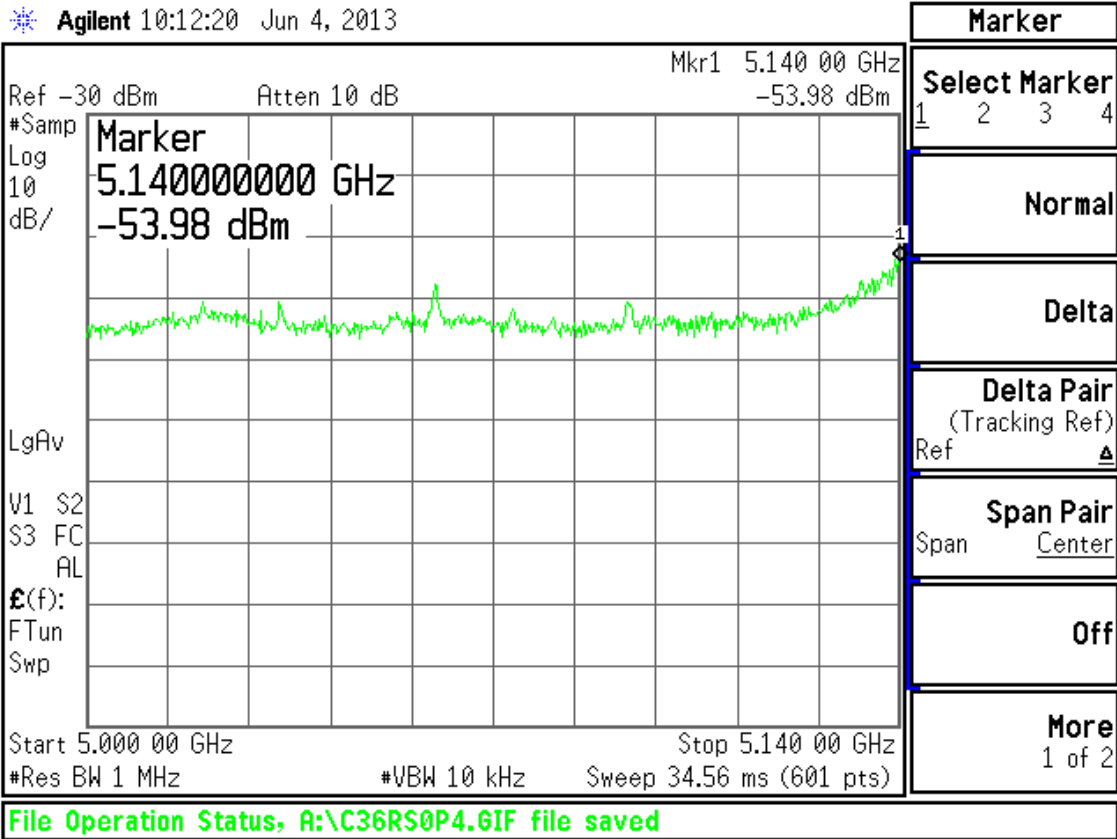
CH36 802.11n Tx Conducted Emissions (MCS0)



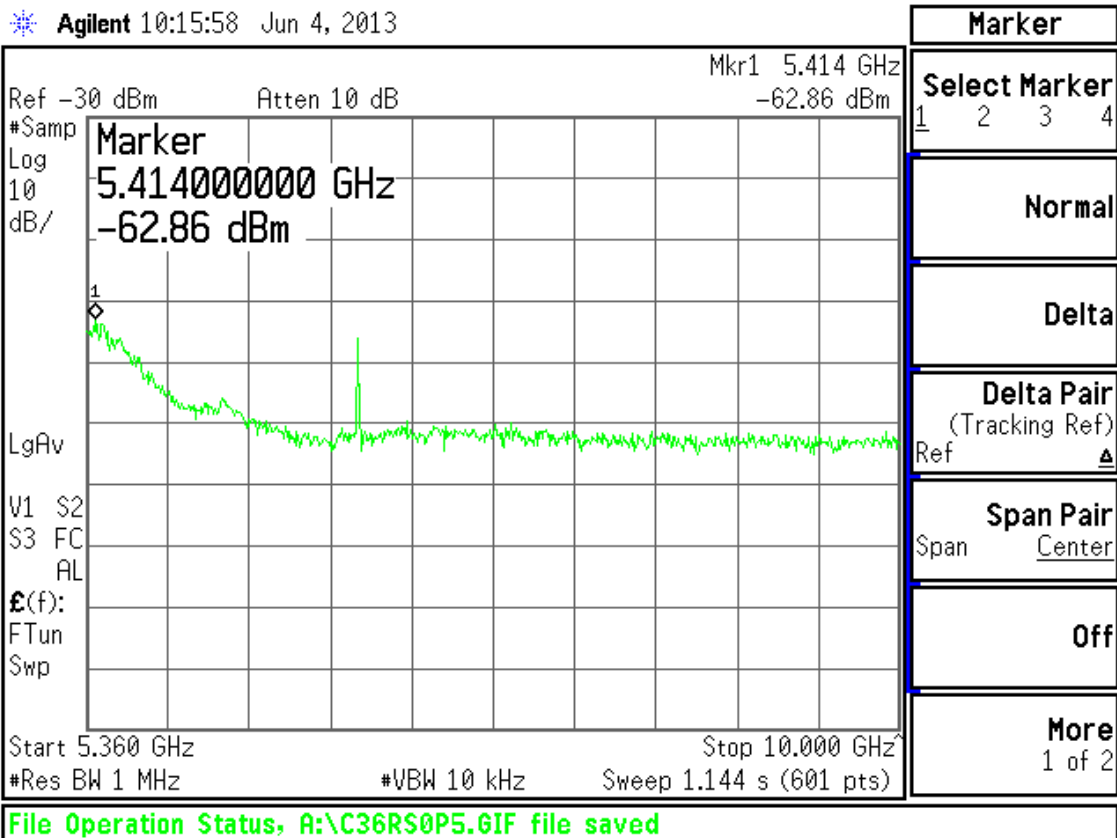
CH36 802.11n Tx Conducted Emissions (MCS0)



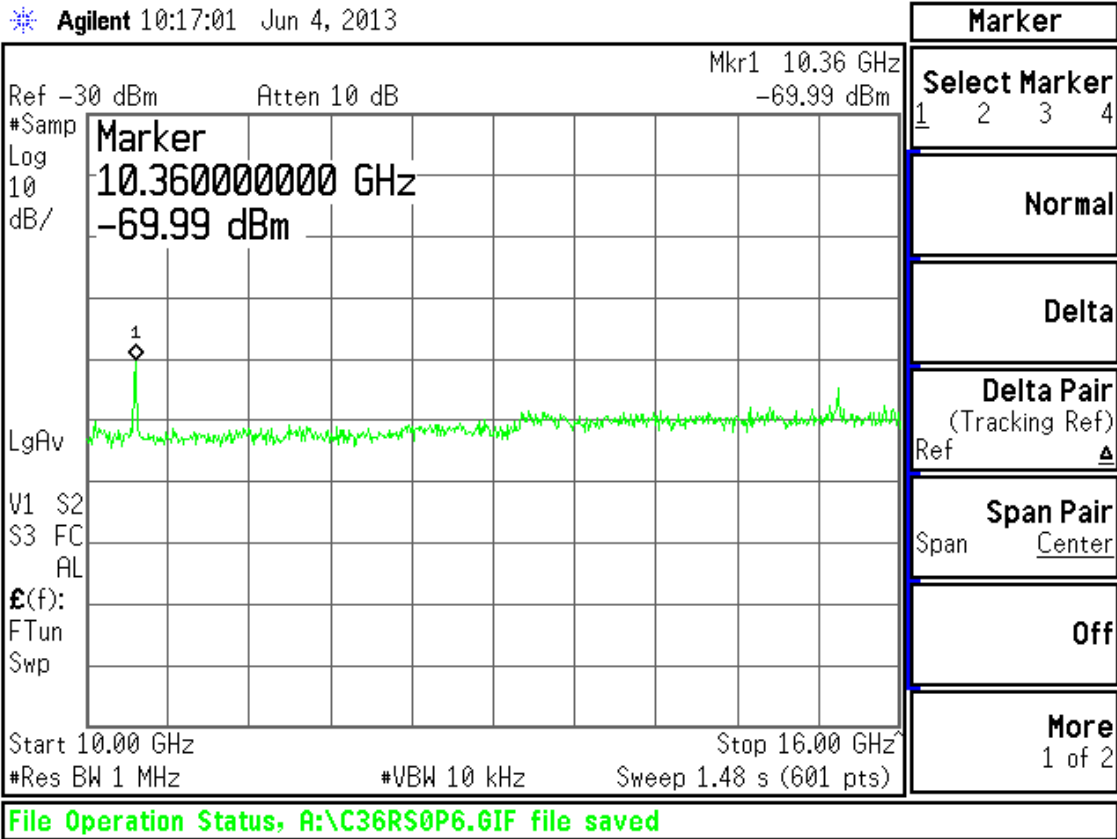
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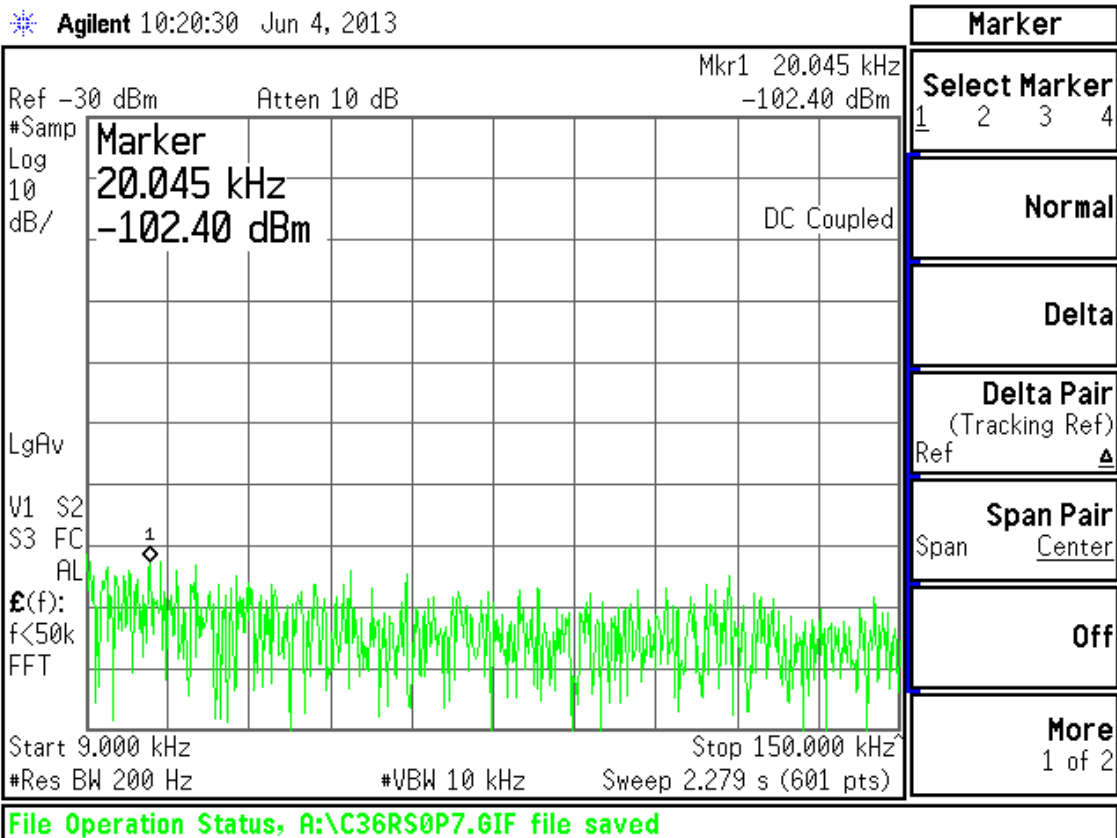
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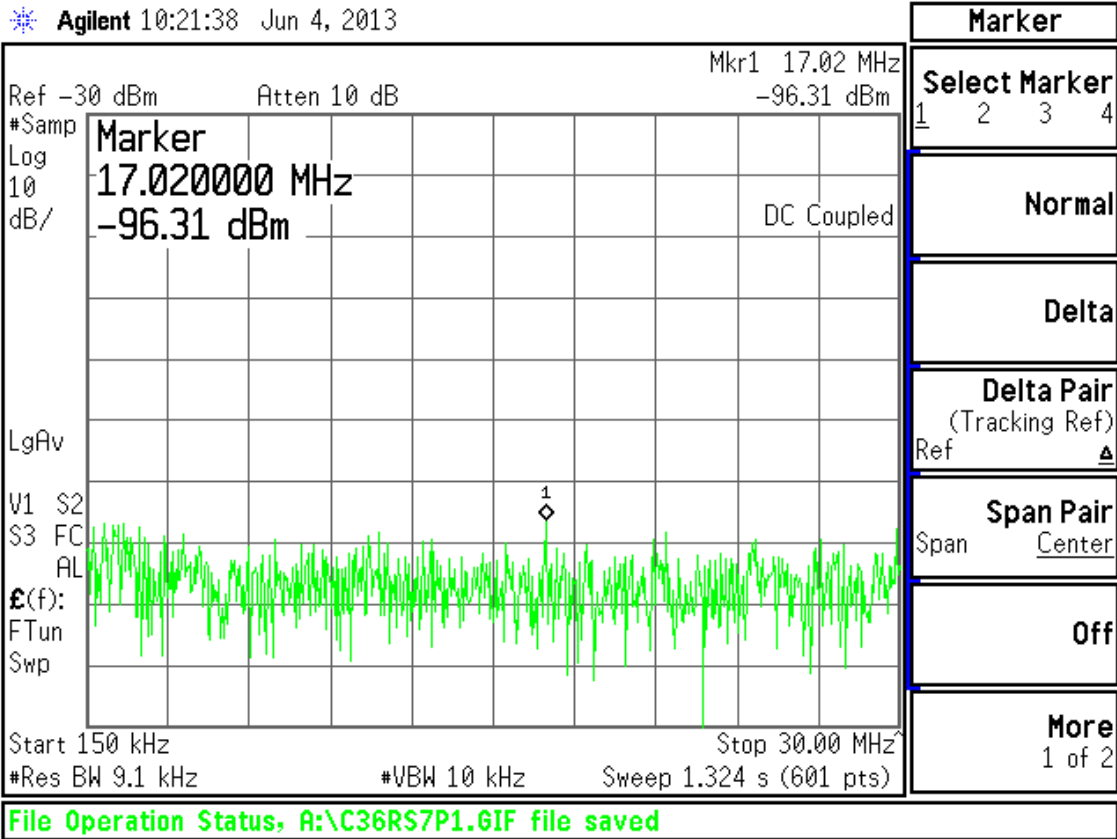
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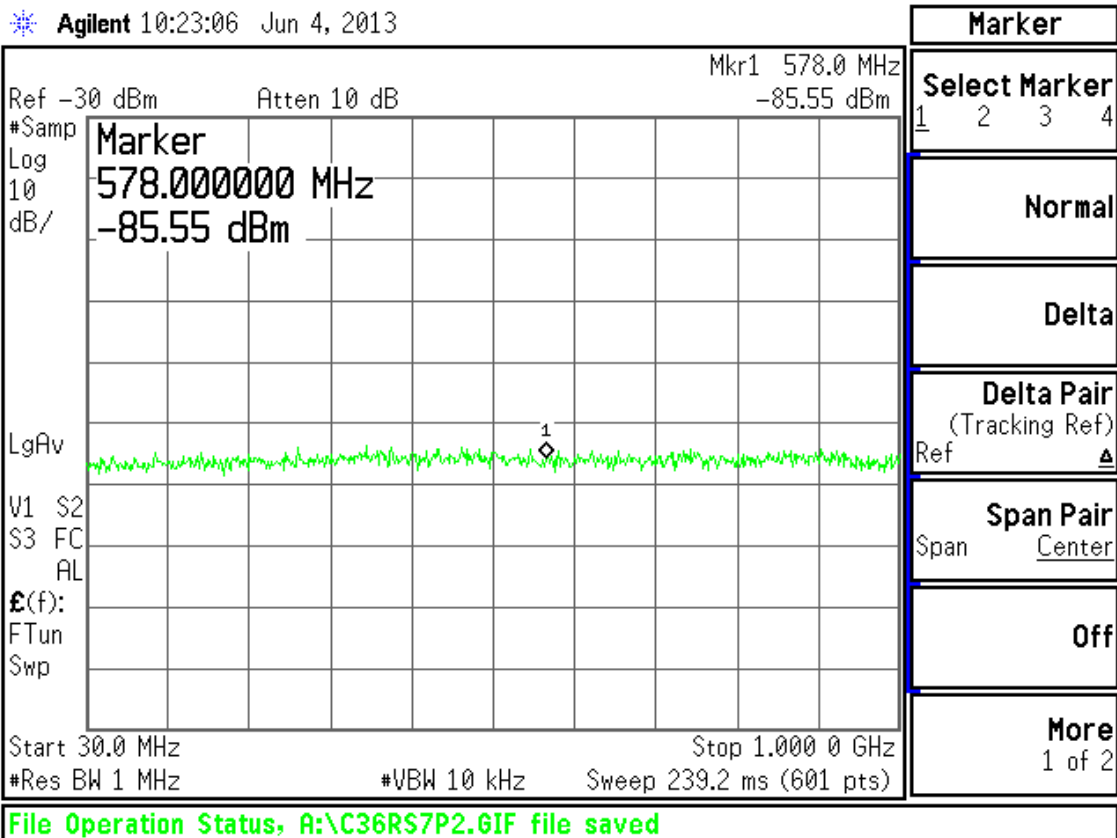
CH36 802.11n Tx Conducted Emissions (MCS0)



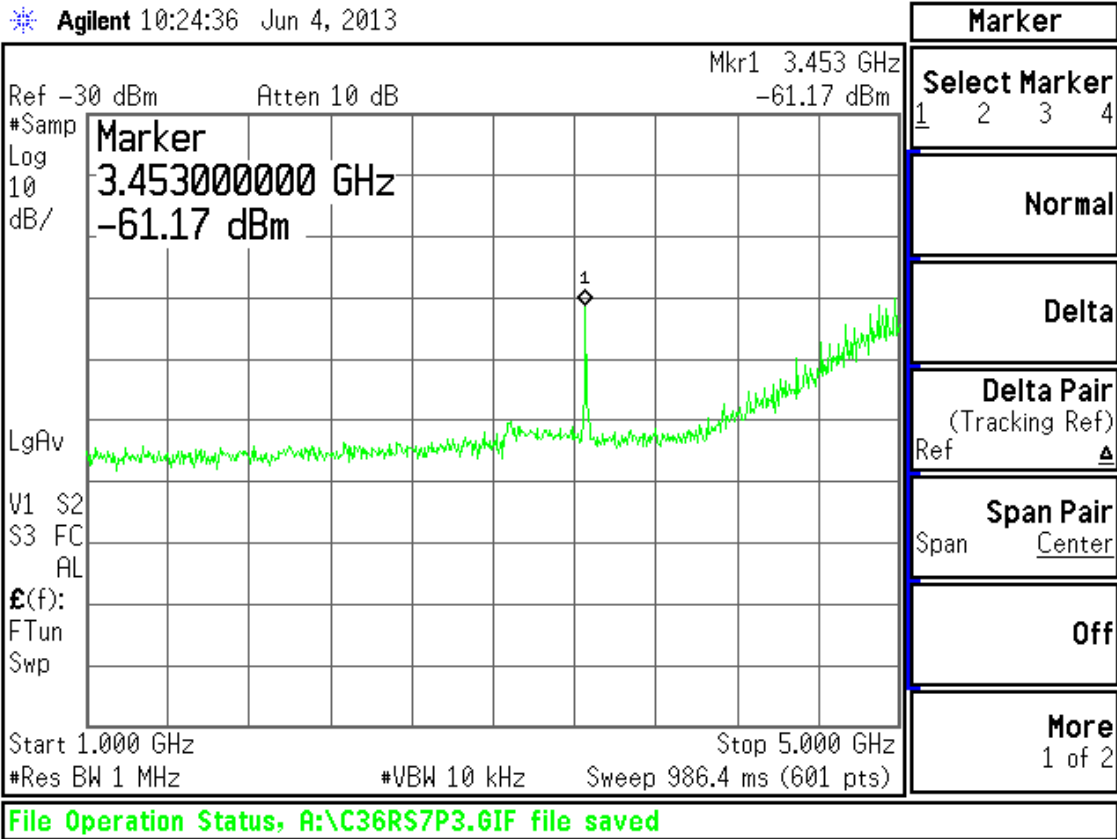
CH36 802.11n Tx Conducted Emissions (MCS7)



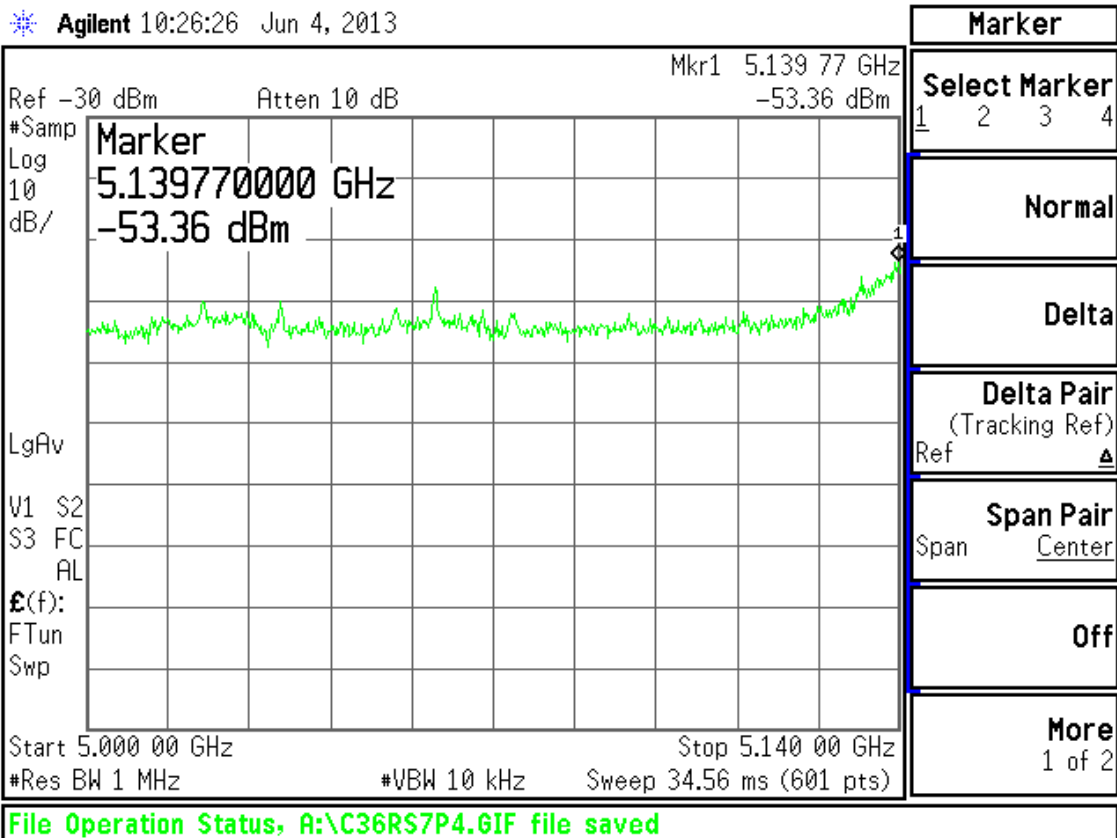
CH36 802.11n Tx Conducted Emissions (MCS7)



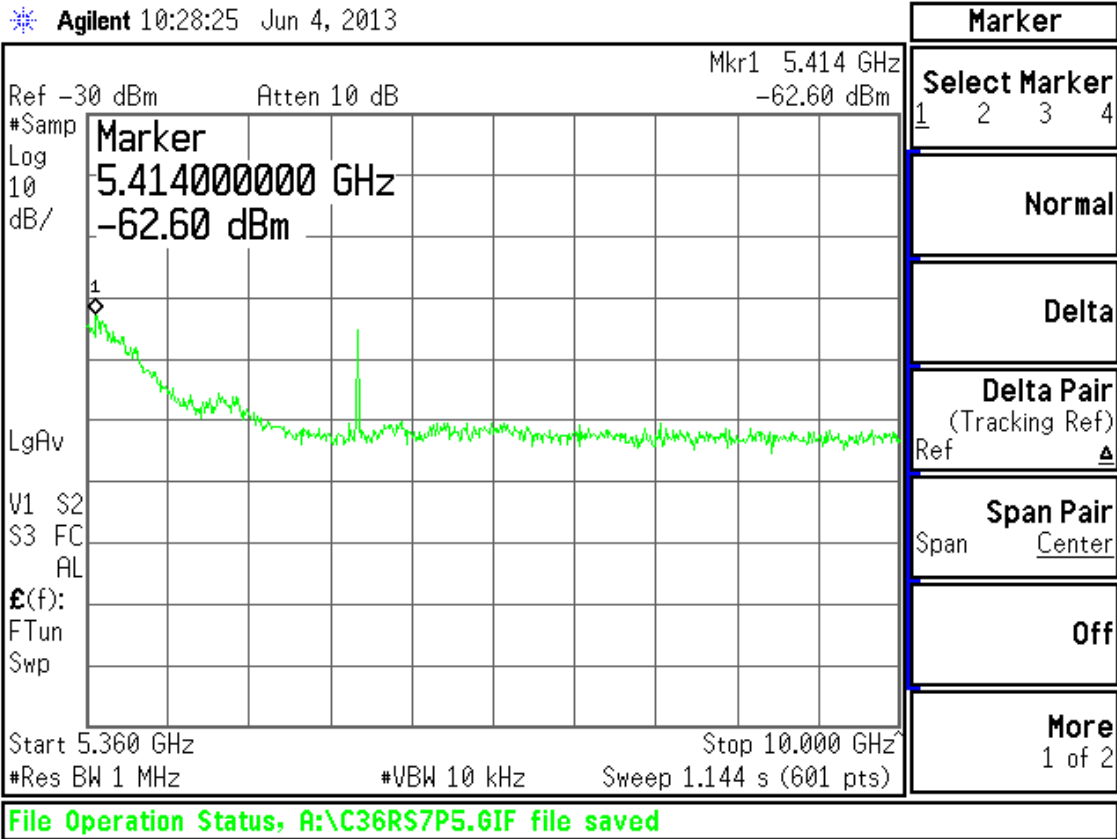
CH36 802.11n Tx Conducted Emissions (MCS7)



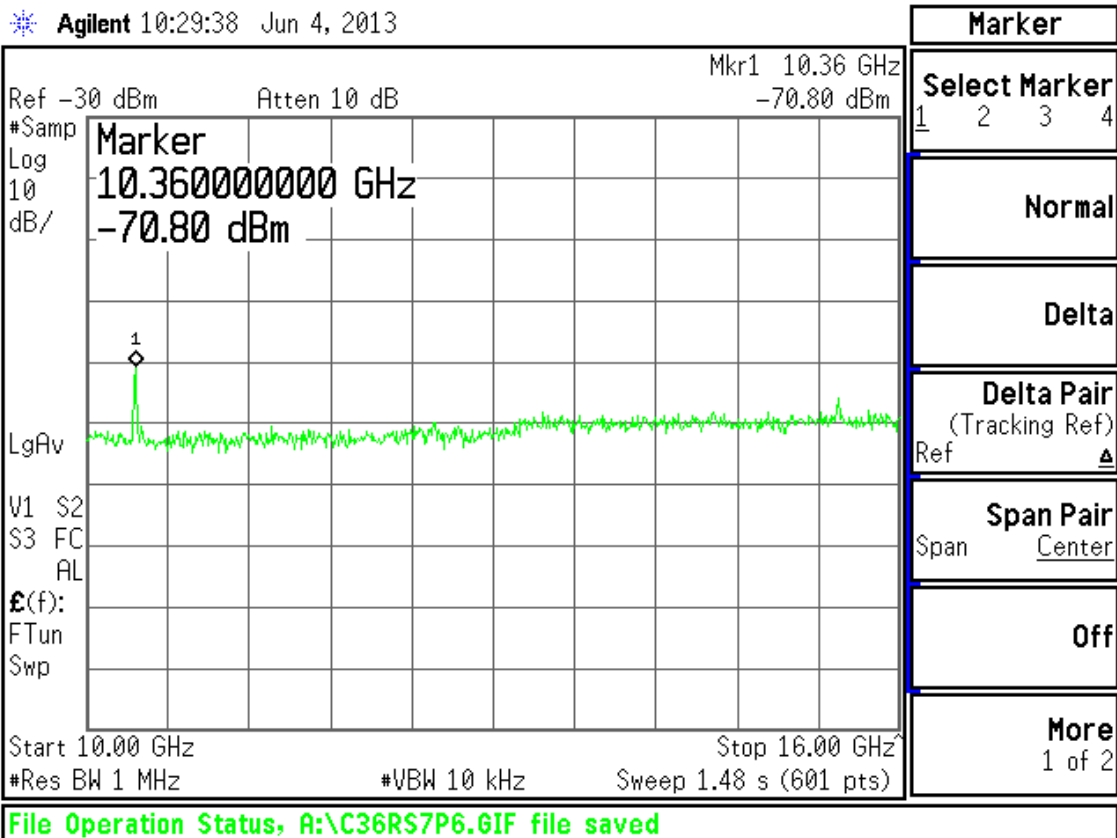
CH36 802.11n Tx Conducted Emissions (MCS7)



CH36 802.11n Tx Conducted Emissions (MCS7)

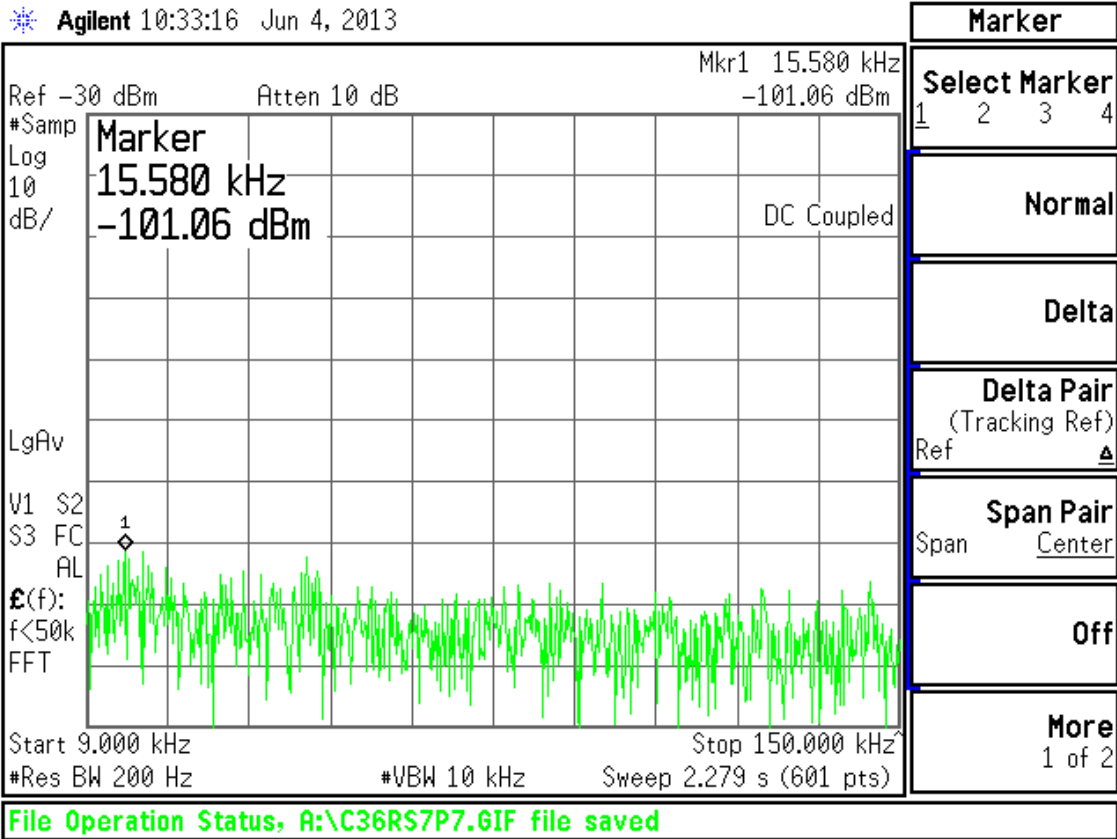


CH36 802.11n Tx Conducted Emissions (MCS7)

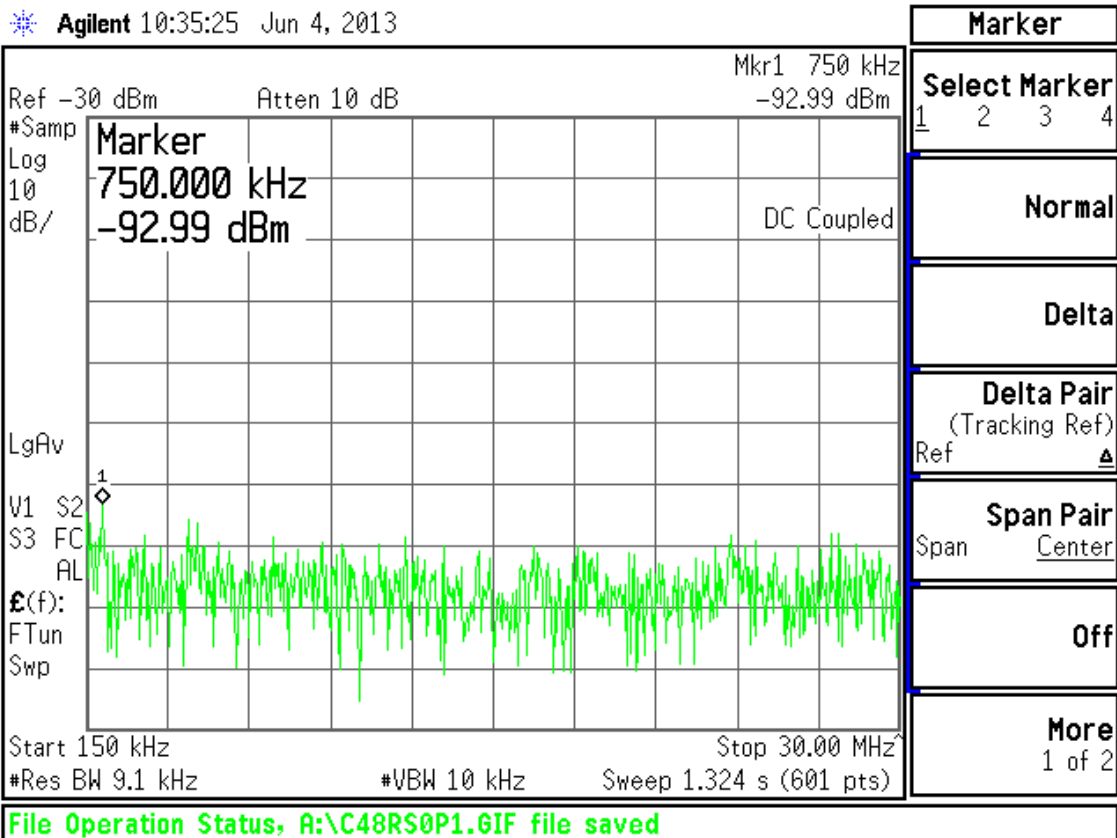


CH36 802.11n Tx Conducted Emissions (MCS7)

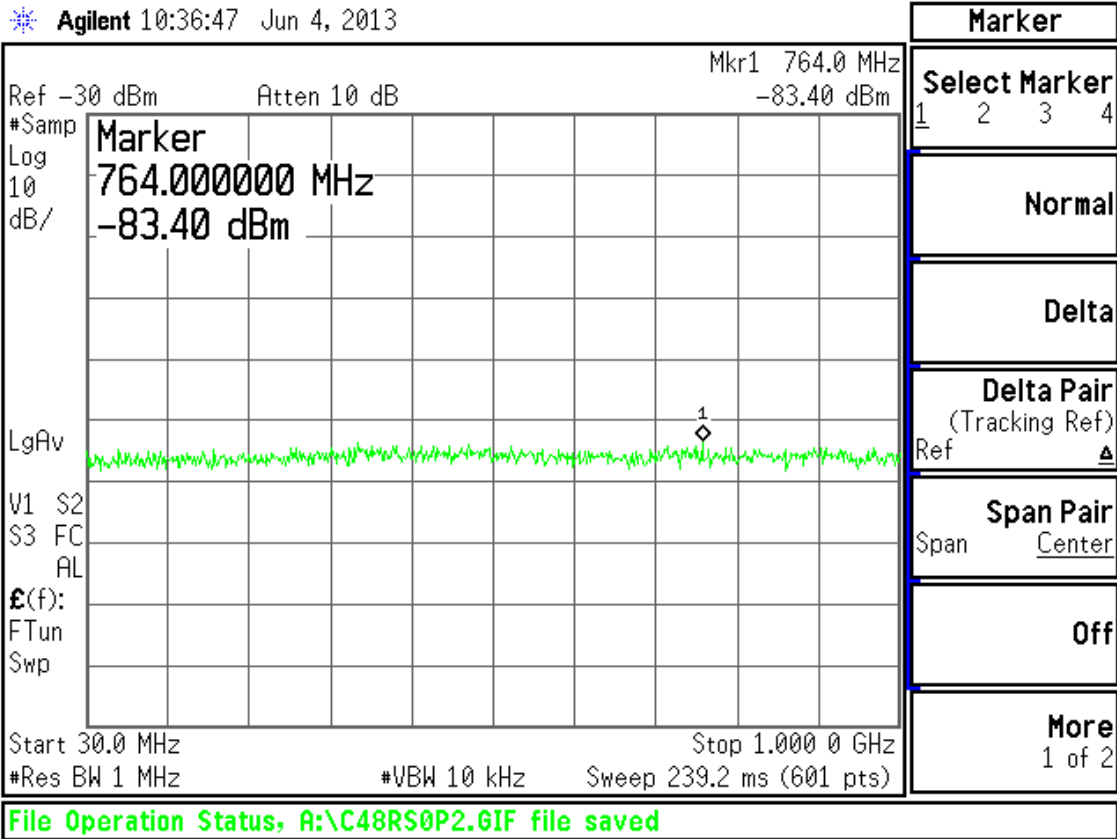




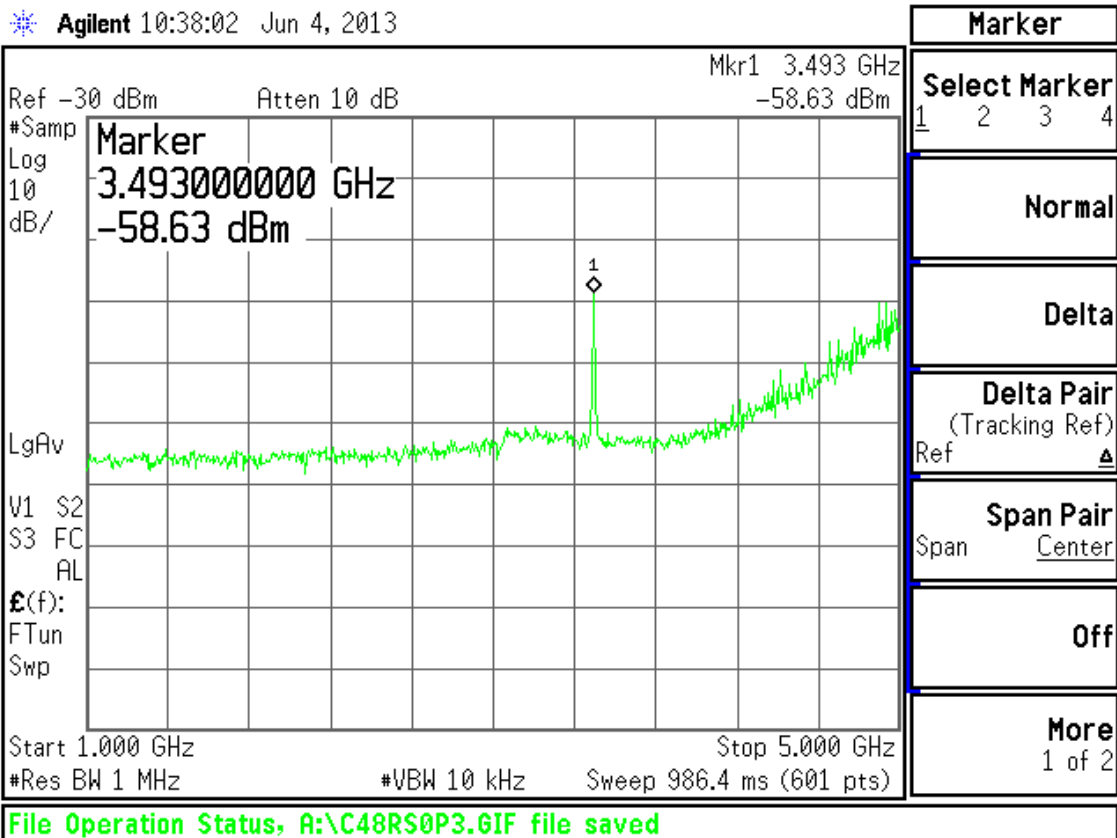
CH48 802.11n Tx Conducted Emissions (MCS0)



CH48 802.11n Tx Conducted Emissions (MCS0)

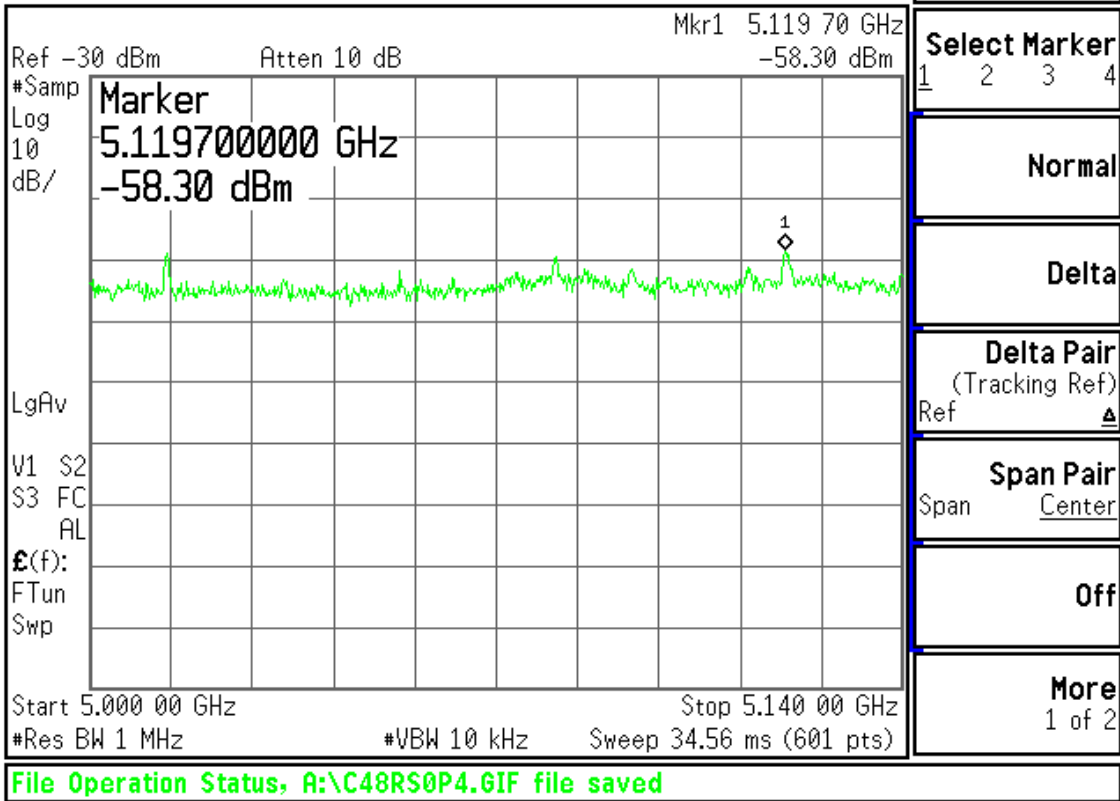


CH48 802.11n Tx Conducted Emissions (MCS0)



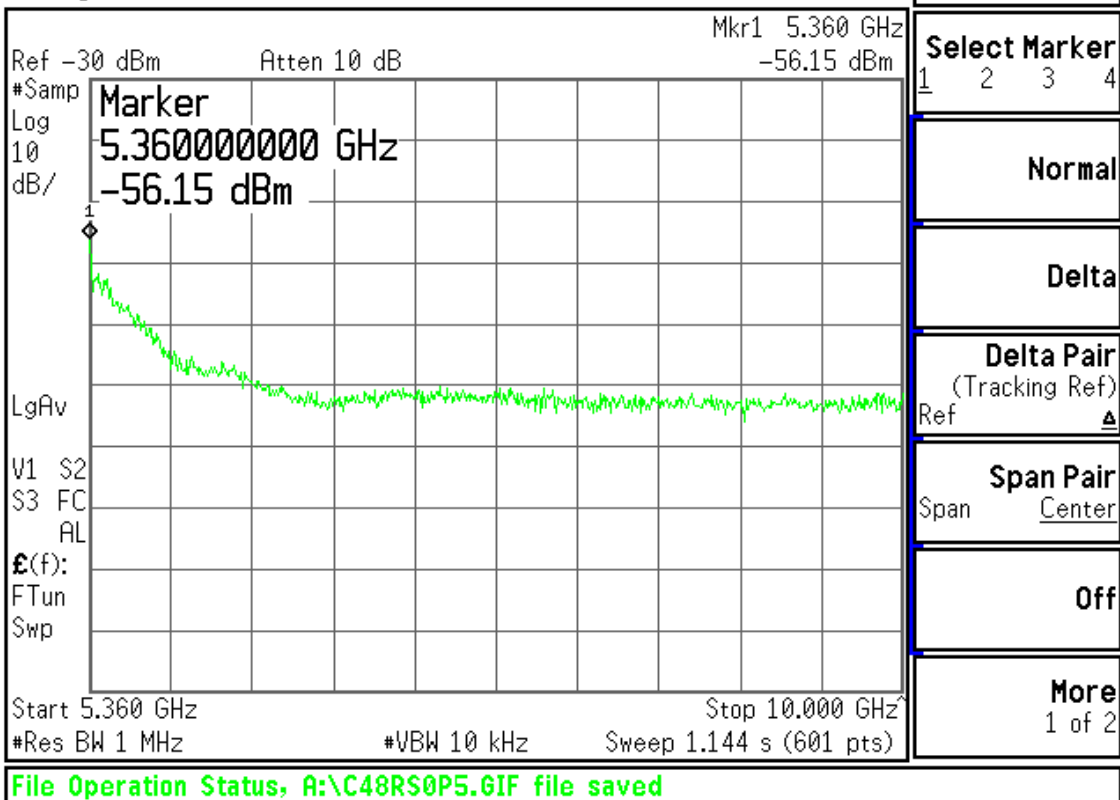
CH48 802.11n Tx Conducted Emissions (MCS0)

Agilent 10:40:54 Jun 4, 2013

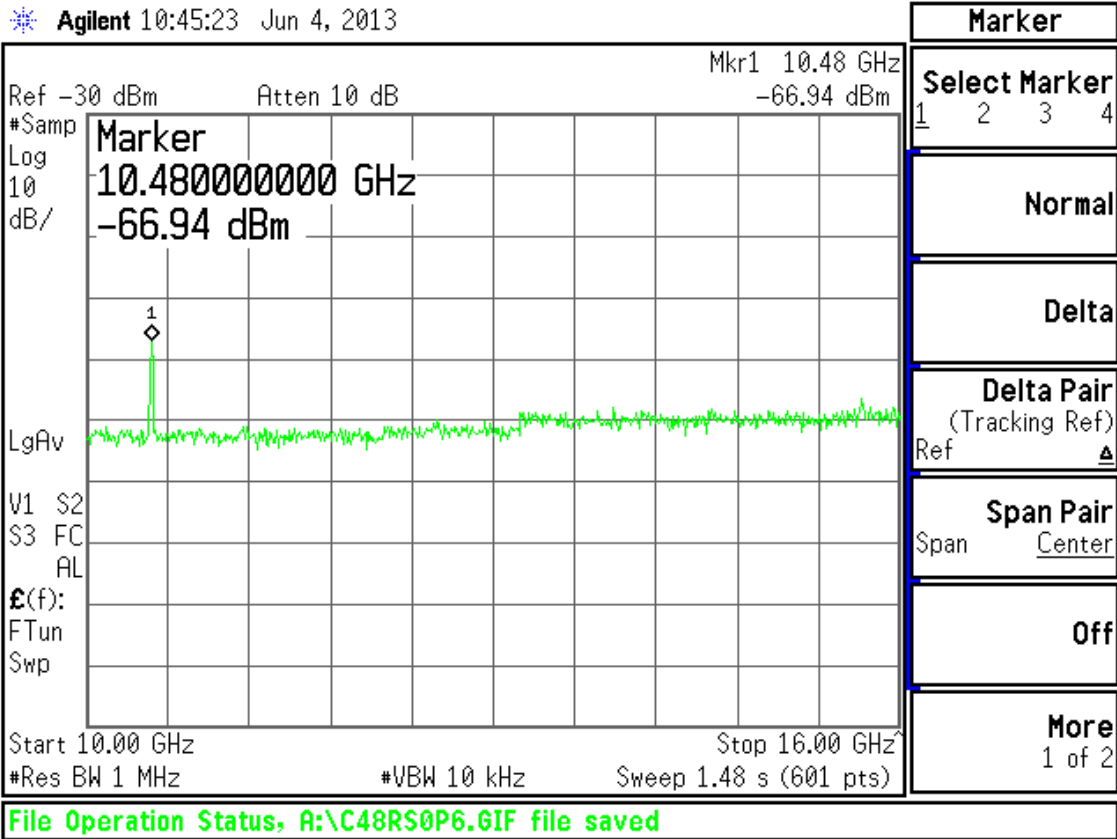


CH48 802.11n Tx Conducted Emissions (MCS0)

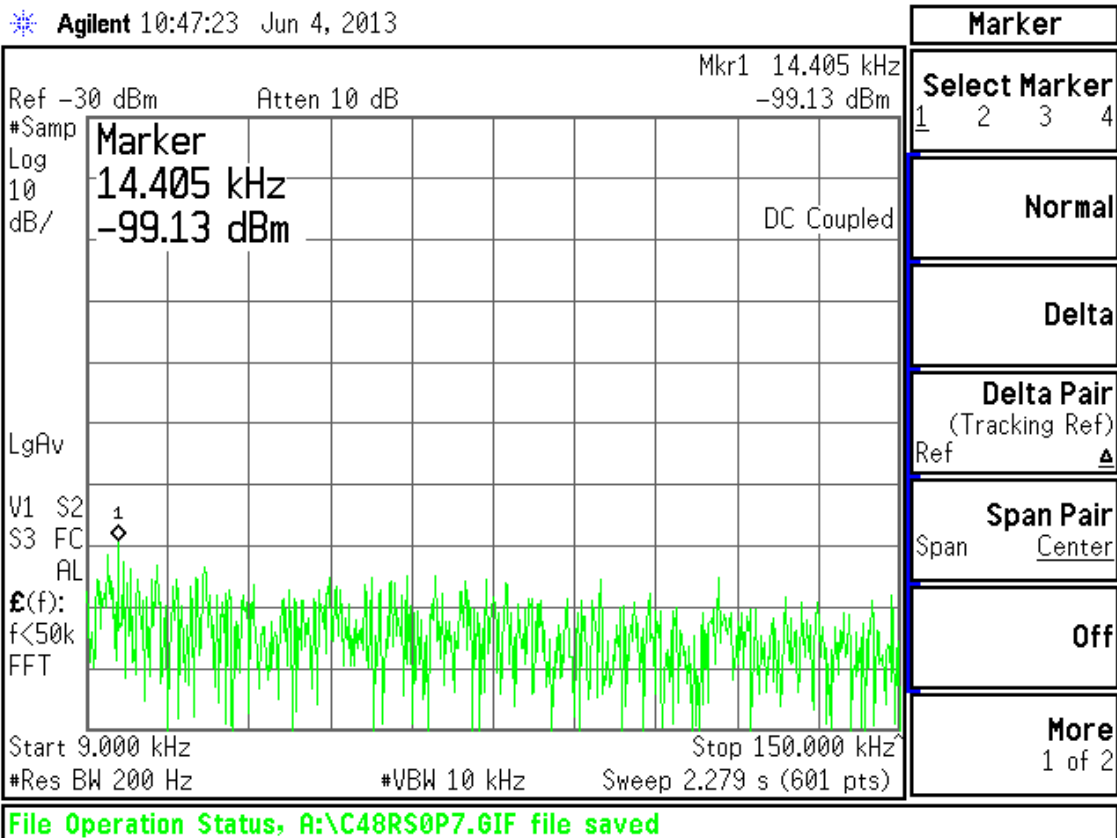
Agilent 10:42:17 Jun 4, 2013



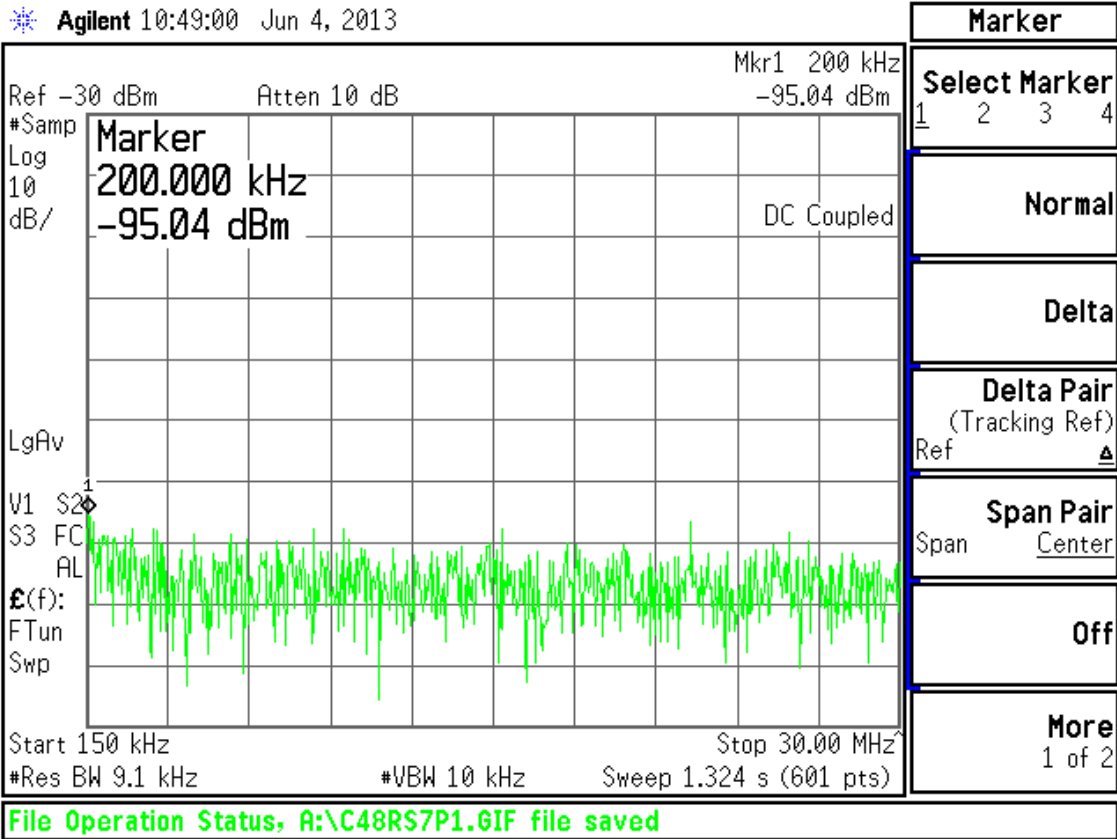
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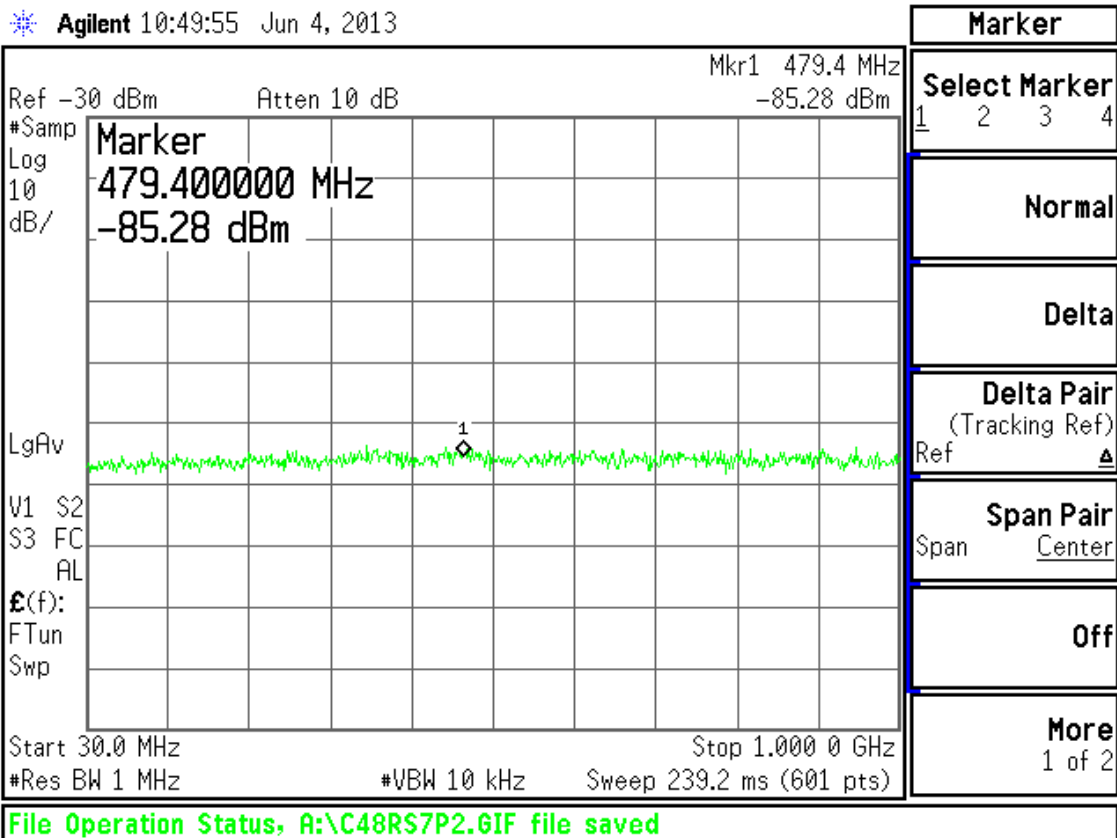
CH48 802.11n Tx Conducted Emissions (MCS0)



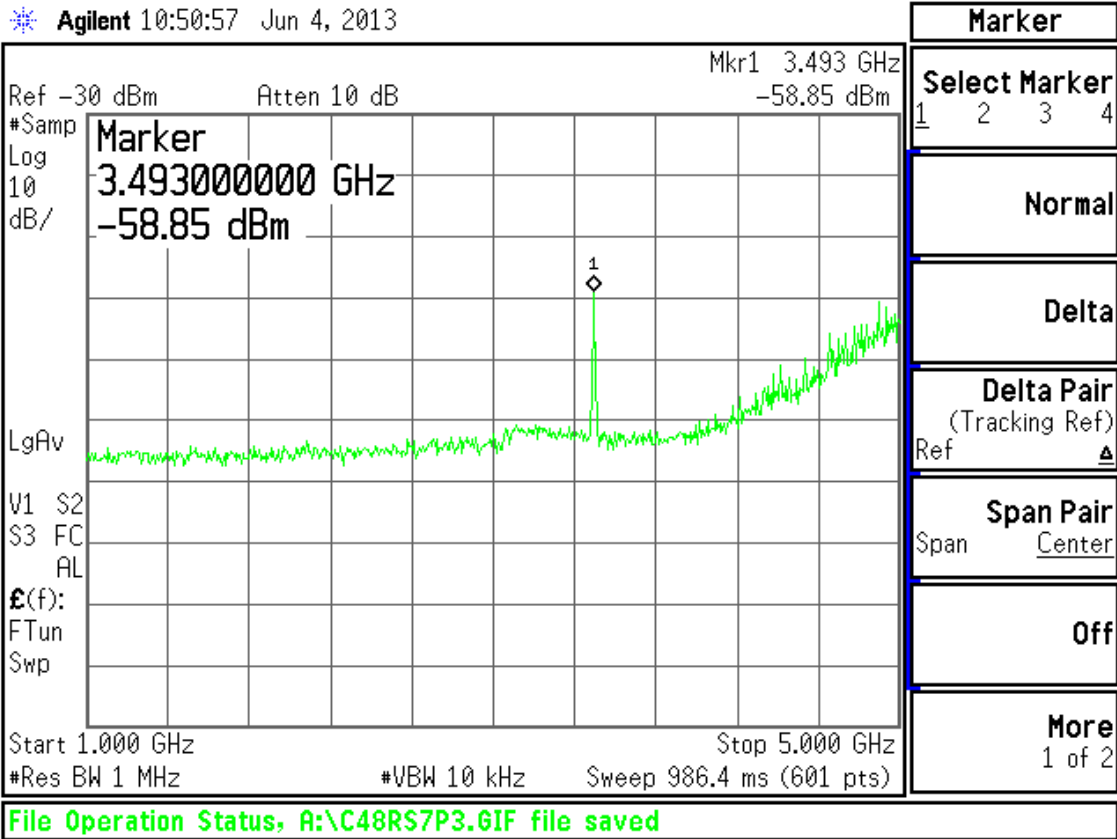
CH48 802.11n Tx Conducted Emissions (MCS7)



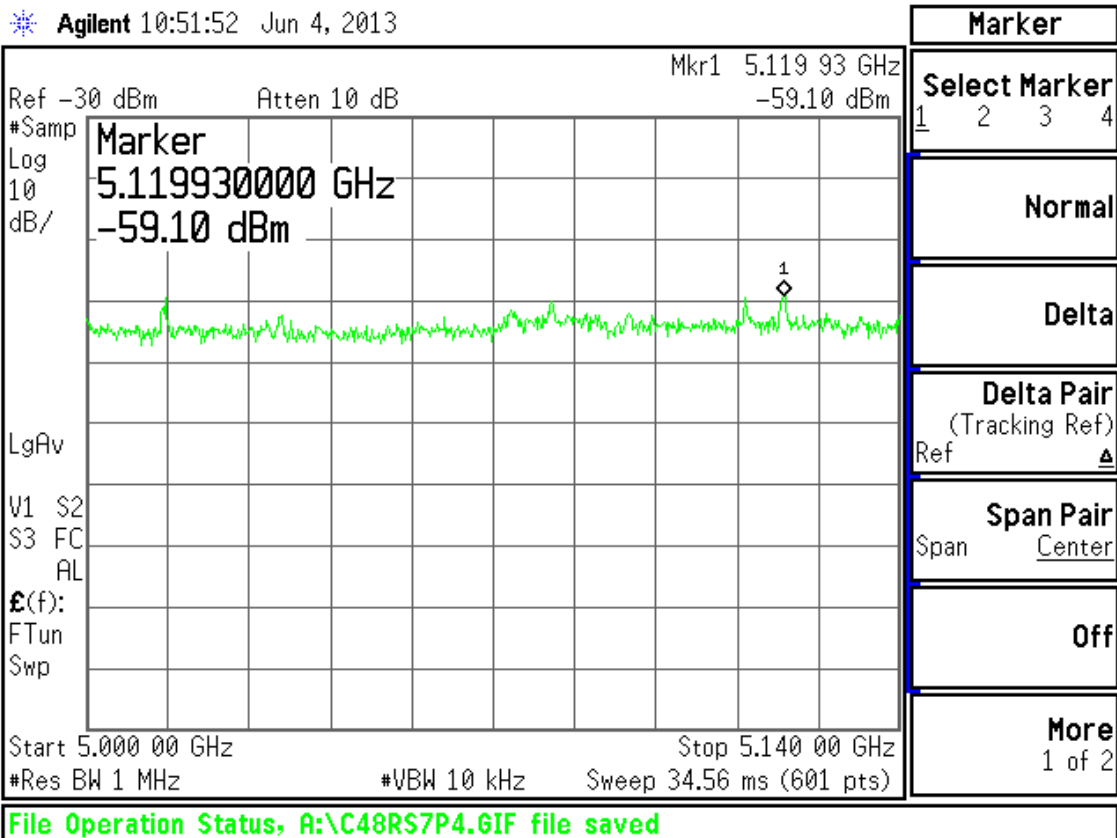
CH48 802.11n Tx Conducted Emissions (MCS7)



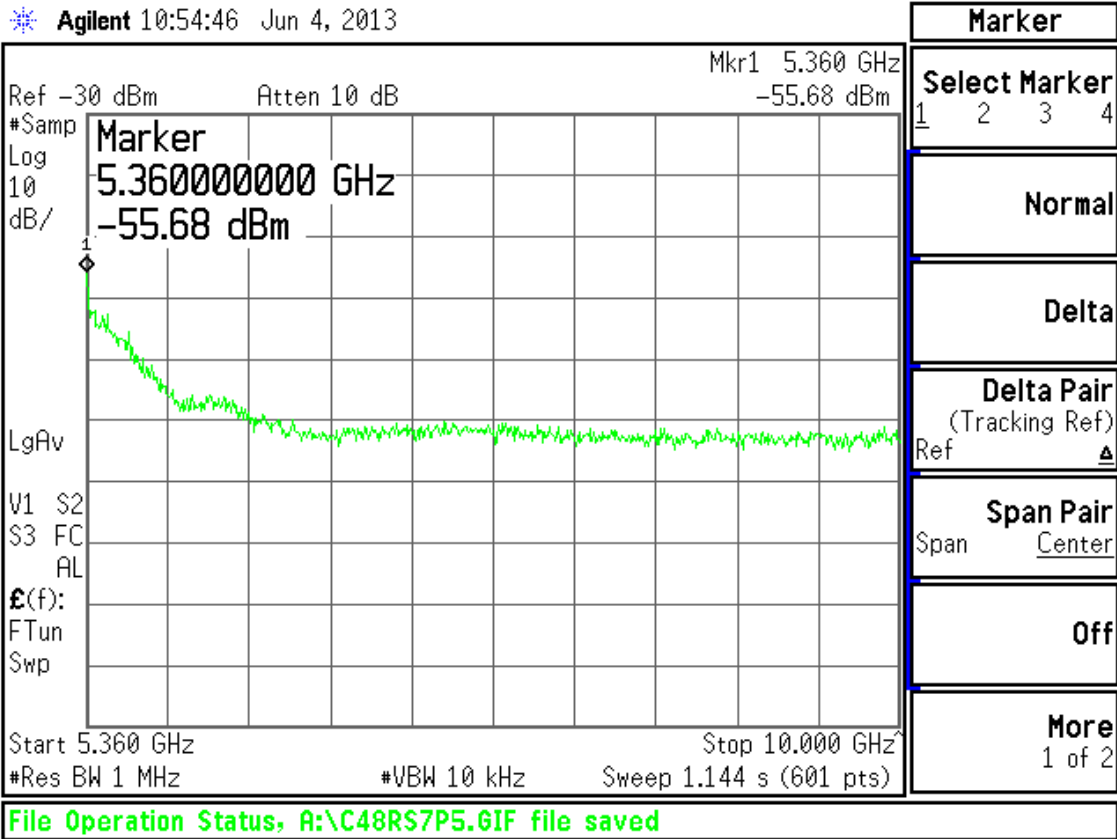
CH48 802.11n Tx Conducted Emissions (MCS7)



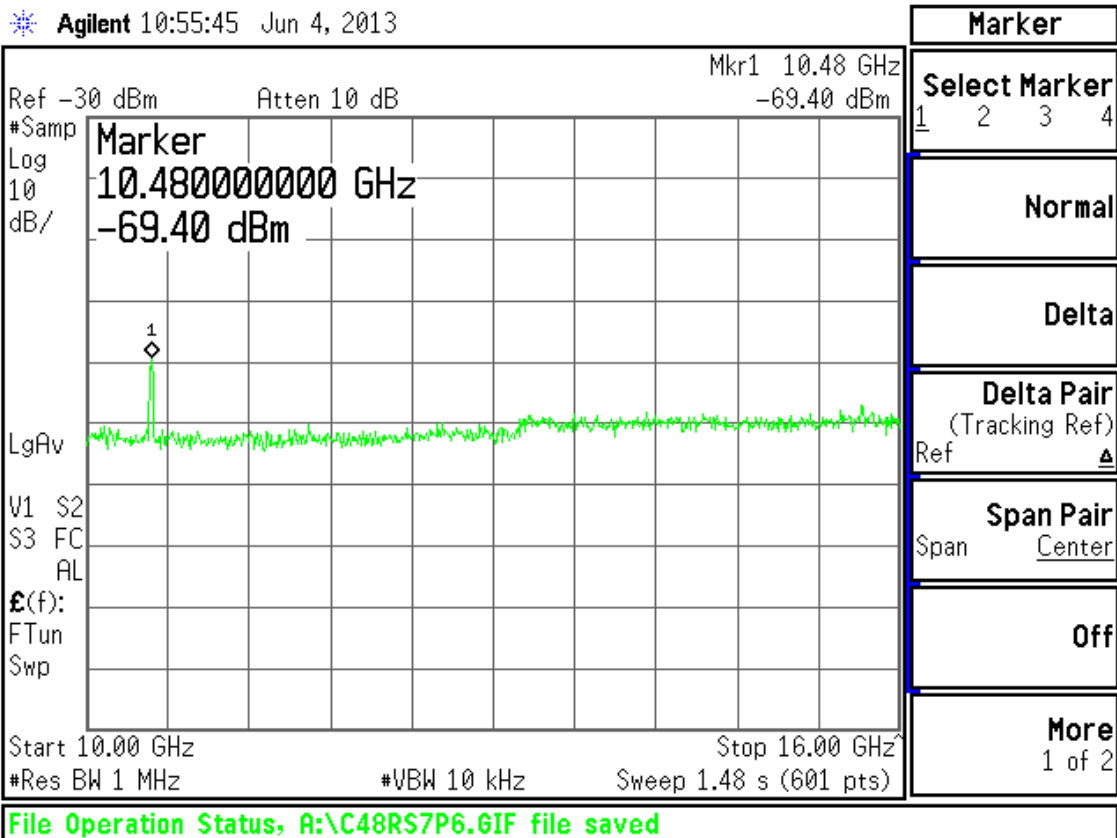
CH48 802.11n Tx Conducted Emissions (MCS7)



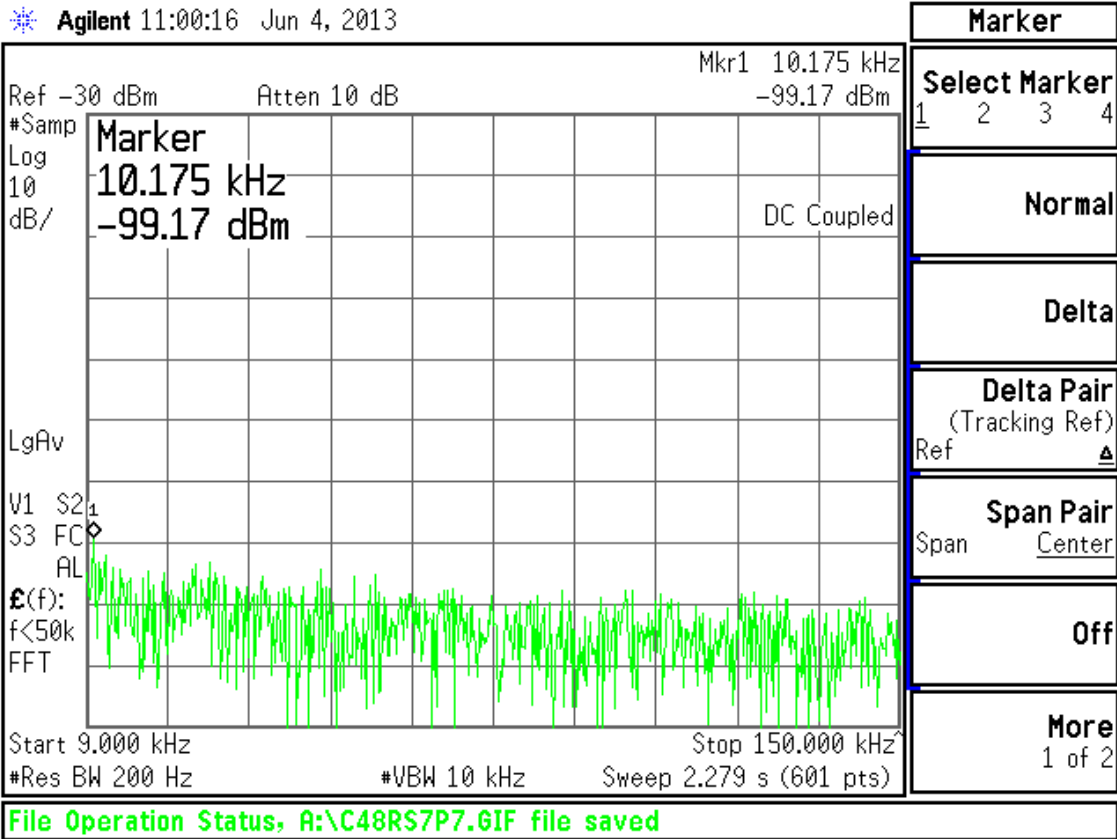
CH48 802.11n Tx Conducted Emissions (MCS7)



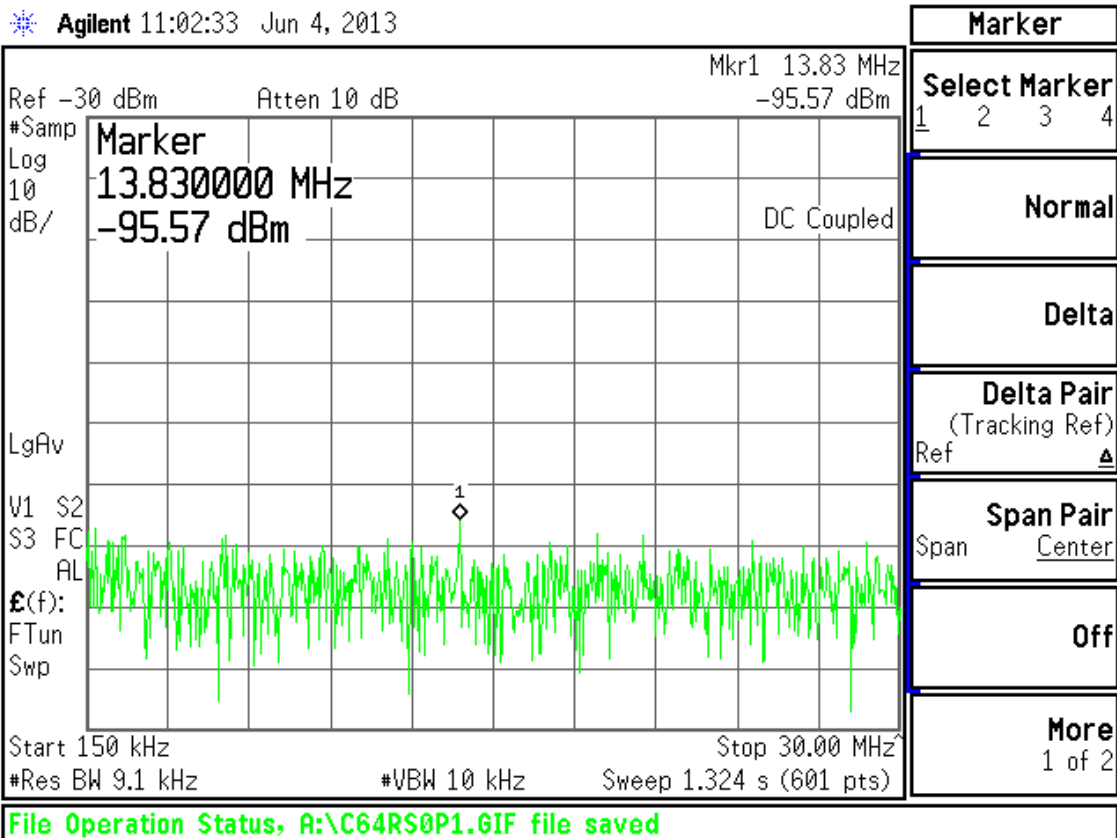
CH48 802.11n Tx Conducted Emissions (MCS7)



CH48 802.11n Tx Conducted Emissions (MCS7)

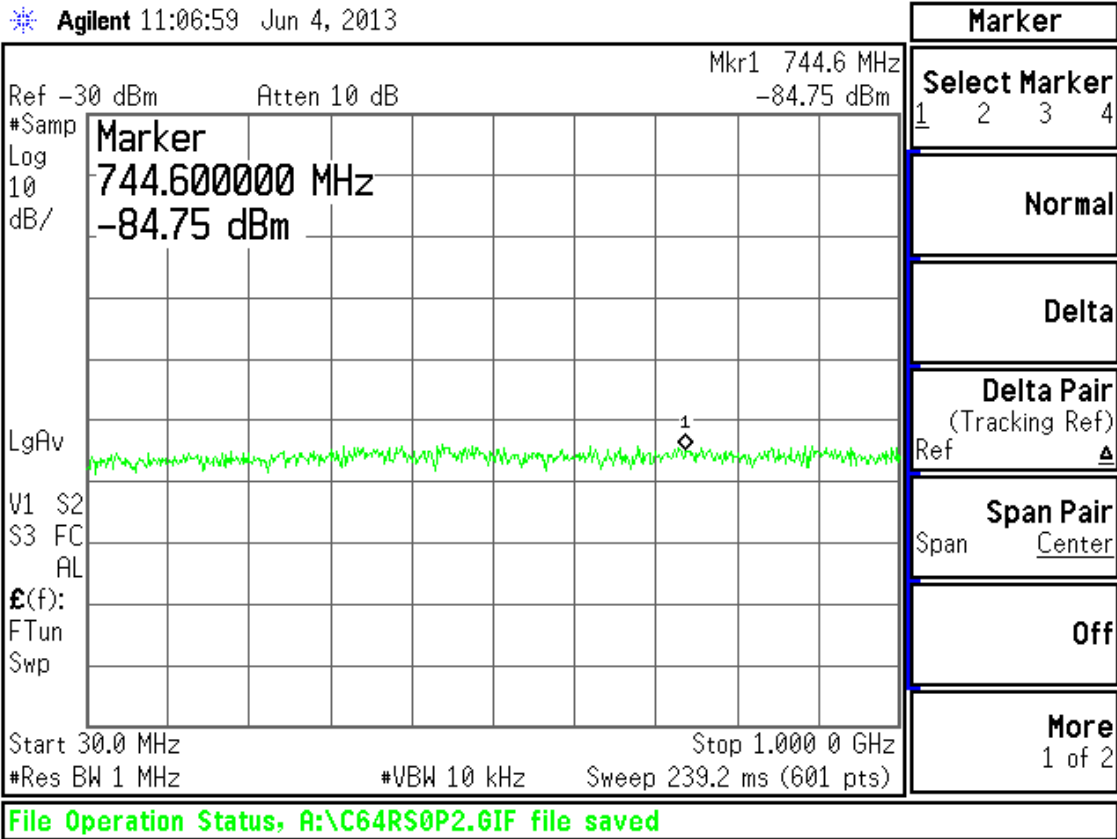


CH64 802.11n Tx Conducted Emissions (MCS0)

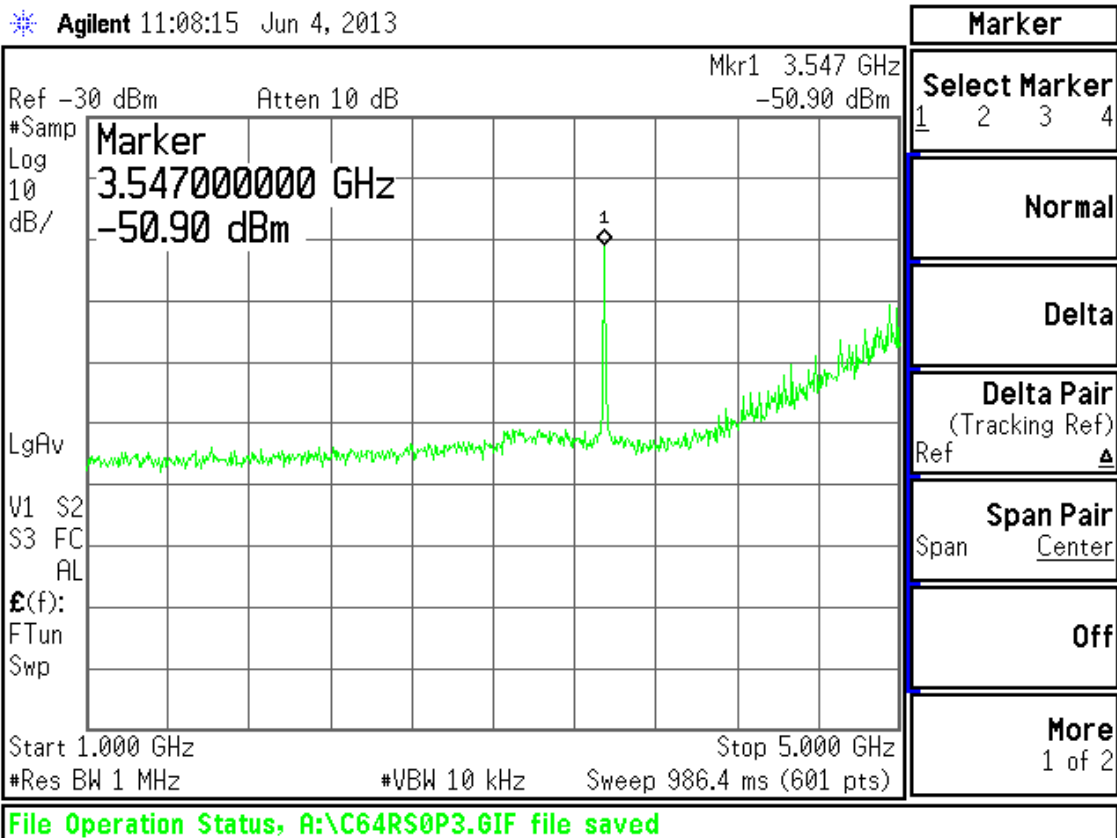


CH64 802.11n Tx Conducted Emissions (MCS0)

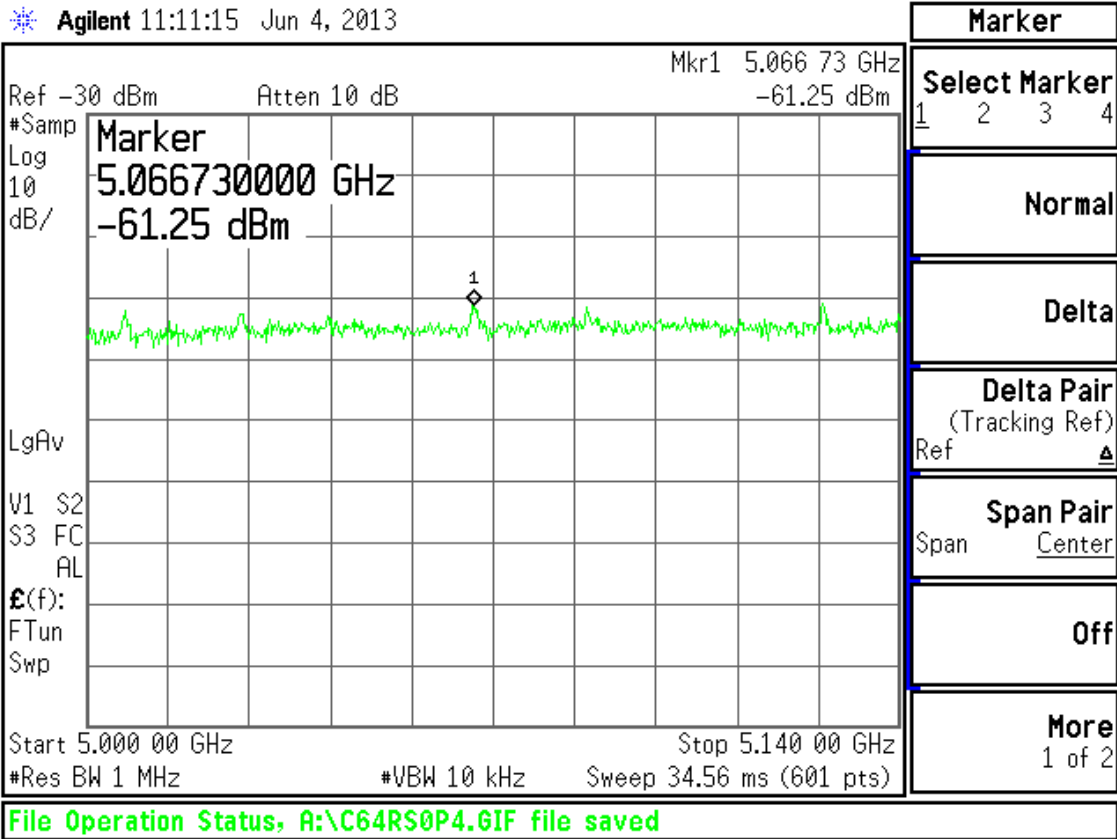




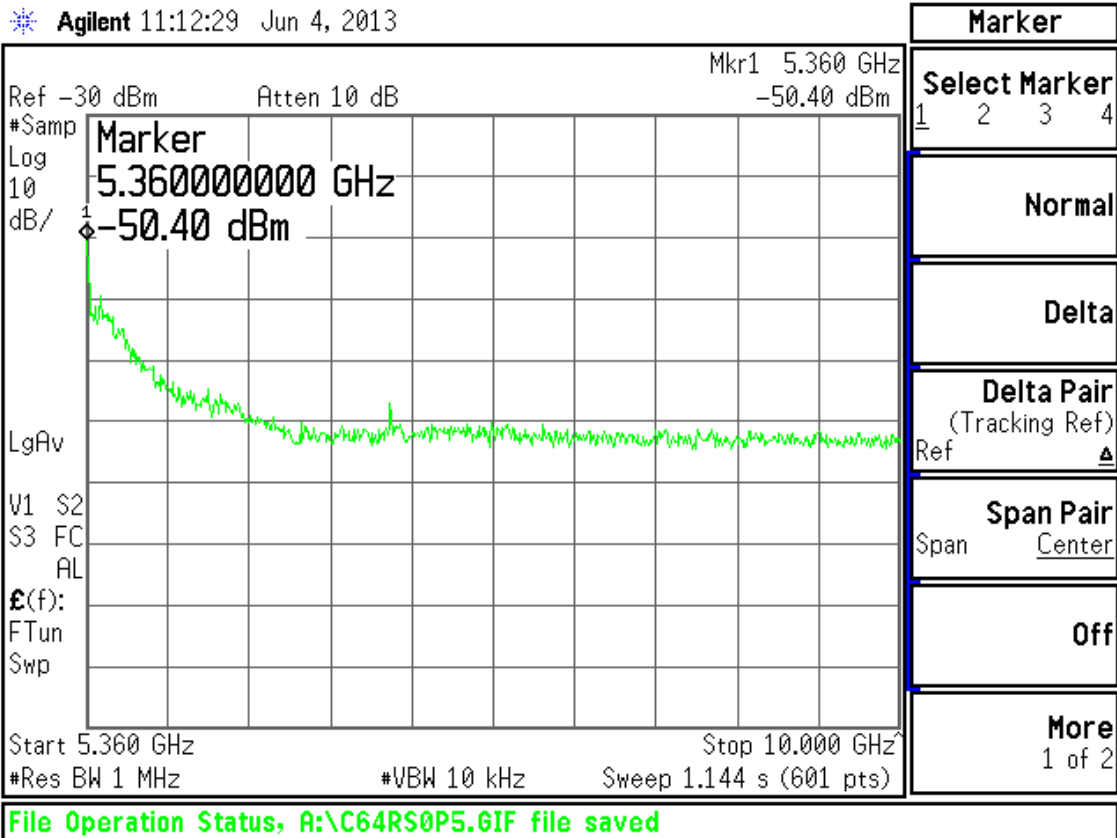
CH64 802.11n Tx Conducted Emissions (MCS0)



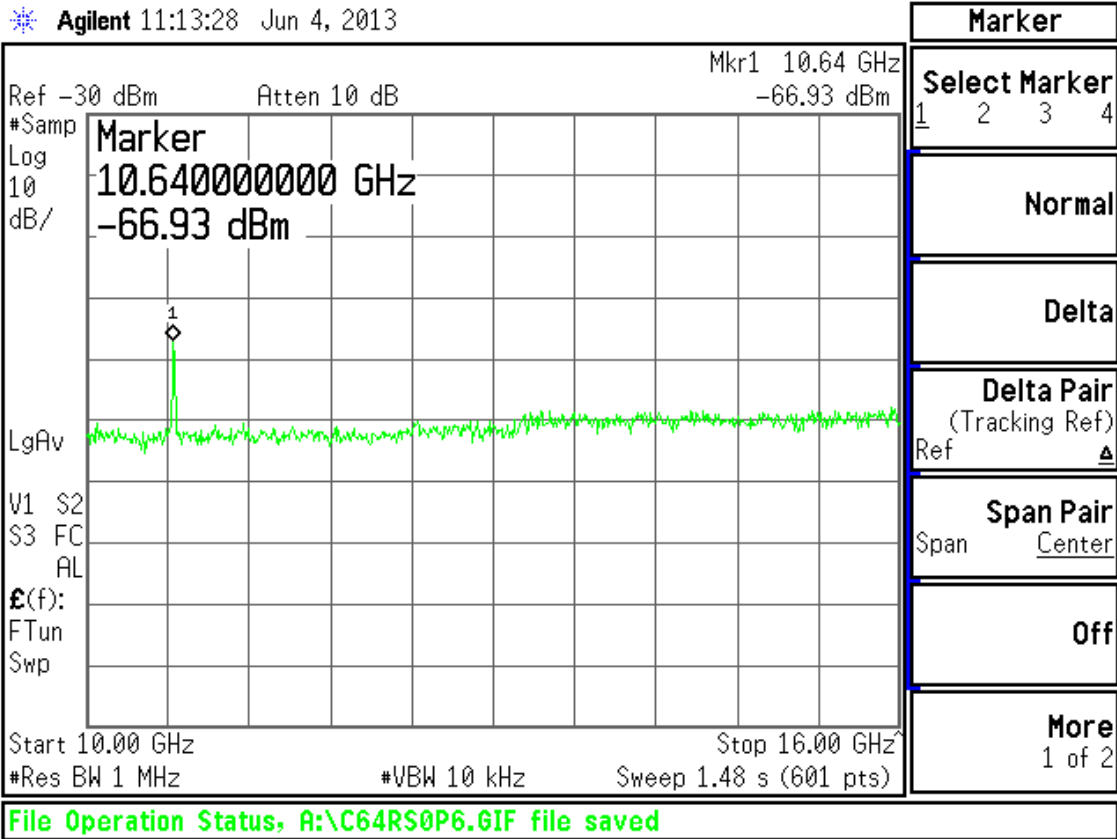
CH64 802.11n Tx Conducted Emissions (MCS0)



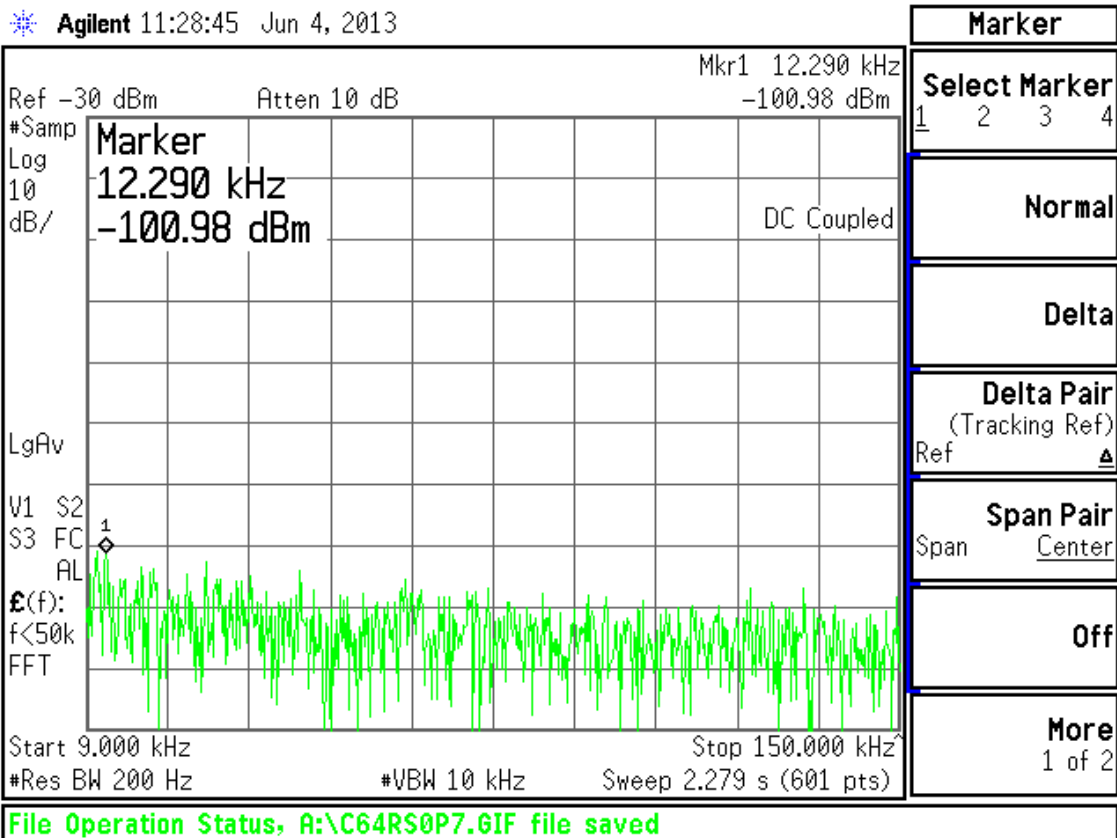
CH64 802.11n Tx Conducted Emissions (MCS0)



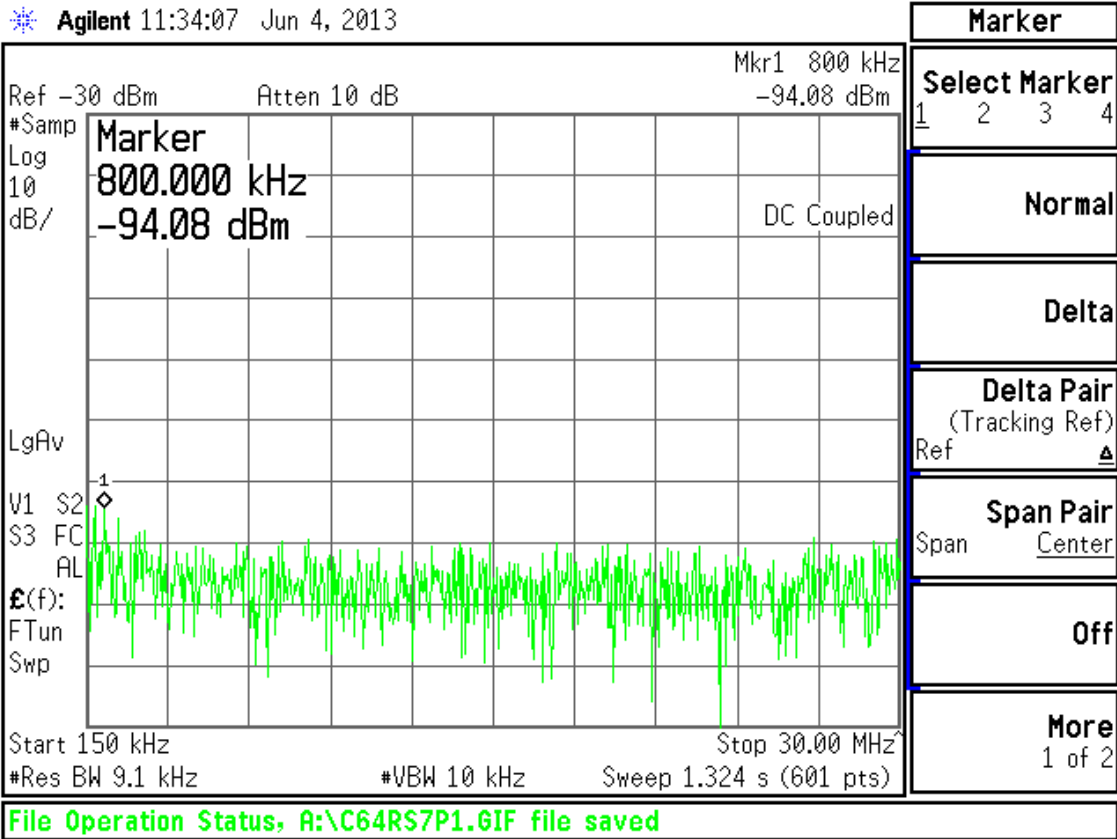
CH64 802.11n Tx Conducted Emissions (MCS0)



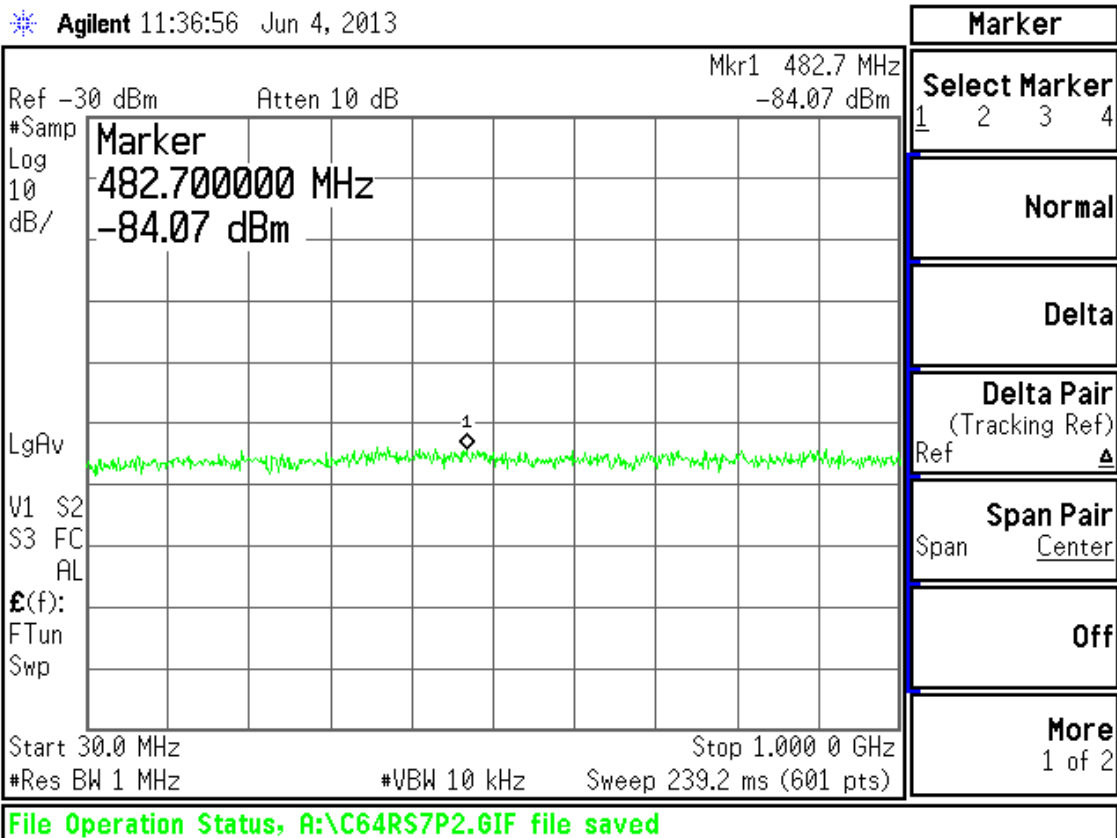
CH64 802.11n Tx Conducted Emissions (MCS0)



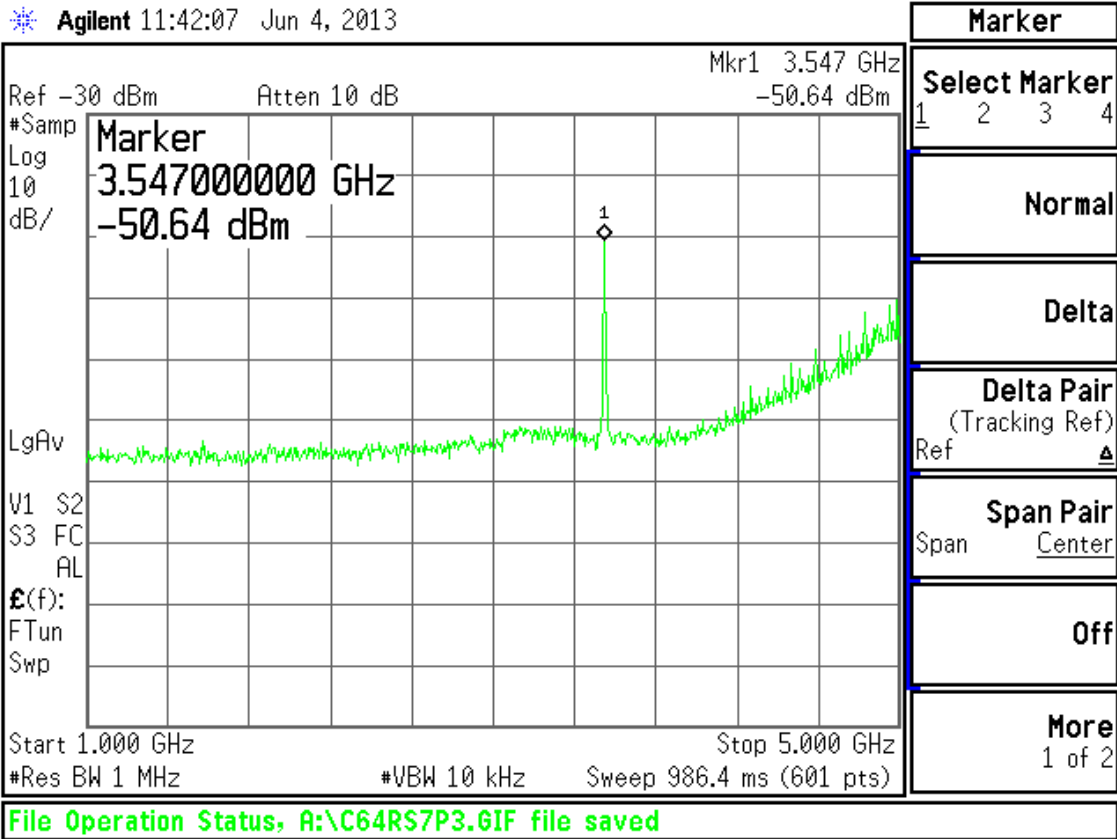
CH64 802.11n Tx Conducted Emissions (MCS7)



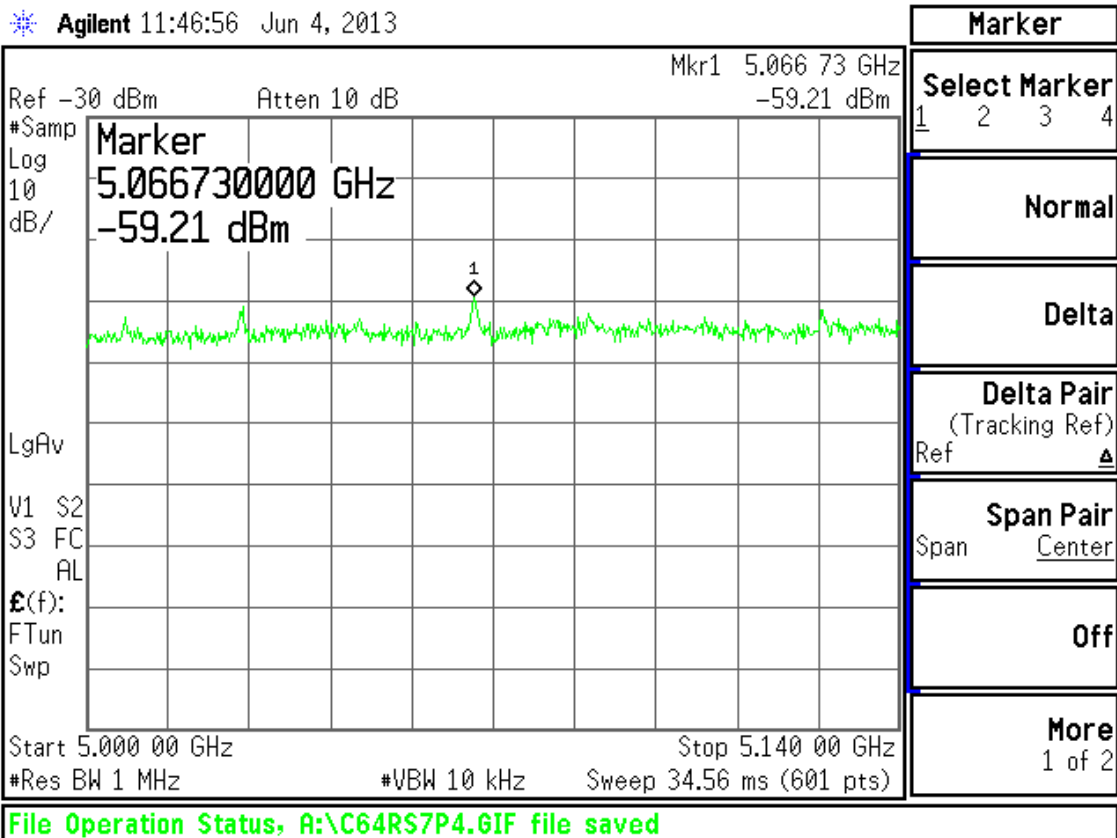
CH64 802.11n Tx Conducted Emissions (MCS7)



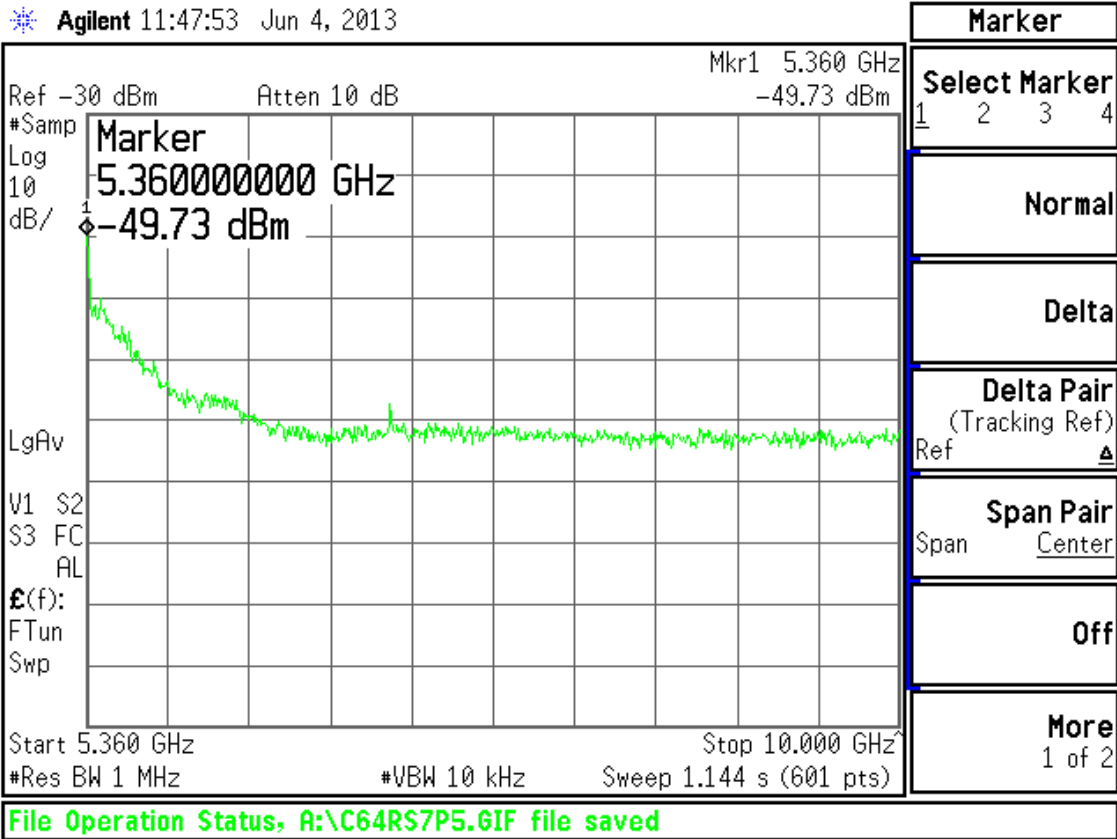
CH64 802.11n Tx Conducted Emissions (MCS7)



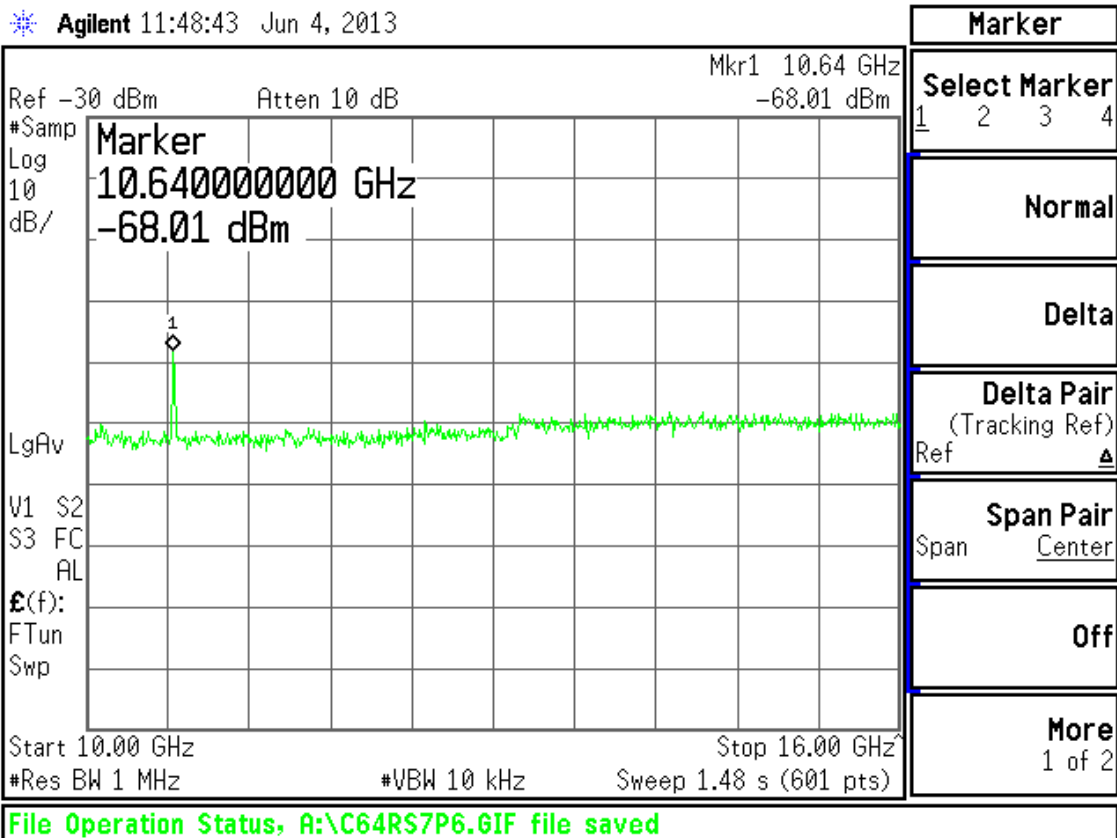
CH64 802.11n Tx Conducted Emissions (MCS7)



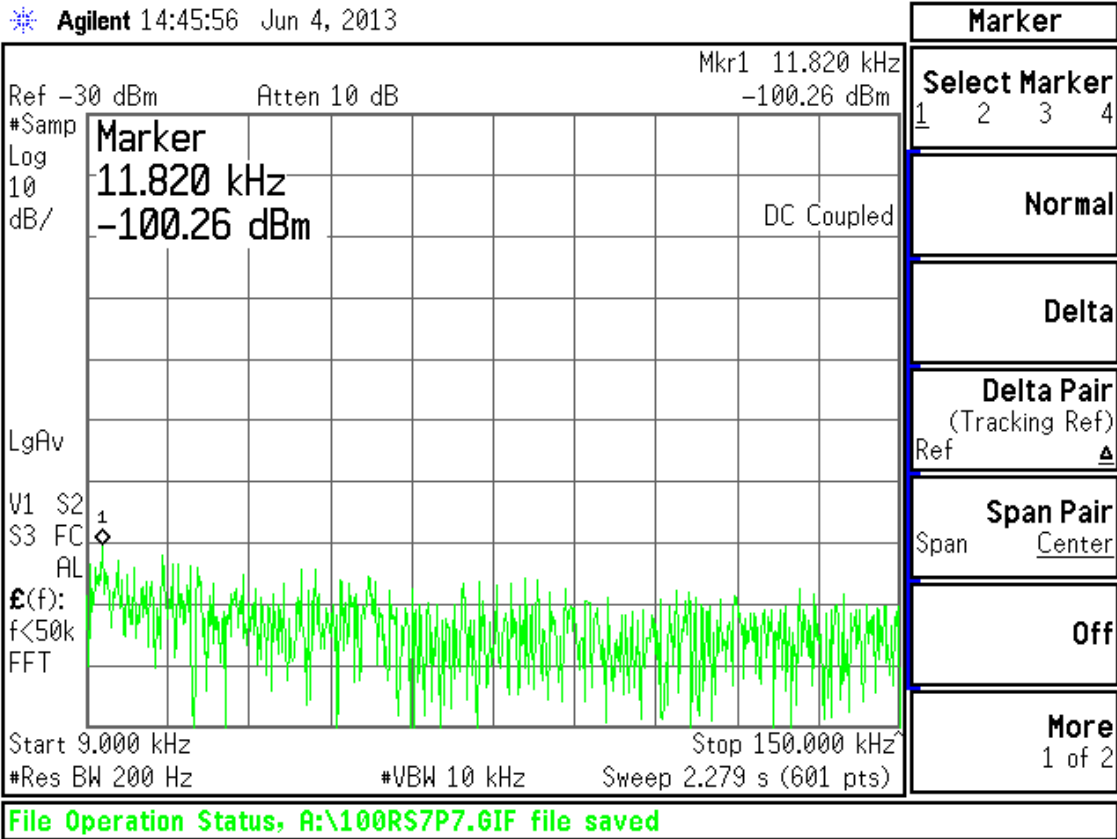
CH64 802.11n Tx Conducted Emissions (MCS7)



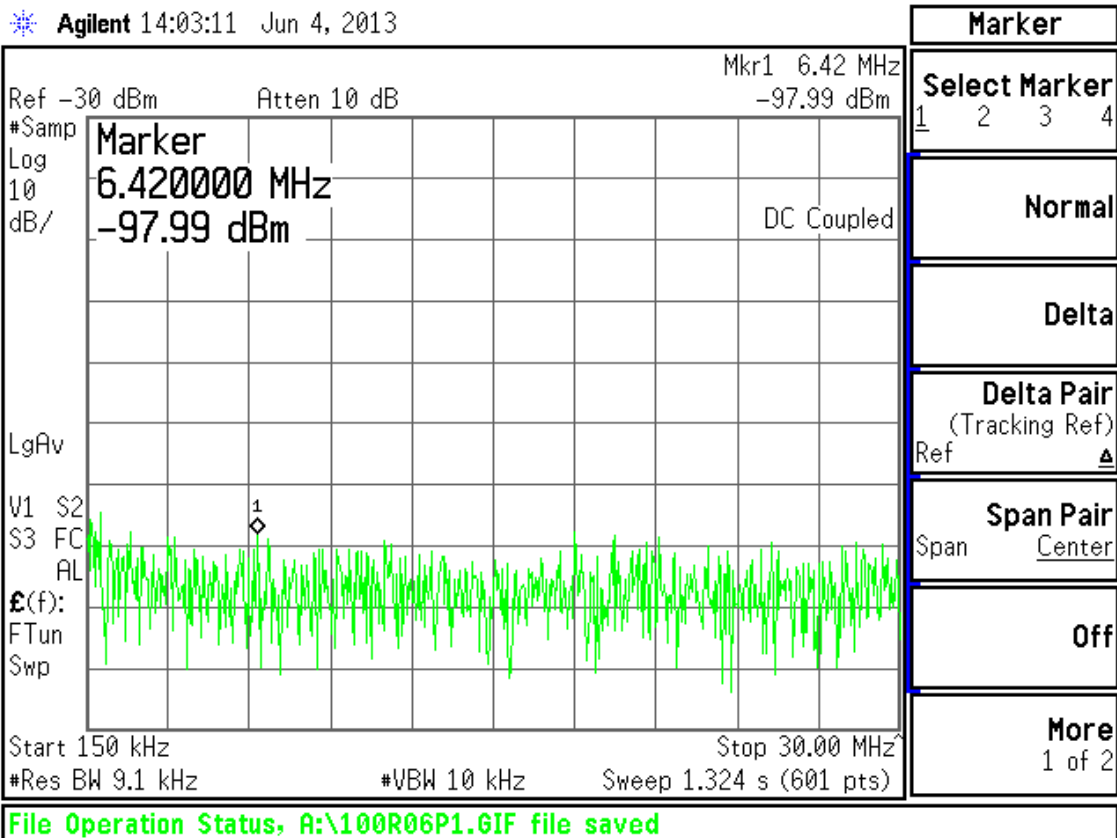
CH64 802.11n Tx Conducted Emissions (MCS7)



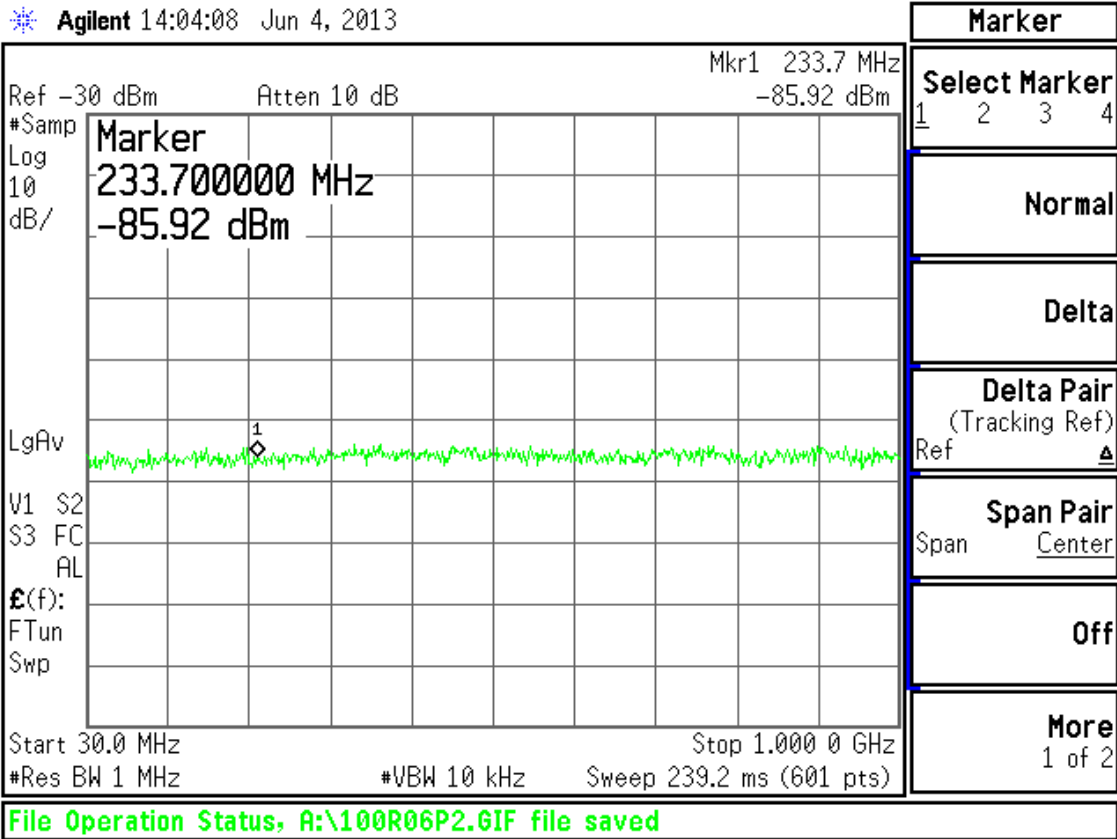
CH64 802.11n Tx Conducted Emissions (MCS7)



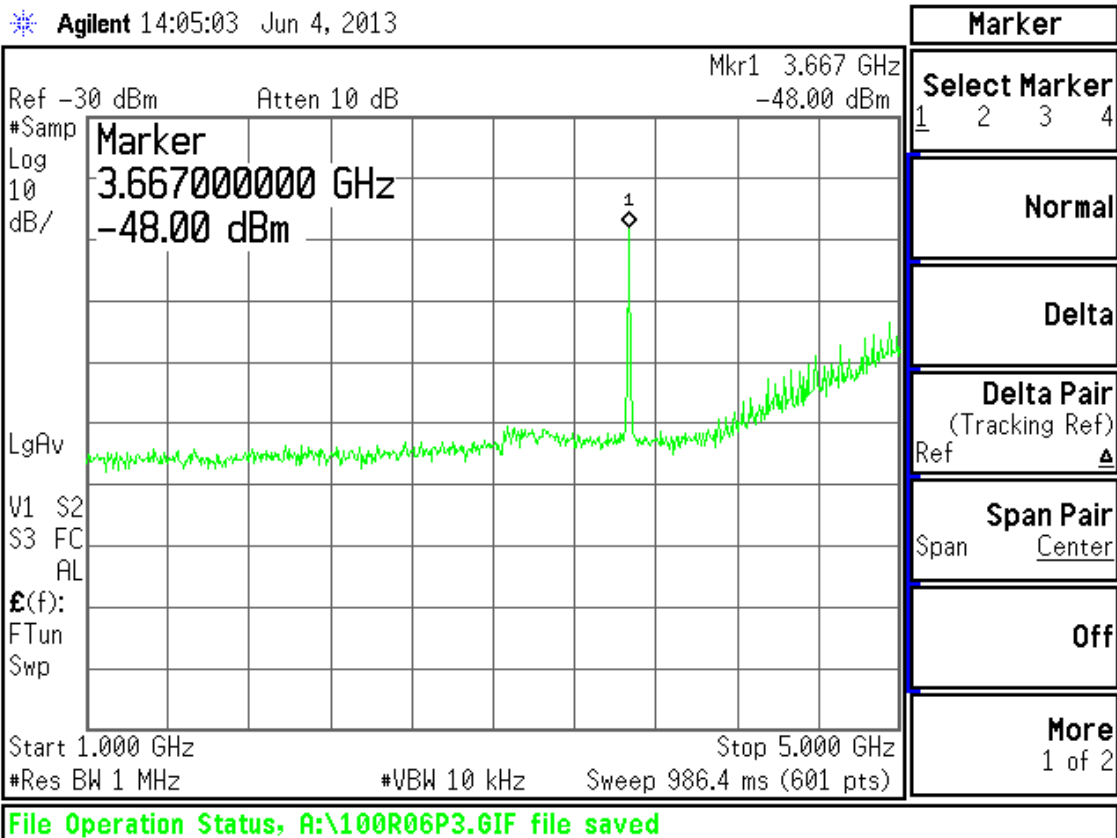
CH100 802.11a Tx Conducted Emissions @ 6Mbps



CH100 802.11a Tx Conducted Emissions @ 6Mbps

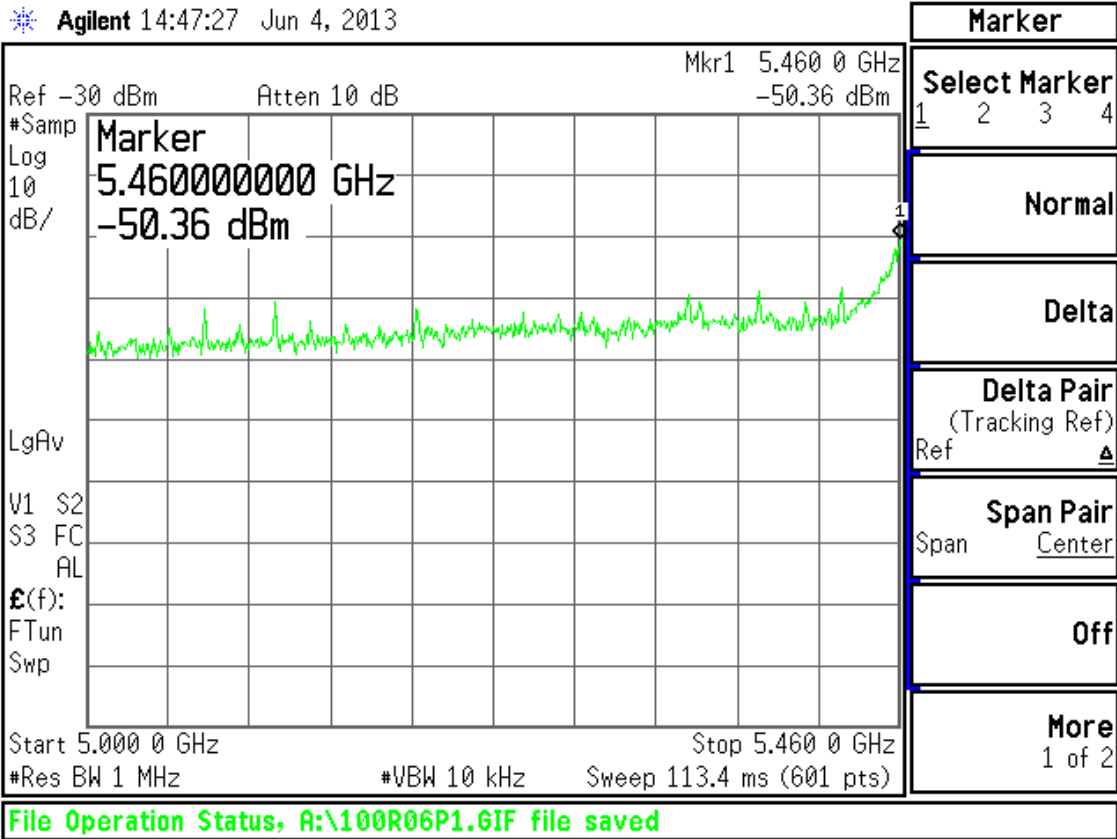


CH100 802.11a Tx Conducted Emissions @ 6Mbps

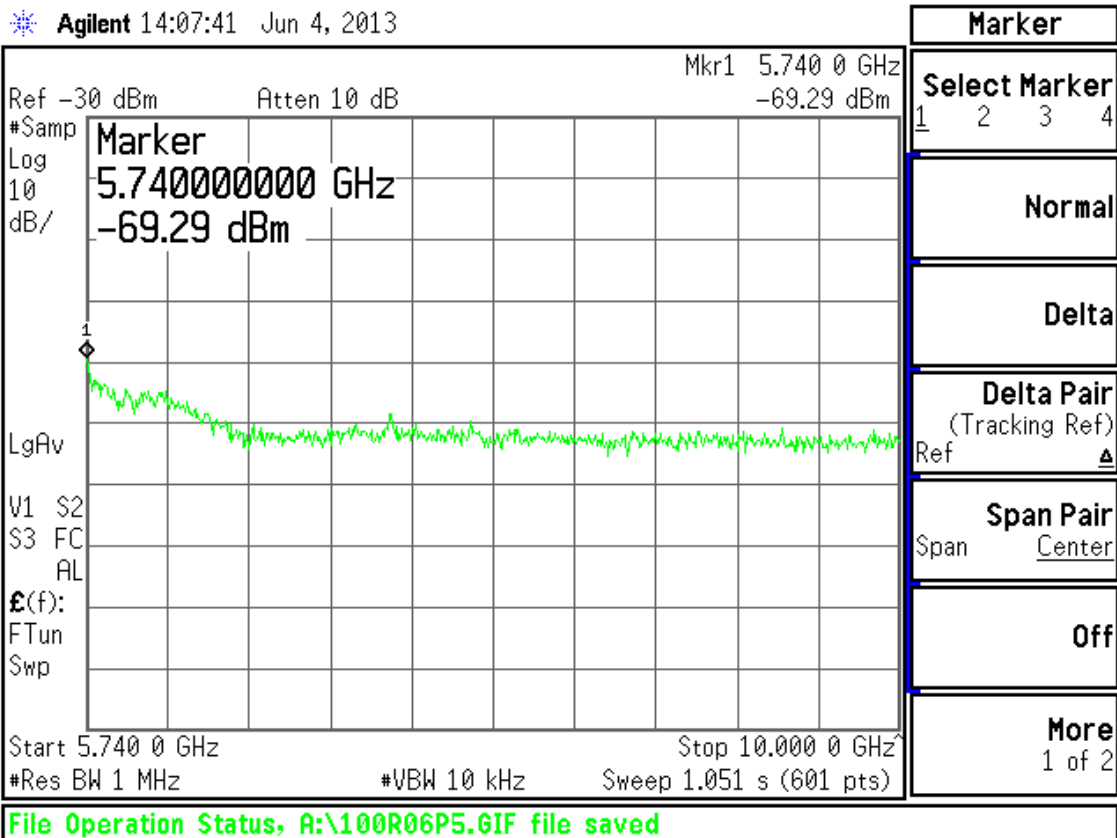


CH100 802.11a Tx Conducted Emissions @ 6Mbps

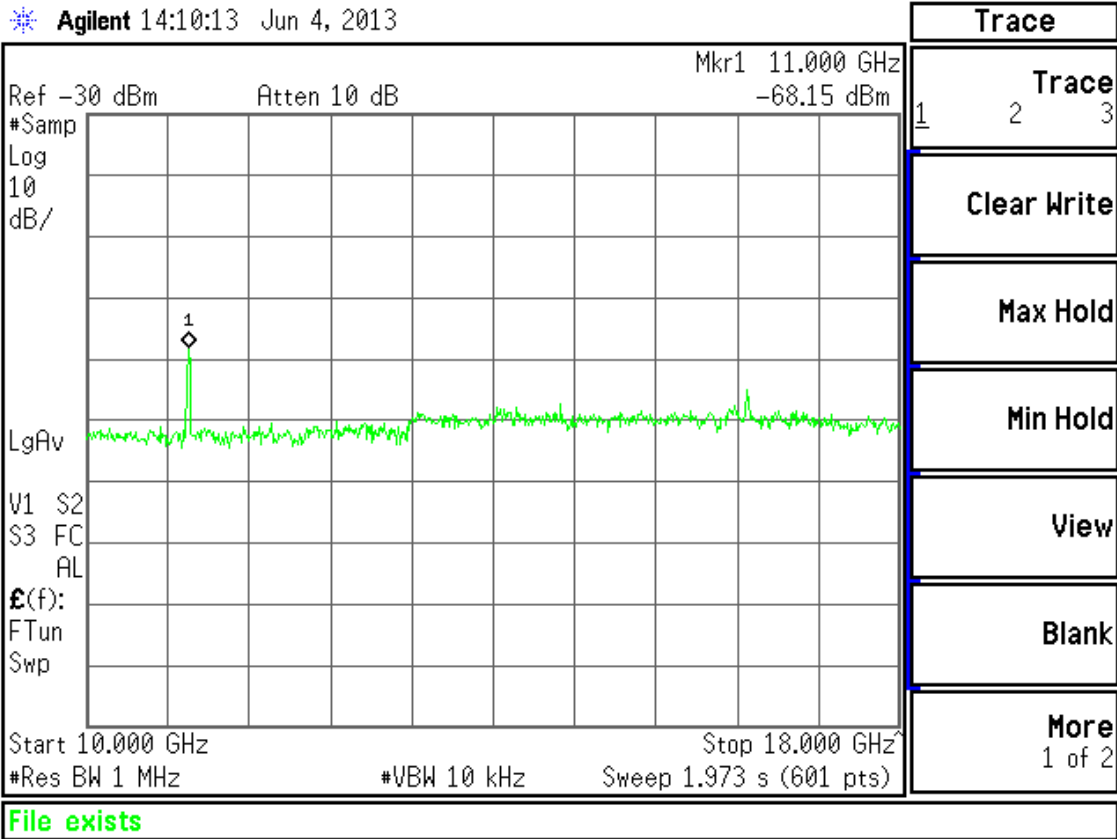




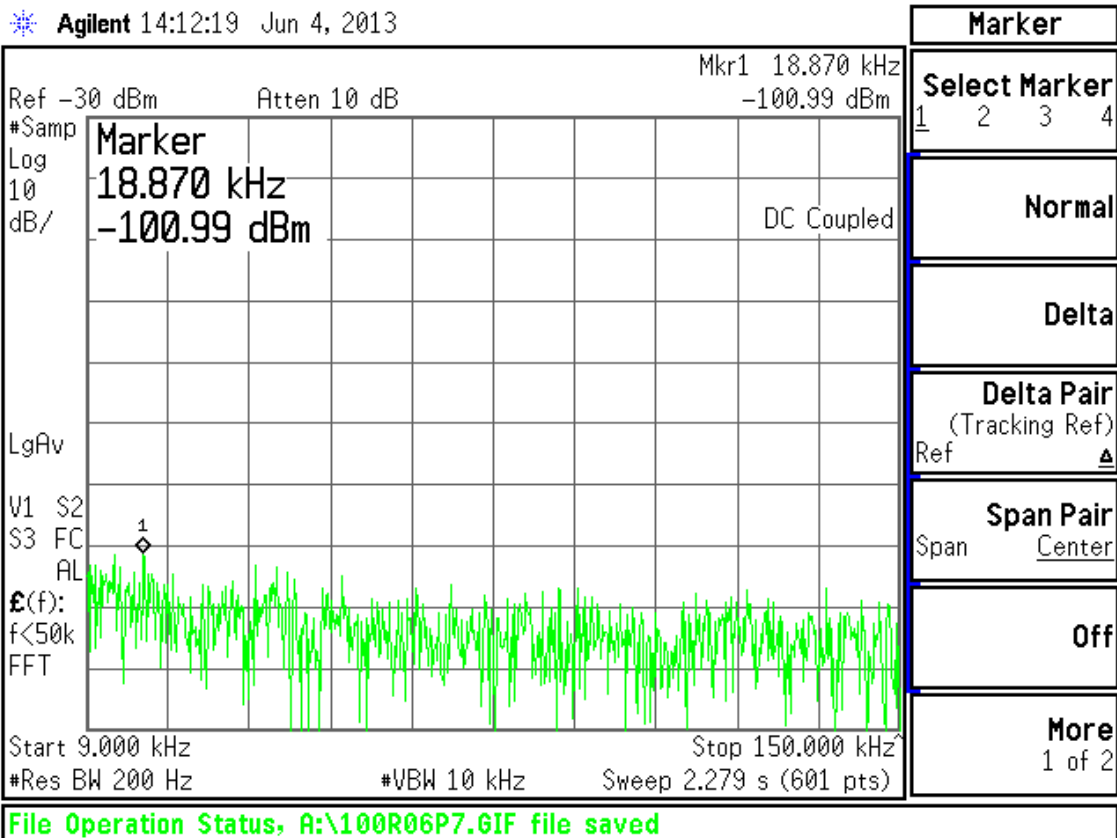
CH100 802.11a Tx Conducted Emissions @ 6Mbps



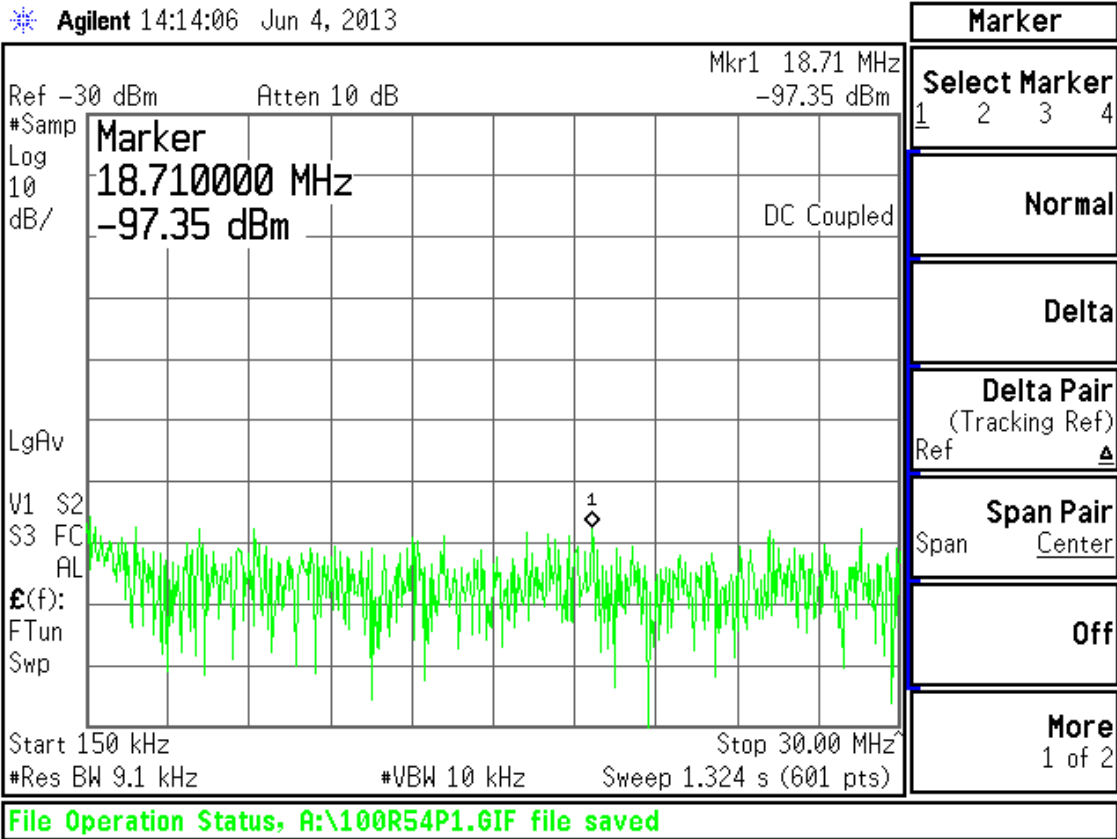
CH100 802.11a Tx Conducted Emissions @ 6Mbps



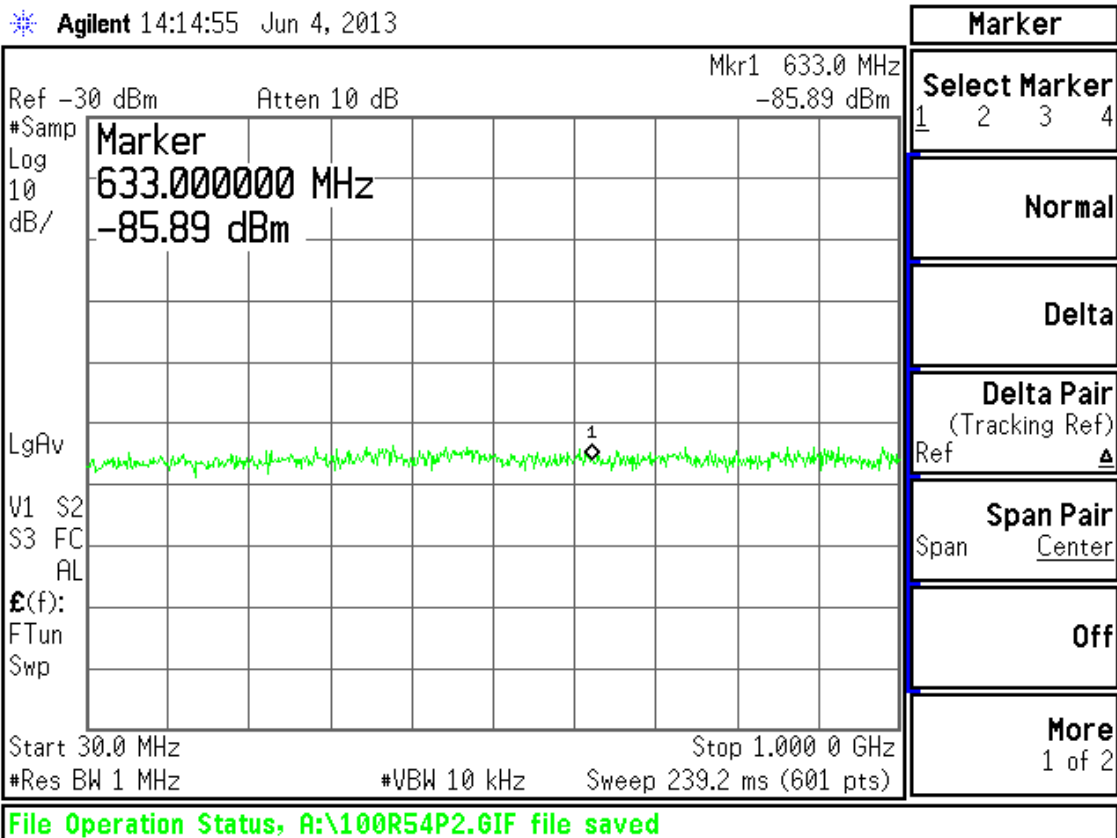
CH100 802.11a Tx Conducted Emissions @ 6Mbps



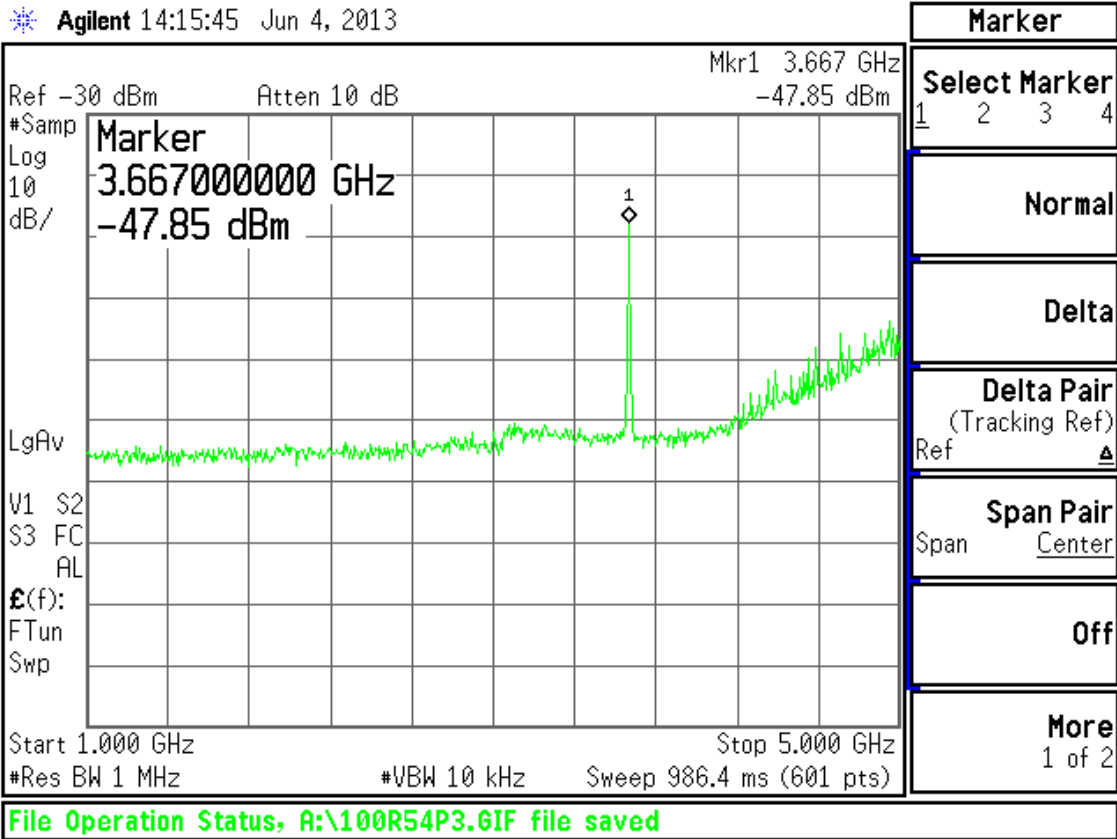
CH100 802.11a Tx Conducted Emissions @ 54Mbps



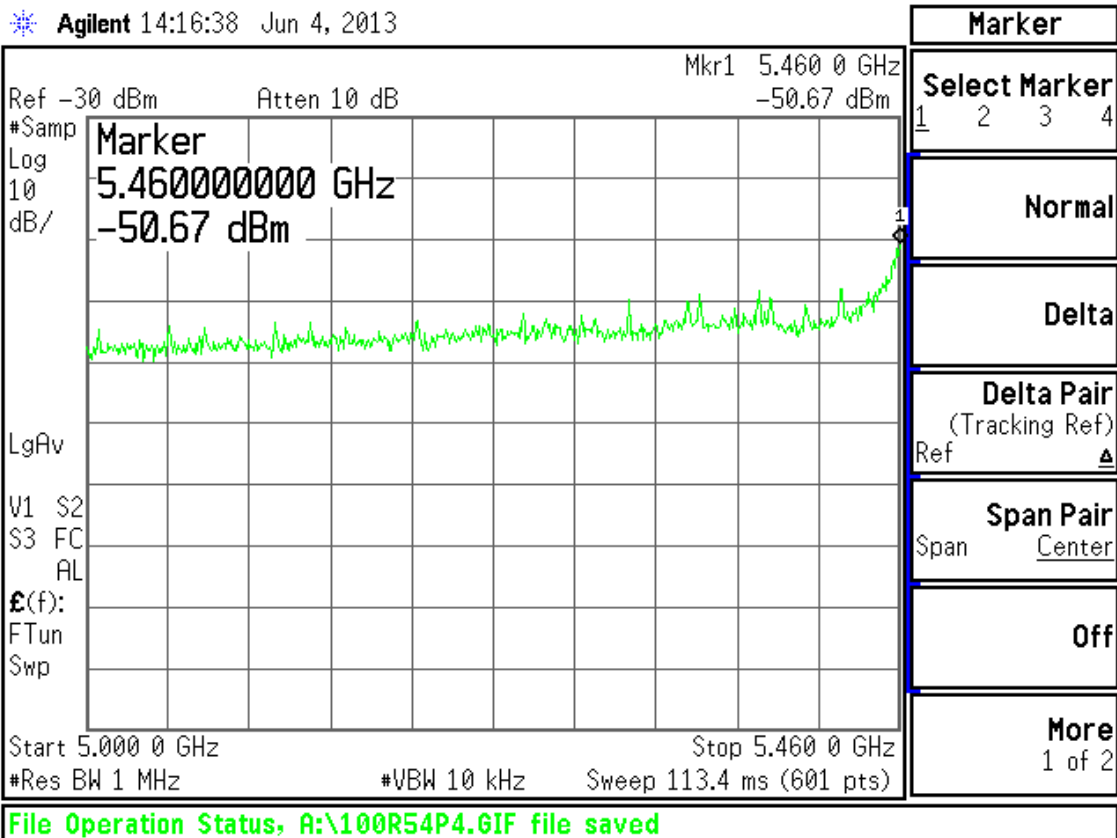
CH100 802.11a Tx Conducted Emissions @ 54Mbps



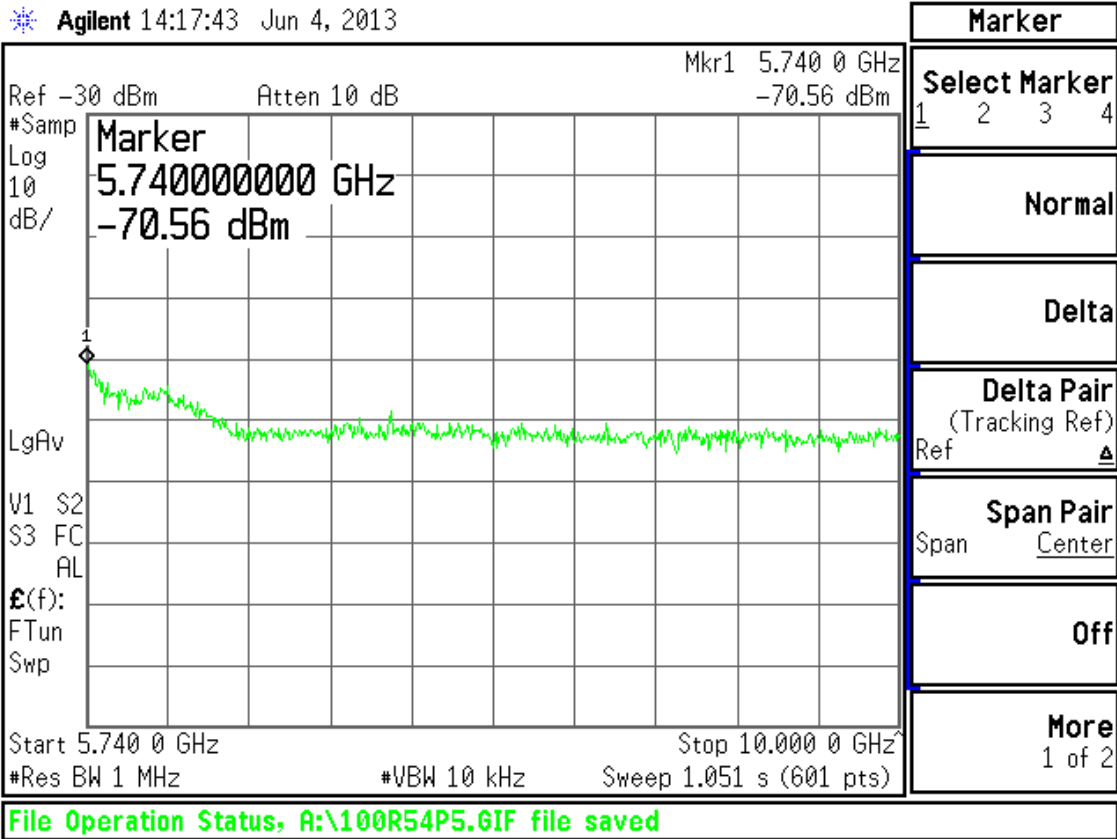
CH100 802.11a Tx Conducted Emissions @ 54Mbps



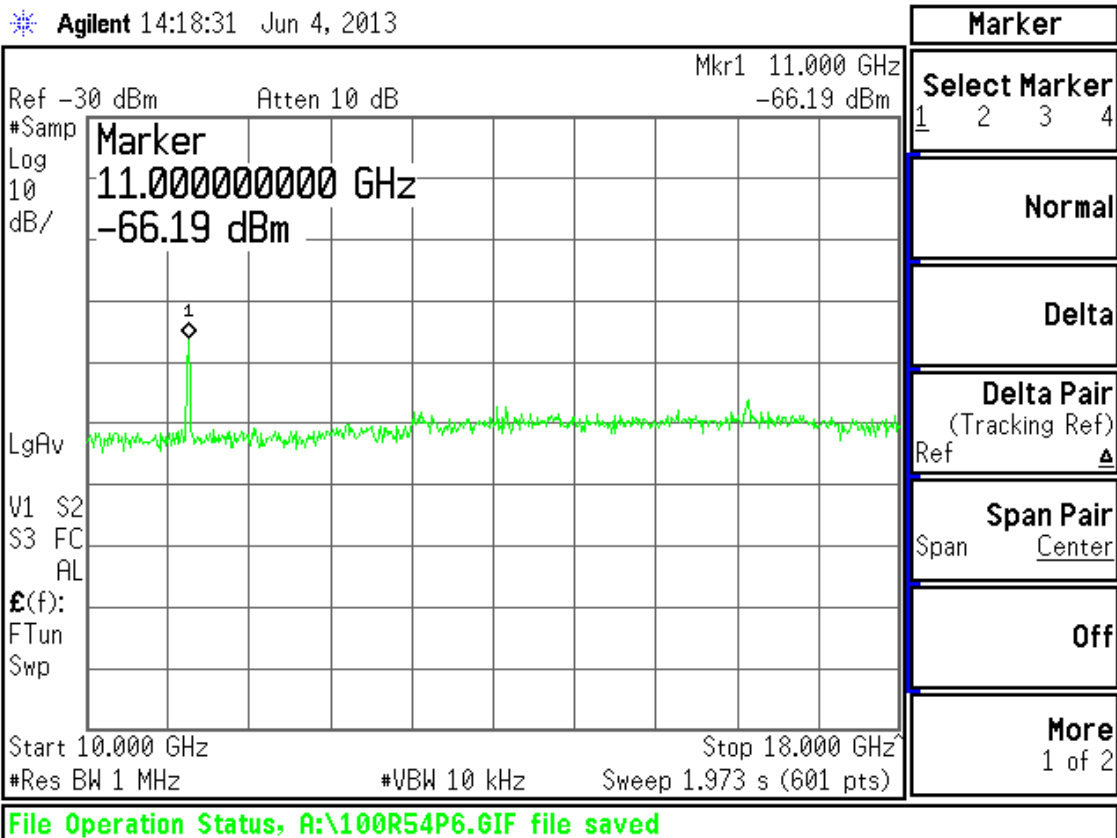
CH100 802.11a Tx Conducted Emissions @ 54Mbps



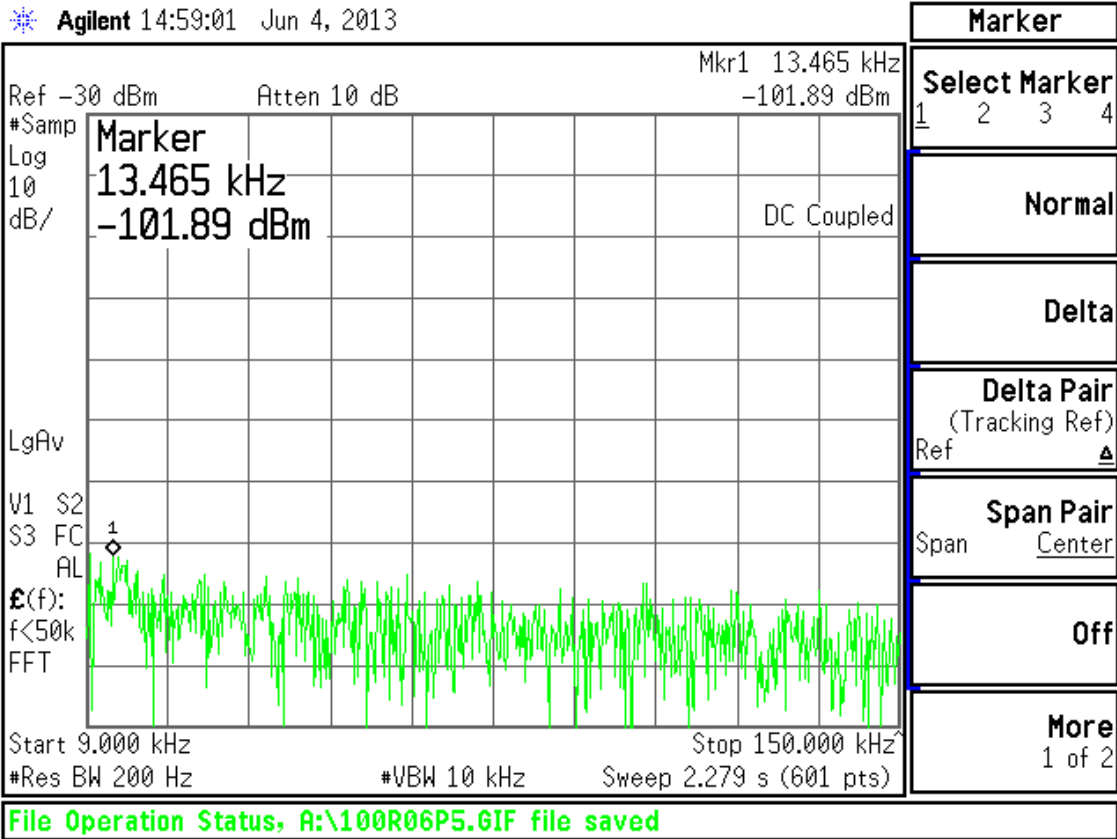
CH100 802.11a Tx Conducted Emissions @ 54Mbps



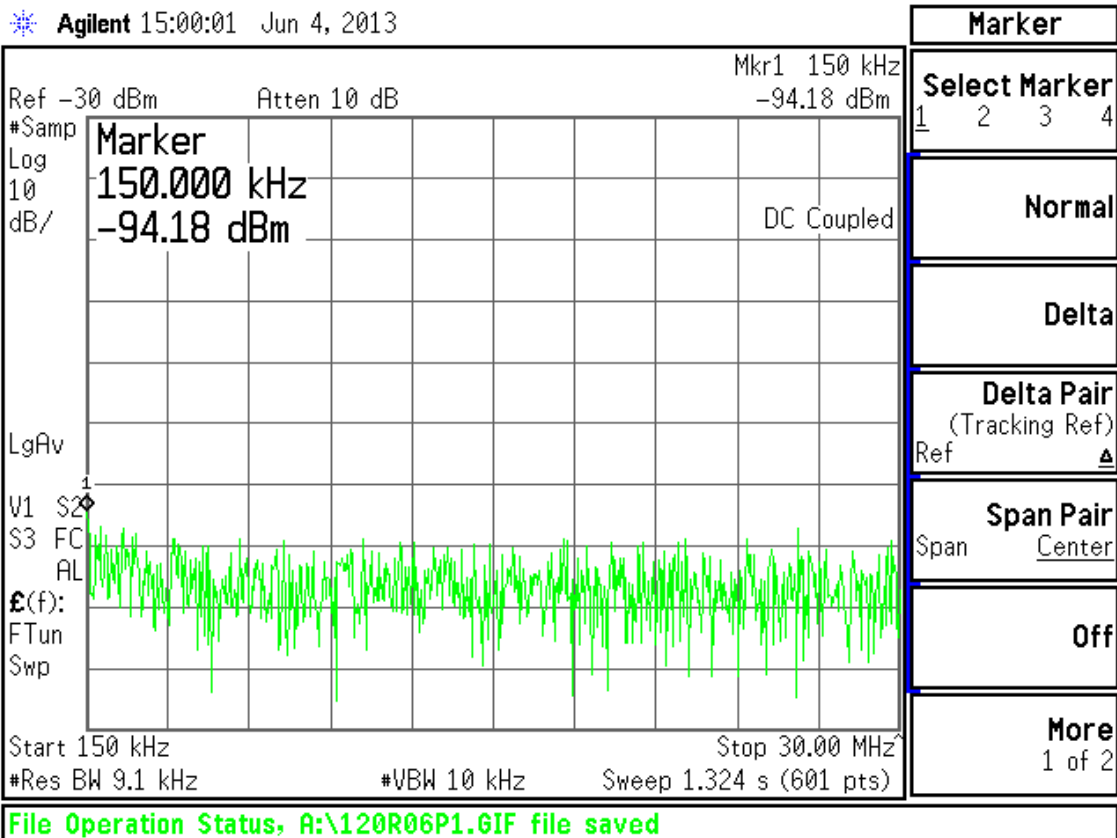
CH100 802.11a Tx Conducted Emissions @ 54Mbps



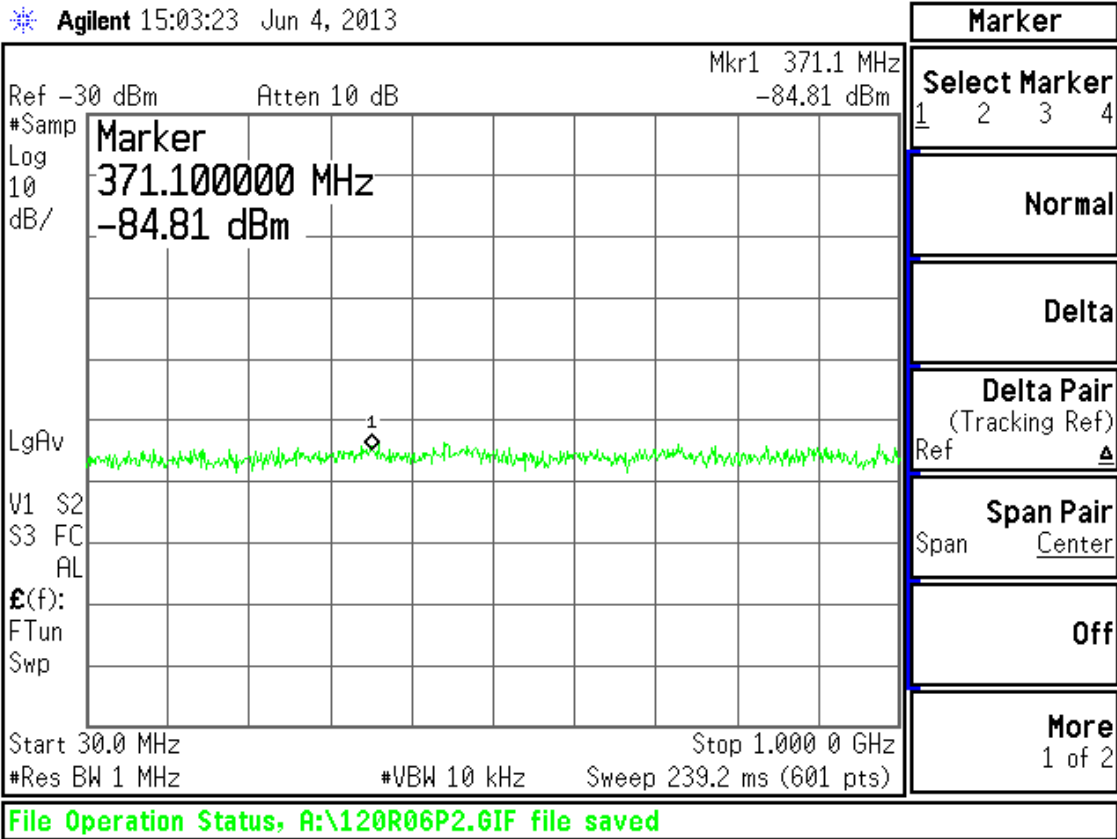
CH100 802.11a Tx Conducted Emissions @ 54Mbps



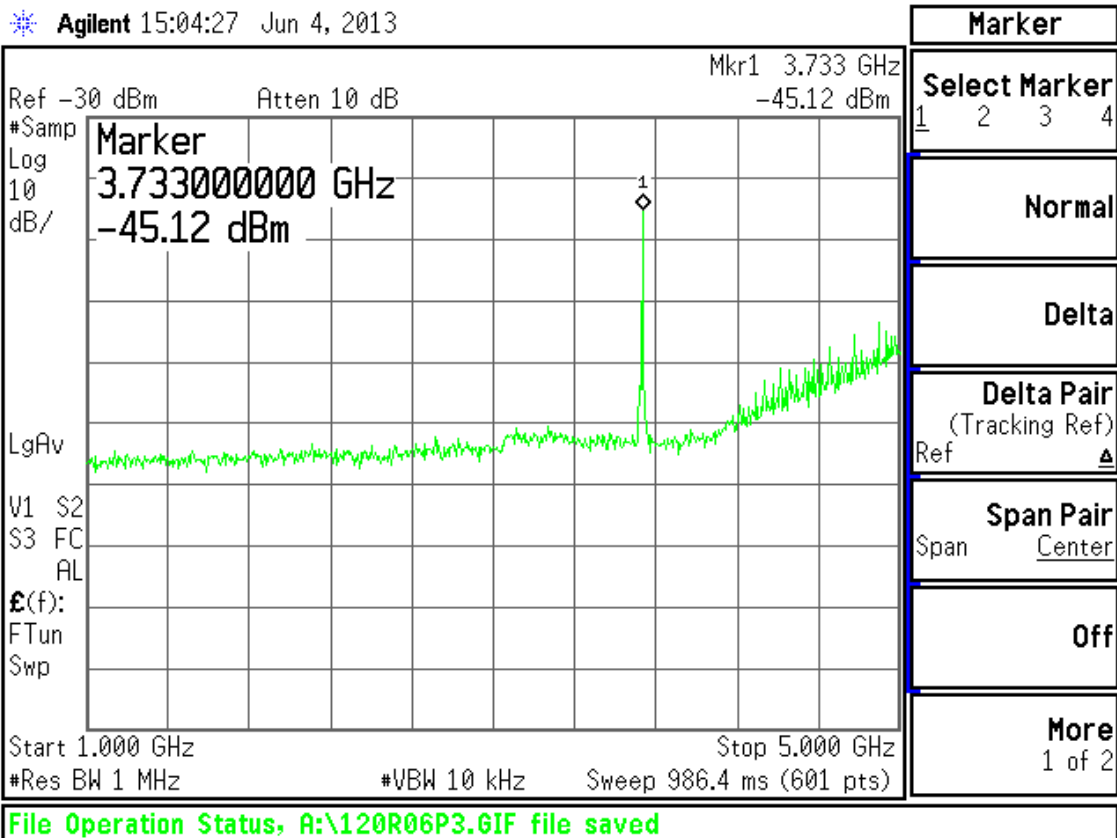
CH120 802.11a Tx Conducted Emissions @ 6Mbps



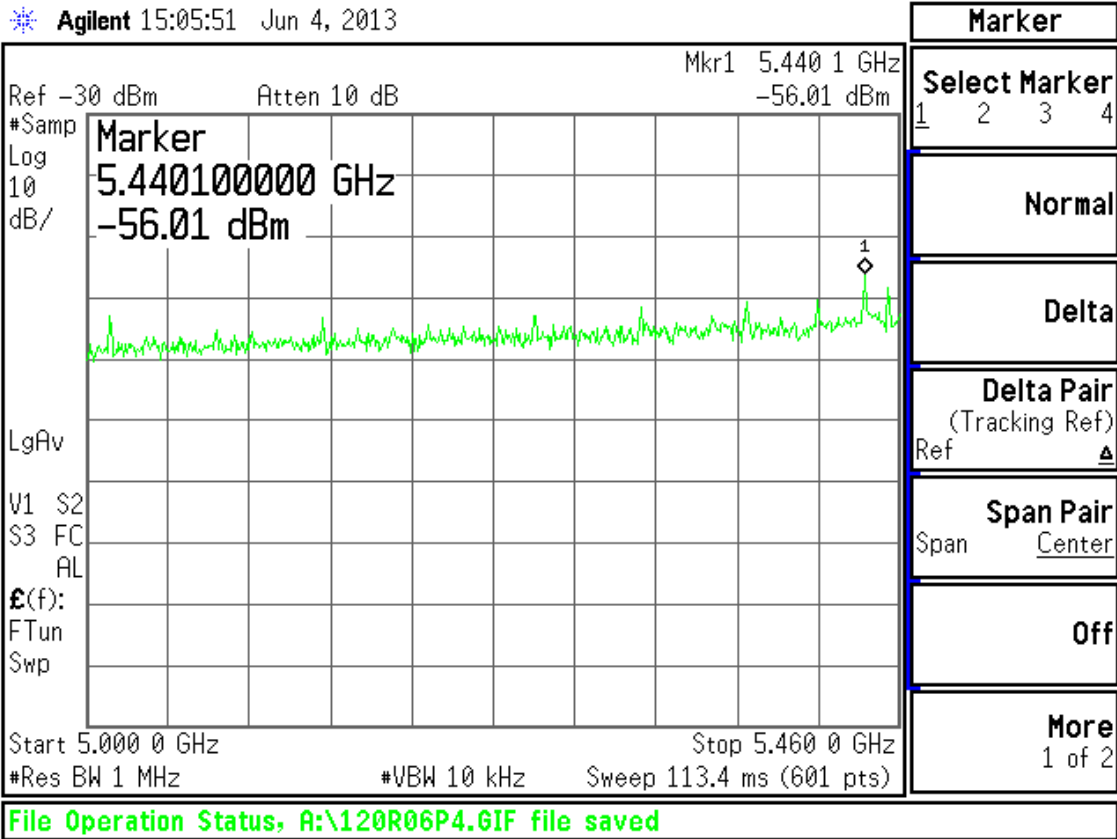
CH120 802.11a Tx Conducted Emissions @ 6Mbps



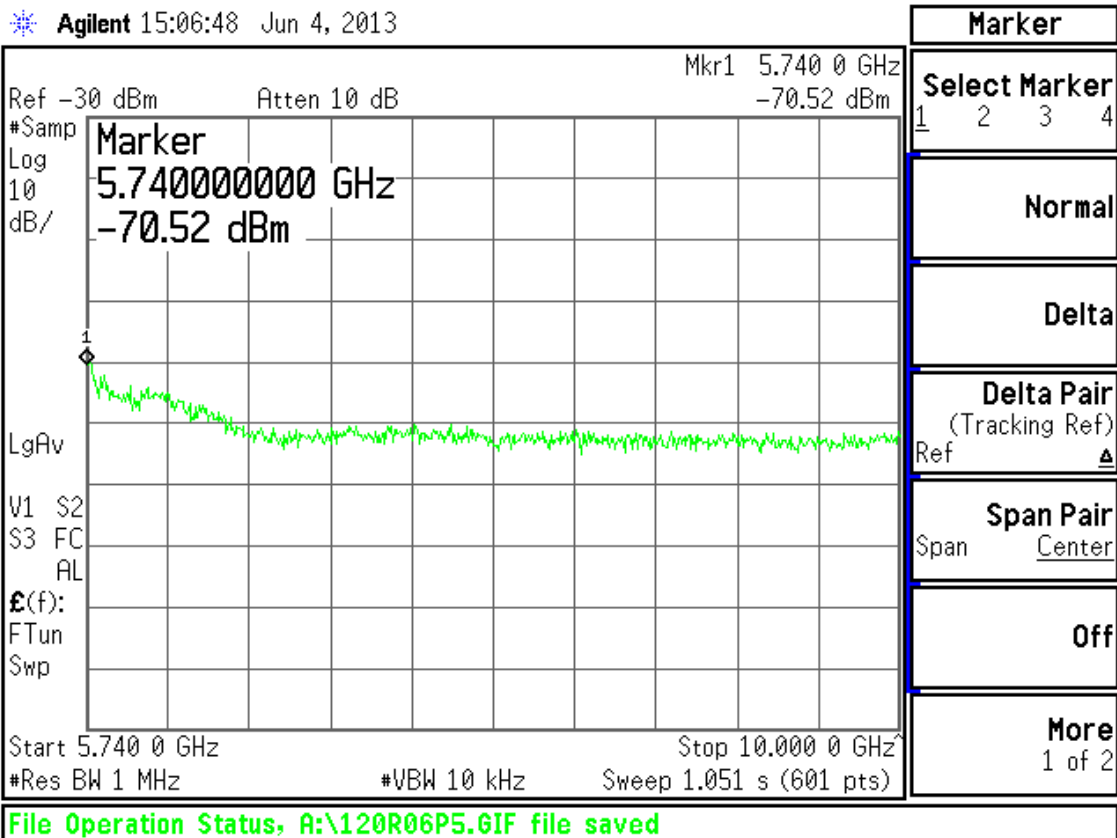
CH120 802.11a Tx Conducted Emissions @ 6Mbps



CH120 802.11a Tx Conducted Emissions @ 6Mbps

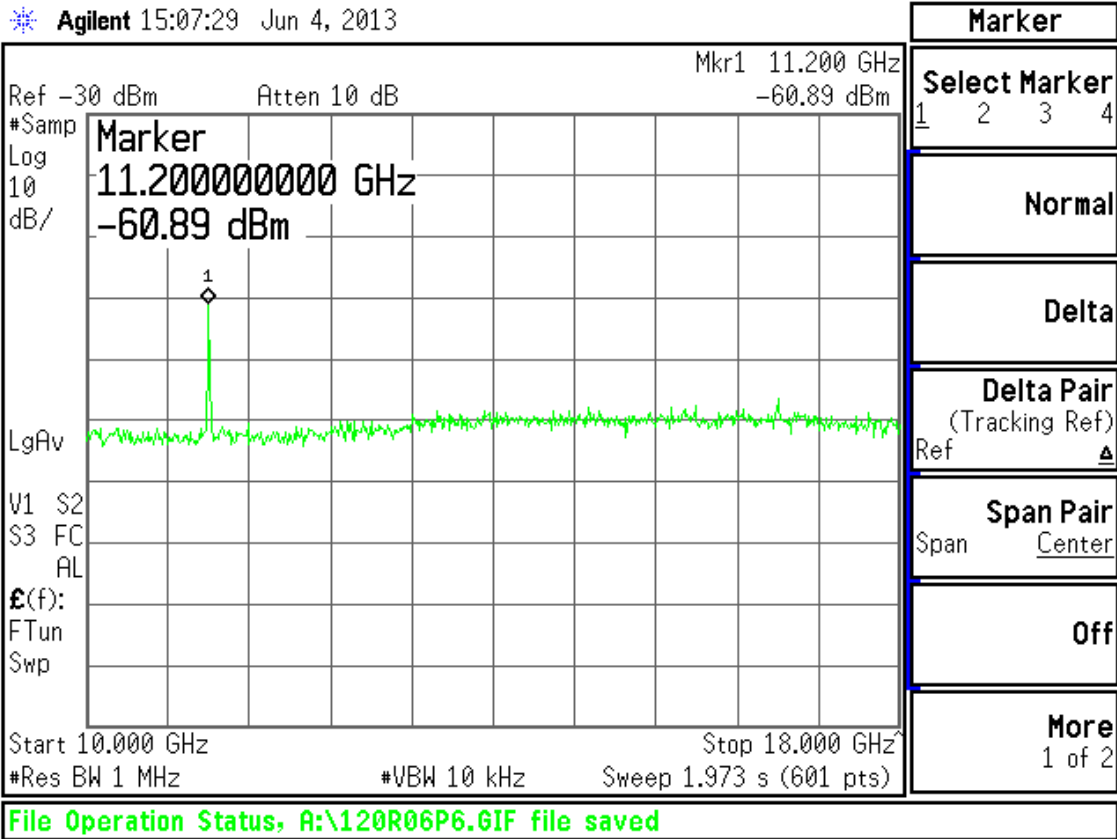


CH120 802.11a Tx Conducted Emissions @ 6Mbps

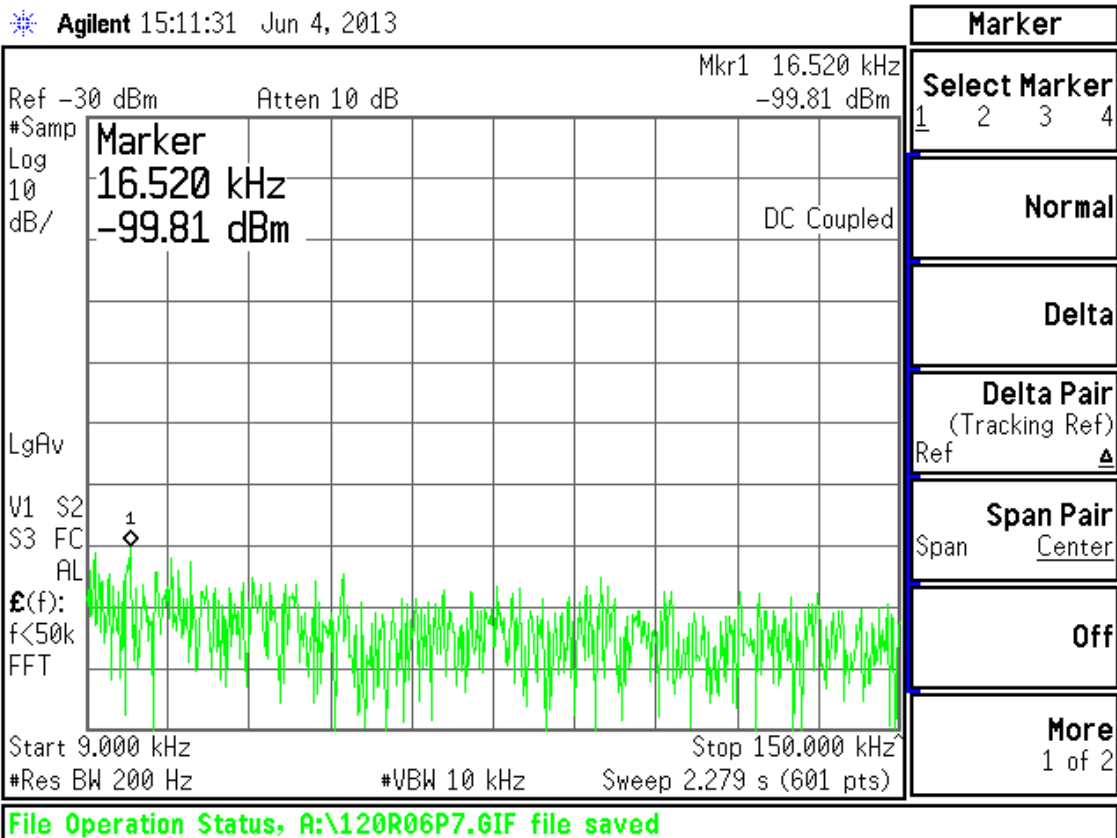


CH120 802.11a Tx Conducted Emissions @ 6Mbps

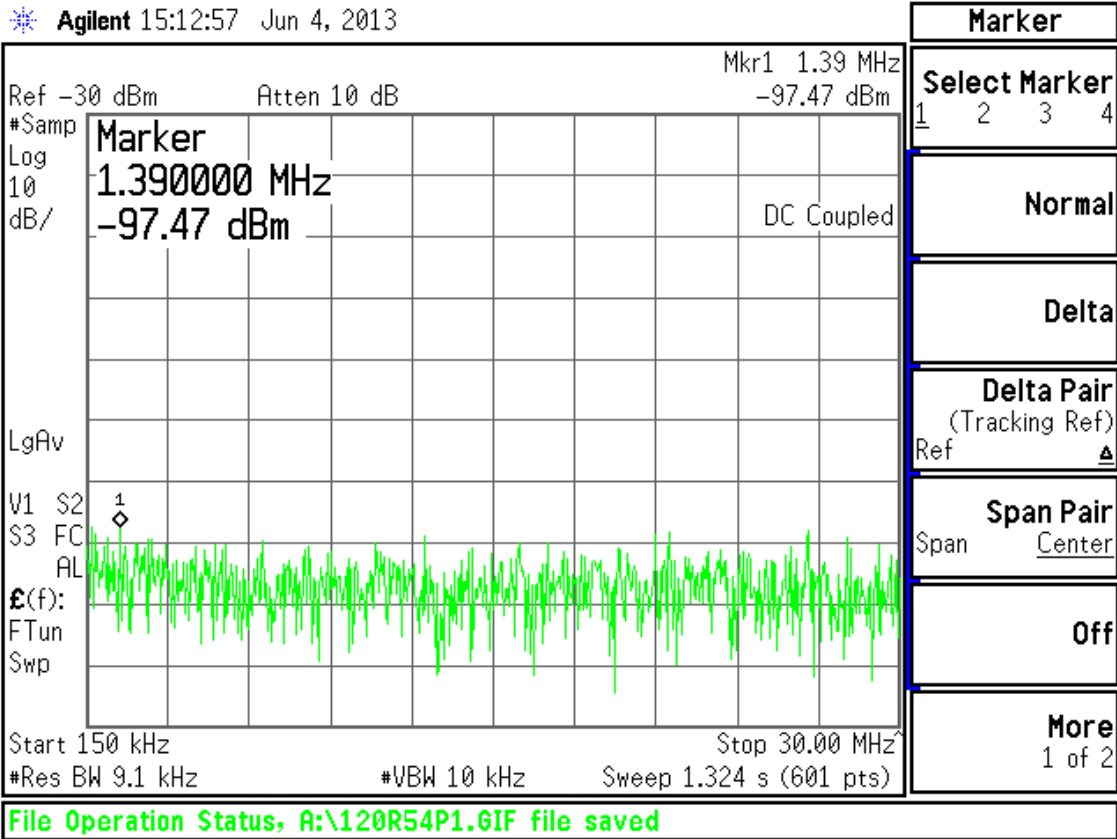




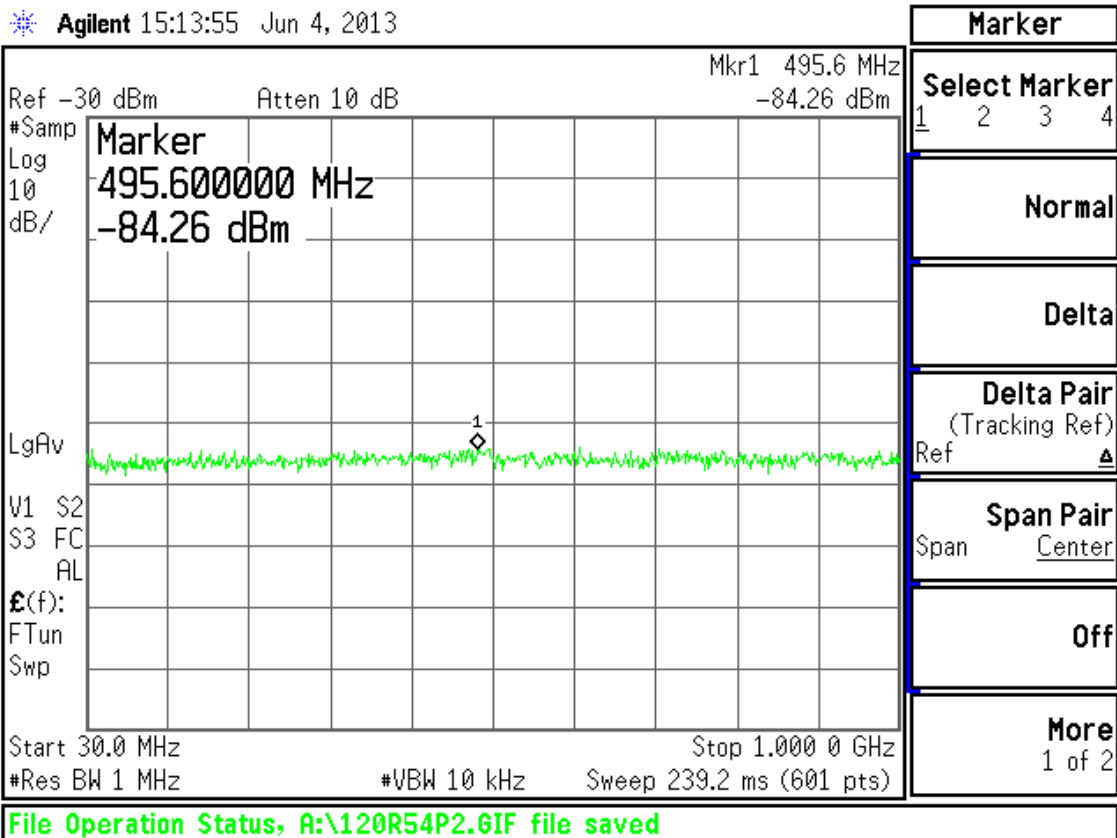
CH120 802.11a Tx Conducted Emissions @ 6Mbps



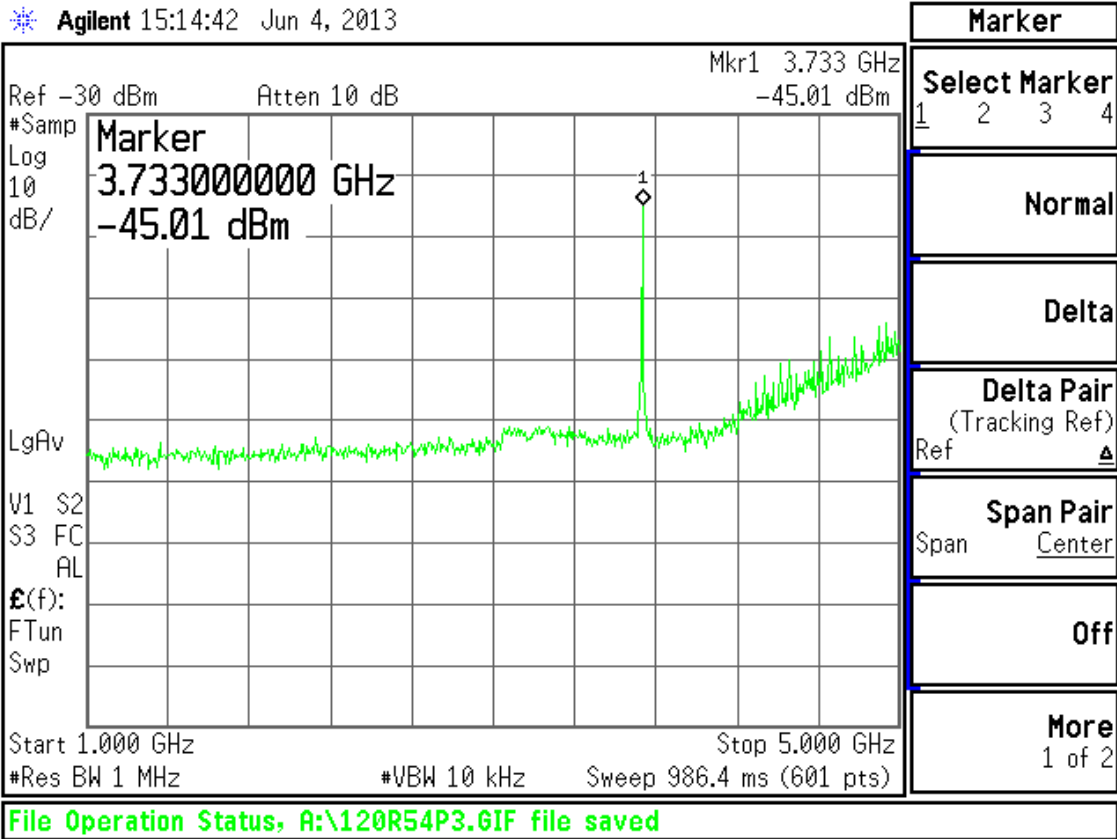
CH120 802.11a Tx Conducted Emissions @ 54Mbps



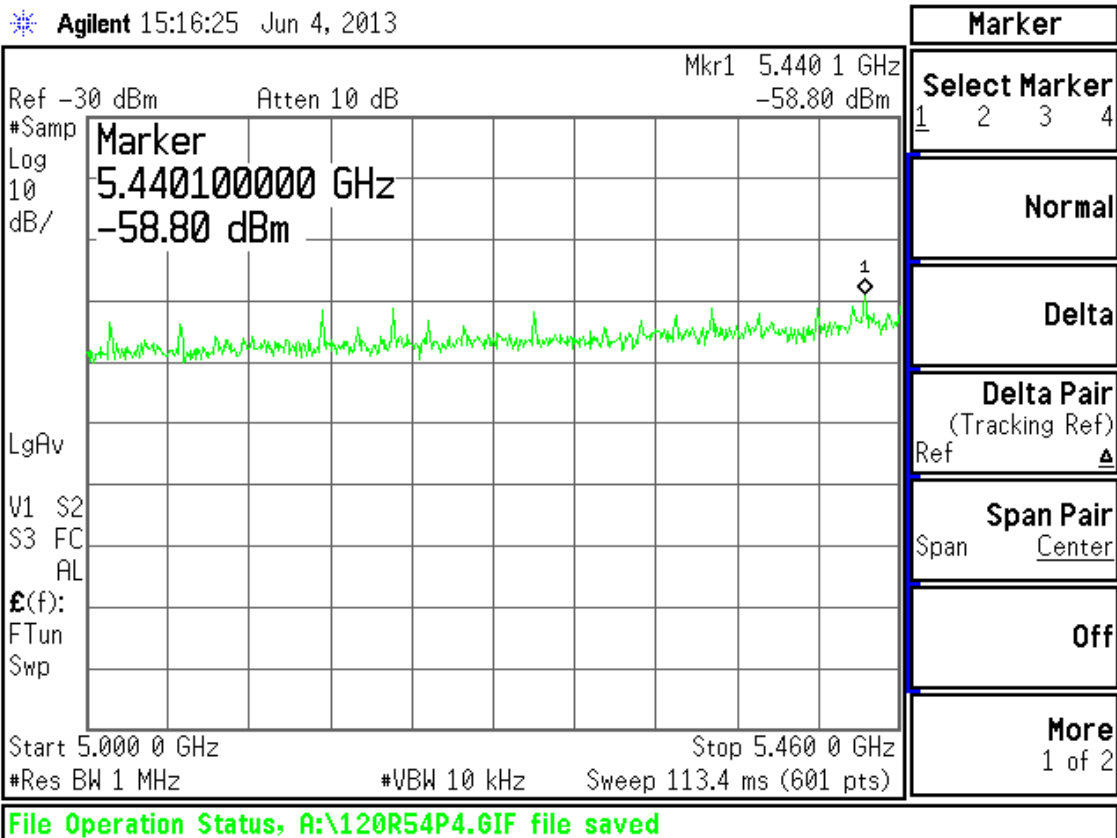
CH120 802.11a Tx Conducted Emissions @ 54Mbps



CH120 802.11a Tx Conducted Emissions @ 54Mbps

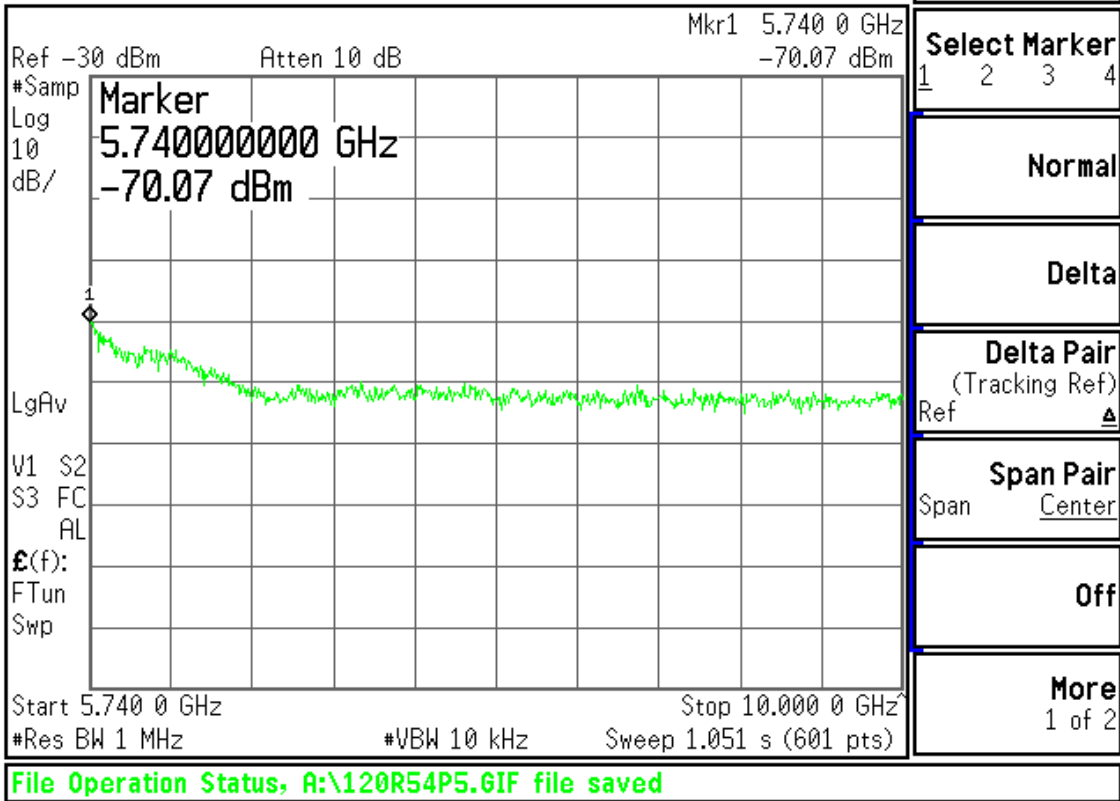


CH120 802.11a Tx Conducted Emissions @ 54Mbps



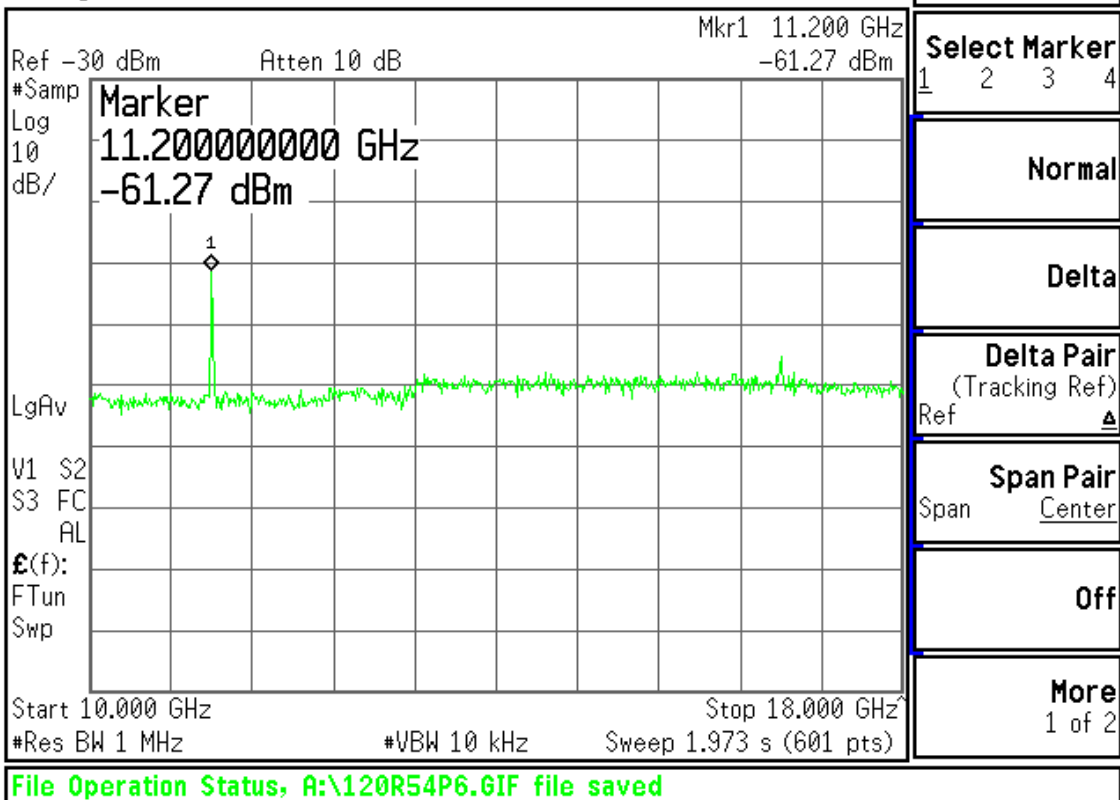
CH120 802.11a Tx Conducted Emissions @ 54Mbps

Agilent 15:17:32 Jun 4, 2013



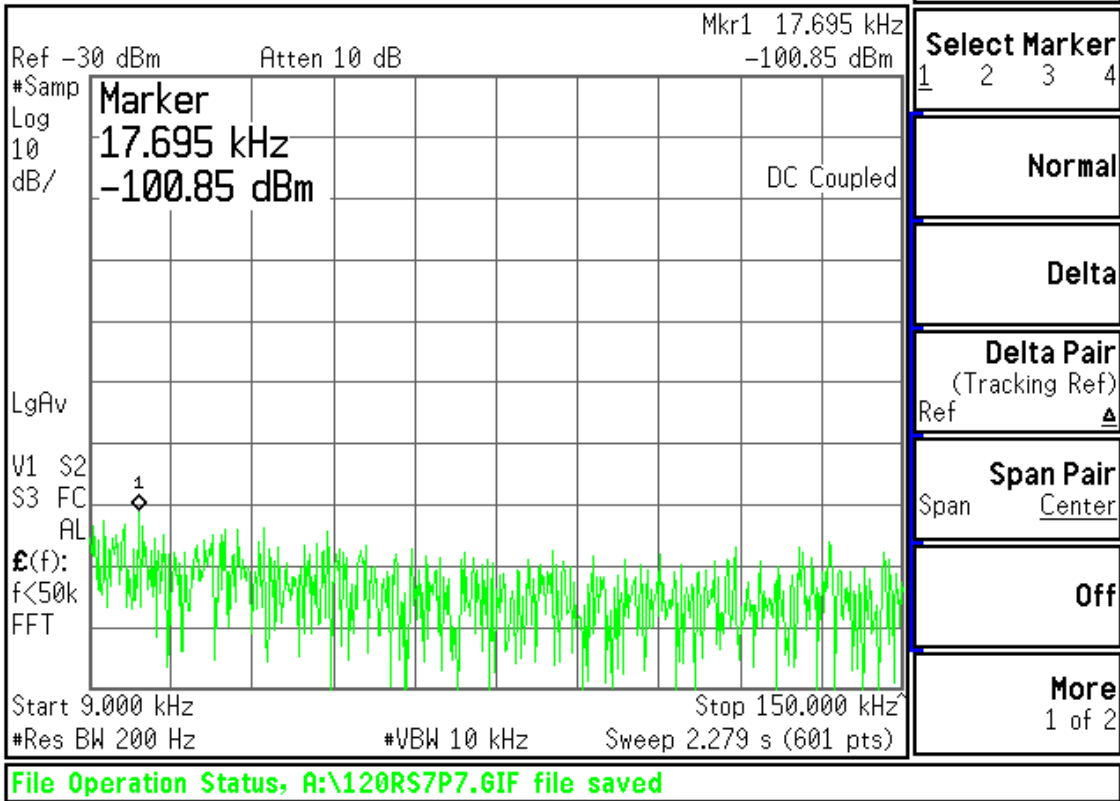
CH120 802.11a Tx Conducted Emissions @ 54Mbps

Agilent 15:18:54 Jun 4, 2013



CH120 802.11a Tx Conducted Emissions @ 54Mbps

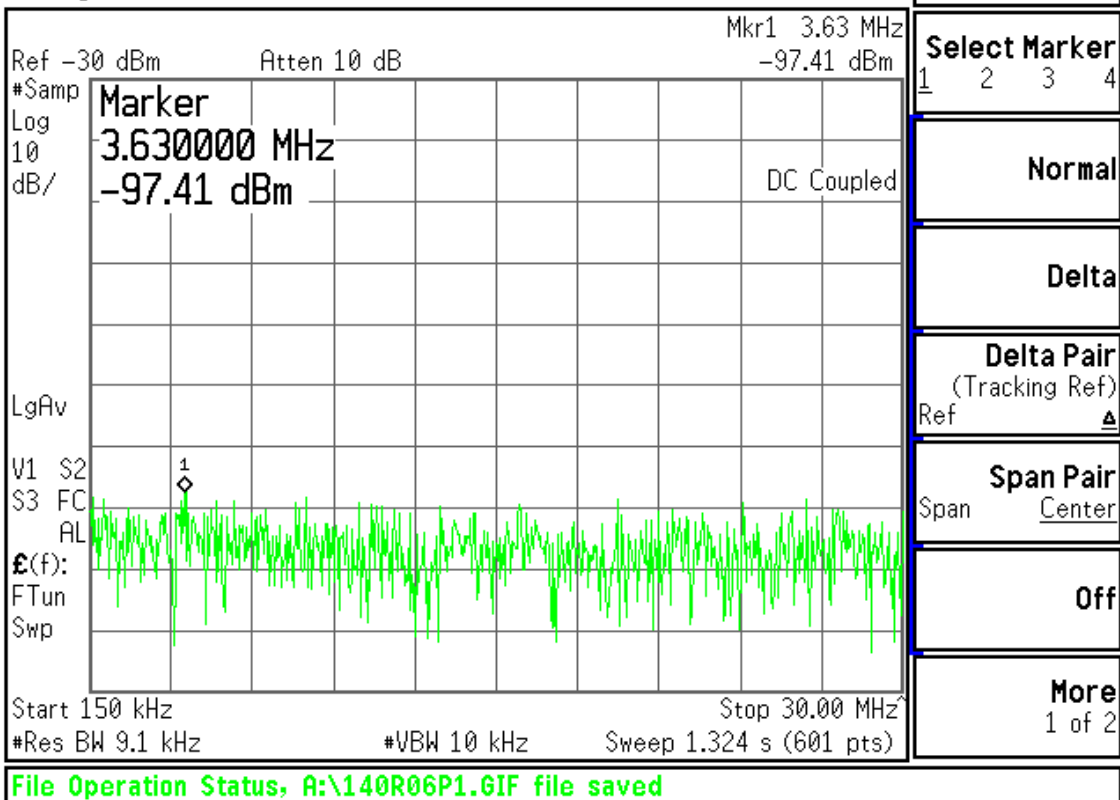
Agilent 15:55:14 Jun 4, 2013



Marker				
Select Marker	1	2	3	4
Normal				
Delta				
Delta Pair (Tracking Ref)				
Ref	▲			
Span Pair				
Span	Center			
Off				
More 1 of 2				

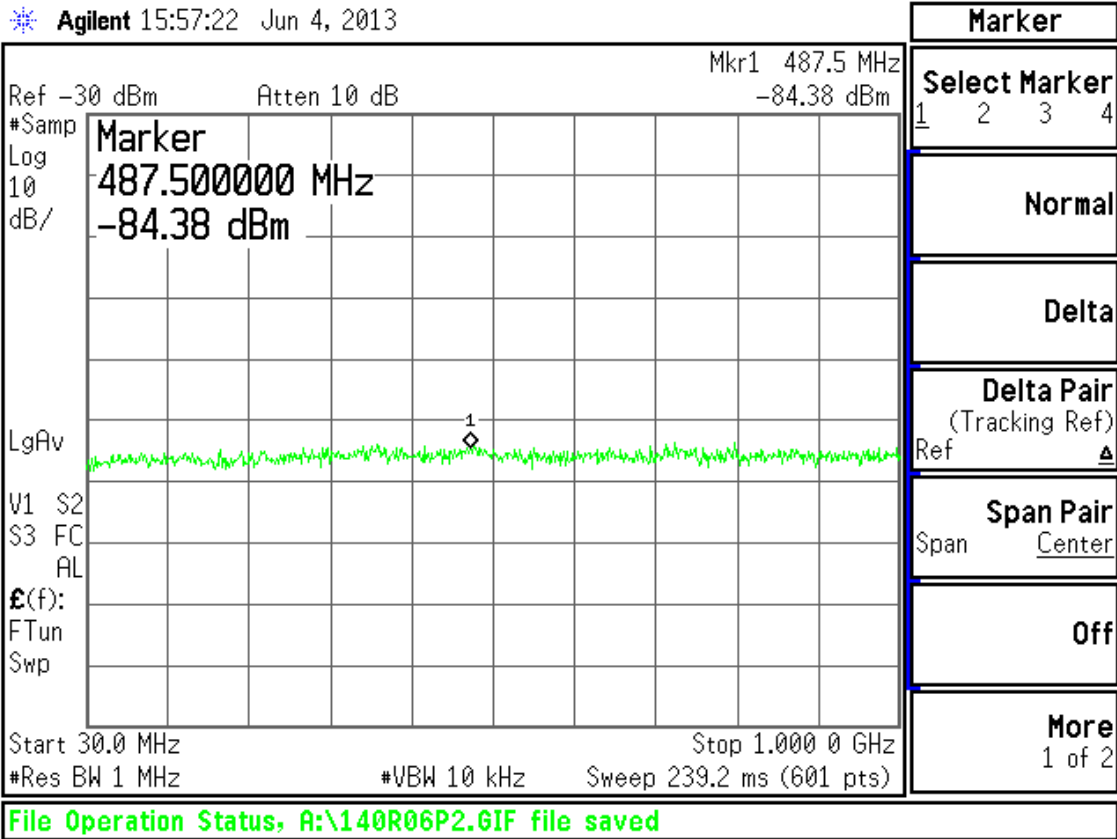
CH140 802.11a Tx Conducted Emissions @ 6Mbps

Agilent 15:56:33 Jun 4, 2013

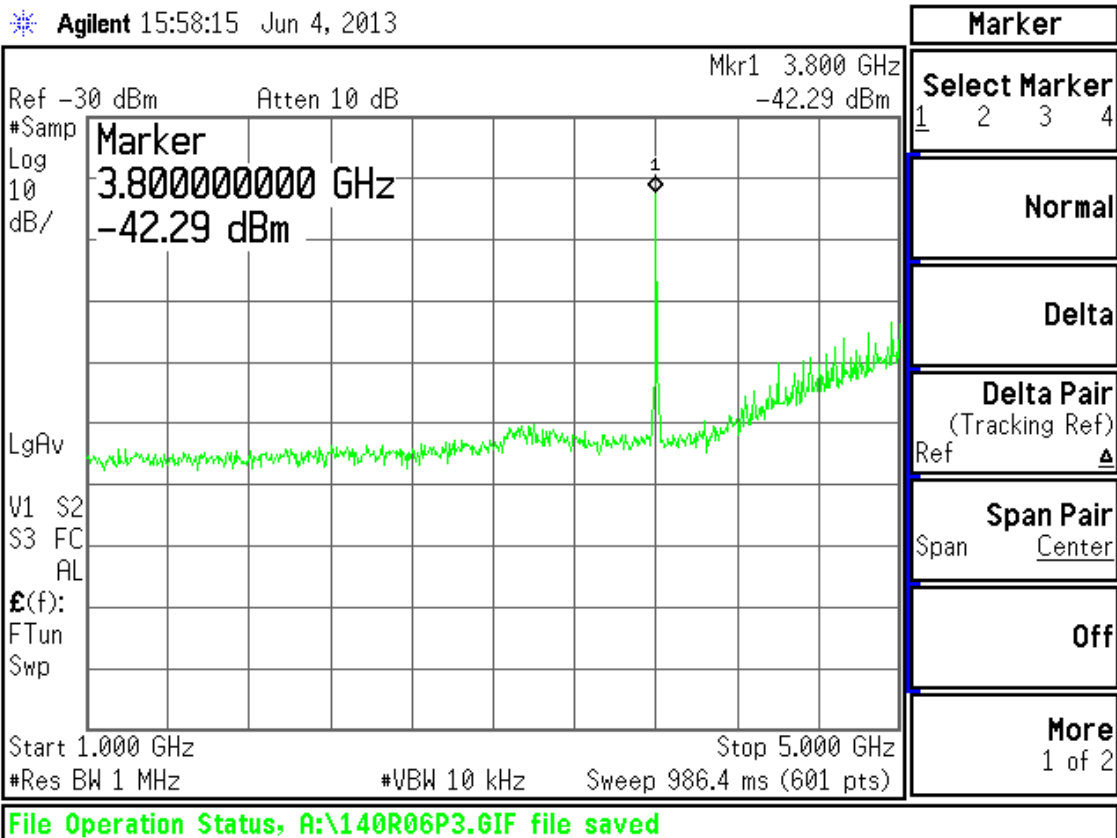


Marker				
Select Marker	1	2	3	4
Normal				
Delta				
Delta Pair (Tracking Ref)				
Ref	▲			
Span Pair				
Span	Center			
Off				
More 1 of 2				

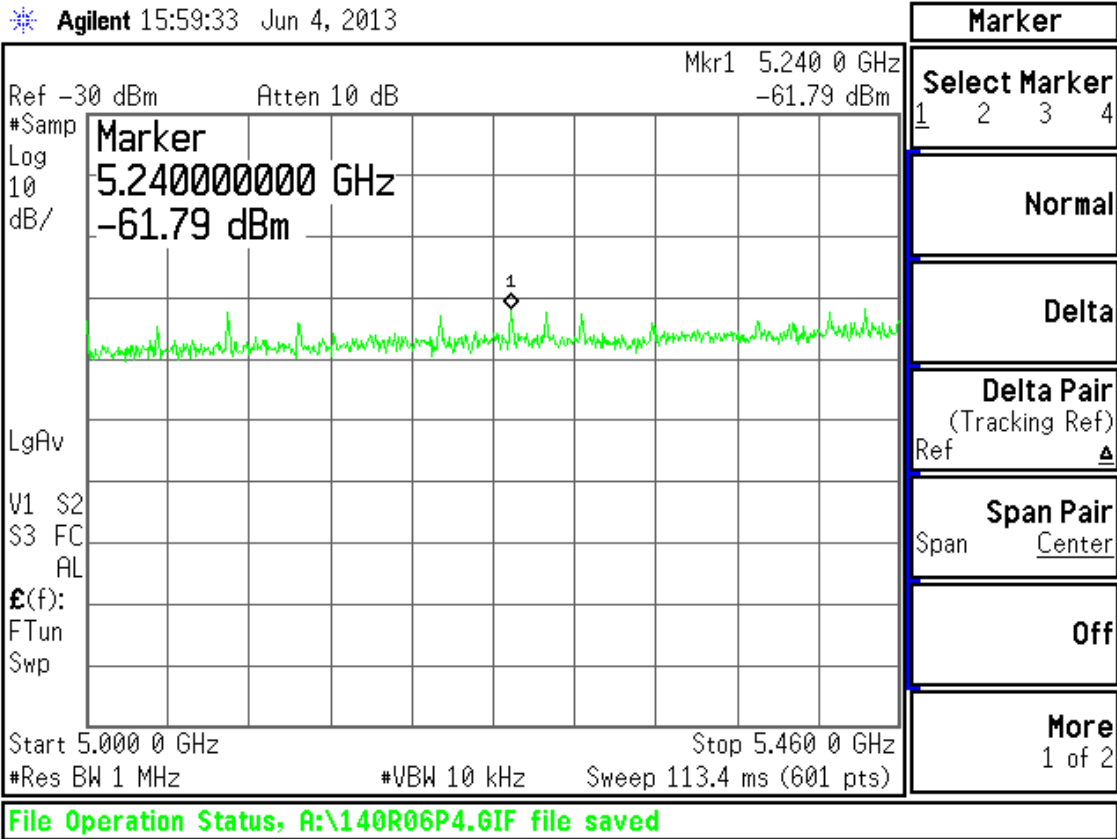
CH140 802.11a Tx Conducted Emissions @ 6Mbps



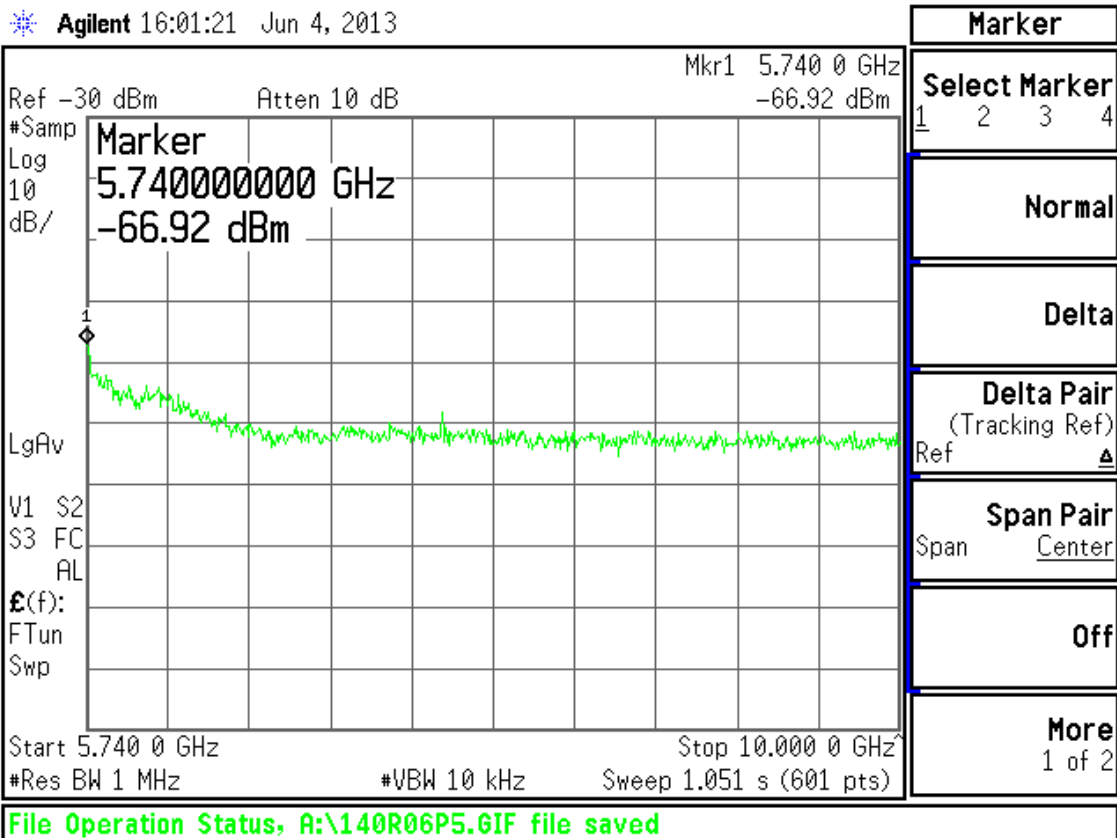
CH140 802.11a Tx Conducted Emissions @ 6Mbps



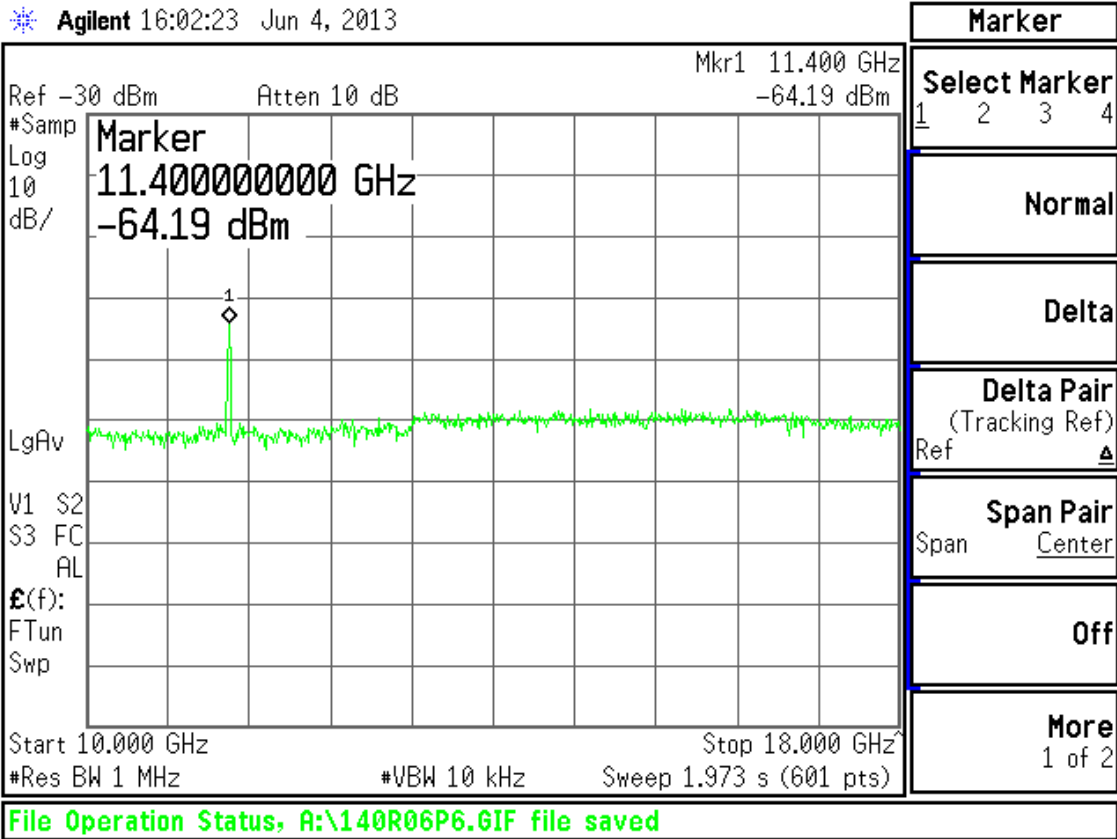
CH140 802.11a Tx Conducted Emissions @ 6Mbps



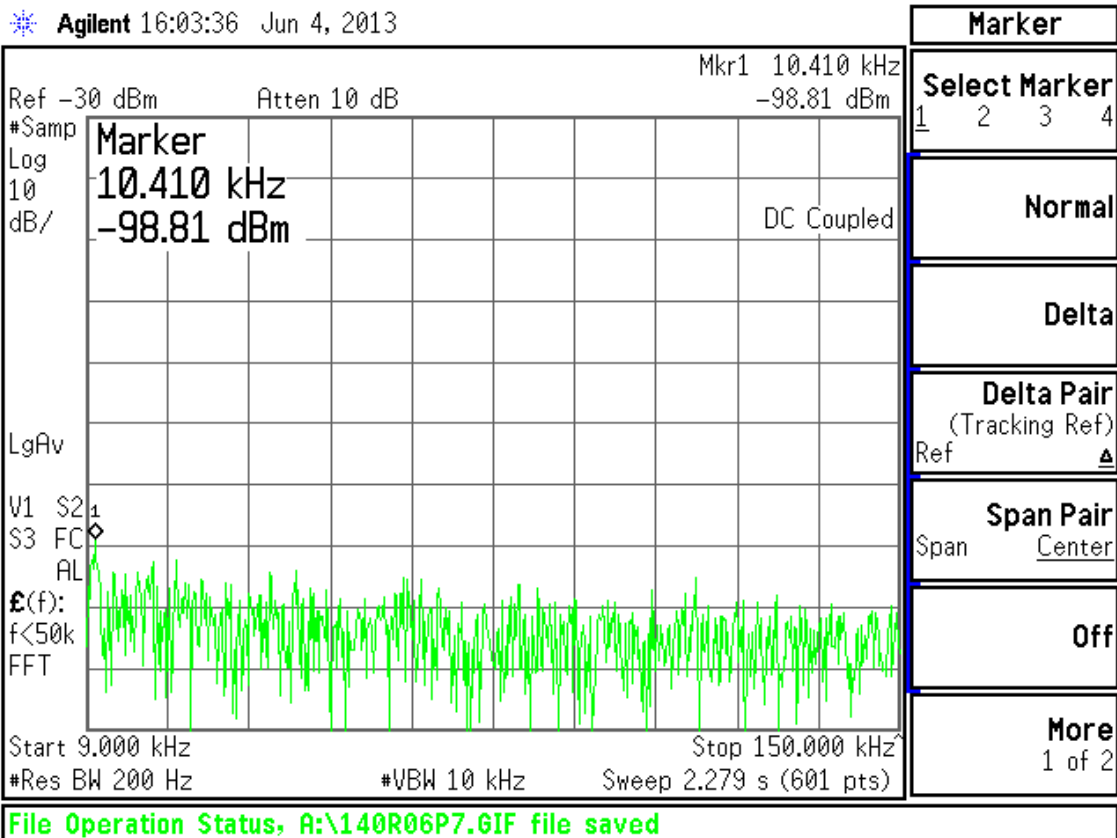
CH140 802.11a Tx Conducted Emissions @ 6Mbps



CH140 802.11a Tx Conducted Emissions @ 6Mbps

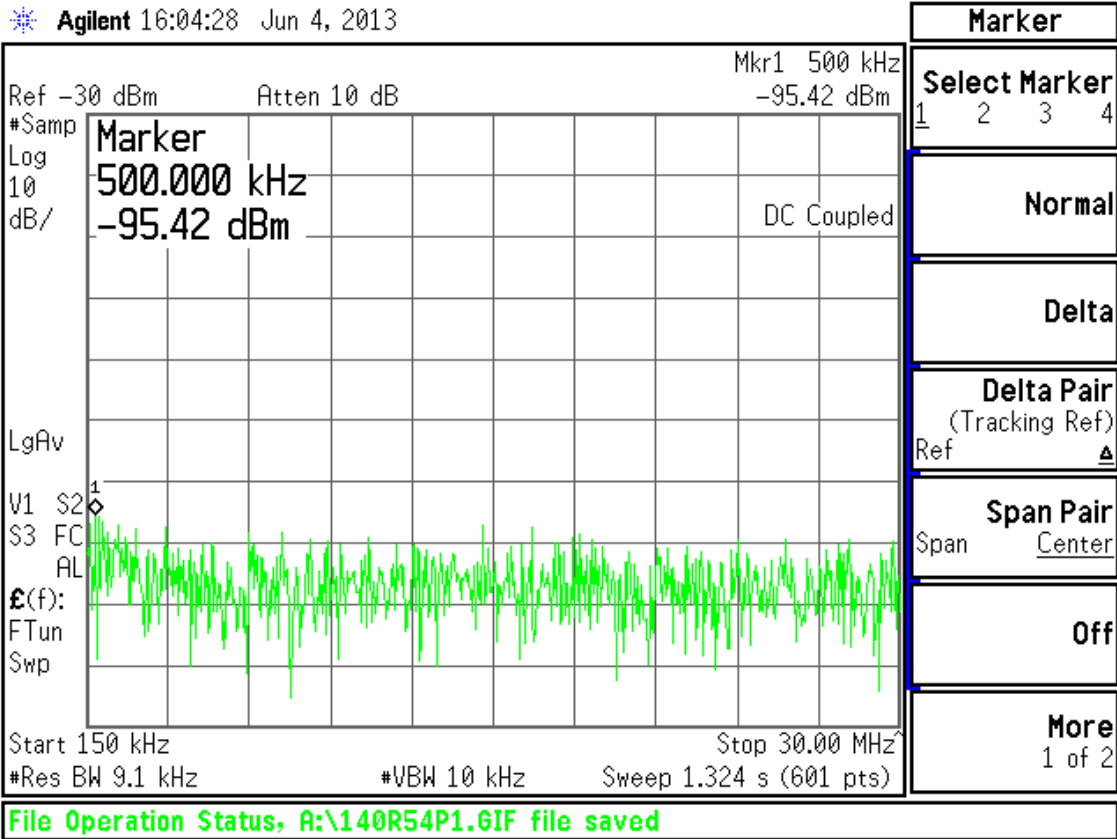


CH140 802.11a Tx Conducted Emissions @ 6Mbps

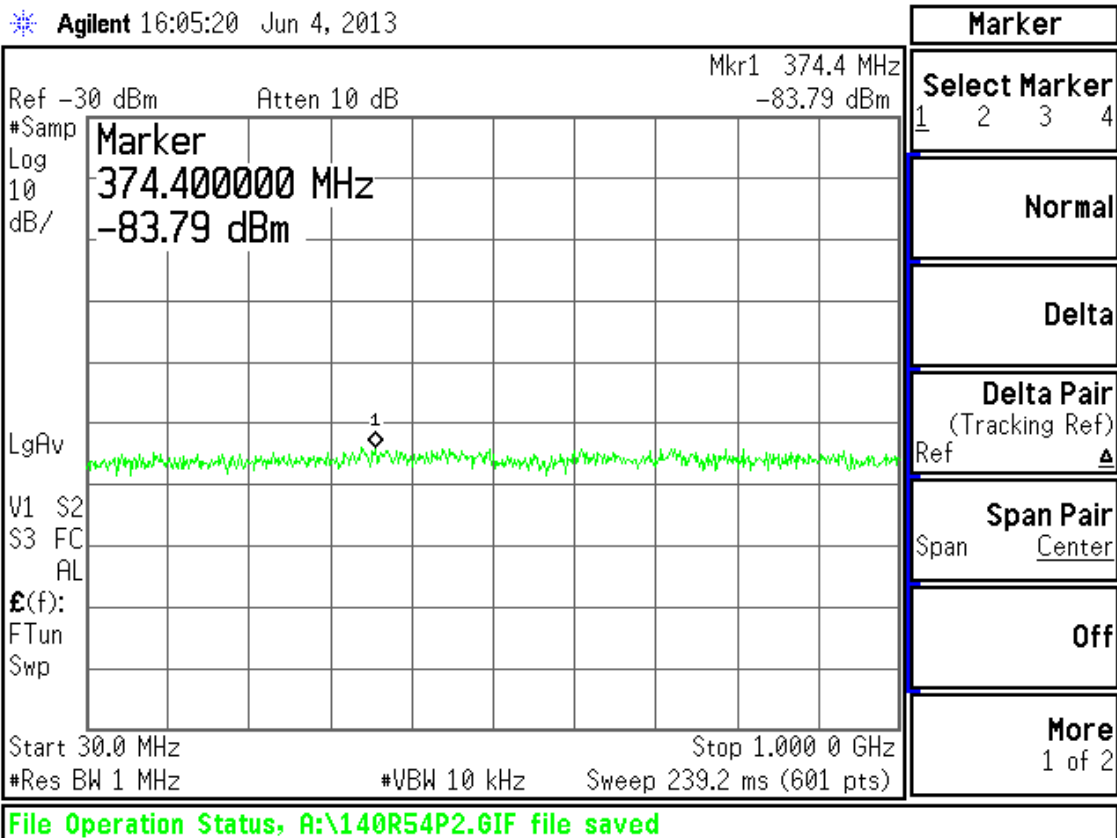


CH140 802.11a Tx Conducted Emissions @ 54Mbps

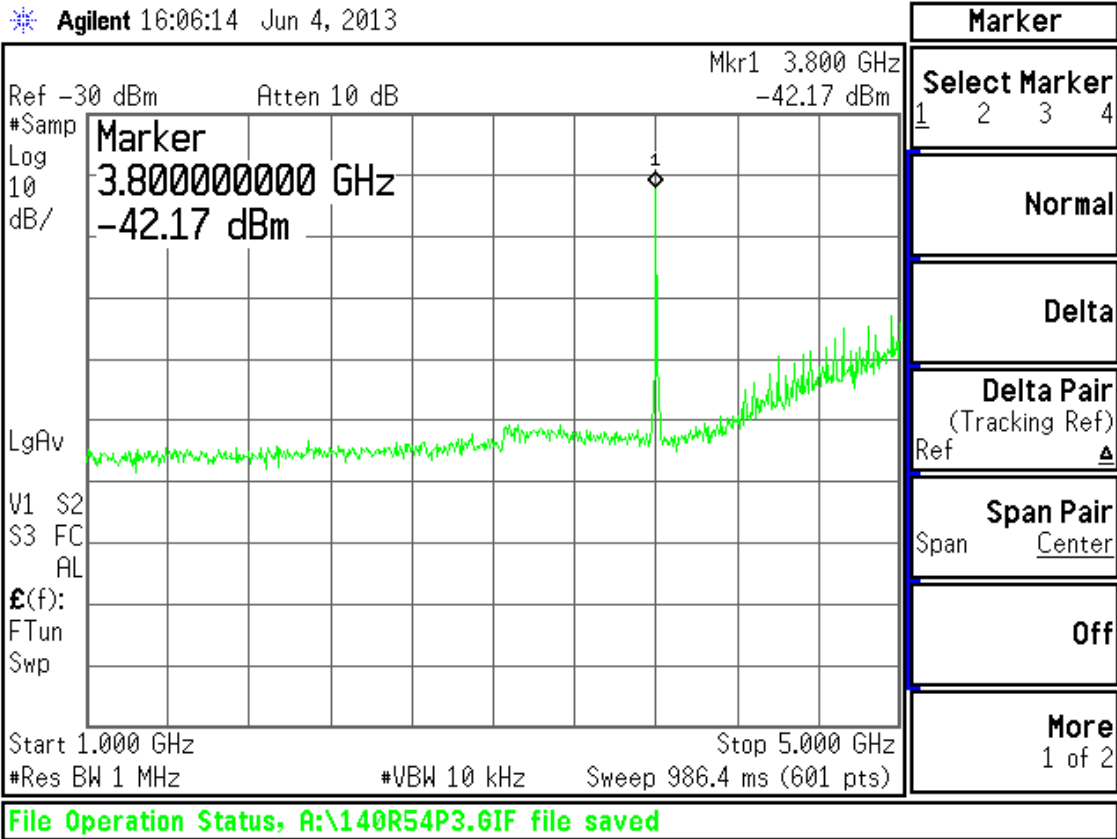




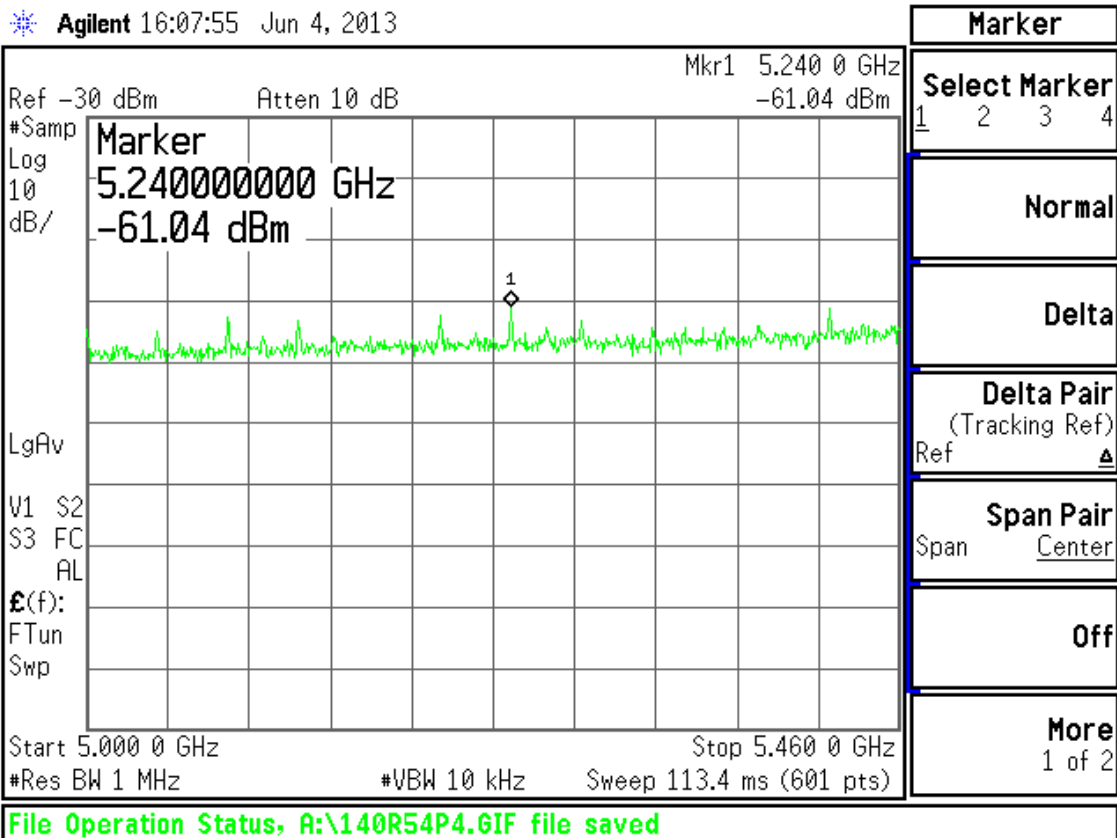
CH140 802.11a Tx Conducted Emissions @ 54Mbps



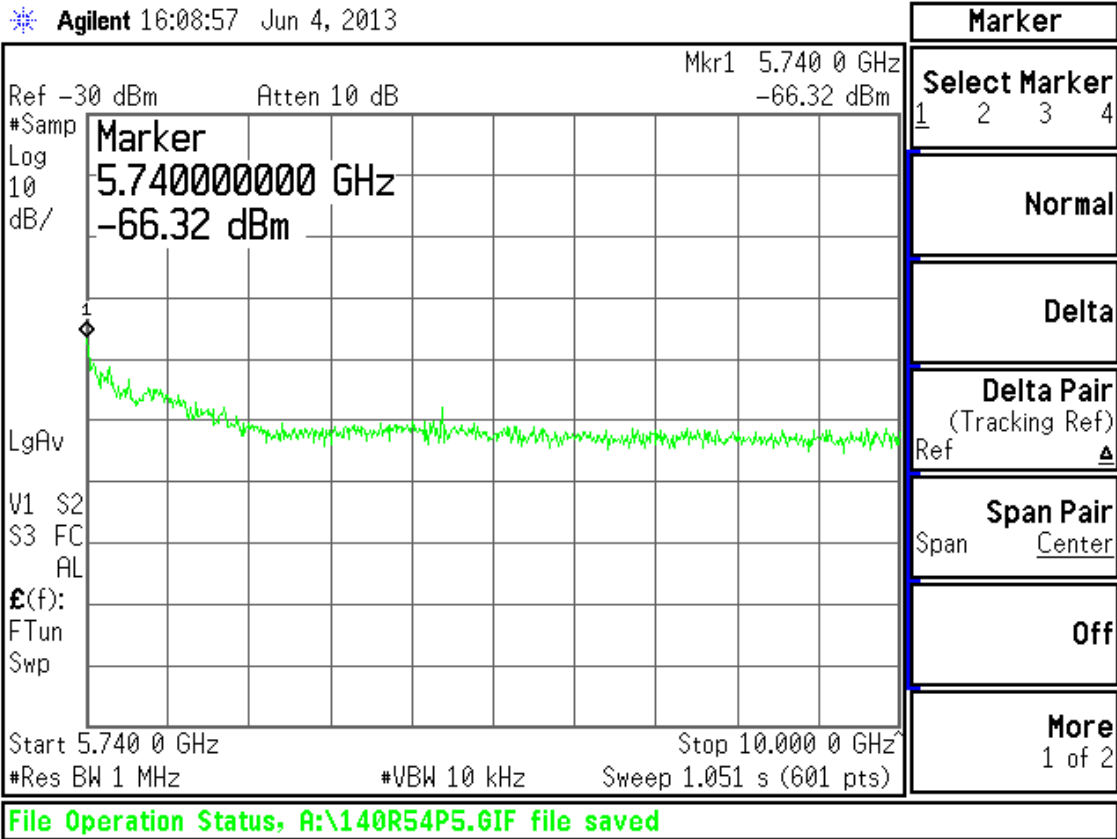
CH140 802.11a Tx Conducted Emissions @ 54Mbps



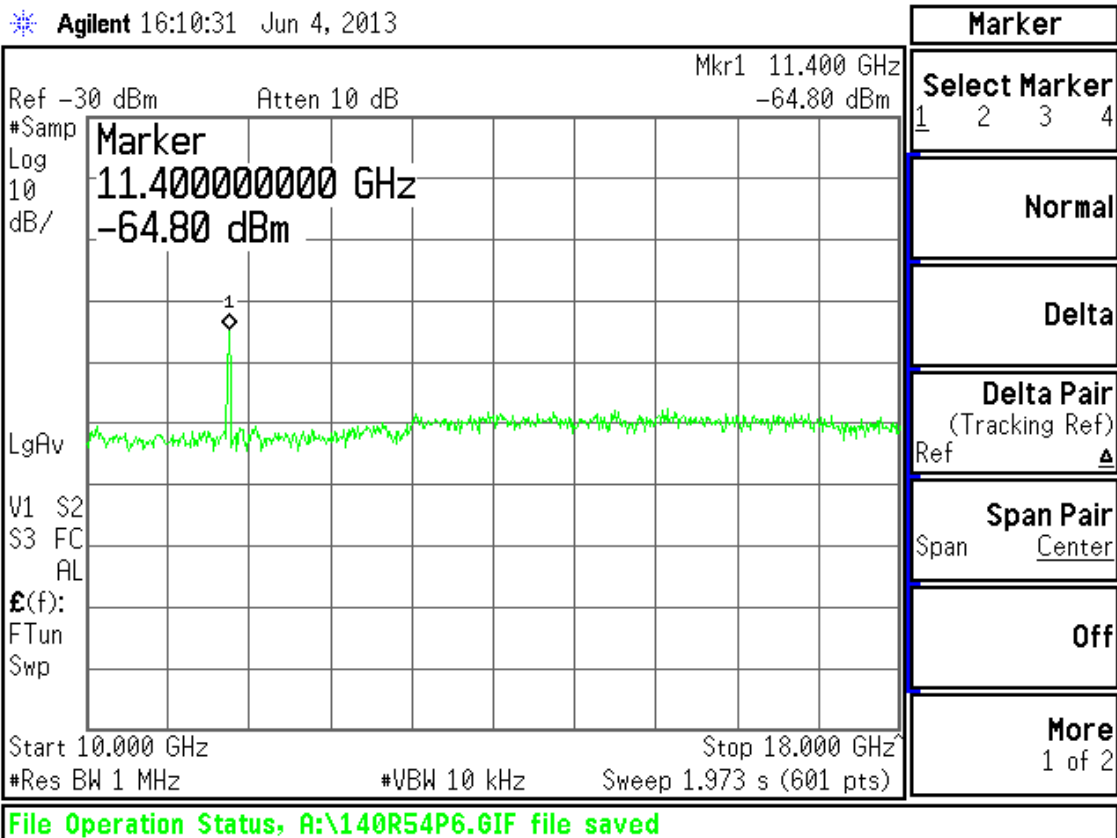
CH140 802.11a Tx Conducted Emissions @ 54Mbps



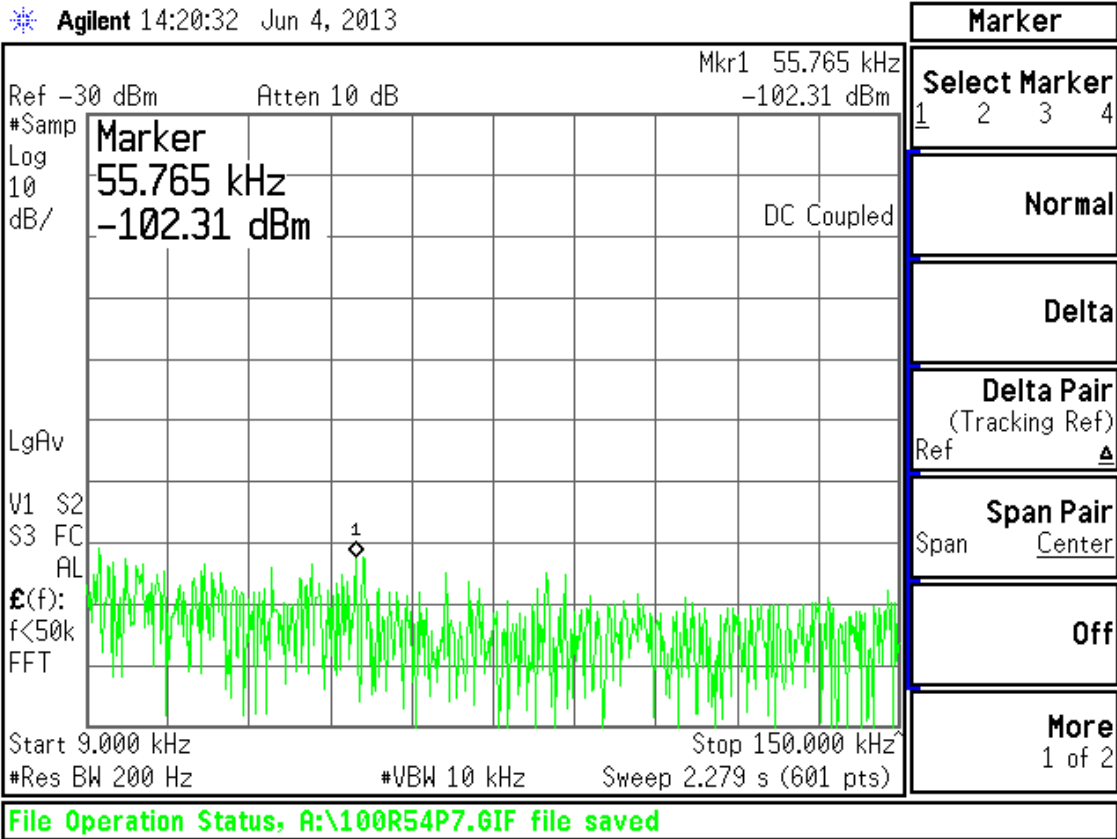
CH140 802.11a Tx Conducted Emissions @ 54Mbps



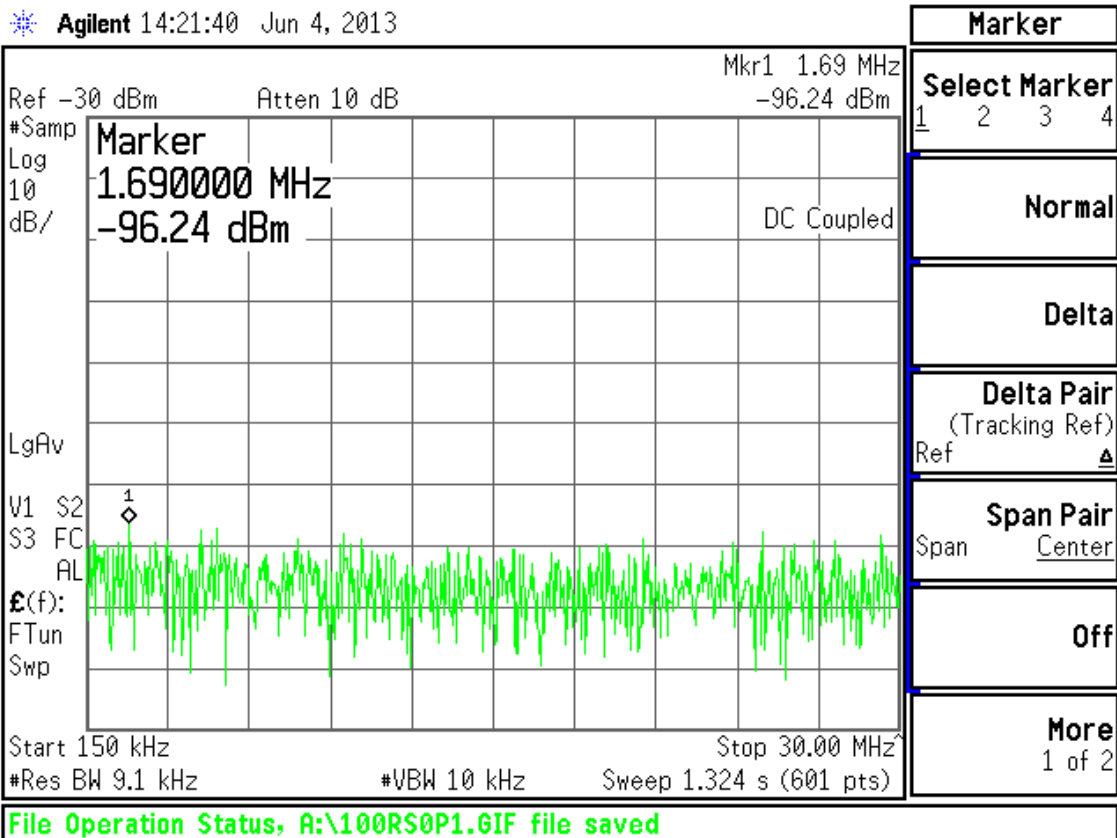
CH140 802.11a Tx Conducted Emissions @ 54Mbps



CH140 802.11a Tx Conducted Emissions @ 54Mbps

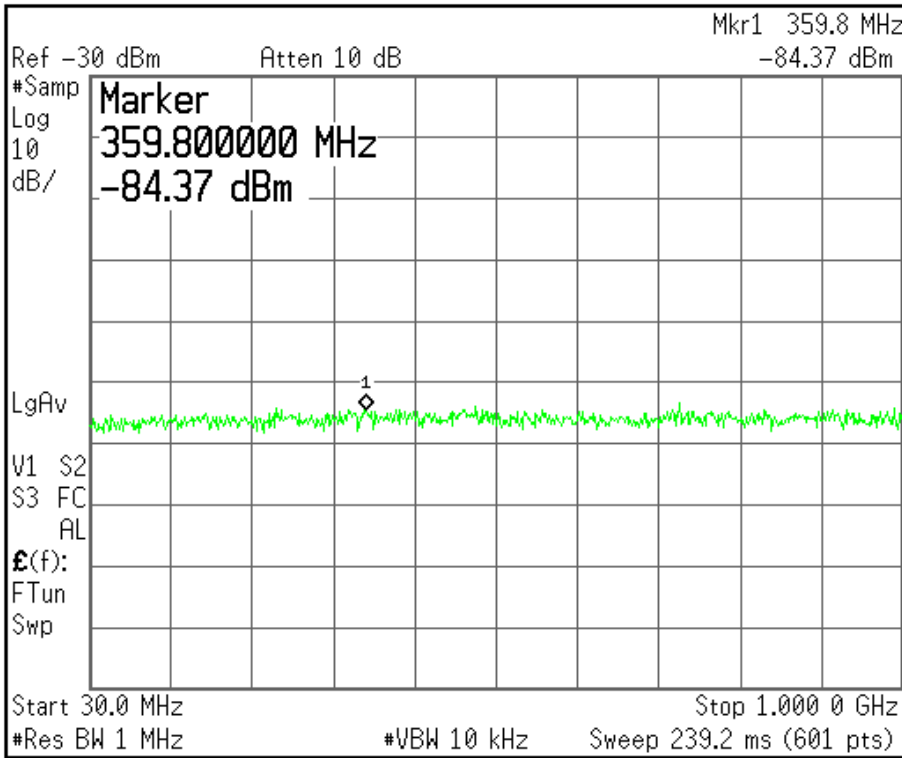


CH100 802.11n Tx Conducted Emissions (MCS0)



CH100 802.11n Tx Conducted Emissions (MCS0)

Agilent 14:22:43 Jun 4, 2013

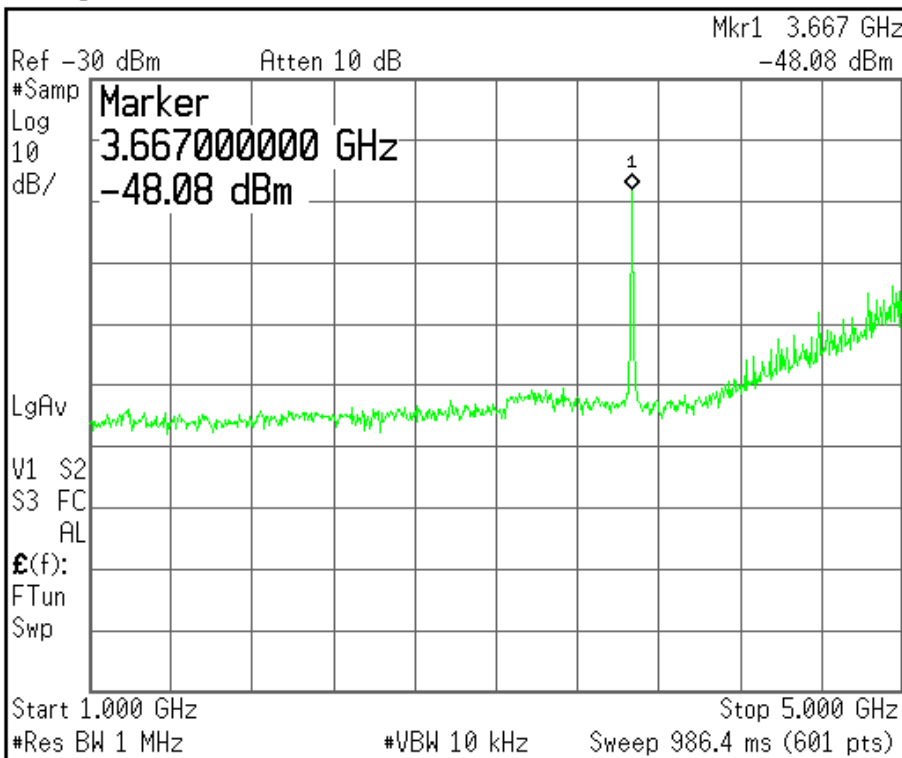


File
Catalog>
Save>
Load>
Delete>
Copy>
Rename>
More 1 of 2

File Operation Status, A:\100RS0P2.GIF file saved

CH100 802.11n Tx Conducted Emissions (MCS0)

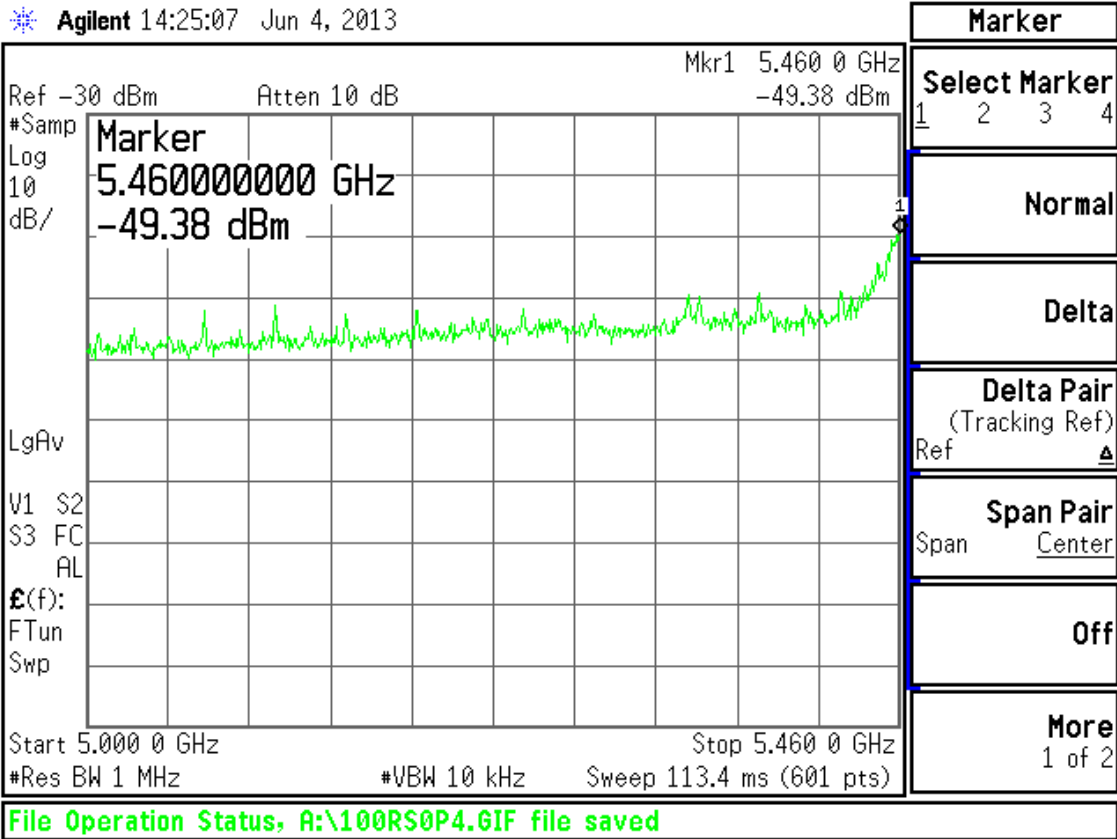
Agilent 14:23:40 Jun 4, 2013



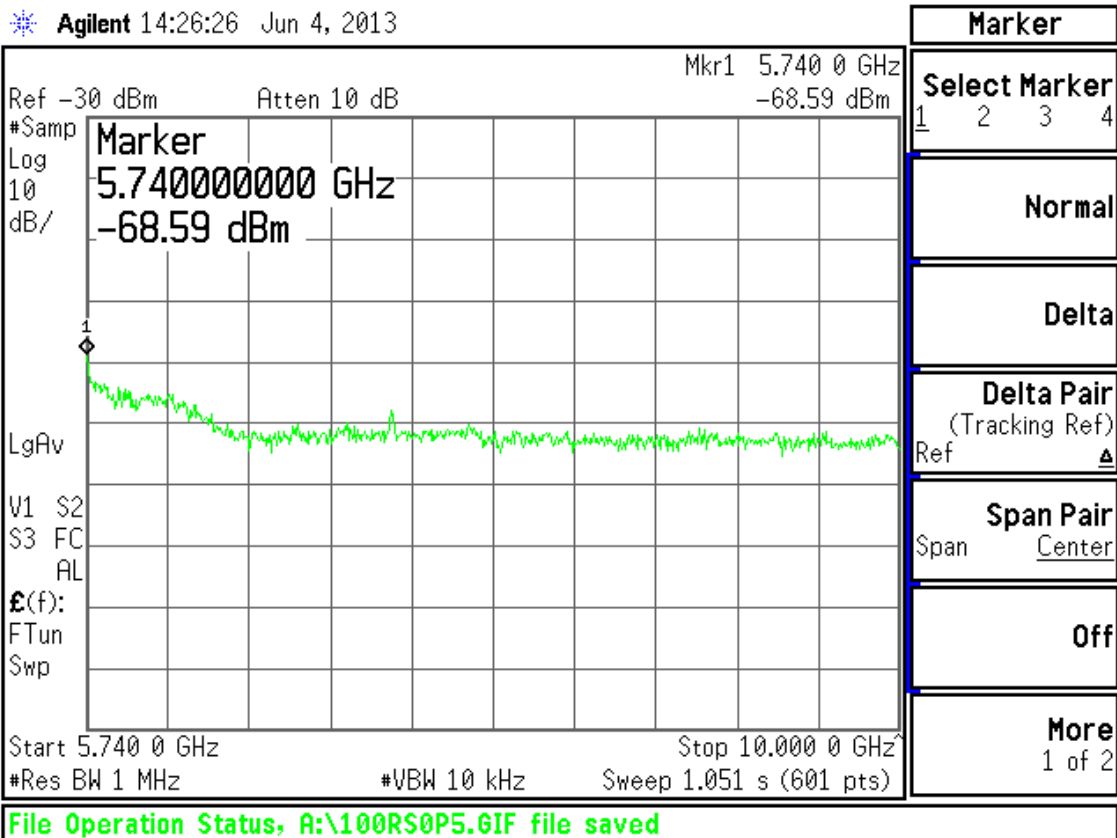
Marker
Select Marker 1 2 3 4
Normal
Delta
Delta Pair (Tracking Ref) Ref ▲
Span Pair Span Center
Off
More 1 of 2

File Operation Status, A:\100RS0P3.GIF file saved

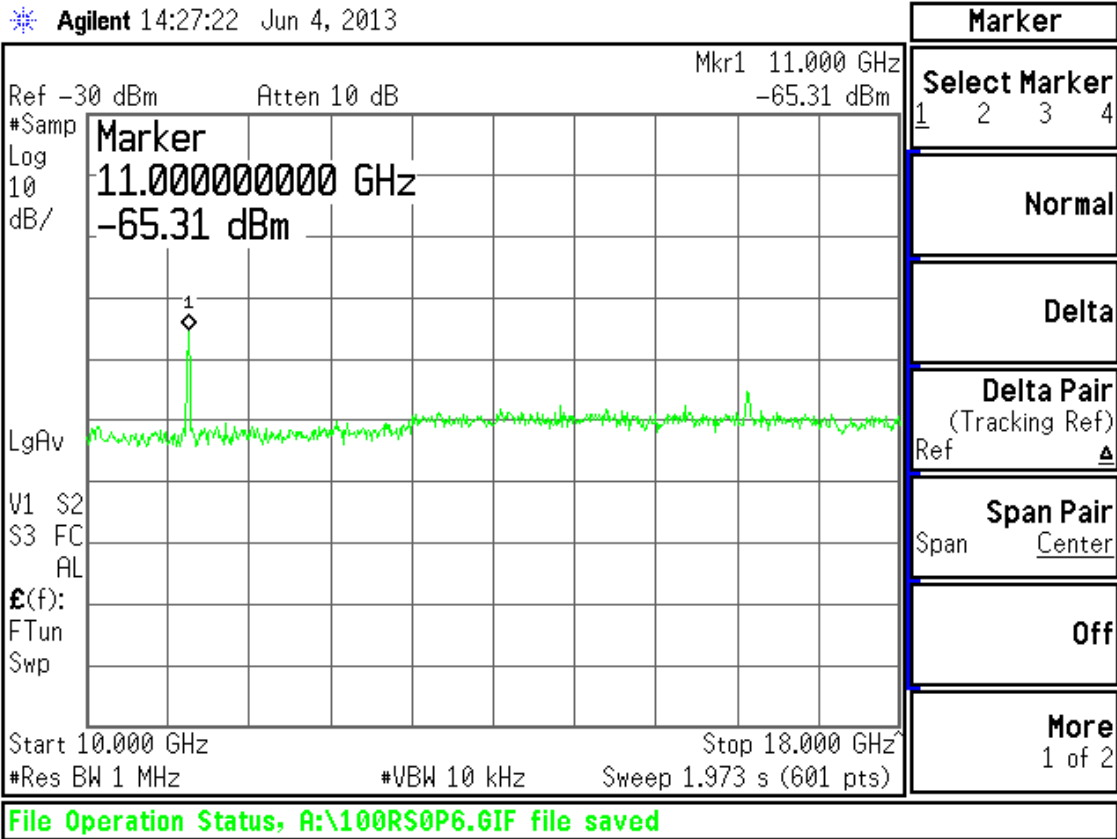
CH100 802.11n Tx Conducted Emissions (MCS0)



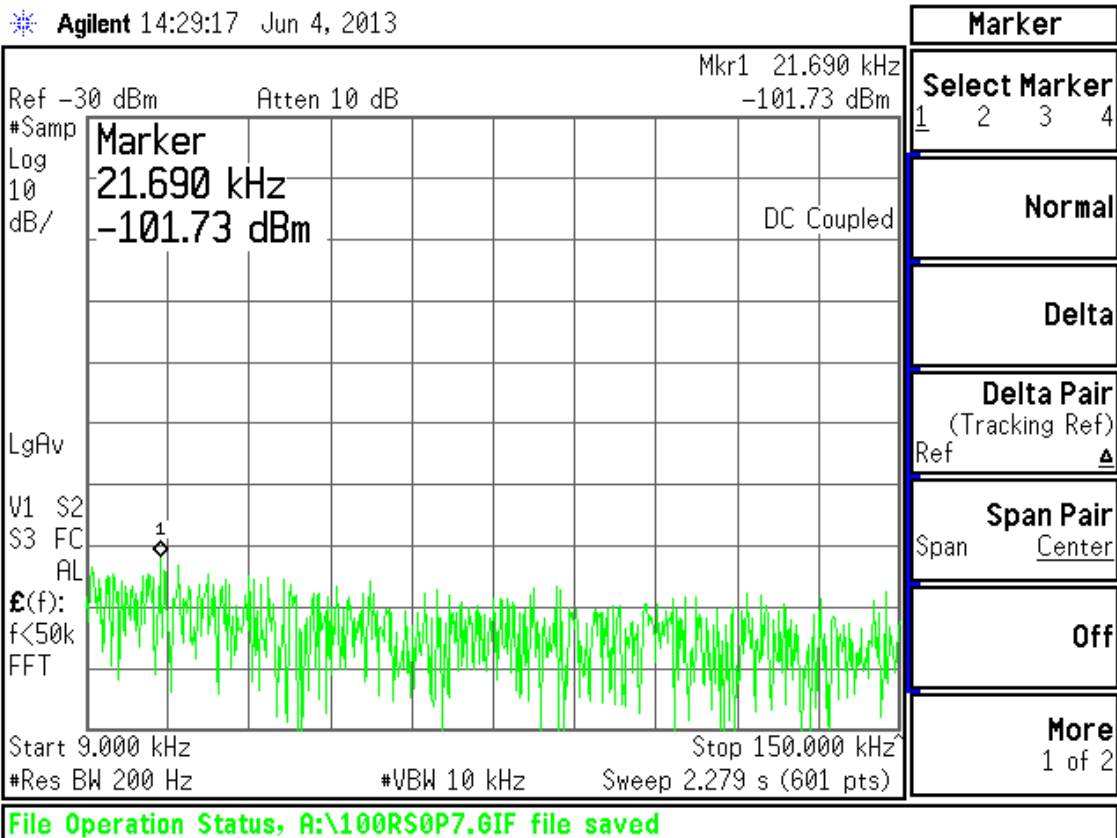
CH100 802.11n Tx Conducted Emissions (MCS0)



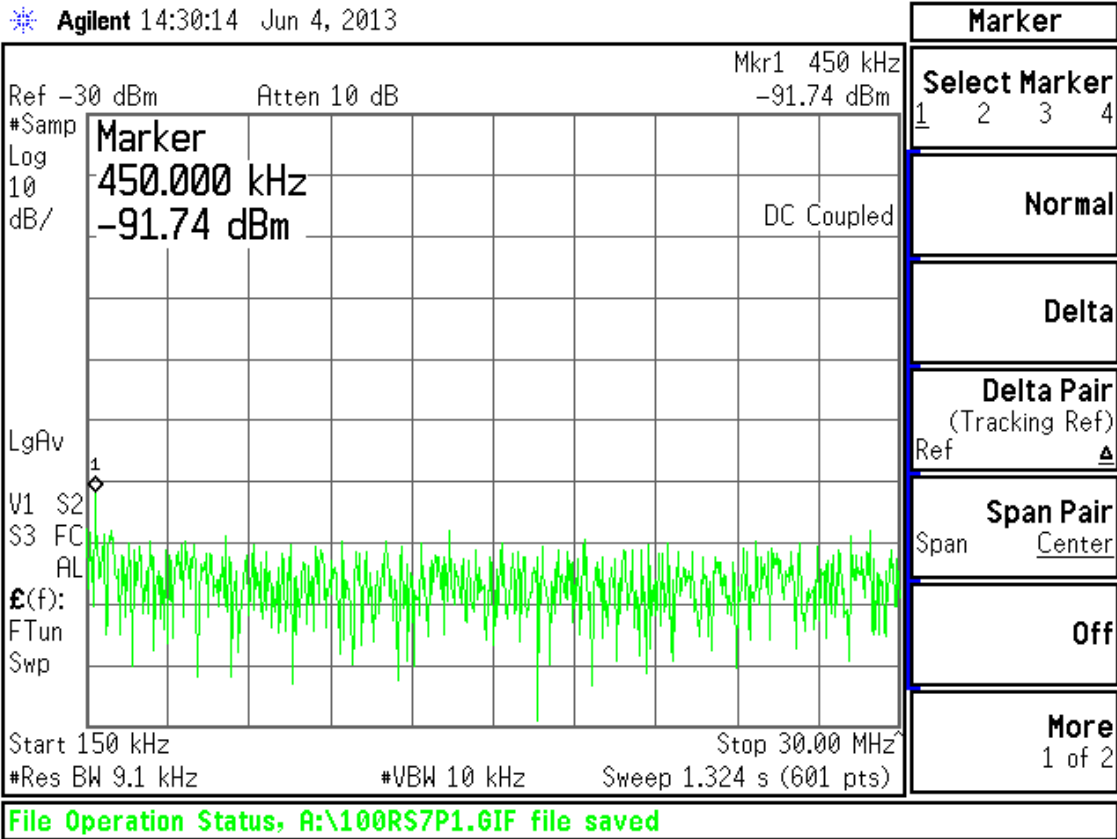
CH100 802.11n Tx Conducted Emissions (MCS0)



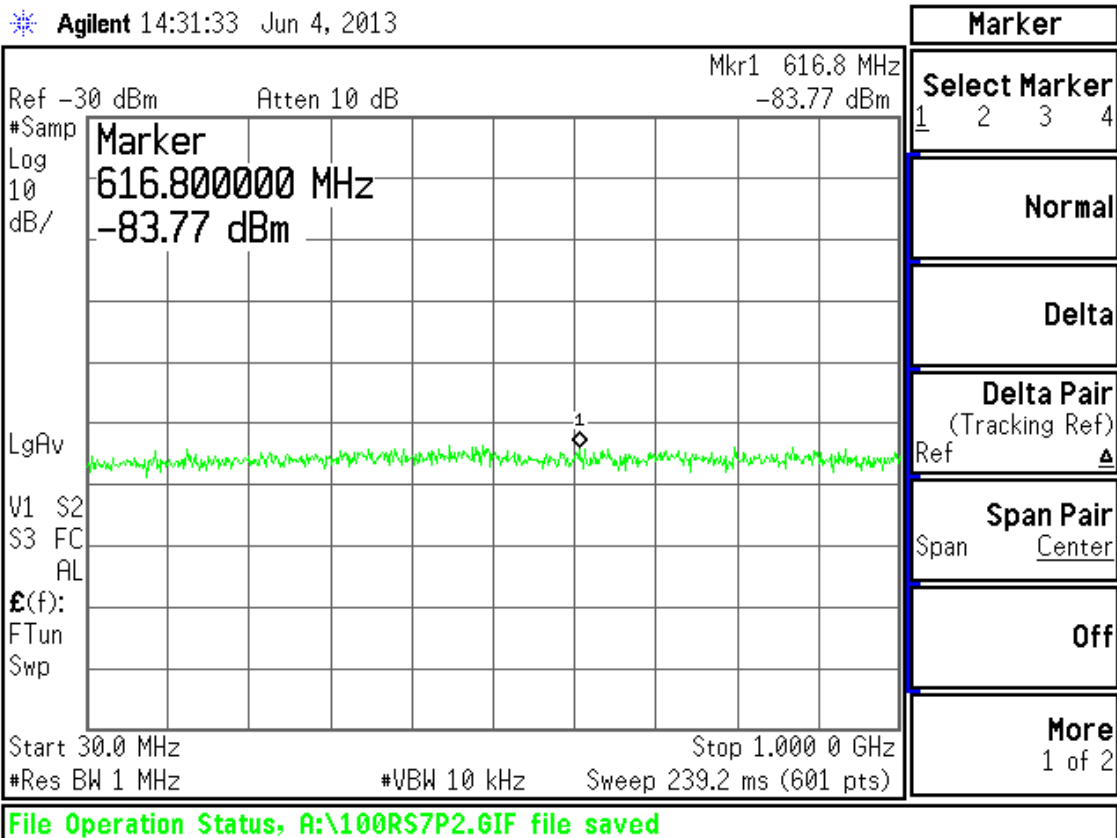
CH100 802.11n Tx Conducted Emissions (MCS0)



CH100 802.11n Tx Conducted Emissions (MCS7)

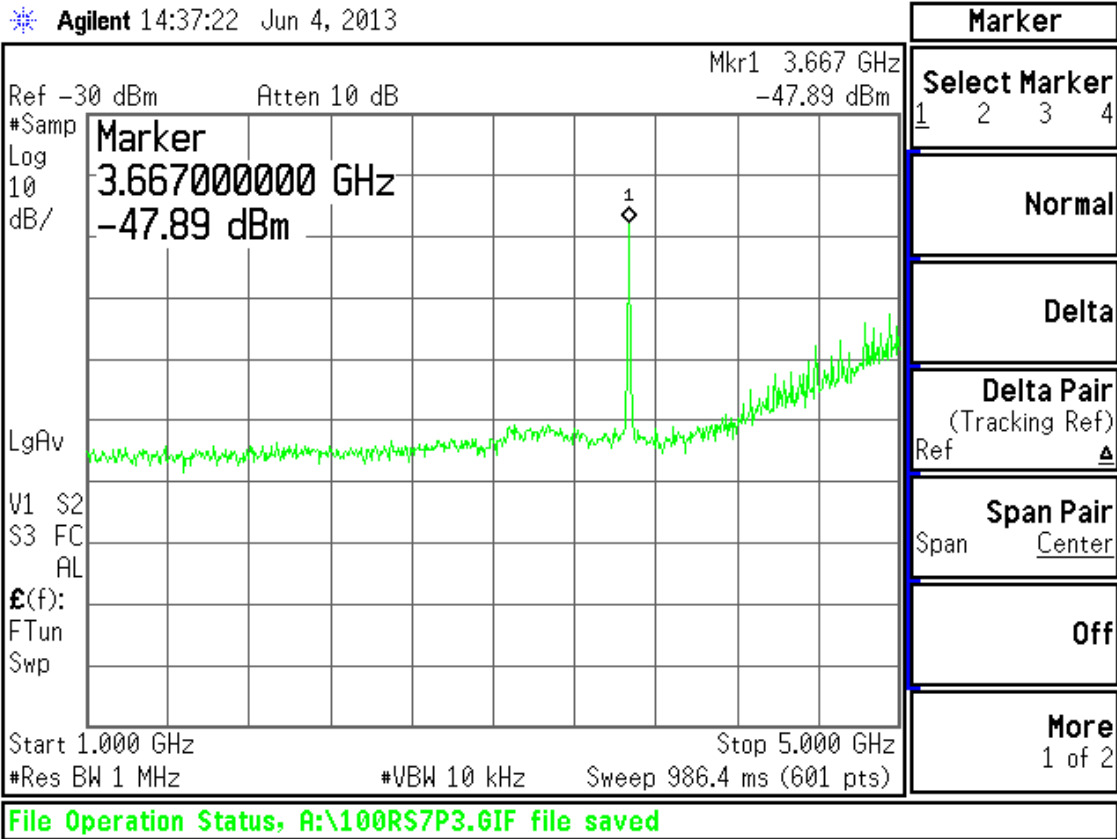


CH100 802.11n Tx Conducted Emissions (MCS7)

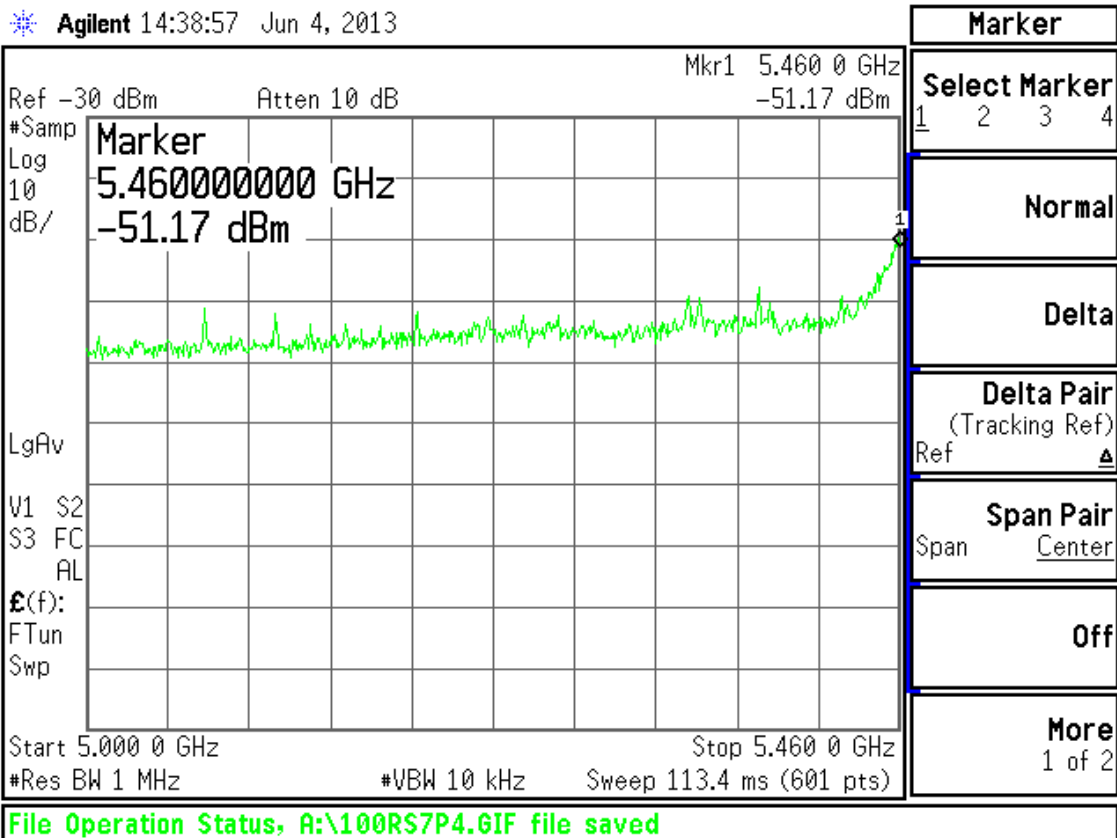


CH100 802.11n Tx Conducted Emissions (MCS7)

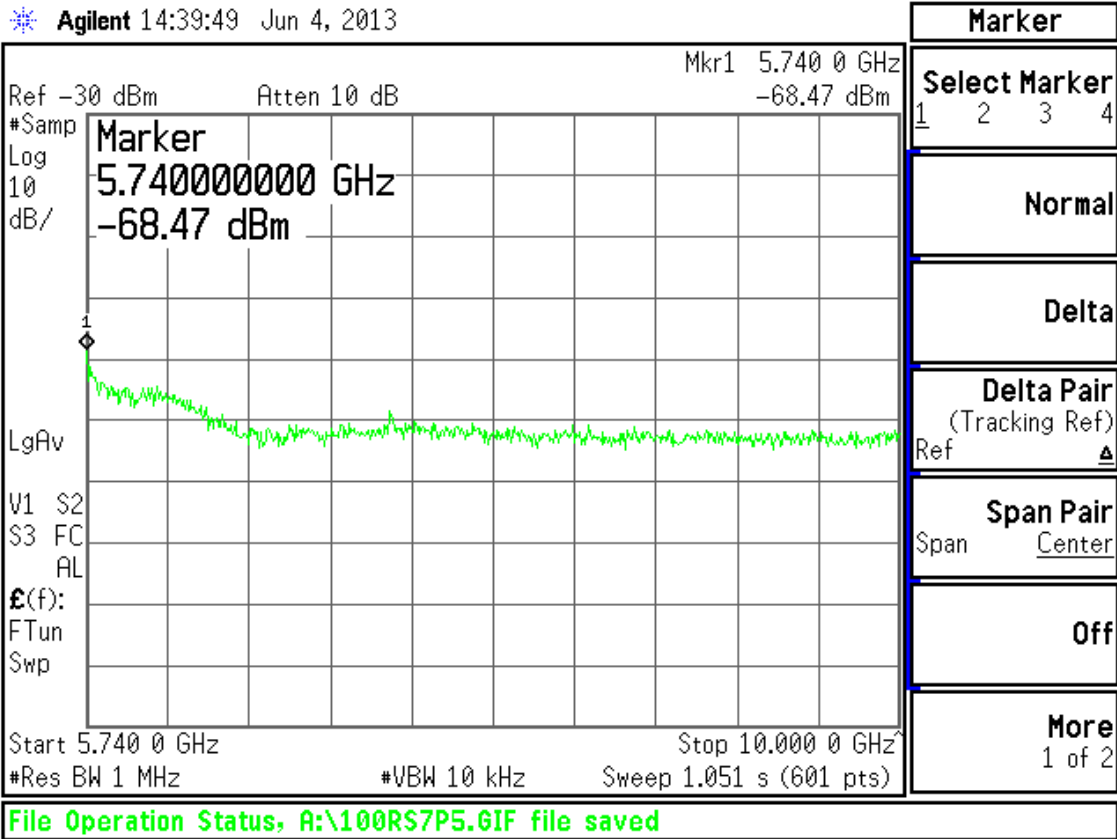




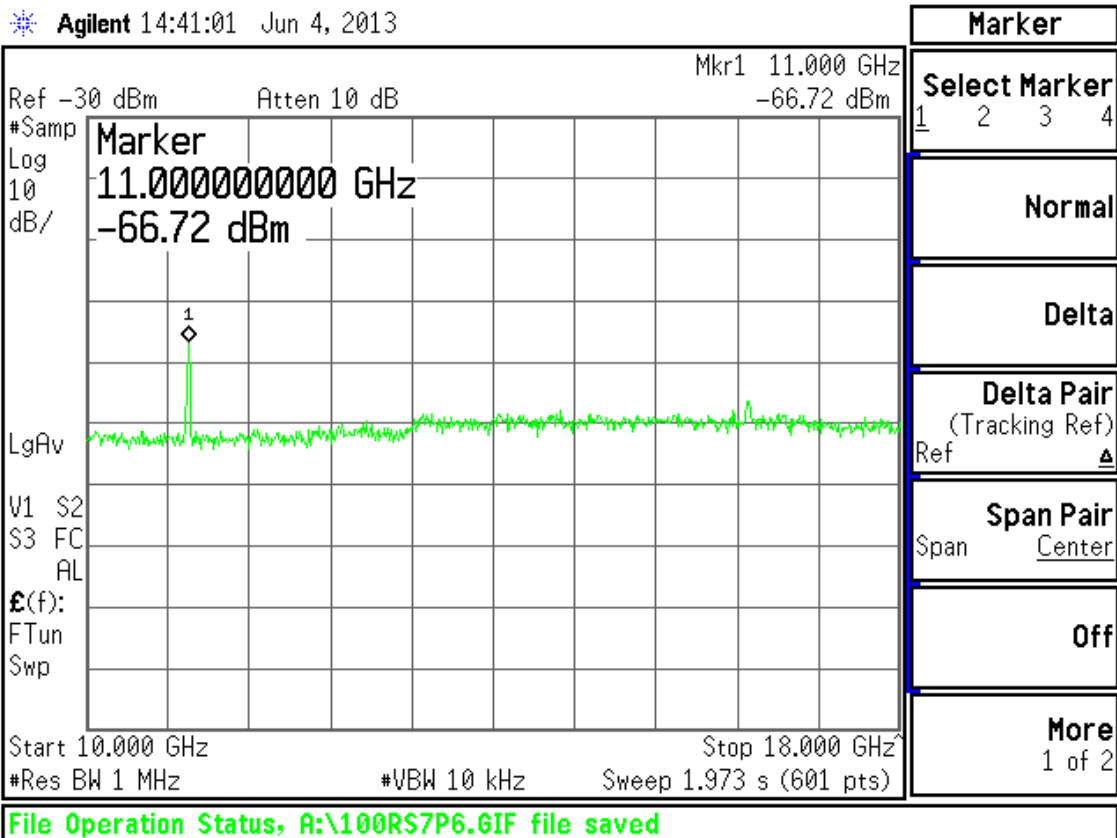
CH100 802.11n Tx Conducted Emissions (MCS7)



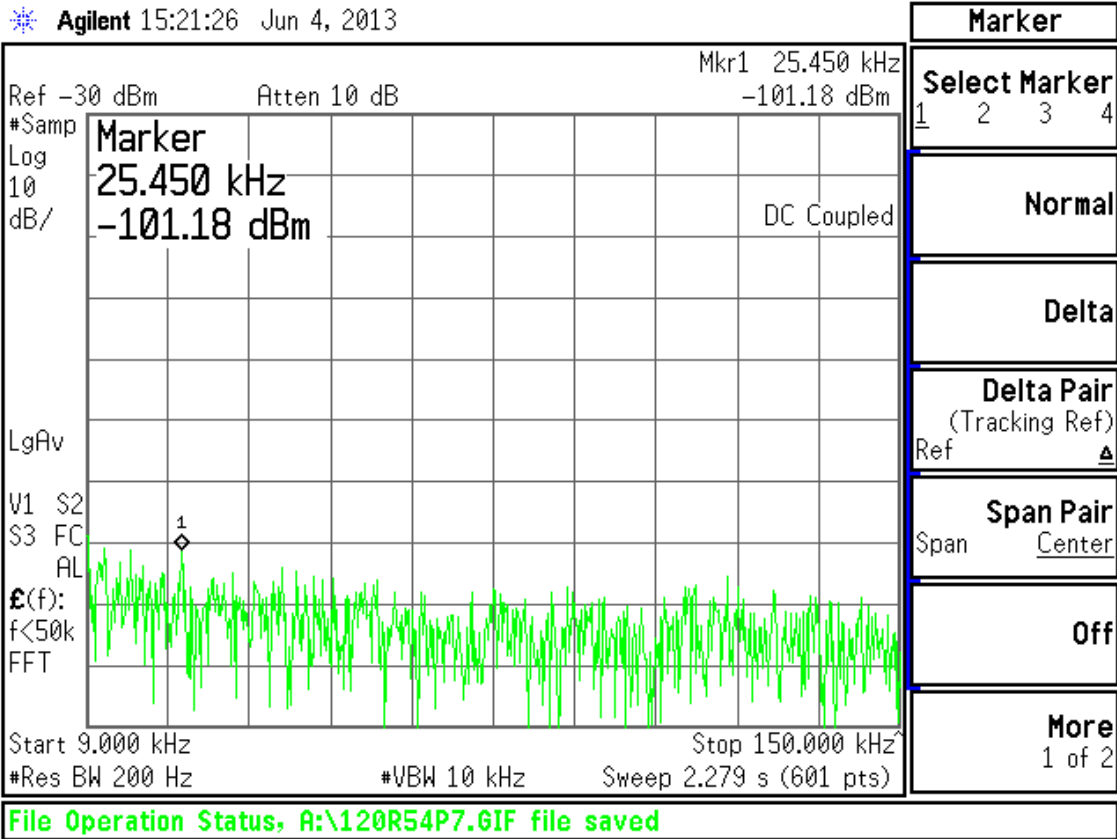
CH100 802.11n Tx Conducted Emissions (MCS7)



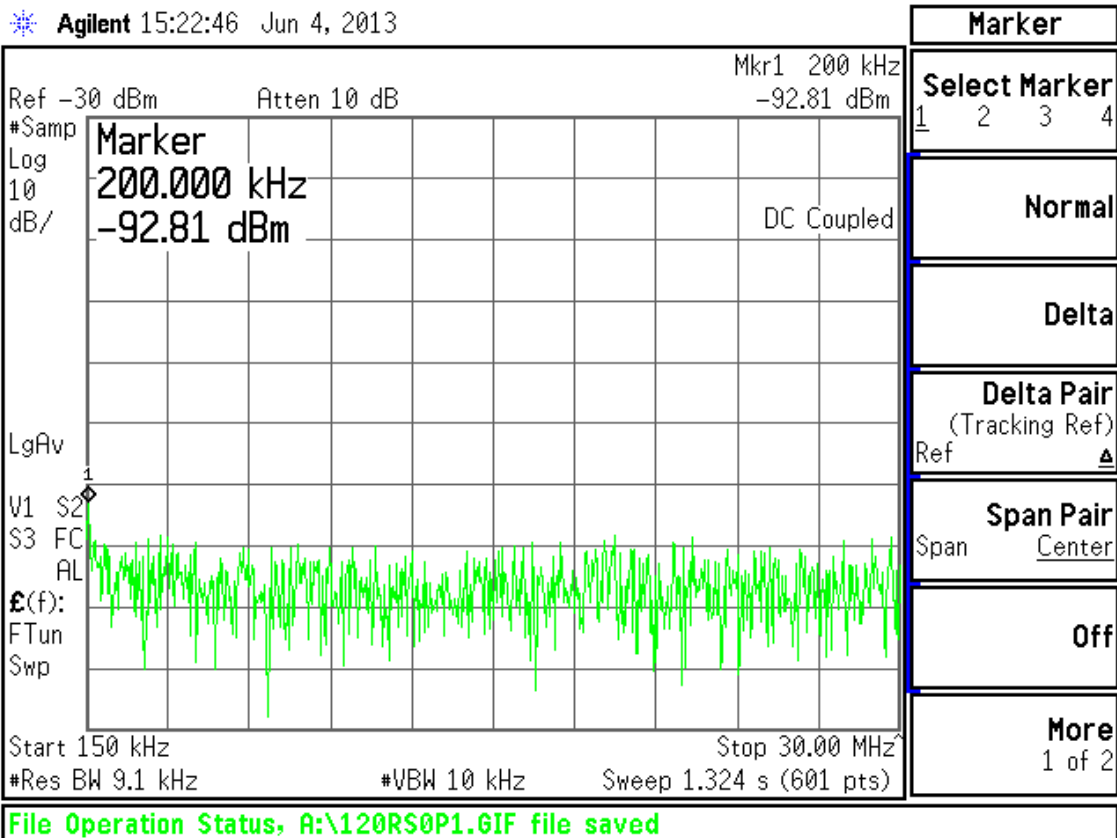
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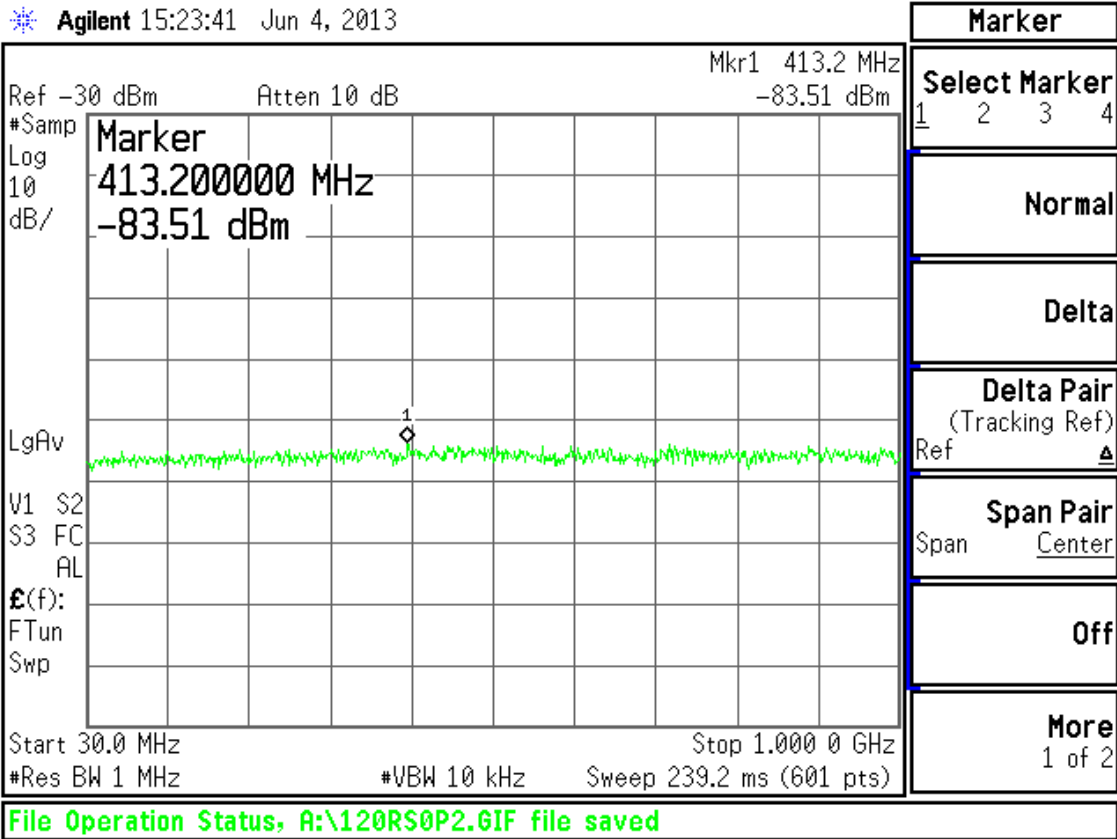
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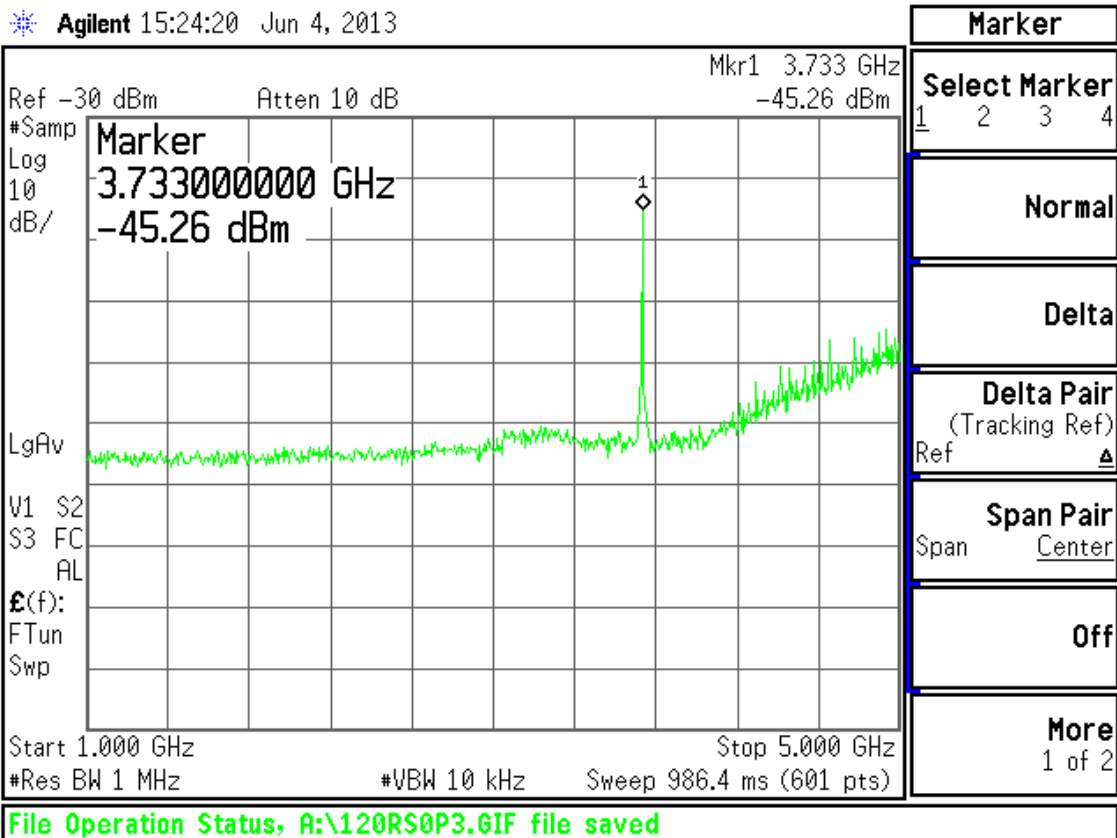
CH120 802.11n Tx Conducted Emissions (MCS0)



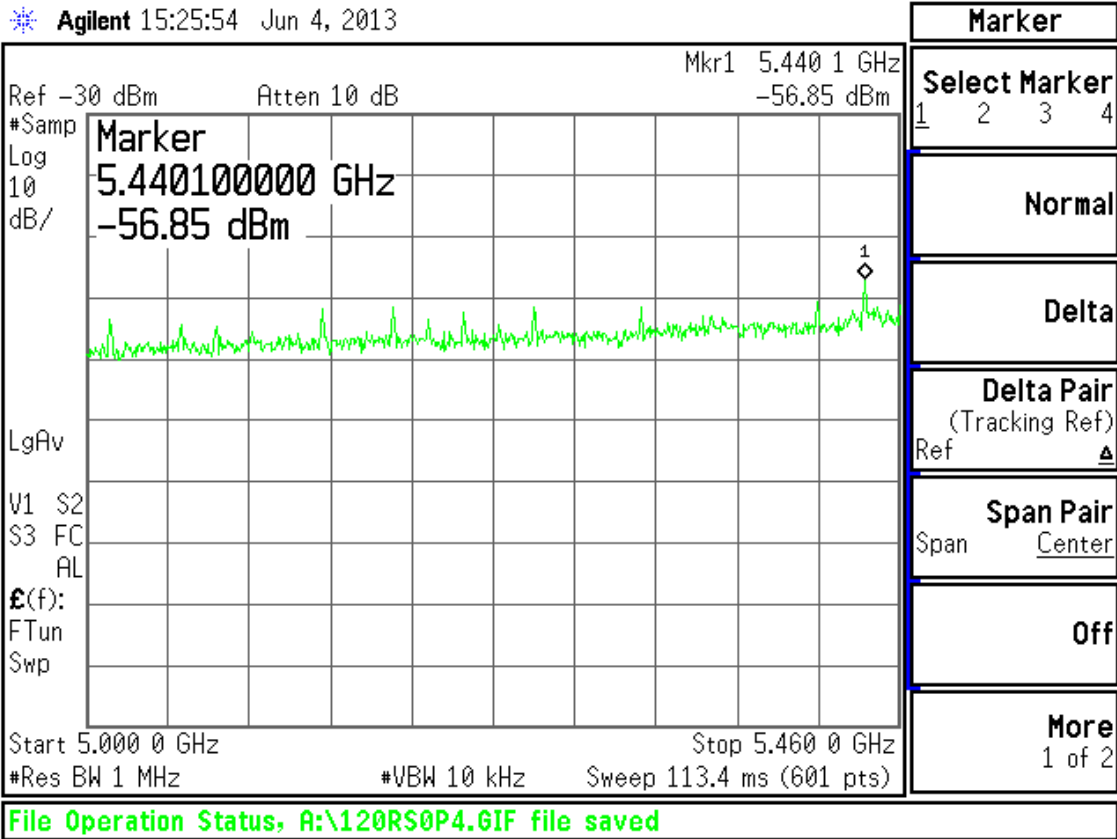
CH120 802.11n Tx Conducted Emissions (MCS0)



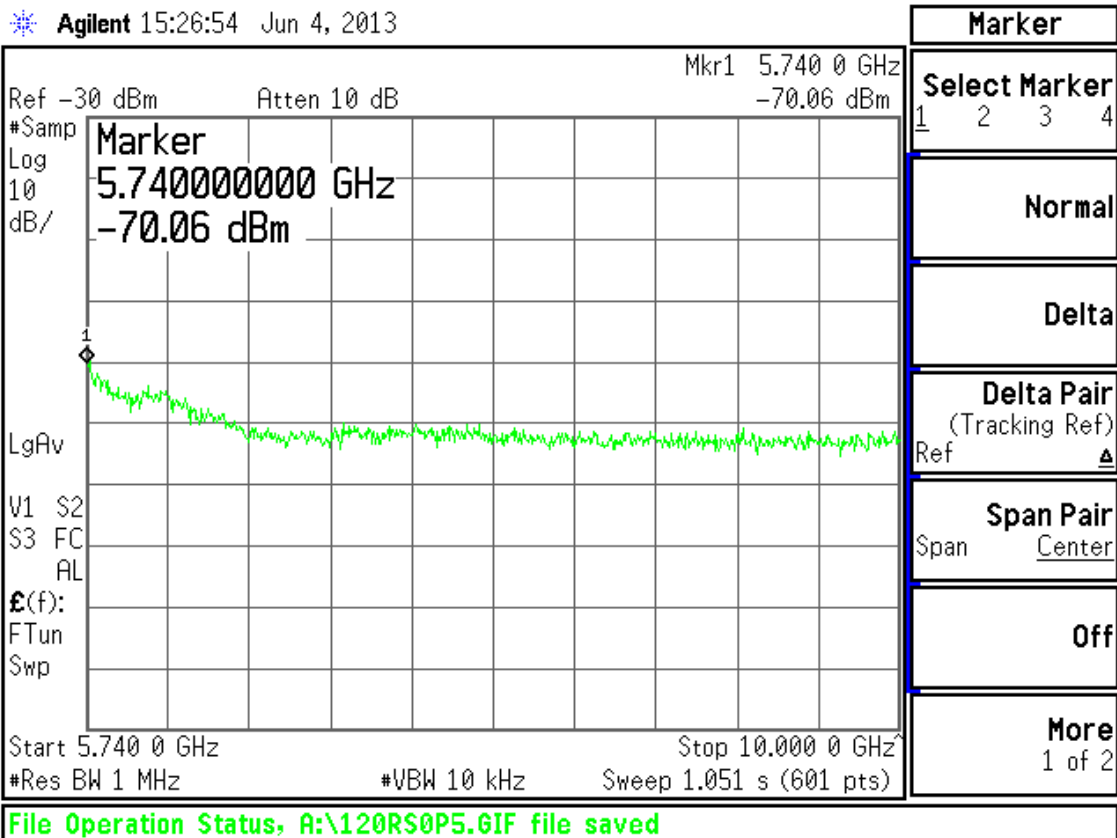
CH120 802.11n Tx Conducted Emissions (MCS0)



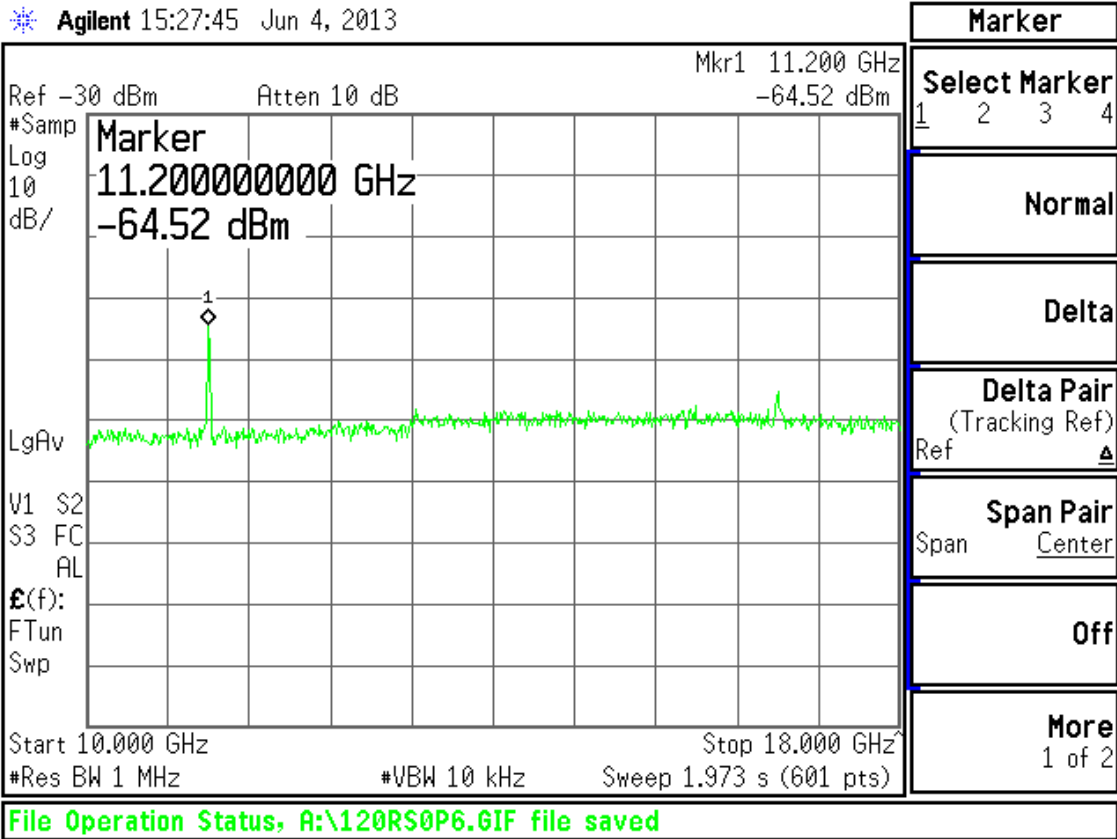
CH120 802.11n Tx Conducted Emissions (MCS0)



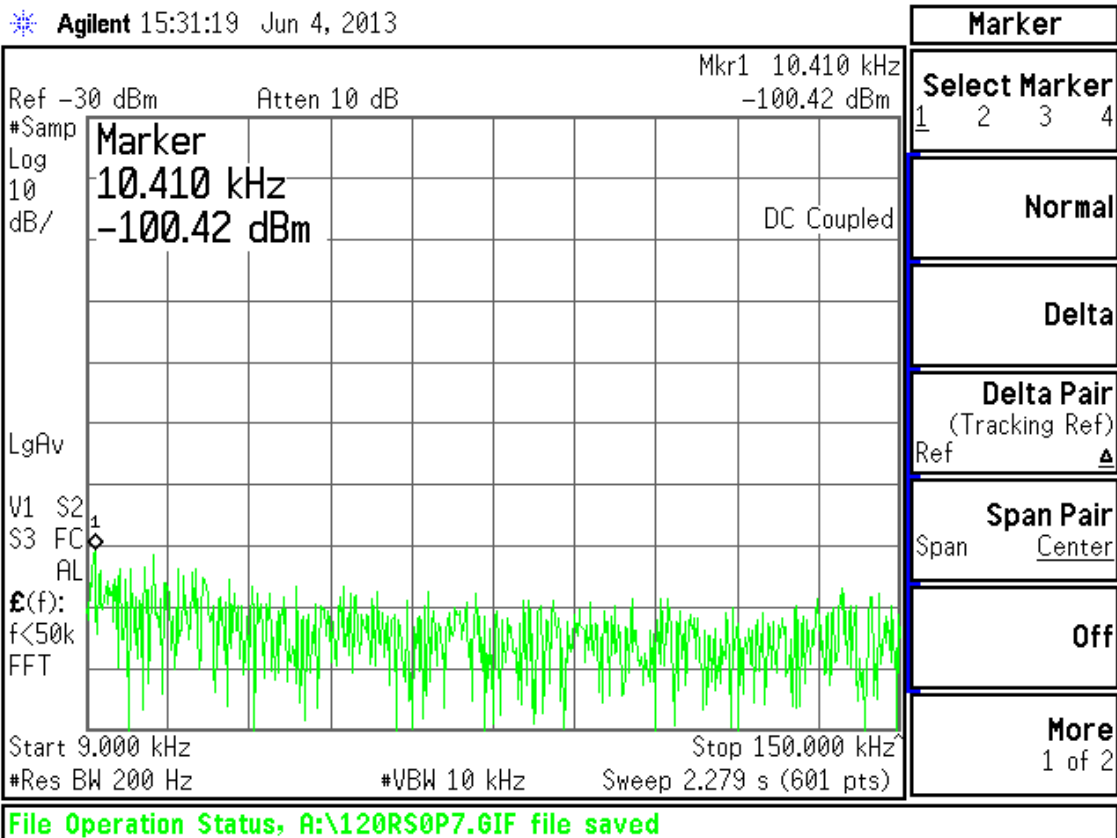
CH120 802.11n Tx Conducted Emissions (MCS0)



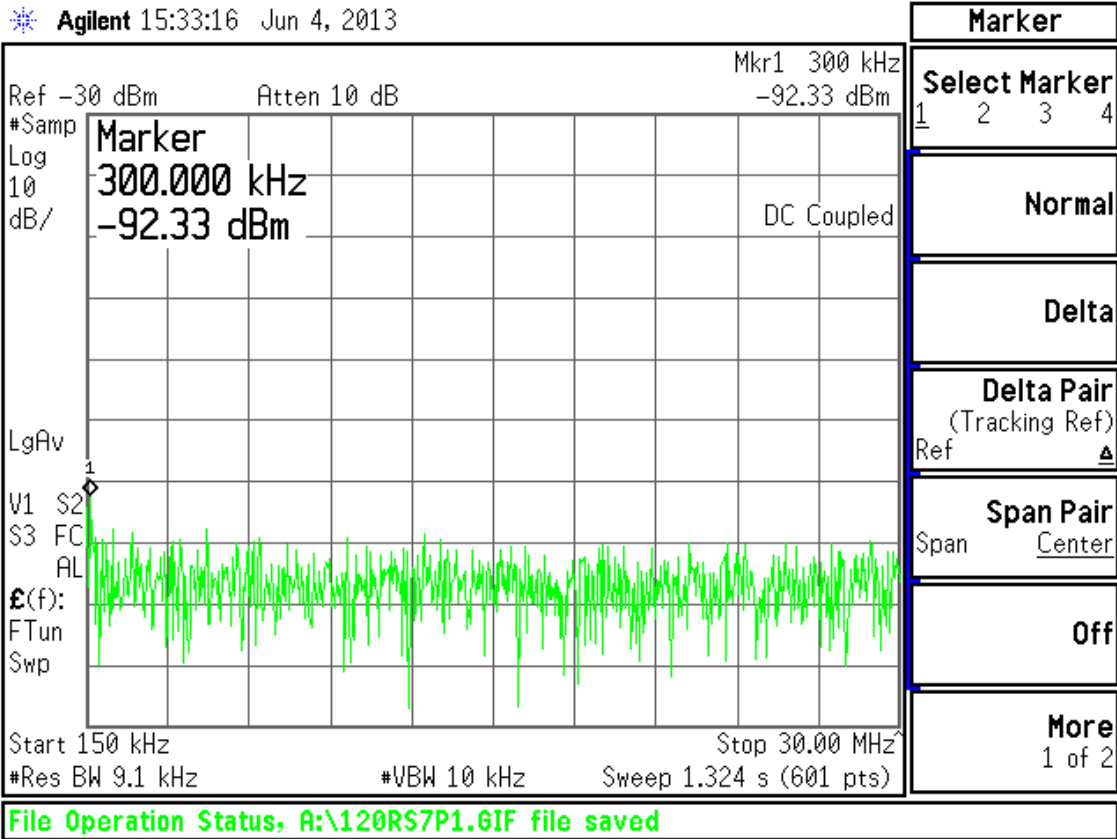
CH120 802.11n Tx Conducted Emissions (MCS0)



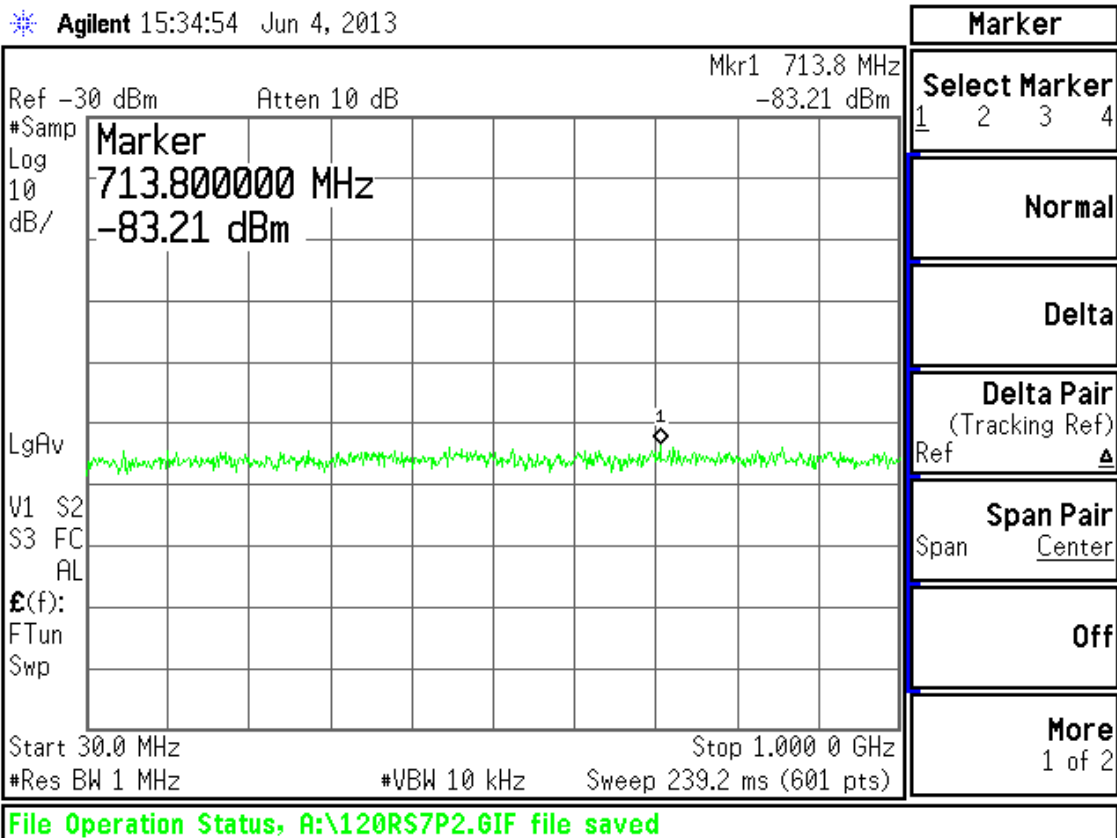
CH120 802.11n Tx Conducted Emissions (MCS0)



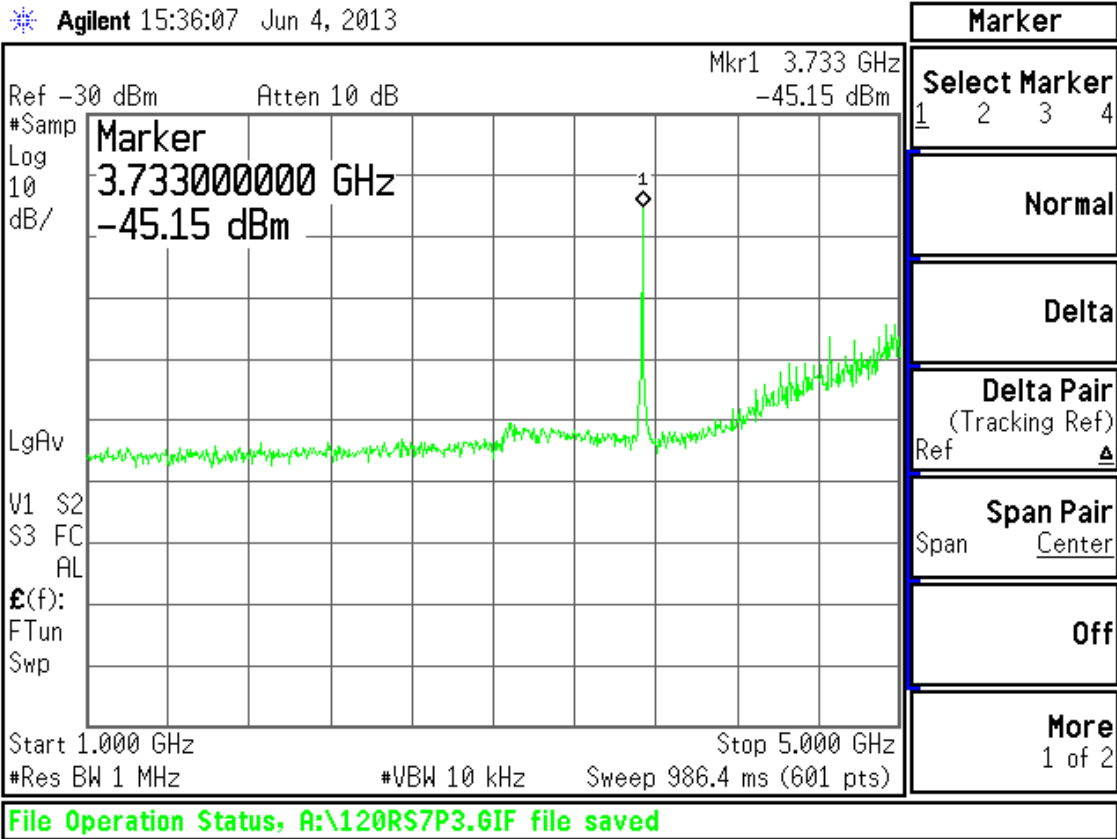
CH120 802.11n Tx Conducted Emissions (MCS7)



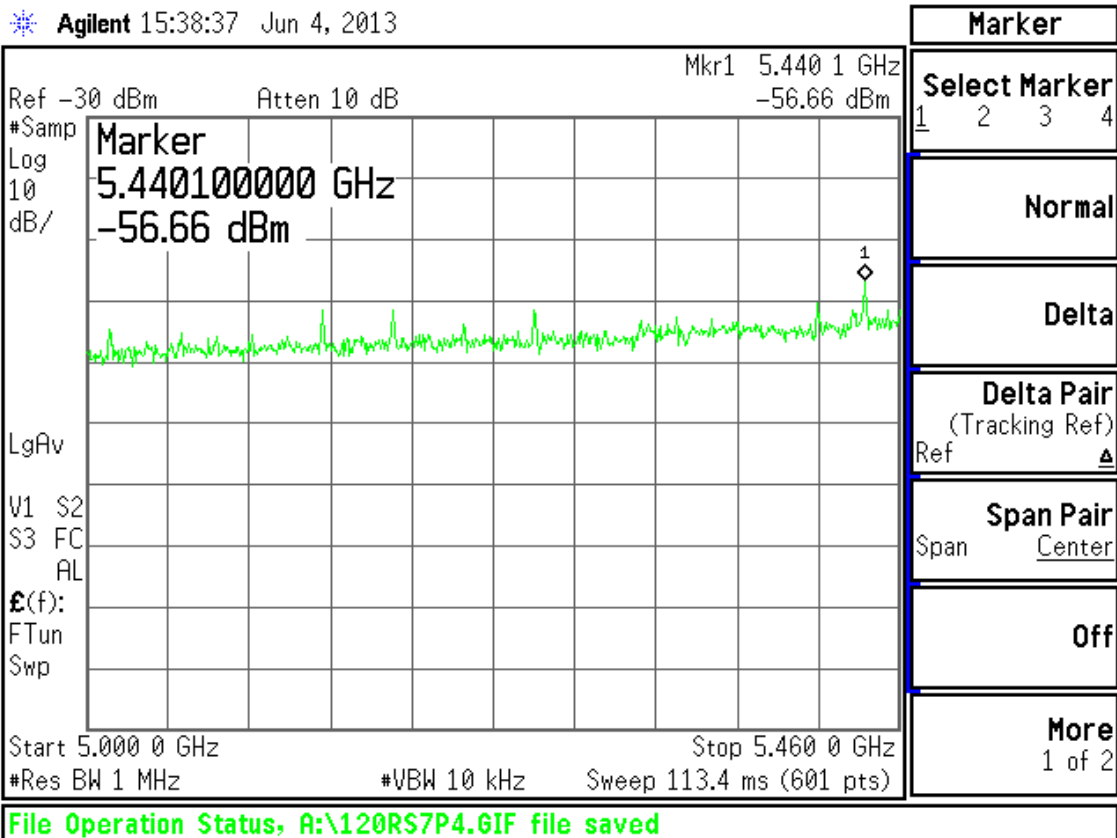
CH120 802.11n Tx Conducted Emissions (MCS7)



CH120 802.11n Tx Conducted Emissions (MCS7)



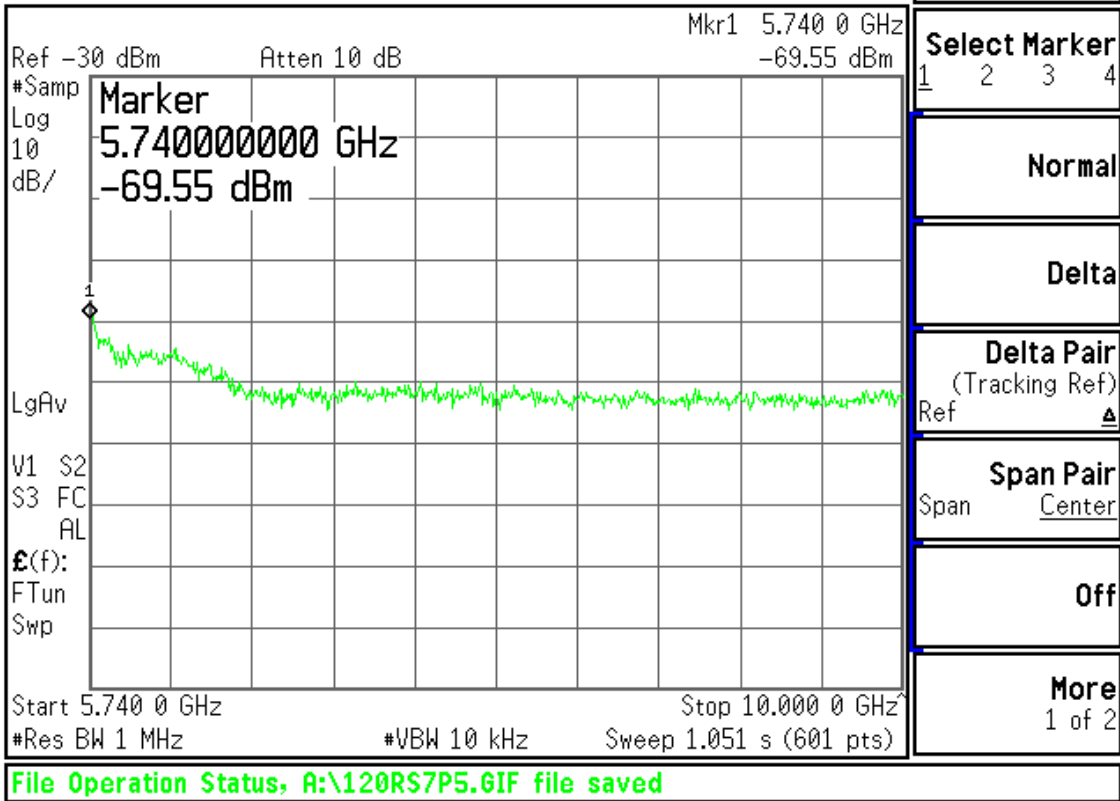
CH120 802.11n Tx Conducted Emissions (MCS7)



CH120 802.11n Tx Conducted Emissions (MCS7)

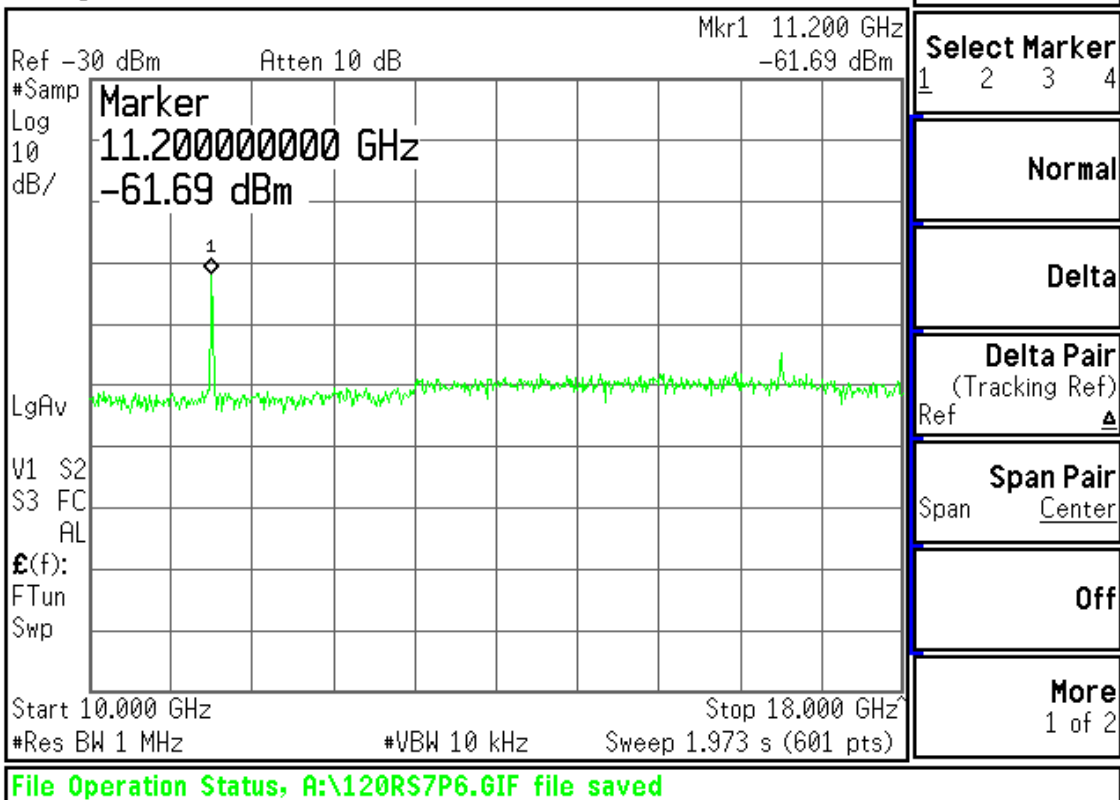


Agilent 15:40:29 Jun 4, 2013

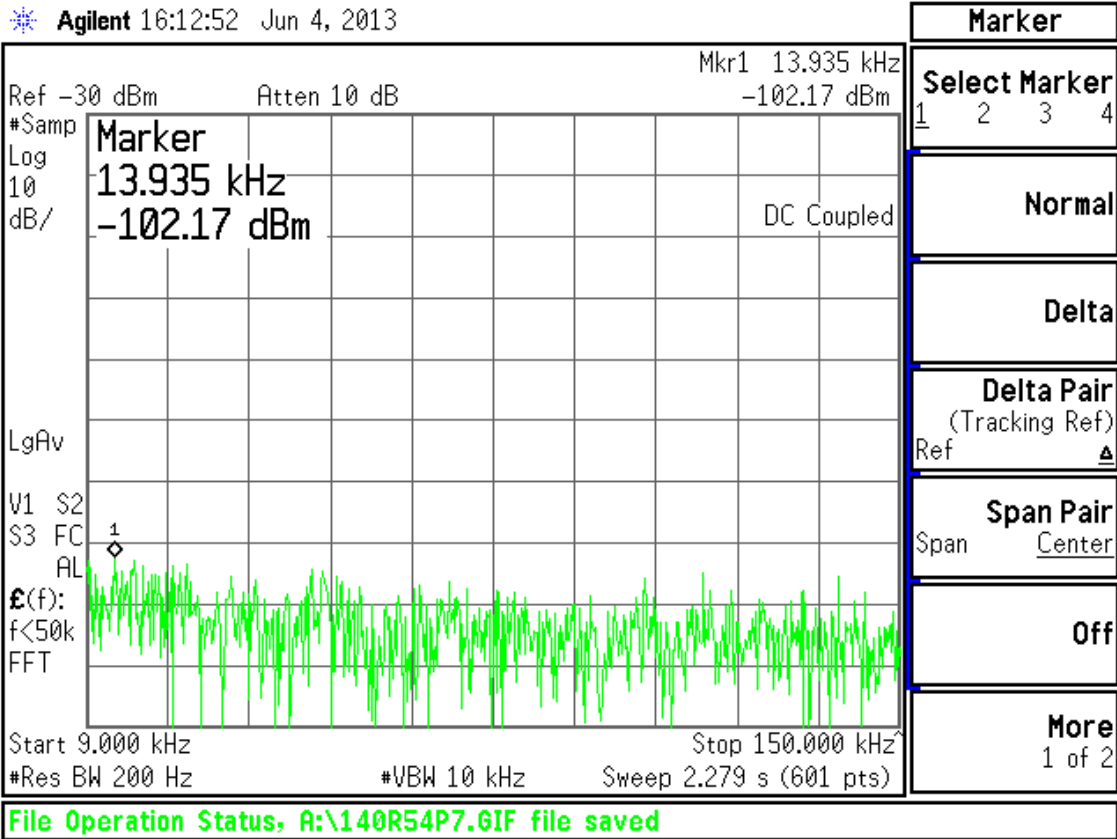


CH120 802.11n Tx Conducted Emissions (MCS7)

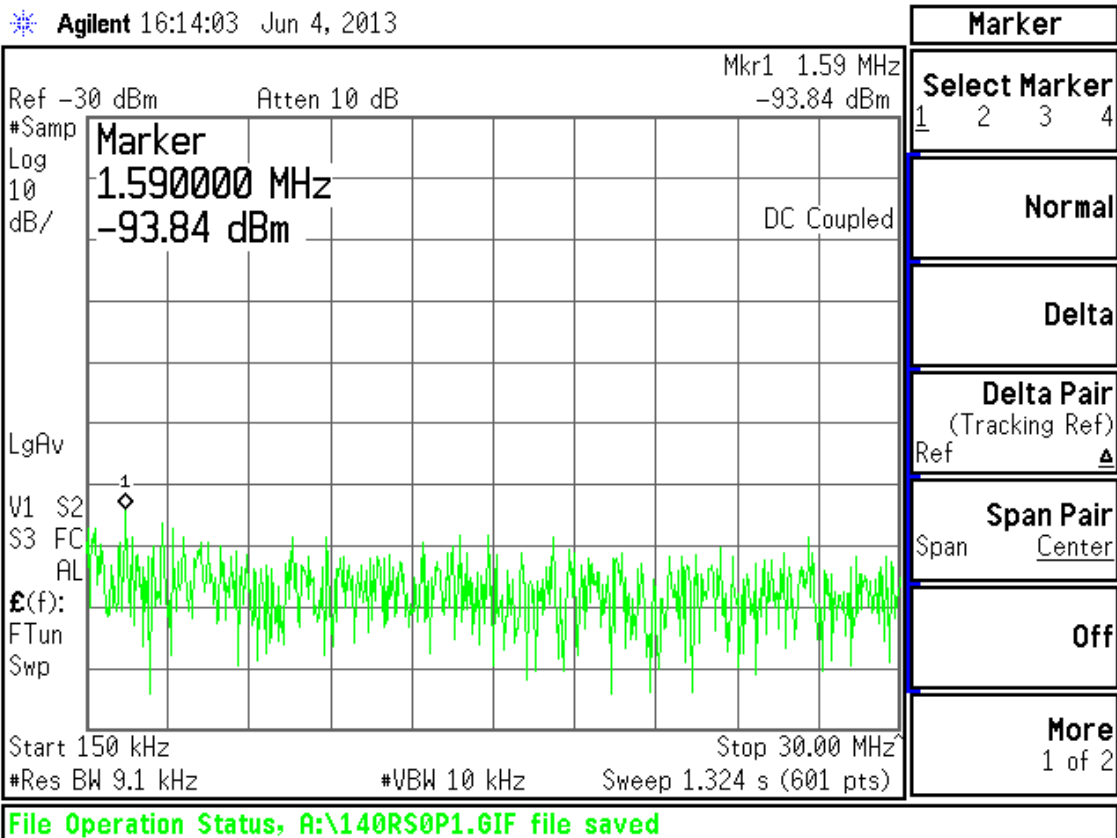
Agilent 15:41:32 Jun 4, 2013



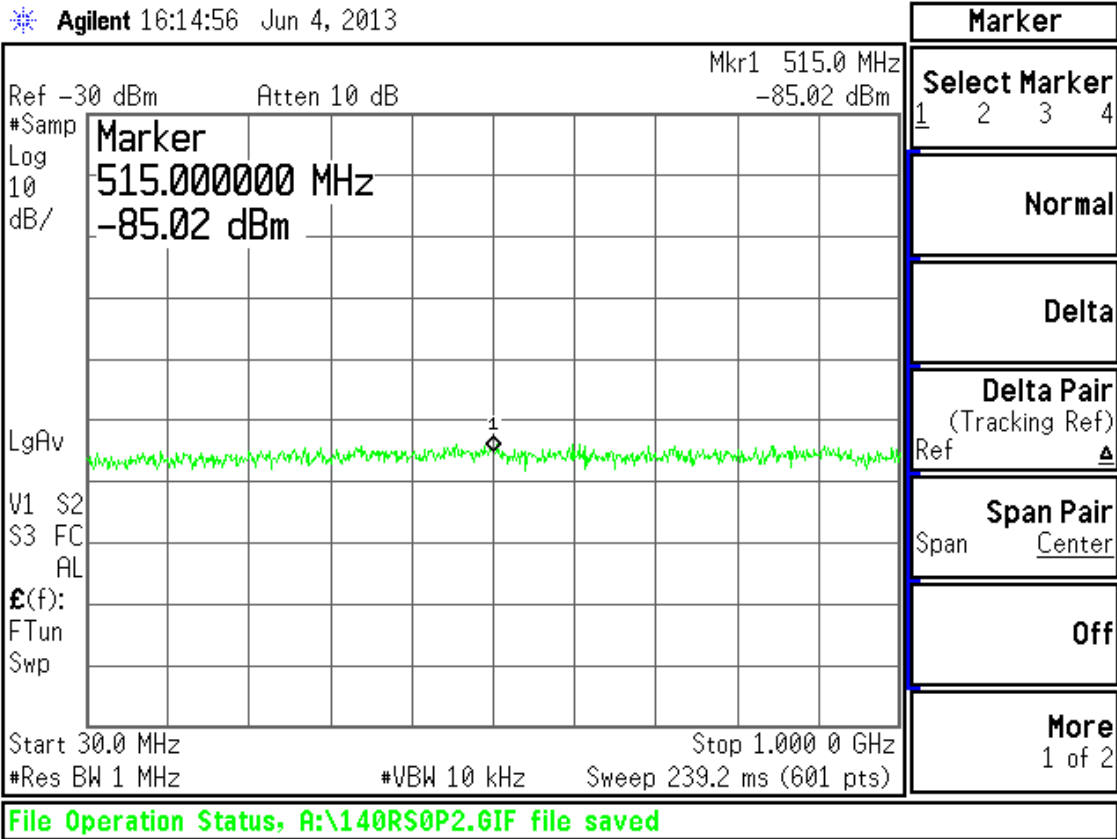
CH120 802.11n Tx Conducted Emissions (MCS7)



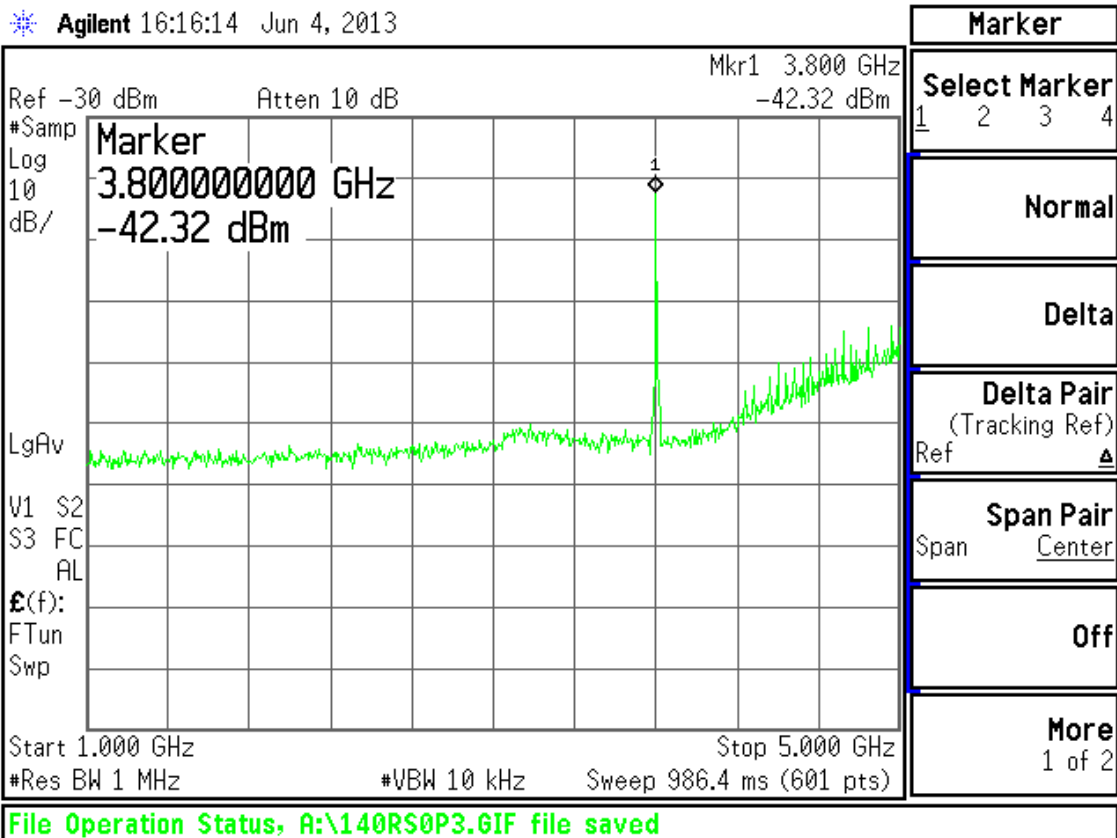
CH140 802.11n Tx Conducted Emissions (MCS0)



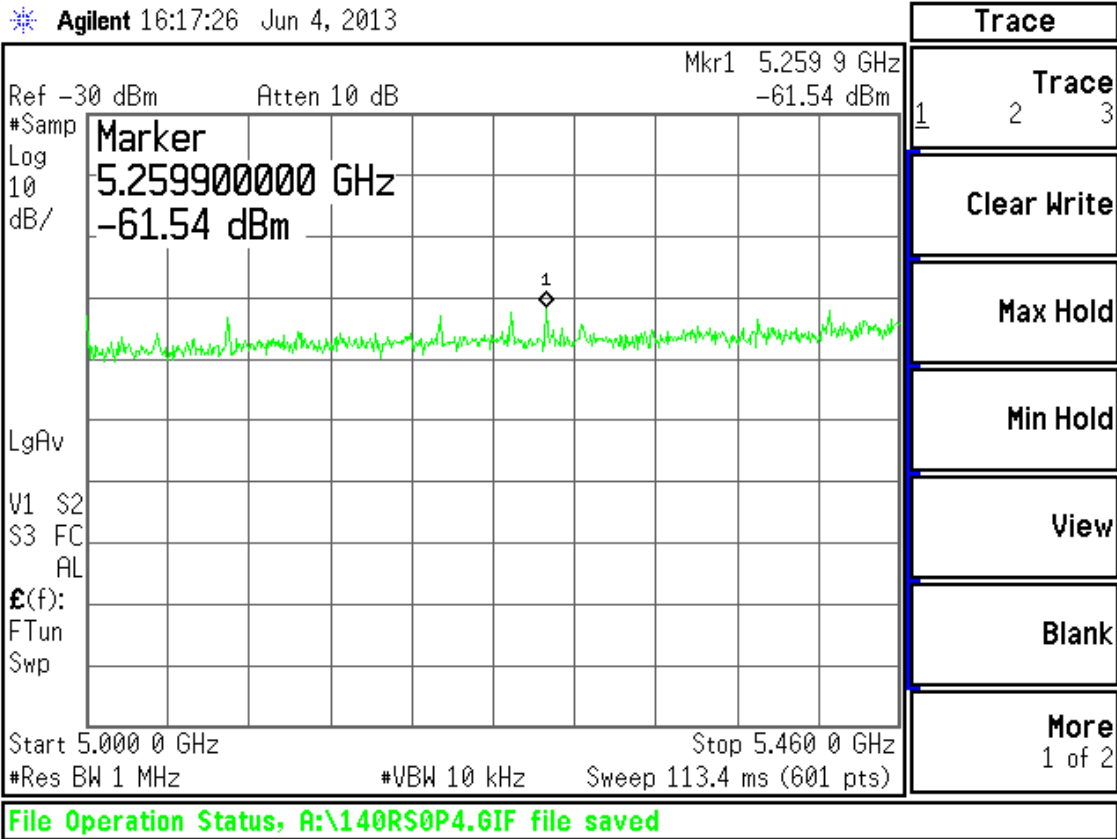
CH140 802.11n Tx Conducted Emissions (MCS0)



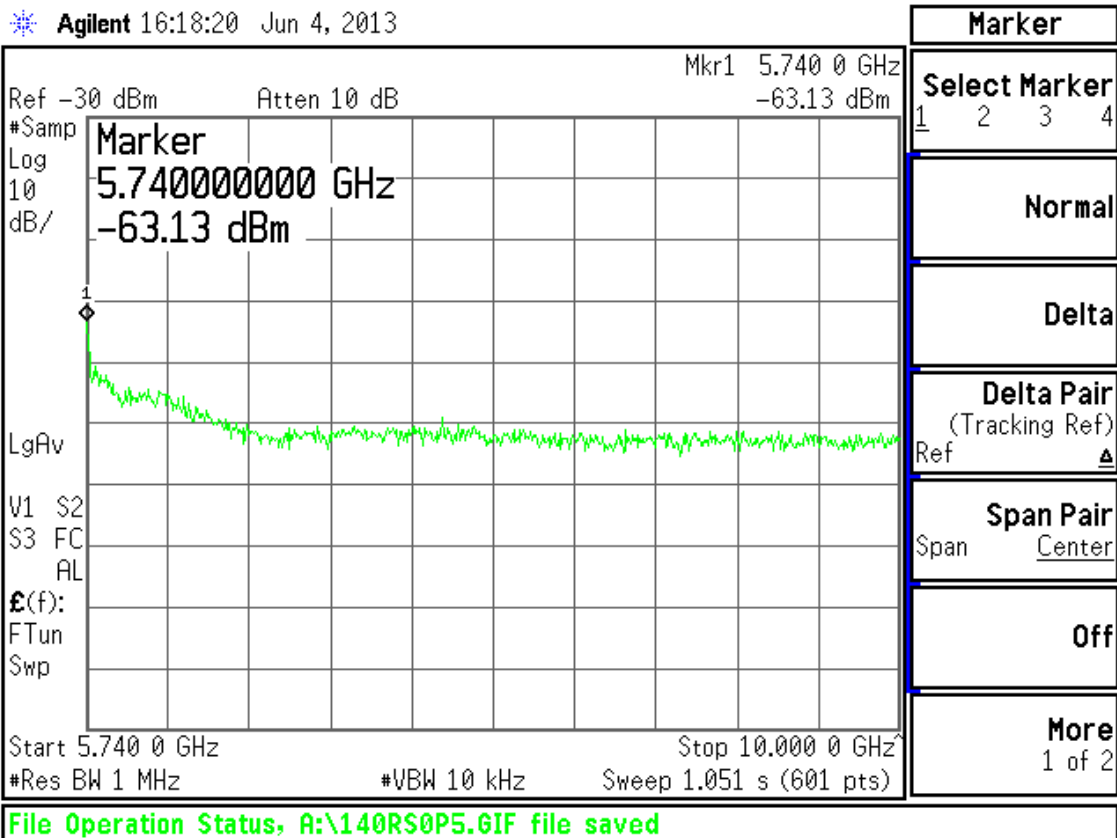
CH140 802.11n Tx Conducted Emissions (MCS0)



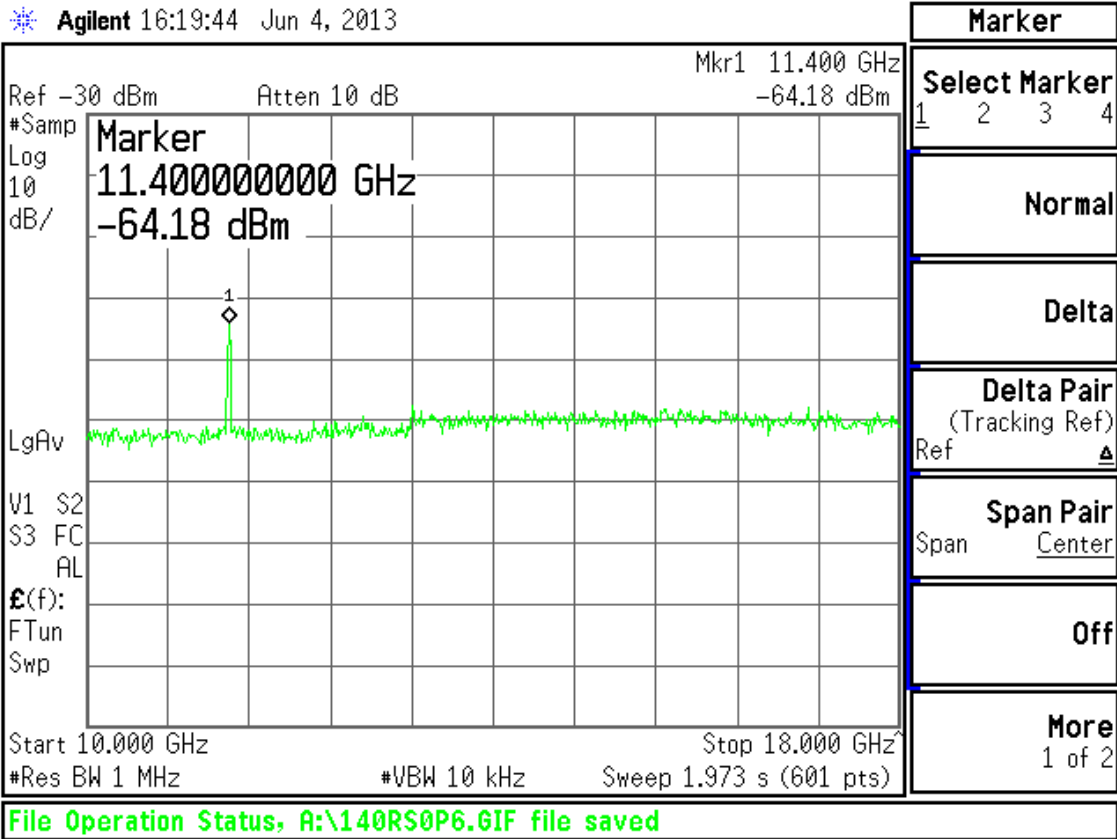
CH140 802.11n Tx Conducted Emissions (MCS0)



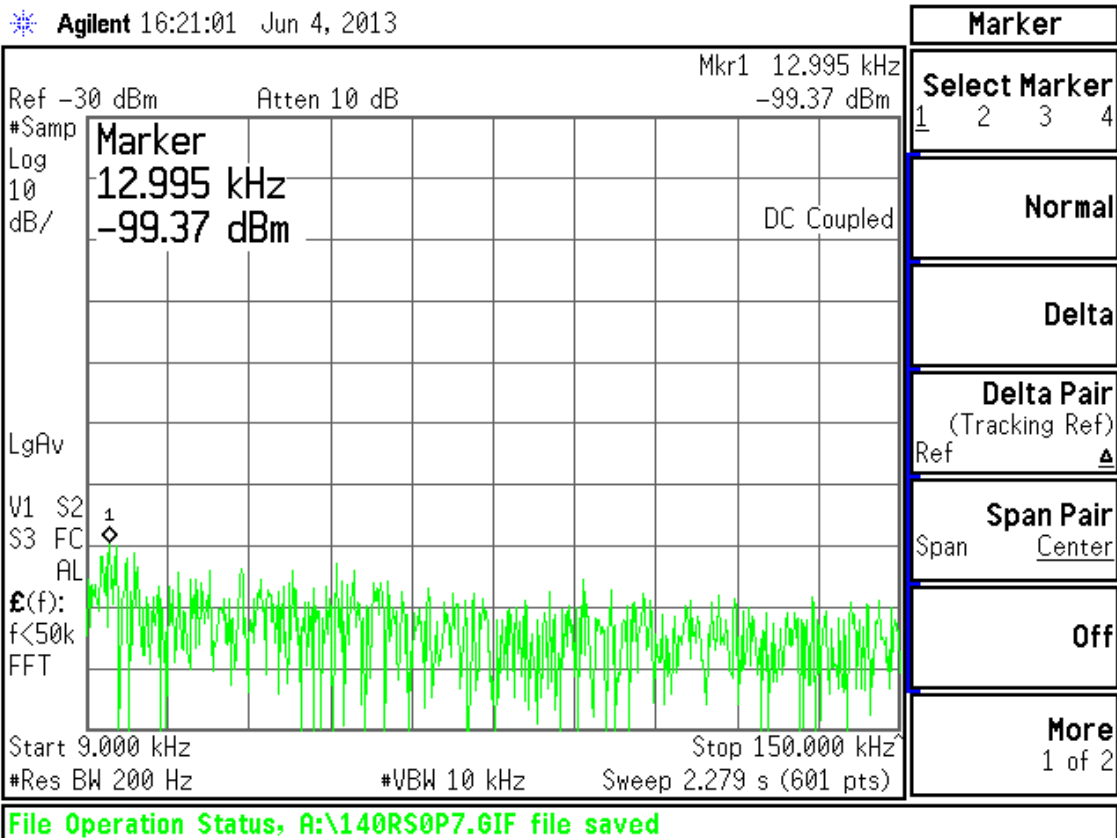
CH140 802.11n Tx Conducted Emissions (MCS0)



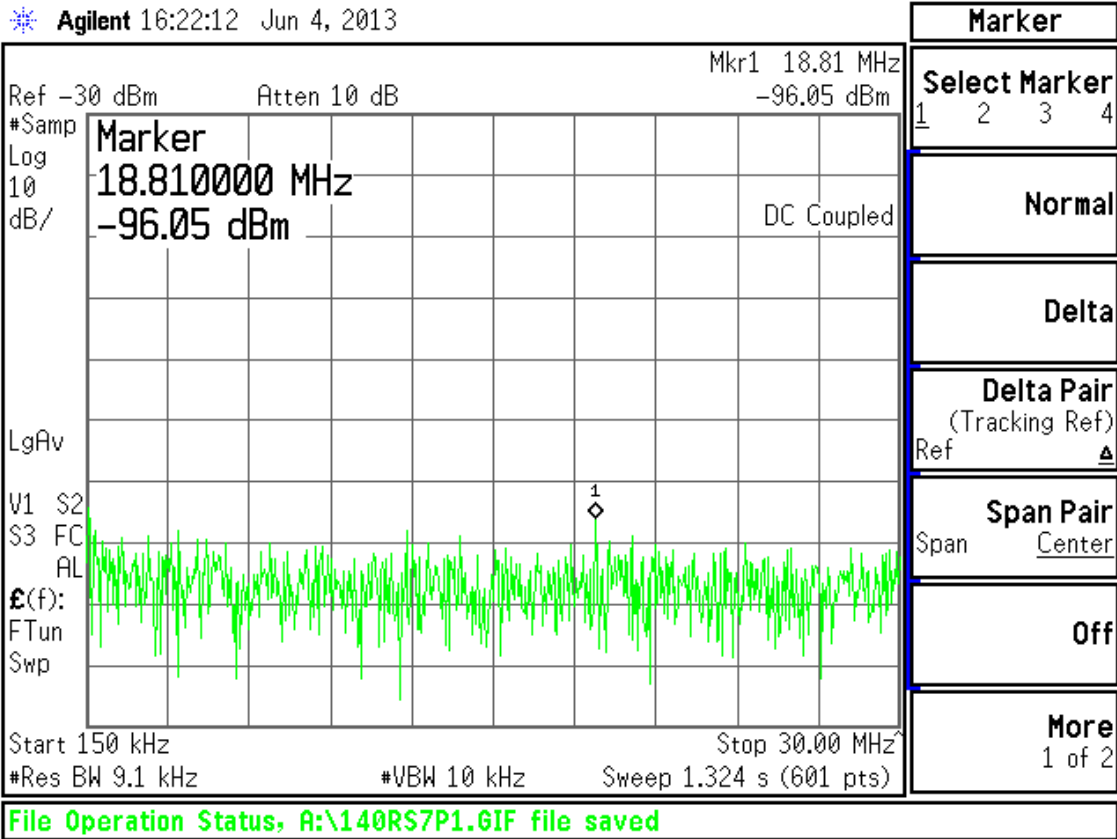
CH140 802.11n Tx Conducted Emissions (MCS0)



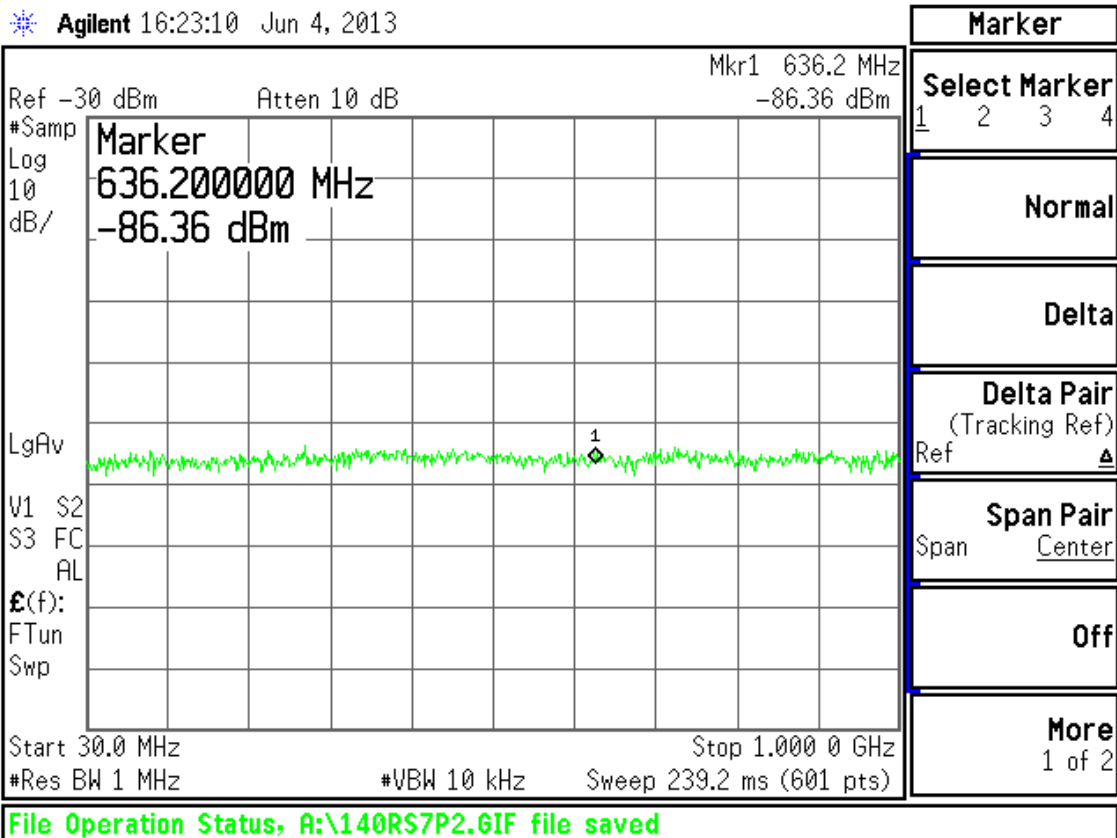
CH140 802.11n Tx Conducted Emissions (MCS0)



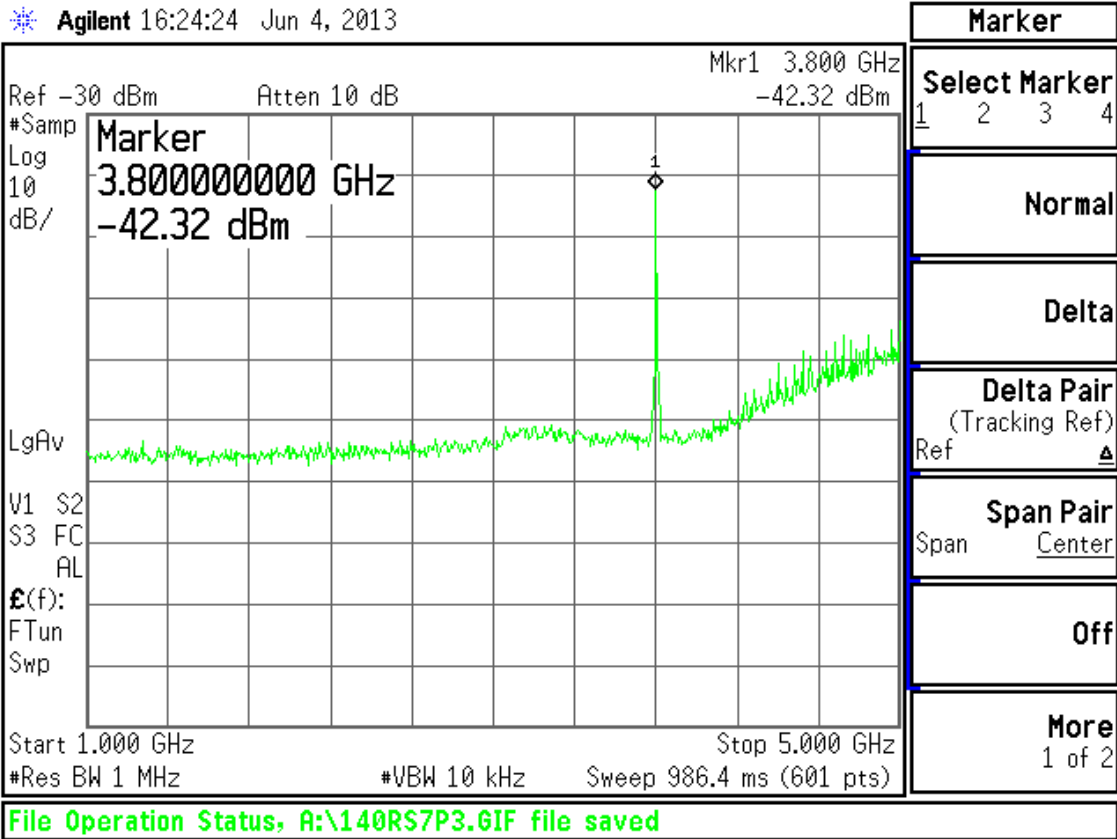
CH140 802.11n Tx Conducted Emissions (MCS7)



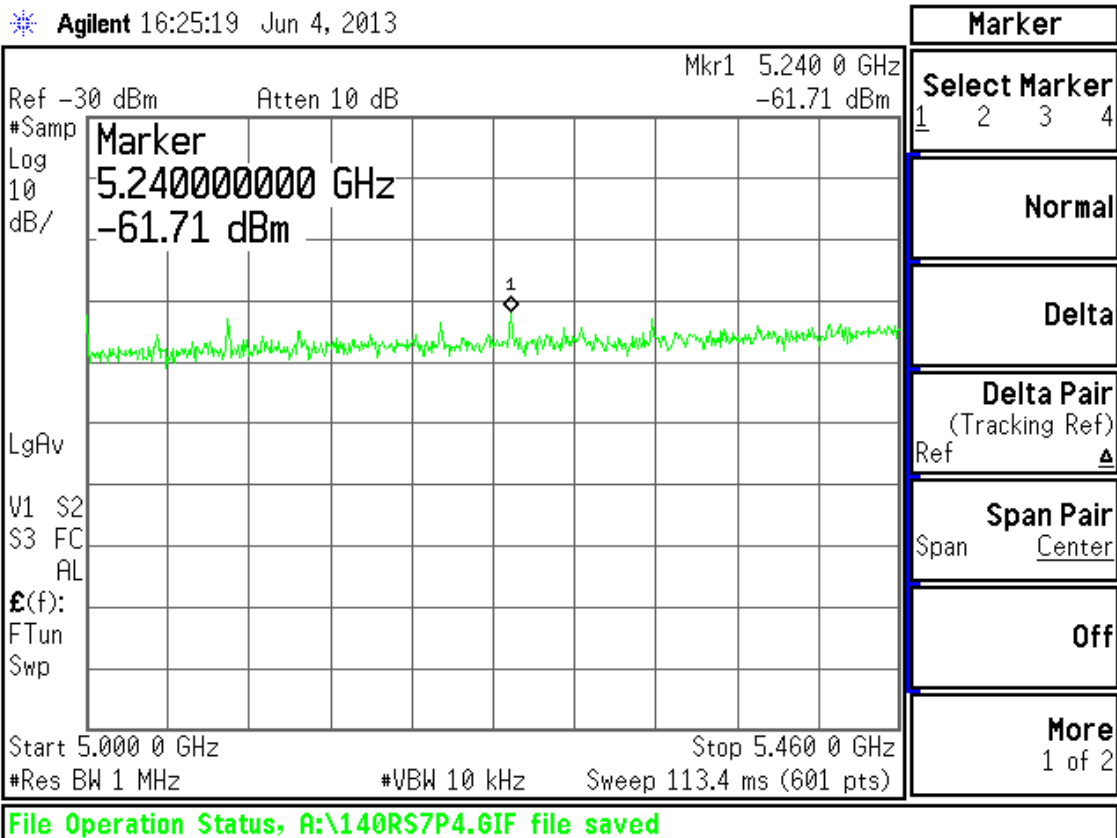
CH140 802.11n Tx Conducted Emissions (MCS7)



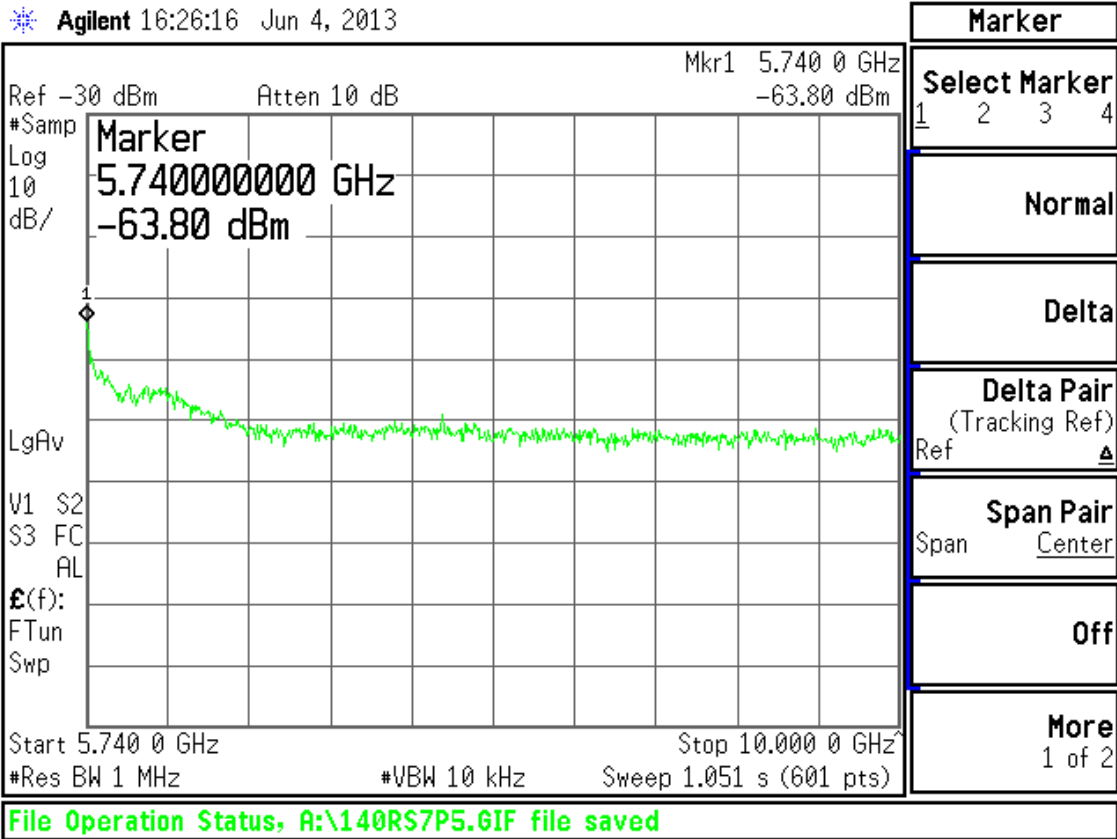
CH140 802.11n Tx Conducted Emissions (MCS7)



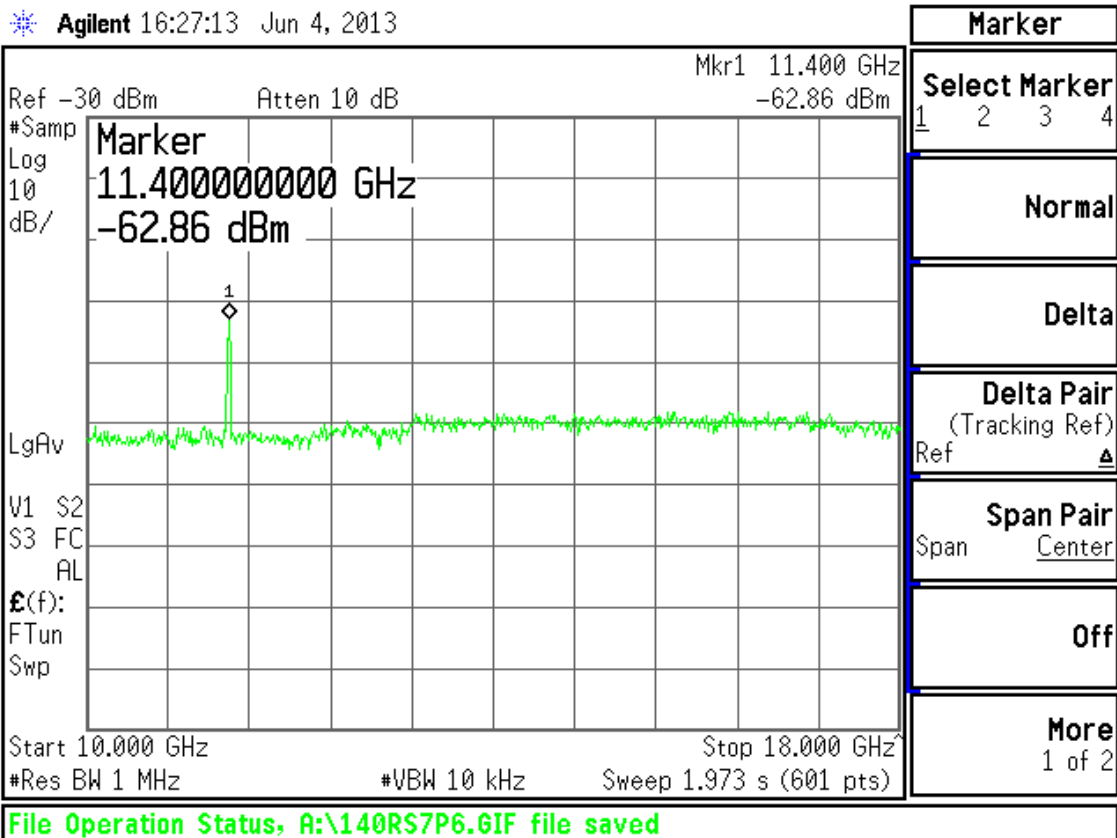
CH140 802.11n Tx Conducted Emissions (MCS7)



CH140 802.11n Tx Conducted Emissions (MCS7)

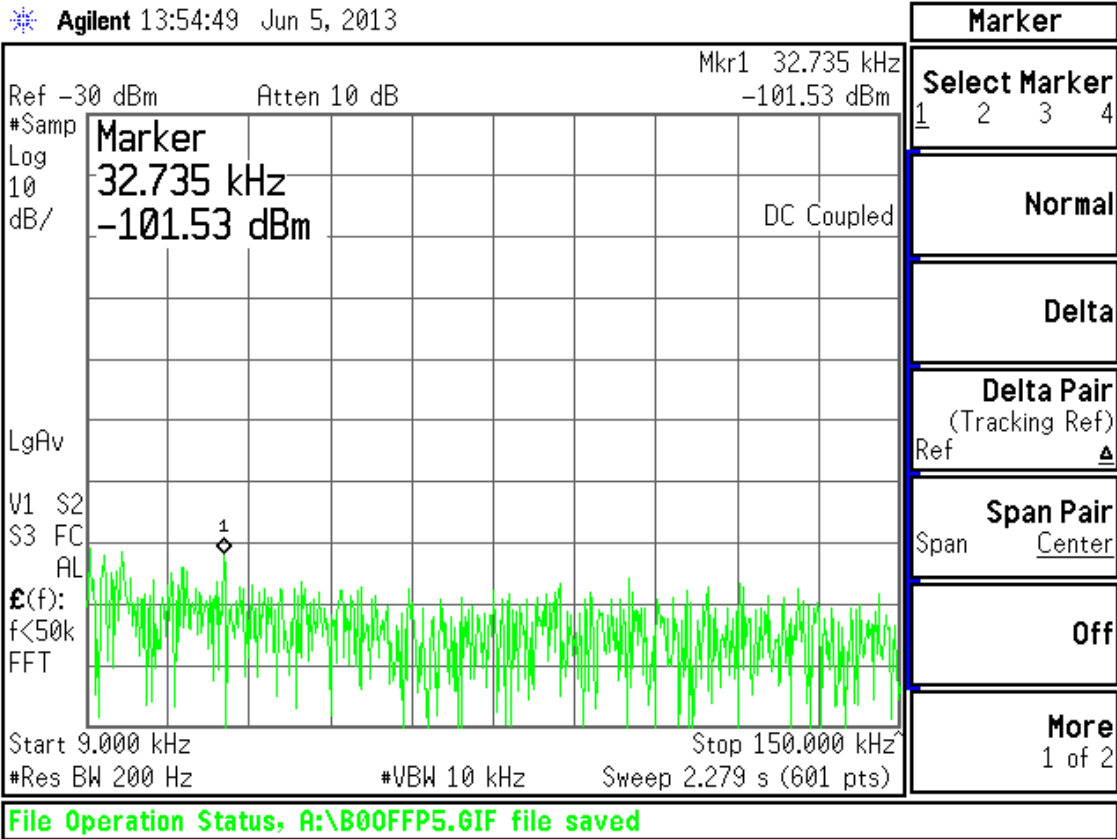


CH140 802.11n Tx Conducted Emissions (MCS7)

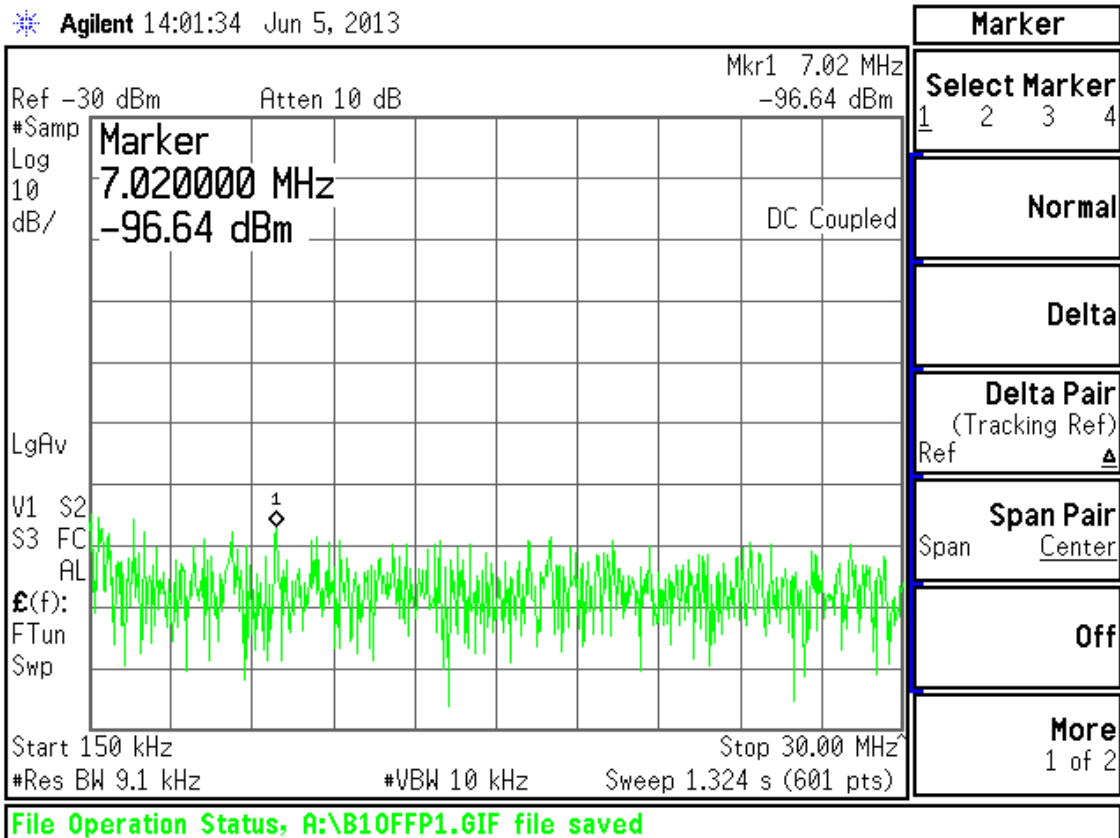


CH140 802.11n Tx Conducted Emissions (MCS7)



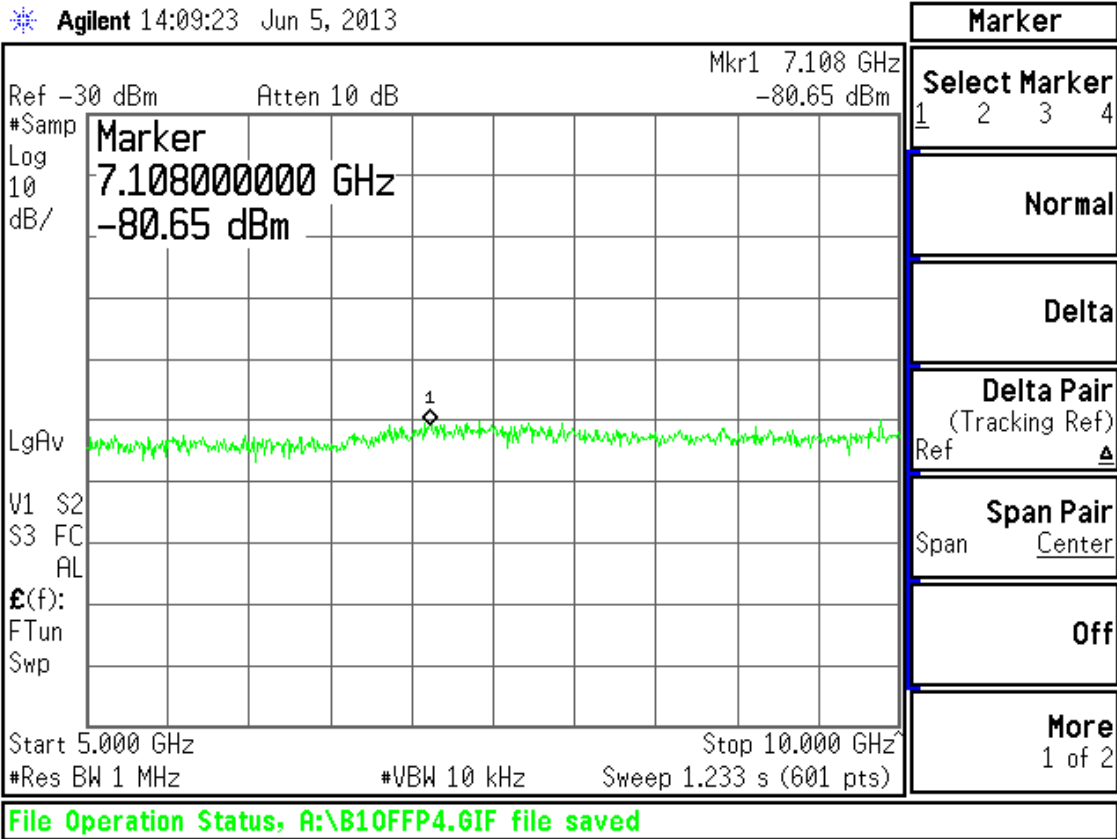


Rx Conducted Emissions

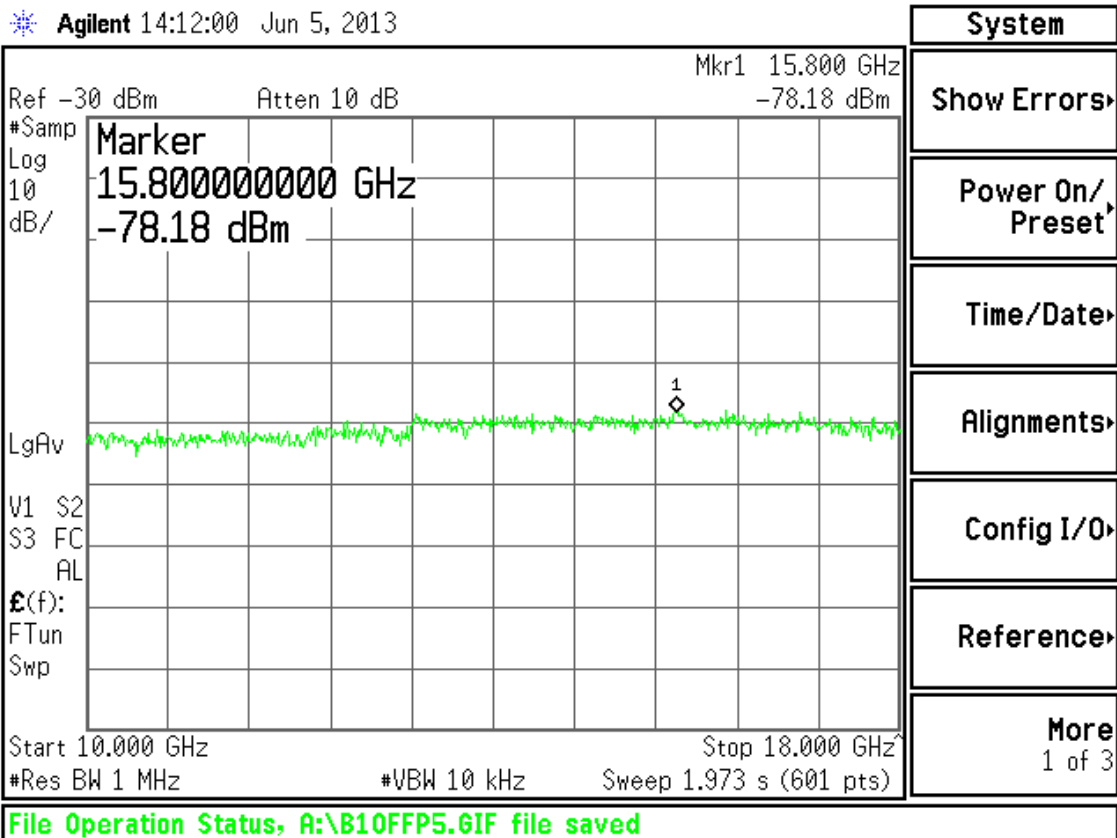


Rx Conducted Emissions

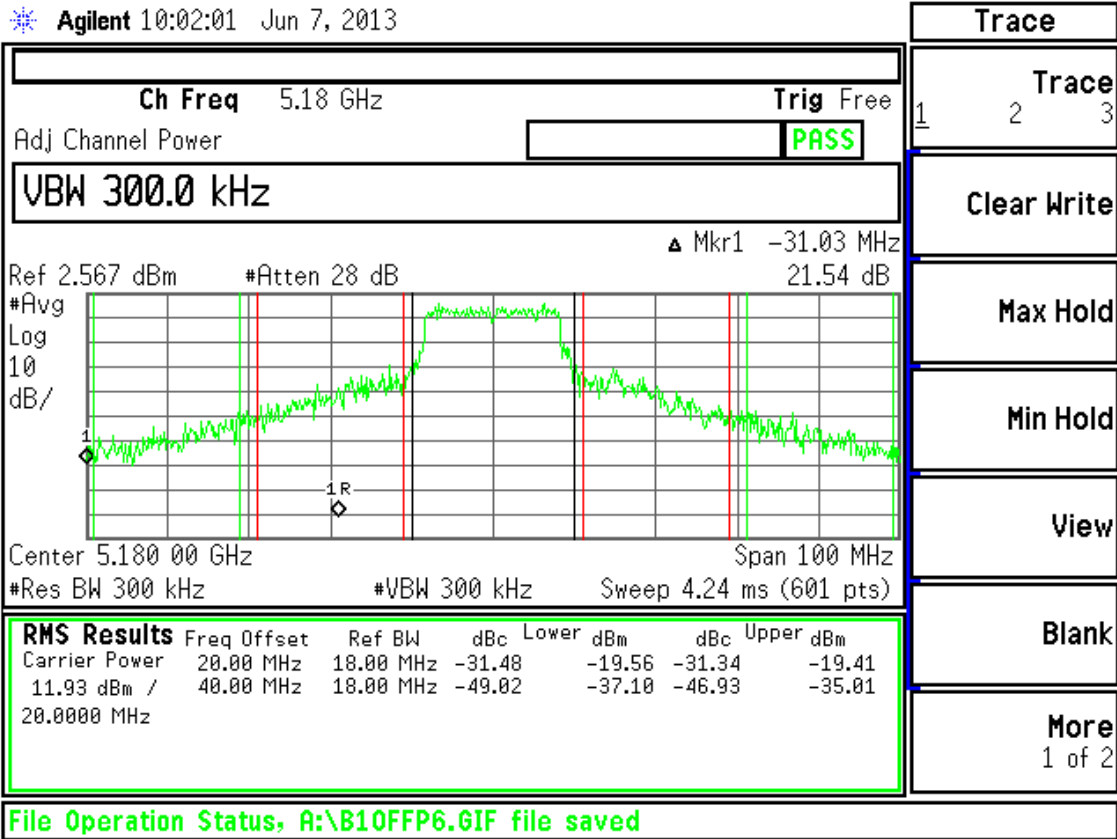




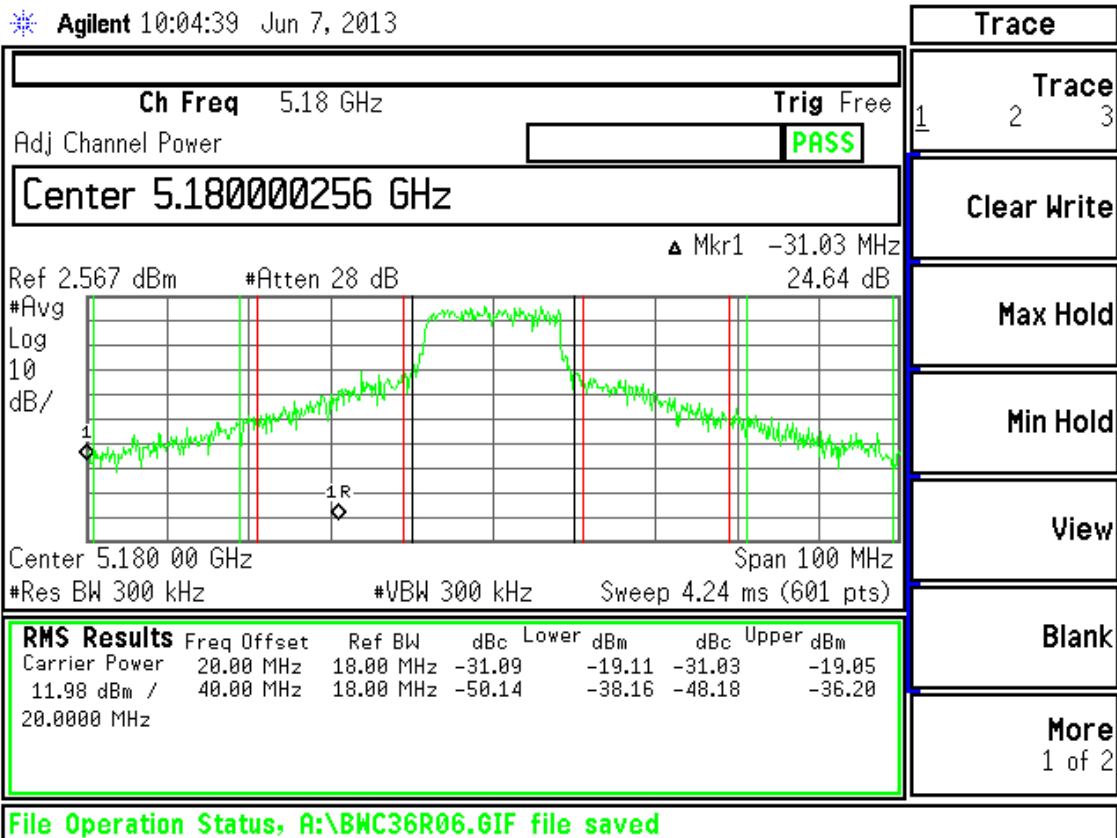
Rx Conducted Emissions



Rx Conducted Emissions



CH36 802.11a Adjacent Channel Leakage Power (6Mbps)



CH36 802.11a Adjacent Channel Leakage Power (54Mbps)

Agilent 10:11:13 Jun 7, 2013

**Ch Freq** 5.24 GHz **Trig** Free

Adj Channel Power  **PASS**

**Center 5.24000000 GHz**

▲ Mkr1 28.97 MHz  
22.37 dB

Ref 2.567 dBm #Atten 28 dB

Center 5.240 00 GHz Span 100 MHz

#Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)

RMS Results						
	Freq Offset	Ref BW	dBc	Lower dBm	dBc	Upper dBm
Carrier Power	20.00 MHz	18.00 MHz	-29.51	-17.27	-29.49	-17.25
12.24 dBm /	40.00 MHz	18.00 MHz	-47.55	-35.31	-47.19	-34.96
20.0000 MHz						

**Freq/Channel**

**Center Freq**  
5.24000000 GHz

**Start Freq**  
5.19000000 GHz

**Stop Freq**  
5.29000000 GHz

**CF Step**  
10.0000000 MHz  
Auto Man

**Freq Offset**  
0.00000000 Hz

**Signal Track**  
On Off

File Operation Status, A:\BNC36RS7.GIF file saved

CH48 802.11a Adjacent Channel Leakage Power (6Mbps)

Agilent 10:13:30 Jun 7, 2013

**Ch Freq** 5.24 GHz **Trig** Free

Adj Channel Power  **PASS**

**Center 5.24000000 GHz**

▲ Mkr1 28.97 MHz  
25.25 dB

Ref 2.567 dBm #Atten 28 dB

Center 5.240 00 GHz Span 100 MHz

#Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)

RMS Results						
	Freq Offset	Ref BW	dBc	Lower dBm	dBc	Upper dBm
Carrier Power	20.00 MHz	18.00 MHz	-30.48	-18.17	-30.25	-17.94
12.31 dBm /	40.00 MHz	18.00 MHz	-48.56	-36.26	-48.20	-35.89
20.0000 MHz						

**Meas View**

**Spectrum**

**Bar Graph**

**Combined**

**Combined View Units**  
Rel Abs

**Trace**

File Operation Status, A:\BNC48R06.GIF file saved

CH48 802.11a Adjacent Channel Leakage Power (54Mbps)

Agilent 10:25:29 Jun 7, 2013

**Ch Freq** 5.32 GHz **Trig** Free

Adj Channel Power  **PASS**

Center 5.32000000 GHz

▲ Mkr1 108.97 MHz  
28.56 dB

Ref 2.567 dBm #Atten 28 dB

Center 5.320 00 GHz Span 100 MHz

#Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)

RMS Results						
	Freq Offset	Ref BW	dBc	Lower dBm	dBc	Upper dBm
Carrier Power	20.00 MHz	18.00 MHz	-28.21	-15.90	-27.19	-14.88
12.31 dBm /	40.00 MHz	18.00 MHz	-47.40	-35.08	-45.91	-33.60
20.0000 MHz						

**Freq/Channel**

**Center Freq**  
5.32000000 GHz

**Start Freq**  
5.27000000 GHz

**Stop Freq**  
5.37000000 GHz

**CF Step**  
10.0000000 MHz  
Auto Man

**Freq Offset**  
0.00000000 Hz

**Signal Track**  
On Off

File Operation Status, A:\BNC48RS7.GIF file saved

CH64 802.11a Adjacent Channel Leakage Power (6Mbps)

Agilent 10:28:19 Jun 7, 2013

**Ch Freq** 5.32 GHz **Trig** Free

Adj Channel Power  **PASS**

Center 5.32000000 GHz

▲ Mkr1 108.97 MHz  
25.74 dB

Ref 2.567 dBm #Atten 28 dB

Center 5.320 00 GHz Span 100 MHz

#Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)

RMS Results						
	Freq Offset	Ref BW	dBc	Lower dBm	dBc	Upper dBm
Carrier Power	20.00 MHz	18.00 MHz	-30.10	-17.90	-28.26	-16.05
12.20 dBm /	40.00 MHz	18.00 MHz	-48.04	-35.83	-46.80	-34.60
20.0000 MHz						

**Meas View**

Spectrum

Bar Graph

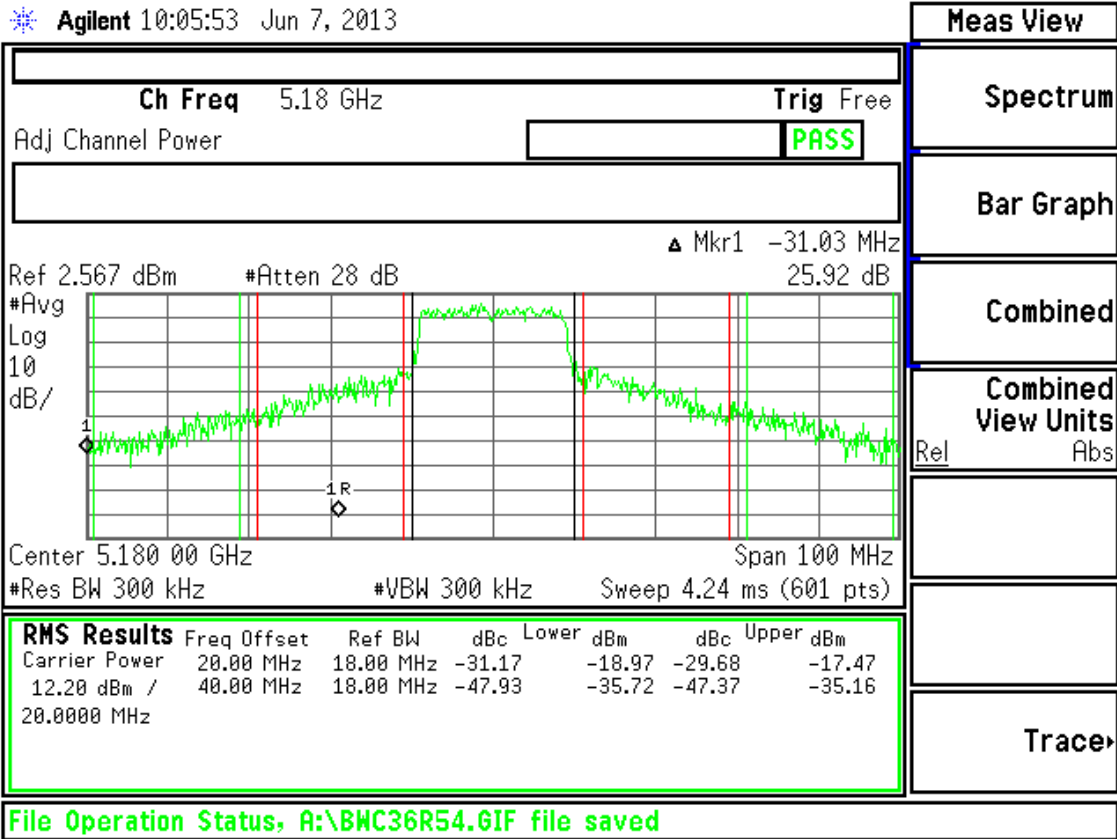
Combined

Combined View Units  
Rel Abs

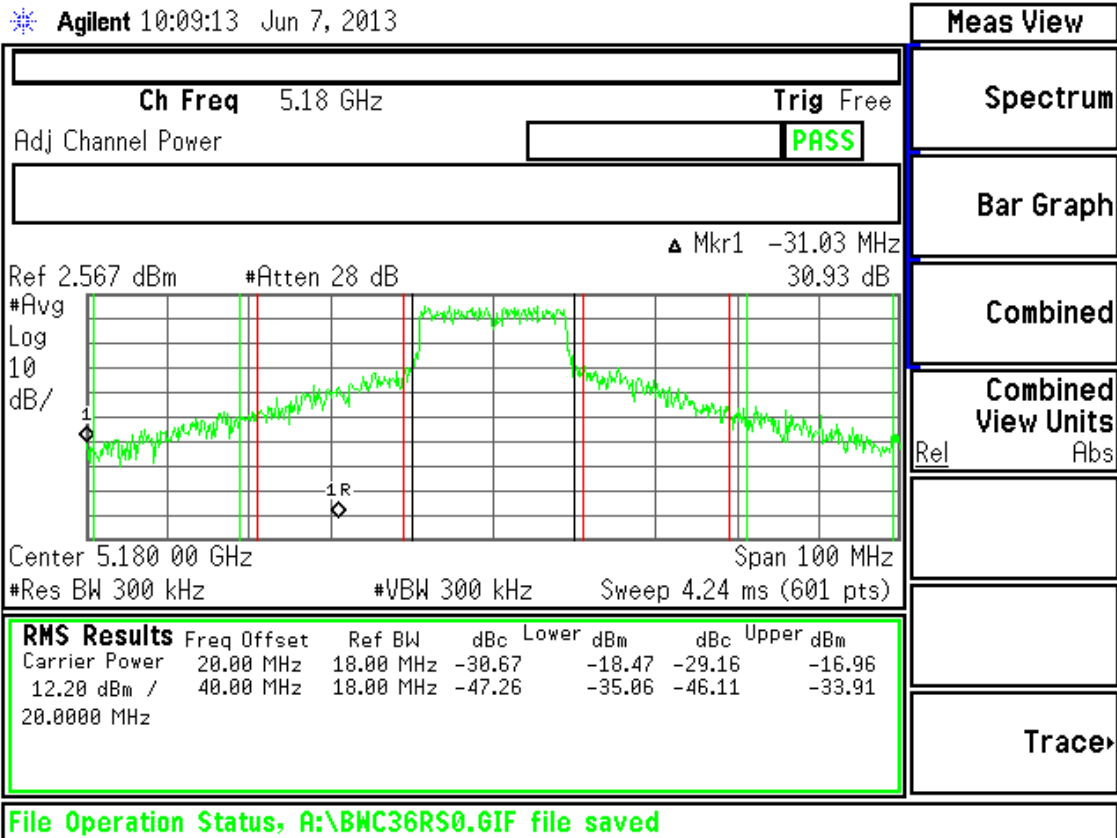
Trace

File Operation Status, A:\BNC64R06.GIF file saved

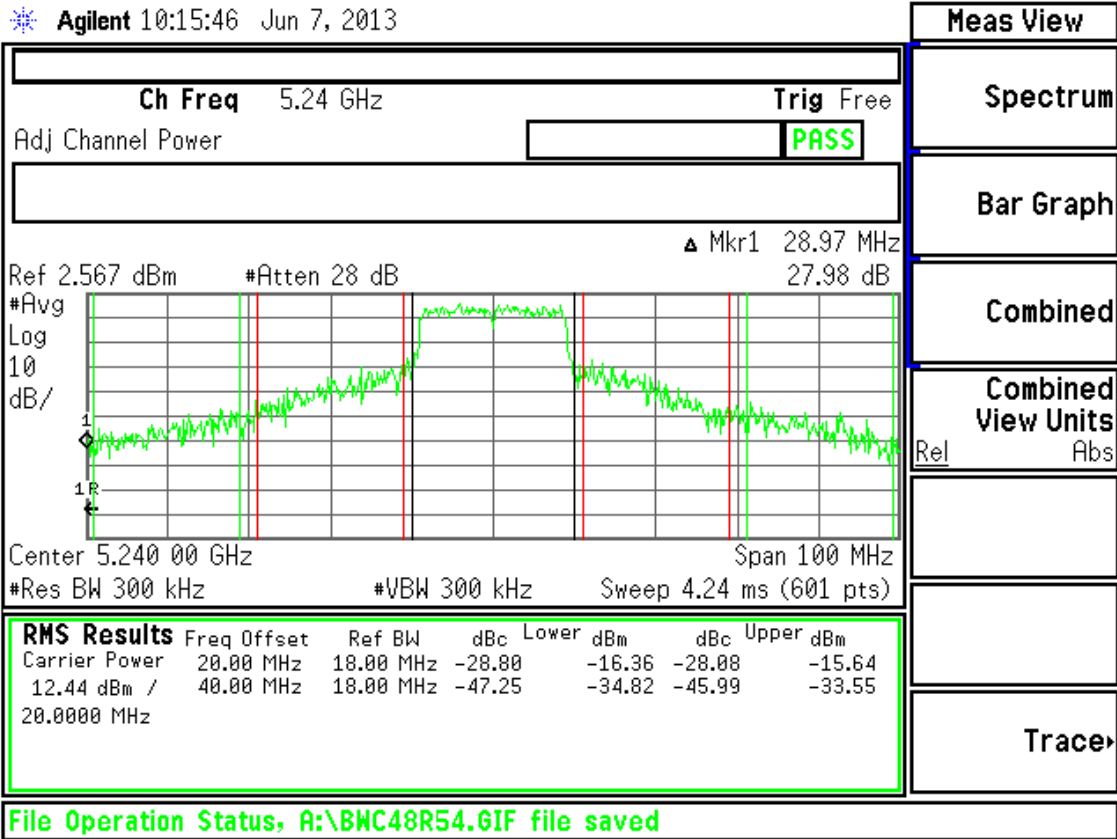
CH64 802.11a Adjacent Channel Leakage Power (54Mbps)



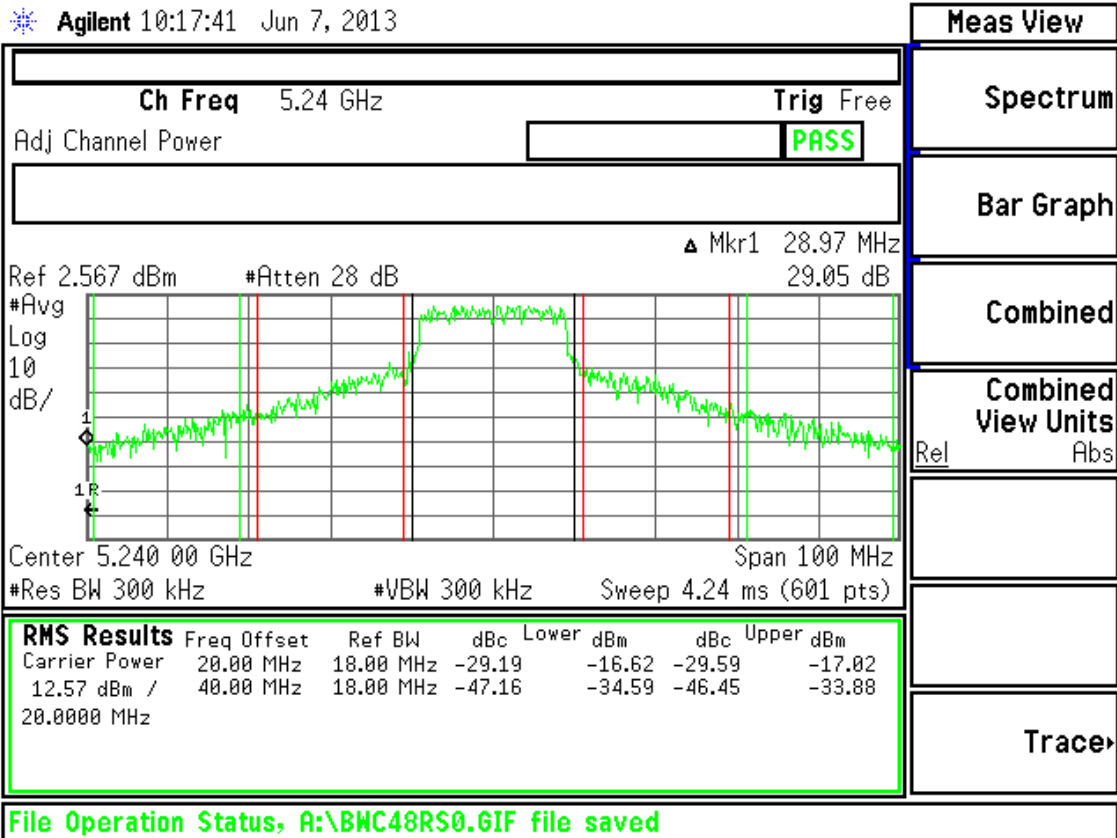
CH36 802.11n Adjacent Channel Leakage Power (MCS0)



CH36 802.11n Adjacent Channel Leakage Power (MCS7)

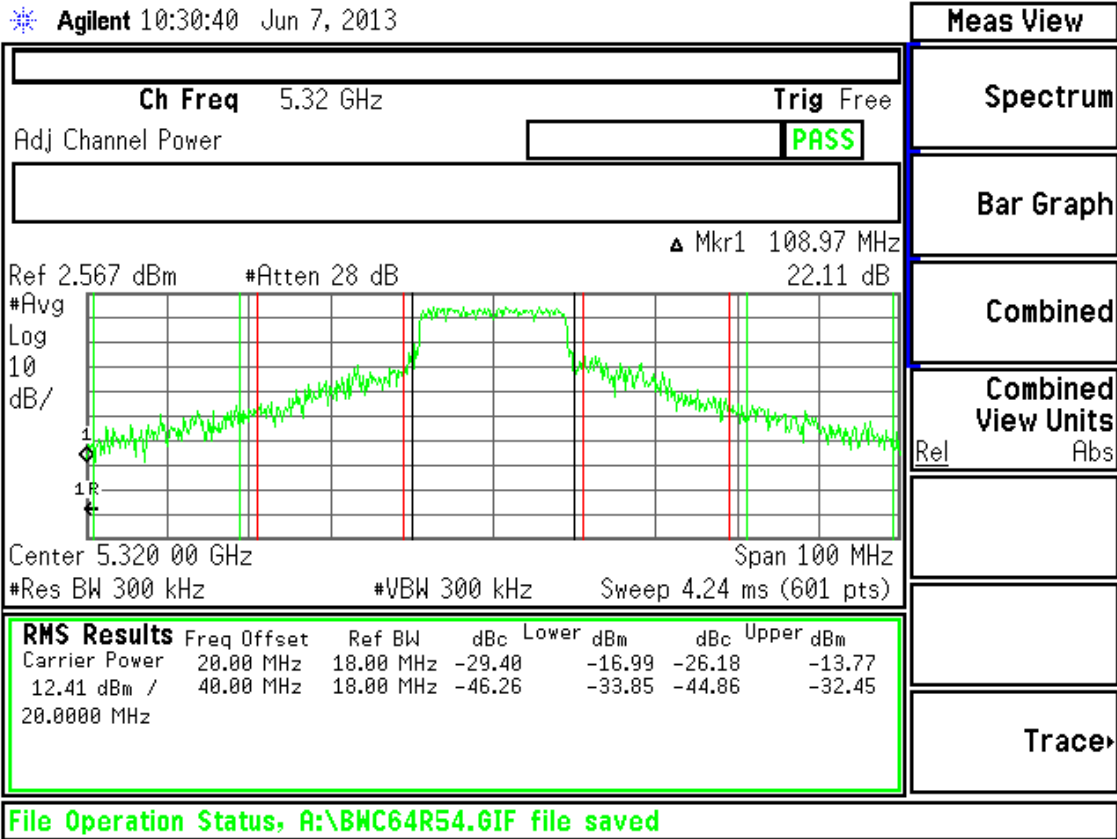


CH48 802.11n Adjacent Channel Leakage Power (MCS0)

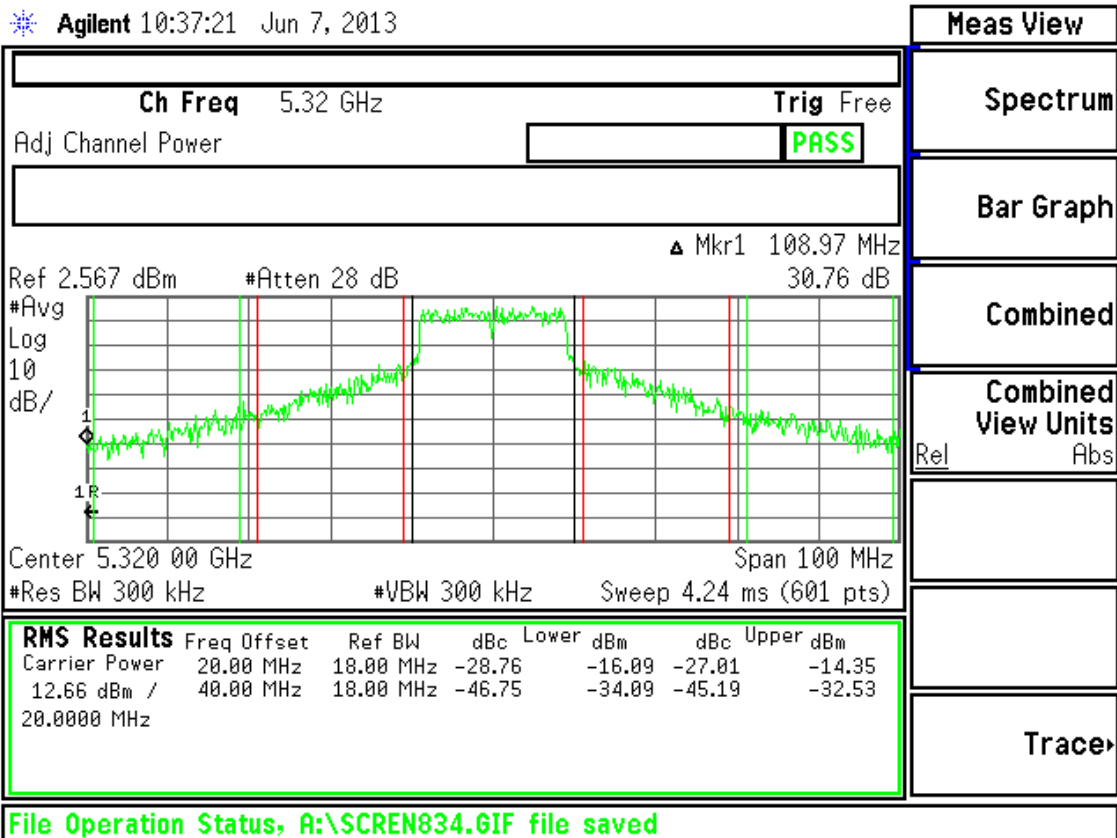


CH48 802.11n Adjacent Channel Leakage Power (MCS7)



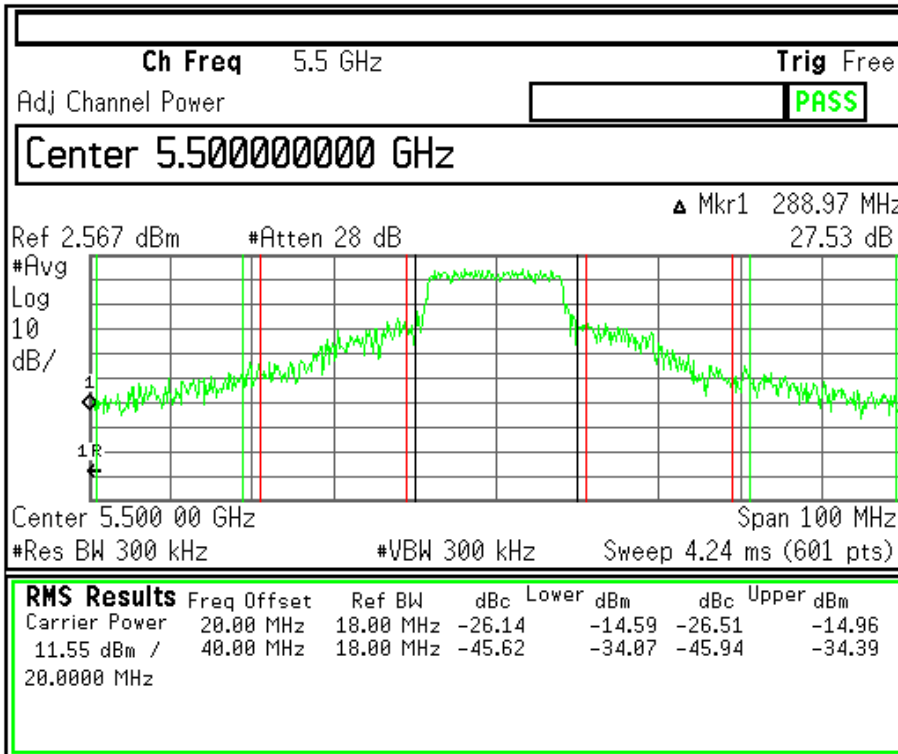


CH64 802.11n Adjacent Channel Leakage Power (MCS0)



CH64 802.11n Adjacent Channel Leakage Power (MCS7)

Agilent 11:14:50 Jun 7, 2013



**Meas Control**

Restart

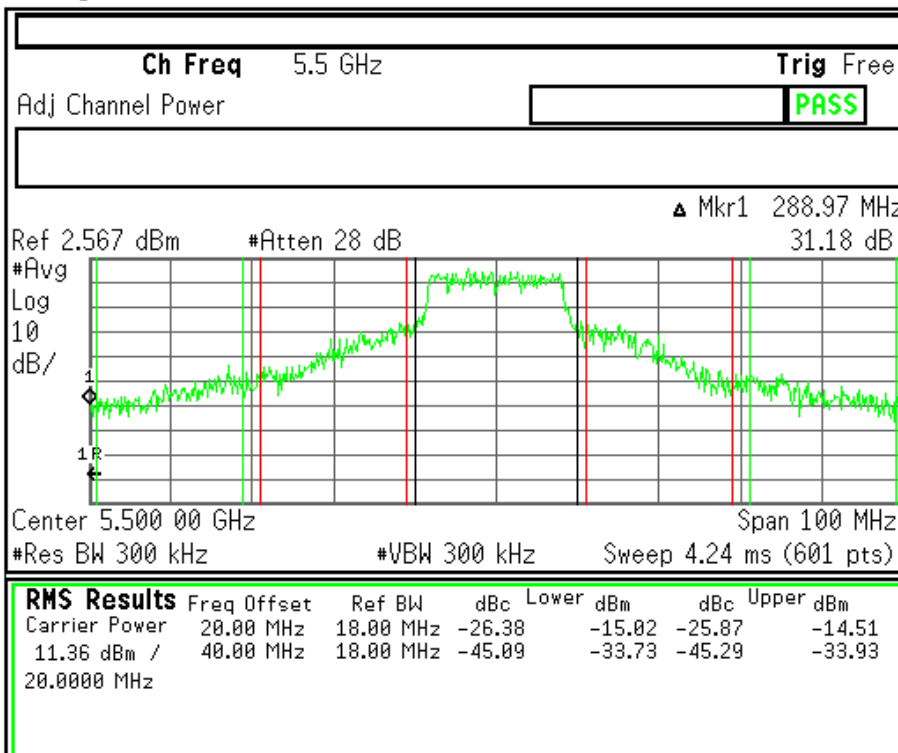
Measure  
Single Cont

Resume

File Operation Status, A:\BNC64RS7.GIF file saved

CH100 802.11a Adjacent Channel Leakage Power (6Mbps)

Agilent 11:15:51 Jun 7, 2013



**Meas Control**

Restart

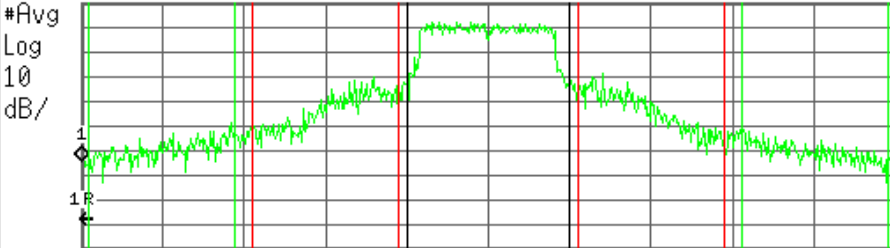
Measure  
Single Cont

Resume

File Operation Status, A:\BW100R06.GIF file saved

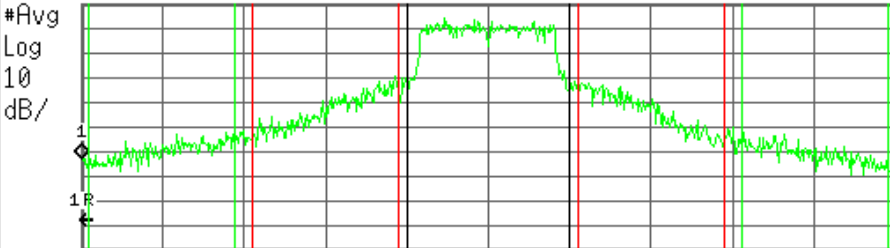
CH100 802.11a Adjacent Channel Leakage Power (54Mbps)

Agilent 11:21:06 Jun 7, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.6 GHz <span style="float: right;"><b>Trig</b> Free</span></p> <p>Adj Channel Power <span style="float: right; border: 1px solid black; padding: 2px;">PASS</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: center; font-size: 1.2em;"><b>Center 5.60000000 GHz</b></p> </div> <div style="margin-top: 5px;"> <p style="text-align: right;">▲ Mkr1 388.97 MHz 26.17 dB</p> <p>Ref 2.567 dBm #Atten 28 dB</p>  <p style="font-size: 0.8em;">#Avg Log 10 dB/</p> <p style="font-size: 0.8em;">Center 5.600 00 GHz Span 100 MHz #Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)</p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <table style="width: 100%; font-size: 0.8em;"> <thead> <tr> <th style="text-align: left;">RMS Results</th> <th>Freq</th> <th>Offset</th> <th>Ref BW</th> <th>dBc</th> <th>Lower</th> <th>dBm</th> <th>dBc</th> <th>Upper</th> <th>dBm</th> </tr> </thead> <tbody> <tr> <td>Carrier Power</td> <td>20.00 MHz</td> <td></td> <td>18.00 MHz</td> <td>-28.60</td> <td>-19.04</td> <td>-28.03</td> <td>-18.48</td> <td></td> <td></td> </tr> <tr> <td>9.55 dBm /</td> <td>40.00 MHz</td> <td></td> <td>18.00 MHz</td> <td>-47.28</td> <td>-37.72</td> <td>-48.17</td> <td>-38.62</td> <td></td> <td></td> </tr> <tr> <td>20.0000 MHz</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px; color: green;"> <p><b>File Operation Status, A:\BW100RS7.GIF file saved</b></p> </div>	RMS Results	Freq	Offset	Ref BW	dBc	Lower	dBm	dBc	Upper	dBm	Carrier Power	20.00 MHz		18.00 MHz	-28.60	-19.04	-28.03	-18.48			9.55 dBm /	40.00 MHz		18.00 MHz	-47.28	-37.72	-48.17	-38.62			20.0000 MHz										<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">Restart</div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">Measure Single <u>Cont</u></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">Resume</div>
RMS Results	Freq	Offset	Ref BW	dBc	Lower	dBm	dBc	Upper	dBm																																
Carrier Power	20.00 MHz		18.00 MHz	-28.60	-19.04	-28.03	-18.48																																		
9.55 dBm /	40.00 MHz		18.00 MHz	-47.28	-37.72	-48.17	-38.62																																		
20.0000 MHz																																									


CH120 802.11a Adjacent Channel Leakage Power (6Mbps)

Agilent 11:26:00 Jun 7, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.6 GHz <span style="float: right;"><b>Trig</b> Free</span></p> <p>Adj Channel Power <span style="float: right; border: 1px solid black; padding: 2px;">PASS</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: center; font-size: 1.2em;"><b>Center 5.60000000 GHz</b></p> </div> <div style="margin-top: 5px;"> <p style="text-align: right;">▲ Mkr1 388.97 MHz 27.50 dB</p> <p>Ref 2.567 dBm #Atten 28 dB</p>  <p style="font-size: 0.8em;">#Avg Log 10 dB/</p> <p style="font-size: 0.8em;">Center 5.600 00 GHz Span 100 MHz #Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)</p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <table style="width: 100%; font-size: 0.8em;"> <thead> <tr> <th style="text-align: left;">RMS Results</th> <th>Freq</th> <th>Offset</th> <th>Ref BW</th> <th>dBc</th> <th>Lower</th> <th>dBm</th> <th>dBc</th> <th>Upper</th> <th>dBm</th> </tr> </thead> <tbody> <tr> <td>Carrier Power</td> <td>20.00 MHz</td> <td></td> <td>18.00 MHz</td> <td>-28.69</td> <td>-18.83</td> <td>-28.78</td> <td>-18.92</td> <td></td> <td></td> </tr> <tr> <td>9.87 dBm /</td> <td>40.00 MHz</td> <td></td> <td>18.00 MHz</td> <td>-48.06</td> <td>-38.20</td> <td>-49.11</td> <td>-39.25</td> <td></td> <td></td> </tr> <tr> <td>20.0000 MHz</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px; color: green;"> <p><b>File Operation Status, A:\BW120R06.GIF file saved</b></p> </div>	RMS Results	Freq	Offset	Ref BW	dBc	Lower	dBm	dBc	Upper	dBm	Carrier Power	20.00 MHz		18.00 MHz	-28.69	-18.83	-28.78	-18.92			9.87 dBm /	40.00 MHz		18.00 MHz	-48.06	-38.20	-49.11	-39.25			20.0000 MHz										<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">Restart</div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">Measure Single <u>Cont</u></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-top: 5px;">Resume</div>
RMS Results	Freq	Offset	Ref BW	dBc	Lower	dBm	dBc	Upper	dBm																																
Carrier Power	20.00 MHz		18.00 MHz	-28.69	-18.83	-28.78	-18.92																																		
9.87 dBm /	40.00 MHz		18.00 MHz	-48.06	-38.20	-49.11	-39.25																																		
20.0000 MHz																																									

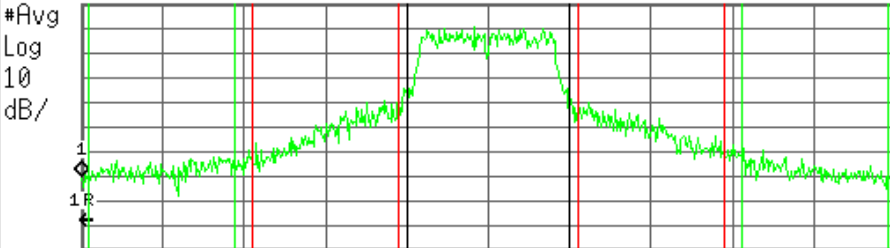
CH120 802.11a Adjacent Channel Leakage Power (54Mbps)

Agilent 11:32:09 Jun 7, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.7 GHz <span style="float: right;"><b>Trig</b> Free</span></p> <p>Adj Channel Power <span style="float: right; border: 1px solid black; padding: 2px;">PASS</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p><b>Start</b> 5.65000000 GHz</p> </div> <div style="margin-top: 5px;"> <p style="text-align: right;">▲ Mkr1 488.97 MHz 24.36 dB</p> <p>Ref 2.567 dBm #Atten 28 dB</p>  <p style="font-size: small;">#Avg Log 10 dB/</p> <p style="font-size: small;">Start 5.650 00 GHz Stop 5.750 00 GHz #Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)</p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <table style="width: 100%; font-size: x-small;"> <thead> <tr> <th>RMS Results</th> <th>Freq</th> <th>Offset</th> <th>Ref BW</th> <th>dBc</th> <th>Lower</th> <th>dBm</th> <th>dBc</th> <th>Upper</th> <th>dBm</th> </tr> </thead> <tbody> <tr> <td>Carrier Power</td> <td>20.00 MHz</td> <td>18.00 MHz</td> <td>-33.43</td> <td>-27.32</td> <td>-34.49</td> <td>-28.39</td> <td></td> <td></td> <td></td> </tr> <tr> <td>6.11 dBm /</td> <td>40.00 MHz</td> <td>18.00 MHz</td> <td>-52.00</td> <td>-45.90</td> <td>-52.69</td> <td>-46.58</td> <td></td> <td></td> <td></td> </tr> <tr> <td>20.0000 MHz</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px; color: green;"> <p><b>File Operation Status, A:\BW120RS7.GIF file saved</b></p> </div>	RMS Results	Freq	Offset	Ref BW	dBc	Lower	dBm	dBc	Upper	dBm	Carrier Power	20.00 MHz	18.00 MHz	-33.43	-27.32	-34.49	-28.39				6.11 dBm /	40.00 MHz	18.00 MHz	-52.00	-45.90	-52.69	-46.58				20.0000 MHz										<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Restart</div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">             Measure Single <span style="float: right;">Cont</span> </div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Resume</div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div>
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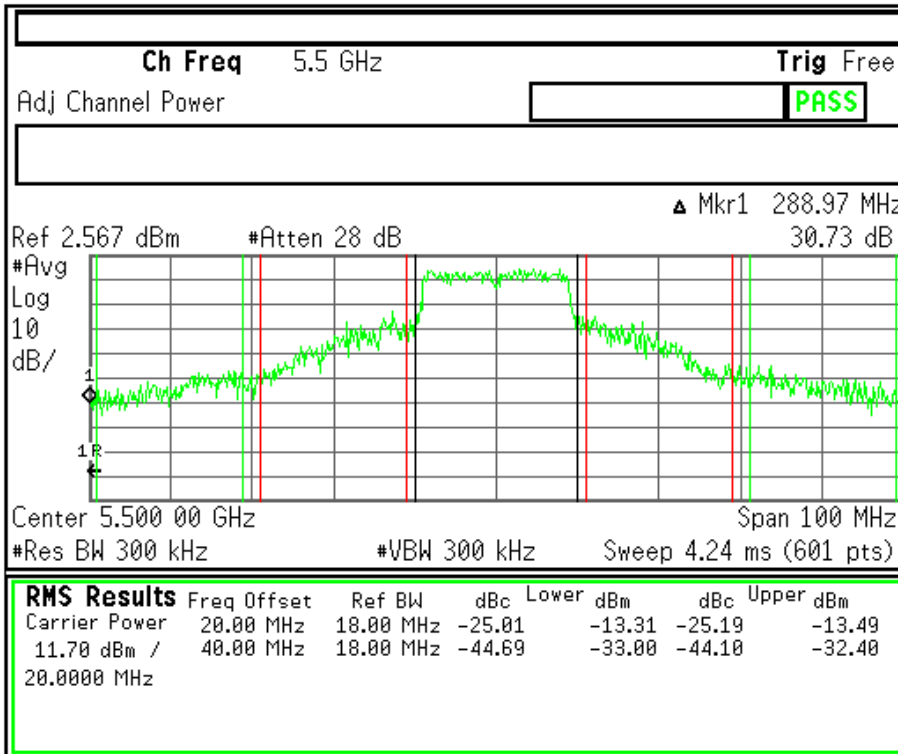
CH140 802.11a Adjacent Channel Leakage Power (6Mbps)

Agilent 11:37:23 Jun 7, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.7 GHz <span style="float: right;"><b>Trig</b> Free</span></p> <p>Adj Channel Power <span style="float: right; border: 1px solid black; padding: 2px;">PASS</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p><b>Start</b> 5.65000000 GHz</p> </div> <div style="margin-top: 5px;"> <p style="text-align: right;">▲ Mkr1 488.97 MHz 20.48 dB</p> <p>Ref 2.567 dBm #Atten 28 dB</p>  <p style="font-size: small;">#Avg Log 10 dB/</p> <p style="font-size: small;">Start 5.650 00 GHz Stop 5.750 00 GHz #Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)</p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <table style="width: 100%; font-size: x-small;"> <thead> <tr> <th>RMS Results</th> <th>Freq</th> <th>Offset</th> <th>Ref BW</th> <th>dBc</th> <th>Lower</th> <th>dBm</th> <th>dBc</th> <th>Upper</th> <th>dBm</th> </tr> </thead> <tbody> <tr> <td>Carrier Power</td> <td>20.00 MHz</td> <td>18.00 MHz</td> <td>-34.10</td> <td>-27.77</td> <td>-34.76</td> <td>-28.44</td> <td></td> <td></td> <td></td> </tr> <tr> <td>6.33 dBm /</td> <td>40.00 MHz</td> <td>18.00 MHz</td> <td>-52.89</td> <td>-46.56</td> <td>-53.04</td> <td>-46.71</td> <td></td> <td></td> <td></td> </tr> <tr> <td>20.0000 MHz</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px; color: green;"> <p><b>File Operation Status, A:\BW140R06.GIF file saved</b></p> </div>	RMS Results	Freq	Offset	Ref BW	dBc	Lower	dBm	dBc	Upper	dBm	Carrier Power	20.00 MHz	18.00 MHz	-34.10	-27.77	-34.76	-28.44				6.33 dBm /	40.00 MHz	18.00 MHz	-52.89	-46.56	-53.04	-46.71				20.0000 MHz										<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Restart</div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">             Measure Single <span style="float: right;">Cont</span> </div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Resume</div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div> <div style="border: 1px solid black; padding: 2px; height: 20px;"></div>
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20.0000 MHz																																									

CH140 802.11a Adjacent Channel Leakage Power (54Mbps)

Agilent 11:17:13 Jun 7, 2013



**Meas Control**

Restart

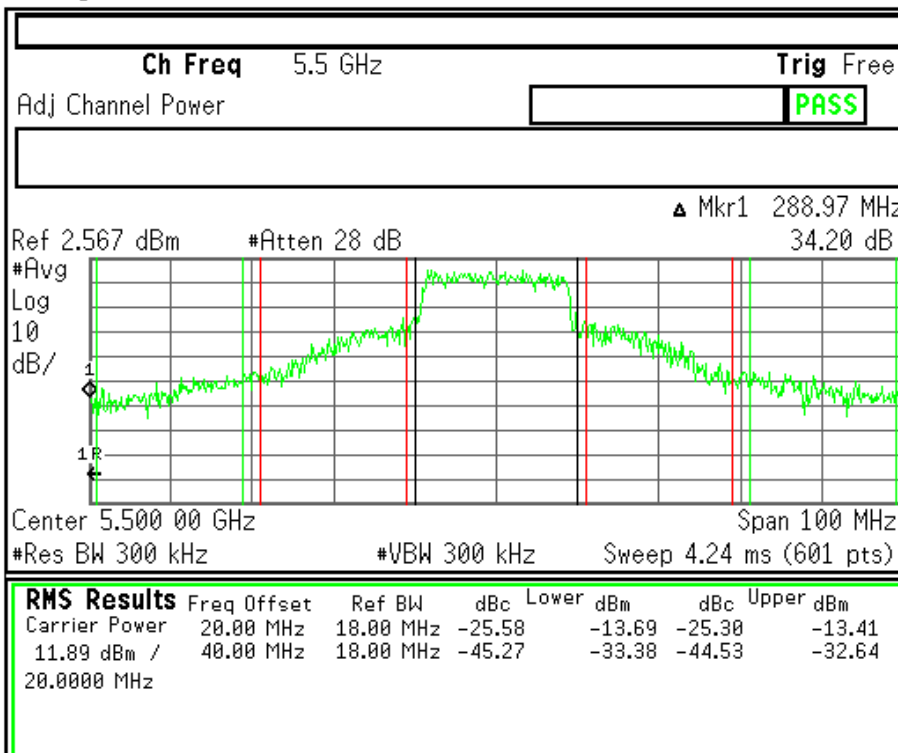
Measure  
Single Cont

Resume

File Operation Status, A:\BW100R54.GIF file saved

CH100 802.11n Adjacent Channel Leakage Power (MCS0)

Agilent 11:19:29 Jun 7, 2013



**Meas Control**

Restart

Measure  
Single Cont

Resume

File Operation Status, A:\BW100RS0.GIF file saved

CH100 802.11n Adjacent Channel Leakage Power (MCS7)

Agilent 11:27:24 Jun 7, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.6 GHz <span style="float: right;"><b>Trig</b> Free</span></p> <p>Adj Channel Power <span style="float: right; border: 1px solid black; padding: 2px;">PASS</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: right;">▲ Mkr1 388.97 MHz 24.63 dB</p> <p>Ref 2.567 dBm #Atten 28 dB</p> <p style="text-align: center;">Center 5.600 00 GHz <span style="float: right;">Span 100 MHz</span></p> <p>#Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th colspan="7" style="text-align: left;">RMS Results</th> </tr> <tr> <th></th> <th>Freq</th> <th>Offset</th> <th>Ref BW</th> <th>dBc</th> <th>Lower dBm</th> <th>Upper dBm</th> </tr> </thead> <tbody> <tr> <td>Carrier Power</td> <td>20.00 MHz</td> <td></td> <td>18.00 MHz</td> <td>-27.02</td> <td>-17.42</td> <td>-26.66</td> </tr> <tr> <td></td> <td>9.59 dBm /</td> <td>40.00 MHz</td> <td>18.00 MHz</td> <td>-46.27</td> <td>-36.68</td> <td>-46.73</td> </tr> <tr> <td></td> <td>20.0000 MHz</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px; color: green;"> <p>File Operation Status, A:\BW120R54.GIF file saved</p> </div>	RMS Results								Freq	Offset	Ref BW	dBc	Lower dBm	Upper dBm	Carrier Power	20.00 MHz		18.00 MHz	-27.02	-17.42	-26.66		9.59 dBm /	40.00 MHz	18.00 MHz	-46.27	-36.68	-46.73		20.0000 MHz						<div style="border: 1px solid black; padding: 2px; text-align: center;"> <p><b>Meas Control</b></p> <p>Restart</p> <hr/> <p>Measure Single <u>Cont</u></p> <hr/> <p>Resume</p> <hr/> <hr/> <hr/> <hr/> </div>
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	20.0000 MHz																																			

CH120 802.11n Adjacent Channel Leakage Power (MCS0)

Agilent 11:28:30 Jun 7, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.6 GHz <span style="float: right;"><b>Trig</b> Free</span></p> <p>Adj Channel Power <span style="float: right; border: 1px solid black; padding: 2px;">PASS</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: right;">▲ Mkr1 388.97 MHz 29.45 dB</p> <p>Ref 2.567 dBm #Atten 28 dB</p> <p style="text-align: center;">Center 5.600 00 GHz <span style="float: right;">Span 100 MHz</span></p> <p>#Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)</p> <table border="1" style="width: 100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th colspan="7" style="text-align: left;">RMS Results</th> </tr> <tr> <th></th> <th>Freq</th> <th>Offset</th> <th>Ref BW</th> <th>dBc</th> <th>Lower dBm</th> <th>Upper dBm</th> </tr> </thead> <tbody> <tr> <td>Carrier Power</td> <td>20.00 MHz</td> <td></td> <td>18.00 MHz</td> <td>-27.43</td> <td>-17.39</td> <td>-27.51</td> </tr> <tr> <td></td> <td>10.04 dBm /</td> <td>40.00 MHz</td> <td>18.00 MHz</td> <td>-46.22</td> <td>-36.17</td> <td>-47.61</td> </tr> <tr> <td></td> <td>20.0000 MHz</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px; color: green;"> <p>File Operation Status, A:\BW120RS0.GIF file saved</p> </div>	RMS Results								Freq	Offset	Ref BW	dBc	Lower dBm	Upper dBm	Carrier Power	20.00 MHz		18.00 MHz	-27.43	-17.39	-27.51		10.04 dBm /	40.00 MHz	18.00 MHz	-46.22	-36.17	-47.61		20.0000 MHz						<div style="border: 1px solid black; padding: 2px; text-align: center;"> <p><b>Meas Control</b></p> <p>Restart</p> <hr/> <p>Measure Single <u>Cont</u></p> <hr/> <p>Resume</p> <hr/> <hr/> <hr/> <hr/> </div>
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CH120 802.11n Adjacent Channel Leakage Power (MCS7)

Agilent 11:41:43 Jun 7, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.7 GHz <span style="float: right;"><b>Trig</b> Free</span></p> <p>Adj Channel Power <span style="float: right; border: 1px solid black; padding: 2px;">PASS</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: right;">▲ Mkr1 488.97 MHz 21.25 dB</p> <p>Ref 2.567 dBm #Atten 28 dB</p> <p style="font-size: small;">#Avg Log 10 dB/</p> <p style="font-size: small;">Start 5.650 00 GHz Stop 5.750 00 GHz #Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)</p> <table border="1" style="width: 100%; font-size: x-small; border-collapse: collapse;"> <thead> <tr> <th>RMS Results</th> <th>Freq</th> <th>Offset</th> <th>Ref BW</th> <th>dBc</th> <th>Lower</th> <th>dBm</th> <th>dBc</th> <th>Upper</th> <th>dBm</th> </tr> </thead> <tbody> <tr> <td>Carrier Power</td> <td>20.00 MHz</td> <td>18.00 MHz</td> <td>-32.58</td> <td>-26.10</td> <td>-33.17</td> <td>-26.69</td> <td></td> <td></td> <td></td> </tr> <tr> <td>6.48 dBm /</td> <td>40.00 MHz</td> <td>18.00 MHz</td> <td>-50.96</td> <td>-44.49</td> <td>-50.64</td> <td>-44.17</td> <td></td> <td></td> <td></td> </tr> <tr> <td>20.0000 MHz</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px; color: green;"> <p><b>File Operation Status, A:\BW140R54.GIF file saved</b></p> </div>	RMS Results	Freq	Offset	Ref BW	dBc	Lower	dBm	dBc	Upper	dBm	Carrier Power	20.00 MHz	18.00 MHz	-32.58	-26.10	-33.17	-26.69				6.48 dBm /	40.00 MHz	18.00 MHz	-50.96	-44.49	-50.64	-44.17				20.0000 MHz										<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Restart</div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Measure Single <u>Cont</u></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Resume</div>
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20.0000 MHz																																									

CH140 802.11n Adjacent Channel Leakage Power (MCS0)

Agilent 11:42:51 Jun 7, 2013

<div style="border: 1px solid black; padding: 2px;"> <p style="text-align: center;"><b>Ch Freq</b> 5.7 GHz <span style="float: right;"><b>Trig</b> Free</span></p> <p>Adj Channel Power <span style="float: right; border: 1px solid black; padding: 2px;">PASS</span></p> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> <p style="text-align: right;">▲ Mkr1 488.97 MHz 23.87 dB</p> <p>Ref 2.567 dBm #Atten 28 dB</p> <p style="font-size: small;">#Avg Log 10 dB/</p> <p style="font-size: small;">Start 5.650 00 GHz Stop 5.750 00 GHz #Res BW 300 kHz #VBW 300 kHz Sweep 4.24 ms (601 pts)</p> <table border="1" style="width: 100%; font-size: x-small; border-collapse: collapse;"> <thead> <tr> <th>RMS Results</th> <th>Freq</th> <th>Offset</th> <th>Ref BW</th> <th>dBc</th> <th>Lower</th> <th>dBm</th> <th>dBc</th> <th>Upper</th> <th>dBm</th> </tr> </thead> <tbody> <tr> <td>Carrier Power</td> <td>20.00 MHz</td> <td>18.00 MHz</td> <td>-32.28</td> <td>-25.75</td> <td>-33.40</td> <td>-26.87</td> <td></td> <td></td> <td></td> </tr> <tr> <td>6.53 dBm /</td> <td>40.00 MHz</td> <td>18.00 MHz</td> <td>-51.59</td> <td>-45.05</td> <td>-49.79</td> <td>-43.26</td> <td></td> <td></td> <td></td> </tr> <tr> <td>20.0000 MHz</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> </div> <div style="border: 1px solid black; padding: 2px; margin-top: 5px; color: green;"> <p><b>File Operation Status, A:\BW140RS0.GIF file saved</b></p> </div>	RMS Results	Freq	Offset	Ref BW	dBc	Lower	dBm	dBc	Upper	dBm	Carrier Power	20.00 MHz	18.00 MHz	-32.28	-25.75	-33.40	-26.87				6.53 dBm /	40.00 MHz	18.00 MHz	-51.59	-45.05	-49.79	-43.26				20.0000 MHz										<div style="border: 1px solid black; padding: 2px; text-align: center;"><b>Meas Control</b></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Restart</div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Measure Single <u>Cont</u></div> <div style="border: 1px solid black; padding: 2px; text-align: center; margin-bottom: 5px;">Resume</div>
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CH140 802.11n Adjacent Channel Leakage Power (MCS7)

**Appendix C:****Additional Test and Sample Details**

This appendix contains details of:

1. The samples submitted for testing.
2. Details of EUT operating mode(s)
3. Details of EUT configuration(s) (see below).
4. EUT arrangement (see below).

Throughout testing, the following numbering system is used to identify the sample and it's modification state:

**Sample No:** Sxx Mod w

where:

xx	= sample number	eg. S01
w	= modification number	eg. Mod 2

The following terminology is used throughout the test report:

**Support Equipment (SE)** is any additional equipment required to exercise the EUT in the applicable operating mode. Where relevant SE is divided into two categories:

SE in test environment: The SE is positioned in the test environment and is not isolated from the EUT (e.g. on the table top during REFE testing).

SE isolated from the EUT: The SE is isolated via filtering from the EUT. (e.g. equipment placed externally to the ALSR during REFE testing).

**EUT configuration** refers to the internal set-up of the EUT. It may include for example:

- Positioning of cards in a chassis.
- Setting of any internal switches.
- Circuit board jumper settings.
- Alternative internal power supplies.

Where no change in EUT configuration is **possible**, the configuration is described as "single possible configuration".

**EUT arrangement** refers to the termination of EUT ports / connection of support equipment, and where relevant, the relative positioning of samples (EUT and SE) in the test environment.

For further details of the test procedures and general test set ups used during testing please refer to the related document "EMC Test Methods - An Overview", which can be supplied by TRaC telecoms & Radio upon request.



**C1) Test samples**

The following samples of the apparatus were submitted by the client for testing :

Sample No.	Description	Identification
TRA-007055S17	Wi-i.MX53	55001661-01
TRA-007055S18	Bec In-Line PSU	AP1212-1 01 Rev.B

The following samples of apparatus were supplied by TRaC Telecoms & Radio as support or drive equipment (auxiliary equipment):

Identification	Description
REF1270	Variac

**C2) EUT Operating Mode During Testing.**

During testing, the EUT was exercised as described in the following tables :

Test	Description of Operating Mode
<p>All tests detailed in this report excluding: RX emissions</p>	<p>EUT was transmitting on software power setting 53, 100% duty cycle using the following operating modes :</p> <p><b>Operating band: 5.150 to 5.250GHz band, 5.250 GHz to 5.350 GHz, 5.470 to 5.725 GHz and 5.725 to 5.825GHz bands</b></p> <p>802.11a (OFDM): Channels 36, 48 and 64 with data rates: 6Mbps &amp; 54Mbps            802.11n (20MHz): (OFDM): Channels 36, 48 and 64 using a single spatial stream with a modulation and coding scheme (MCS) 0 &amp; 7</p> <p>802.11a (OFDM): Channels 100, 120 and 140 with data rates: 6Mbps &amp; 54Mbps            802.11n (20MHz): (OFDM): Channels 100, 120 and 140 using a single spatial stream with a modulation and coding scheme (MCS) 0 &amp; 7</p>
<p>RX emissions</p>	<p>The EUT was in continuous Receive mode</p>

**C3) EUT Configuration Information.**

The EUT was submitted for testing in one single possible configuration.

**C4) List of EUT Ports.**

Sample : TRA-007055S17  
Tests : All tests listed within this test report.

Port	Description of Cable Attached	Cable length	Equipment Connected
Power, control and signals	None	N/A	None
dc power port	2 core unshielded	1m	PSU
Ethernet 1	None	N/A	None
Ethernet 2	Cat 5e UTP	>3m	Laptop
USB	None	N/A	None
Serial	None	N/A	None
BAT IN	None	N/A	None

The only active interface that is used by the EUT under normal operation is the Ethernet port. The other interfaces are only used to set up the support board, which is not EUT.

**C5) Details of Equipment Used.**

TRAC Ref	Type	Description	Manufacturer	Date Calibrated.
RFG031/032/171	436A/8482A/8481D	Power Meter/Head	HP	04/10/10
REF845	E8257D	PSG Signal generator	Agilent	19/02/10
REF837	E4440A	PSA Spectrum Analyser	Agilent	10/05/13
REF847	ESU	EMI Test Receiver (Spectrum analyser)	Rhode & Schwarz	14/06/10
RFG454	SMA	HF cable (SMA to SMA)	Utiflex	04/05/10
REF887	34405A	Digital Multi-meter	Agilent	25/08/10
REF1270	N/A	VARIAC	TRaC	CAL date N/A

## Appendix D: Additional Information

Manufacturer's data sheet detailing the maximum gain used by the EUT.



Tri-band  
2.45/5.2/5.8GHz  
Hi-Gain Dipole **WPANTE3 Series**

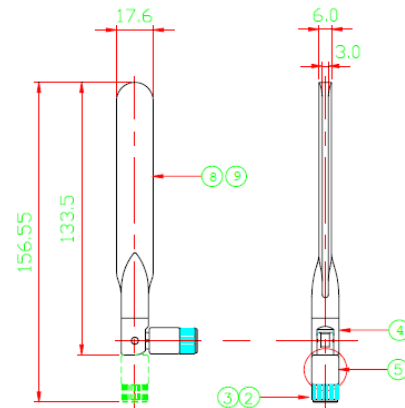
### Explanation of Part Number

**WPANT E3**  
(1) (2)

- (1) Product type: Antenna
- (2) Appearance Series: E3

### Electrical Properties

Item	Property
Frequency Range	2.4~2.4835 GHz / 5.15~5.35/5.725~5.85GHz
Impedance	50Ω
VSWR (see Fig. 1)	2.0 max
Return LOSS (see Fig 2)	-10 dB max
Gain (see Fig 3, Fig 4)	5 dBi (Typ.)
Polarization	Linear
Radiation Pattern	Near omni-directional in the horizontal plane
Admitted Power	1 W
Electrical	1/2 λ Dipole



### Application

This tri-band high-gain dipole antenna is an ideal solution for dual or tri-band WLAN access points operating in the ISM 2.45GHz or UNII/III 5.2/5.8GHz bands. Two antennas may be deployed for diversity antenna applications/requirements. These antennas are available in a variety of standard coaxial terminations or optionally as a "snap-in" mounted version. Please contact [wireless@worldproducts.com](mailto:wireless@worldproducts.com) with your specific requirements.

Figure 1. Return Loss (2.4GHz)

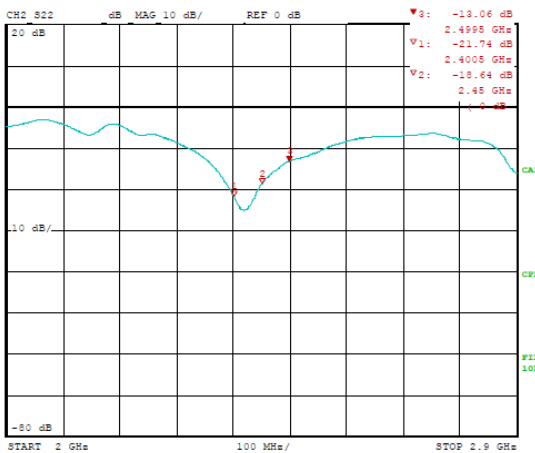
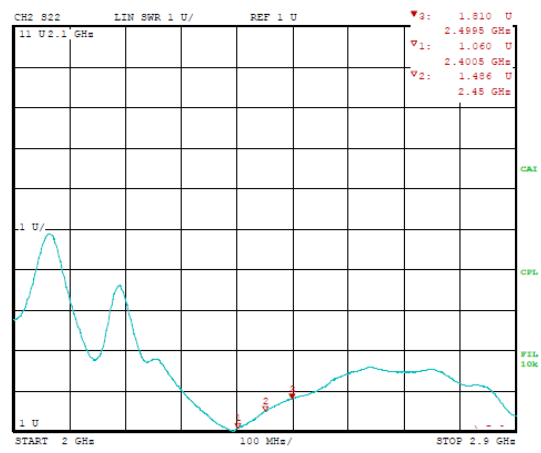


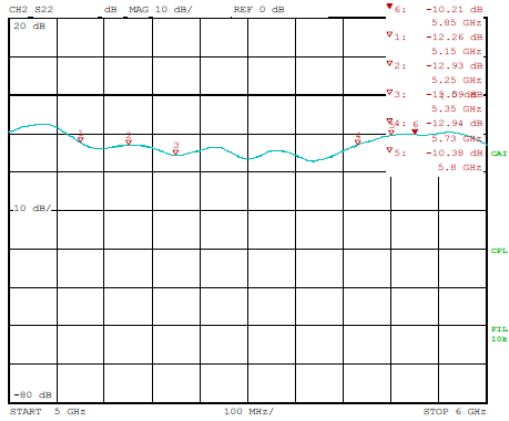
Figure 2. V.S.W.R (2.4GHz)



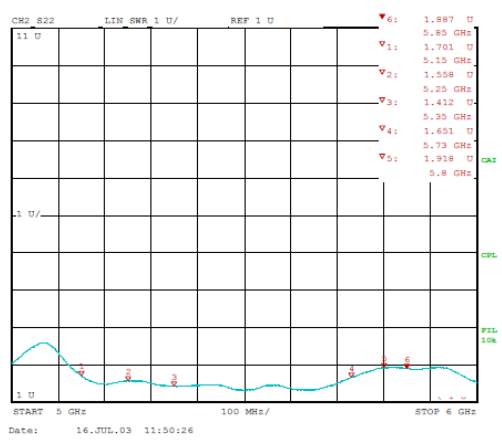


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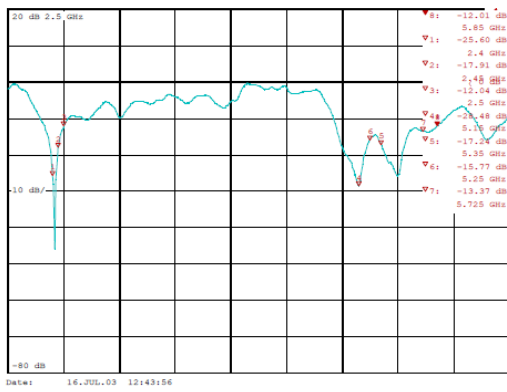
**Figure 3. Return Loss (5.0GHz)**



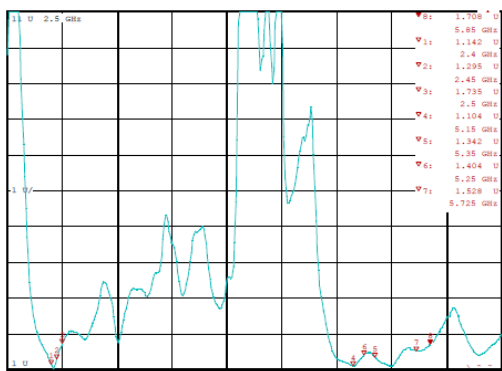
**Figure 4. V.S.W.R (5.0GHz)**



**Figure 5. Return Loss (2.0 & 5.0GHz)**



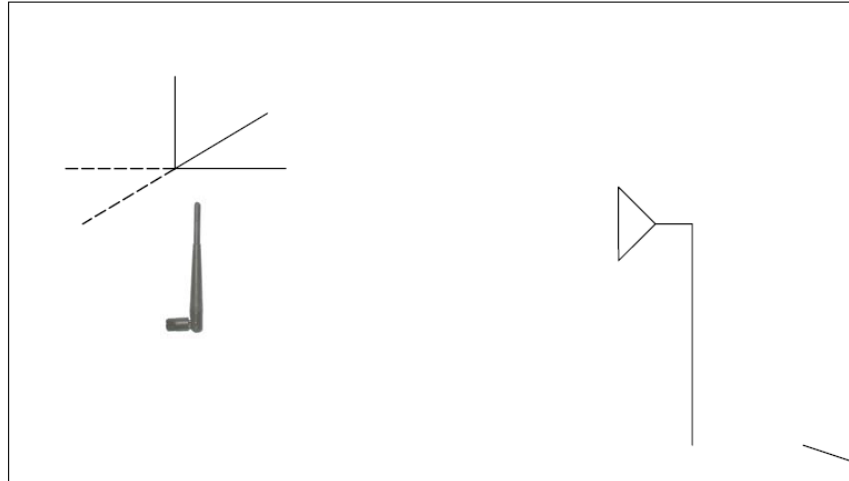
**Figure 6. V.S.W.R (2.0 & 5.0GHz)**



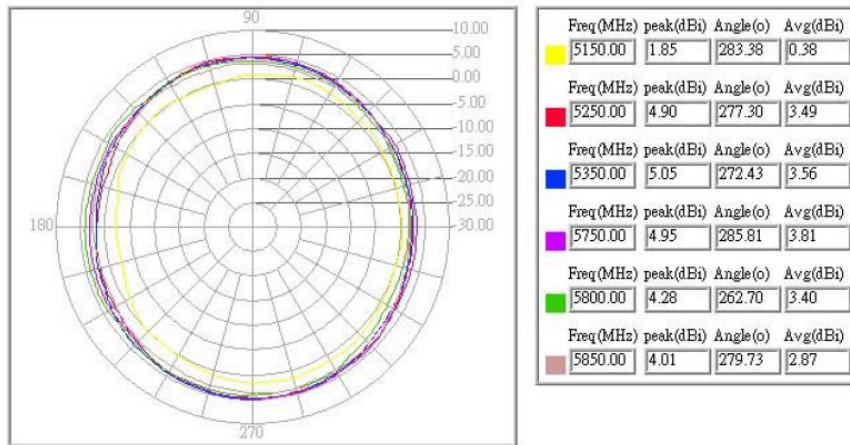


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**Measurement Set Up**



**Figure 7. H-Plane (2.0GHz)**

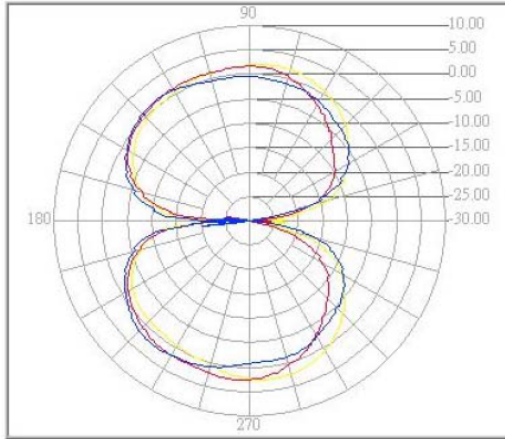






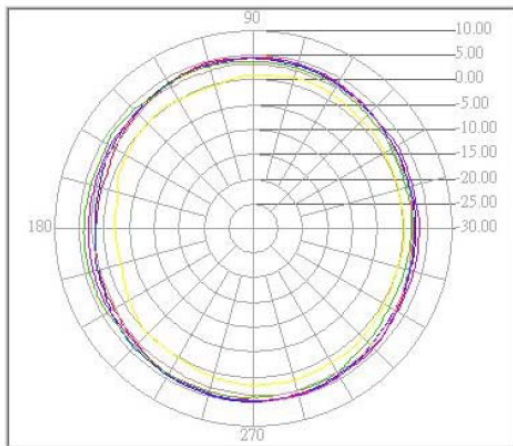
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**Figure 8. E-Plane (2.0GHz)**



Freq (MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	2.72	277.79	-1.18
2450.00	2.71	264.08	-1.39
2490.00	2.17	232.94	-1.82

**Figure 9. H-Plane (5.0GHz)**

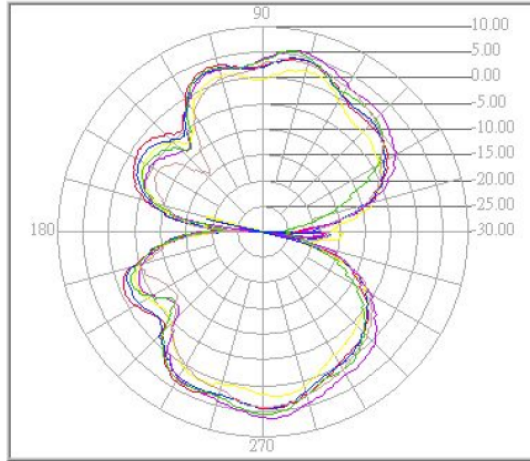


Freq (MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5150.00	1.85	283.38	0.38
5250.00	4.90	277.30	3.49
5350.00	5.05	272.43	3.56
5750.00	4.95	285.81	3.81
5800.00	4.28	262.70	3.40
5850.00	4.01	279.73	2.87



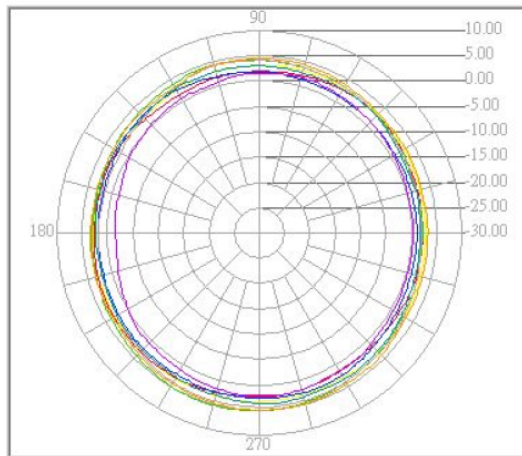
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**Figure 10. E-Plane (5.0GHz)**



Freq (MHz)	peak(dBi)	Angle(o)	Avg(dBi)
5150.00	2.44	72.25	-2.01
5250.00	4.53	272.80	0.11
5350.00	4.51	75.99	-0.15
5750.00	6.42	274.05	0.96
5800.00	5.79	79.72	0.26
5850.00	4.20	271.56	-0.75

**Figure 11. H-Plane (2.0 & 5.0GHz)**

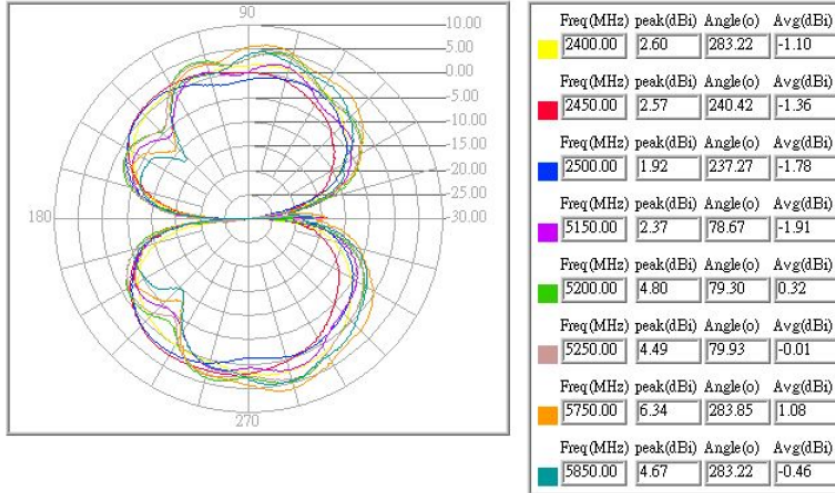


Freq (MHz)	peak(dBi)	Angle(o)	Avg(dBi)
2400.00	3.39	257.68	2.98
2450.00	3.17	214.74	2.37
2500.00	2.79	288.00	1.96
5150.00	2.25	280.42	0.82
5200.00	5.23	252.63	3.71
5250.00	4.51	272.84	3.16
5750.00	5.03	267.79	3.88
5850.00	3.83	276.63	2.74



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Figure 12. E-Plane (2.0 & 5.0GHz)



**Mechanical Properties**

Item	Property
Color	Black/Gray
Coaxial-Cable	RG-178
Plastic Cover	TPU
Antenna Base	PC
Connector	SMA/TNC/BNC

Operation Temperature : -20~+65°C  
 Storage Temperature : -20~+65°C

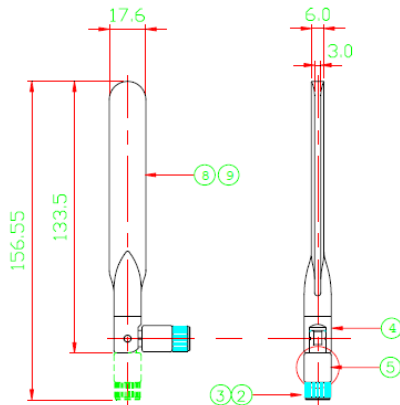


## WPANTE3 Series

### Environmental Characteristics

Item	Test Condition	Specification
High Temperature/Humidity Operating test	1. Temperature: +60 ± 2°C 2. Humidity: 90~95%RH 3. Time: 24hrs	1. Normal function. Test must be satisfied after the test. 2. No material deformation is allowed.
Low Temperature/Humidity Operating test	1. Temperature: +20 ± 2°C 2. Humidity: 0%RH 3. Time: 24hrs	
High Temperature/Humidity Storage	1. Temperature: +65 ± 2°C 2. Humidity: 90~95%RH 3. Time: 72hrs	
Low Temperature/Humidity Storage	1. Temperature: +20 ± 2°C 2. Humidity: 0%RH 3. Time: 24hrs	
Temperature Cycle Operating Test	1. Temperature: -40~+75°C 2. Duration: <ul style="list-style-type: none"> <li>▪ 88 Hours</li> <li>▪ 45min./dwelling@-40°C</li> <li>▪ 10°C per min./transition from 40~75°C</li> <li>▪ 45min./dwelling@ 75°C</li> </ul>	
Temperature Shock Test	1. Temperature: -40~+85°C 2. TIME: 30min./dwelling, 5minutes/transition, 24 cycles	

### Physical Dimensions



Software settings used for both modes of modulation to determine the maximum power used by the device. Antenna port A and B was assed for the highest output power to determine the software settings within this test report.

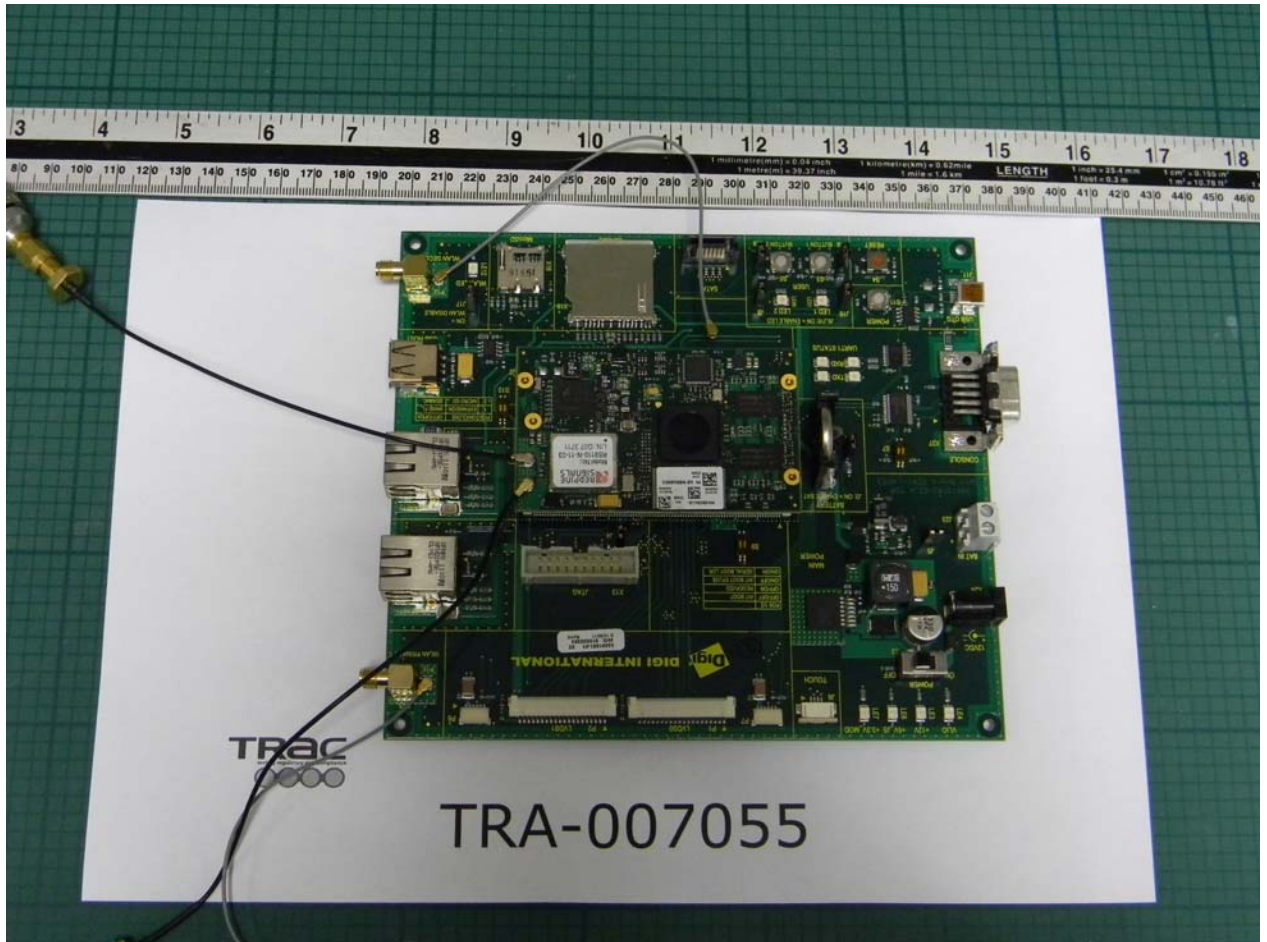
<b>Antenna Port A/B: Operating mode 802.11a</b>		
<b>Software Output Power settings</b>		
Mode	Declared operating frequency (MHz)	Software Output Power settings
802.11a		
CH36	5180MHz	53
CH48	5240MHz	53
CH64	5320MHz	53
CH100	5500MHz	53
CH120	5600MHz	53
CH140	5700MHz	53

<b>Antenna Port A/B: Operating mode 802.11n</b>		
<b>Software Output Power settings</b>		
Mode	Declared operating frequency (MHz)	Software Output Power settings
802.11n		
CH36	5180MHz	53
CH48	5240MHz	53
CH64	5320MHz	53
CH100	5500MHz	53
CH120	5600MHz	53
CH140	5700MHz	53

**Appendix E:**

**Photographs and Figures**

1. Photo of the EUT Front view -length dimension
2. Photo of the DUT Rear view
3. Photo of the DUT Side view
4. Photo of the EUT Front view - width dimension

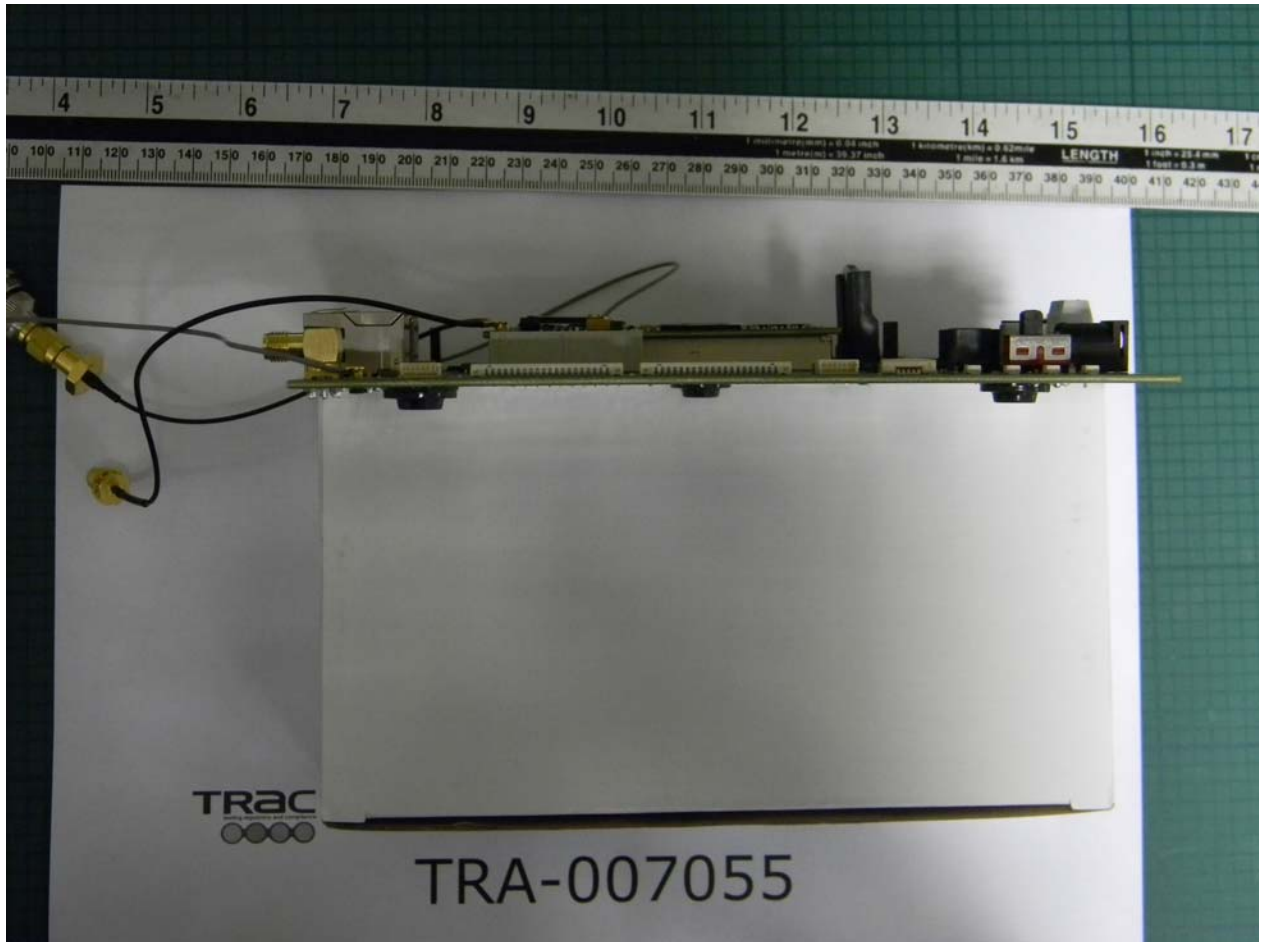


Photograph 1

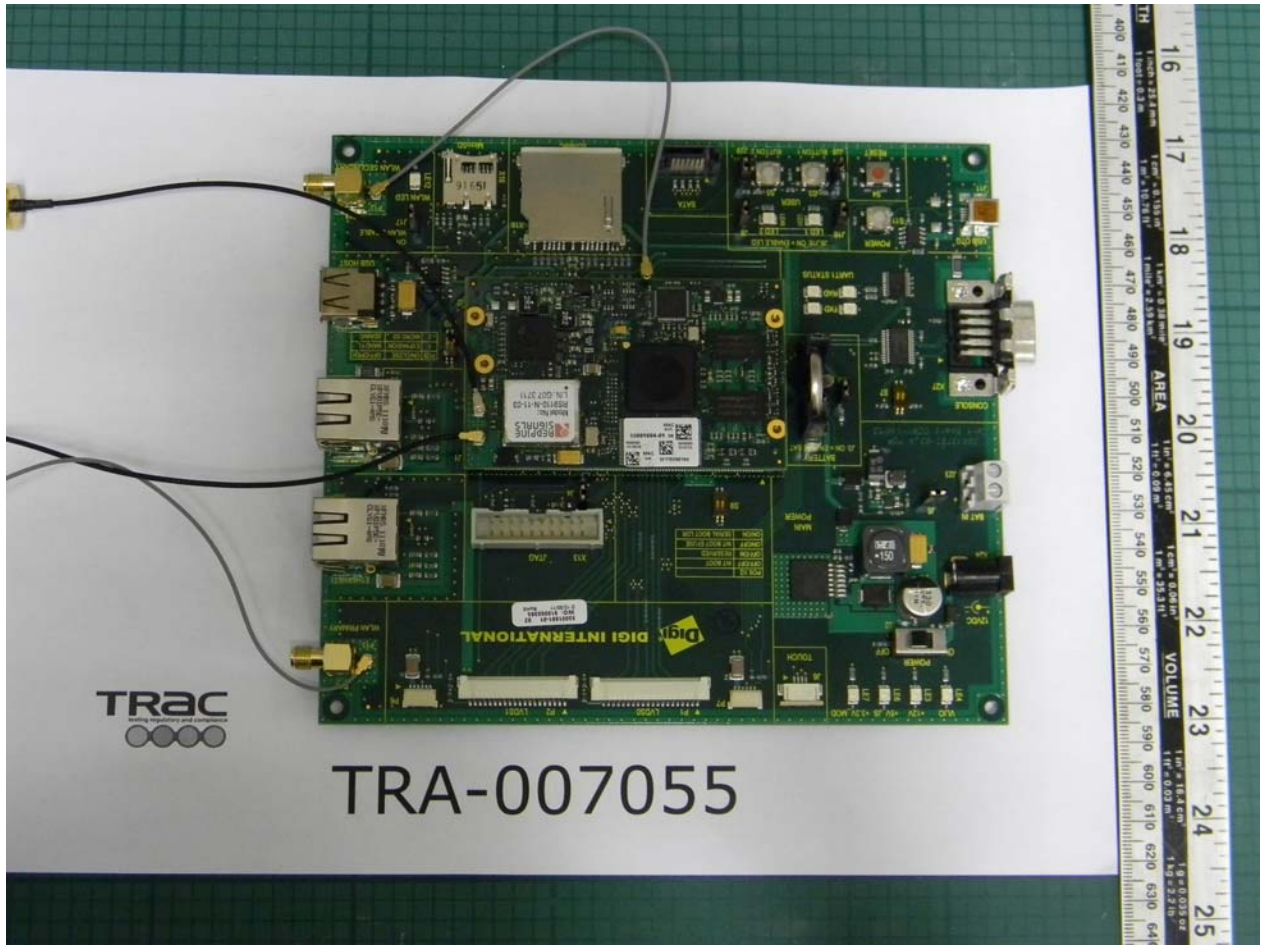




Photograph 2



Photograph 3



Photograph 4



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