



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	Test-Log Number:	T67324
		Project Manager:	-
Contact:	Kevin Lee		
Emissions Spec:	FCC 15.407 & RSS-210	Class:	Radio
Immunity Spec:	-	Environment:	-

EMC Test Data

For The

Cisco-Linksys

Model

WRT600N

Date of Last Test: 4/28/2007



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	Test-Log Number:	T67324
		Project Manager:	-
Contact:	Kevin Lee		
Emissions Spec:	FCC 15.407 & RSS-210	Class:	Radio
Immunity Spec:	-	Environment:	-

EUT INFORMATION

The following information was collected during the test sessions(s).

General Description

The EUT is a Dual-band Wireless-N Router that is designed to provide wireless internet and networking services. Since the EUT would be placed on a table top during operation, the EUT was treated as table-top equipment during testing to simulate the end-user environment. The electrical rating of the EUT is 120 Volts , 60 Hz, .5 Amps.

Equipment Under Test

Manufacturer	Model	Description	Serial Number	FCC ID
Cisco-Linksys LLC	WRT600N	Dual-band Wireless-N	-	Q87-WRT600NV11

Other EUT Details

None

EUT Antenna (Intentional Radiators Only)

The antenna is integral to the device. A dipole antenna with a maximum gain of 3.7dBi, PiFA antenna maximum gain 3.7, and a PCB antenna maximum gain 2.9dBi.

EUT Enclosure

The EUT enclosure is primarily constructed of plastic. It measures approximately 30 cm wide by 5 cm deep by 25 cm high.



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		Project Manager:	-
Contact:	Kevin Lee		
Emissions Spec:	FCC 15.407 & RSS-210	Class:	Radio
Immunity Spec:	-	Environment:	-

Modification History

Mod. #	Test	Date	Modification
1			
2			
3			

Modifications applied are assumed to be used on subsequent tests unless otherwise stated as a further modification.



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		Project Manager:	-
Contact:	Kevin Lee		
Emissions Spec:	FCC 15.407 & RSS-210	Class:	Radio
Immunity Spec:	-	Environment:	-

Test Configuration #1

The following information was collected during the test sessions(s).

Local Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
-	-	-	-	-

Remote Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
Hewlett Packard	zv6000	Laptop	CND52904S1	DoC

Cabling and Ports

Port	Connected To	Cable(s)		
		Description	Shielded or Unshielded	Length(m)
Ethernet	Laptop	Cat5	Unshielded	1.0
AC Power	AC Mains	-	-	-

EUT Operation During Emissions Tests

During emissions testing the EUT was set to either to transmit at maximum power or receive on appropriate channels.

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Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	Radio

Conducted Emissions

(Elliott Laboratories Fremont Facility, Semi-Anechoic Chamber)

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 4/10/2007	Config. Used: 1
Test Engineer: Rafael Varelas	Config Change: None
Test Location: Fremont Chamber #3	EUT Voltage: 230V/50Hz

General Test Configuration

For tabletop equipment, the EUT was located on a wooden table inside the semi-anechoic chamber, 40 cm from a vertical coupling plane and 80cm from the LISN. Remote support equipment was located outside of the semi-anechoic chamber. Any cables running to remote support equipment were routed through metal conduit and when possible passed through a ferrite clamp upon exiting the chamber.

Ambient Conditions:	Temperature:	21.8 °C
	Rel. Humidity:	37 %

Summary of Results

Run #	Test Performed	Limit	Result	Margin
1	CE, AC Power, 230V/50Hz	EN55022 Class B	Pass	38.7dBµV @ 0.468MHz (-7.8dB)
2	CE, AC Power, 120V/60Hz	EN55022 Class B	Pass	36.7dBµV @ 0.413MHz (-10.9dB)

Modifications Made During Testing:

No modifications were made to the EUT during testing

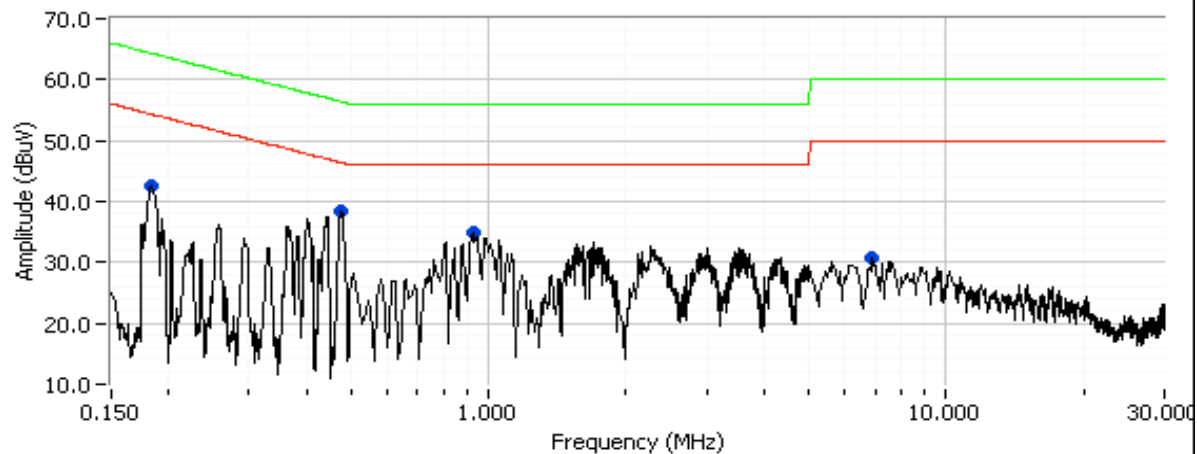
Deviations From The Standard

No deviations were made from the requirements of the standard.

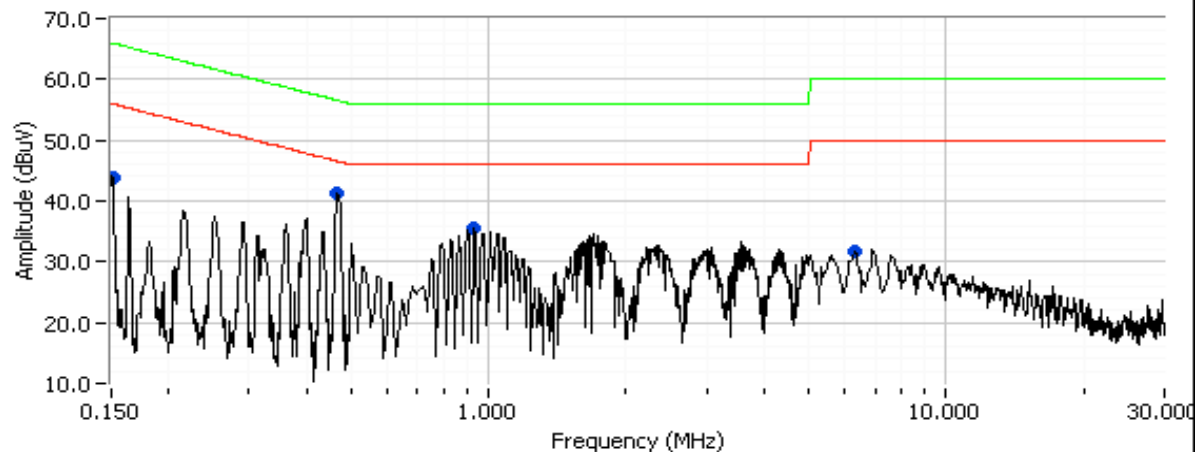
Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	Radio

Run #1: AC Power Port Conducted Emissions, 0.15 - 30MHz, 230V/50Hz

.15 - 30 MHz, 230V/50Hz, Line



.15 - 30 MHz, 230V/50Hz, Neutral





EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	Radio

Run #1: Continued

Preliminary peak readings captured during pre-scan (peak readings vs. average limit)

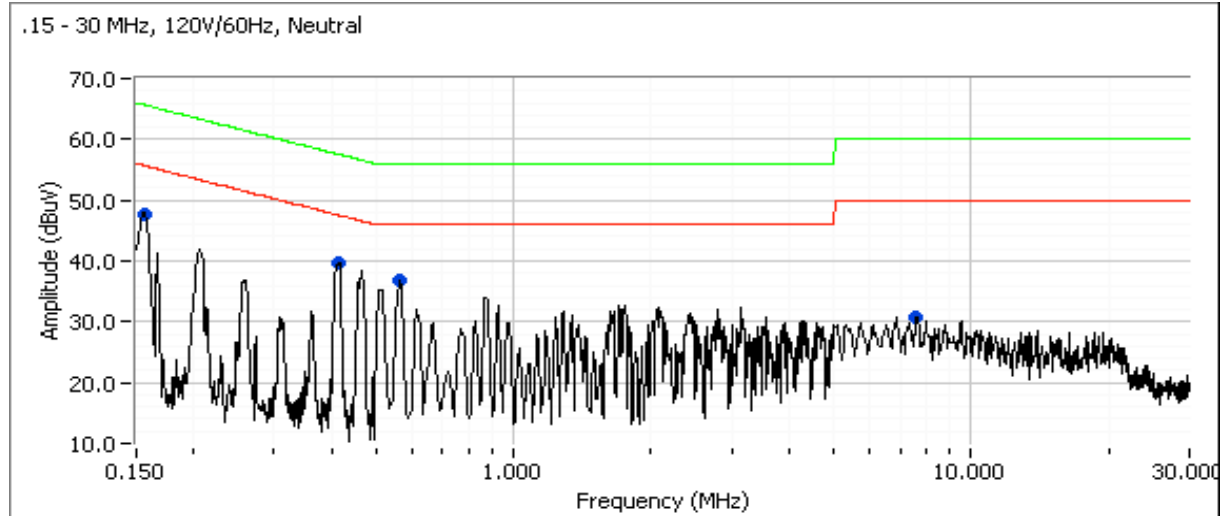
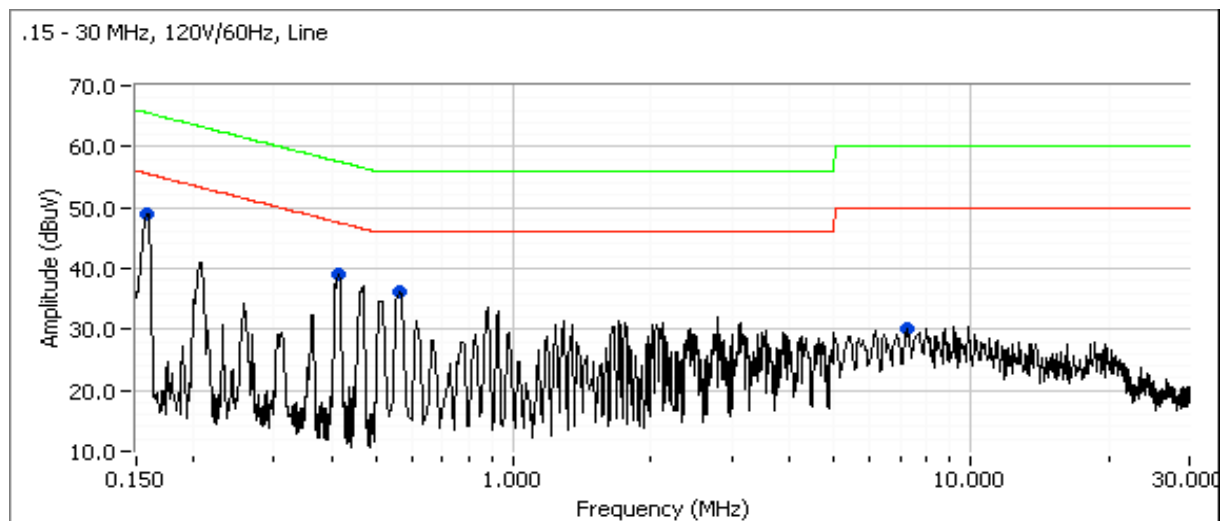
Frequency MHz	Level dBμV	AC Line	EN55022 Limit	Class B Margin	Detector QP/Ave	Comments
0.183	42.5	Line 1	54.3	-11.8	Peak	
0.478	38.3	Line 1	46.4	-8.1	Peak	
0.950	34.9	Line 1	46.0	-11.1	Peak	
6.930	30.8	Line 1	50.0	-19.2	Peak	
0.152	43.8	Neutral	55.9	-12.1	Peak	
0.468	41.3	Neutral	46.5	-5.2	Peak	
0.938	35.4	Neutral	46.0	-10.6	Peak	
6.308	31.7	Neutral	50.0	-18.3	Peak	

Final quasi-peak and average readings

Frequency MHz	Level dBμV	AC Line	EN55022 Limit	Class B Margin	Detector QP/Ave	Comments
0.468	38.7	Neutral	46.5	-7.8	AVG	
0.477	33.4	Line 1	46.4	-13.0	AVG	
0.938	31.2	Neutral	46.0	-14.8	AVG	
0.468	40.7	Neutral	56.5	-15.8	QP	
0.950	29.4	Line 1	46.0	-16.6	AVG	
0.477	36.9	Line 1	56.4	-19.5	QP	
0.938	34.3	Neutral	56.0	-21.7	QP	
0.950	33.4	Line 1	56.0	-22.6	QP	
0.183	40.7	Line 1	64.3	-23.6	QP	
0.183	29.2	Line 1	54.3	-25.1	AVG	
0.152	35.9	Neutral	65.9	-30.0	QP	
0.152	19.0	Neutral	55.9	-36.9	AVG	

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: Radio

Run #2: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz





EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	Radio

Run #2: Continued

Preliminary peak readings captured during pre-scan (peak readings vs. average limit)

Frequency MHz	Level dBμV	AC Line	EN55022 Limit	Class B Margin	Detector QP/Ave	Comments
0.156	48.8	Line	55.5	-6.7	Peak	
0.413	39.2	Line	47.6	-8.4	Peak	
0.569	36.3	Line	46.0	-9.7	Peak	
7.235	30.1	Line	50.0	-19.9	Peak	
0.155	47.6	Neutral	55.6	-8.0	Peak	
0.413	39.6	Neutral	47.6	-8.0	Peak	
0.567	36.7	Neutral	46.0	-9.3	Peak	
7.667	30.8	Neutral	50.0	-19.2	Peak	

Final quasi-peak and average readings

Frequency MHz	Level dBμV	AC Line	EN55022 Limit	Class B Margin	Detector QP/Ave	Comments
0.413	36.7	Line	47.6	-10.9	AVG	
0.413	36.7	Neutral	47.6	-10.9	AVG	
0.567	33.6	Neutral	46.0	-12.4	AVG	
0.569	31.2	Line	46.0	-14.8	AVG	
0.413	39.8	Neutral	57.6	-17.8	QP	
0.155	47.5	Neutral	65.7	-18.2	QP	
0.156	47.3	Line	65.7	-18.4	QP	
0.413	38.9	Line	57.6	-18.7	QP	
0.155	36.4	Neutral	55.7	-19.3	AVG	
0.567	36.2	Neutral	56.0	-19.8	QP	
0.569	35.1	Line	56.0	-20.9	QP	
0.156	34.2	Line	55.7	-21.5	AVG	

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

RSS 210 and FCC 15.407 Radiated Bandedges

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 3/22/2007
Test Engineer: Juan Martinez
Test Location: Fremont Chamber #3

Config. Used: **1**
Config Change: **None**
EUT Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing.

For radiated emissions testing the measurement antenna was located 3 meters from the EUT.

Ambient Conditions:

Temperature: **18 °C**
Rel. Humidity: **37 %**

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1 (802.11a Mode)	Bandedges	FCC Part 15.209 / 15.407	Pass	Refer to runs
2 (802.11Siso Mode)	Bandedges	FCC Part 15.209 / 15.407	Pass	Refer to runs
3 (802.11n 20 MHz Mode)	Bandedges	FCC Part 15.209 / 15.407	Pass	Refer to runs
4 (802.11n 40 MHz Mode)	Bandedges	FCC Part 15.209 / 15.407	Pass	Refer to runs
5 (802.11a Mode)	Bandedges	FCC Part 15.209 / 15.407	Pass	Refer to runs
6 (802.11Siso Mode)	Bandedges	FCC Part 15.209 / 15.407	Pass	Refer to runs
7 (802.11n 20 MHz Mode)	Bandedges	FCC Part 15.209 / 15.407	Pass	Refer to runs
8 (802.11n 40 MHz Mode)	Bandedges	FCC Part 15.209 / 15.407	Pass	Refer to runs

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

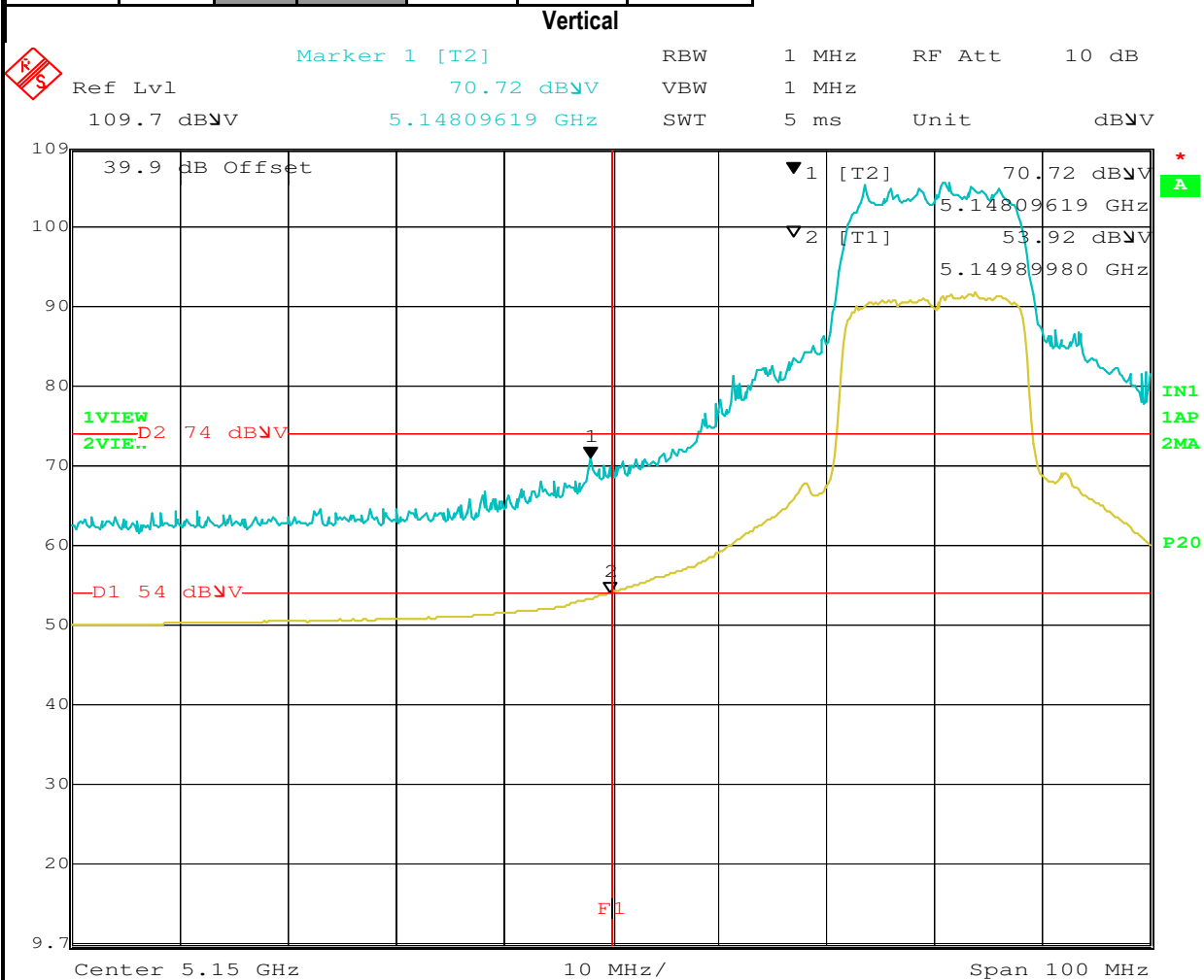
No deviations were made from the requirements of the standard.

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #1a: Radiated Bandedge. Operating Mode: 802.11a Legacy

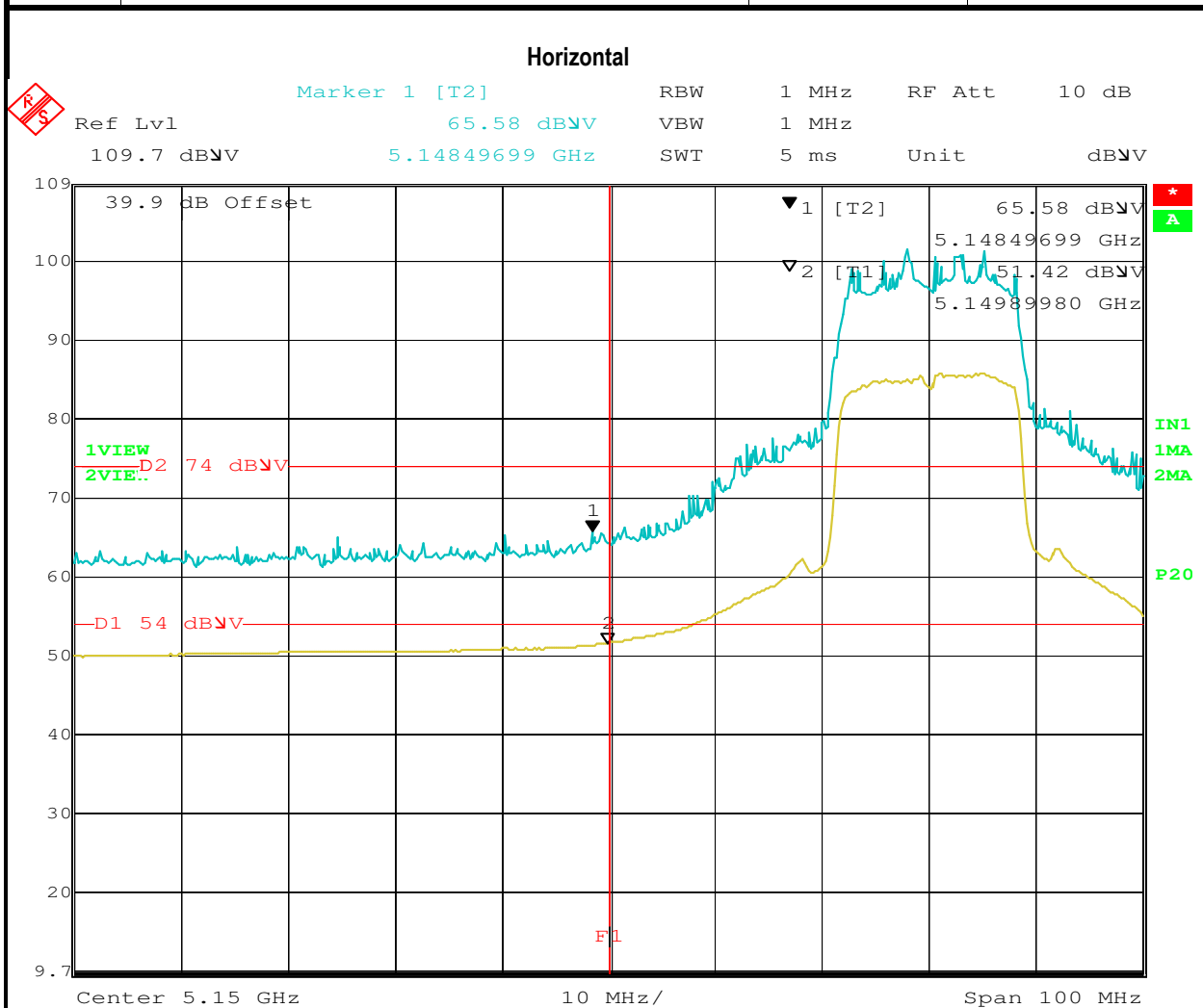
Bandedge power measurement

Frequency (MHz)	Software Setting	Bandwidth		Output Power ¹ dBm		Power (Watts)
		26dB	99% ⁴	Measured	Limit	
5180	0x07xx			17.0	17.0	0.050
5320	0x1414			15.1	24.0	0.032



Date: 22.MAR.2007 16:38:13

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

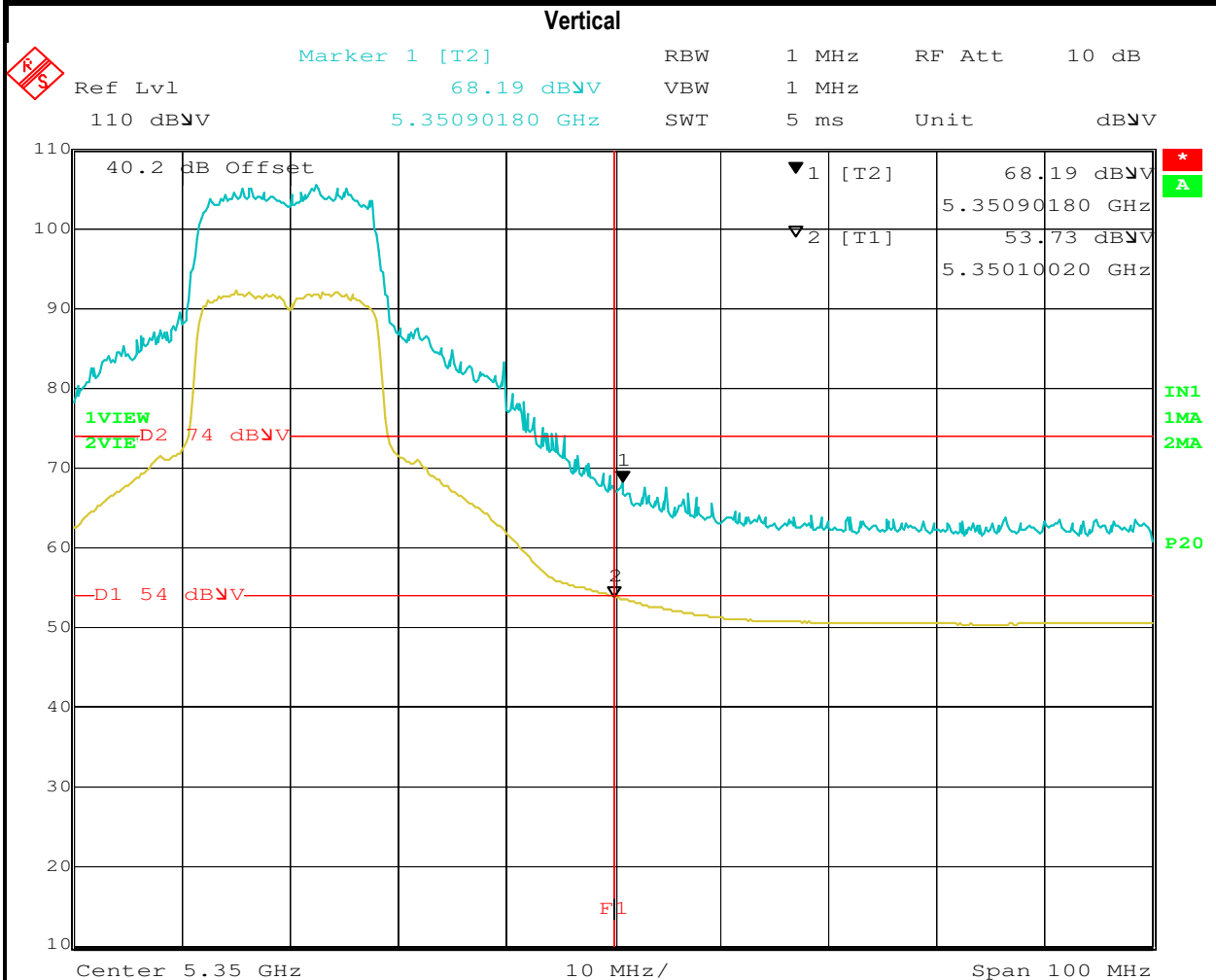


Date: 22.MAR.2007 16:44:59



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

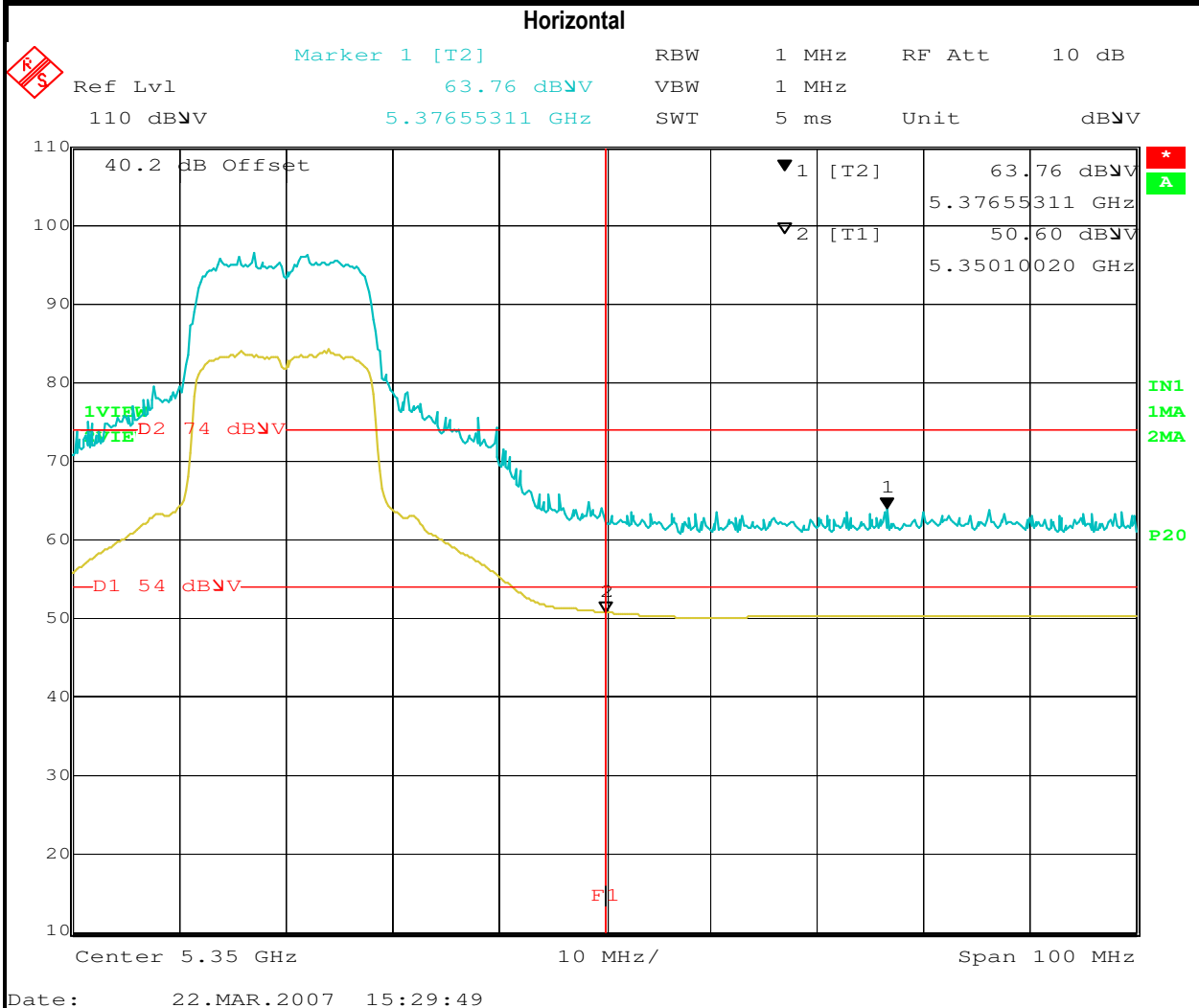


Date: 22.MAR.2007 15:10:03



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A



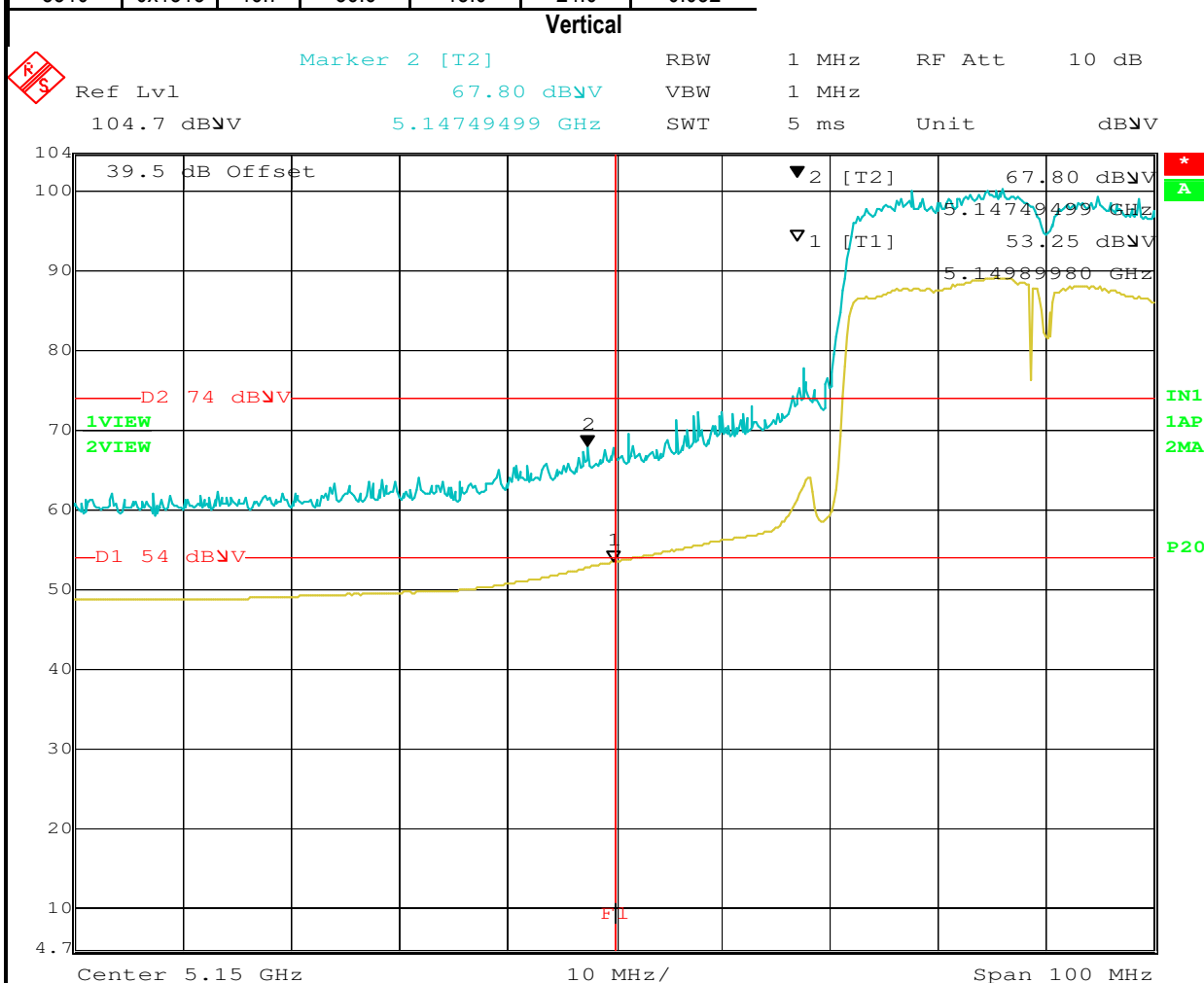
Date: 22.MAR.2007 15:29:49

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #2a: Radiated Bandedge. Operating Mode: 802.11Siso

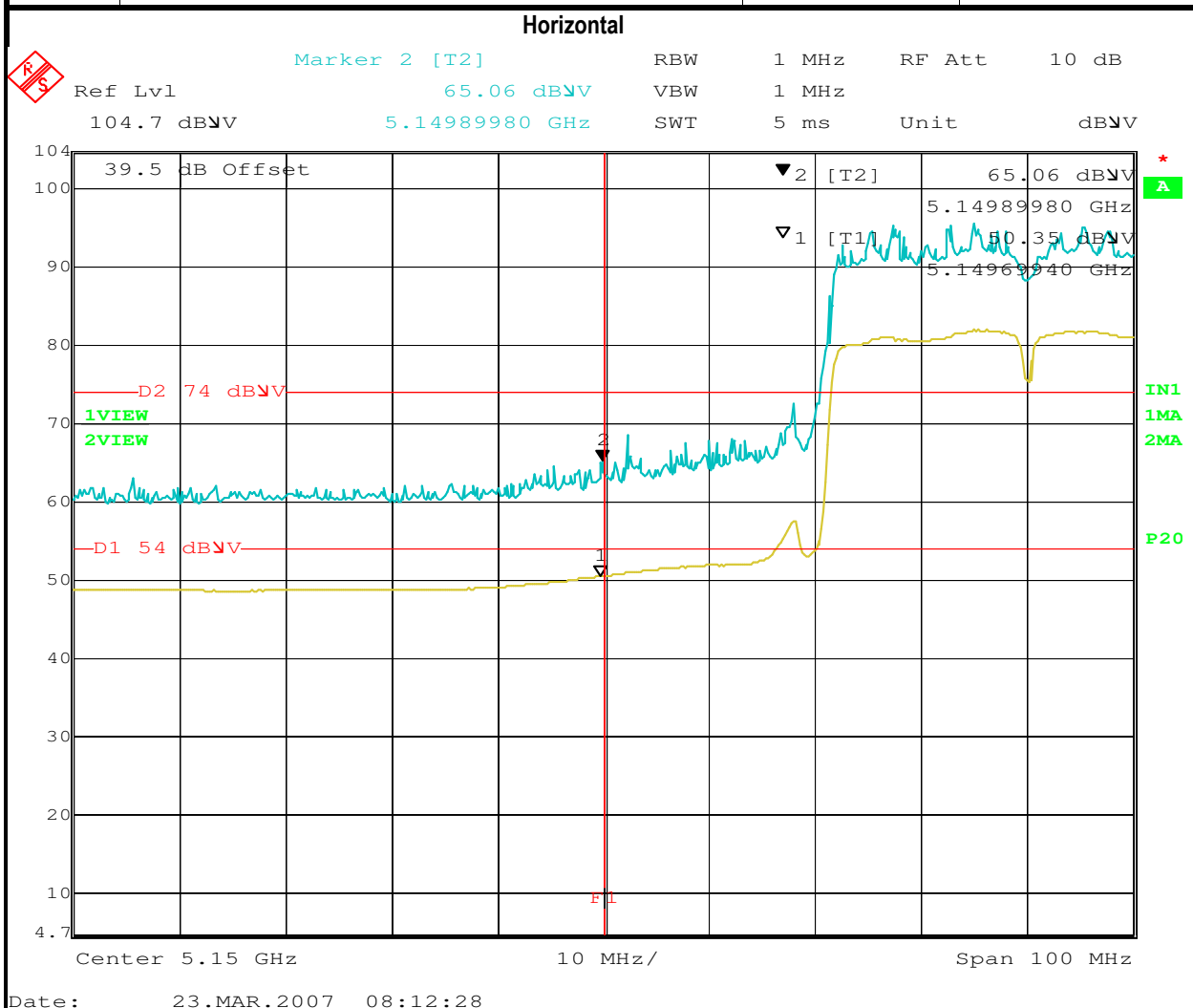
Bandedge power measurement

Frequency (MHz)	Software Setting	Bandwidth		Output Power ¹ dBm		Power (Watts)
		26dB	99% ⁴	Measured	Limit	
5190	0x0f0f			15.0	17.0	0.032
5310	0x1313	46.7	36.6	15.0	24.0	0.032



Date: 23.MAR.2007 07:59:19

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

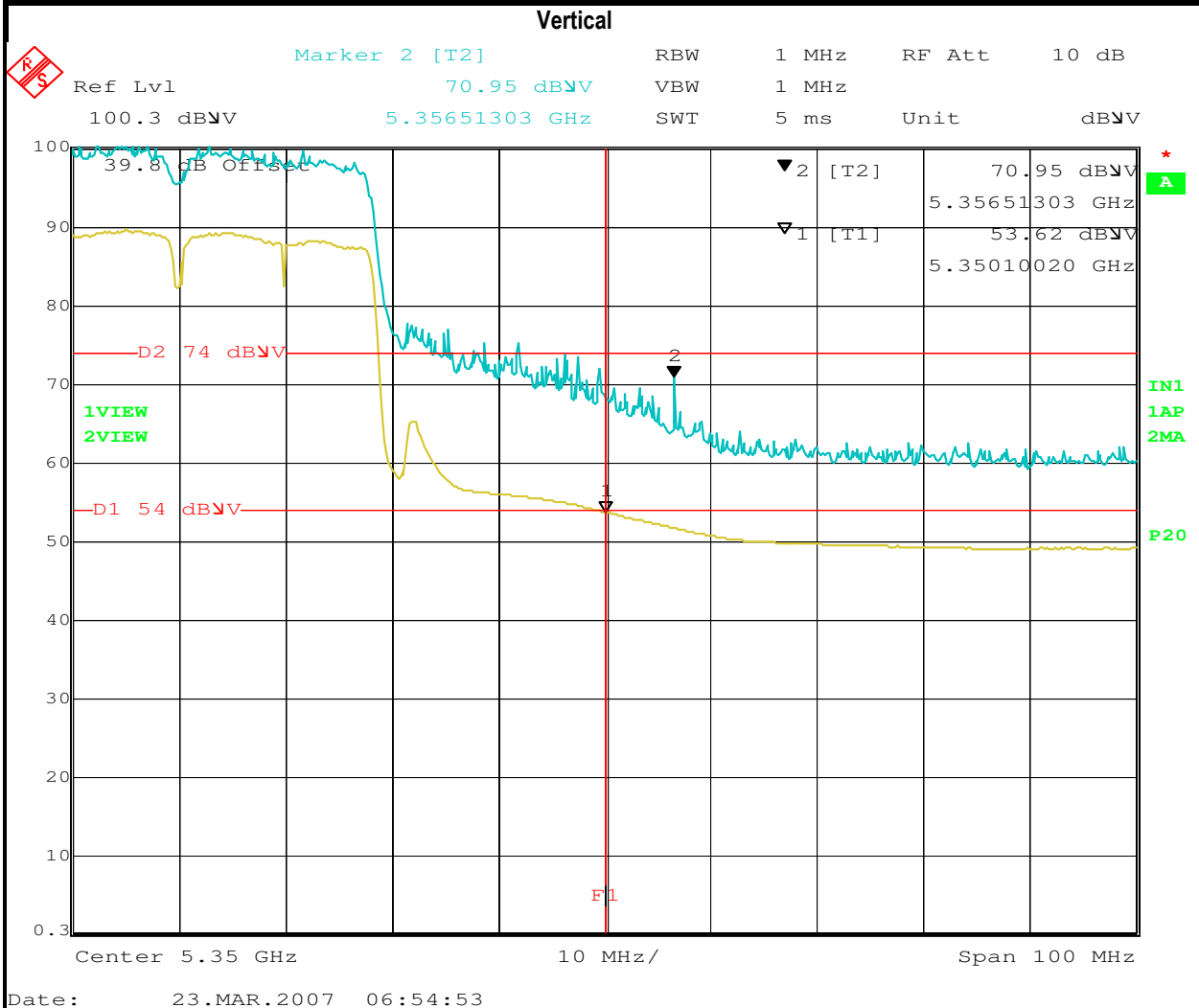


Date: 23.MAR.2007 08:12:28



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

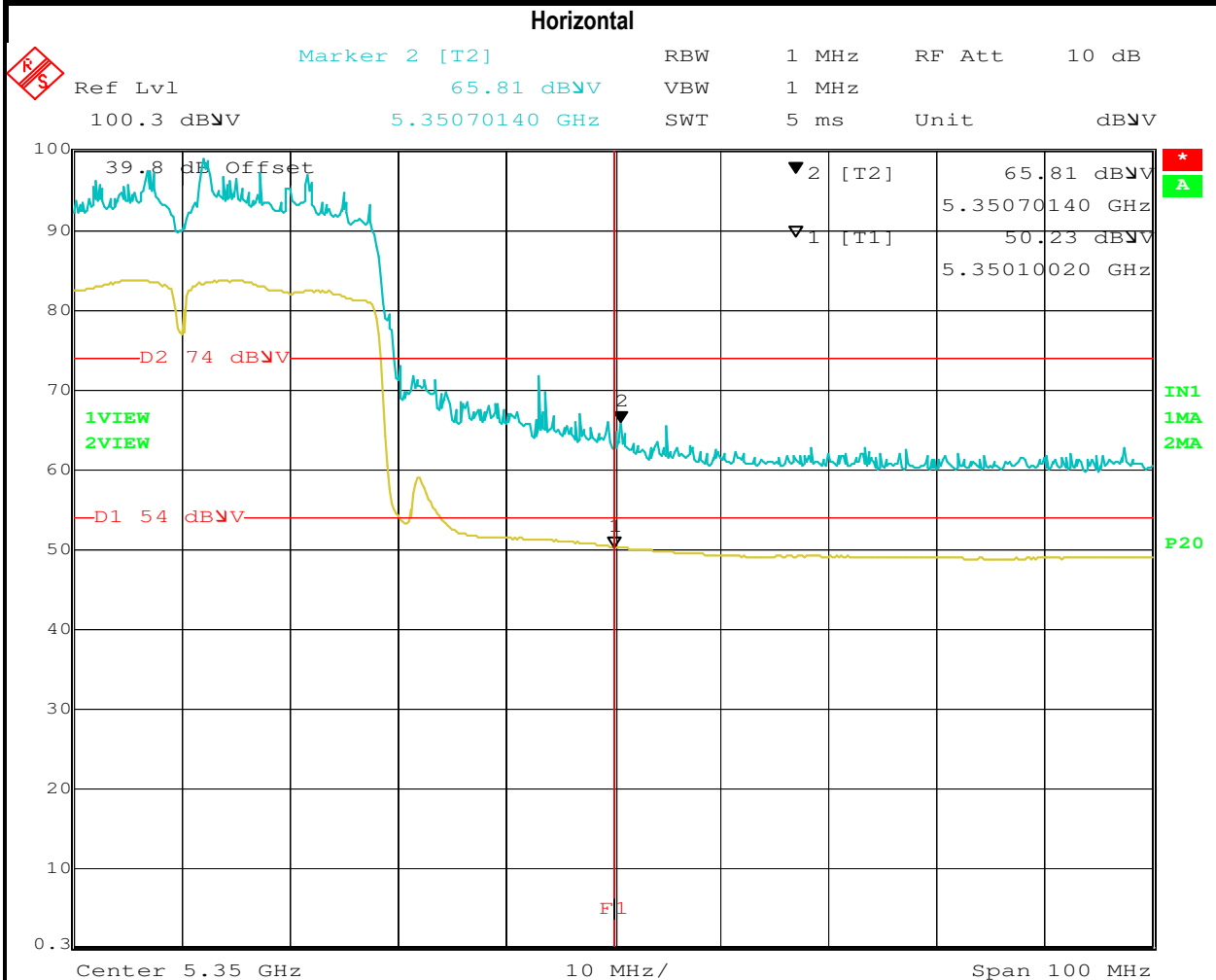


Date: 23.MAR.2007 06:54:53



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A



Date: 23.MAR.2007 07:01:19



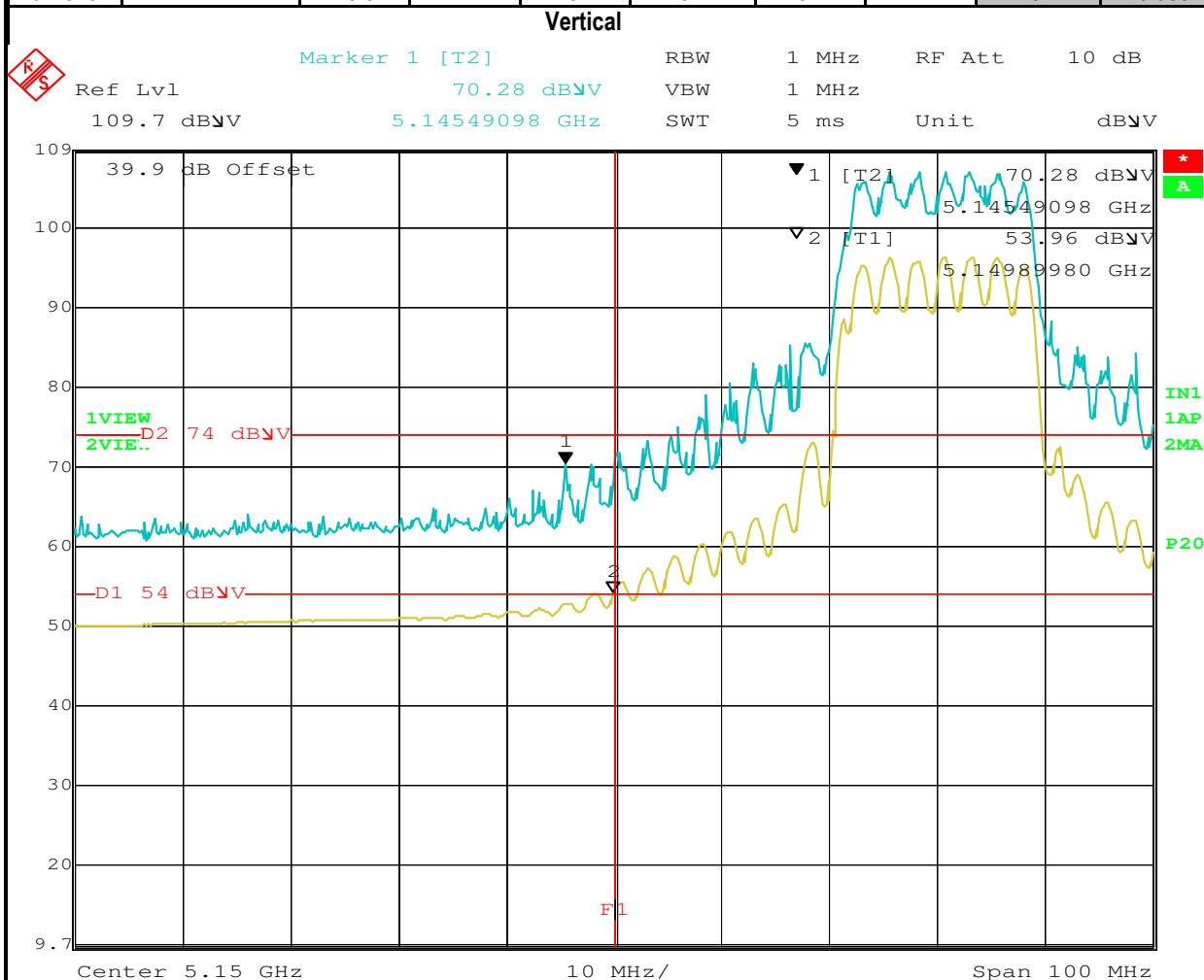
EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #3a: Radiated Bandedge. Operating Mode: 802.11n 20 MHz

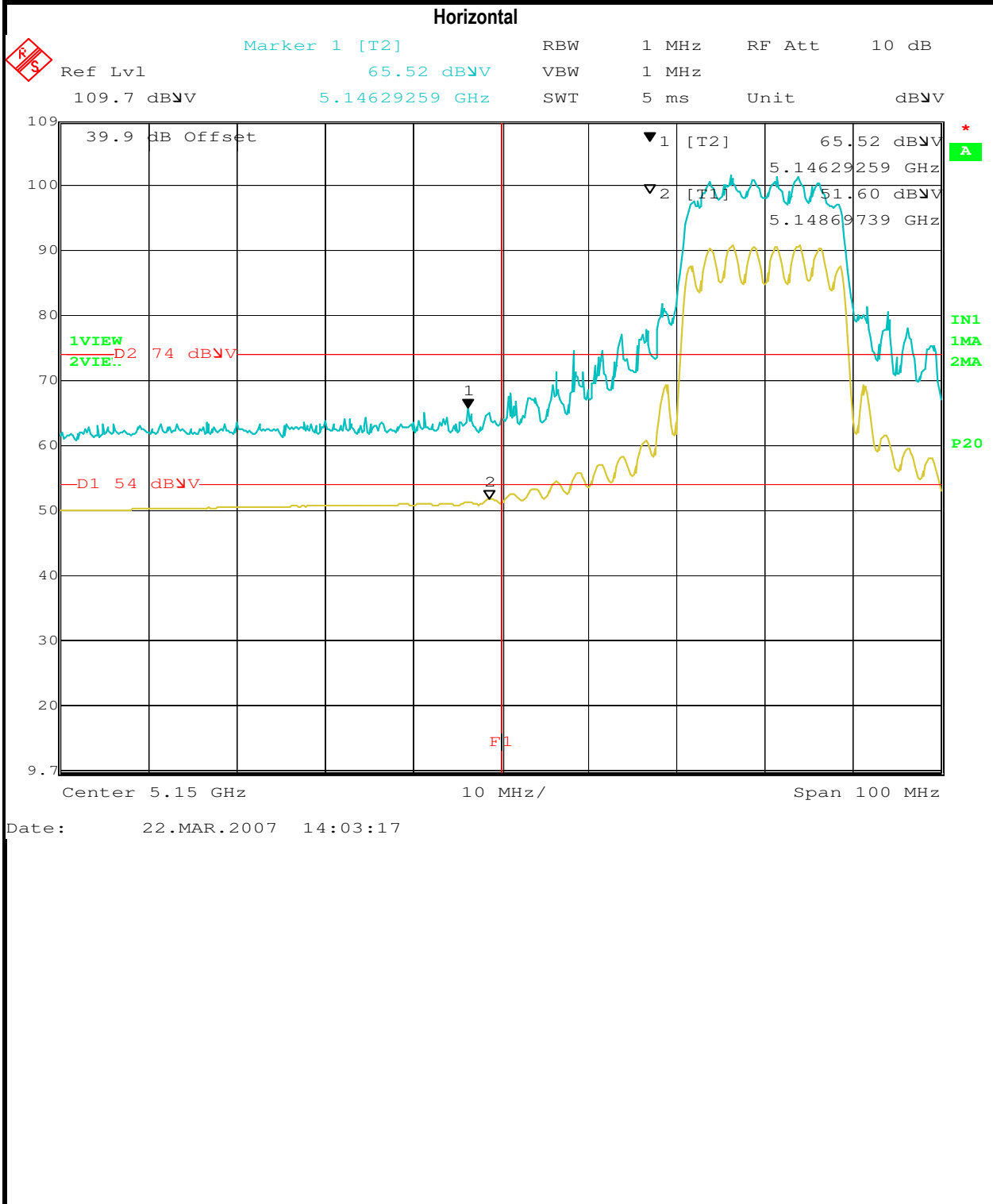
Bandedge power measurement

Power Setting ⁴	Frequency (MHz)	Output Power (dBm) ^{Note 1}			Antenna Gain (dBi) ^{Note 3}			EIRP ^{Note 2}	
		Chain 1	Chain 2	Total	Chain 1	Chain 2	Total	dBm	W
0x0a0a	5180	16.0	16.0	19.0	3.7	3.7	-	22.7	0.187
0x1a1a	5320	13.3	12.1	15.7	3.7	3.7	-	19.4	0.088



Date: 22.MAR.2007 13:57:44

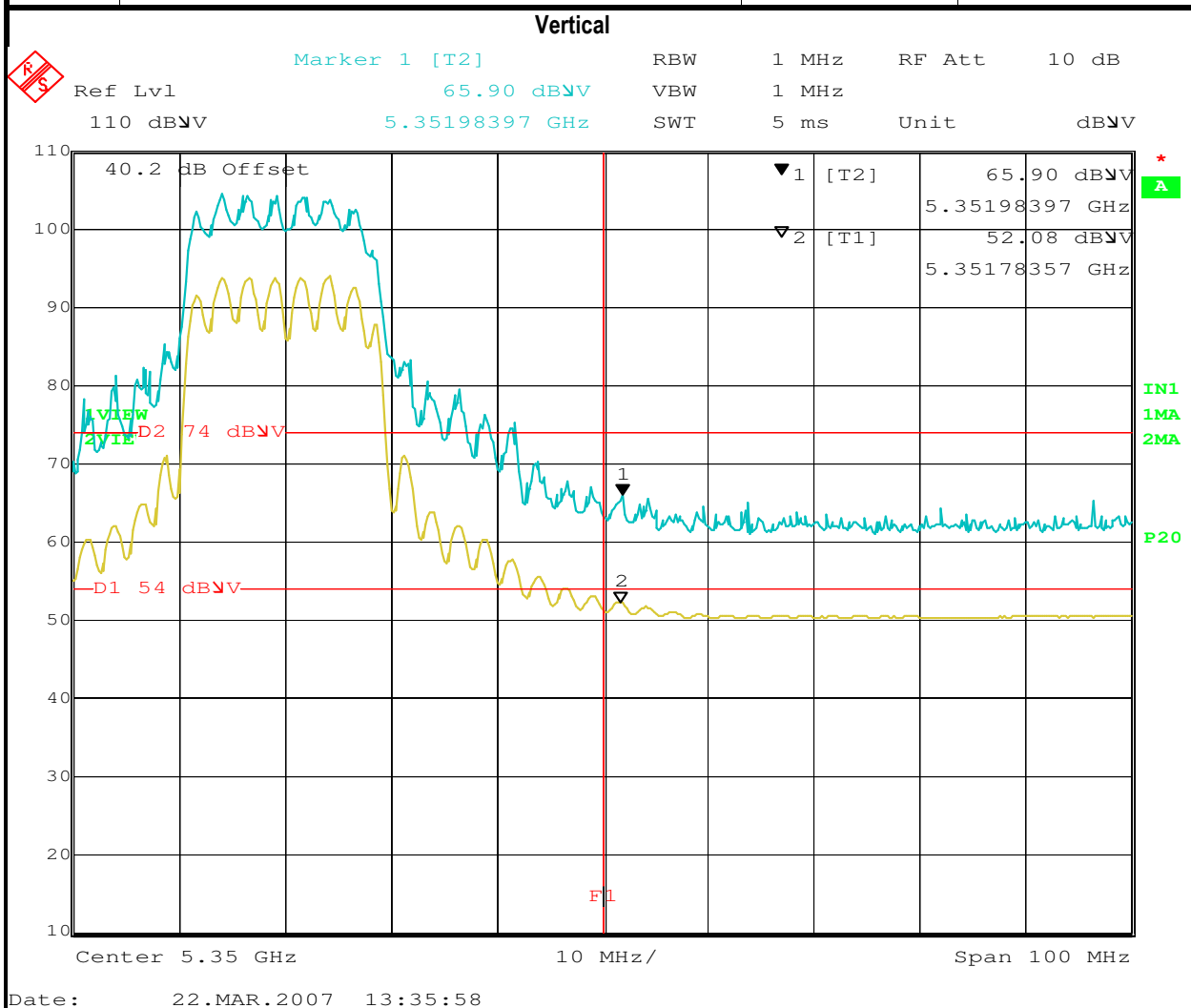
Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A





EMC Test Data

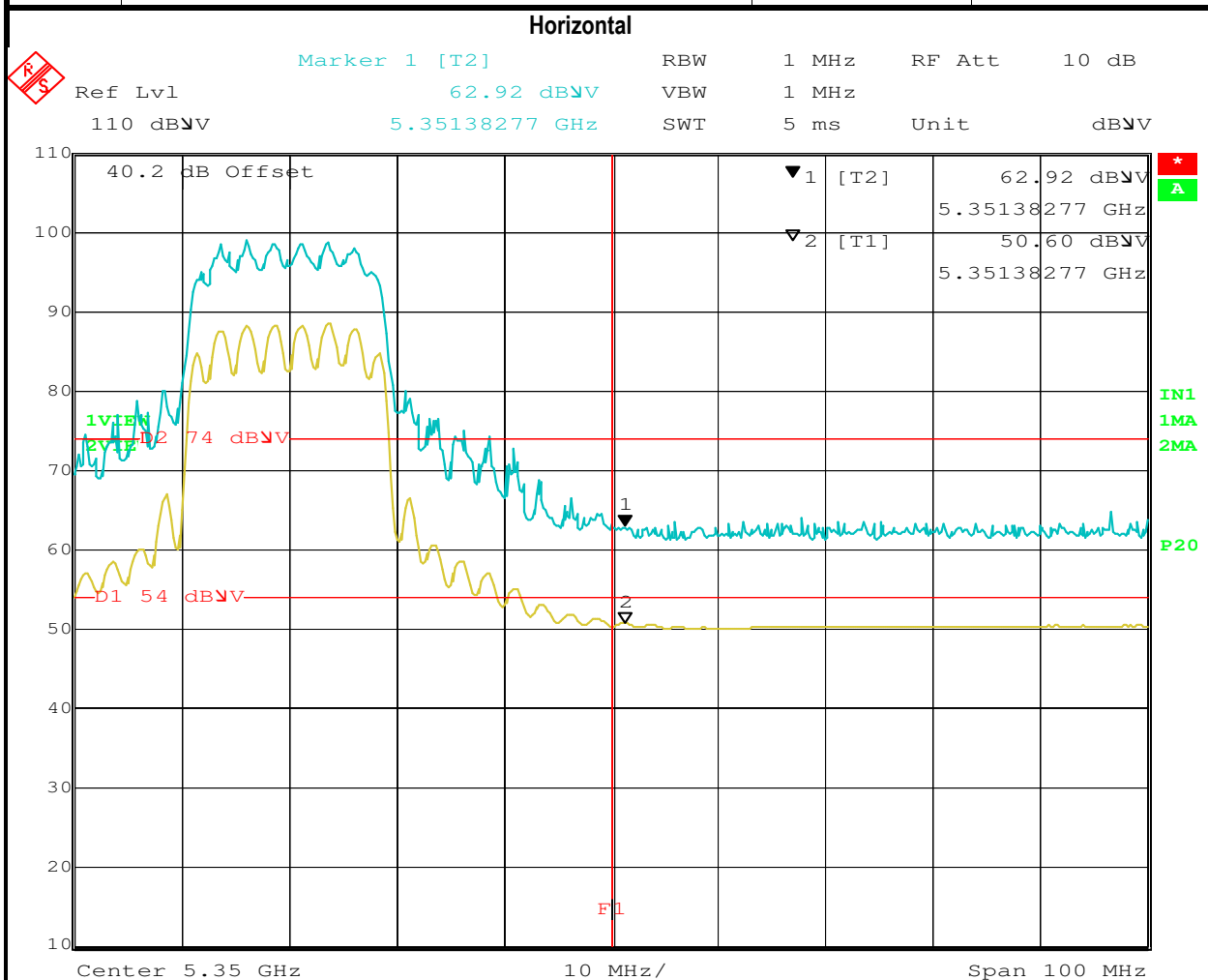
Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A



Date: 22.MAR.2007 13:35:58

EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
		Account Manager:	-
Contact:	Kevin Lee		
Standard:	FCC 15.407 & RSS-210	Class:	N/A



Date: 22.MAR.2007 13:41:55



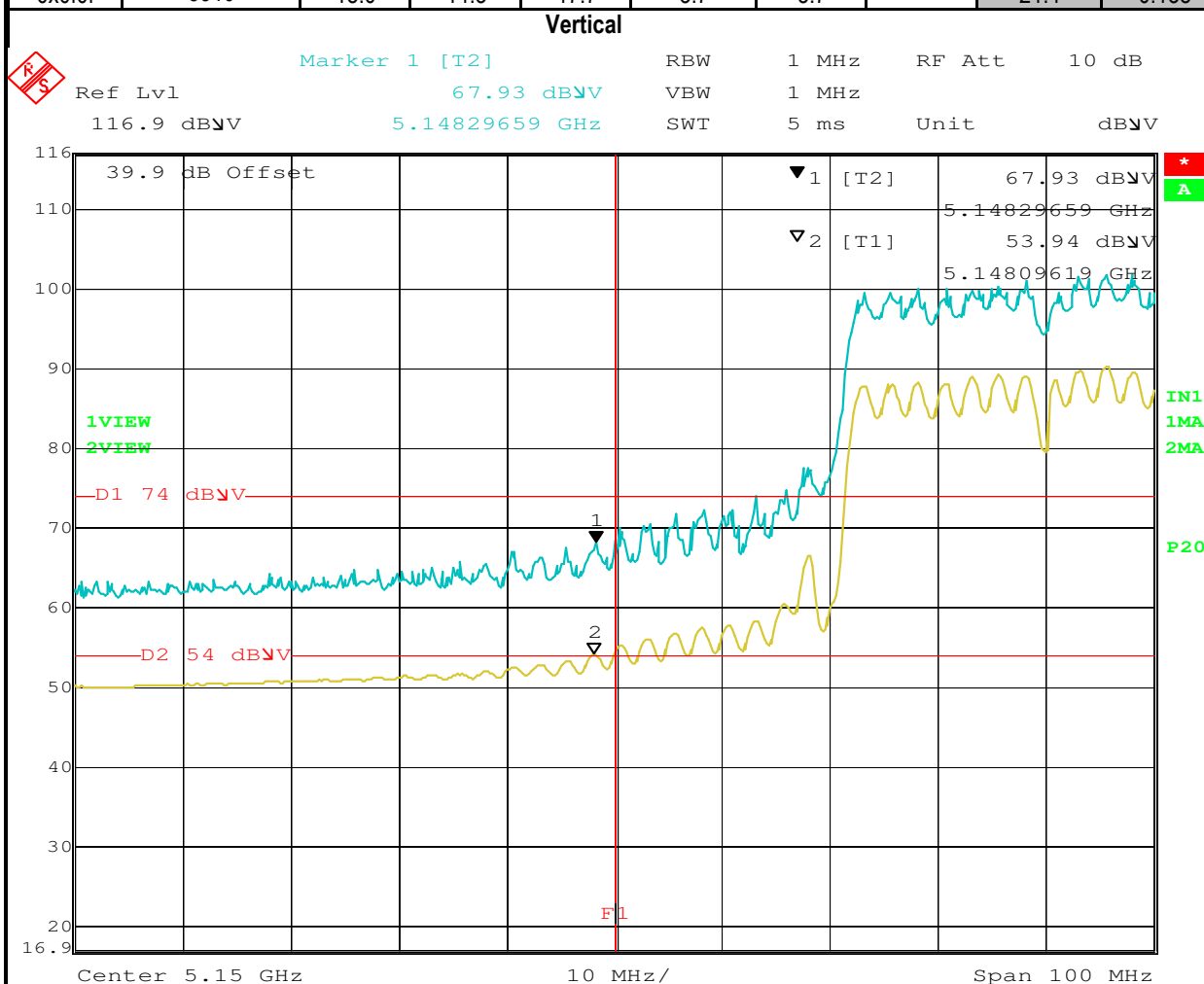
EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #4a: Radiated Bandedge. Operating Mode: 802.11n 40 MHz

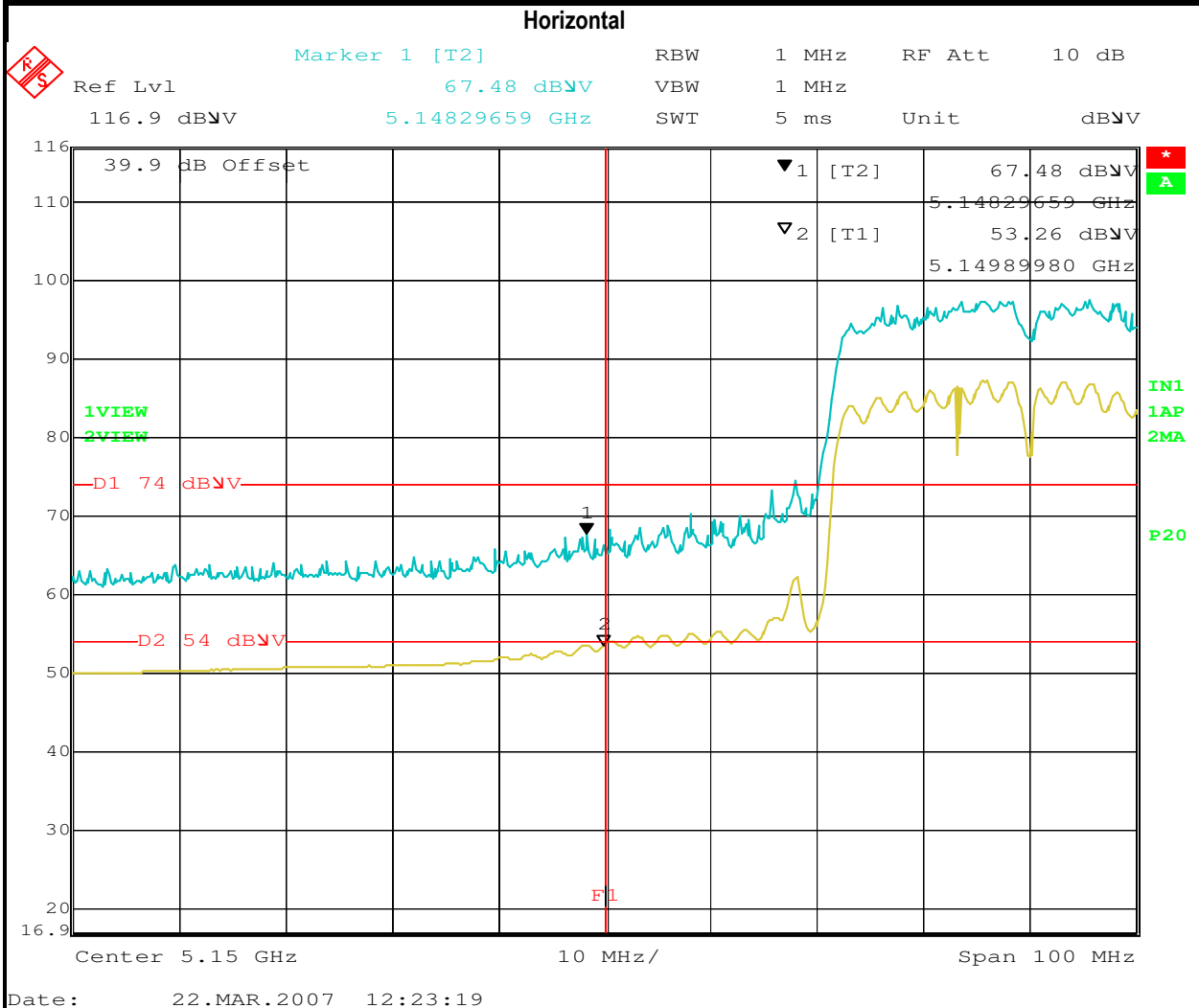
Bandedge power measurement

Power Setting ⁴	Frequency (MHz)	Output Power (dBm) ^{Note 1}			Antenna Gain (dBi) ^{Note 3}			EIRP ^{Note 2}	
		Chain 1	Chain 2	Total	Chain 1	Chain 2	Total	dBm	W
0x1110	5190	14.0	14.0	17.0	3.7	3.7	-	20.7	0.118
0x0f0f	5310	15.0	14.3	17.7	3.7	3.7	-	21.4	0.138



Date: 22.MAR.2007 12:31:41

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

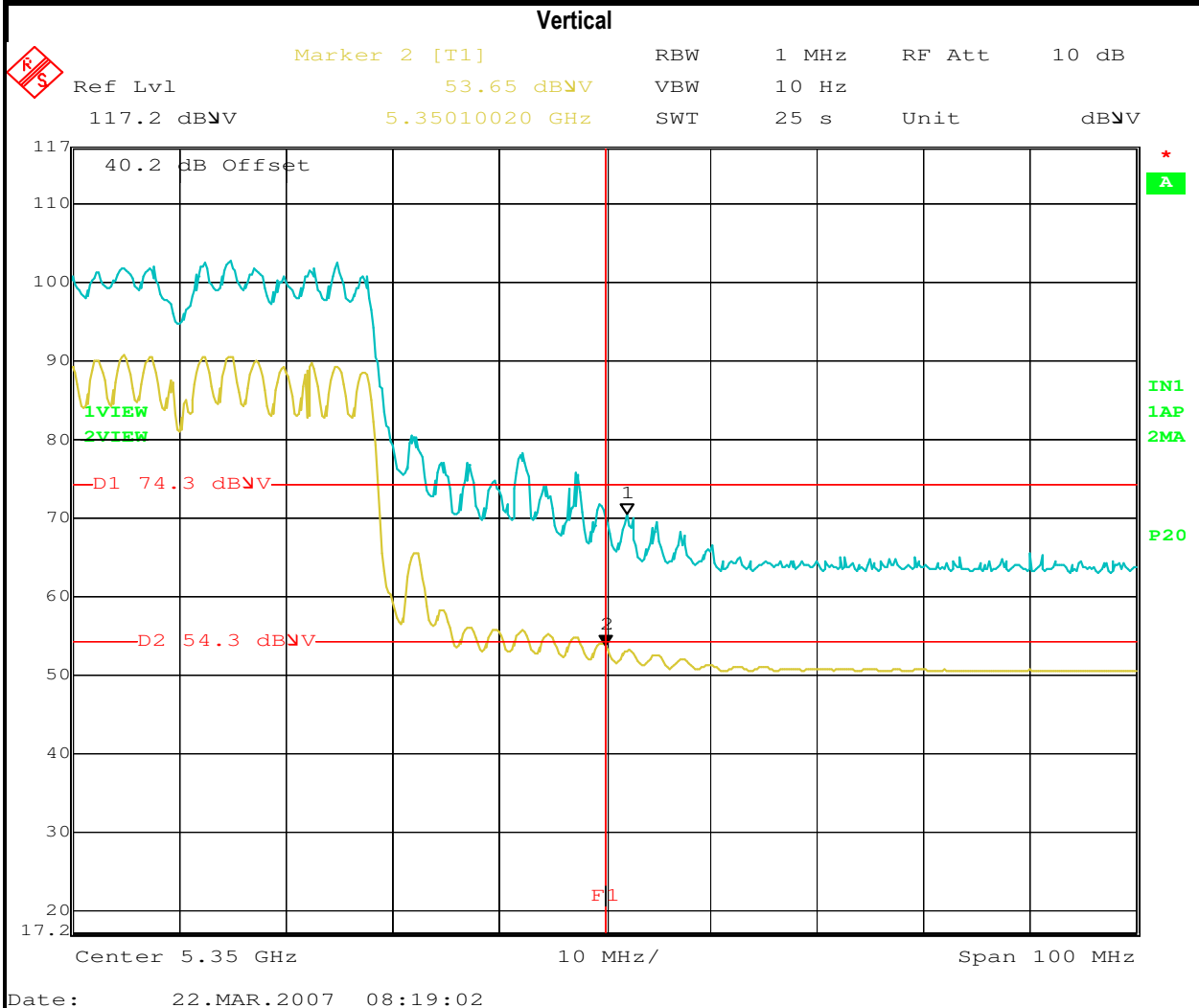


Date: 22.MAR.2007 12:23:19



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

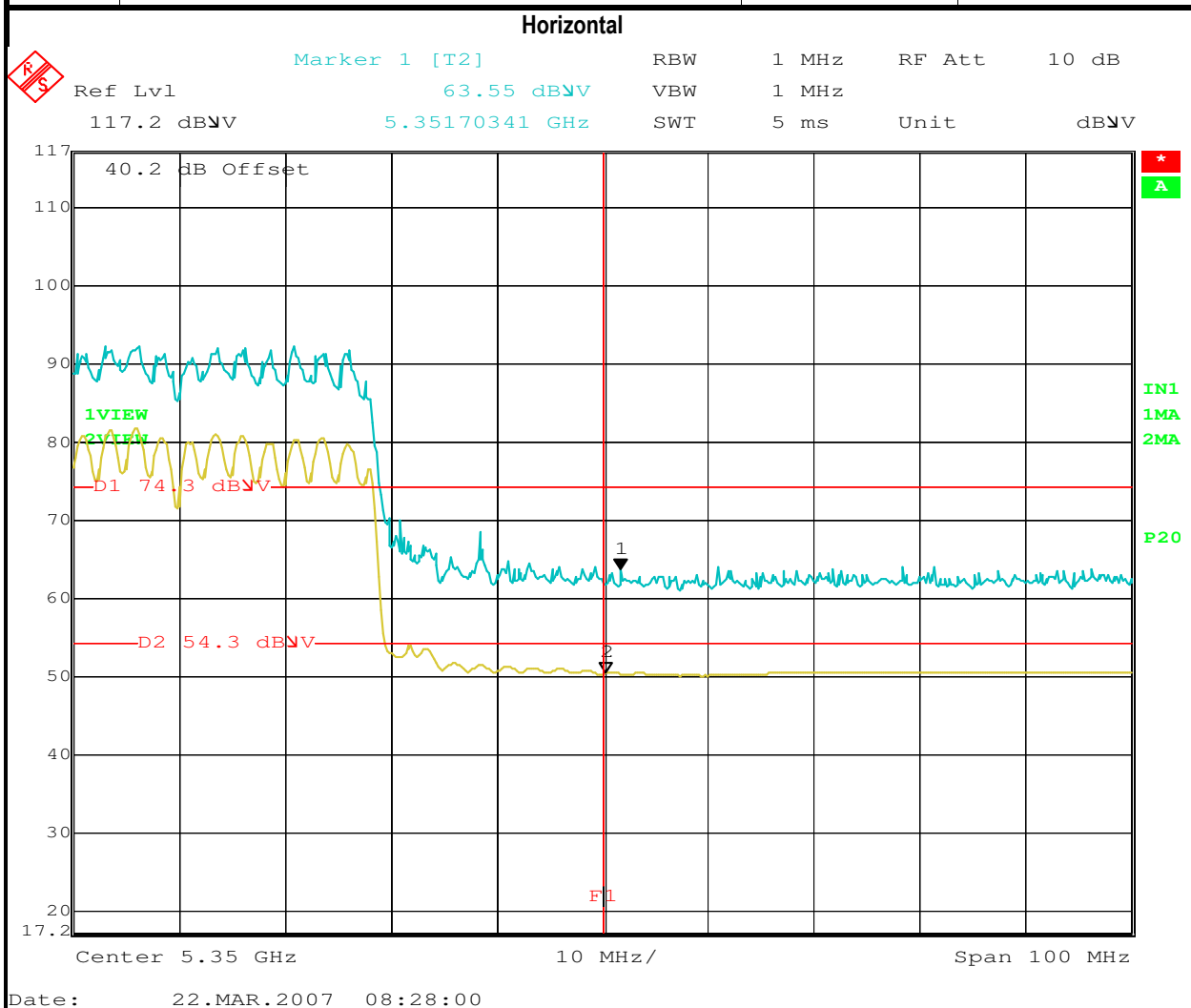


Date: 22.MAR.2007 08:19:02



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A



Date: 22.MAR.2007 08:28:00



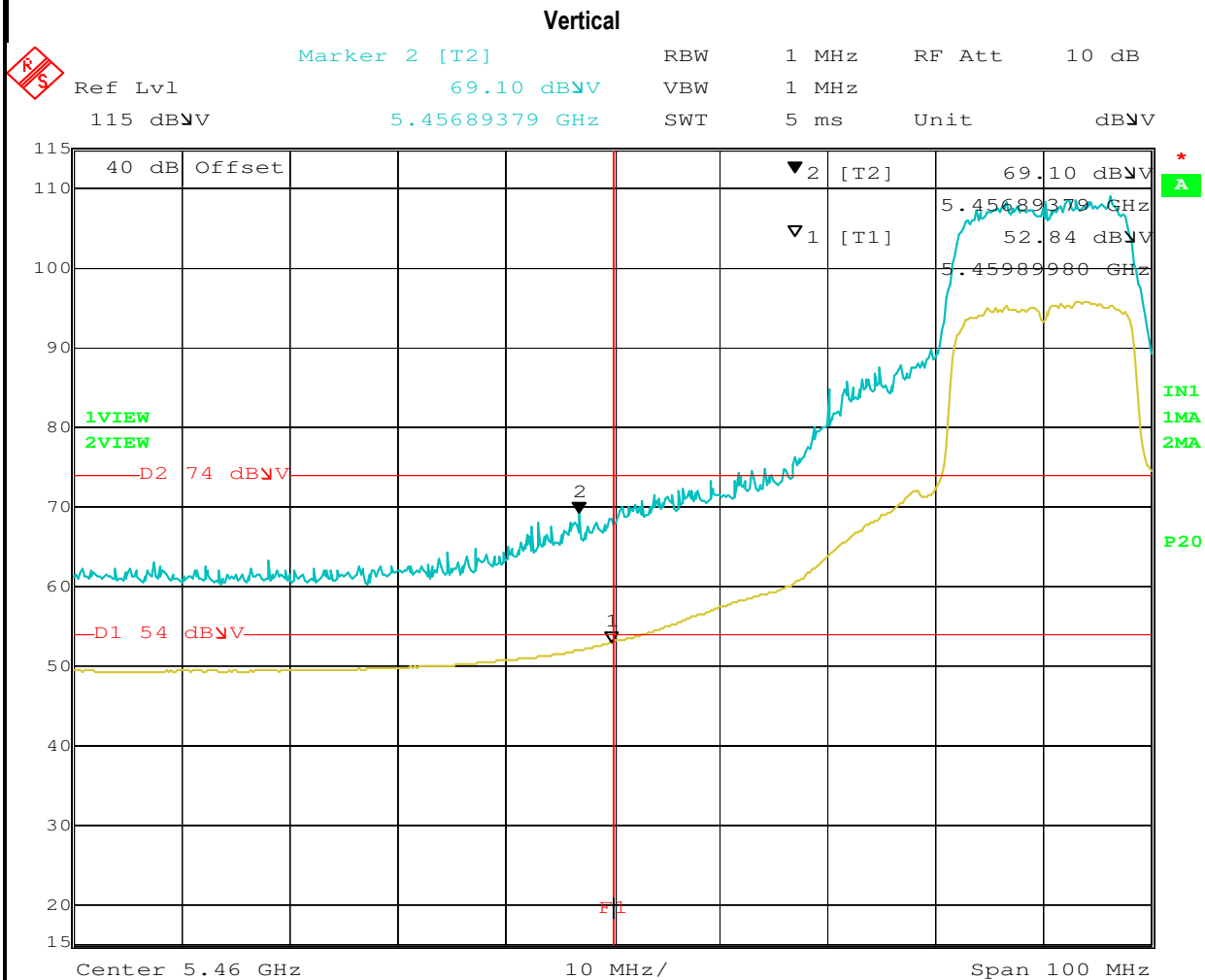
EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #5a: Radiated Bandedge. Operating Mode: 802.11a Legacy

Bandedge power measurement

Frequency (MHz)	Software Setting	Bandwidth 26dB	99% ⁴	Output Power ¹ dBm Measured	Limit	Power (Watts)
5500	0x1b1b	22.2	17.1	14.6	24.0	0.029

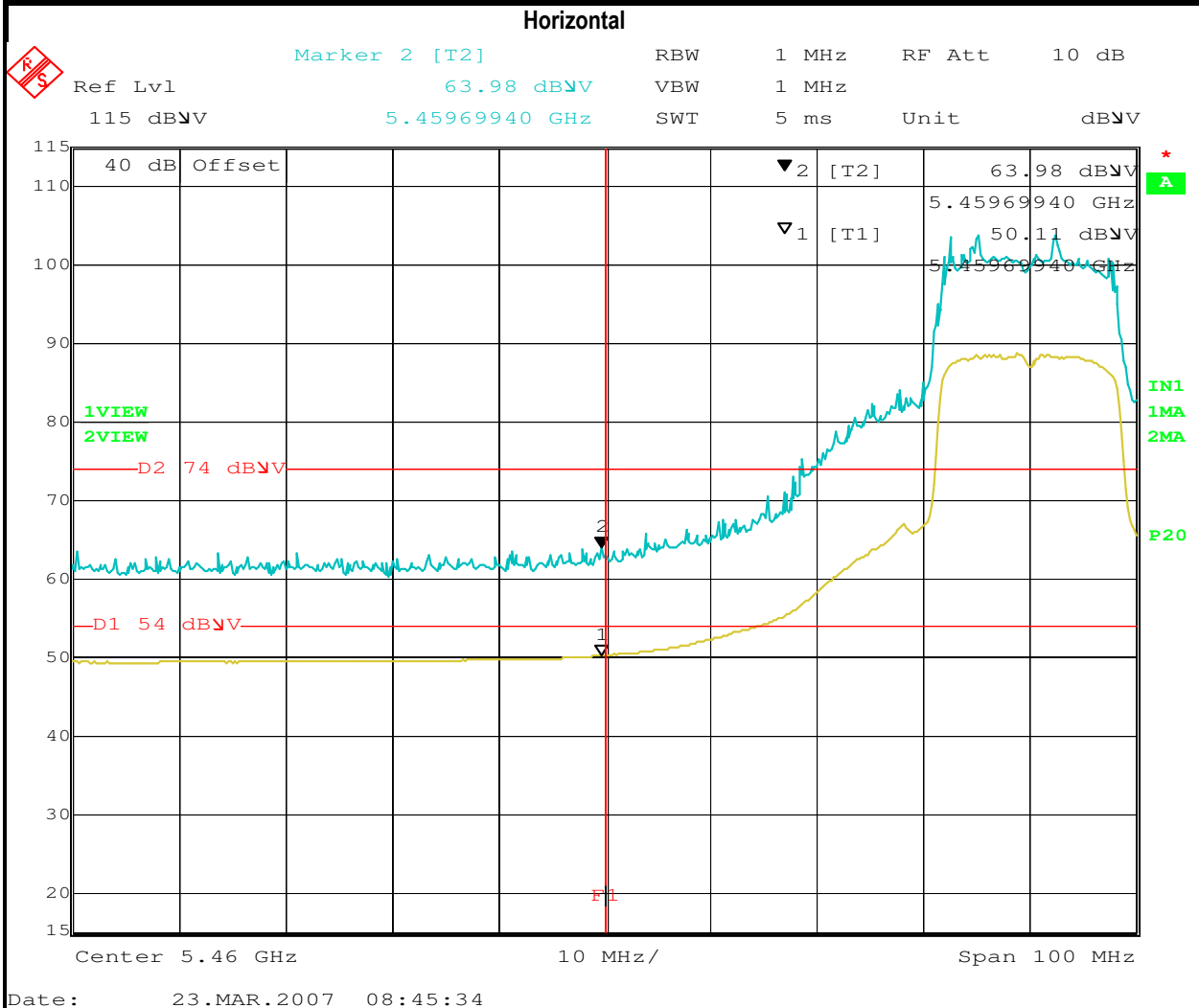


Date: 23.MAR.2007 08:39:00



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A



Date: 23.MAR.2007 08:45:34



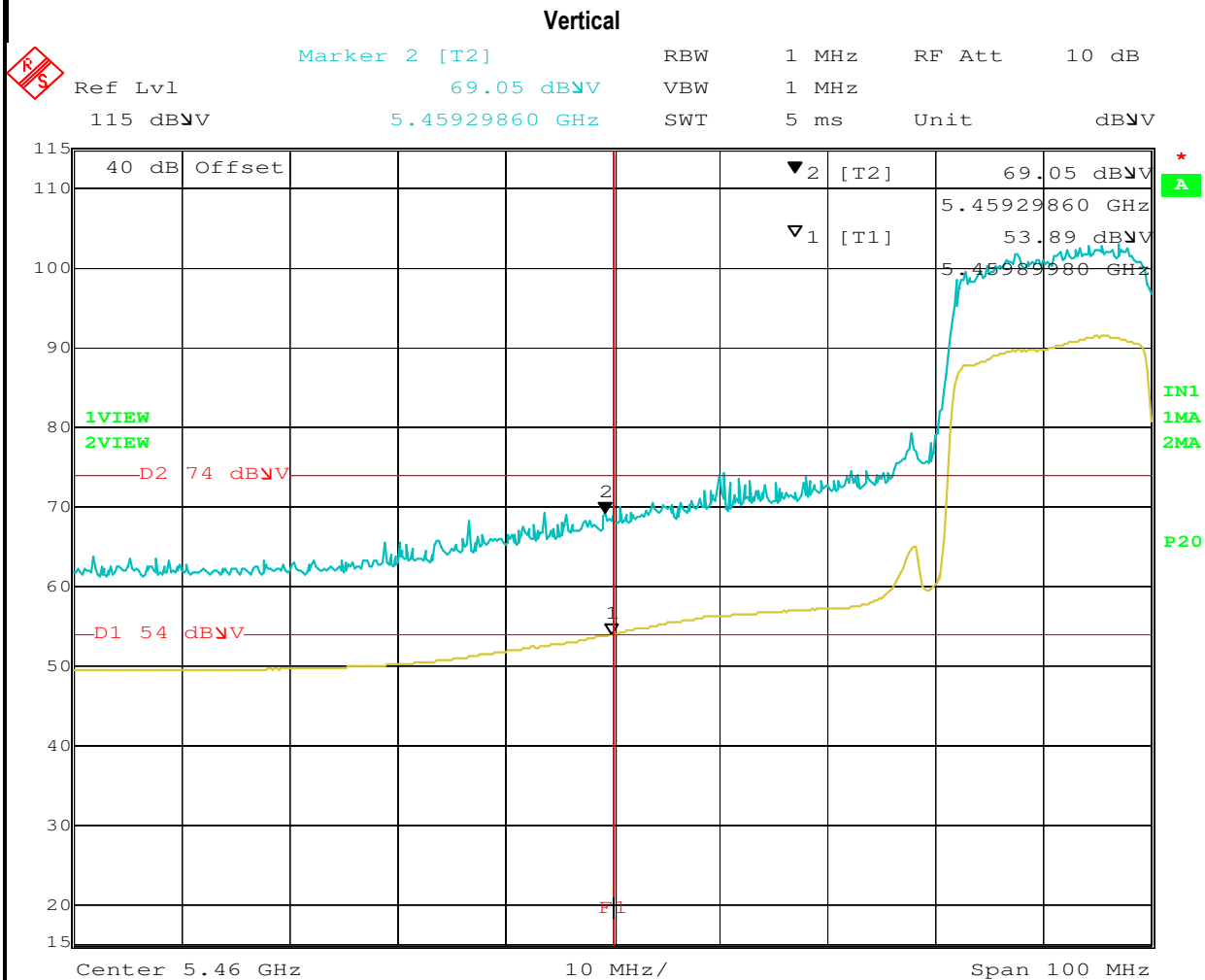
EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #6a: Radiated Bandedge. Operating Mode: 802.11a SISO

Bandedge power measurement

Frequency (MHz)	Software Setting	Bandwidth 26dB	99% ⁴	Output Power ¹ dBm Measured	Limit	Power (Watts)
5510	0x1616	45.7	36.6	15.1	24.0	0.032

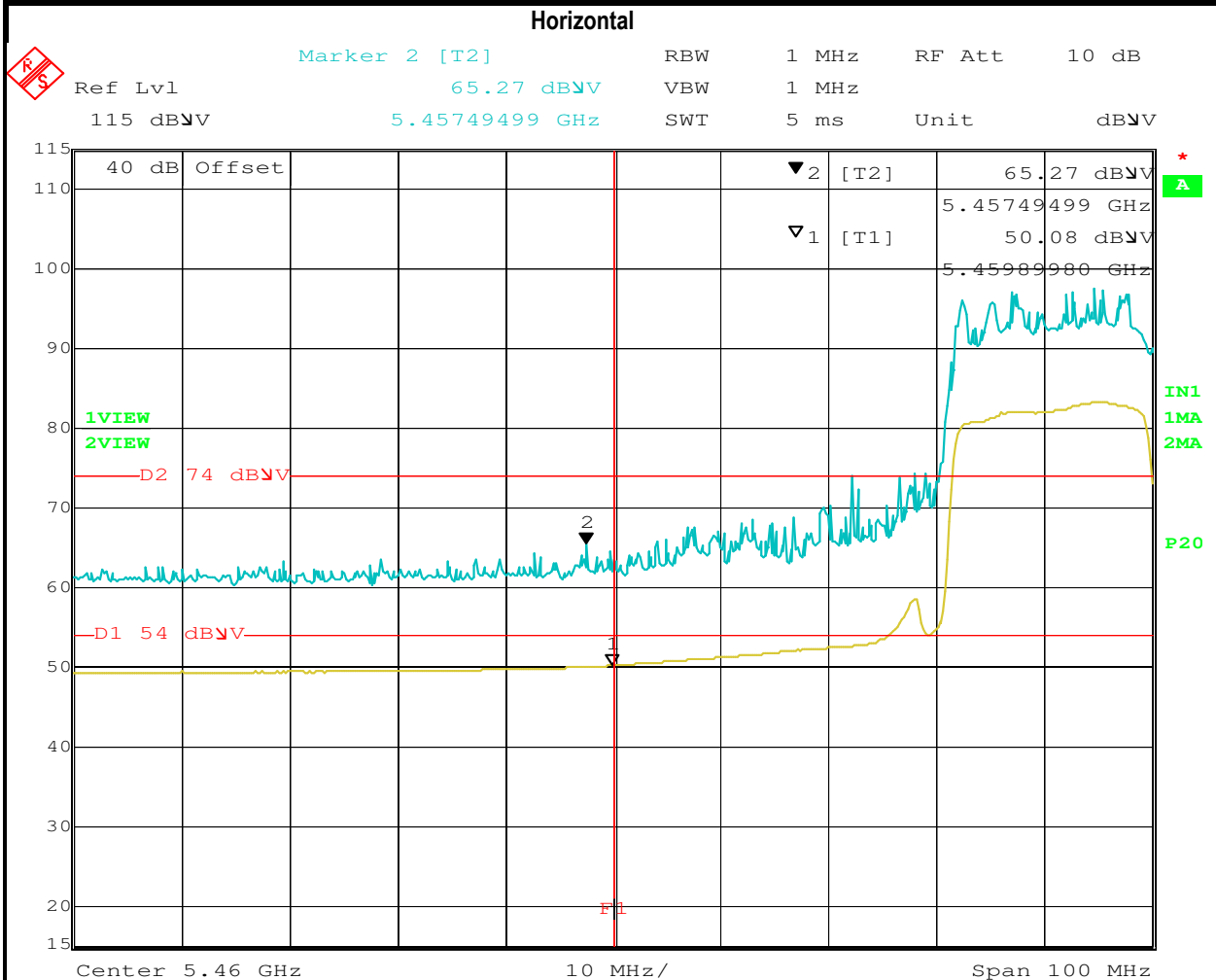


Date: 23.MAR.2007 09:42:00



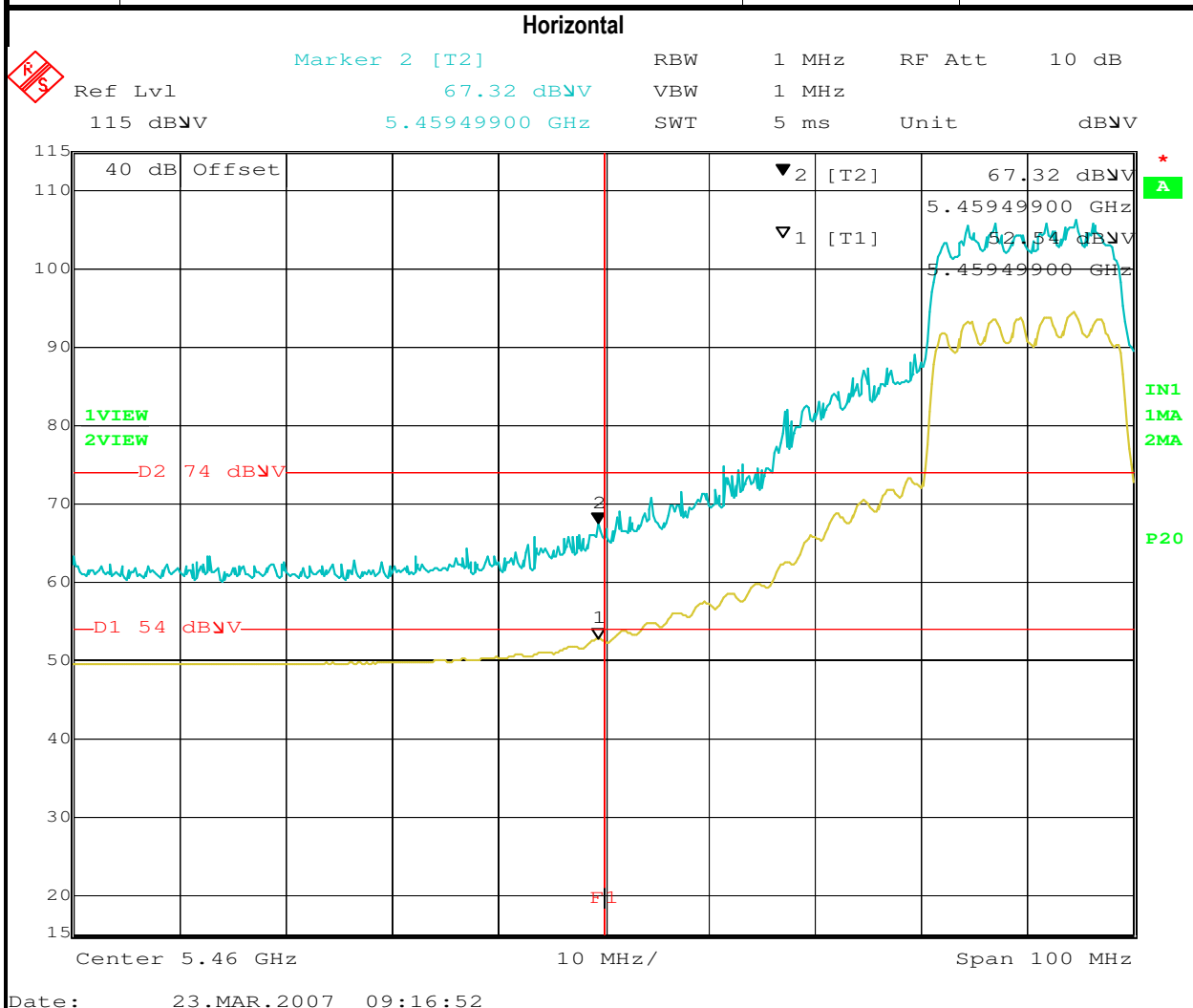
EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A



Date: 23.MAR.2007 09:48:27

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A



Date: 23.MAR.2007 09:16:52



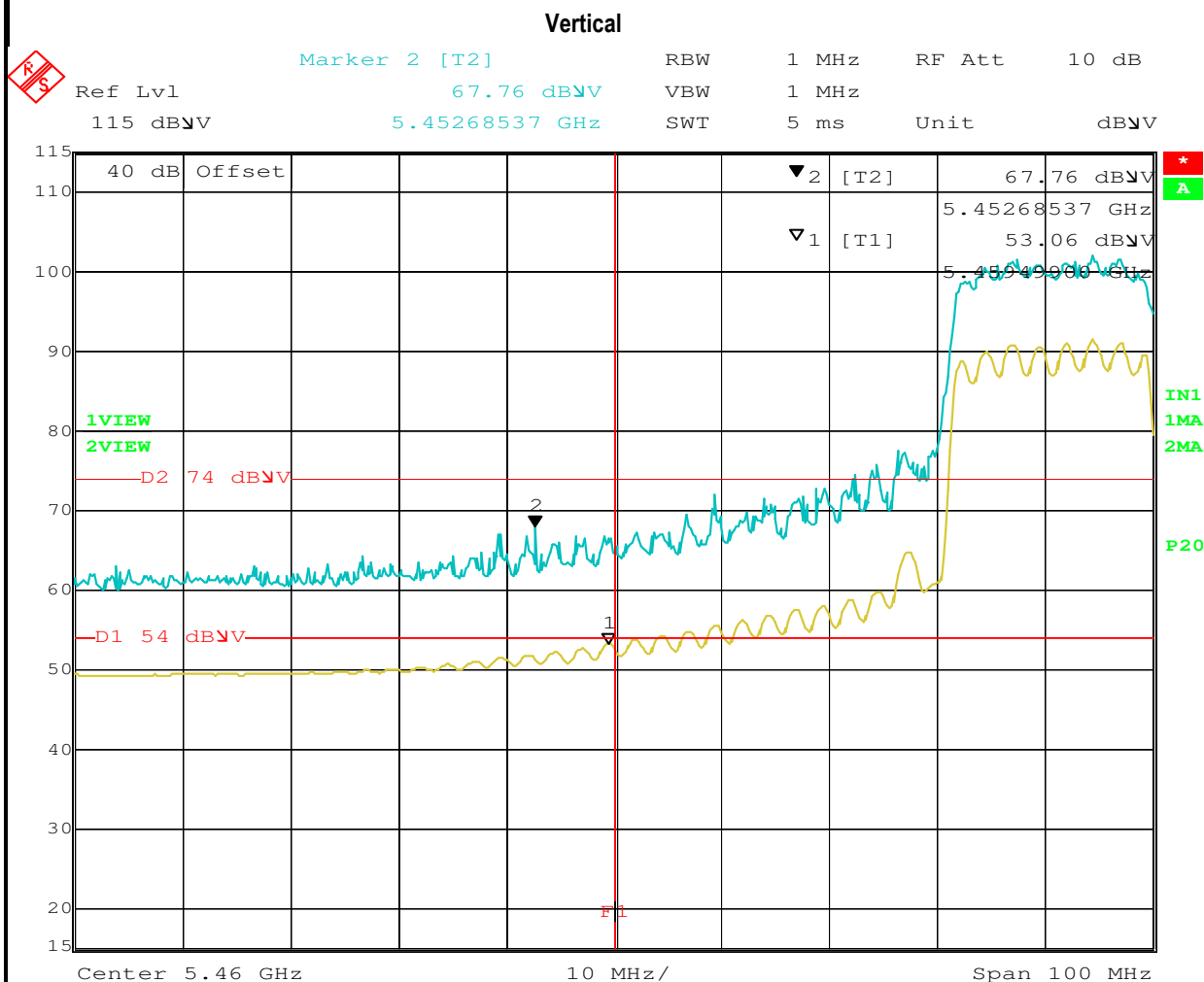
EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #5a: Radiated Bandedge. Operating Mode: 802.11n 40 MHz

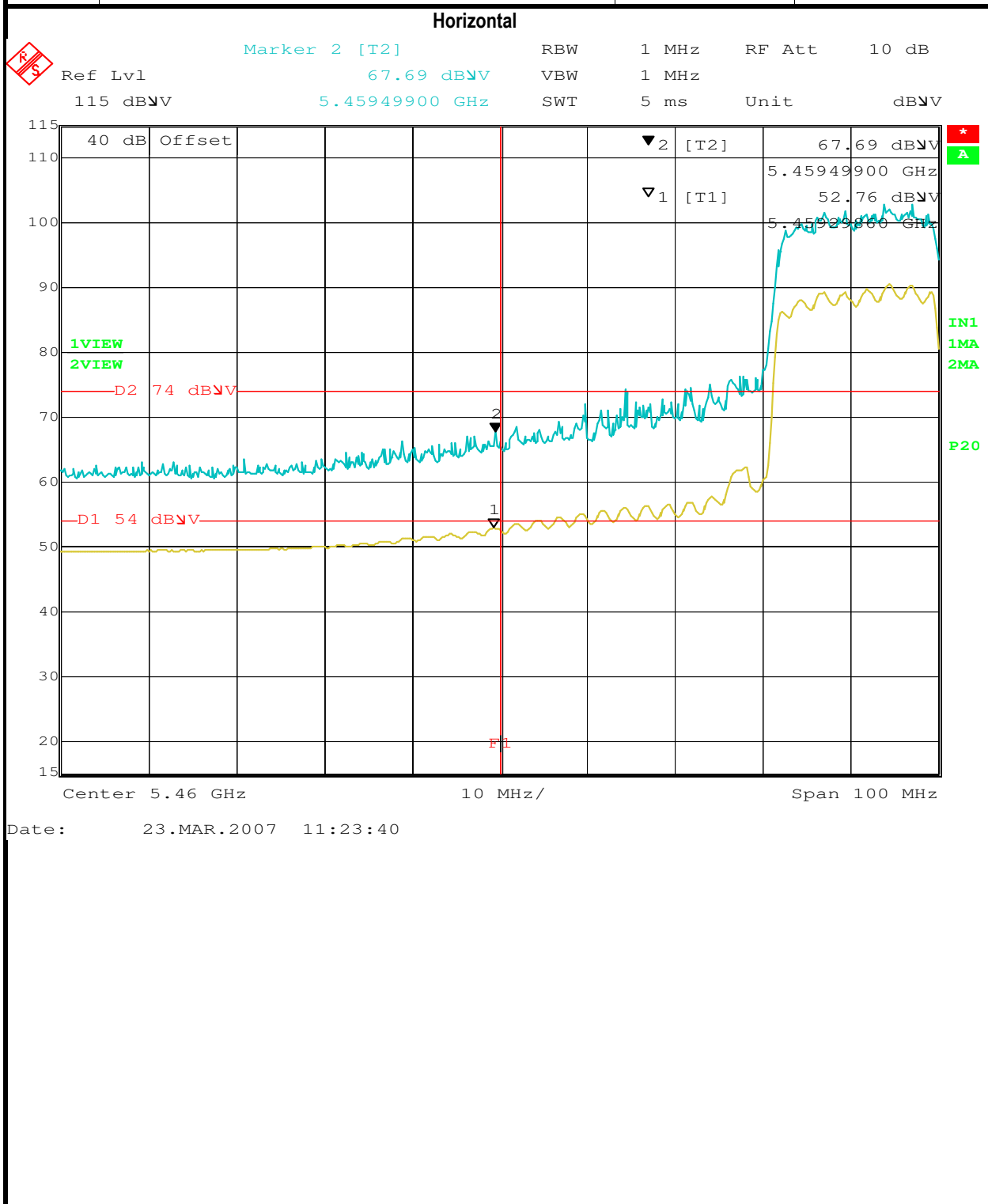
Bandedge power measurement

Power Setting ⁴	Frequency (MHz)	Output Power (dBm) ^{Note 1}			Antenna Gain (dBi) ^{Note 3}			EIRP ^{Note 2}	
		Chain 1	Chain 2	Total	Chain 1	Chain 2	Total	dBm	W
0x1010	5510	14.7	14.1	17.4	3.7	3.7	-	21.1	0.129



Date: 23.MAR.2007 11:15:57

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A



Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

FCC Part 15 Subpart E Tests (Legacy A - 5150-5250 MHz)

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 3/22/2007 9:01
 Test Engineer: Mark Hill/Rafael
 Test Location: Fremont Chamber #3

Config. Used: 1
 Config Change: None
 EUT Voltage: 120V/60Hz

General Test Configuration

When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected to allow for the external attenuators and cables used.

Ambient Conditions:

Temperature:	22.2 °C
Rel. Humidity:	44 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	14.3 dBm
1	PSD, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	3.64dBm/MHz
1	26dB Bandwidth	15.407	Pass	> 20 MHz
1	99% Bandwidth	RSS 210	Pass	17 MHz
2	Peak Excursion Envelope	15.407(a) (6)	Pass	12.63 dB
3	Antenna Conducted - Out of Band Spurious	15.407(b)	Pass	All emissions below the -27dBm/MHz limit

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #1: Bandwidth, Output Power and Power spectral Density

Antenna Gain: 3.7 dBi

Regulatory Final Power Measurements:

Frequency (MHz)	Software Setting	Bandwidth		Output Power ¹ dBm		Power (Watts)	PSD ² dBm/MHz			Result
		26dB	99% ⁴	Measured	Limit		Measured	FCC Limit	RSS Limit ³	
5180	0x1010	19.2	16.8	13.8	16.0	0.024	3.64	4.0	4.6	Pass
5200	0x0f0f	19.9	17.0	14.3	16.0	0.027	3.64	4.0	5.0	Pass
5240	0x1414	22.3	17.0	14.1	16.0	0.026	3.43	4.0	4.8	Pass

Note 1: RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was not continuous but the ESI analyzer was configured with a gated sweep such that the analyzer was only sweeping when the device was transmitting) and power integration over 100 MHz

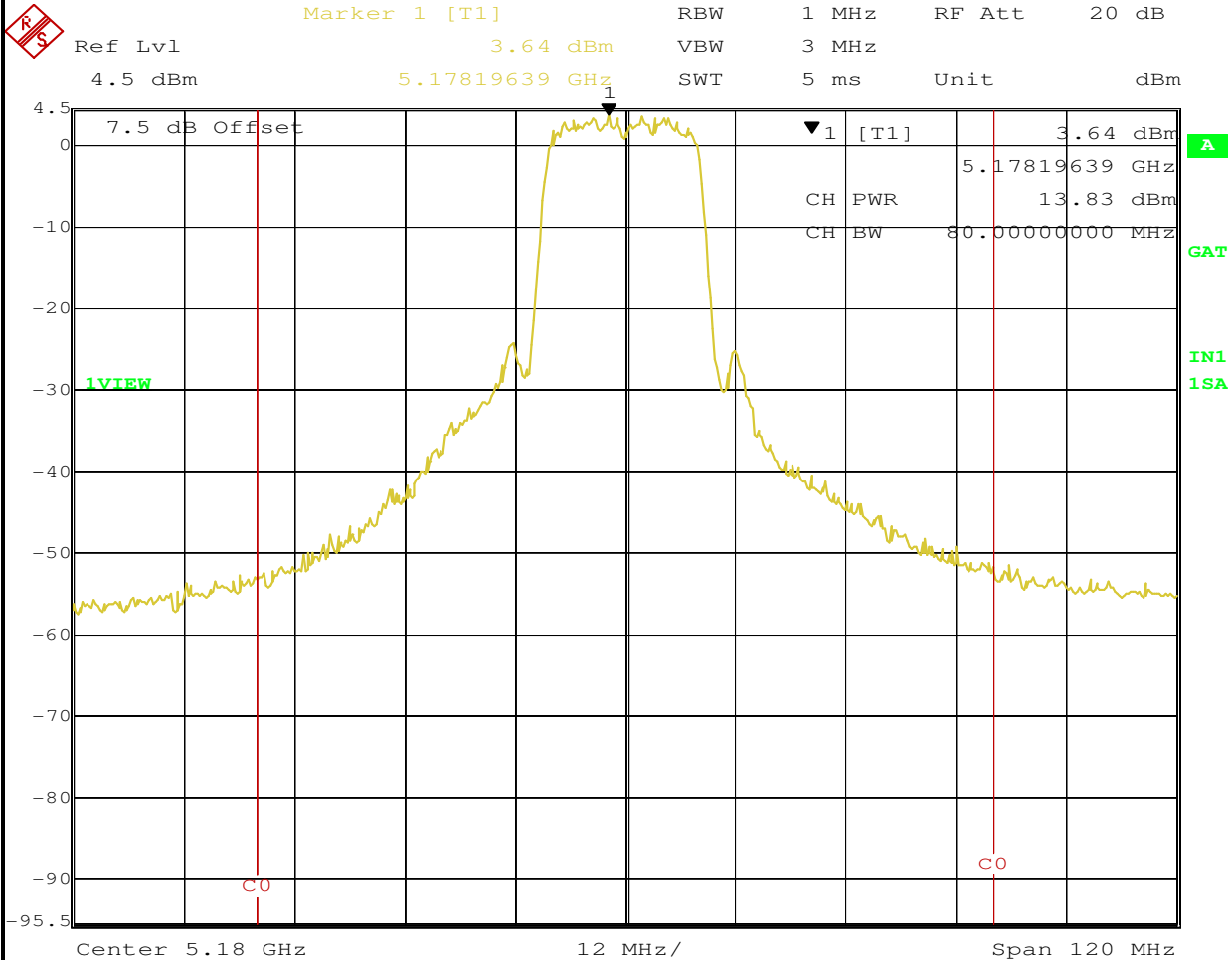
Note 2: Measured using the same analyzer settings used for output power.

Note 3: For RSS210 the measured value of the PSD (see note 3) must not exceed the average value (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB.

Note 4: 99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB >=3xRB

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

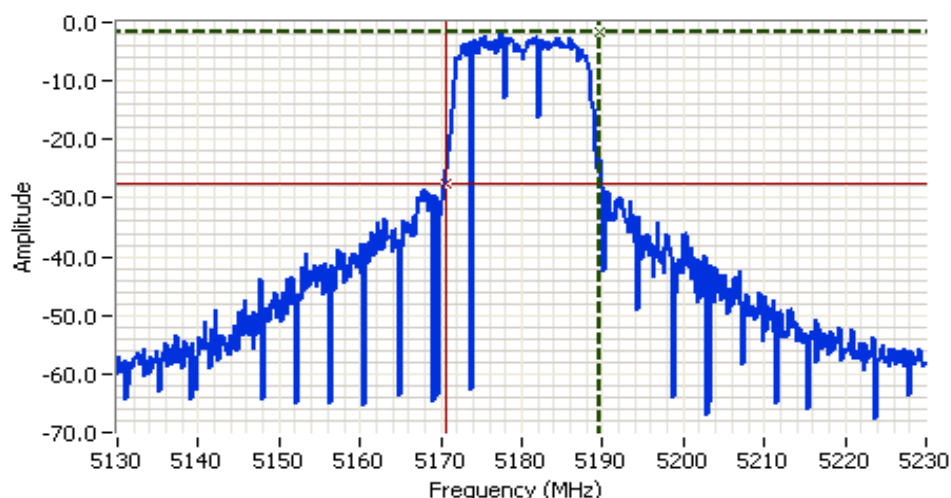
Low Channel 36 @ 5180 MHz Output Power & PSD



Date: 6.APR.2007 21:28:21

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Low Channel 36 @ 5180 MHz 26dB Bandwidth



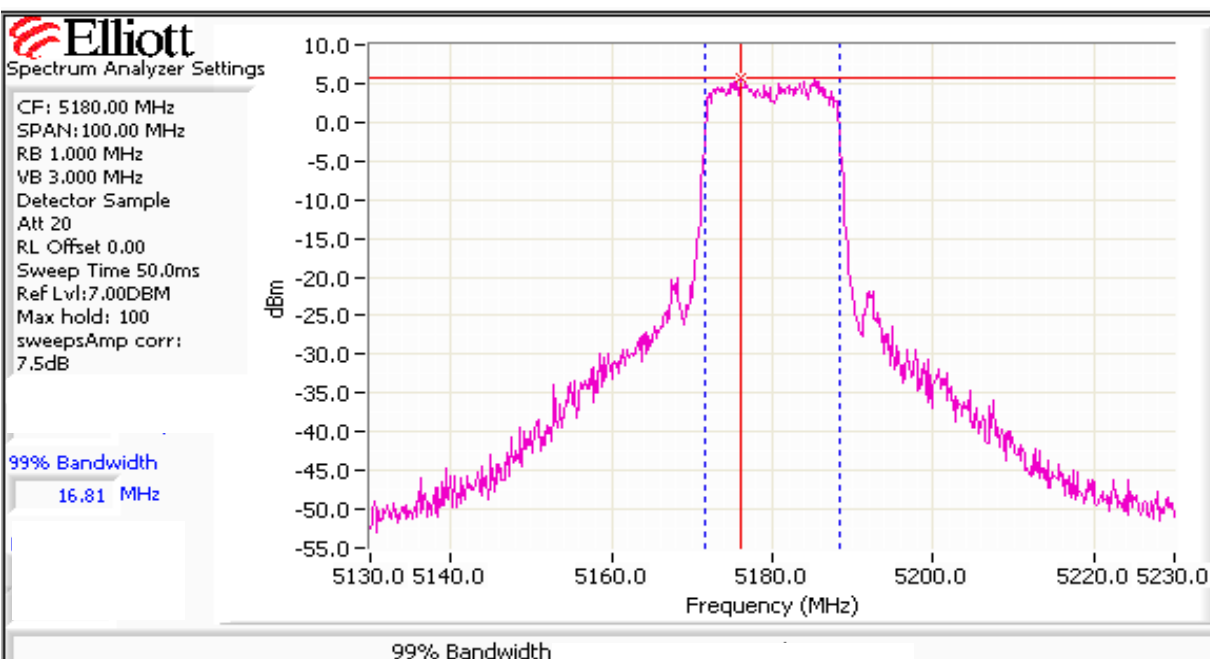
Analyzer Settings
 HP8564E,006,EMI,UK6
 CF: 5180.00 MHz
 SPAN:100.00 MHz
 RB 300 kHz
 VB 1.000 MHz
 Detector POS
 Att 20
 RL Offset 0.00
 Sweep Time 50.0ms
 Ref Lvl:7.00DBM

Comments
 26dB Bandwidth

Cursor 1 5189.66; -1.50
 Cursor 2 5170.50; -27.50
 Delta Freq. 19.17
 Delta Amplitude 26.00



Low Channel 36 @ 5180 MHz 99% Bandwidth



Spectrum Analyzer Settings
 CF: 5180.00 MHz
 SPAN:100.00 MHz
 RB 1.000 MHz
 VB 3.000 MHz
 Detector Sample
 Att 20
 RL Offset 0.00
 Sweep Time 50.0ms
 Ref Lvl:7.00DBM
 Max hold: 100
 sweepsAmp corr:
 7.5dB

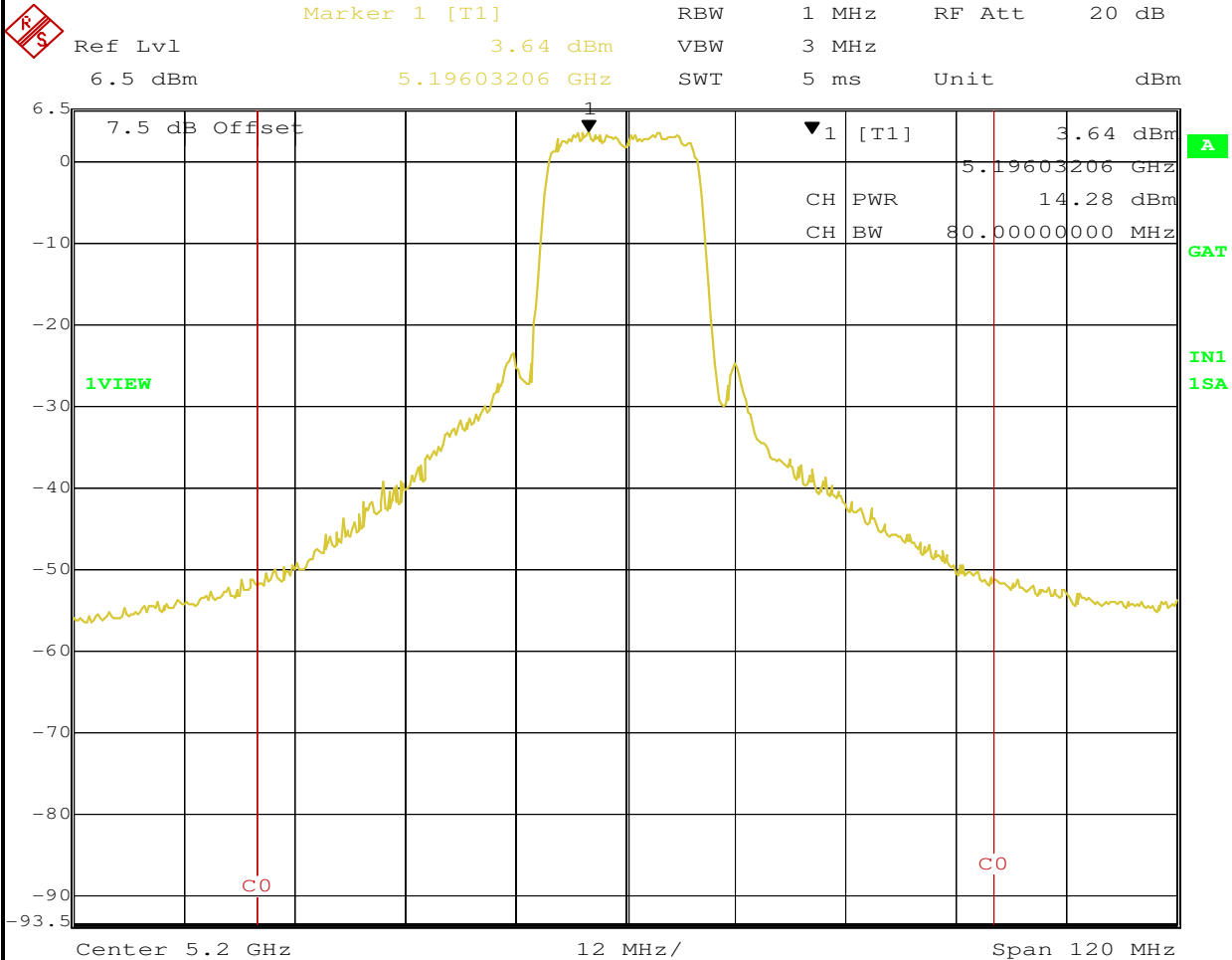
99% Bandwidth
 16.81 MHz



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Middle Channel 40 @ 5200 MHz Output Power and PSD

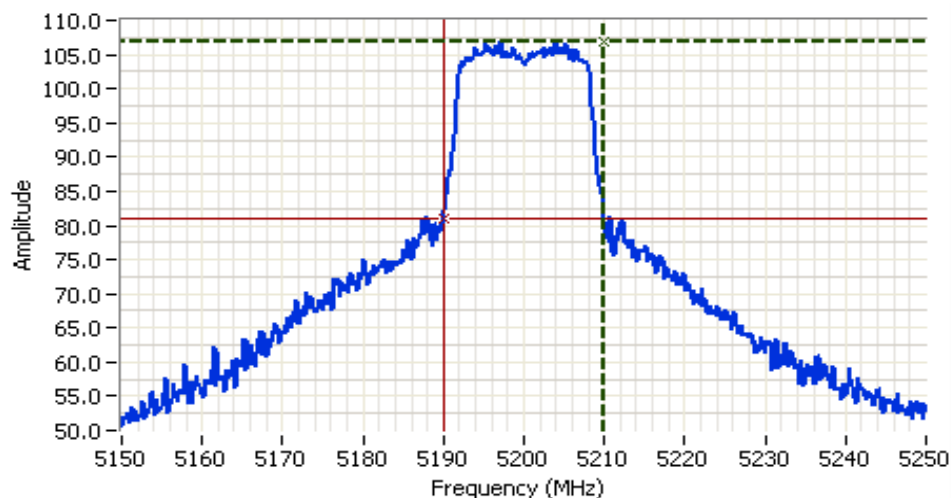


Date: 6.APR.2007 21:38:36

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Middle Channel 40 @ 5200 MHz

26dB Bandwidth



Analyzer Settings

HP8564E,006,EMI,UK6
CF: 5200.00 MHz
SPAN:100.00 MHz
RB 300 kHz
VB 1.000 MHz
Detector POS
Att 20
RL Offset 0.00
Sweep Time 50.0ms
Ref Lvl:110.60DBUV

Comments

26dB Bandwidth

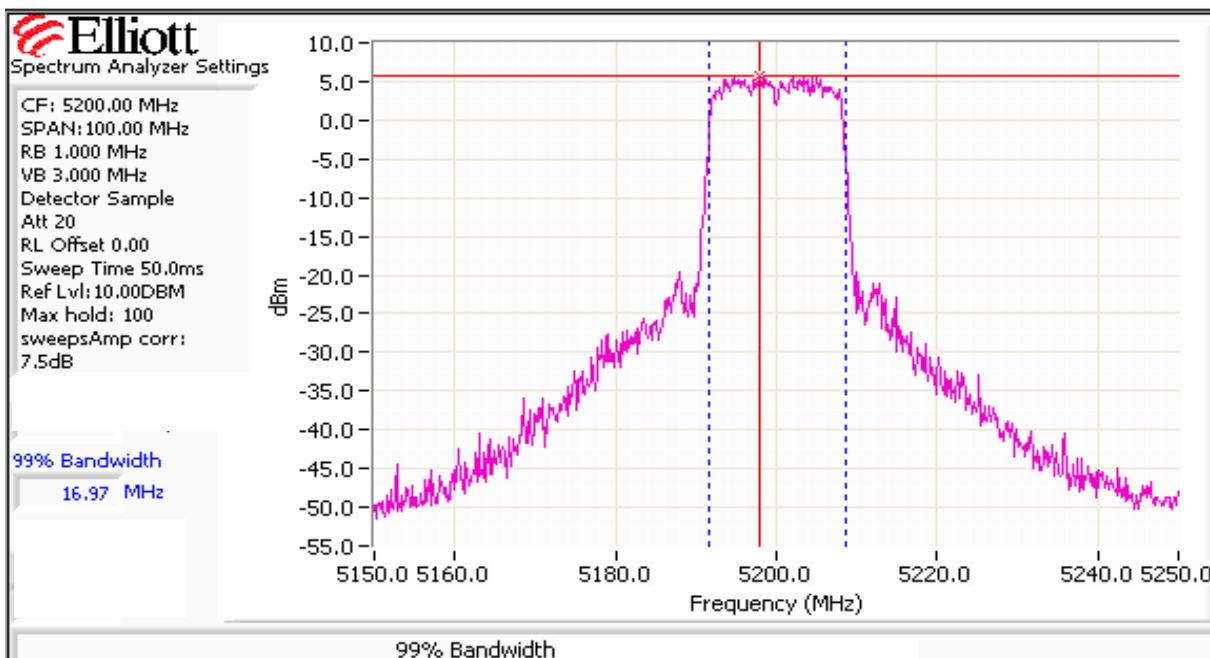
Cursor 1 5209.94 106.93
Cursor 2 5190.05 80.93

Delta Freq. 19.90
Delta Amplitude 26.00



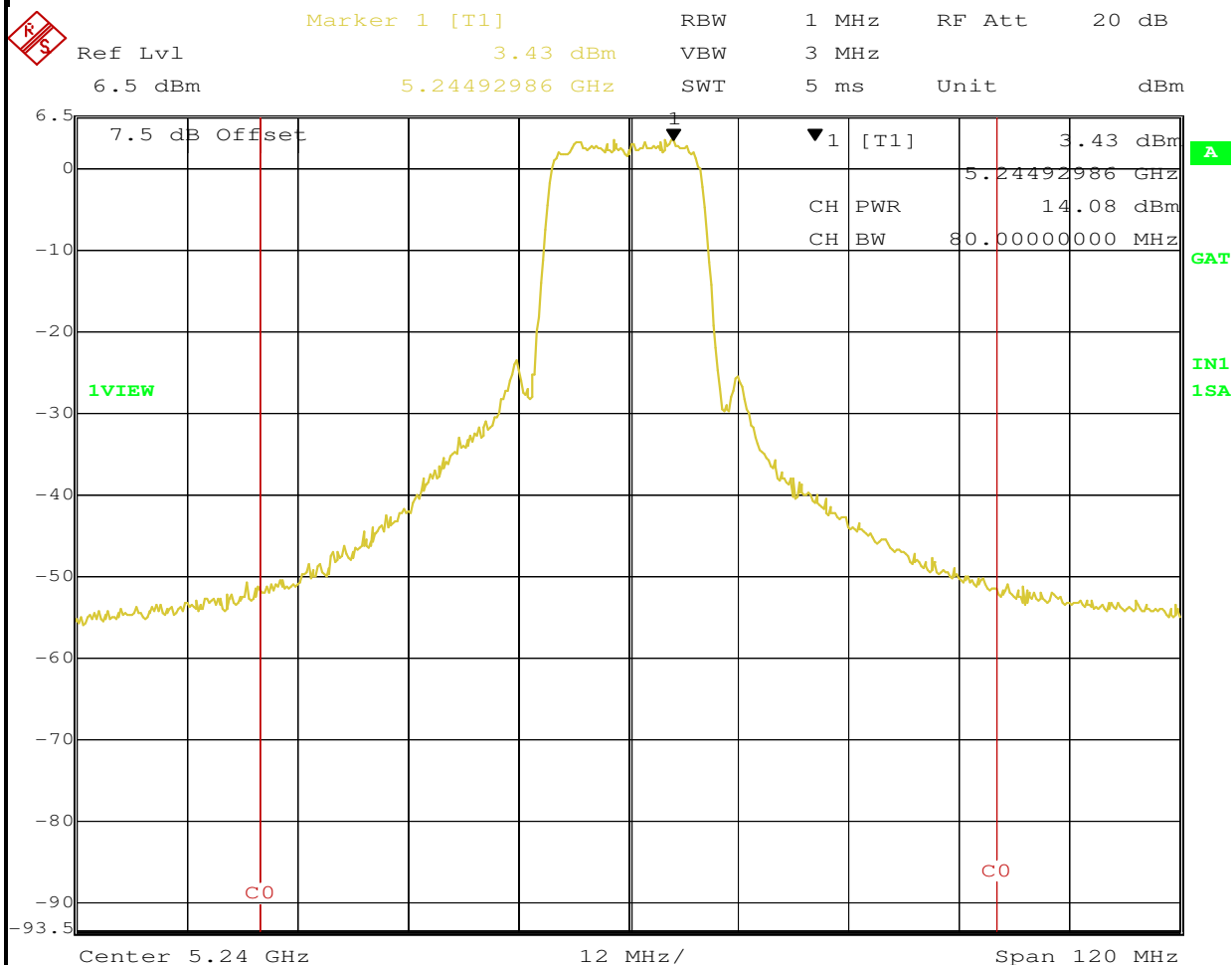
Middle Channel 40 @ 5200 MHz

99% Bandwidth



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

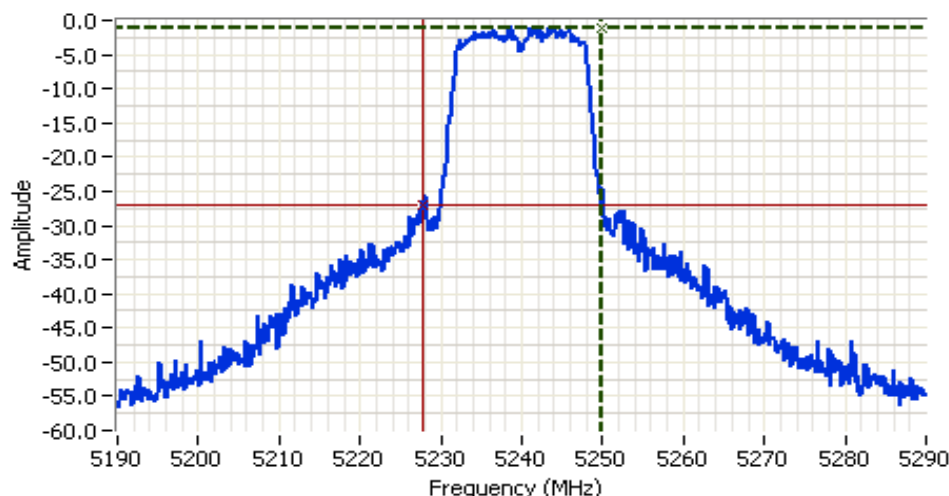
High Channel 48 @ 5240 MHz Output Power & PSD



Date: 6.APR.2007 22:11:12

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

High Channel 48 @ 5240 MHz 26dB Bandwidth



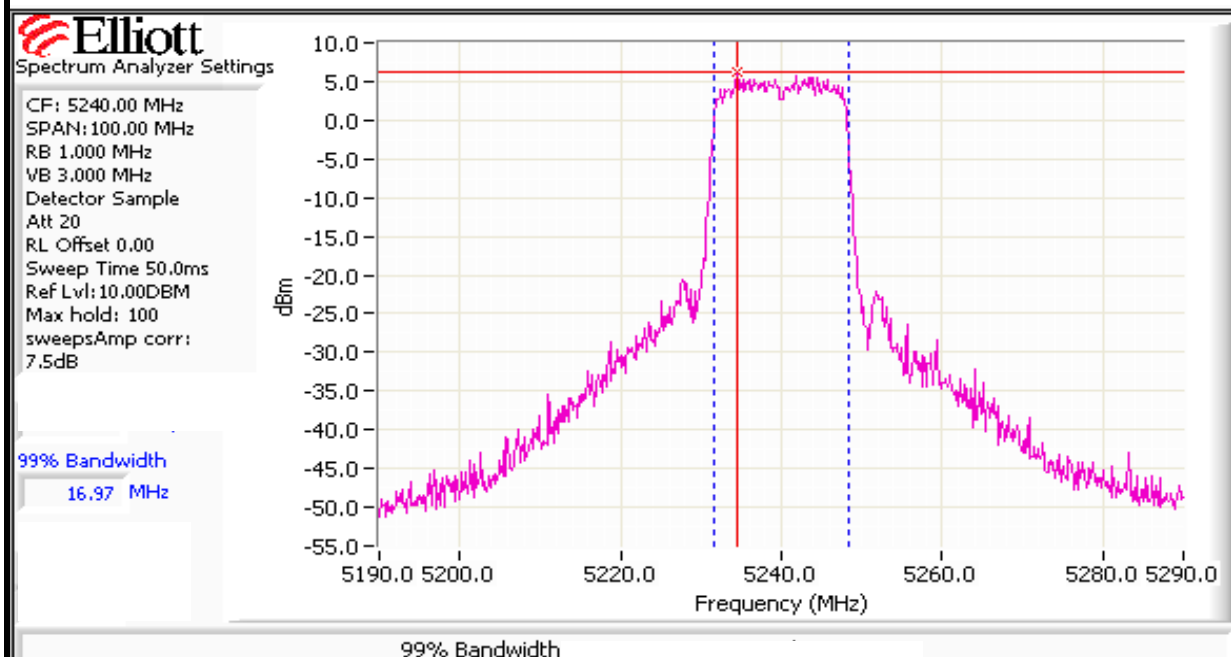
Analyzer Settings
 HP8564E,006,EMI,UK6
 CF: 5240.00 MHz
 SPAN:100.00 MHz
 RB 300 kHz
 VB 1.000 MHz
 Detector POS
 Att 20
 RL Offset 0.00
 Sweep Time 50.0ms
 Ref Lvl:10.00DBM

Comments
 26dB Bandwidth

Cursor 1 5250.00 -1.00
 Cursor 2 5227.66 -27.00
 Delta Freq. 22.33
 Delta Amplitude 26.00



High Channel 48 @ 5240 MHz 99% Bandwidth



Elliott
 Spectrum Analyzer Settings
 CF: 5240.00 MHz
 SPAN:100.00 MHz
 RB 1.000 MHz
 VB 3.000 MHz
 Detector Sample
 Att 20
 RL Offset 0.00
 Sweep Time 50.0ms
 Ref Lvl: 10.00DBM
 Max hold: 100
 sweepsAmp corr:
 7.5dB

99% Bandwidth
 16.97 MHz

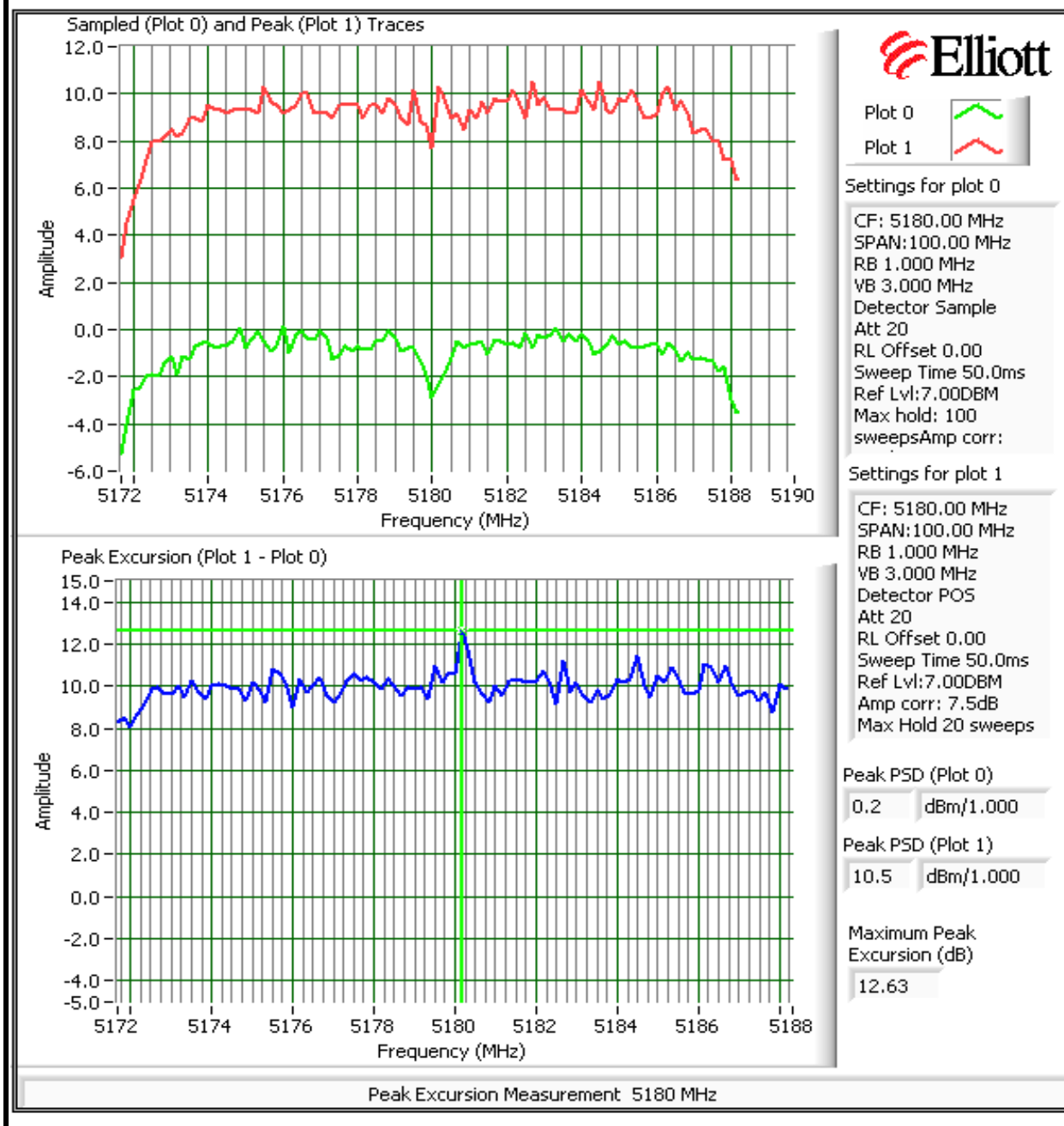
99% Bandwidth

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Run #2: Peak Excursion Measurement

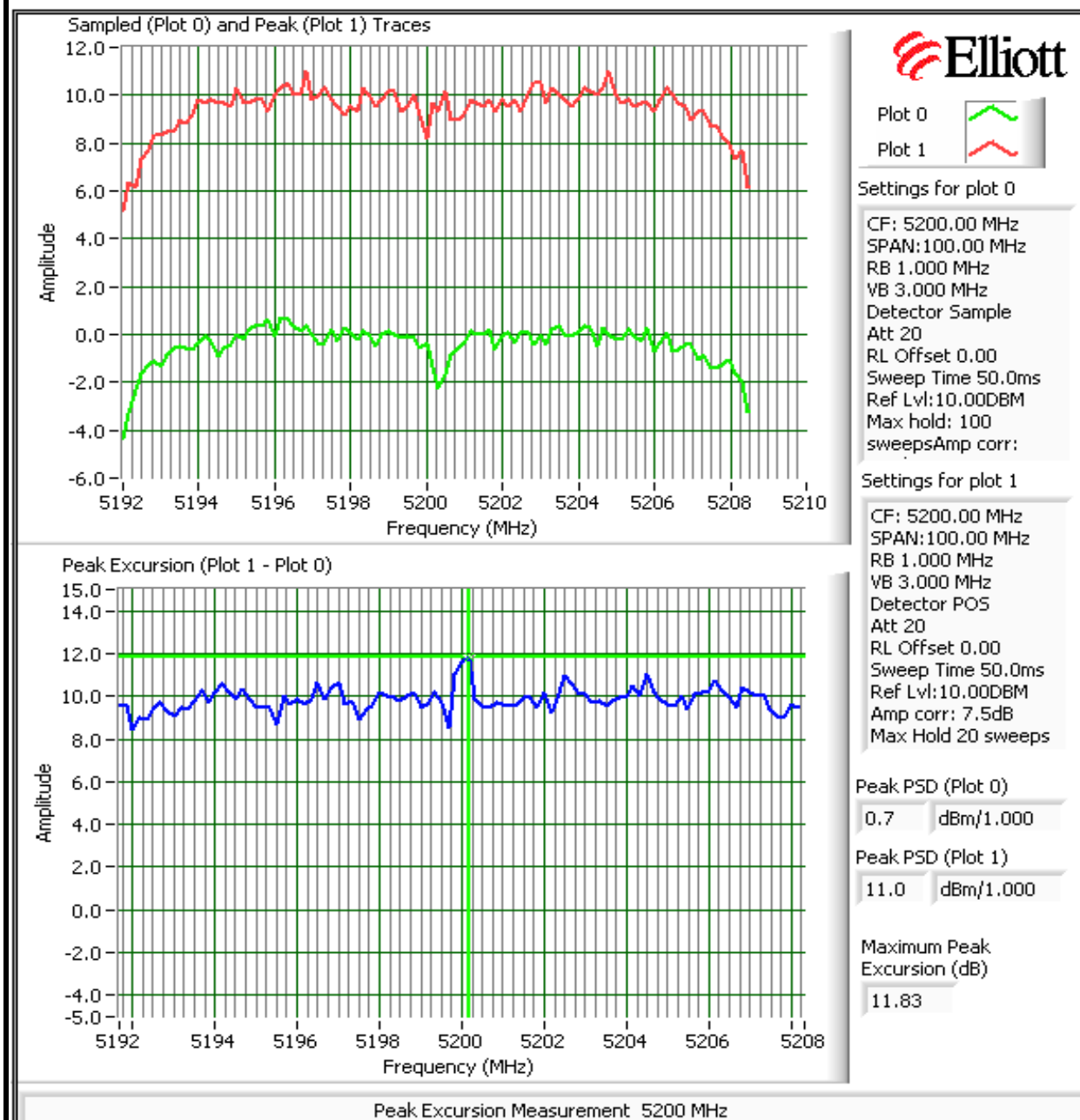
Plots Showing Peak Excursion

Low Channel 36 @ 5180 MHz



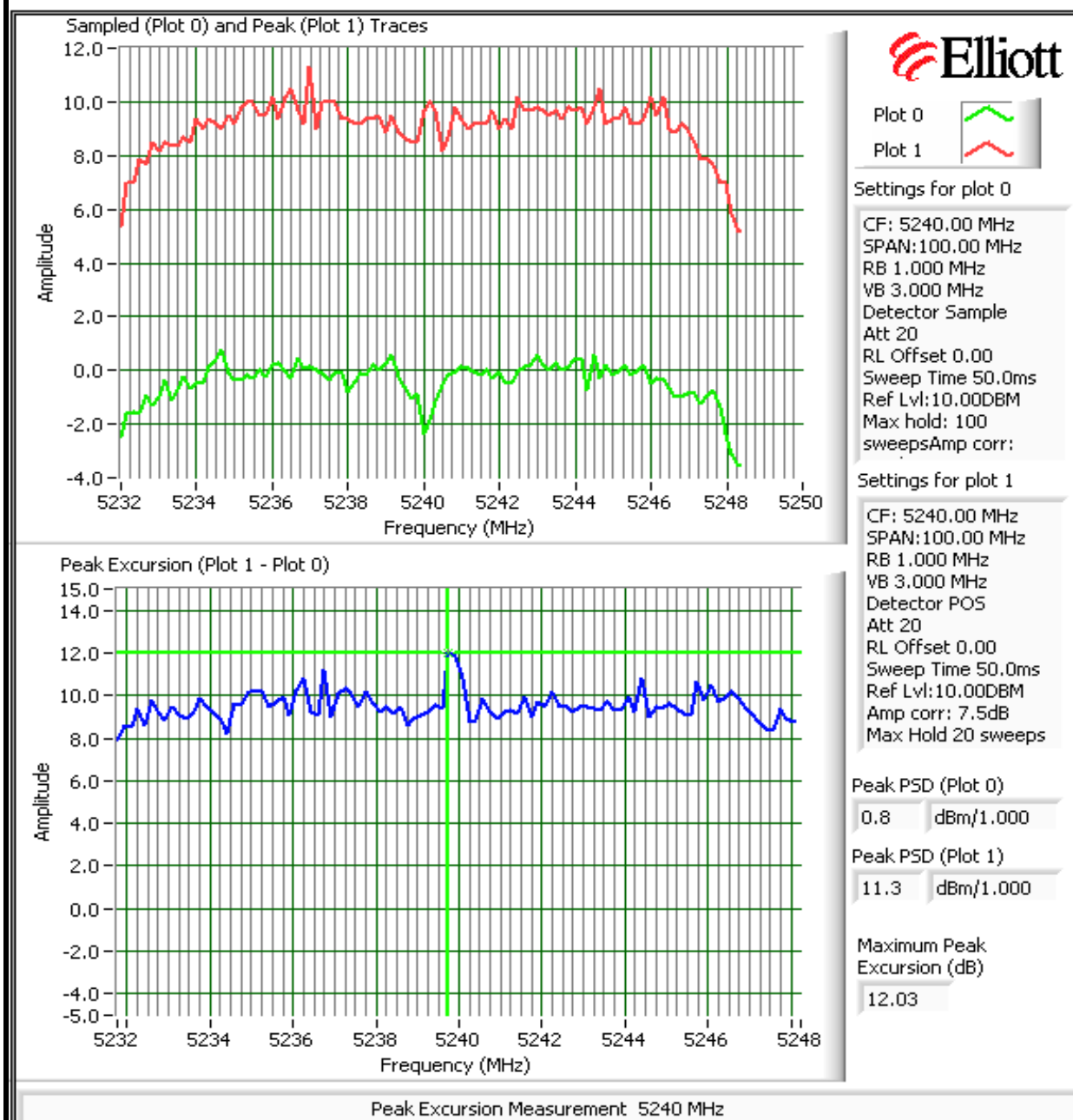
Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Middle Channel 40 @ 5200 MHz



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

High Channel 48 @ 5240 MHz



Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

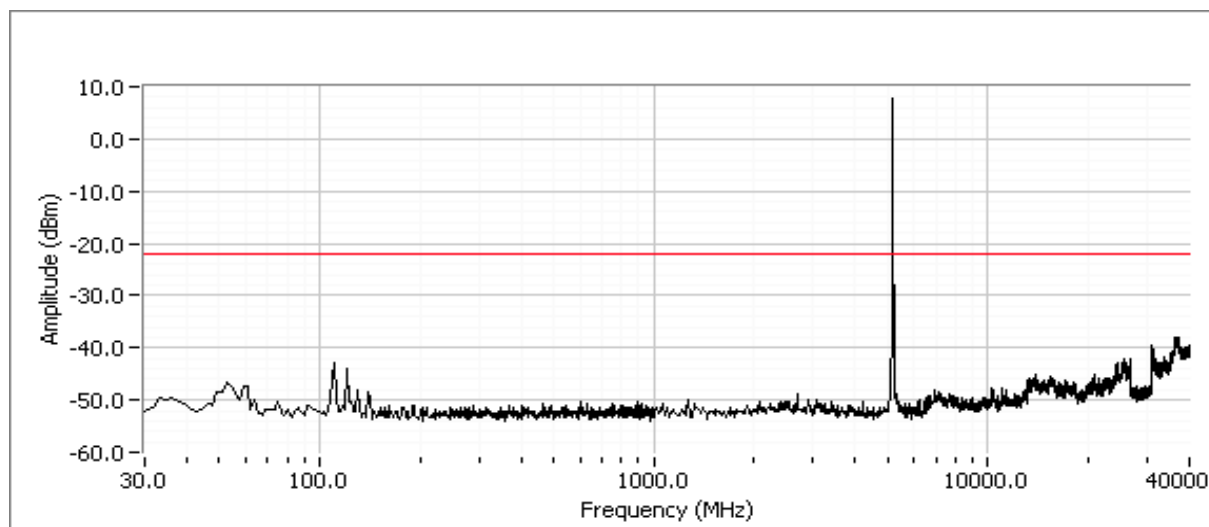
Run #3: Out Of Band Spurious Emissions - Antenna Conducted

Maximum Antenna Gain: 3.7 dBi
 Spurious Limit: -27 dBm/MHz eirp
 Limit Used On Plots ^{Note 1}: -30.7 dBm/MHz

Note 1:	The -27dBm/MHz limit is an eirp limit. The limit for antenna port conducted measurements is adjusted to take into consideration the maximum antenna gain (limit = -27dBm - antenna gain). Radiated field strength measurements for signals more than 50MHz from the bands and that are close to the limit are made to determine compliance as the antenna gain is not known at these frequencies.
Note 2:	All spurious signals below 1GHz are measured during digital device radiated emissions test.
Note 4:	If the device is for outdoor use then the -27dBm eirp limit also applies in the 5150 - 5250 MHz band.
Note 5:	Signals that fall in the restricted bands of 15.205 are subject to the limit of 15.209.

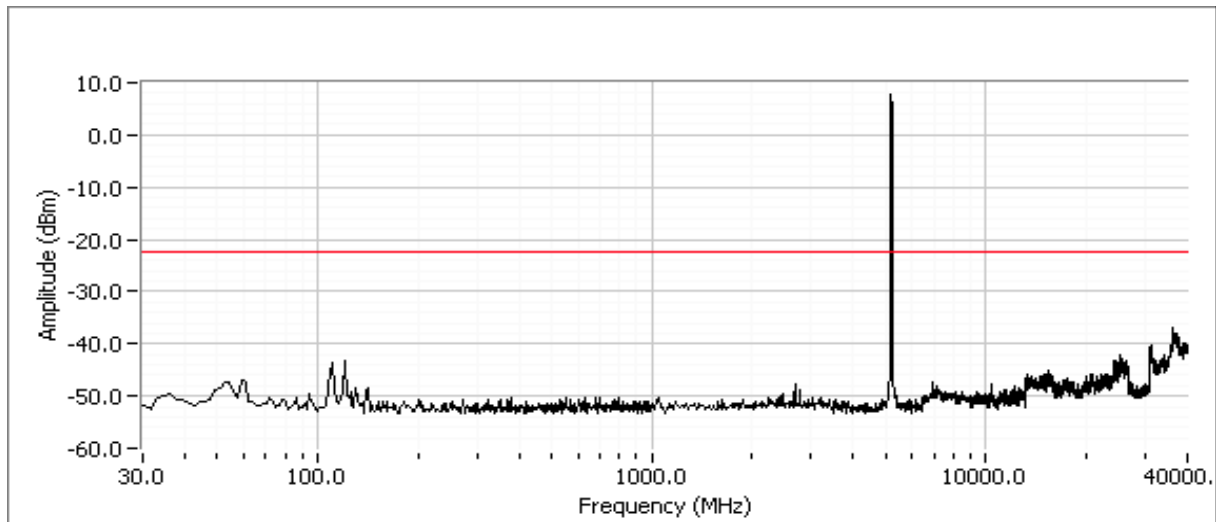
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

Low Channel 36 @ 5180 MHz

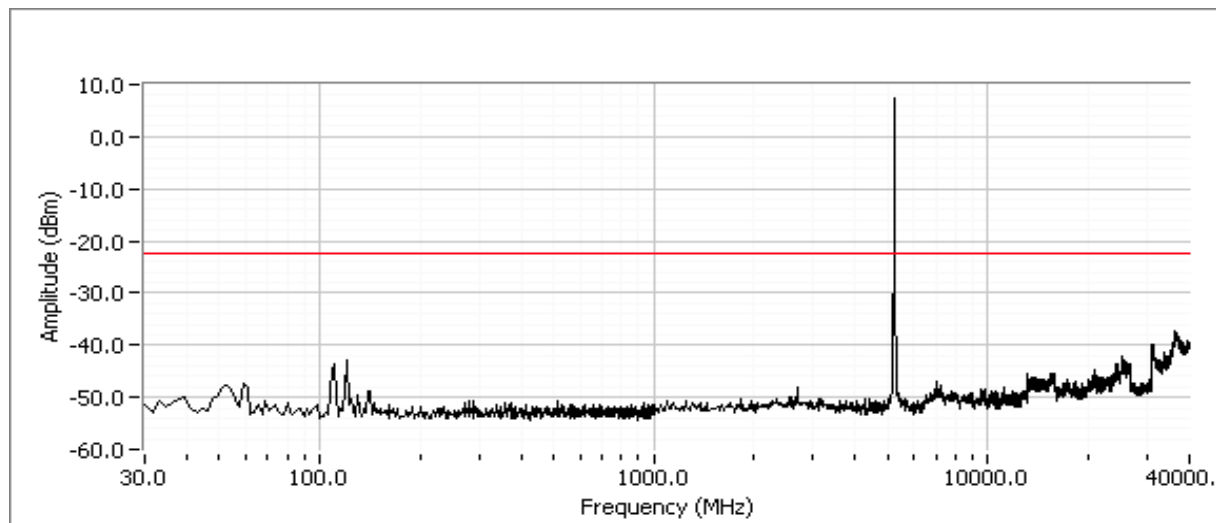


Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Middle Channel 40 @ 5200 MHz



High Channel 48 @ 5240 MHz





EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

FCC Part 15 Subpart E Tests (5150-5250 MHz, SISO, 40 MHz)

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 3/22/2007 9:01
Test Engineer: Mark Hill/Rafael
Test Location: Fremont Chamber #3

Config. Used: 1
Config Change: None
EUT Voltage: 120V/60Hz

General Test Configuration

When measuring the conducted emissions from the EUT's antenna port, the antenna port of the EUT was connected to the spectrum analyzer or power meter via a suitable attenuator to prevent overloading the measurement system. All measurements are corrected to allow for the external attenuators and cables used.

Ambient Conditions:
Temperature: 21.9 °C
Rel. Humidity: 44 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	16dBm
1	PSD, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	2.2 dBm/MHz
1	26dB Bandwidth	15.407	Pass	> 20 MHz
1	99% Bandwidth	RSS 210	Pass	36.6 MHz
2	Peak Excursion Envelope	15.407(a) (6)	Pass	5.54 dB
3	Antenna Conducted - Out of Band Spurious	15.407(b)	Pass	All emissions below the -27dBm/MHz limit

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #1: Bandwidth, Output Power and Power spectral Density

Unit standing upright

Antenna Gain: 3.7 dBi

Regulatory Final Power Measurements:

Frequency (MHz)	Software Setting	Bandwidth		Output Power ¹ dBm		Power (Watts)	PSD ² dBm/MHz			Result
		26dB	99% ⁴	Measured	Limit		Measured	FCC Limit	RSS Limit ³	
5190	0x0a0a	45.0	36.6	15.7	17.0	0.037	1.97	4.0	3.1	Pass
5230	0x0c0c	46.0	36.6	16.0	17.0	0.040	2.20	4.0	3.4	Pass

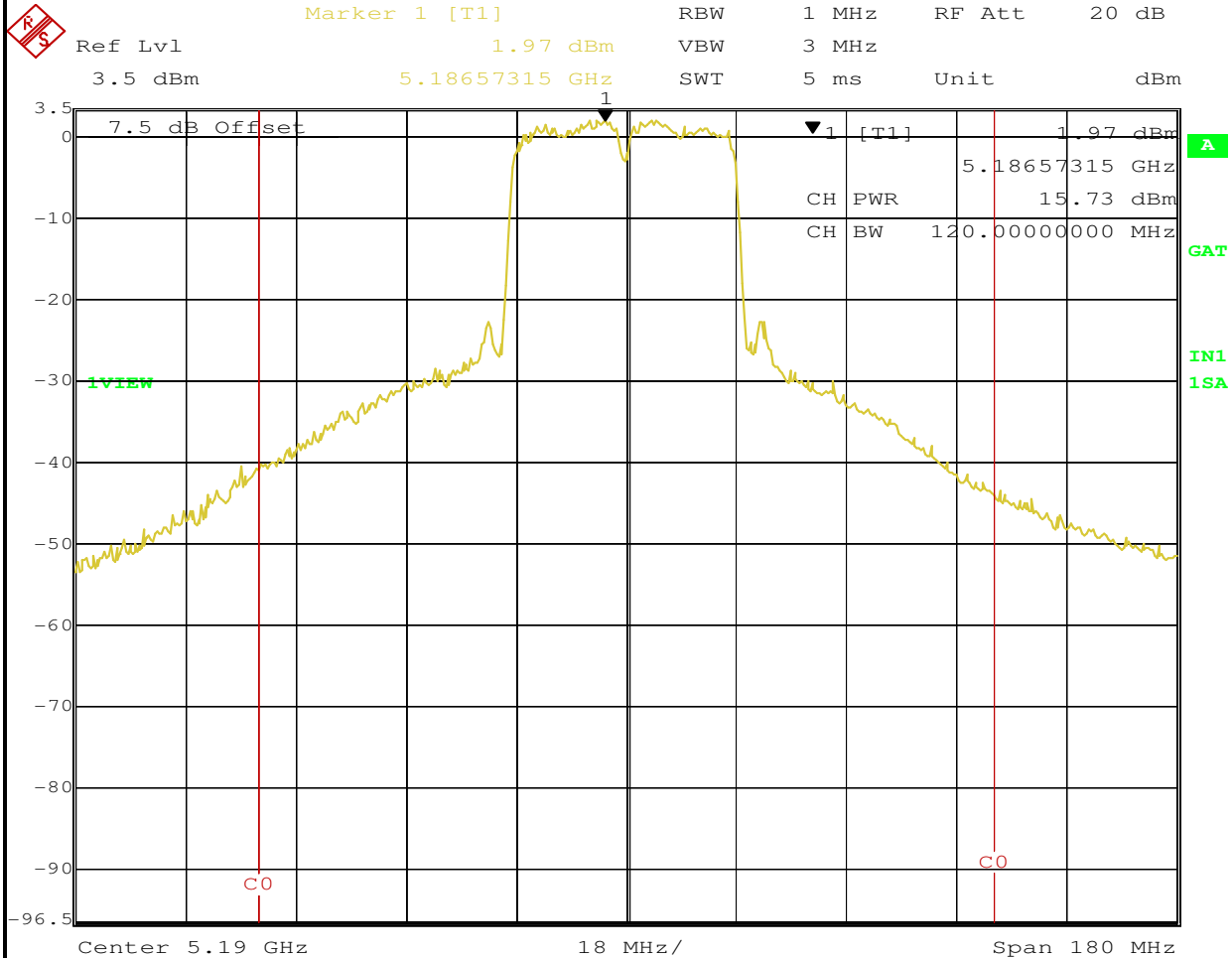
Note 1:	RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was not continuous but the ESI analyzer was configured with a gated sweep such that the analyzer was only sweeping when the device was transmitting) and power integration over 100 MHz
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS210 the measured value of the PSD (see note 3) must not exceed the average value (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB >=3xRB



EMC Test Data

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Low Channel 38 @ 5190 MHz Output Power & PSD

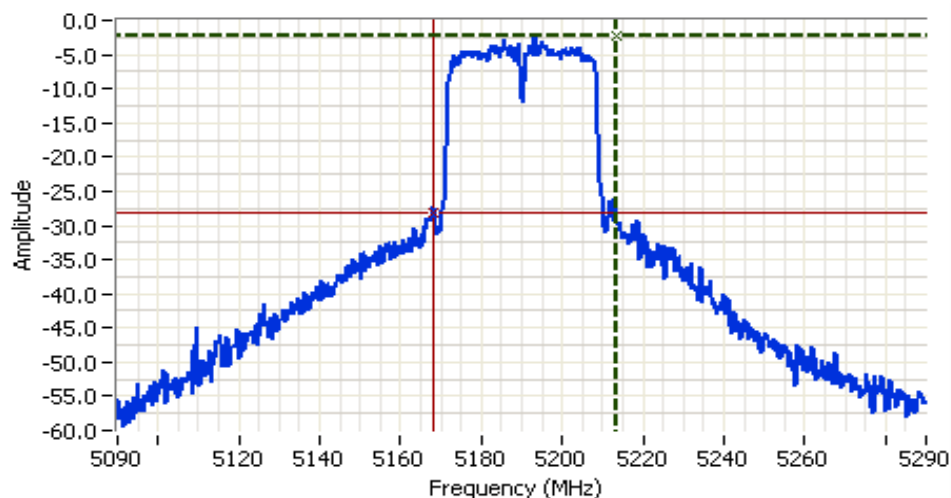


Date: 6.APR.2007 23:24:56

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Low Channel 38 @ 5190 MHz

26dB Bandwidth



Analyzer Settings

HP8564E,006,EMI,UK6
CF: 5190.00 MHz
SPAN:200.00 MHz
RB 300 kHz
VB 1.000 MHz
Detector POS
Att 20
RL Offset 0.00
Sweep Time 50.0ms
Ref Lvl:6.10DBM

Comments

26dB Bandwidth

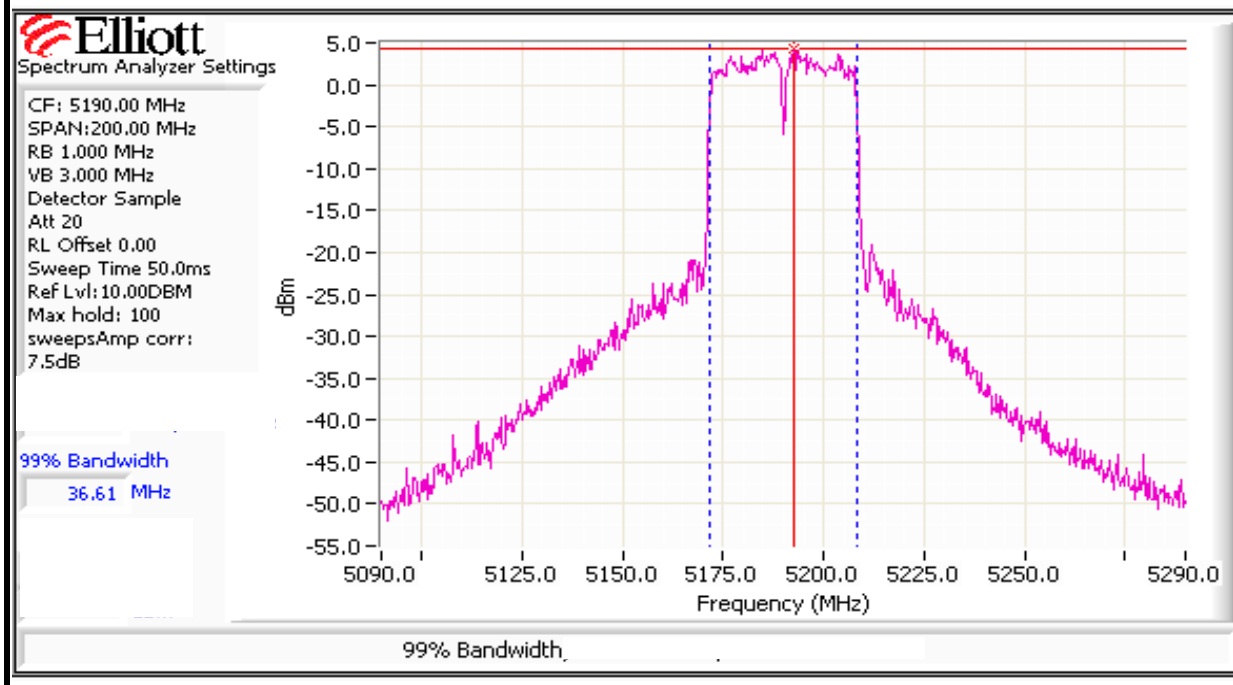
Cursor 1 5213.33 -2.23
Cursor 2 5168.33 -28.23

Delta Freq. 45.00
Delta Amplitude 26.00



Low Channel 38 @ 5190 MHz

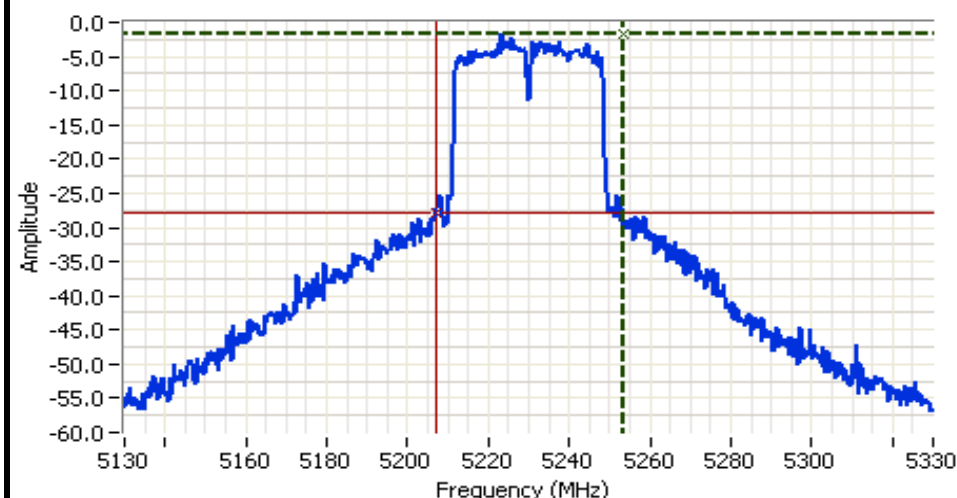
99% Bandwidth



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

High Channel 46 @ 5230 MHz

26dB Bandwidth



Analyzer Settings

HP8564E,006,EMI,UK6
CF: 5230.00 MHz
SPAN:200.00 MHz
RB 300 kHz
VB 1.000 MHz
Detector POS
Att 20
RL Offset 0.00
Sweep Time 50.0ms
Ref Lvl:6.10DBM

Comments

26dB Bandwidth

Cursor 1 5253.33 -1.73
Cursor 2 5207.33 -27.73

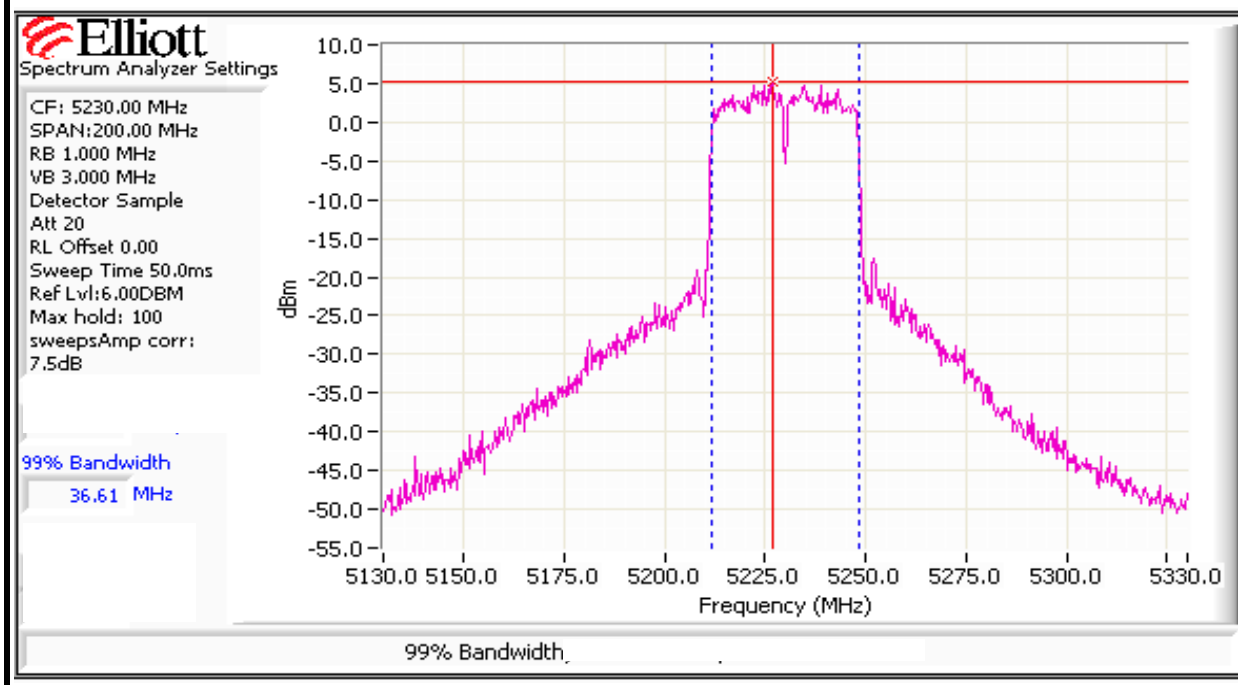
Delta Freq. 46.00

Delta Amplitude 26.00



High Channel 46 @ 5230 MHz

99% Bandwidth



Spectrum Analyzer Settings

CF: 5230.00 MHz
SPAN:200.00 MHz
RB 1.000 MHz
VB 3.000 MHz
Detector Sample
Att 20
RL Offset 0.00
Sweep Time 50.0ms
Ref Lvl:6.00DBM
Max hold: 100
sweepsAmp corr:
7.5dB

99% Bandwidth

36.61 MHz

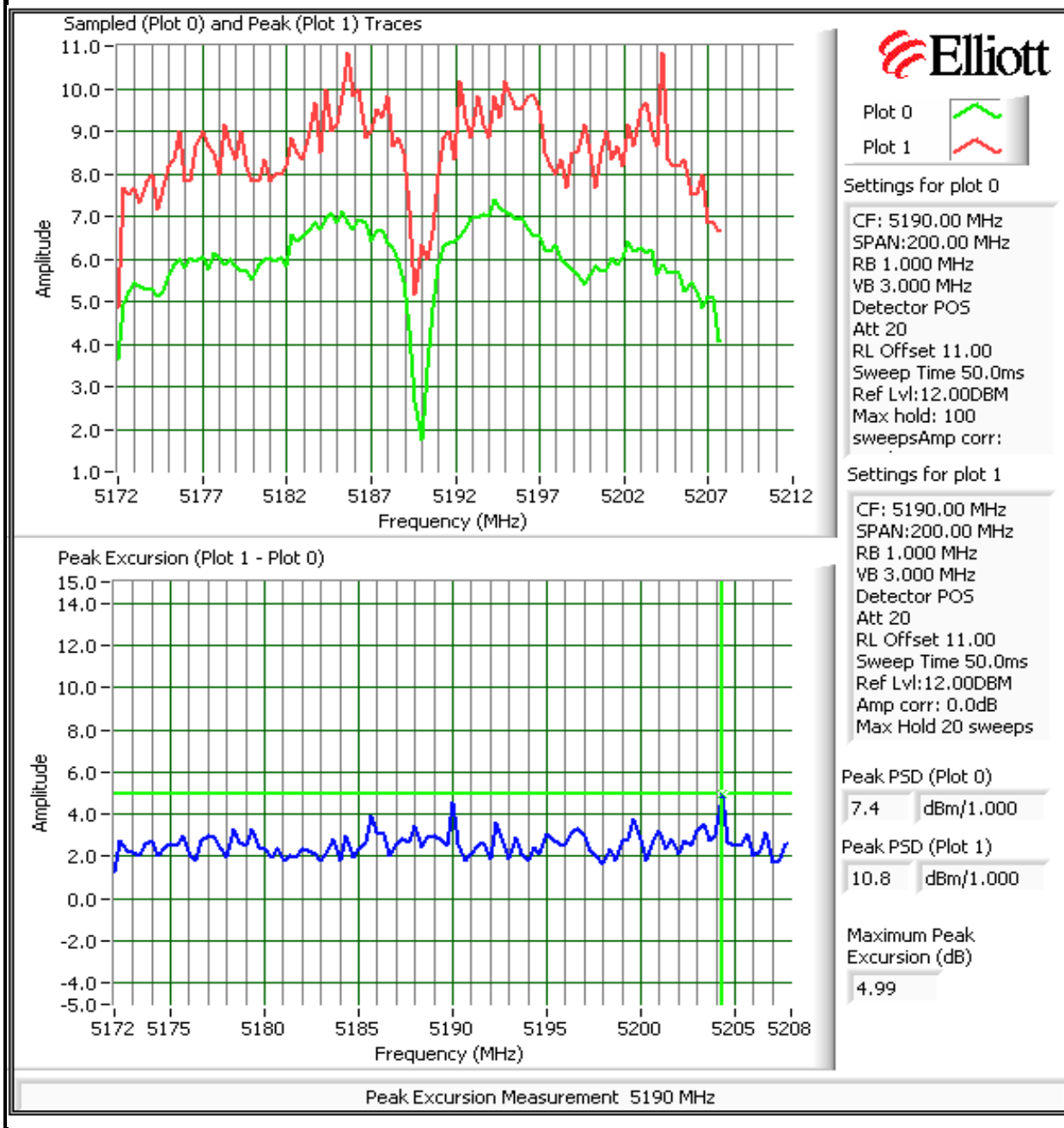
99% Bandwidth

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Run #2: Peak Excursion Measurement

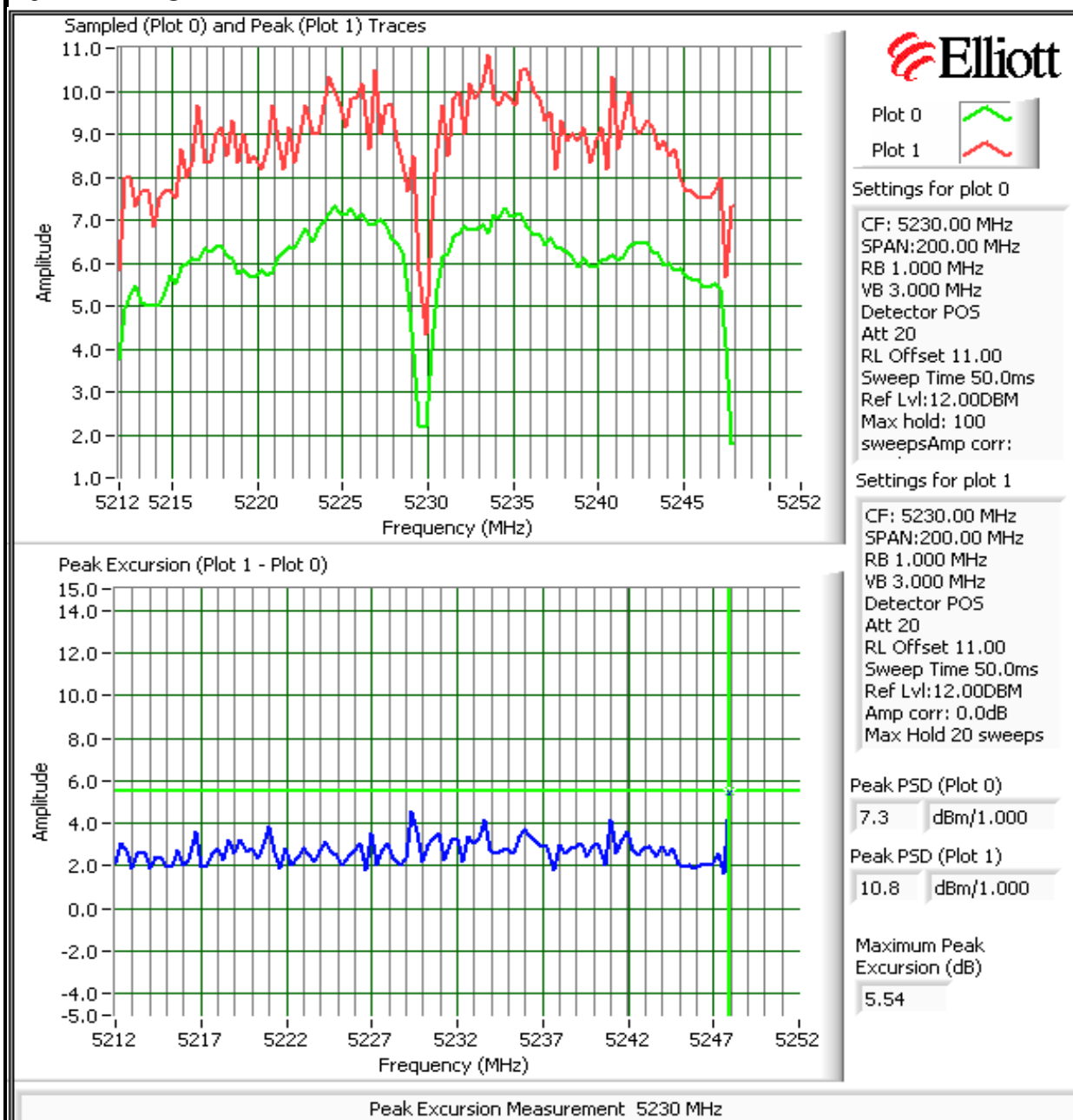
Plots Showing Peak Excursion

Low Channel 38 @ 5190 MHz



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

High Channel 46 @ 5230 MHz



Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

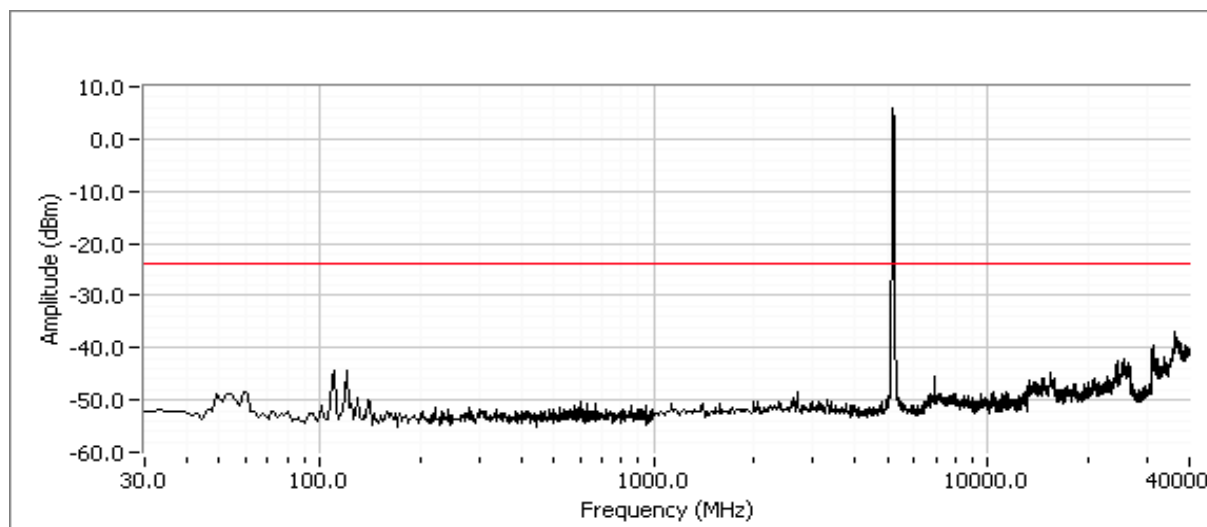
Run #3: Out Of Band Spurious Emissions - Antenna Conducted

Maximum Antenna Gain: 3.7 dBi
 Spurious Limit: -27 dBm/MHz eirp
 Limit Used On Plots ^{Note 1}: -30.7 dBm/MHz

Note 1:	The -27dBm/MHz limit is an eirp limit. The limit for antenna port conducted measurements is adjusted to take into consideration the maximum antenna gain (limit = -27dBm - antenna gain). Radiated field strength measurements for signals more than 50MHz from the bands and that are close to the limit are made to determine compliance as the antenna gain is not known at these frequencies.
Note 2:	All spurious signals below 1GHz are measured during digital device radiated emissions test.
Note 4:	If the device is for outdoor use then the -27dBm eirp limit also applies in the 5150 - 5250 MHz band.
Note 5:	Signals that fall in the restricted bands of 15.205 are subject to the limit of 15.209.

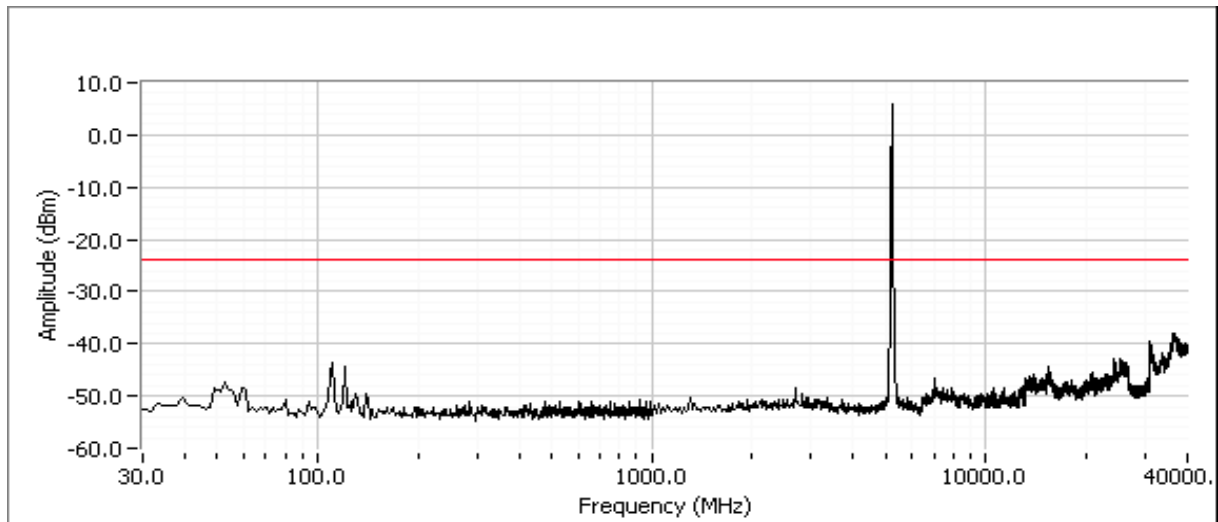
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

Low Channel 38 @ 5190 MHz



Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

High Channel 46 @ 5230 MHz



Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

FCC Part 15 Subpart E Tests (5150-5250 MHz, 802.11n, 20 MHz)

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 3/22/2007

Config. Used: 1

Test Engineer: Mark Hill

Config Change: None

Test Location: Fremont Chamber #3

EUT Voltage: 120V/60Hz

General Test Configuration

The EUT was connected to the spectrum analyzer or power meter via a suitable attenuator. All measurements were made on a single chain.

All measurements have been corrected to allow for the external attenuators used.

Ambient Conditions: Temperature: 21.8 °C
Rel. Humidity: 47 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	14.1 dBm
1	PSD, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	3.15dBm/MHz
1	26dB Bandwidth	15.407	Pass	> 20 MHz
1	99% Bandwidth	RSS 210	Pass	18 MHz
2	Peak Excursion Envelope	15.407(a) (6)	Pass	12.47 dB
3	Antenna Conducted - Out of Band Spurious	15.407(b)	Pass	All emissions below the -27dBm/MHz limit

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #1a: Output Power

Transmitted signal on chain is coherent ? Yes

Regulatory Final Power Measurements:

Power Setting ⁴	Frequency (MHz)	Output Power (dBm) ^{Note 1}			Antenna Gain (dBi) ^{Note 3}			EIRP ^{Note 2}	
		Chain 1	Chain 2	Total	Chain 1	Chain 2	Total	dBm	W
0x1a1a	5180	10.8	11.0	13.9	3.7	3.7	6.7	20.6	0.115
0x1a1a	5200	11.0	11.2	14.1	3.7	3.7	6.7	20.8	0.121
0x2424	5240	10.7	9.8	13.3	3.7	3.7	6.7	20.0	0.099

Frequency (MHz)	Software Setting	Bandwidth		Output Power ¹ dBm		Power (Watts)	PSD ² dBm/MHz			Result
		26dB	99% ⁴	Measured	Limit		Measured	FCC Limit	RSS Limit ³	
5180	0x1a1a	23.7	18.0	13.9	15.8	0.024	3.02	3.3	4.3	Pass
5200	0x1a1a	23.5	18.0	14.1	15.8	0.026	3.15	3.3	4.6	Pass
5240	0x2424	23.5	18.0	13.3	15.8	0.021	2.48	3.3	3.7	Pass

Note 1:

RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was not continuous but the ESI analyzer was configured with a gated sweep such that the analyzer was only sweeping when the device was transmitting) and power integration over 100 MHz

Note 2:

EIRP - if transmit chains are coherent then the EIRP is calculated from the sum of the antenna gains plus the total power (i.e. beam-forming is assumed because of coherency on the chains). If the individual chains are incoherent then the EIRP is calculated from the sum of the individual EIRPs for each chain.

Note 3:

If the transmit chains are coherent then the total system antenna gain is the sum of the numeric gains for each antenna. If the transmit chains are incoherent then the system antenna gain is not applicable as each transmit chain can be treated independently.

Note 4:

Power setting - if a single number the same power setting was used for each chain. If multiple numbers the power setting for each chain is separated by a comma (e.g. x,y would indicate power setting x for chain 1, power setting y for chain 2).



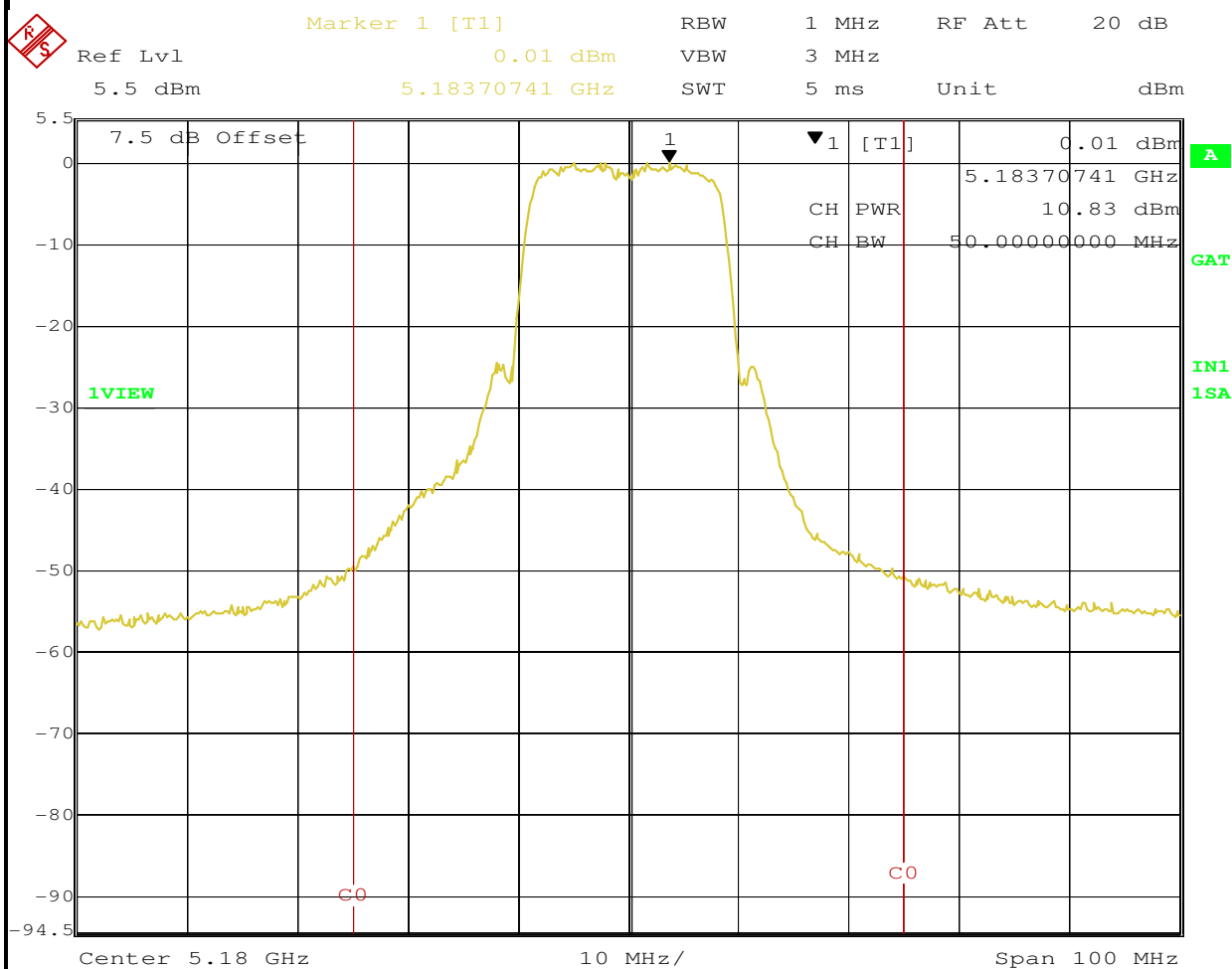
EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Channel 36 @ 5180 MHz

Output Power and PSD

Chain 1



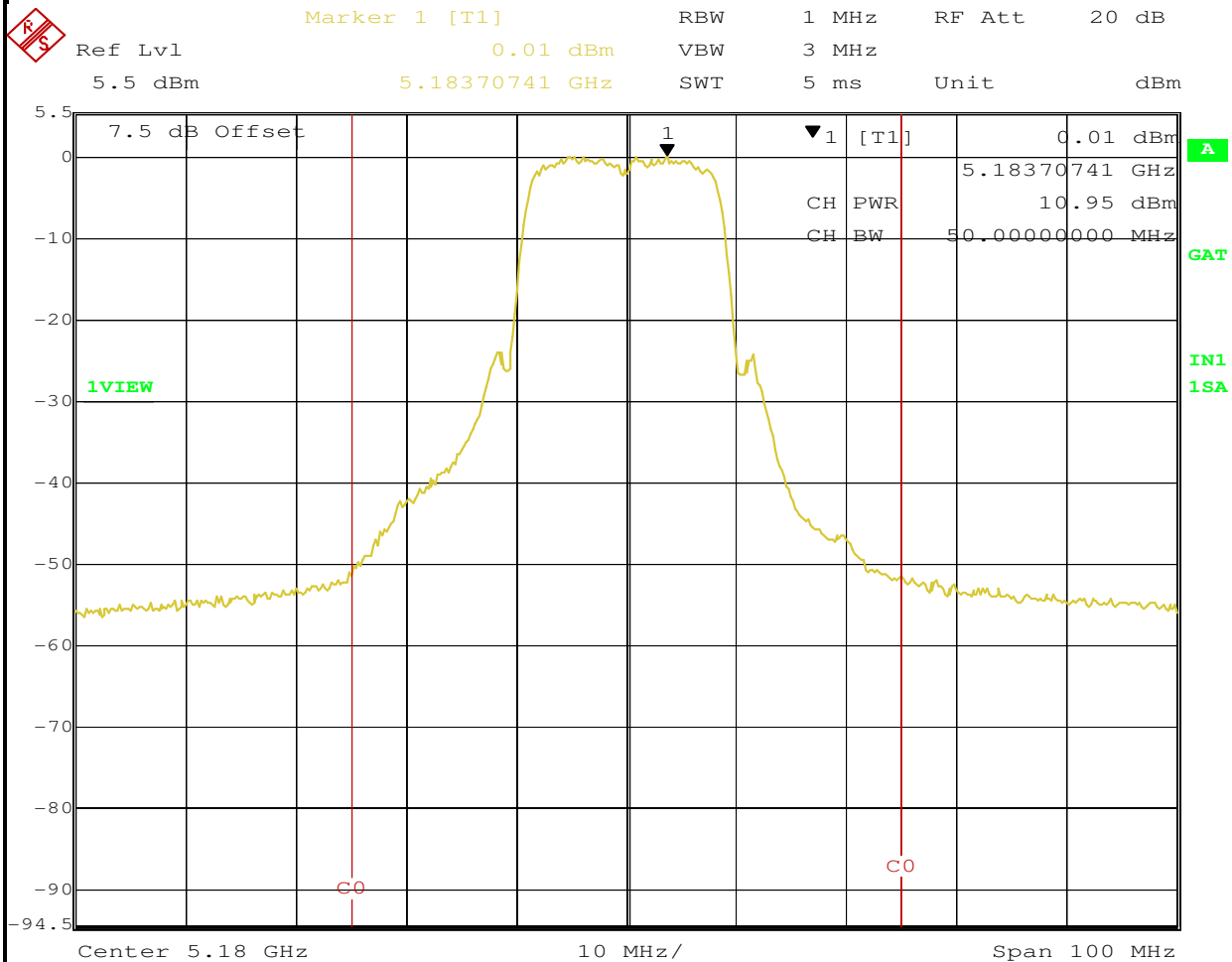
Date: 7.APR.2007 08:42:25



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Chain 2



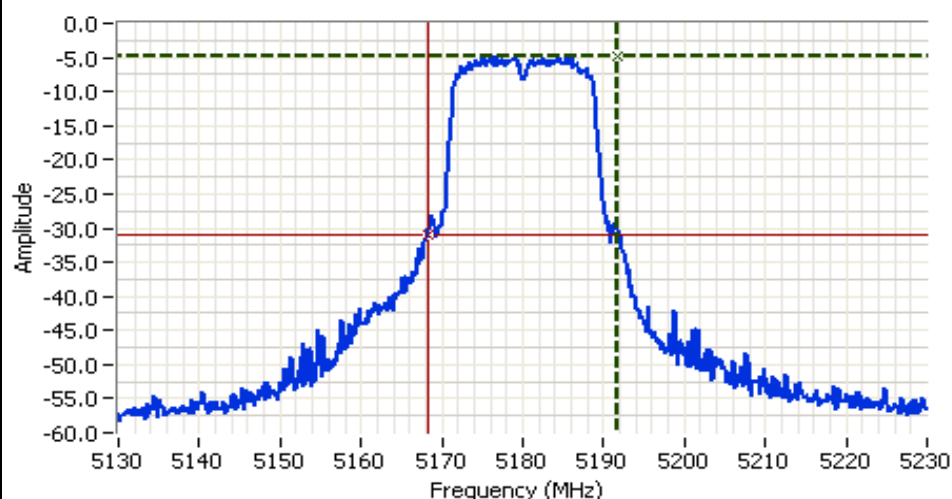
Date: 7.APR.2007 08:57:10

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Channel 36 @ 5180 MHz

26dB Bandwidth

Chain 1



Analyzer Settings

HP8564E,006,EMI,UK6
CF: 5180.00 MHz
SPAN:100.00 MHz
RB 300 kHz
VB 3.000 MHz
Detector POS
Att 20
RL Offset 0.00
Sweep Time 50.0ms
Ref Lvl:3.80DBM

Comments

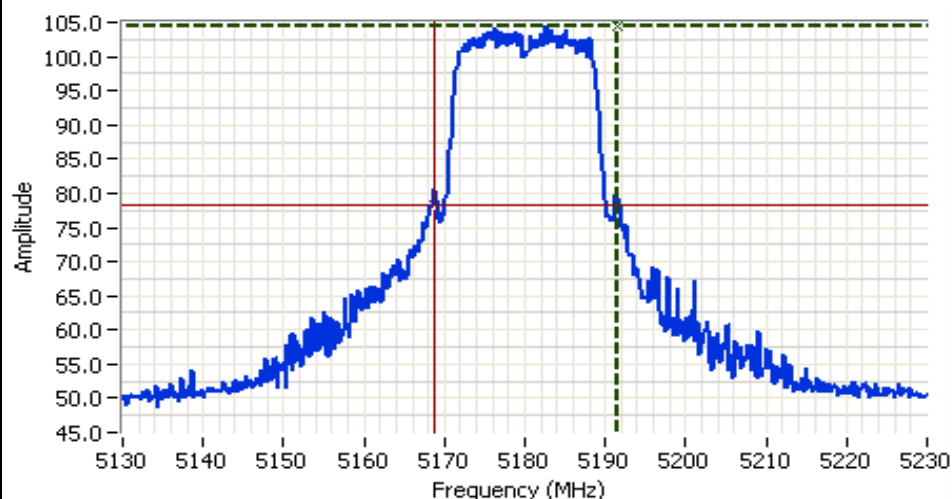
26dB Bandwidth

Cursor 1 5191.83: -4.87
Cursor 2 5168.16: -30.87

Delta Freq. 23.67
Delta Amplitude 26.00



Chain 2



Analyzer Settings

HP8564E,006,EMI,UK6
CF: 5180.00 MHz
SPAN:100.00 MHz
RB 300 kHz
VB 1.000 MHz
Detector POS
Att 20
RL Offset 0.00
Sweep Time 50.0ms
Ref Lvl:115.00DBUV

Comments

26dB Bandwidth

Cursor 1 5191.50: 104.33
Cursor 2 5168.66: 78.33

Delta Freq. 22.83
Delta Amplitude 26.00

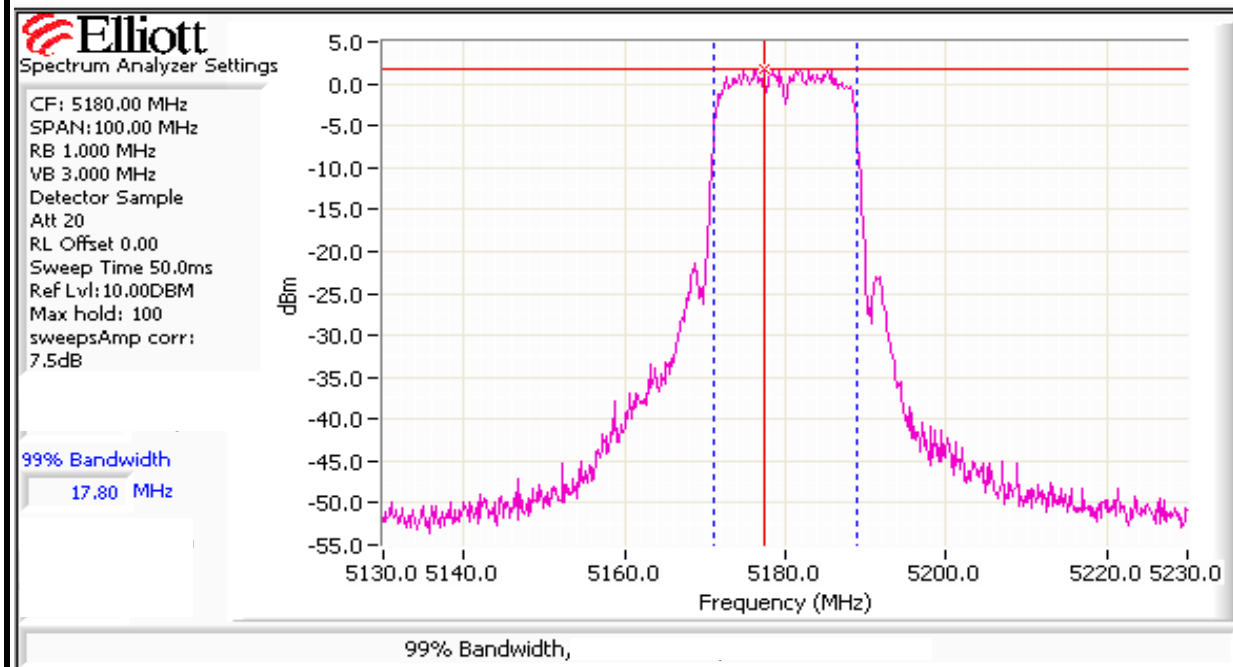


Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

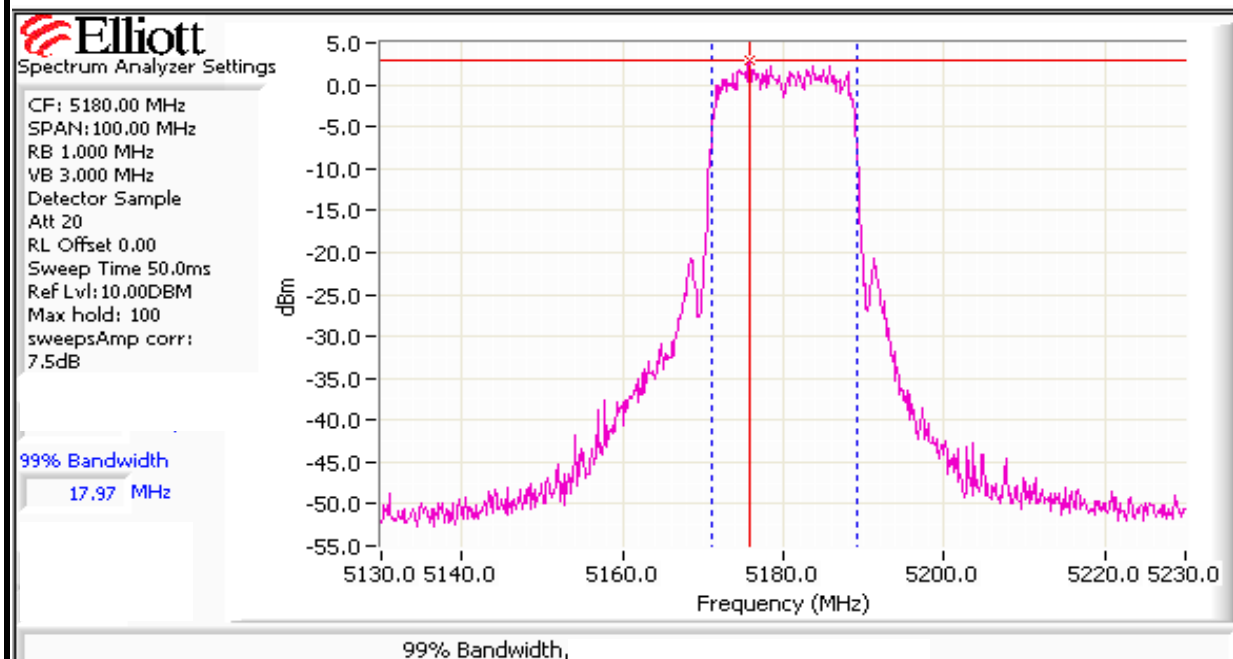
Channel 36 @ 5180 MHz

99% Bandwidth

Chain 1



Chain 2



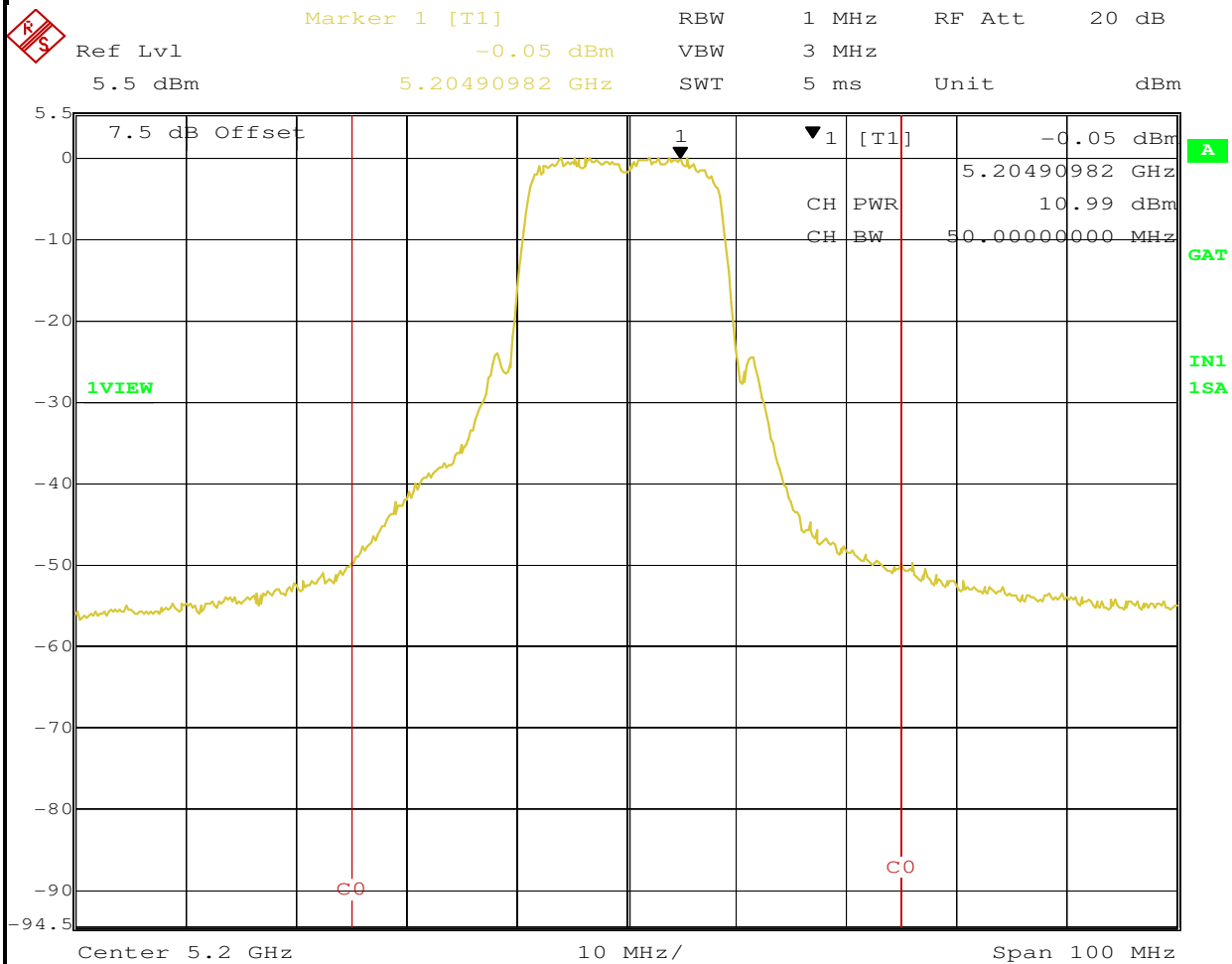


EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Channel 40 @ 5200 MHz Output Power and PSD

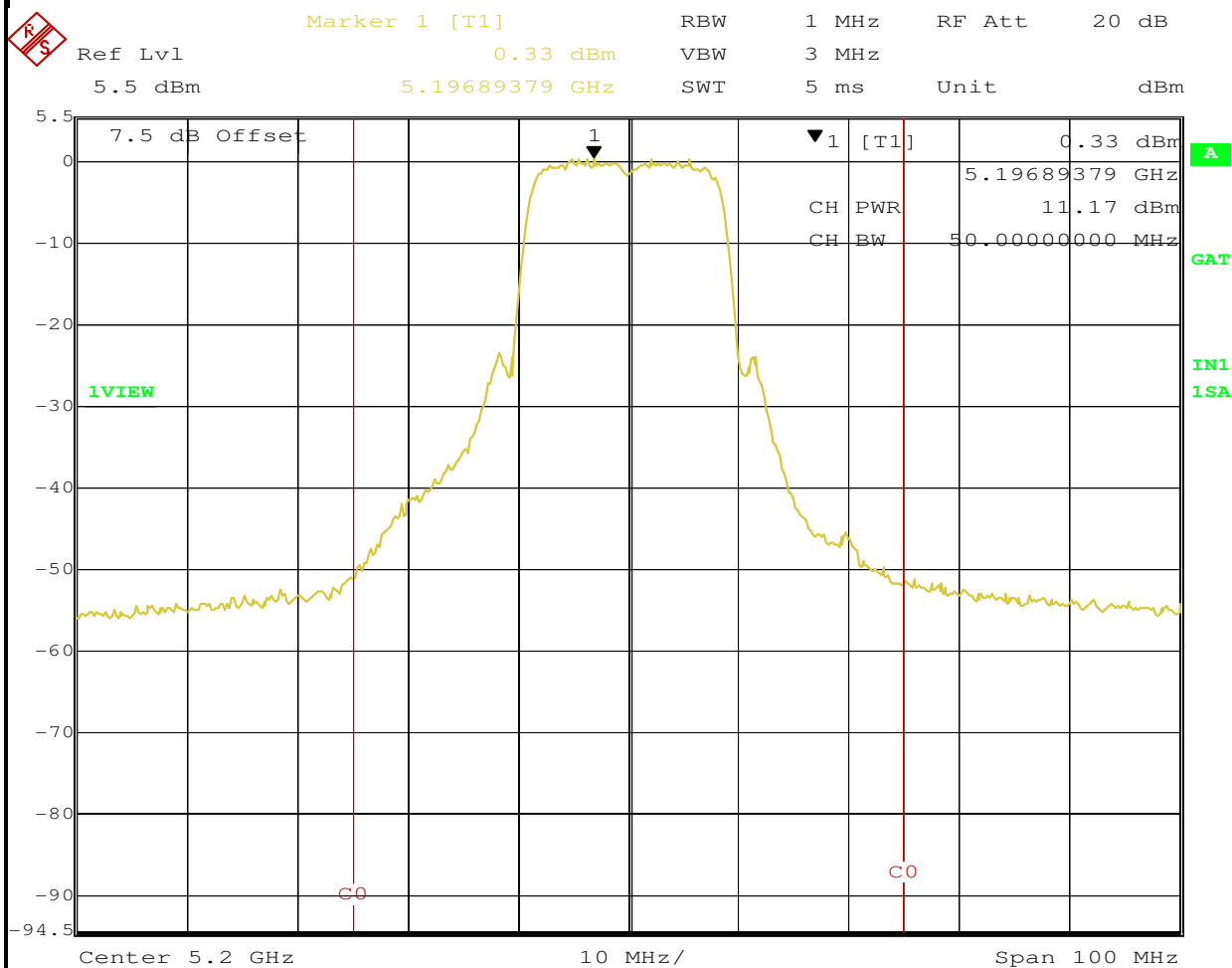
Chain 1



Date: 7.APR.2007 09:39:07

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Chain 2

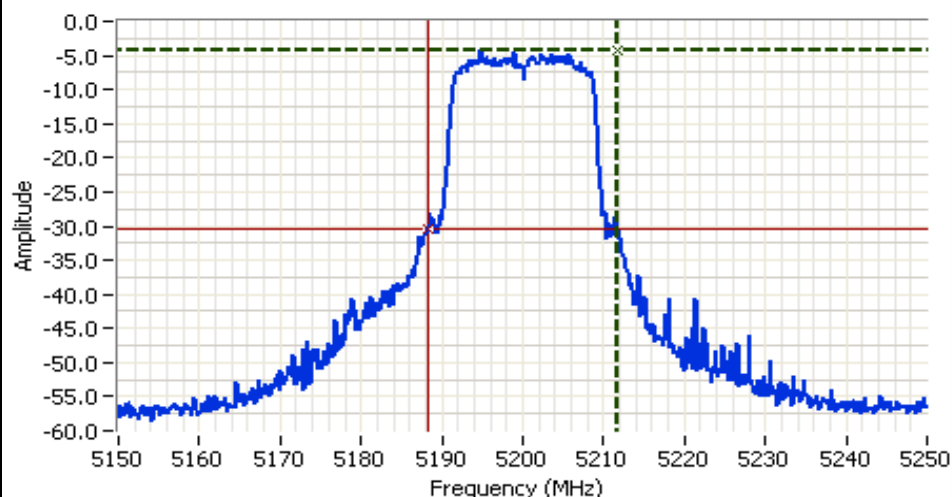


Date: 7.APR.2007 09:57:04

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Channel 40 @ 5200 MHz 26dB Bandwidth

Chain 1



Analyzer Settings
 HP8564E,006,EMI,UK6
 CF: 5200.00 MHz
 SPAN:100.00 MHz
 RB 300 kHz
 VB 1.000 MHz
 Detector POS
 Att 20
 RL Offset 0.00
 Sweep Time 50.0ms
 Ref Lvl:3.20DBM

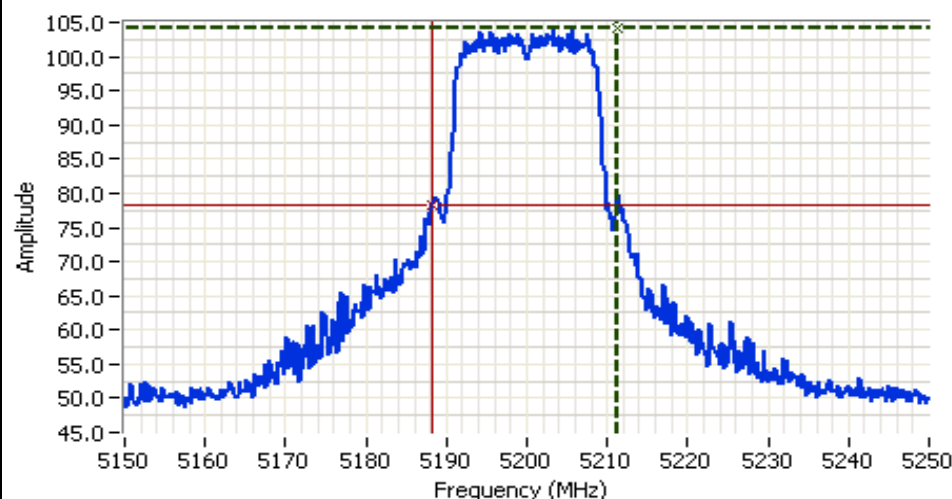
Comments
 26dB Bandwidth

Cursor 1 5211.83: -4.30
 Cursor 2 5188.33: -30.30

Delta Freq. 23.50
 Delta Amplitude 26.00



Chain 2



Analyzer Settings
 HP8564E,006,EMI,UK6
 CF: 5200.00 MHz
 SPAN:100.00 MHz
 RB 300 kHz
 VB 1.000 MHz
 Detector POS
 Att 20
 RL Offset 0.00
 Sweep Time 50.0ms
 Ref Lvl:115.00DBUV

Comments
 26dB Bandwidth

Cursor 1 5211.33: 104.17
 Cursor 2 5188.33: 78.17

Delta Freq. 23.00
 Delta Amplitude 26.00

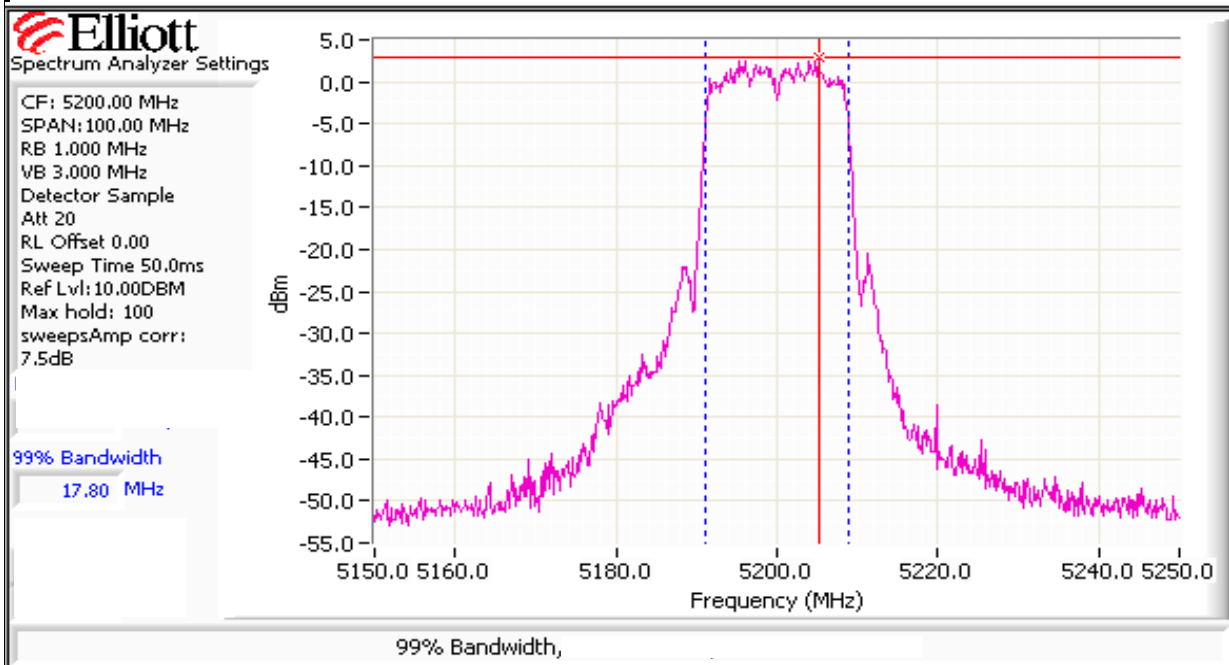


Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

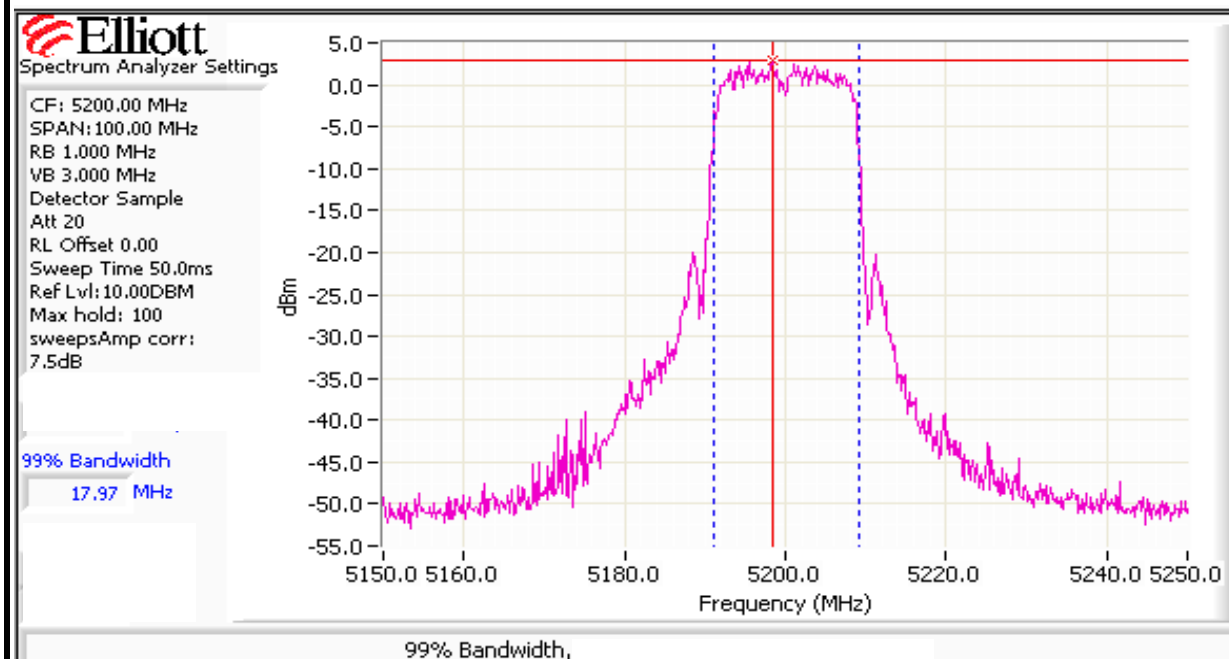
Channel 40 @ 5200 MHz

99% Bandwidth

Chain 1



Chain 2





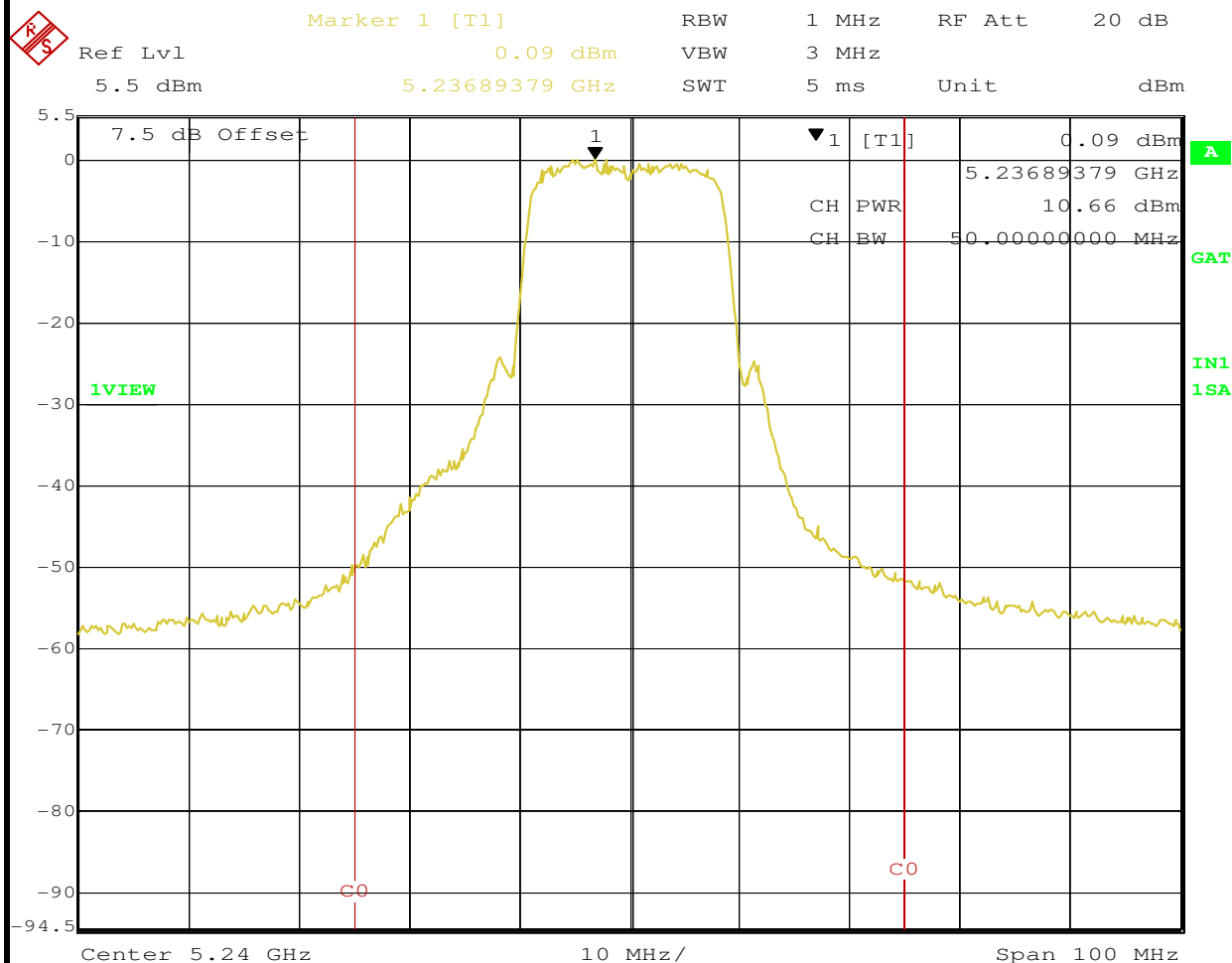
EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Channel 48 @ 5240 MHz

Output Power and PSD

Chain 1

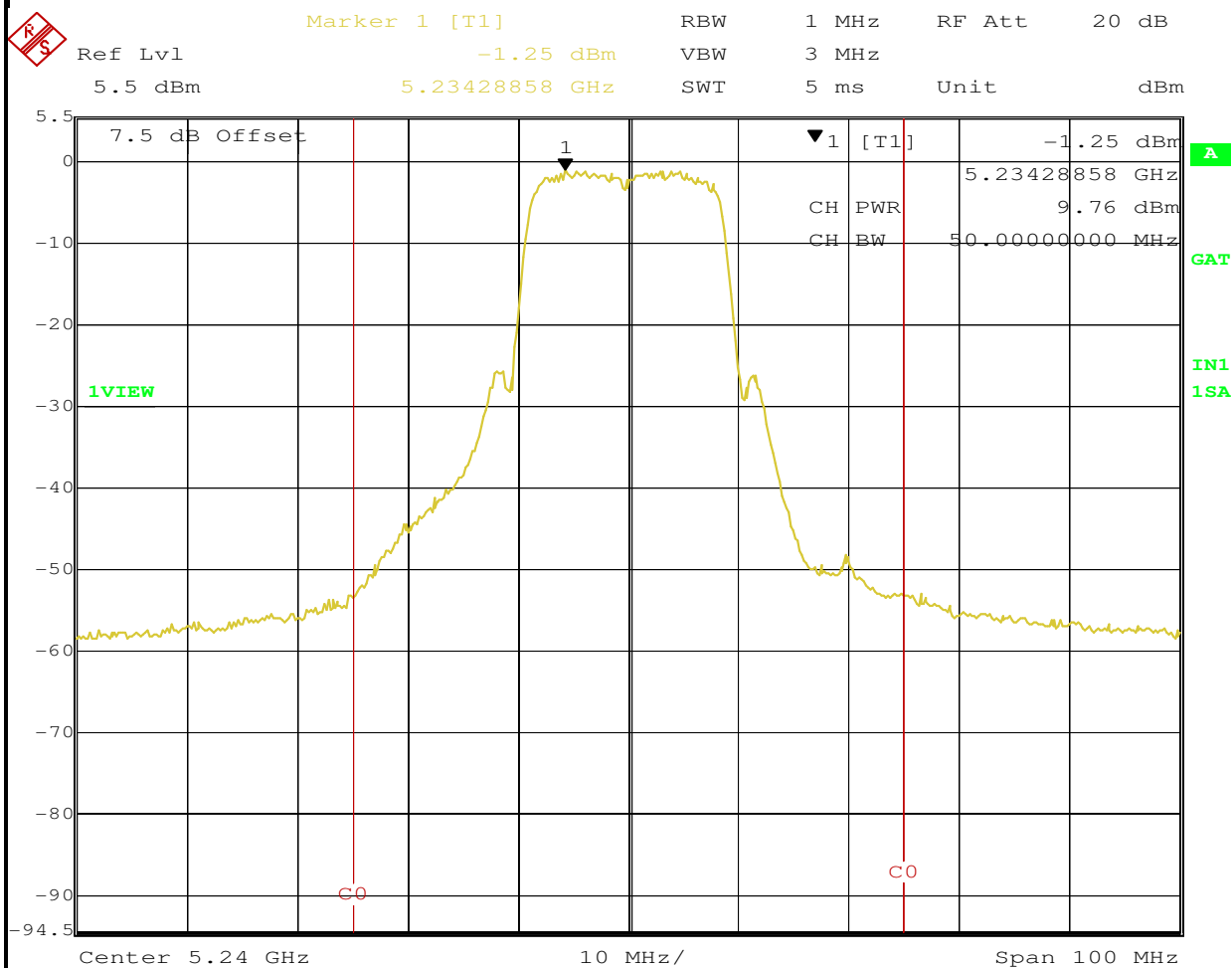


Date: 7.APR.2007 14:30:47

EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
		Account Manager:	-
Contact:	Kevin Lee		
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Chain 2



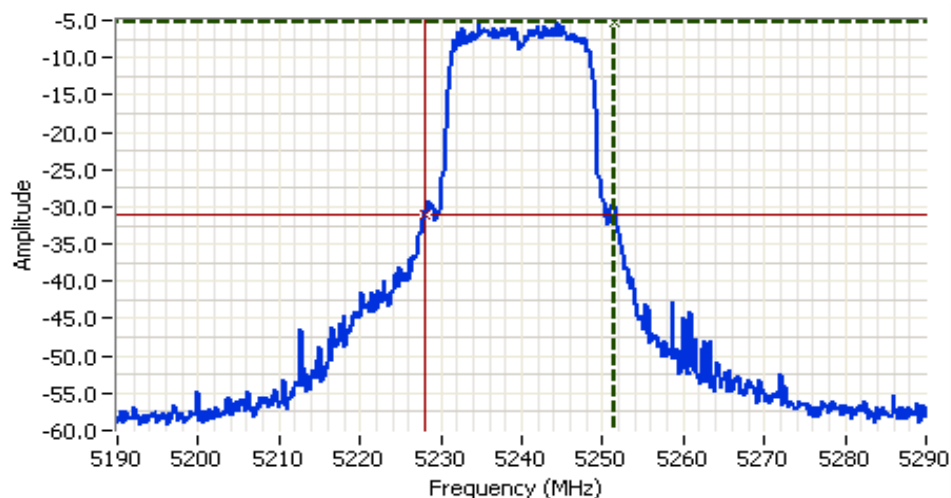
Date: 7.APR.2007 14:39:38

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Channel 48 @ 5240 MHz

26dB Bandwidth

Chain 1



Analyzer Settings

HP8564E,006,EMI,UK6
CF: 5240.00 MHz
SPAN:100.00 MHz
RB 300 kHz
VB 1.000 MHz
Detector POS
Att 20
RL Offset 0.00
Sweep Time 50.0ms
Ref Lvl:10.00DBM

Comments

26dB Bandwidth

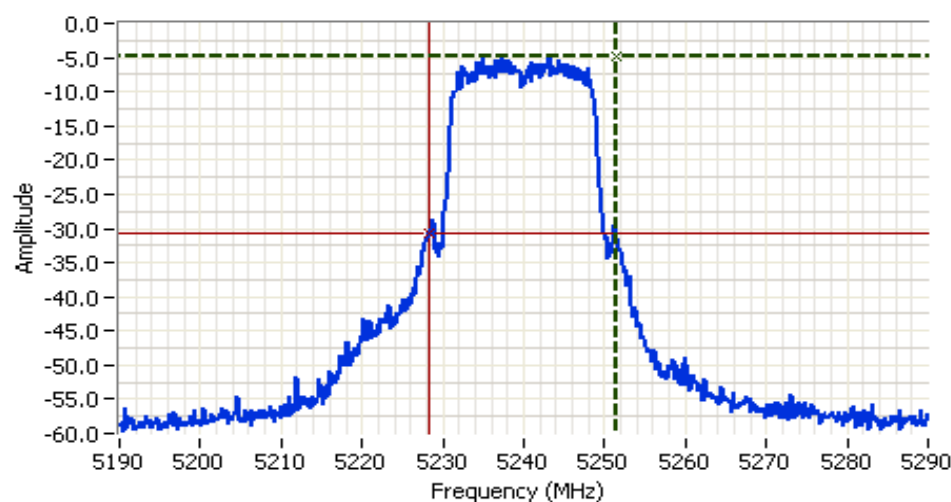
Cursor 1 5251.50 -5.17
Cursor 2 5228.00 -31.17

Delta Freq. 23.50

Delta Amplitude 26.00



Chain 2



Analyzer Settings

HP8564E,006,EMI,UK6
CF: 5240.00 MHz
SPAN:100.00 MHz
RB 300 kHz
VB 1.000 MHz
Detector POS
Att 20
RL Offset 0.00
Sweep Time 50.0ms
Ref Lvl:10.00DBM

Comments

26dB Bandwidth

Cursor 1 5251.33 -4.83
Cursor 2 5228.33 -30.83

Delta Freq. 23.00

Delta Amplitude 26.00

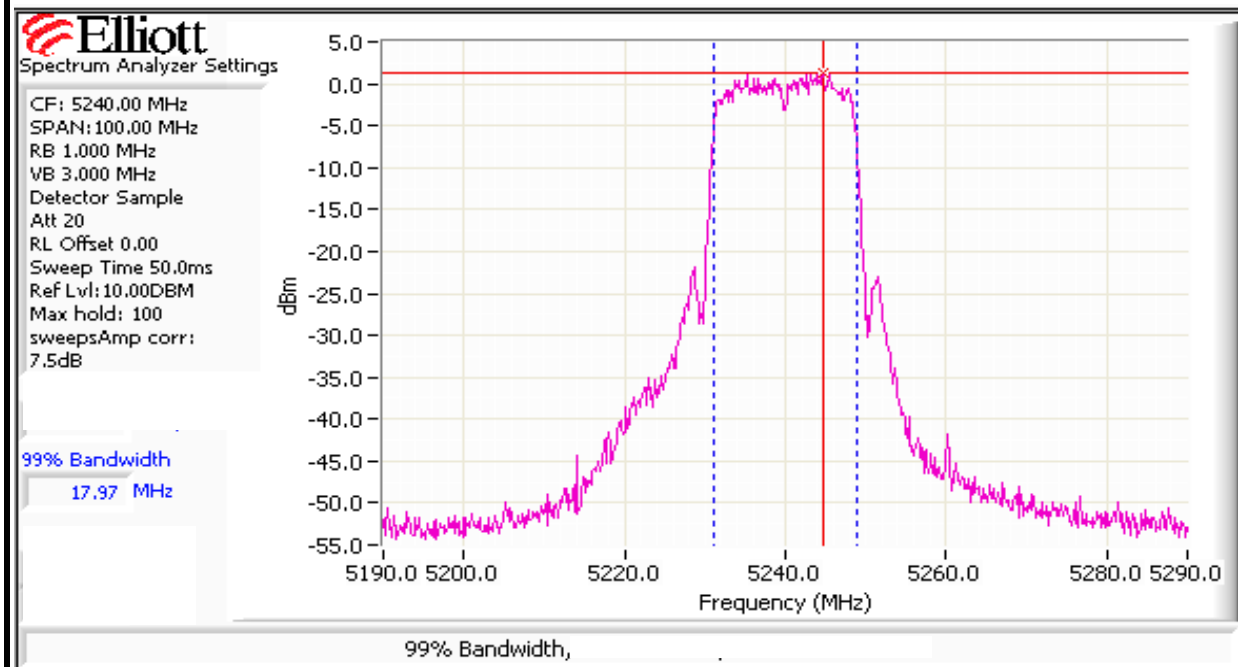


Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

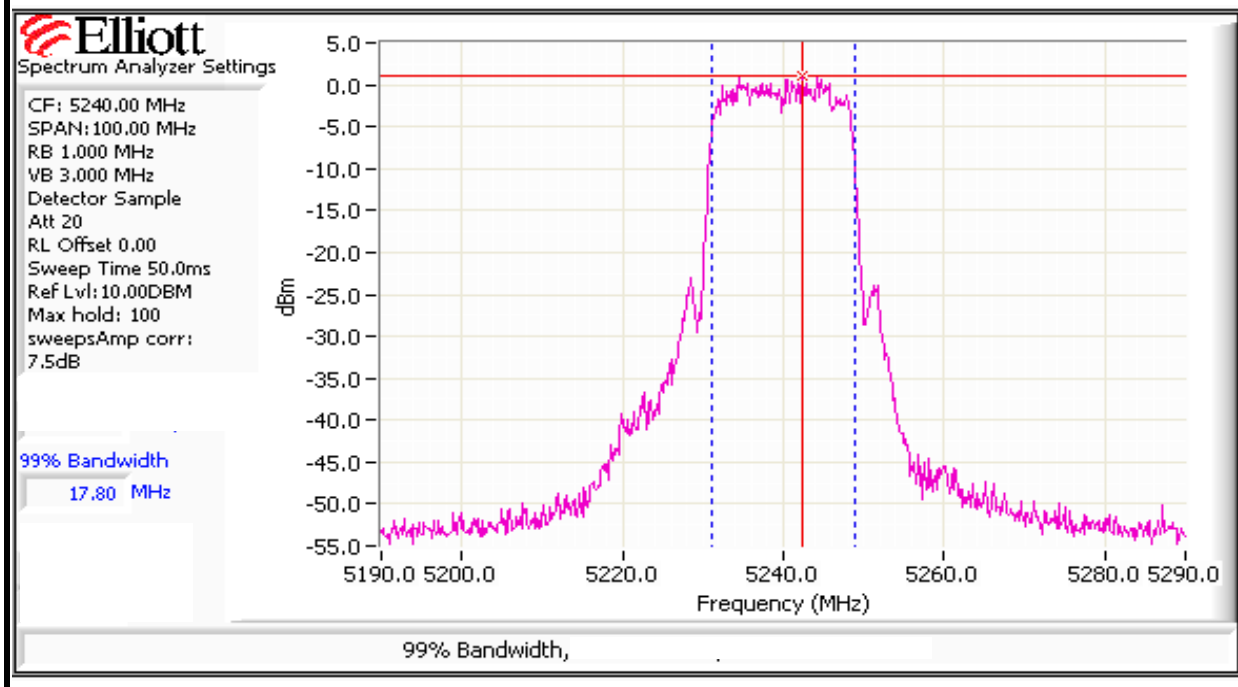
Channel 48 @ 5240 MHz

99% Bandwidth

Chain 1



Chain 2





EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #1b: Power spectral Density

Power Setting	Frequency (MHz)	PSD (dBm/1MHz) ^{Note 1}			dBm/1MHz	
		Main (dBm)	Aux (dBm)	Total		
0x1a1a	5180	0.0	0.0	3.0	3.3	Pass
0x1a1a	5200	-0.1	0.3	3.2	3.3	Pass
0x2424	5240	0.1	-1.3	2.5	3.3	Pass

Note 1:	PSD - if transmit chains are coherent then the PSD is calculated from the sum of the antenna gains plus the total power (i.e. beam-forming is assumed because of coherency on the chains). If the individual chains are incoherent then the PSD is calculated from the sum of the individual EIRPs for each chain.
---------	--

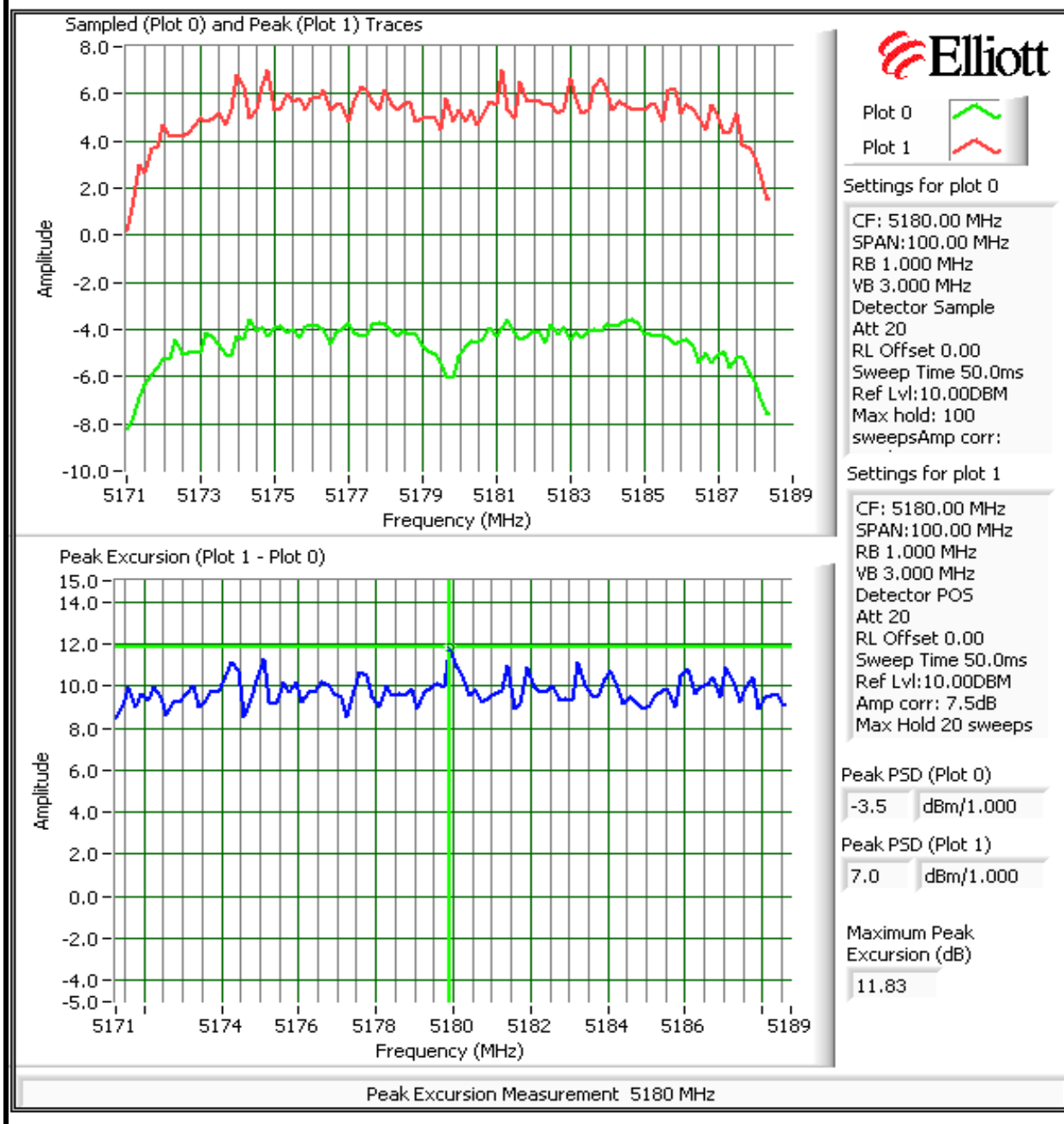
Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Run #2: Peak Excursion Measurement

Plots Showing Peak Excursion

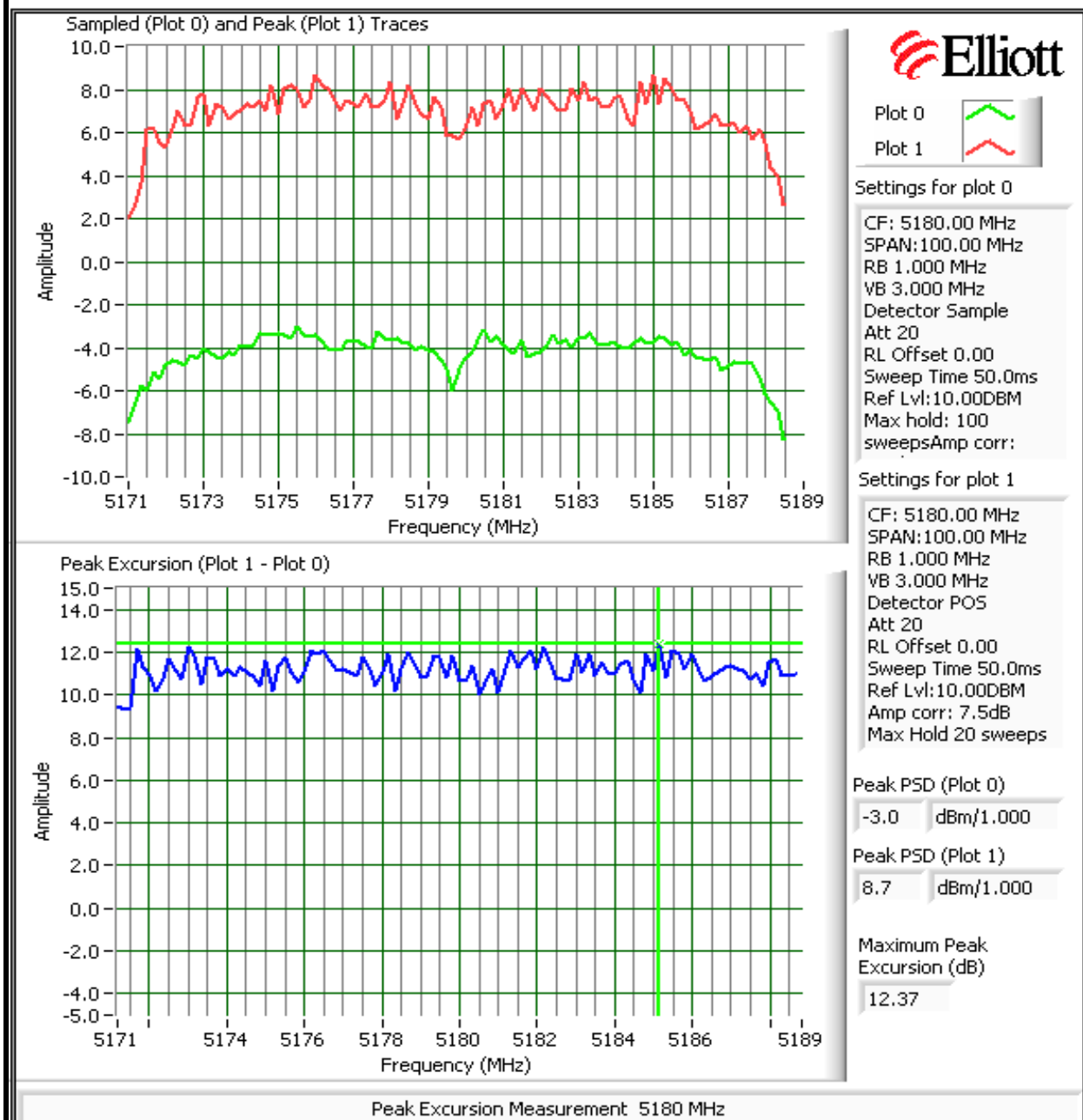
Channel 36 @ 5180 MHz

Chain 1



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

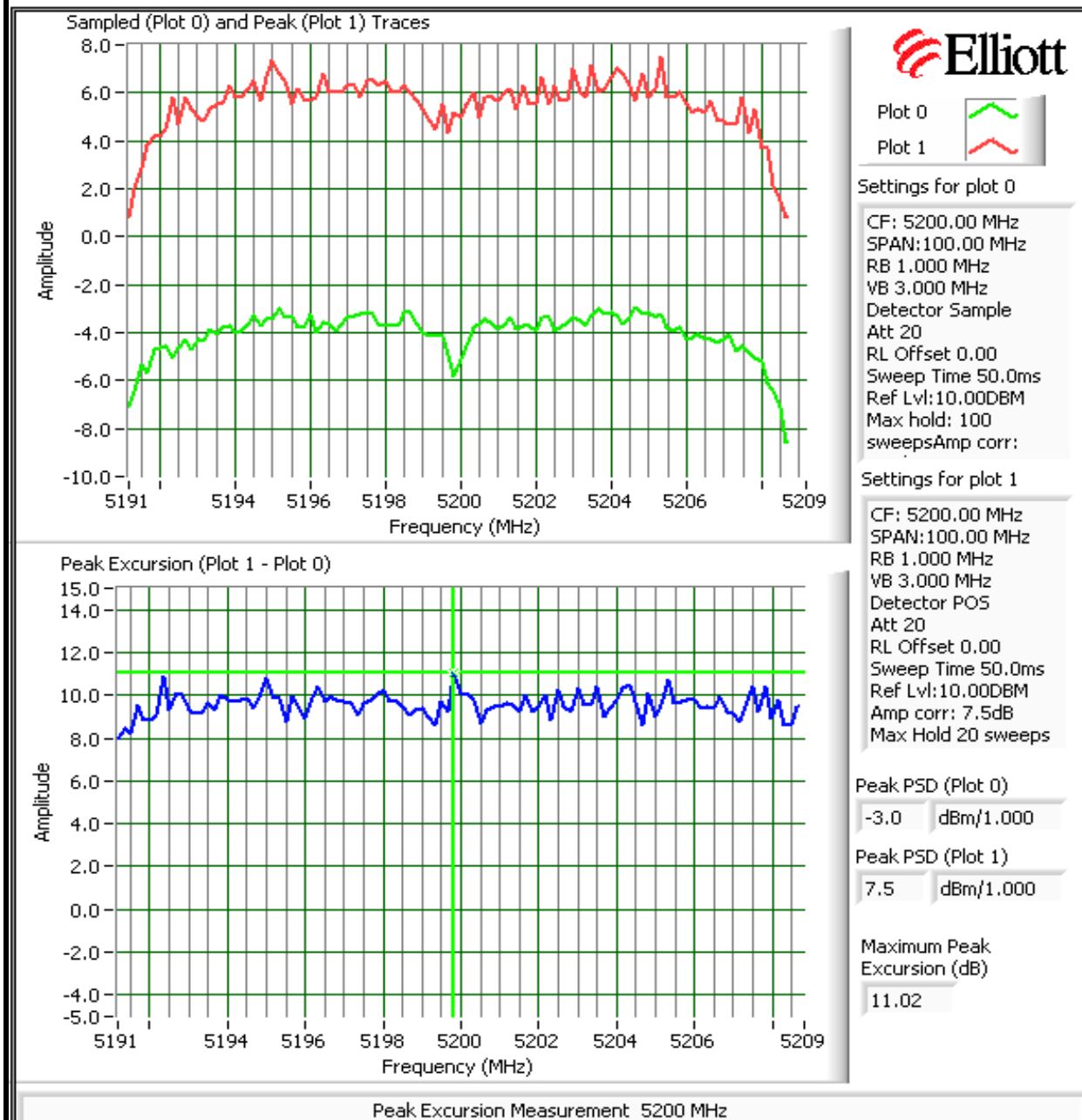
Chain 2



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

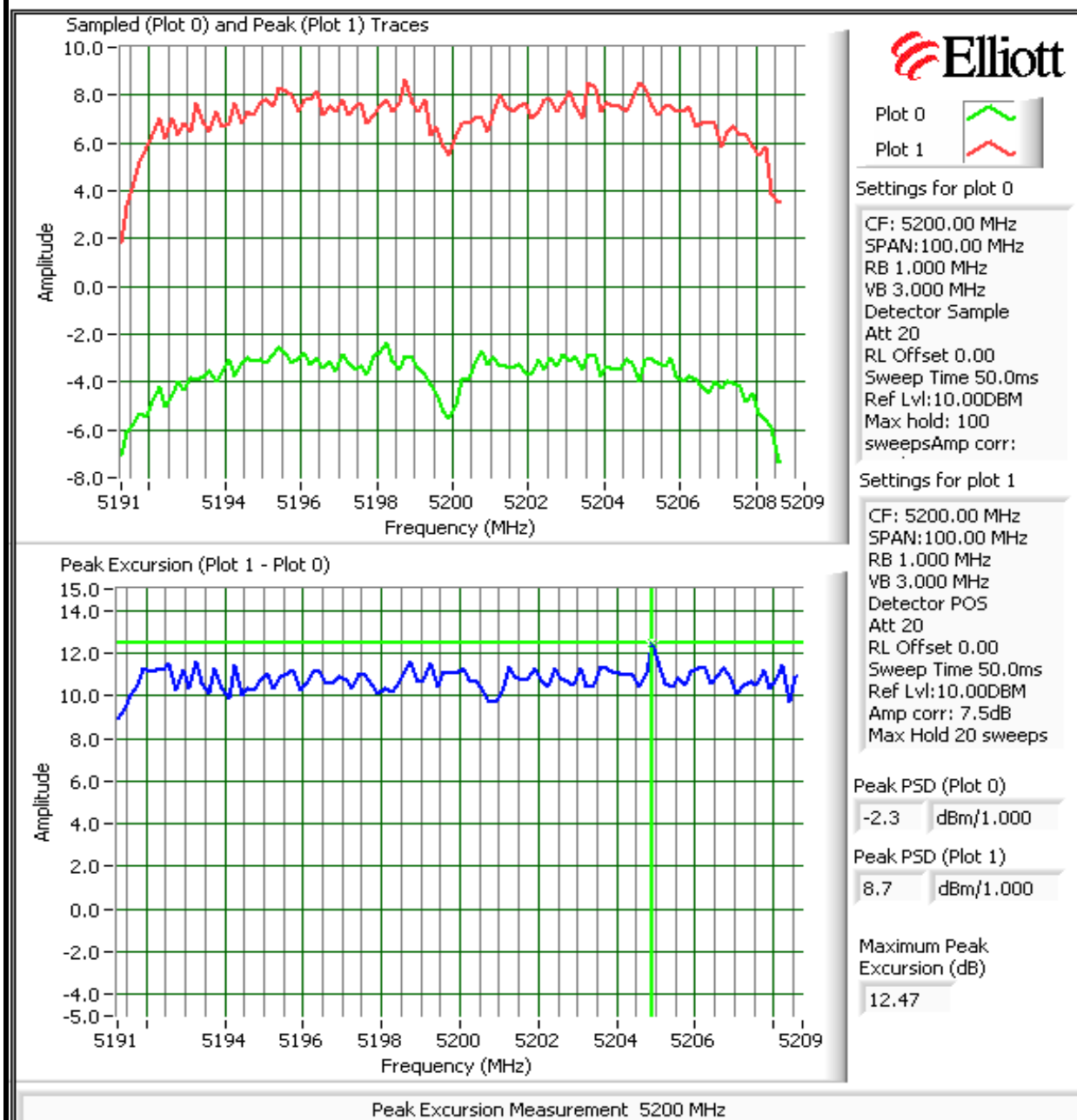
Channel 40 @ 5200 MHz

Chain 1



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

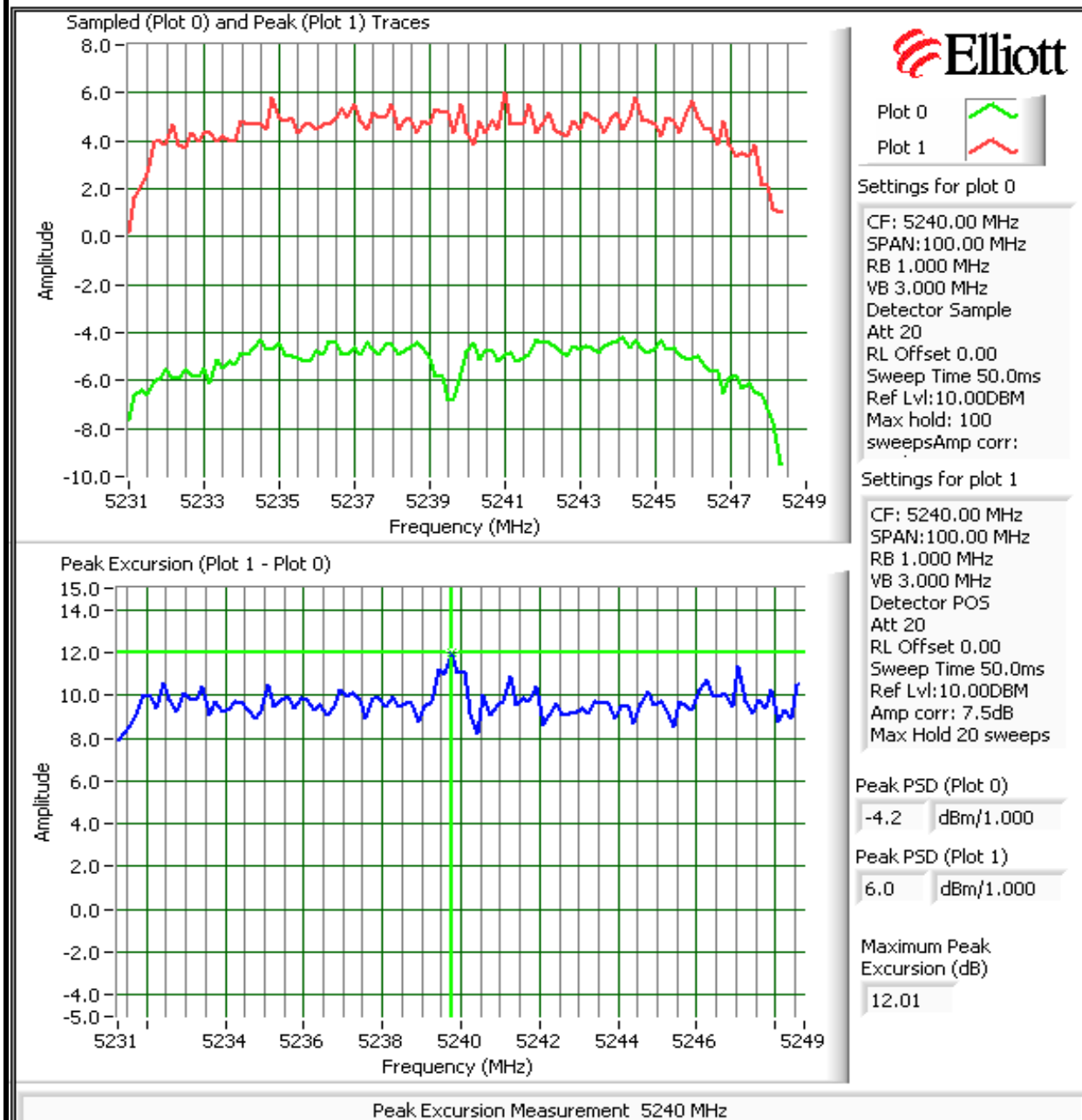
Chain 2



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

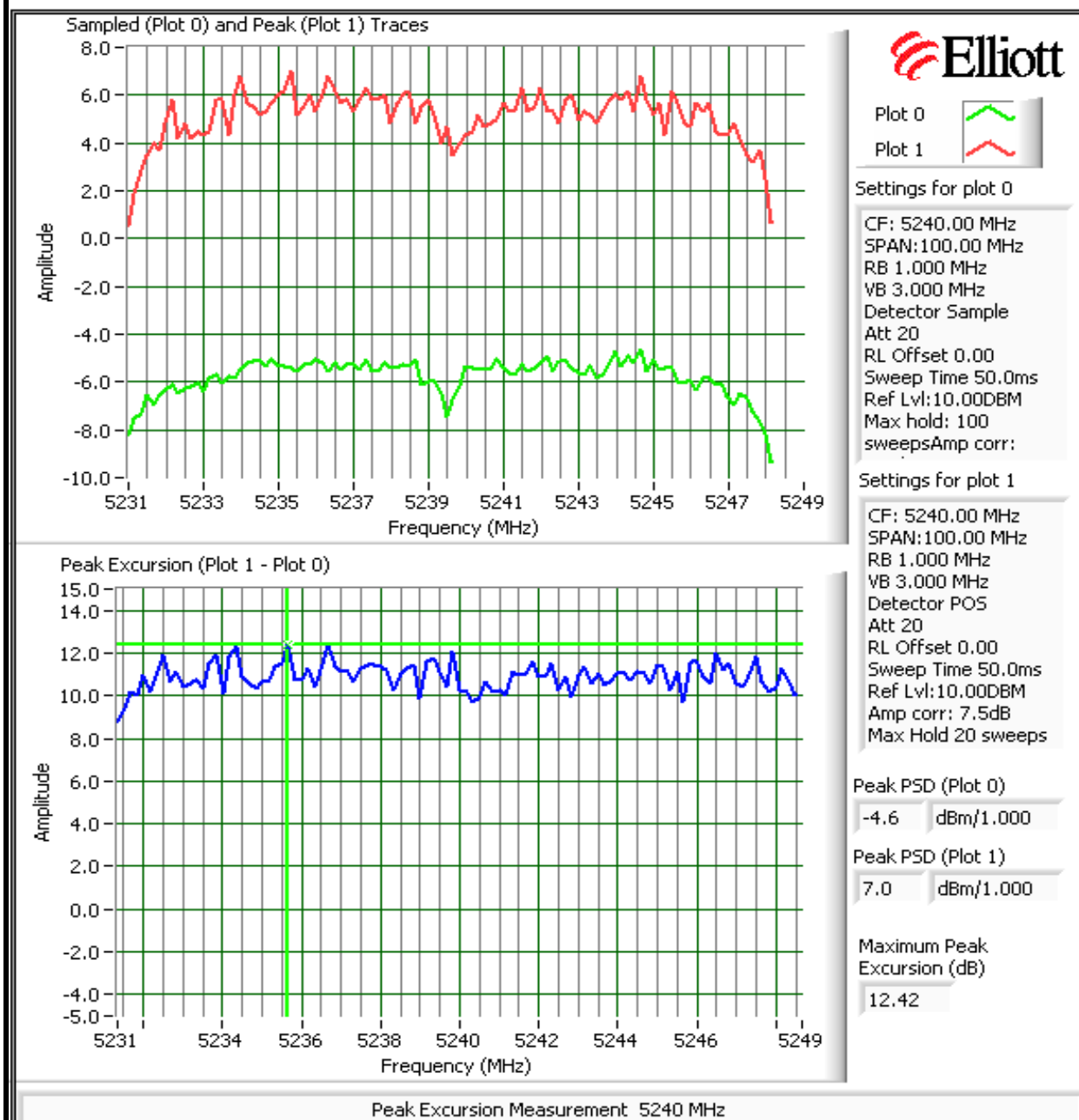
Channel 48 @ 5240 MHz

Chain 1



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Chain 2



Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #3: Out Of Band Spurious Emissions - Antenna Conducted

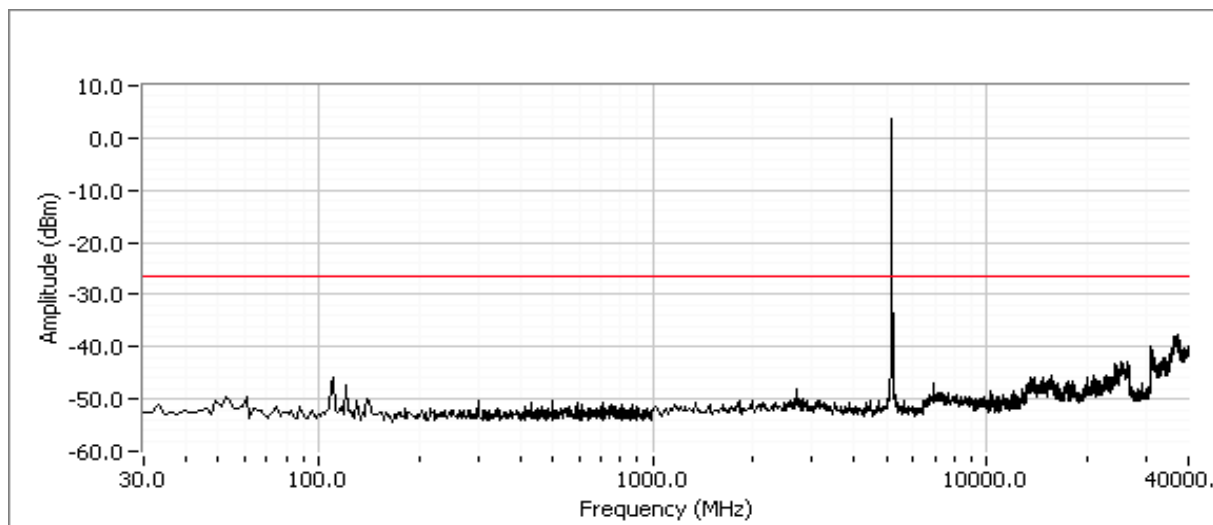
Maximum Antenna Gain: 3.7 dBi
 Spurious Limit: -27 dBm/MHz eirp
 Limit Used On Plots ^{Note 1}: -30.7 dBm/MHz

Note 1:	The -27dBm/MHz limit is an eirp limit. The limit for antenna port conducted measurements is adjusted to take into consideration the maximum antenna gain (limit = -27dBm - antenna gain). Radiated field strength measurements for signals more than 50MHz from the bands and that are close to the limit are made to determine compliance as the antenna gain is not known at these frequencies.
Note 2:	All spurious signals below 1GHz are measured during digital device radiated emissions test.
Note 4:	If the device is for outdoor use then the -27dBm eirp limit also applies in the 5150 - 5250 MHz band.
Note 5:	Signals that fall in the restricted bands of 15.205 are subject to the limit of 15.209.

Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

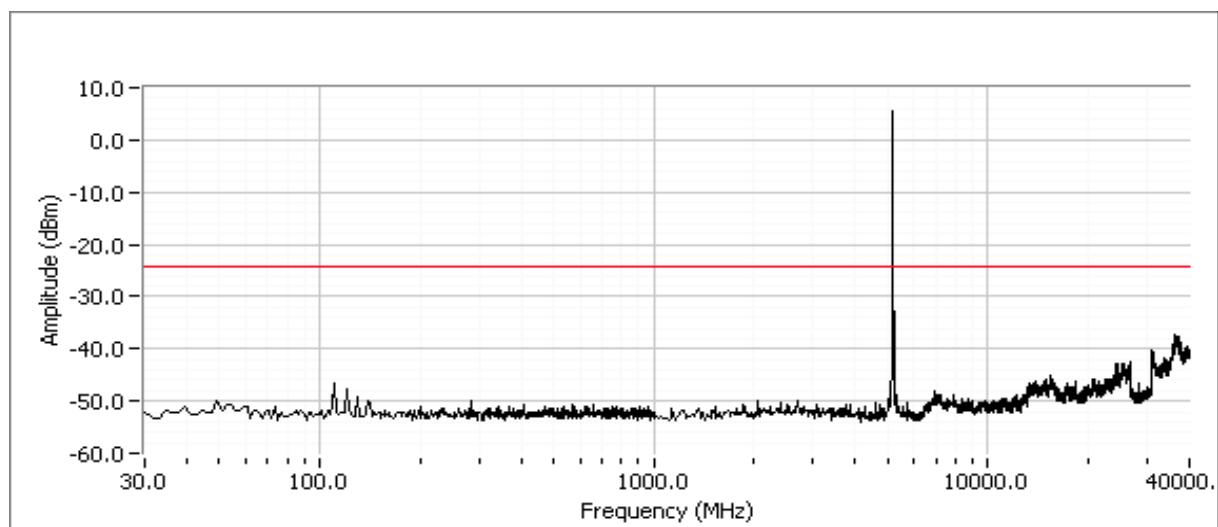
Channel 36 @ 5180 MHz

Chain 1



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

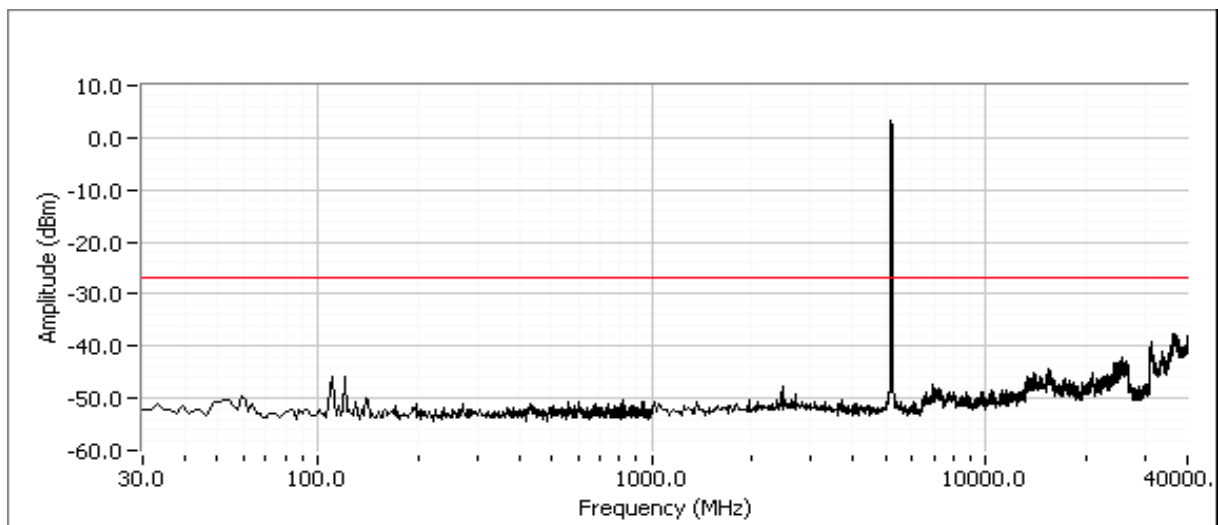
Chain 2



Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

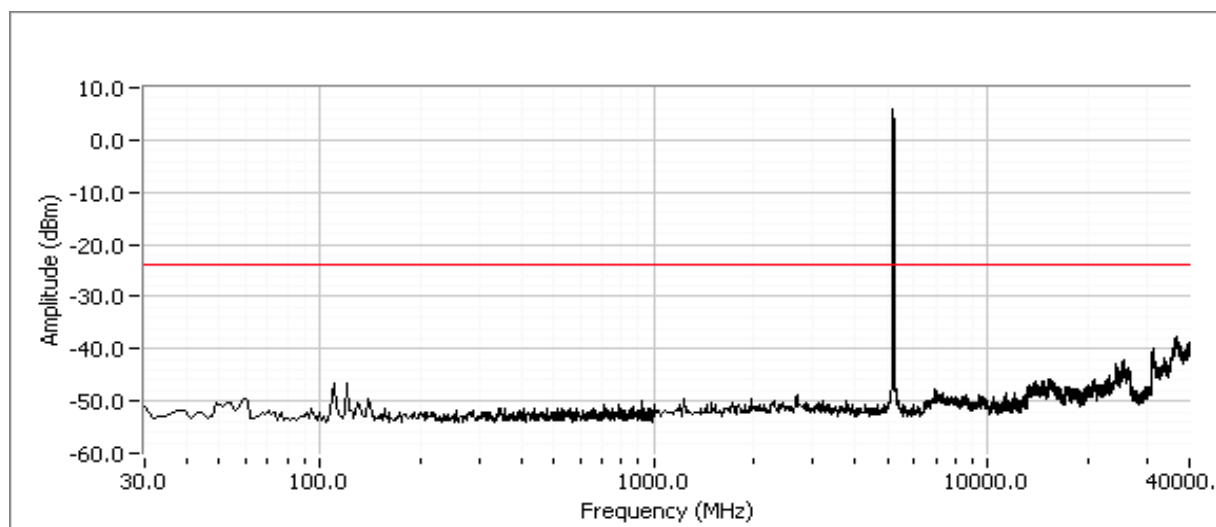
Channel 40 @ 5200 MHz

Chain 1



Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

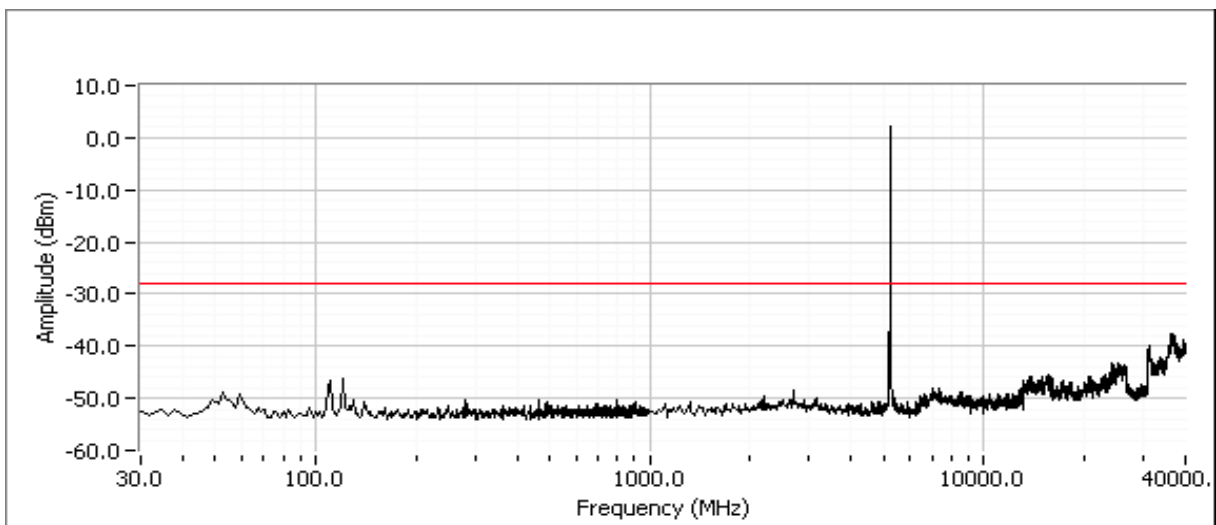
Chain 2



Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

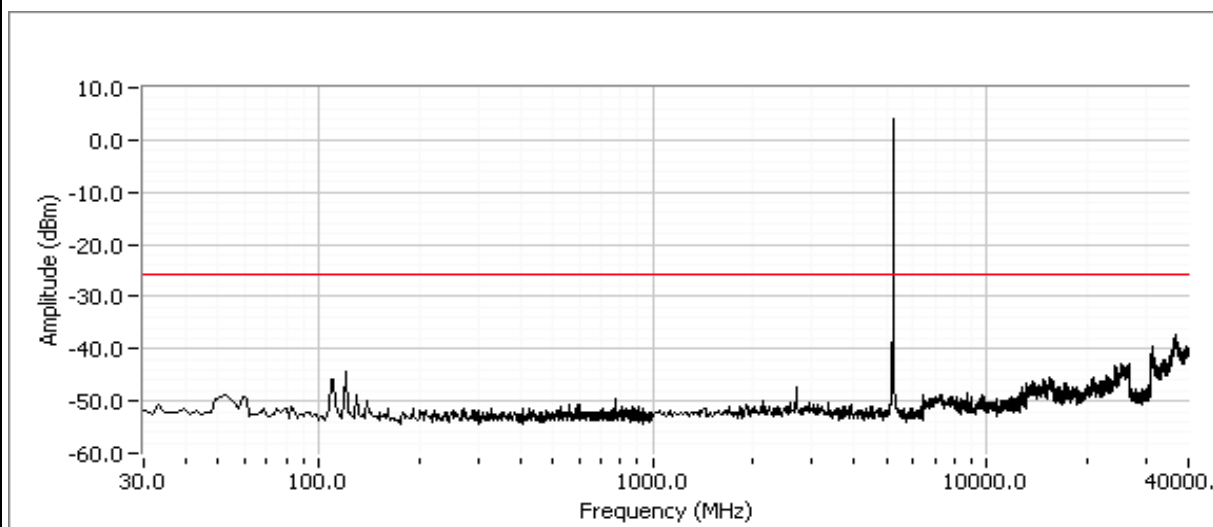
Channel 48 @ 5240 MHz

Chain 1



Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Chain 2



Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

FCC Part 15 Subpart E Tests (5150-5250 MHz, 802.11n, 40 MHz)

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 3/22/2007
 Test Engineer: Mark Hill/Rafael
 Test Location: Fremont Chamber #3

Config. Used: 1
 Config Change: None
 EUT Voltage: 120V/60Hz

General Test Configuration

The EUT was connected to the spectrum analyzer or power meter via a suitable attenuator. All measurements were made on a single chain.

All measurements have been corrected to allow for the external attenuators used.

Ambient Conditions:
 Temperature: 21.1 °C
 Rel. Humidity: 43 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	12dBm
1	PSD, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	1.28dBm/MHz
1	26dB Bandwidth	15.407	Pass	> 20 MHz
1	99% Bandwidth	RSS 210	Pass	36.9 MHz
2	Peak Excursion Envelope	15.407(a) (6)	Pass	5.54 dB
3	Antenna Conducted - Out of Band Spurious	15.407(b)	Pass	All emissions below the -27dBm/MHz limit

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #1: Output Power

Transmitted signal on chain is coherent ? Yes

Regulatory Final Power Measurements:

Power Setting ⁴	Frequency (MHz)	Output Power (dBm) ^{Note 1}			Antenna Gain (dBi) ^{Note 3}			EIRP ^{Note 2}	
		Chain 1	Chain 2	Total	Chain 1	Chain 2	Total	dBm	W
0x0d0d	5190	12.0	12.3	15.2	3.7	3.7	6.7	21.9	0.154
0x1111	5230	11.7	11.7	14.7	3.7	3.7	6.7	21.4	0.138

Frequency (MHz)	Software Setting	Bandwidth		Output Power ¹ dBm		Power (Watts)	PSD ² dBm/MHz			Result
		26dB	99% ⁴	Measured	Limit		Measured	FCC Limit	RSS Limit ³	
5180	0x1a1a	44.3	36.9	15.2	16.3	0.033	1.28	3.3	2.5	Pass
5230	0x1a1a	41.7	36.6	14.7	16.3	0.030	1.03	3.3	2.1	Pass

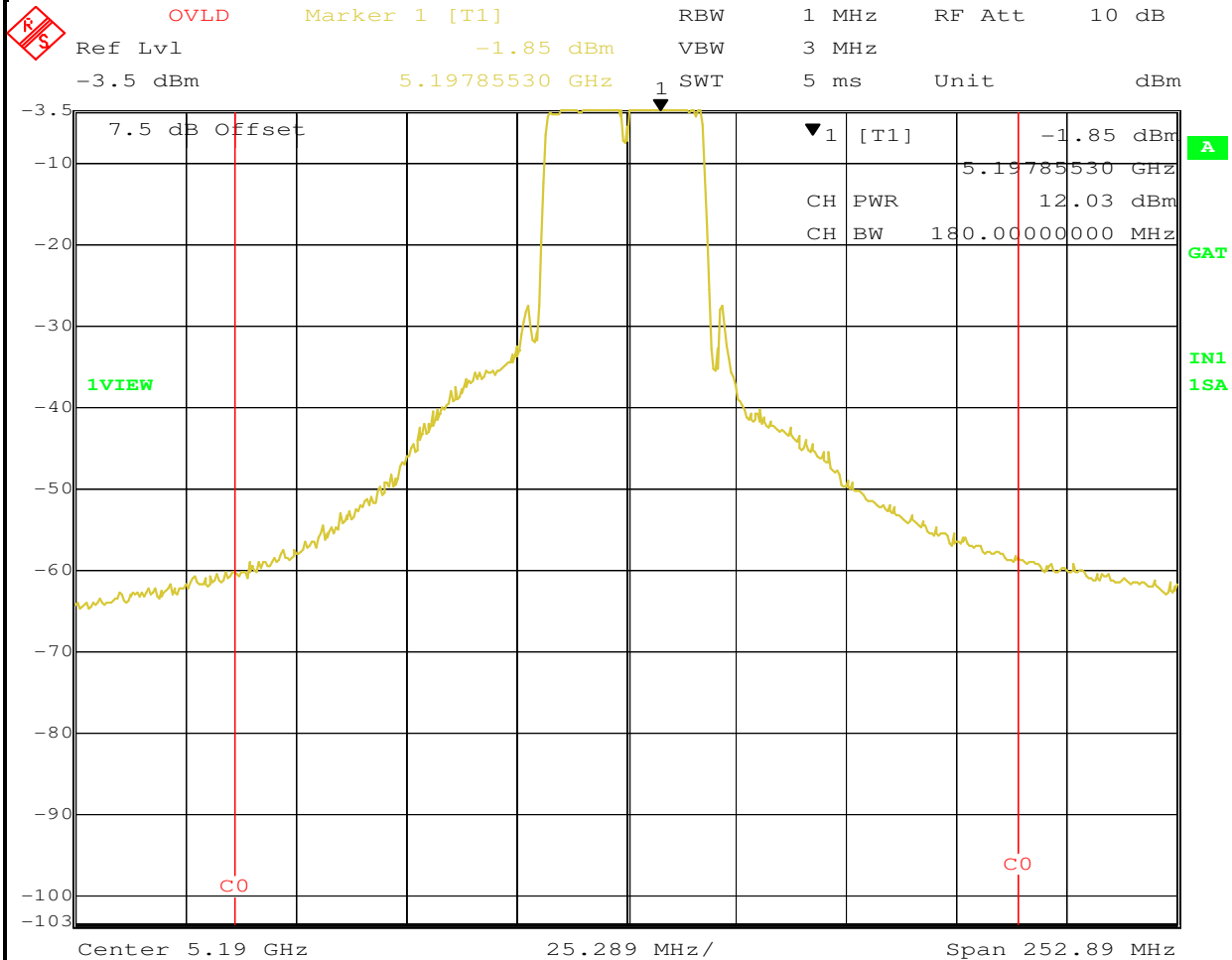
Note 1:	RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was not continuous but the ESI analyzer was configured with a gated sweep such that the analyzer was only sweeping when the device was transmitting) and power integration over 100 MHz
Note 2:	EIRP - if transmit chains are coherent then the EIRP is calculated from the sum of the antenna gains plus the total power (i.e. beam-forming is assumed because of coherency on the chains). If the individual chains are incoherent then the EIRP is calculated from the sum of the individual EIRPs for each chain.
Note 3:	If the transmit chains are coherent then the total system antenna gain is the sum of the numeric gains for each antenna. If the transmit chains are incoherent then the system antenna gain is not applicable as each transmit chain can be treated independently.
Note 4:	Power setting - if a single number the same power setting was used for each chain. If multiple numbers the power setting for each chain is separated by a comma (e.g. x,y would indicate power setting x for chain 1, power setting y for chain 2.



EMC Test Data

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Low Channel 38 @ 5190 MHz Chain 1

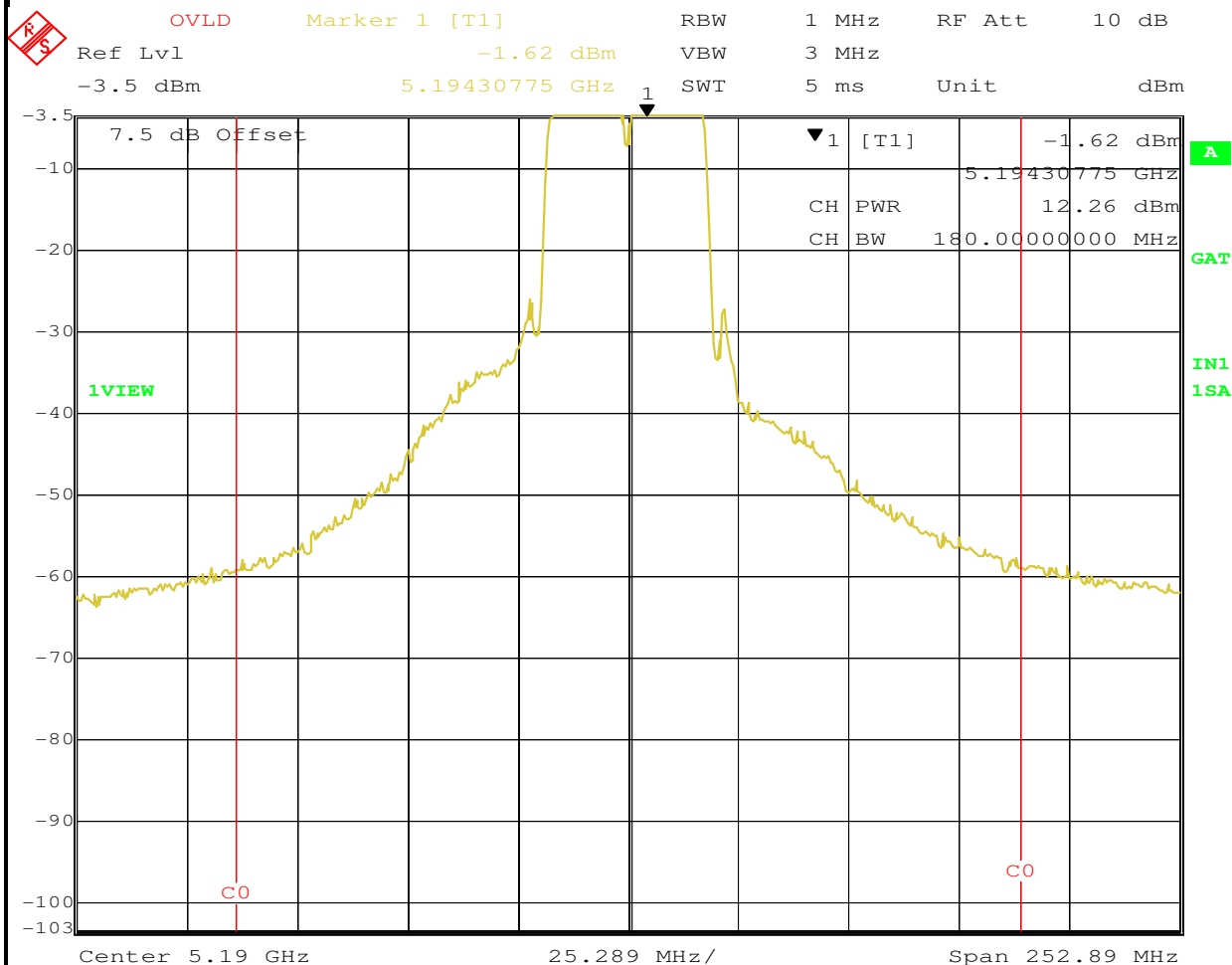


Date: 6.APR.2007 02:13:18

EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
		Account Manager:	-
Contact:	Kevin Lee		
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Low Channel 38 @ 5190 MHz
Chain 2



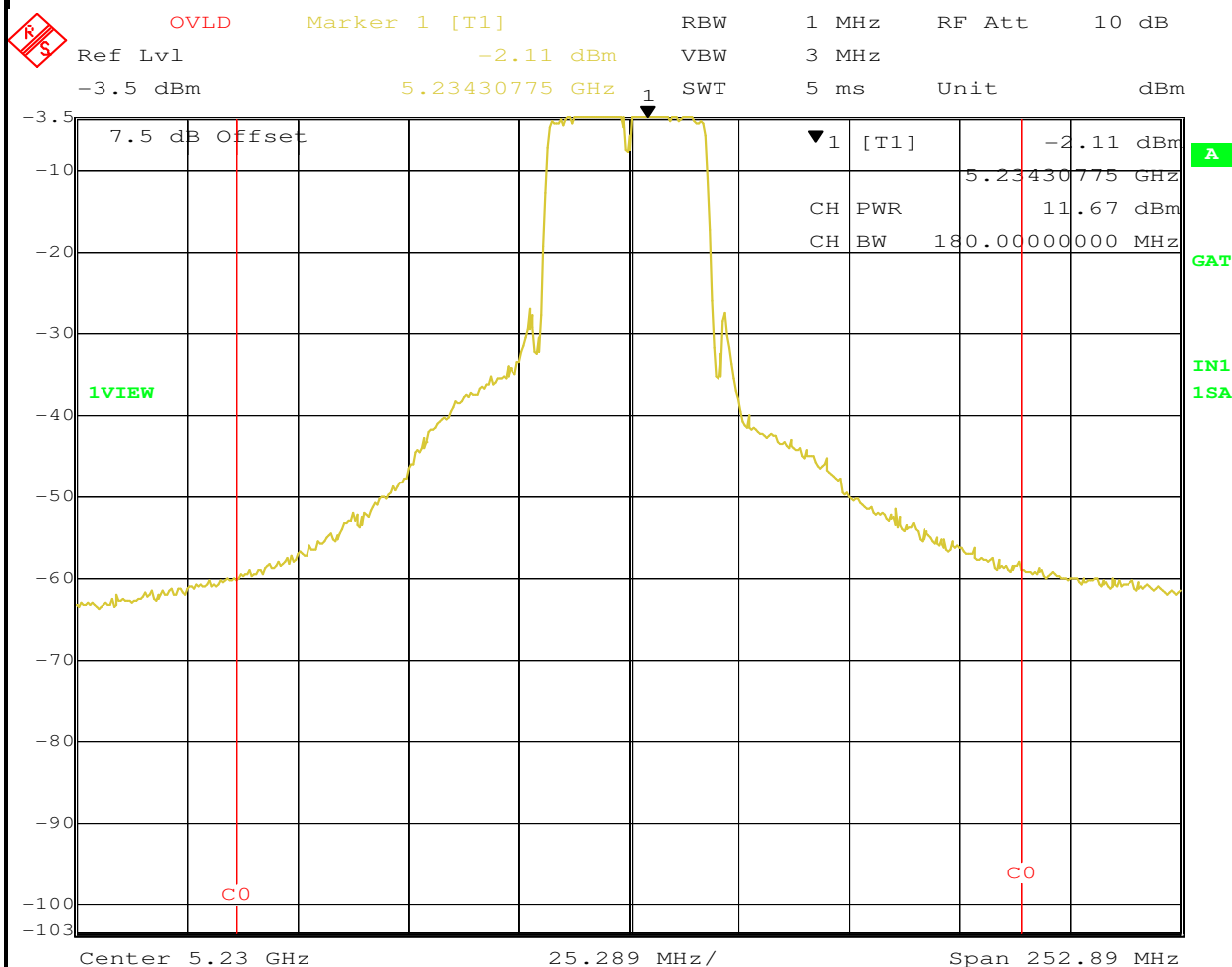
Date: 6.APR.2007 02:09:47



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

High Channel 46 @ 5230 MHz Chain 1



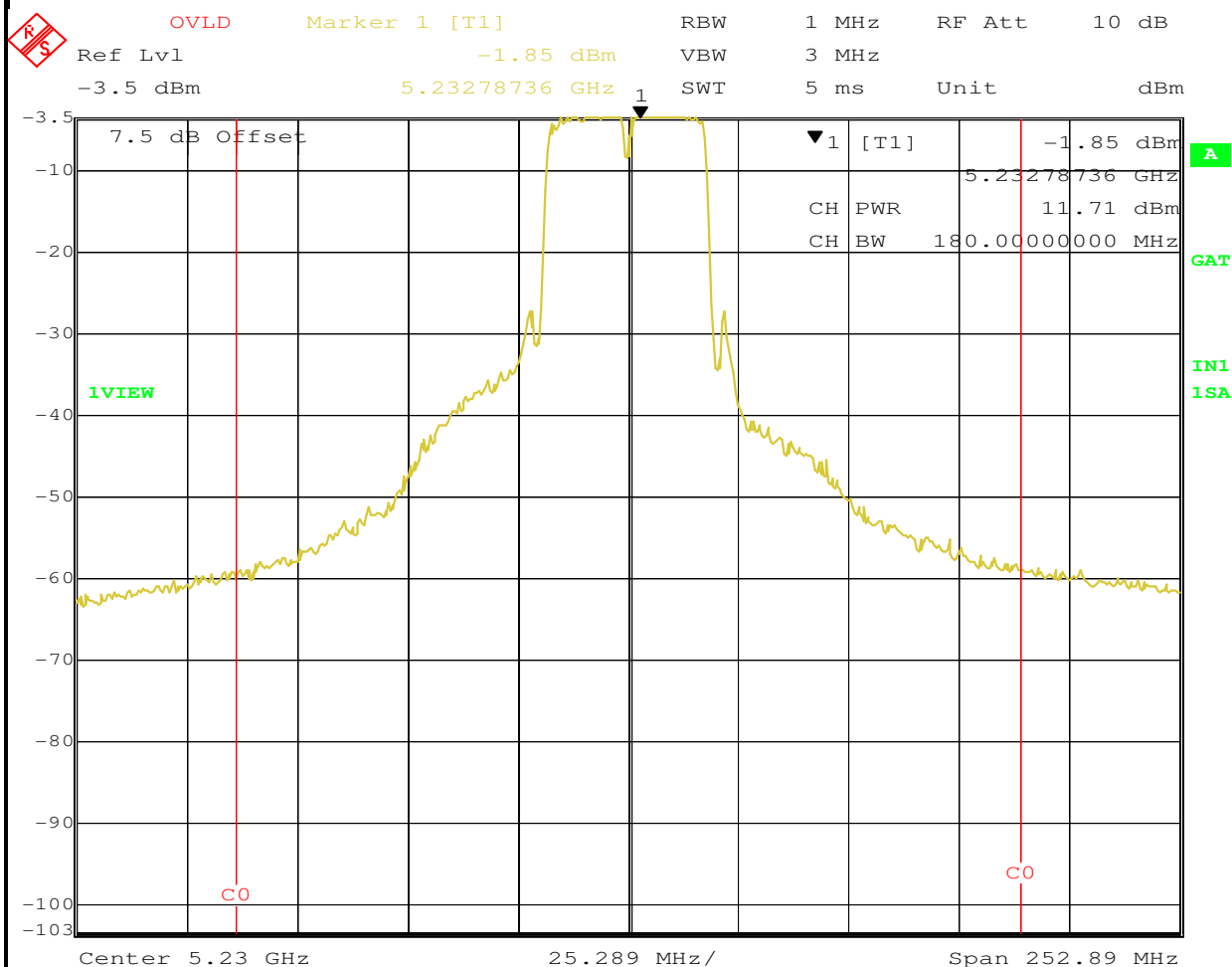
Date: 6.APR.2007 02:02:38



EMC Test Data

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

High Channel 46 @ 5230 MHz Chain 2



Date: 6.APR.2007 02:06:35



EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

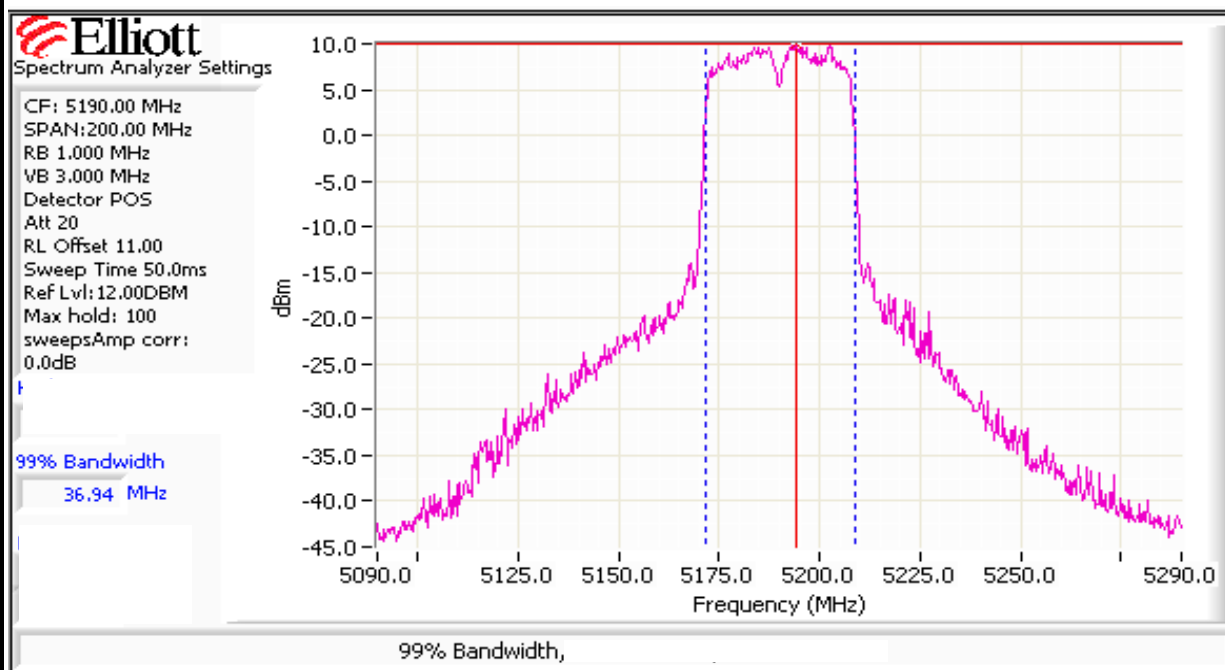
Run #2: Power spectral Density

Power Setting	Frequency (MHz)	PSD (dBm/1MHz) ^{Note 1}			dBm/1MHz	
		Main (dBm)	Aux (dBm)	Total		
0x0d0d	5190	-1.9	-1.6	1.3	3.3	Pass
0x1111	5230	-2.1	-1.9	1.0	3.3	Pass

Note 1:	PSD - if transmit chains are coherent then the PSD is calculated from the sum of the antenna gains plus the total power (i.e. beam-forming is assumed because of coherency on the chains). If the individual chains are incoherent then the PSD is calculated from the sum of the individual EIRPs for each chain.
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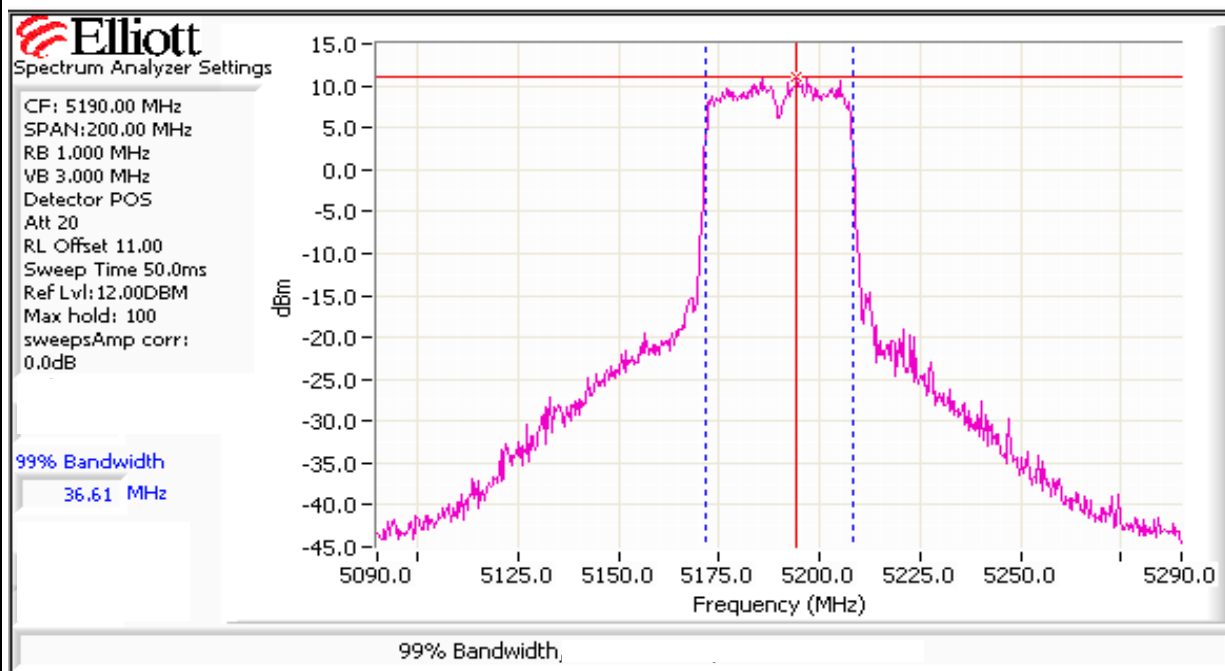
Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

99% Bandwidth Plot
Low Channel 38 @ 5190 MHz
Chain 1



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

99% Bandwidth Plot
Low Channel 38 @ 5190 MHz
Chain 2

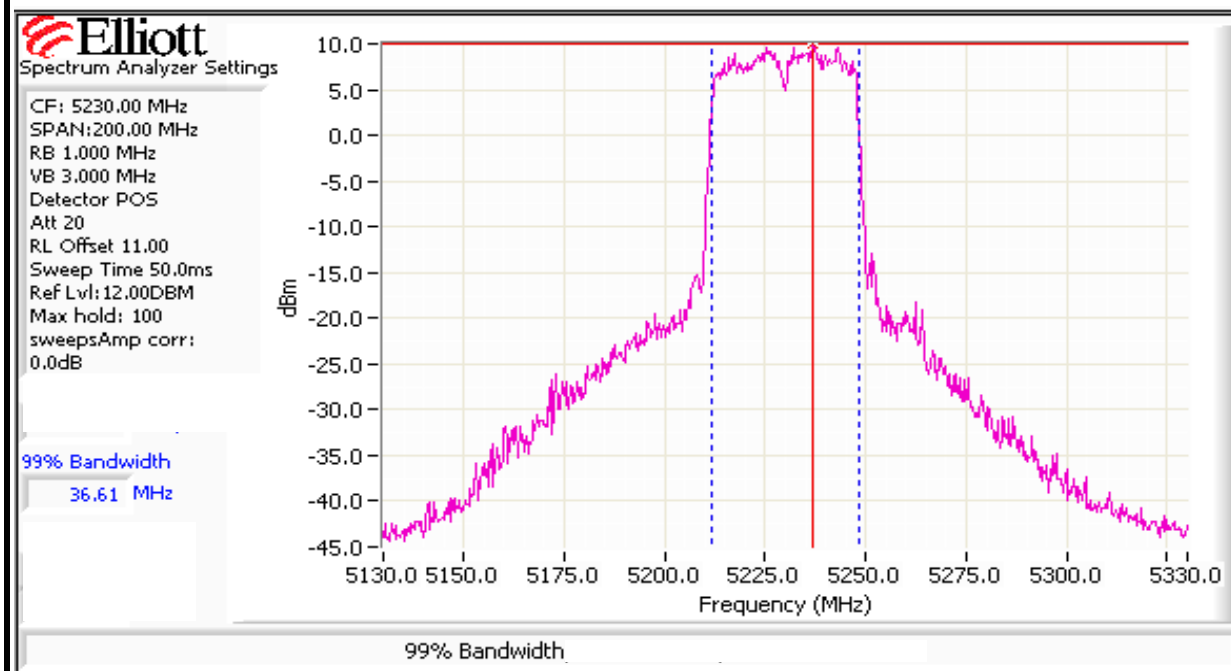


Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

99% Bandwidth Plot

High Channel 46 @ 5230 MHz

Chain 1

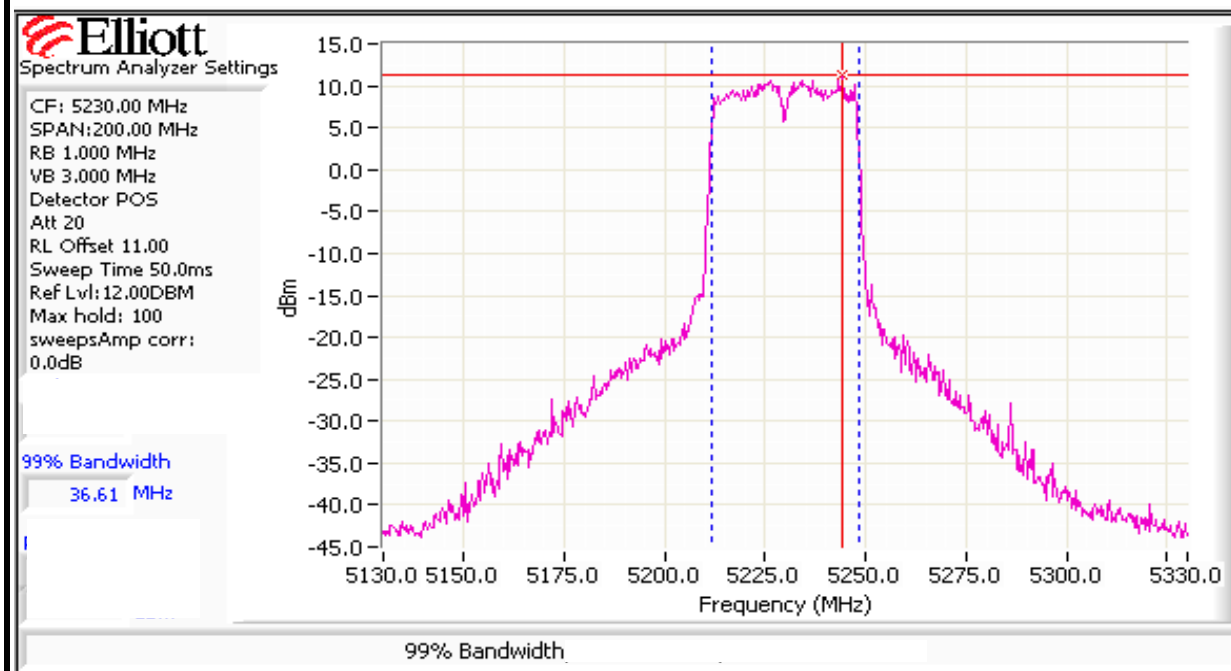


Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

99% Bandwidth Plot

High Channel 46 @ 5230 MHz

Chain 2



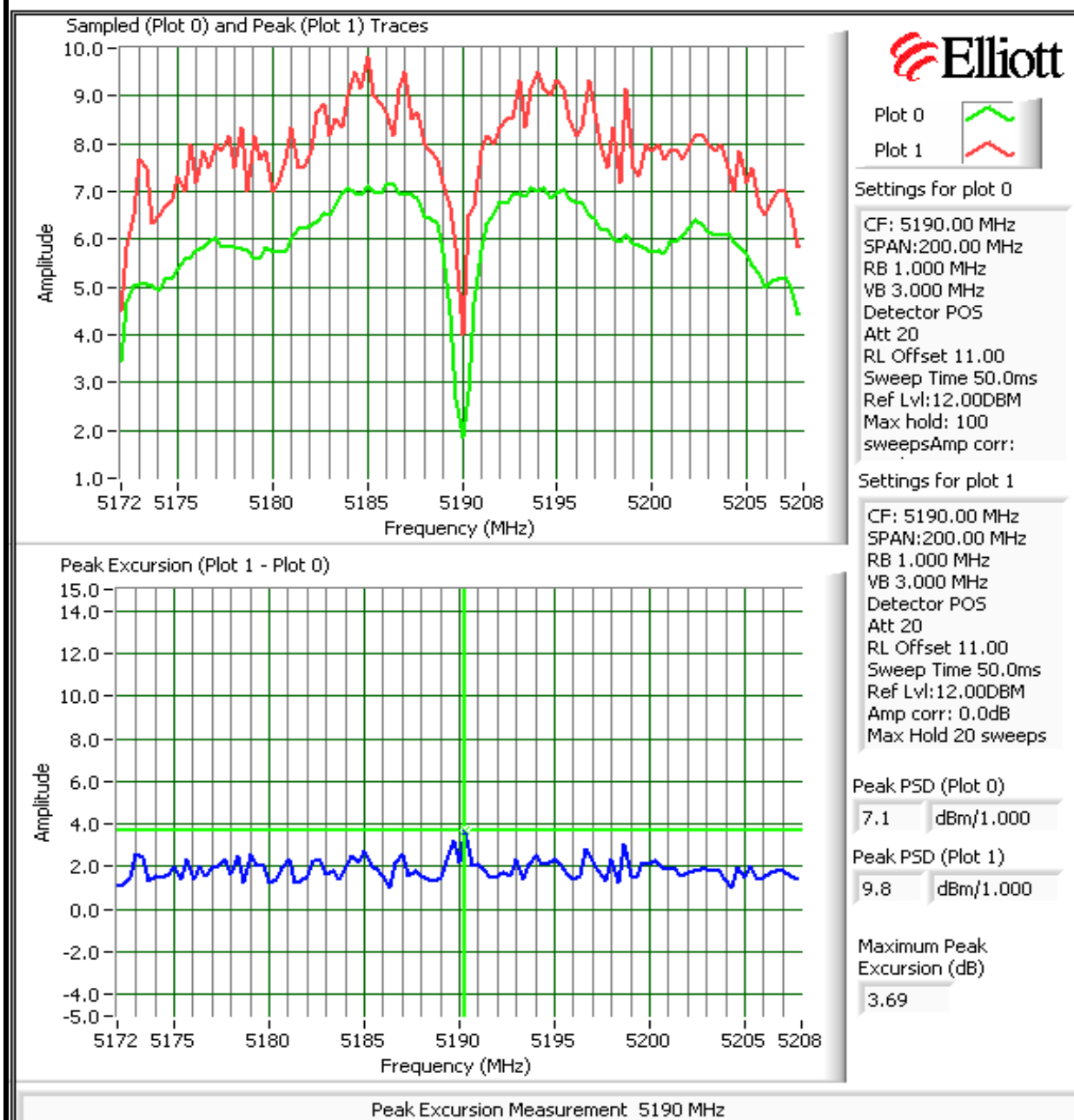
Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Run #2a: Peak Excursion Measurement

Low Channel 38 @ 5190 MHz

Chain 1

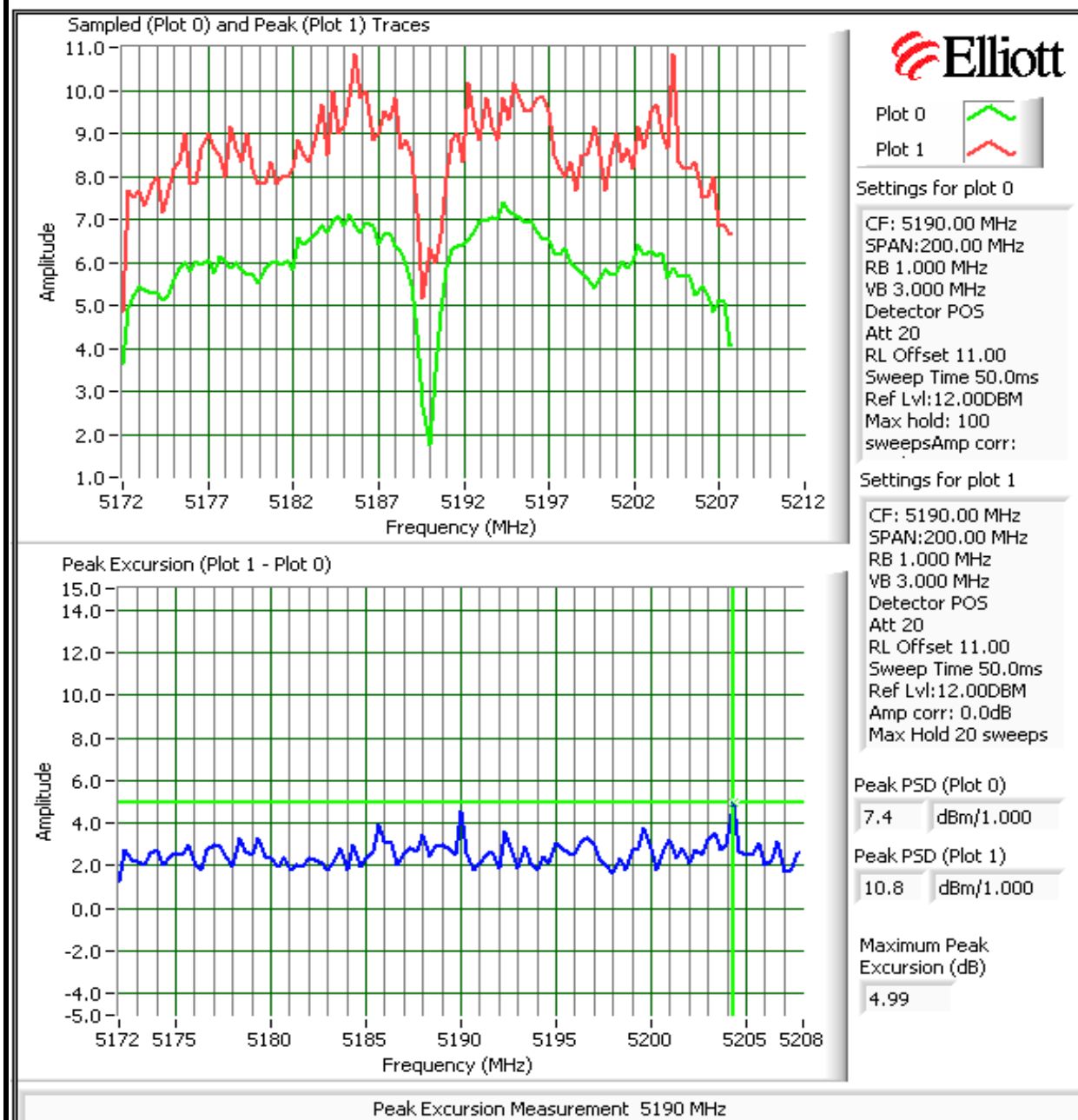
Plots Showing Peak Excursion



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Low Channel 38 @ 5190 MHz Chain 2

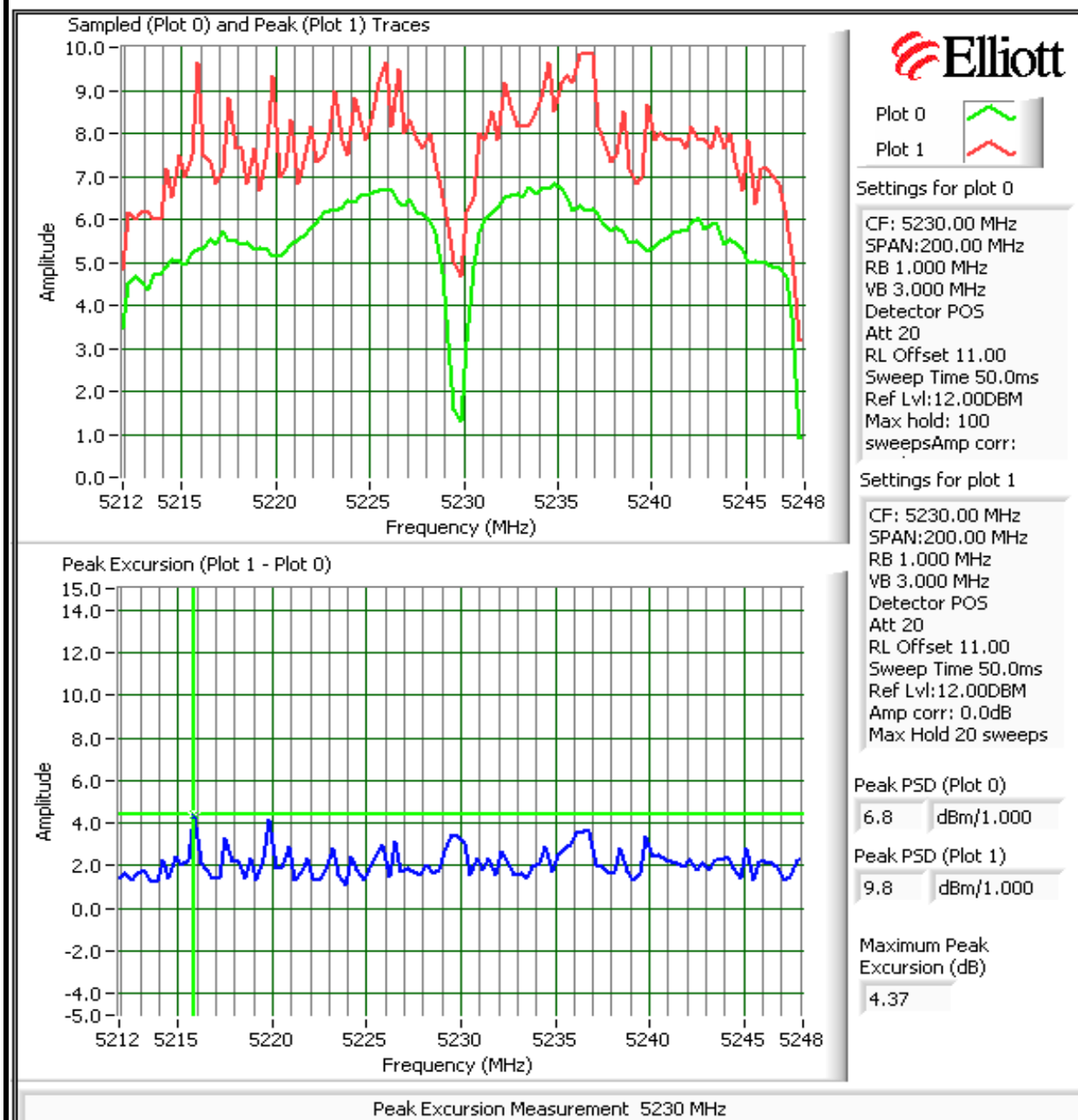
Plots Showing Peak Excursion



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Run #2b: Peak Excursion Measurement High Channel 46 @ 5230 MHz Chain 1

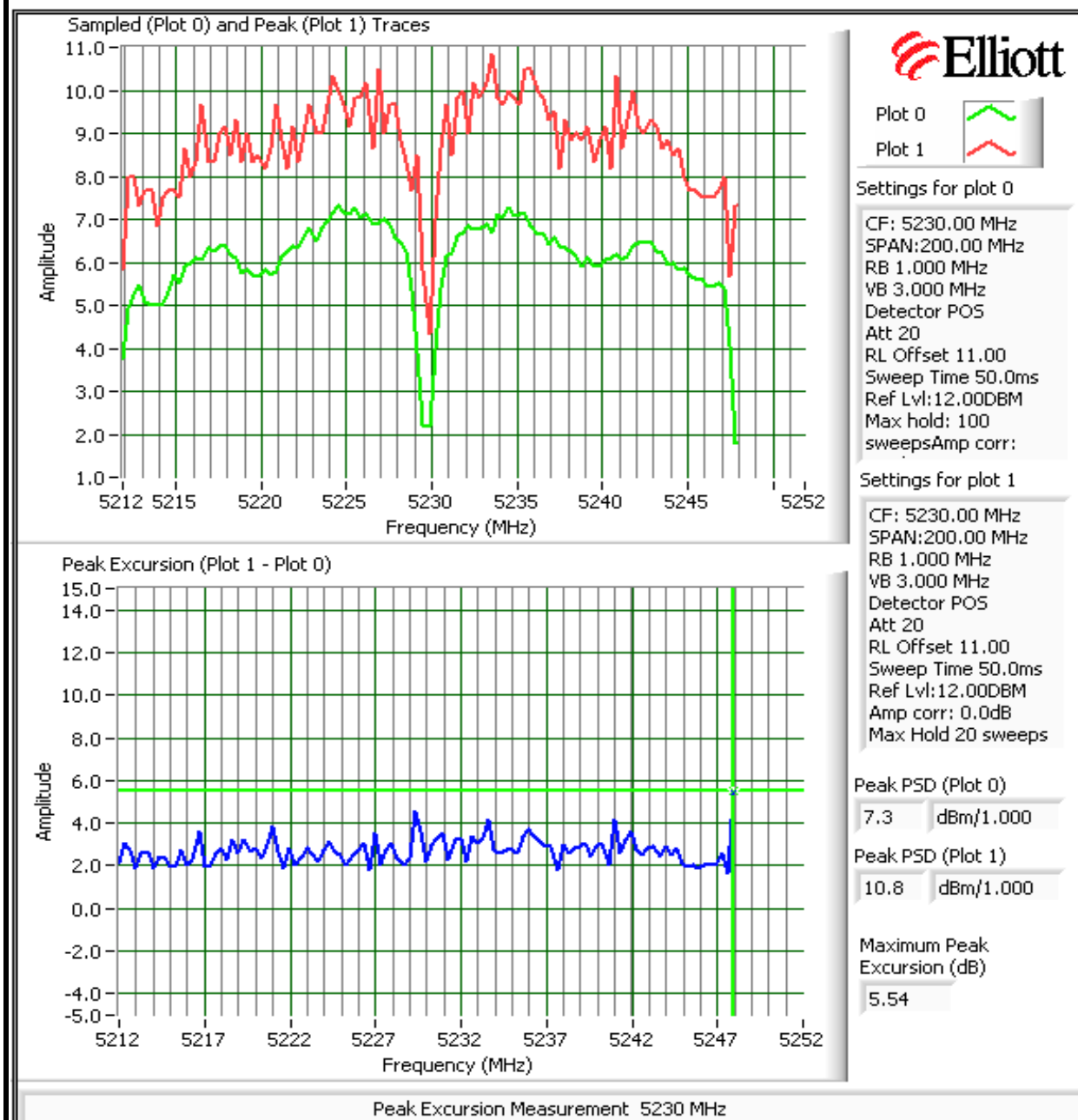
Plots Showing Peak Excursion



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

High Channel 46 @ 5230 MHz Chain 2

Plots Showing Peak Excursion





EMC Test Data

Client:	Cisco-Linksys	Job Number:	J67313
Model:	WRT600N	T-Log Number:	T67324
Contact:	Kevin Lee	Account Manager:	-
Standard:	FCC 15.407 & RSS-210	Class:	N/A

Run #3a: Out Of Band Spurious Emissions - Antenna Conducted Low Channel 38 @ 5190 MHz

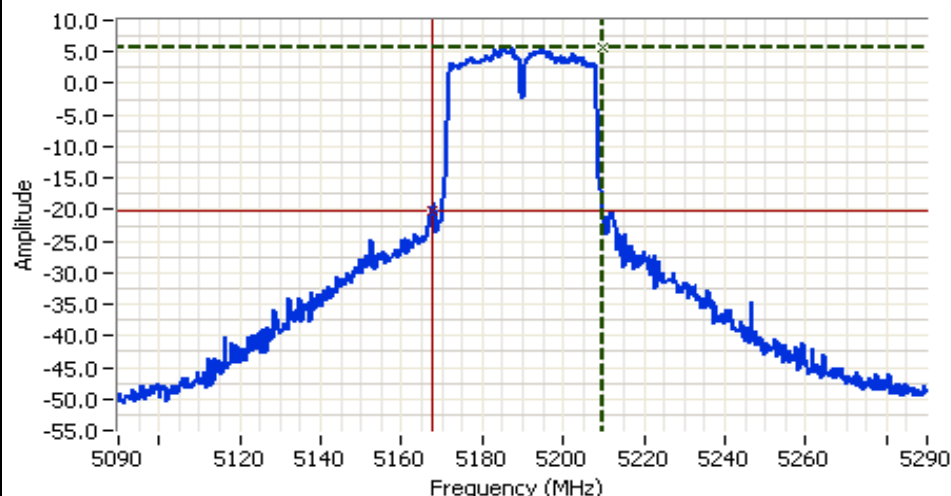
Maximum Antenna Gain: 3.7 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots ^{Note 1}: -30.7 dBm/MHz

Note 1:	The -27dBm/MHz limit is an eirp limit. The limit for antenna port conducted measurements is adjusted to take into consideration the maximum antenna gain (limit = -27dBm - antenna gain). Radiated field strength measurements for signals more than 50MHz from the bands and that are close to the limit are made to determine compliance as the antenna gain is not known at these frequencies.
Note 2:	All spurious signals below 1GHz are measured during digital device radiated emissions test.
Note 4:	If the device is for outdoor use then the -27dBm eirp limit also applies in the 5150 - 5250 MHz band.
Note 5:	Signals that fall in the restricted bands of 15.205 are subject to the limit of 15.209.

Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

26dB Bandwidth Plot

Chain 1



Analyzer Settings

HP8564E,EMI
CF: 5190.00 MHz
SPAN:200.00 MHz
RB 300 kHz
VB 1.000 MHz
Detector POS
Att 20
RL Offset 11.00
Sweep Time 50.0ms
Ref Lvl:12.00DBM

Comments

26dB Bandwidth

Cursor 1 5209.66; 5.83

Cursor 2 5167.66; -20.17

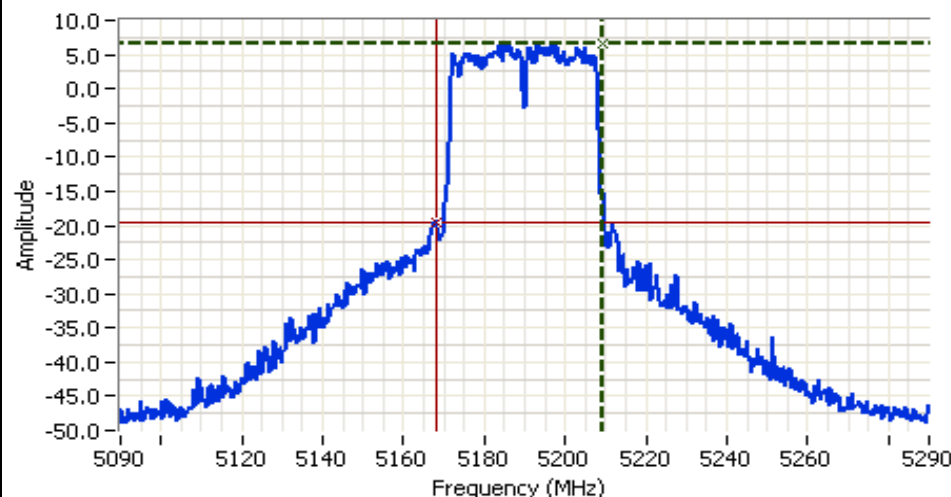
Delta Freq. 42.00

Delta Amplitude 26.00



26dB Bandwidth Plot

Chain 2



Analyzer Settings

HP8564E,EMI
CF: 5190.00 MHz
SPAN:200.00 MHz
RB 300 kHz
VB 1.000 MHz
Detector POS
Att 20
RL Offset 11.00
Sweep Time 50.0ms
Ref Lvl:12.00DBM

Comments

26dB Bandwidth

Cursor 1 5209.33; 6.50

Cursor 2 5168.00; -19.50

Delta Freq. 41.33

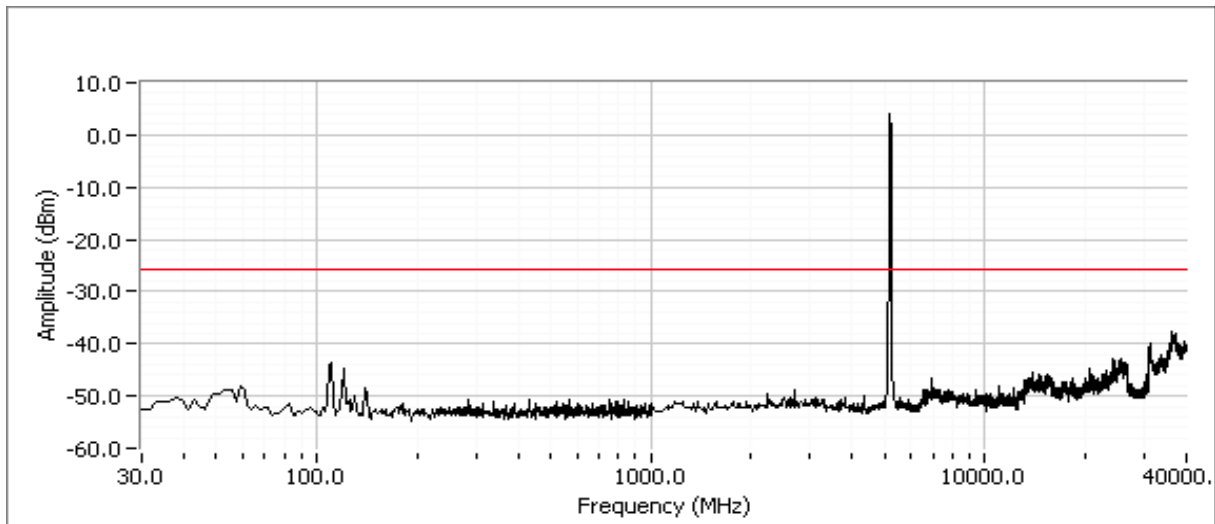
Delta Amplitude 26.00



Client: Cisco-Linksys	Job Number: J67313
Model: WRT600N	T-Log Number: T67324
Contact: Kevin Lee	Account Manager: -
Standard: FCC 15.407 & RSS-210	Class: N/A

Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

Chain 1



Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

Chain 2

