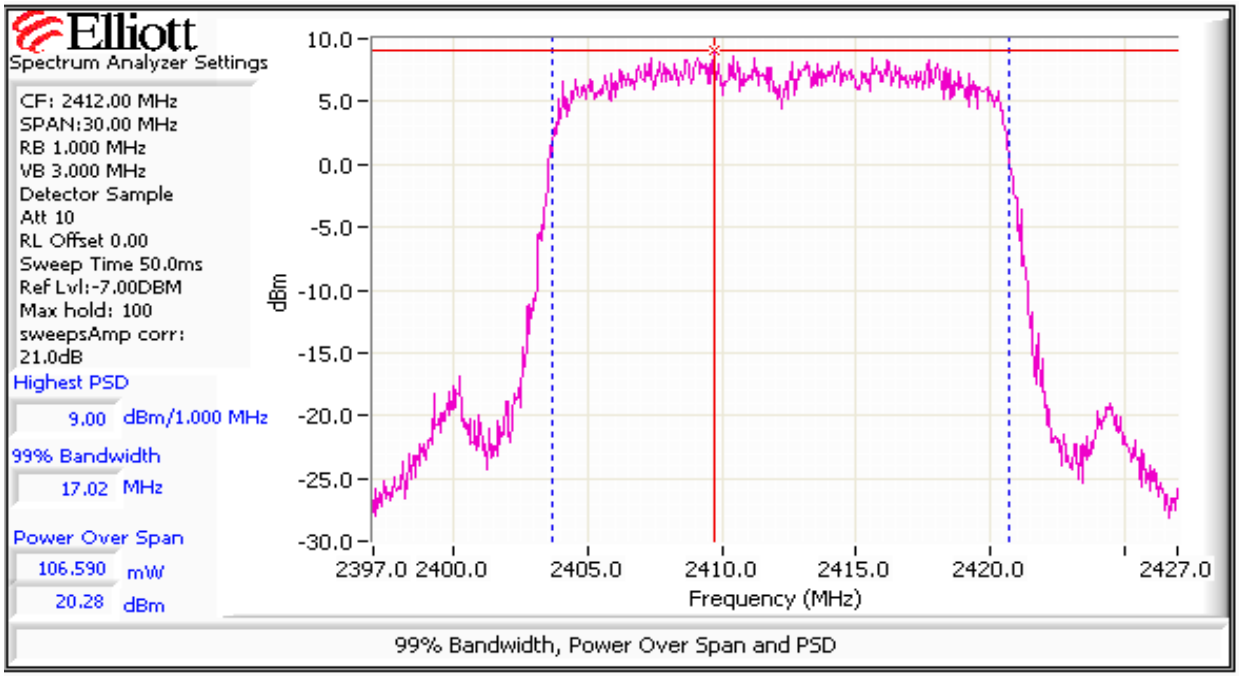
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

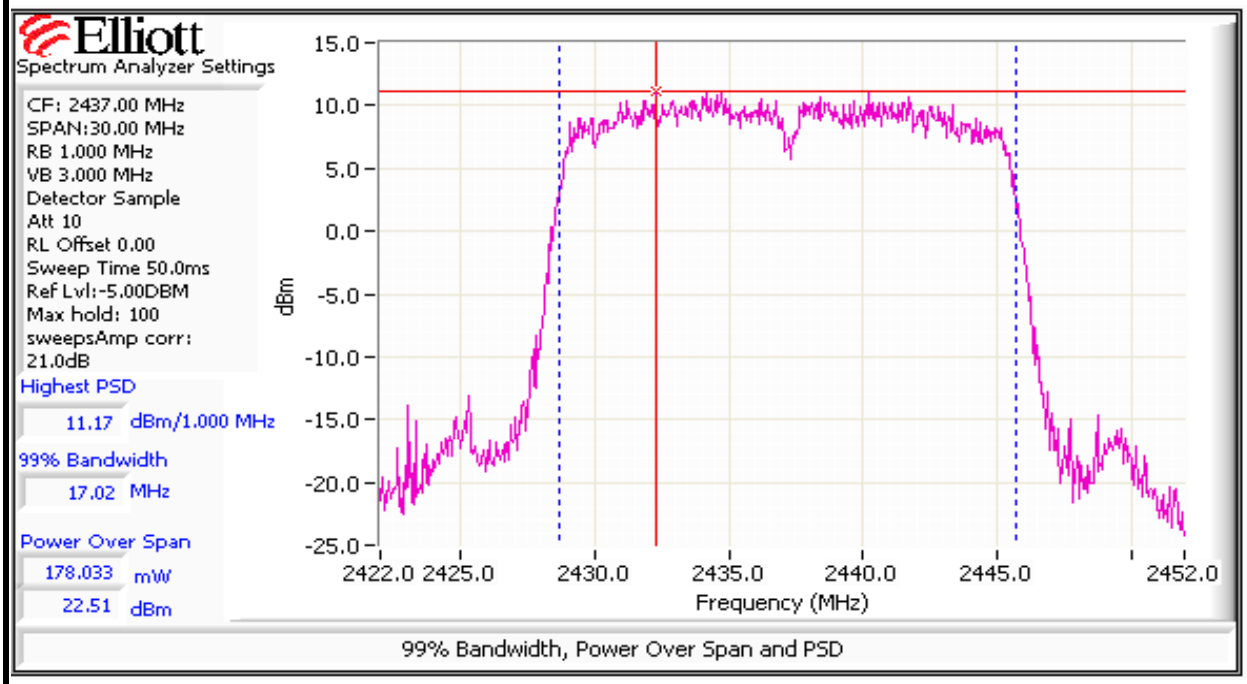
Run #1: Output Power

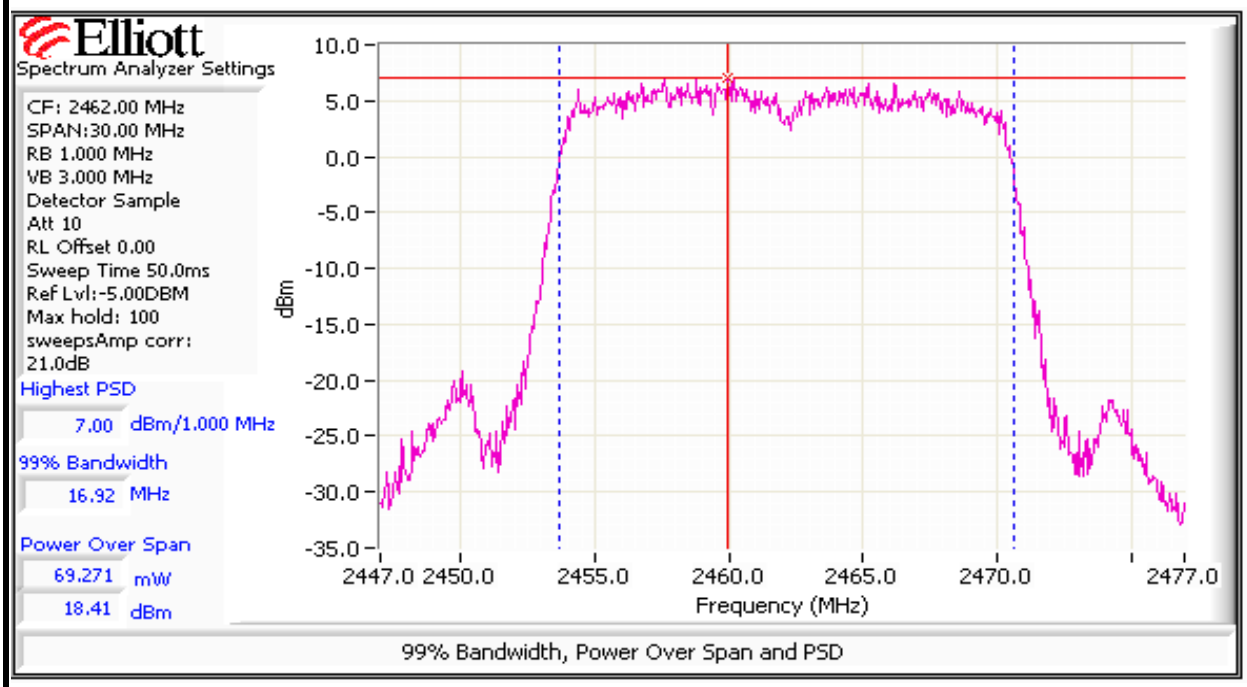
Power Setting[2]	Frequency (MHz)	Output Power (dBm)[1]	Output Power mW	Antenna Gain (dBi)	Result	EIRP[Note 2] dBm	EIRP[Note 2] W	Output Power (dBm)[3]	Output Power mW
19	2412	20.28	106.7	3.4	Pass	23.6	0.231	16.1	40.7
19	2437	22.51	178.2	3.4	Pass	25.9	0.386	18.1	64.6
19	2462	18.41	69.3	3.4	Pass	21.8	0.150	14.8	30.2

Note 1:	RBW=1MHz, VB=3 MHz, sample detector, max hold (transmitted signal was not continuous) and power integration over 30 MHz.
Note 2:	Power setting - the software power setting used during testing, included for reference only.
Note 3:	Power measured using average power meter and is included for reference only.



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



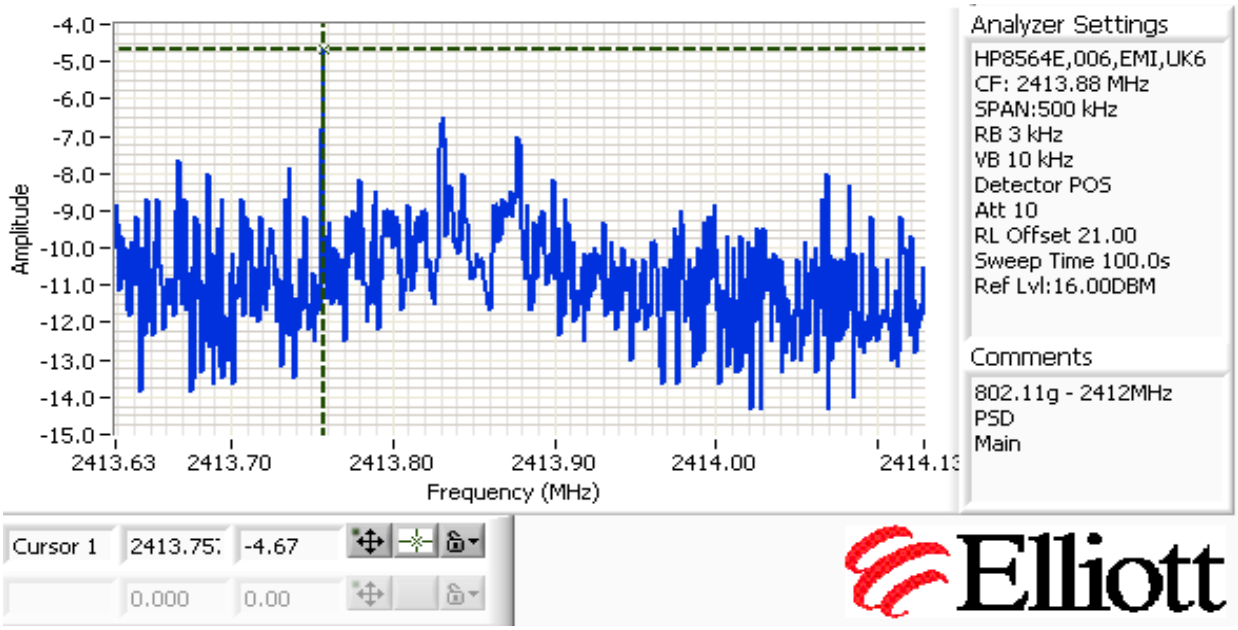


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

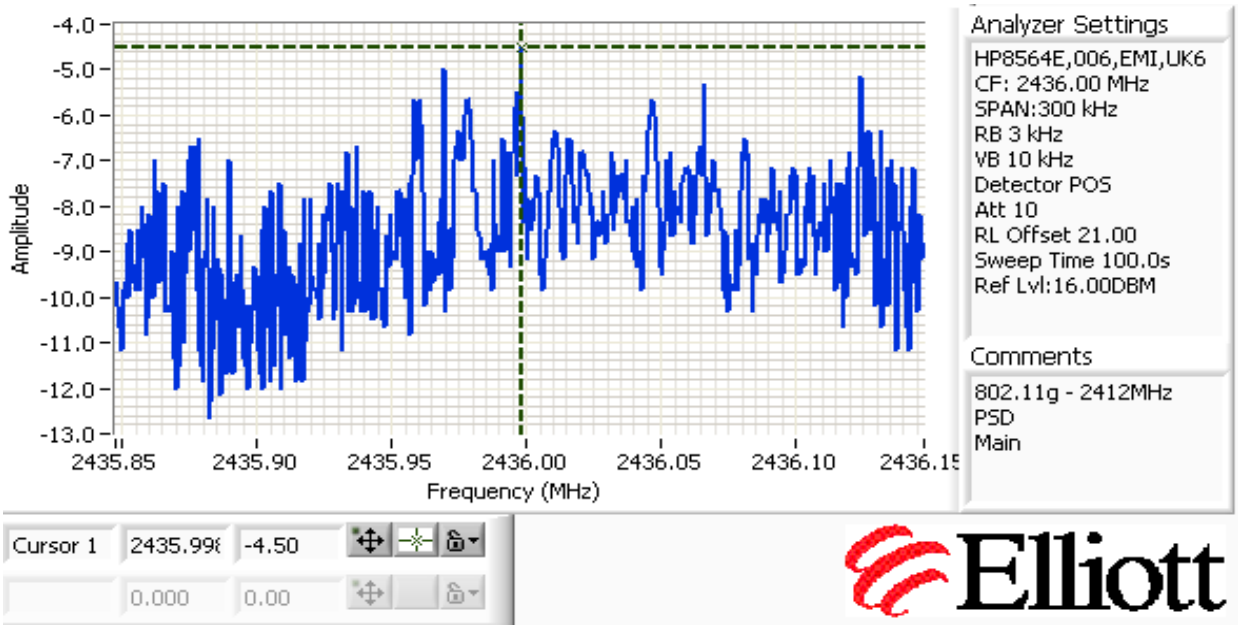
Run #2: Power spectral Density

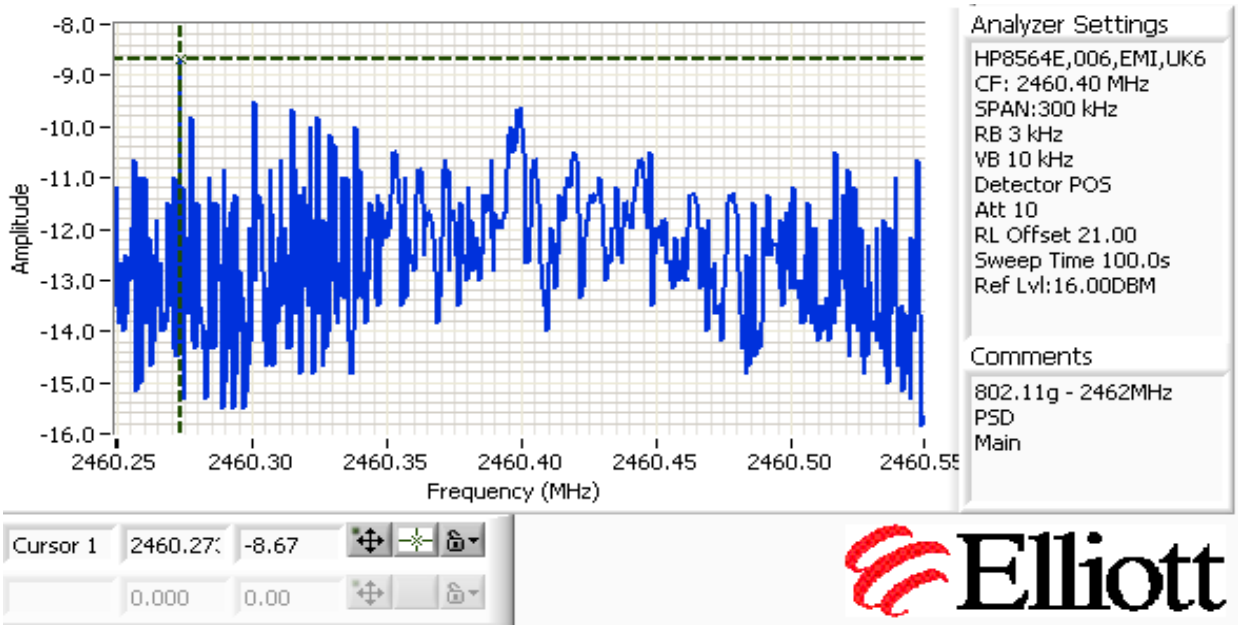
Power Setting	Frequency (MHz)	PSD (dBm/3kHz) Note 1	Limit dBm/3kHz	Result
19	2412	-4.67	8.0	Pass
19	2437	-4.50	8.0	Pass
19	2462	-8.67	8.0	Pass

Note 1:	Power spectral density measured using RB=3 kHz, VB=10kHz, analyzer with peak detector and with a sweep time set to ensure a dwell time of at least 1 second per 3kHz. The measurement is made at the frequency of PPSD determined from preliminary scans using RB=3kHz using multiple sweeps at a faster rate over the 6dB bandwidth of the signal.



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



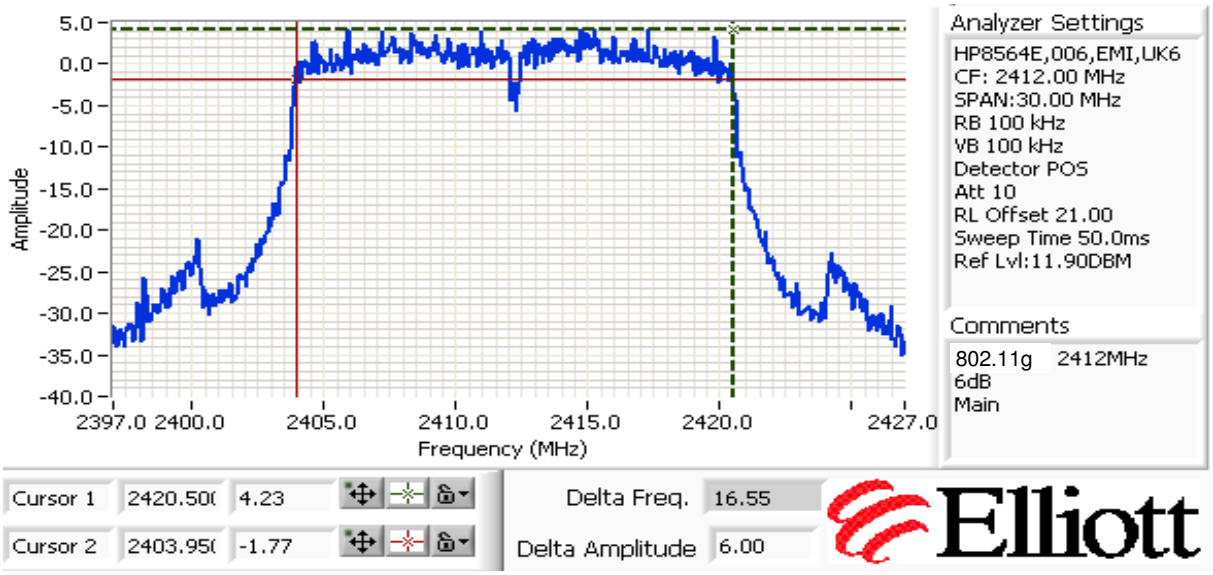


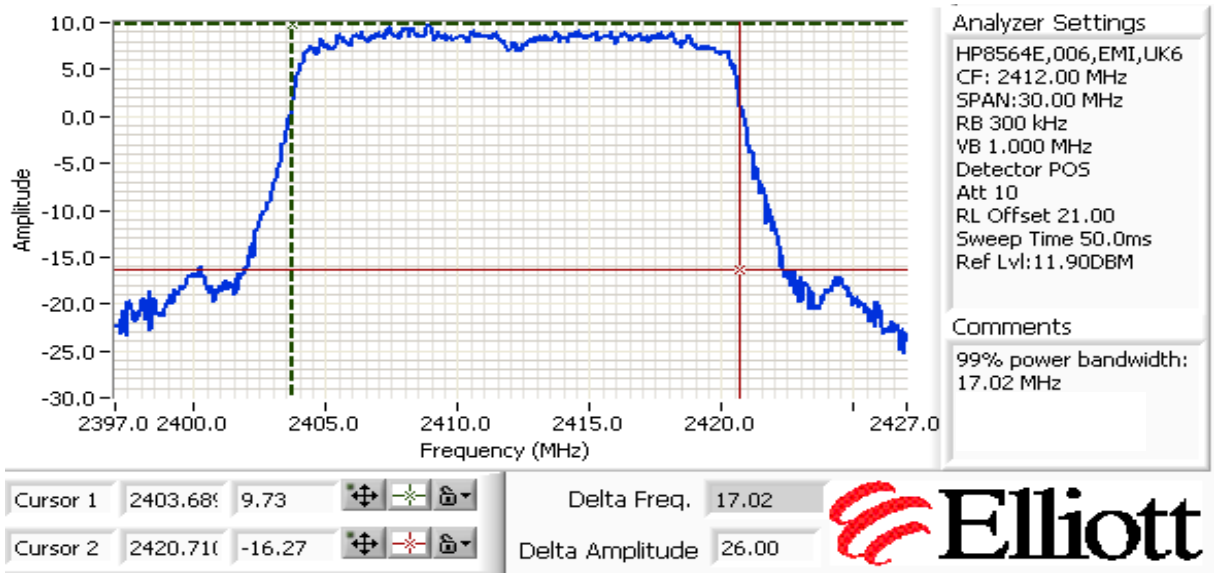
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Run #3: Signal Bandwidth

Power Setting	Frequency (MHz)	Resolution Bandwidth	Bandwidth (MHz) 6dB	99%
19	2412	100kHz	16.55	17.02
19	2437	100kHz	16.50	17.07
19	2462	100kHz	16.40	16.92

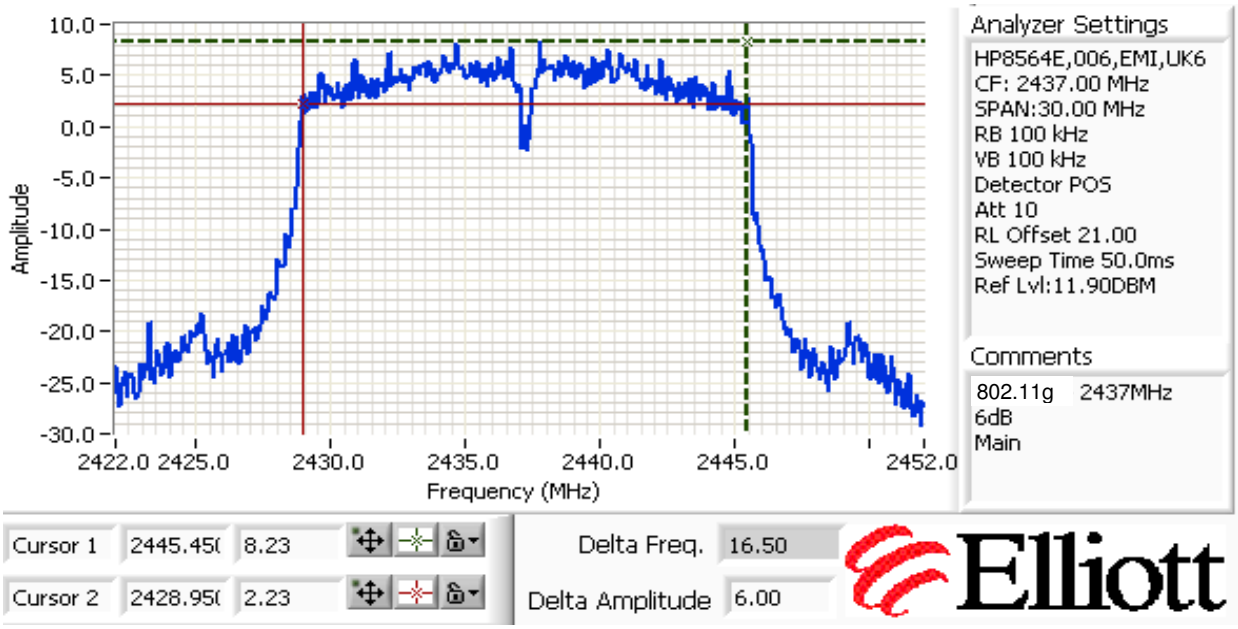
Note 1:	99% bandwidth measured in accordance with RSS GEN, with RB > 1% of the span and VB > 3xRB

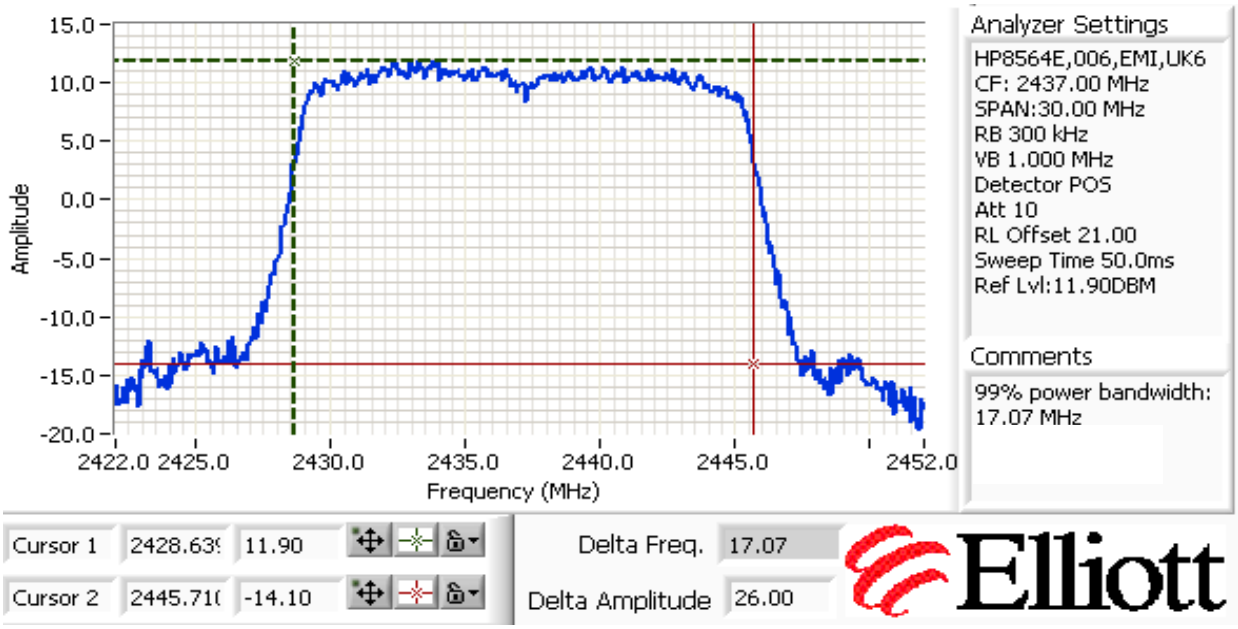




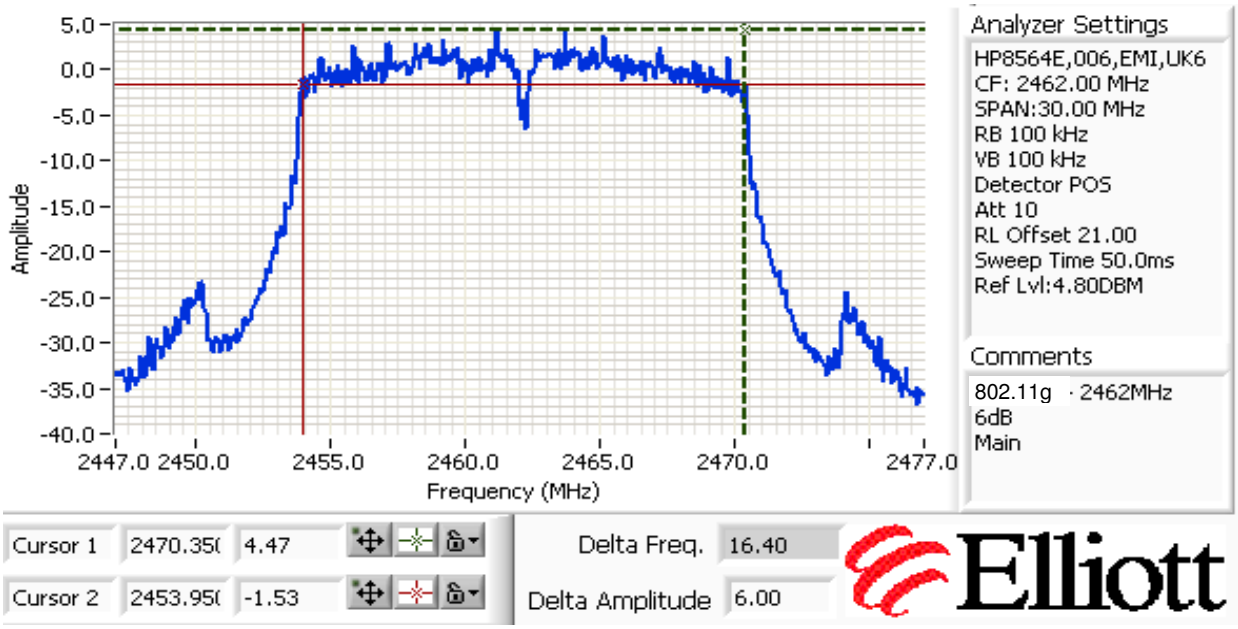
EMC Test Data

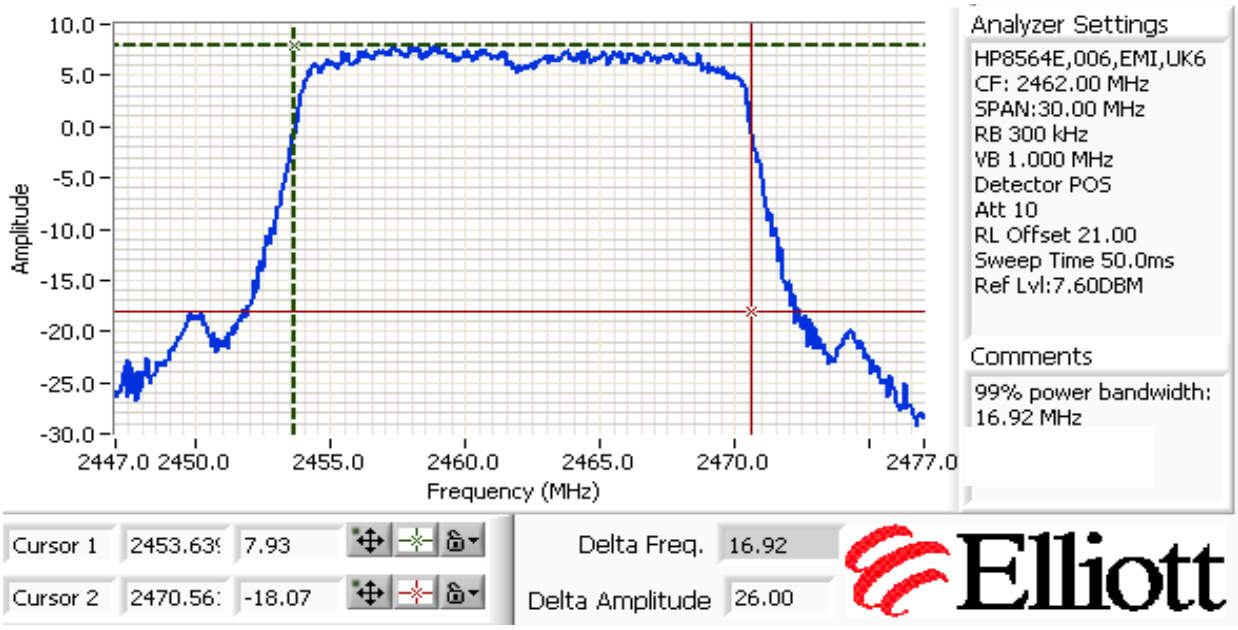
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A





Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



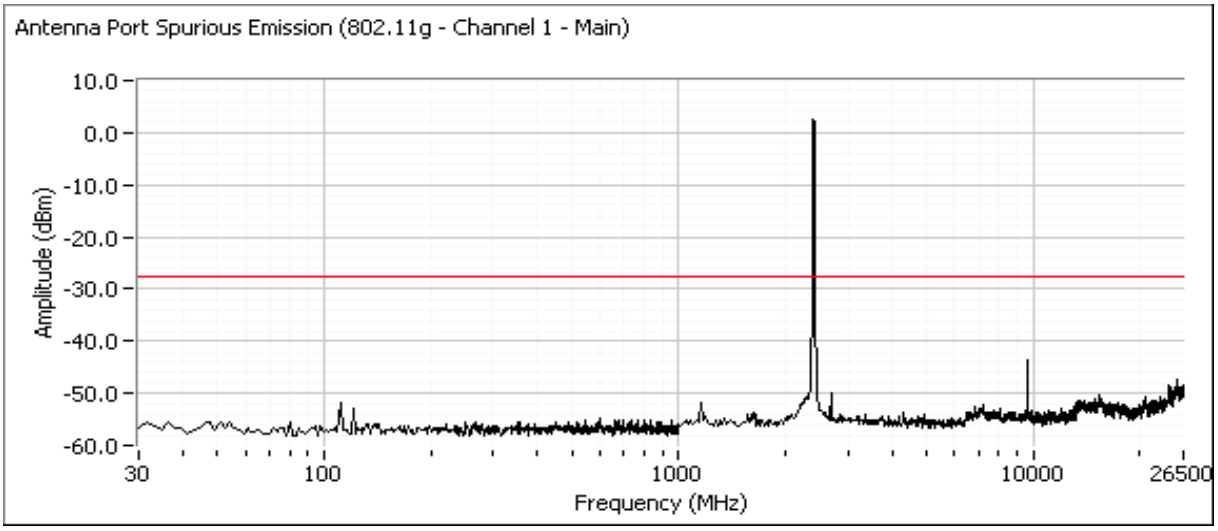


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

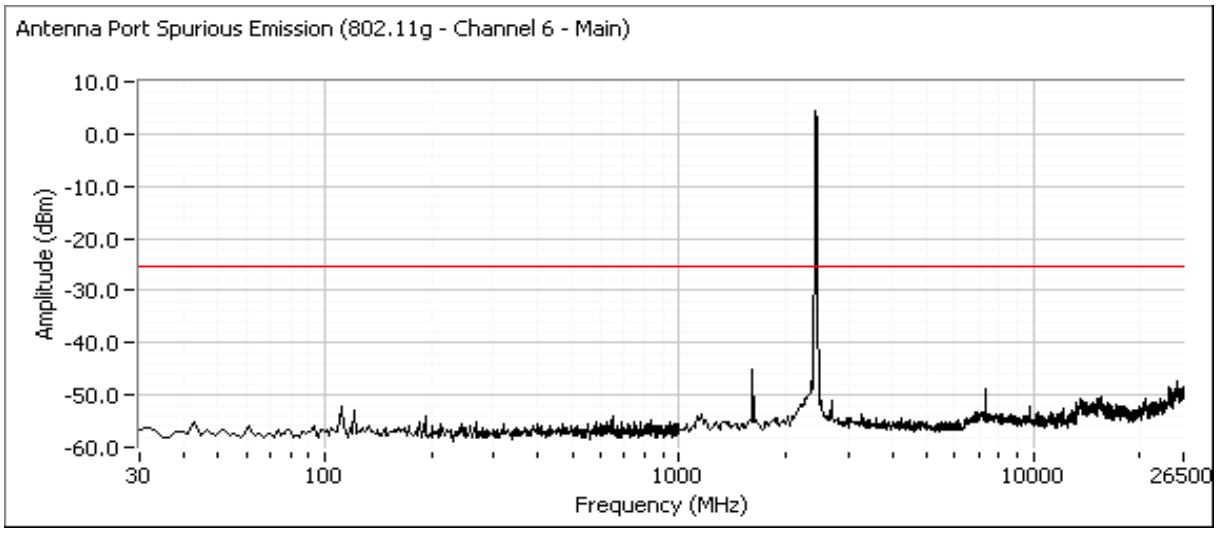
Run #4: Out of Band Spurious Emissions

Frequency (MHz)	Limit	Result
2412	-30dBc	Pass
2437	-30dBc	Pass
2462	-30dBc	Pass

Plots for low channel, power setting(s) = 19

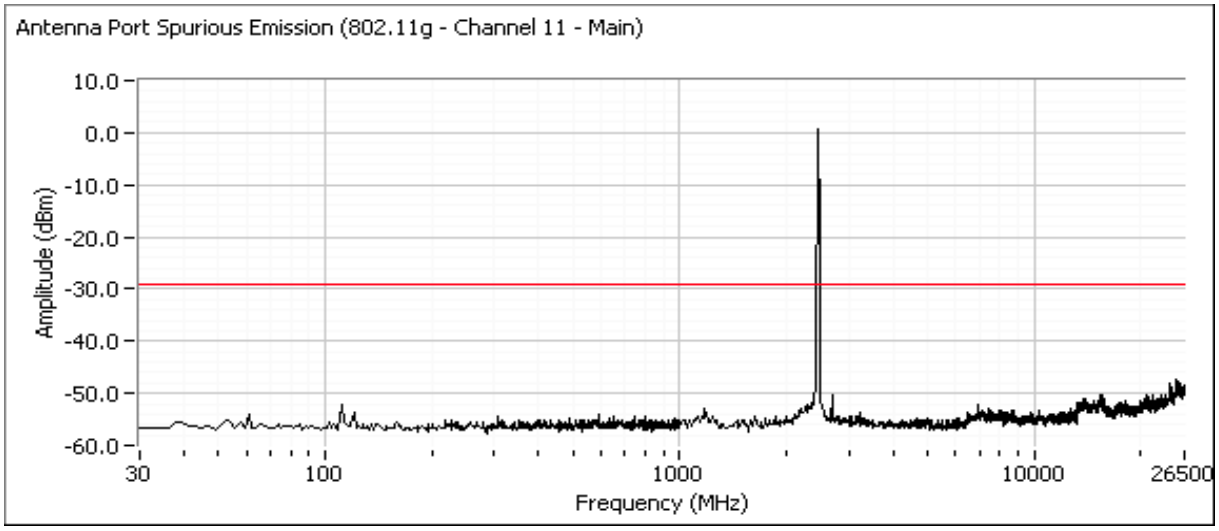


Plots for center channel, power setting(s) = 19



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots for high channel, power setting(s) = 19



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

RSS 210 and FCC 15.247 (DTS) Antenna Port Measurements
Power, Bandwidth and Spurious Emissions

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: 4/20/2007 Config. Used: 1
Test Engineer: Mehran Birgani Config Change: None
Test Location: Fremont Chamber #4 Host Unit 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: 15 °C
Rel. Humidity: 42 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Output Power	15.247(b)	Pass	16.45dBm
2	Power spectral Density (PSD)	15.247(d)	Pass	-6.5 dBm/3kHz
3	6dB Bandwidth	15.247(a)	Pass	17.42MHz
3	99% Bandwidth	RSS GEN	-	18.64MHz
4	Spurious emissions	15.247(b)	Pass	> -30dBc

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.

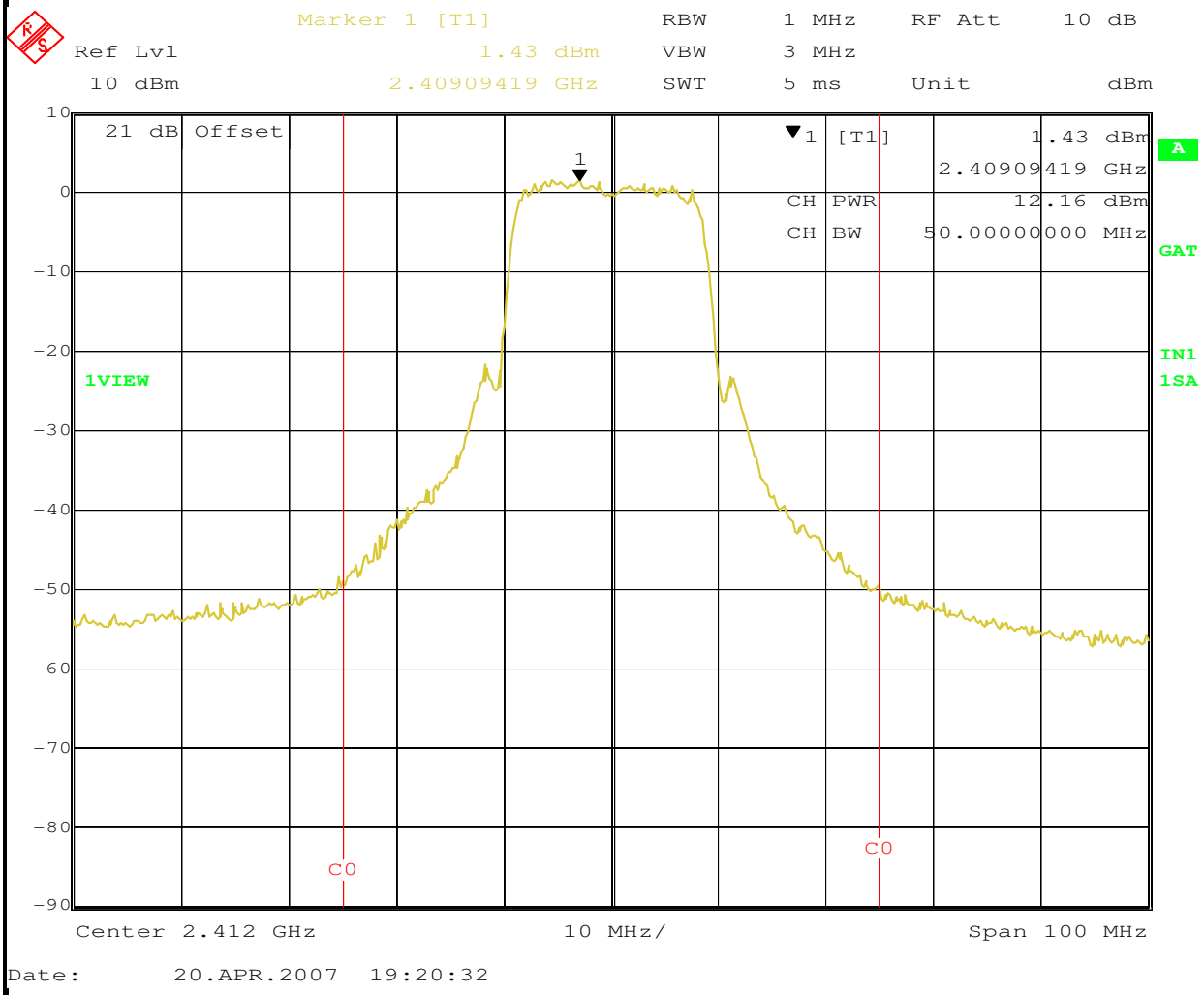
EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

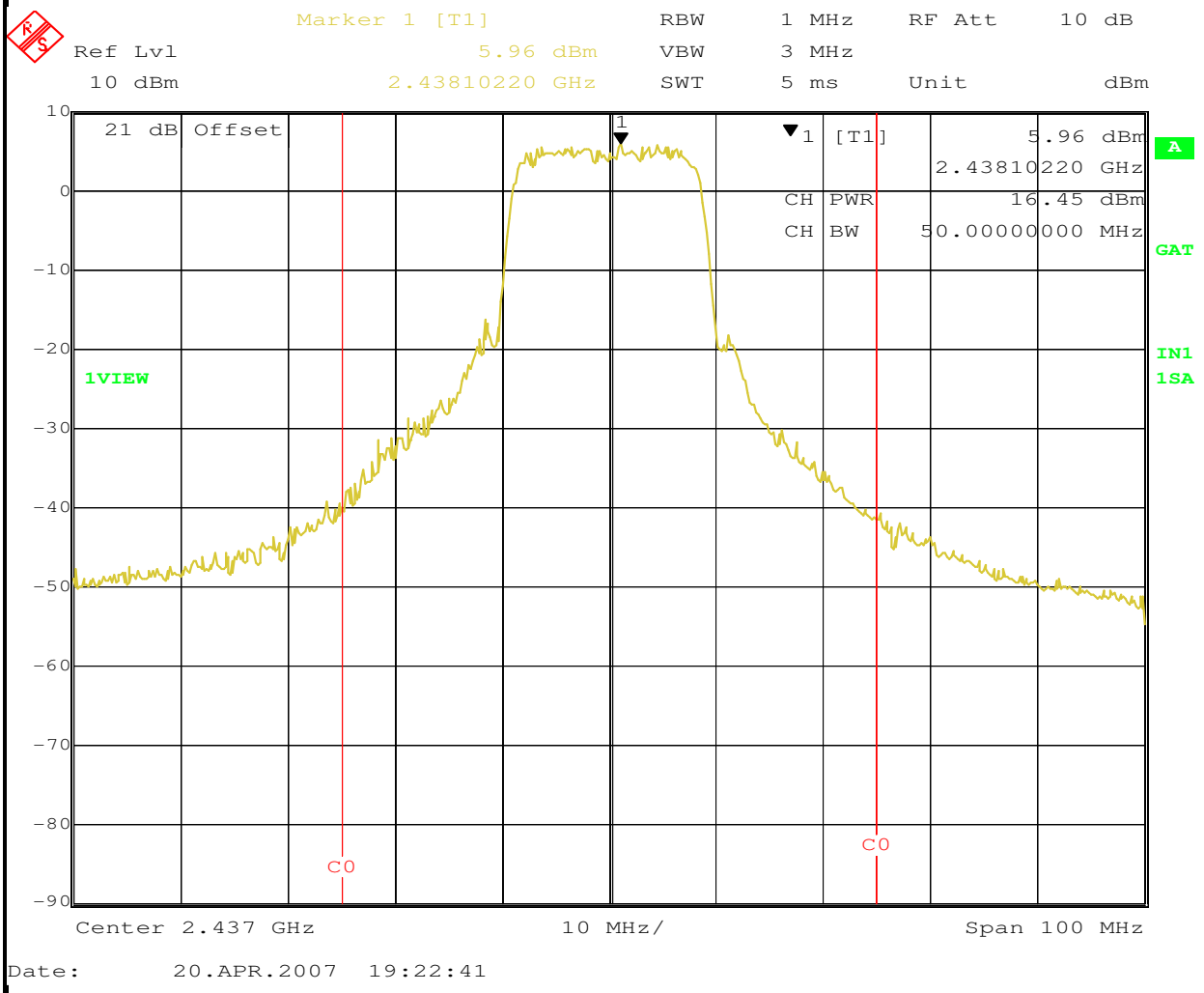
Run #1: Output Power

Power Setting[2]	Frequency (MHz)	Output Power (dBm)[1]	Output Power mW	Antenna Gain (dBi)	Result	EIRP[Note 2] dBm	EIRP[Note 2] W	Output Power (dBm)[3]	Output Power mW
14	2412	12.16	16.4	3.36	Pass	15.5	0.036		
19	2437	16.45	44.2	3.36	Pass	19.8	0.096		
13.5	2462	11.16	13.1	3.36	Pass	14.5	0.028		

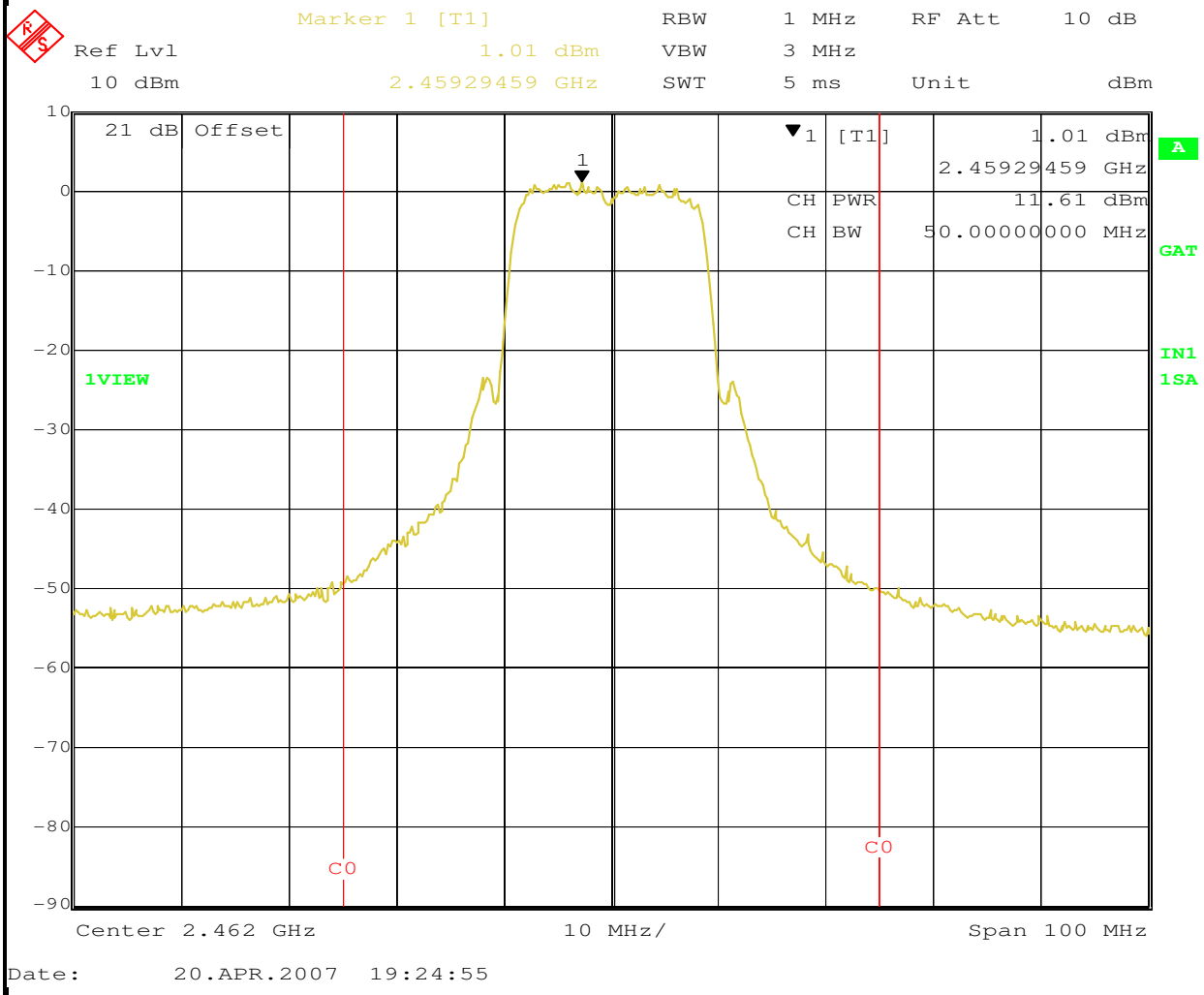
Note 1:	RBW=1MHz, VB=3 MHz, sample detector, max hold (transmitted signal was not continuous) and power integration over 30 MHz.
Note 2:	Power setting - the software power setting used during testing, included for reference only.
Note 3:	Power measured using average power meter and is included for reference only.



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

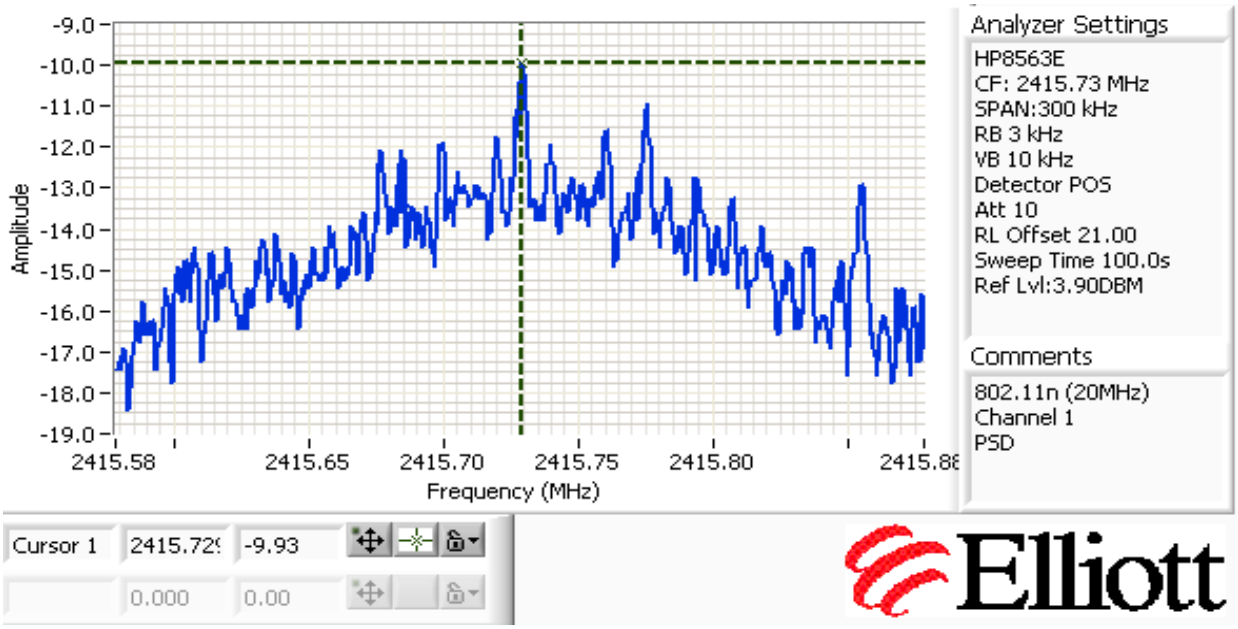


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Run #2: Power spectral Density

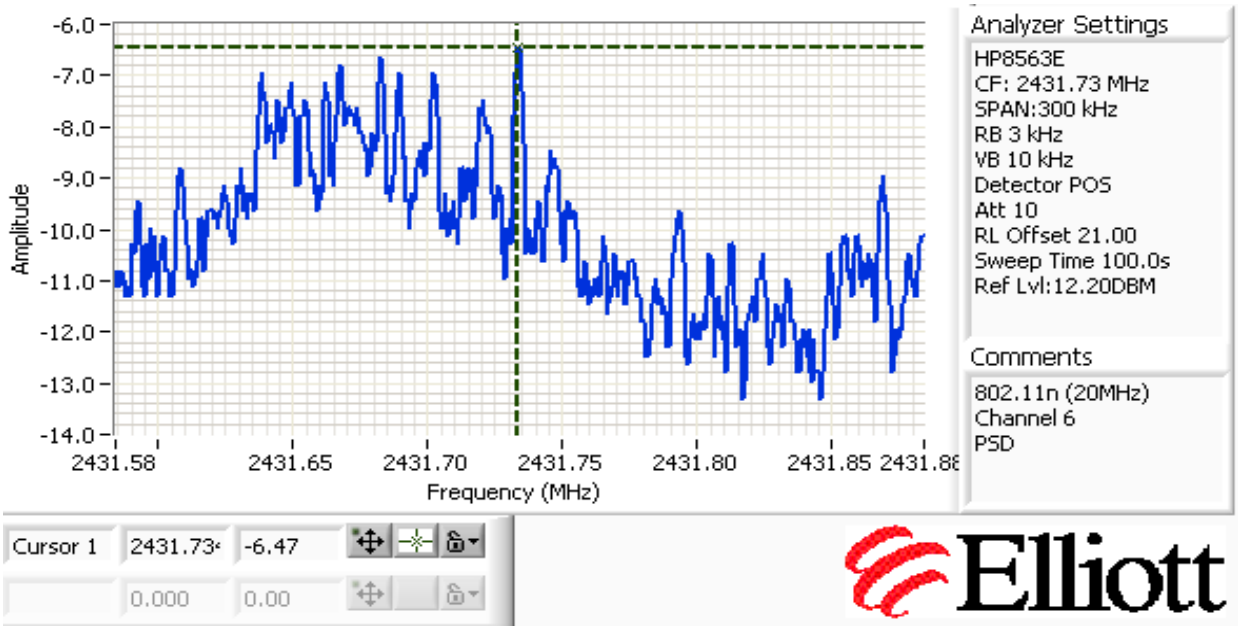
Power Setting	Frequency (MHz)	PSD (dBm/3kHz) Note 1	Limit dBm/3kHz	Result
14.0	2412	-9.9	8.0	Pass
19.0	2437	-6.5	8.0	Pass
13.5	2462	-10.5	8.0	Pass

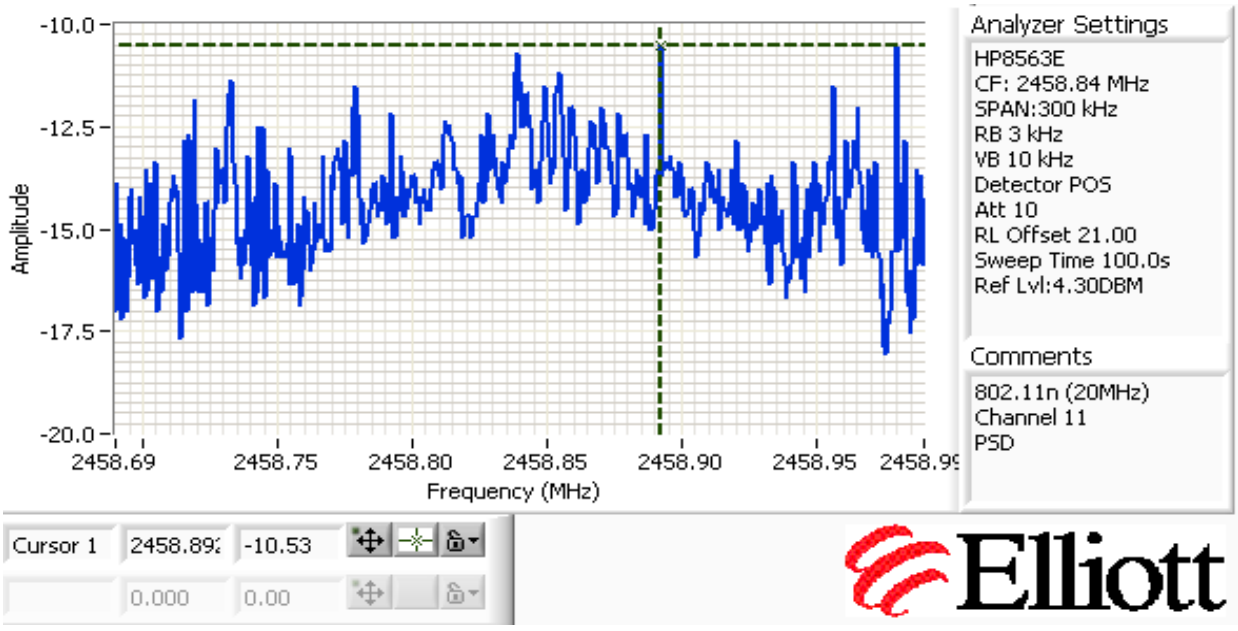
Note 1:	Power spectral density measured using RB=3 kHz, VB=10kHz, analyzer with peak detector and with a sweep time set to ensure a dwell time of at least 1 second per 3kHz. The measurement is made at the frequency of PPSD determined from preliminary scans using RB=3kHz using multiple sweeps at a faster rate over the 6dB bandwidth of the signal.



EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



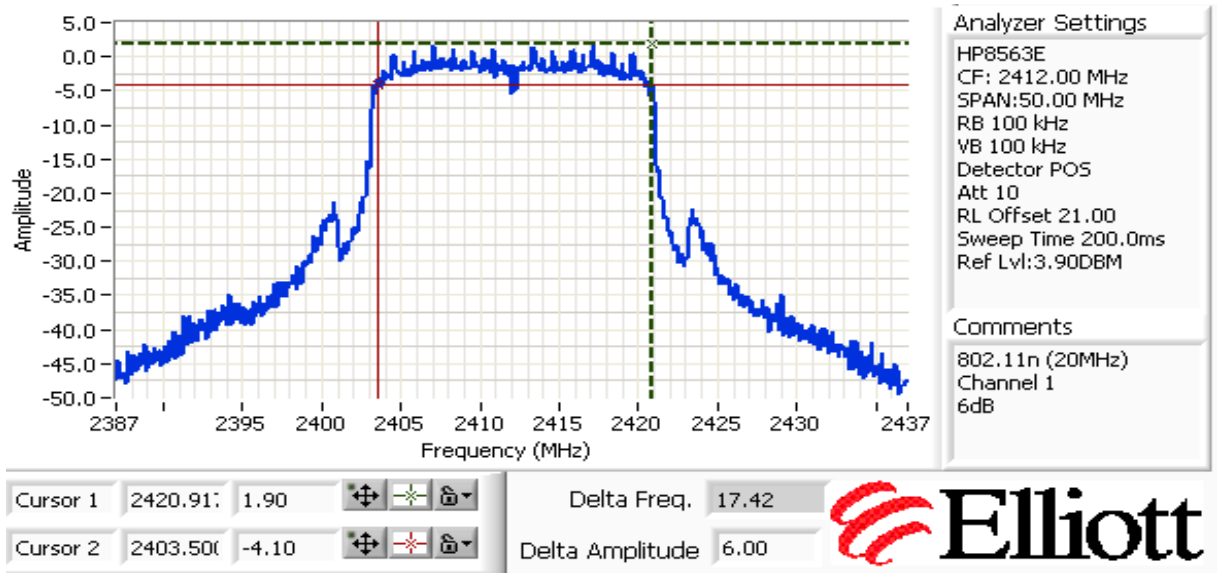


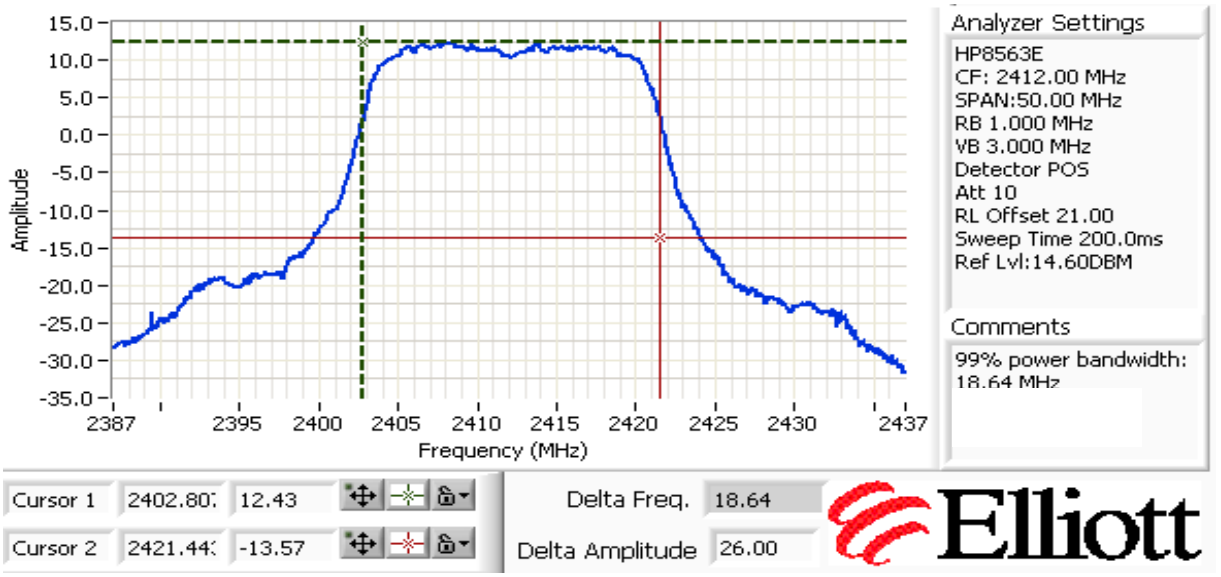
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Run #3: Signal Bandwidth

Power Setting	Frequency (MHz)	Resolution Bandwidth	Bandwidth (MHz) 6dB	99%
14.0	2412	100kHz	17.42	18.64
19.0	2437	100kHz	16.83	18.30
13.5	2462	100kHz	17.33	18.30

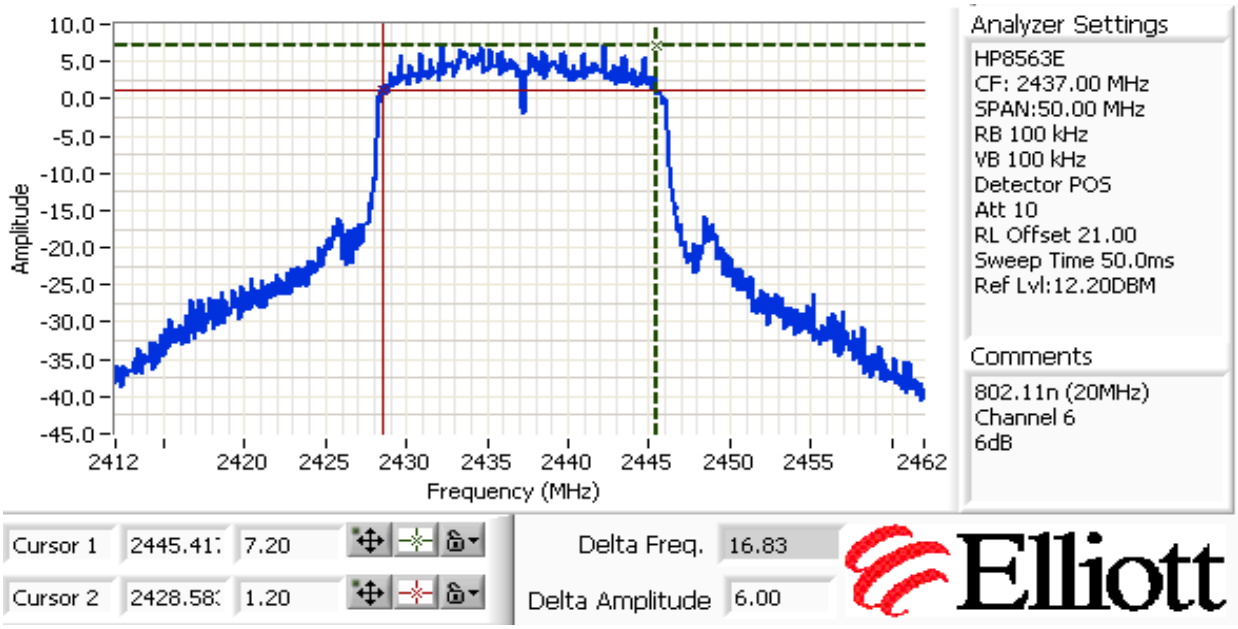
Note 1:	99% bandwidth measured in accordance with RSS GEN, with RB > 1% of the span and VB > 3xRB

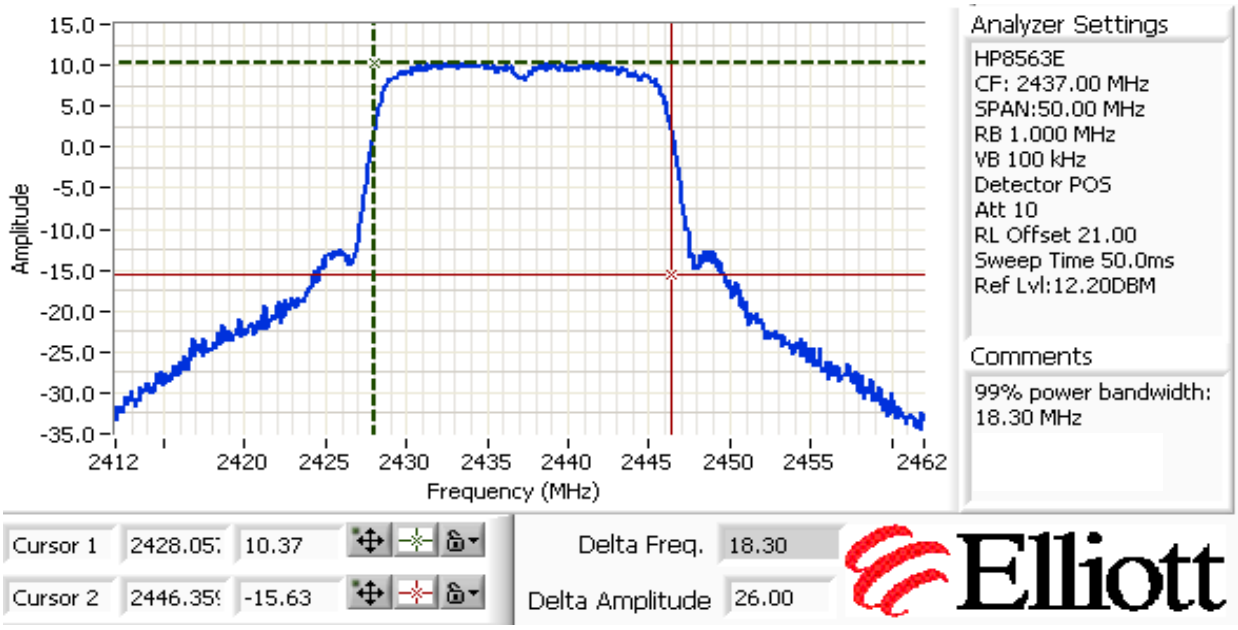




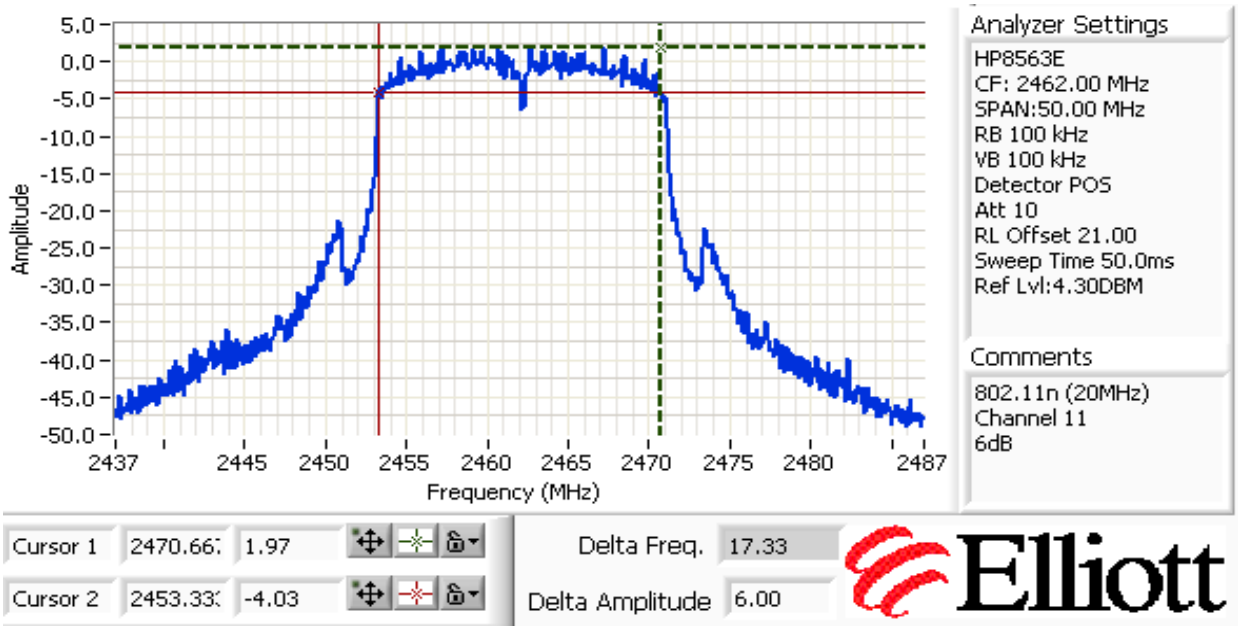
EMC Test Data

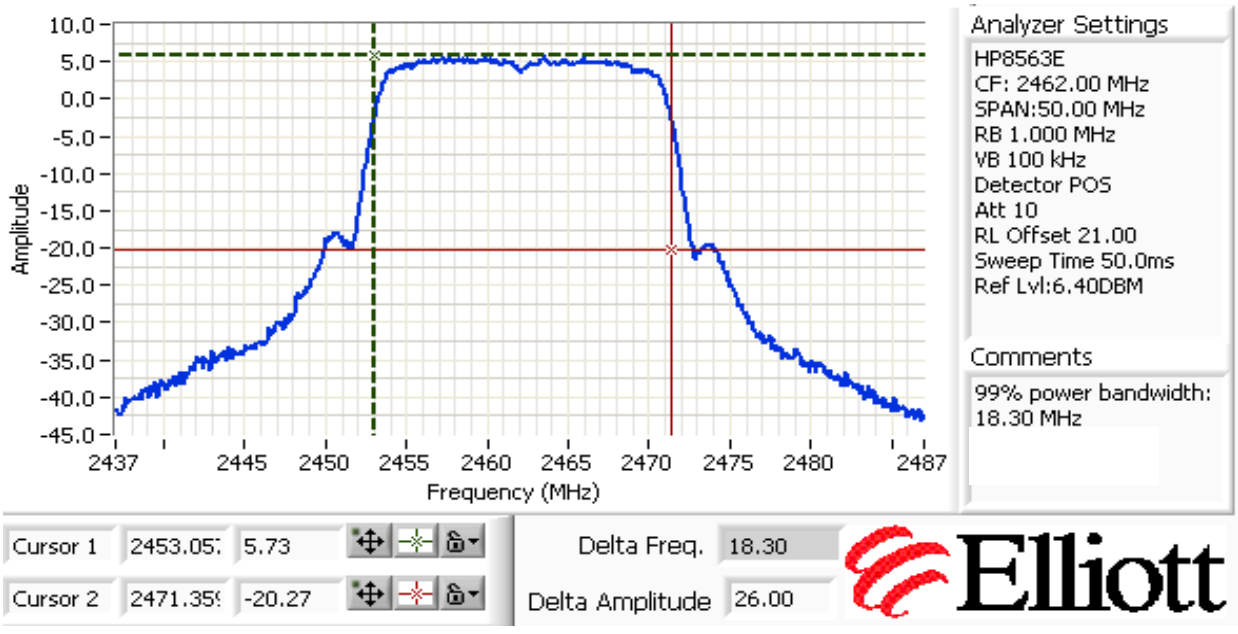
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A





Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



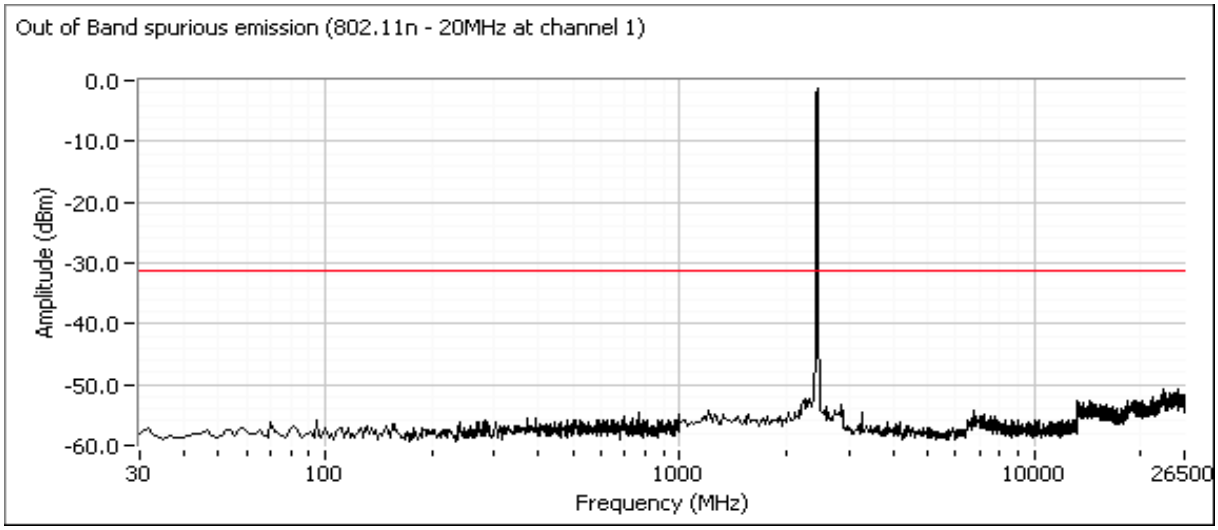


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

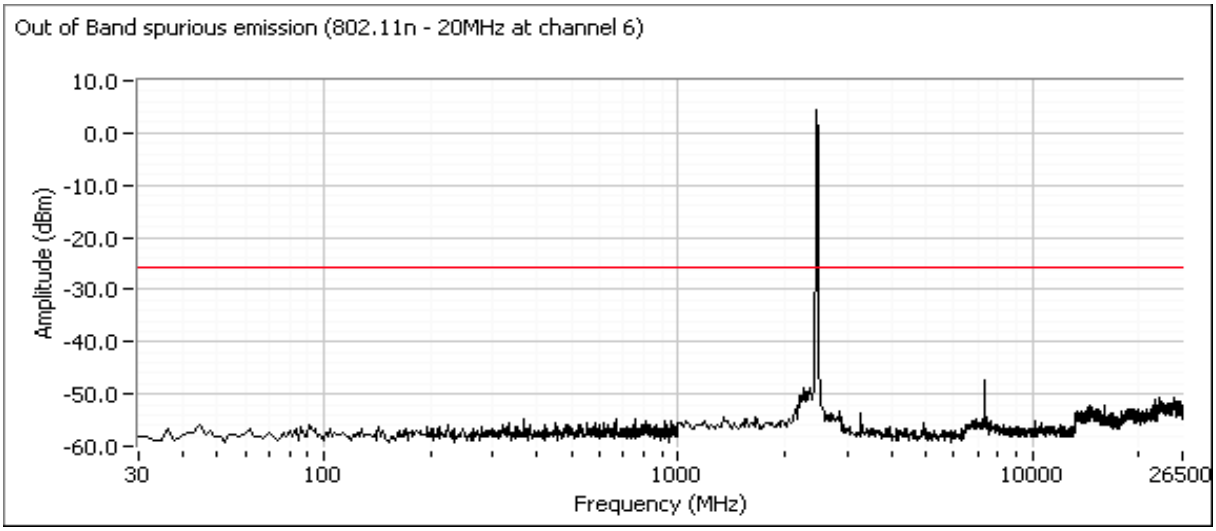
Run #4: Out of Band Spurious Emissions

Frequency (MHz)	Limit	Result
2412	-30dBc	Pass
2437	-30dBc	Pass
2462	-30dBc	Pass

Plots for low channel, power setting(s) = 14

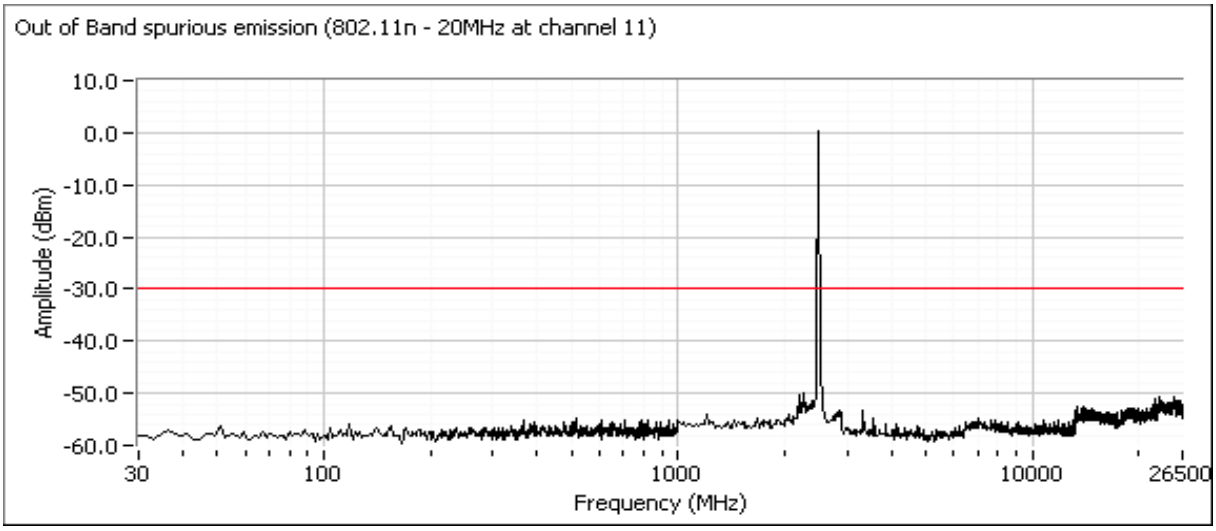


Plots for center channel, power setting(s) = 19



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots for high channel, power setting(s) = 13.5



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

RSS 210 and FCC 15.247 (DTS) Antenna Port Measurements
Power, Bandwidth and Spurious Emissions

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: 4/20/2007 Config. Used: 1
Test Engineer: Mehran Birgani Config Change: None
Test Location: Fremont Chamber #4 Host Unit 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: 15 °C
Rel. Humidity: 42 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1 (MCS0)	Output Power	15.247(b)	Pass	11.6 dBm
2 (MCS0)	Power spectral Density (PSD)	15.247(d)	Pass	-10.8 dBm/3kHz
3 (MCS0)	6dB Bandwidth	15.247(a)	Pass	35.3 MHz
3 (MCS0)	99% Bandwidth	RSS GEN	-	37.1 MHz
4 (MCS0)	Spurious emissions	15.247(b)	Pass	> -30 dBc
5 (MCS15)	Output Power	15.247(b)	Pass	12.6 dBm
6 (MCS15)	Power spectral Density (PSD)	15.247(d)	Pass	-10.6 dBm/3kHz
7 (MCS15)	6dB Bandwidth	15.247(a)	Pass	36.3 MHz
7 (MCS15)	99% Bandwidth	RSS GEN	-	37.1 MHz
8 (MCS15)	Spurious emissions	15.247(b)	Pass	> -30 dBc

Modifications Made During Testing:

No modifications were made to the EUT during testing

Deviations From The Standard

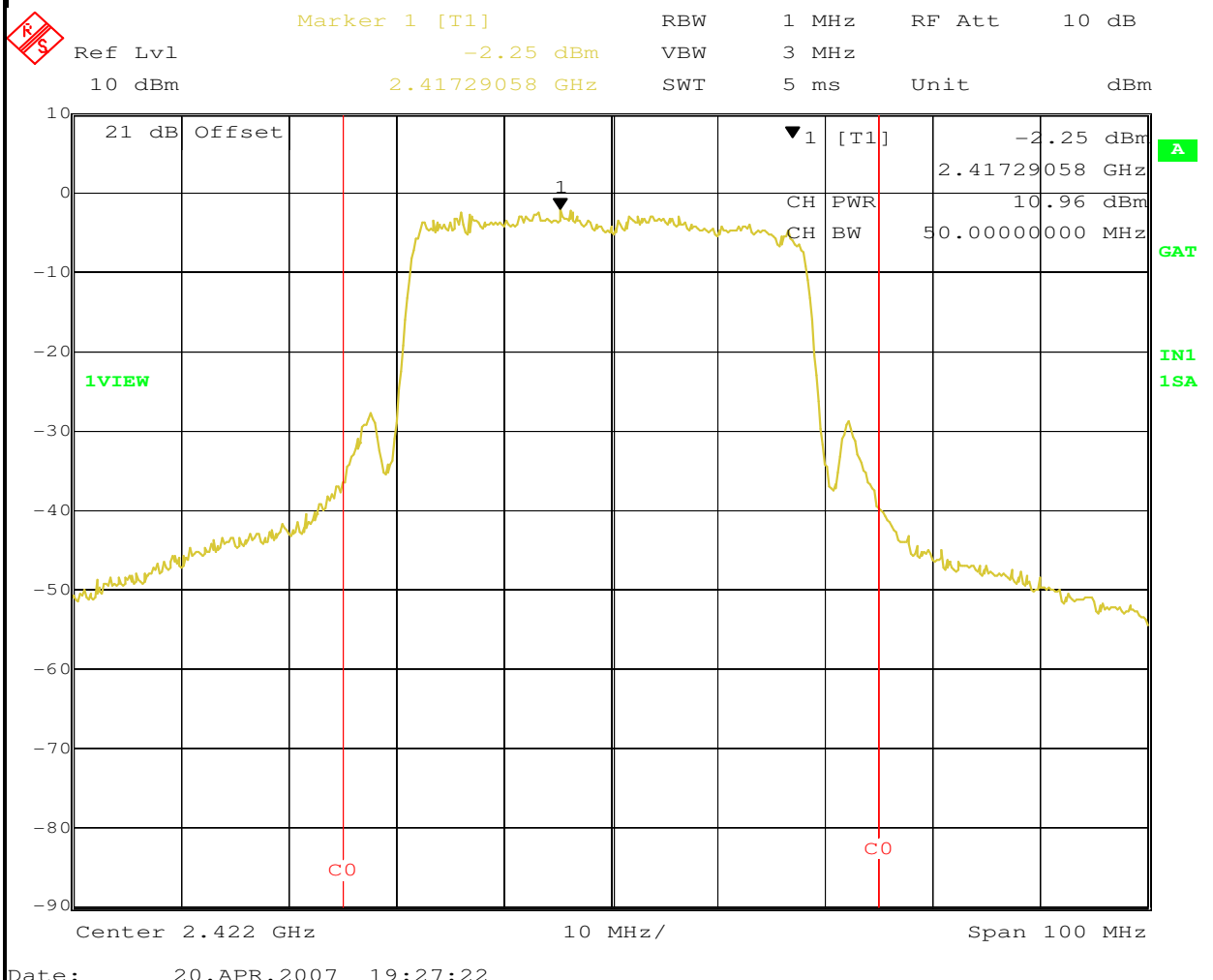
No deviations were made from the requirements of the standard.

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Run #1: Output Power (MCS0)

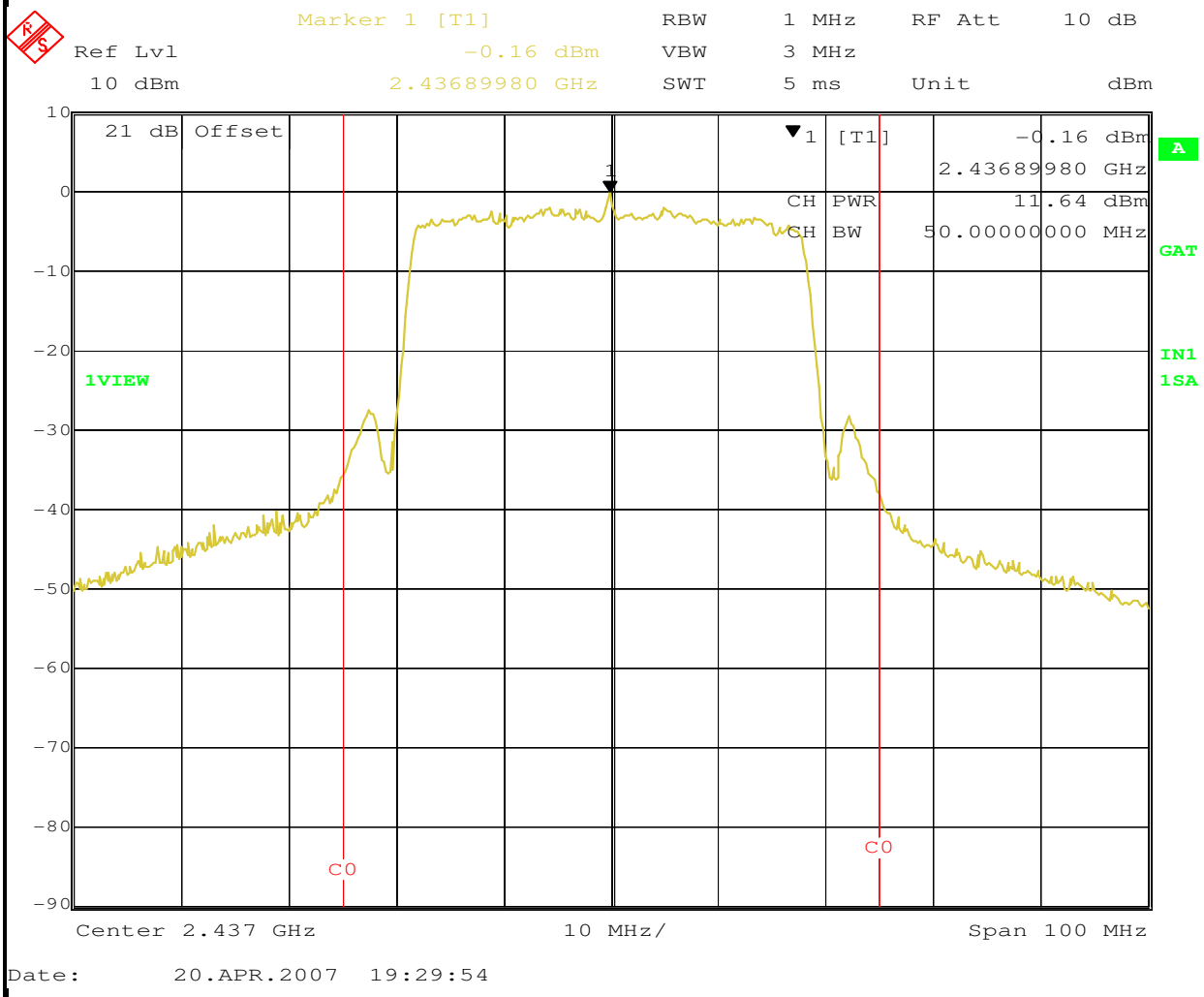
Power Setting[2]	Frequency (MHz)	Output Power (dBm)[1]	Output Power mW	Antenna Gain (dBi)	Result	EIRP[Note 2] dBm	EIRP[Note 2] W	Output Power (dBm)[3]	Output Power mW
12.5	2422	11.0	12.5	3.36	Pass	14.3	0.027		
13.0	2437	11.6	14.6	3.36	Pass	15.0	0.032		
12.0	2452	10.6	11.4	3.36	Pass	13.9	0.025		

Note 1:	RBW=1MHz, VB=3 MHz, sample detector, max hold (transmitted signal was not continuous) and power integration over 30 MHz.
Note 2:	Power setting - the software power setting used during testing, included for reference only.
Note 3:	Power measured using average power meter and is included for reference only.

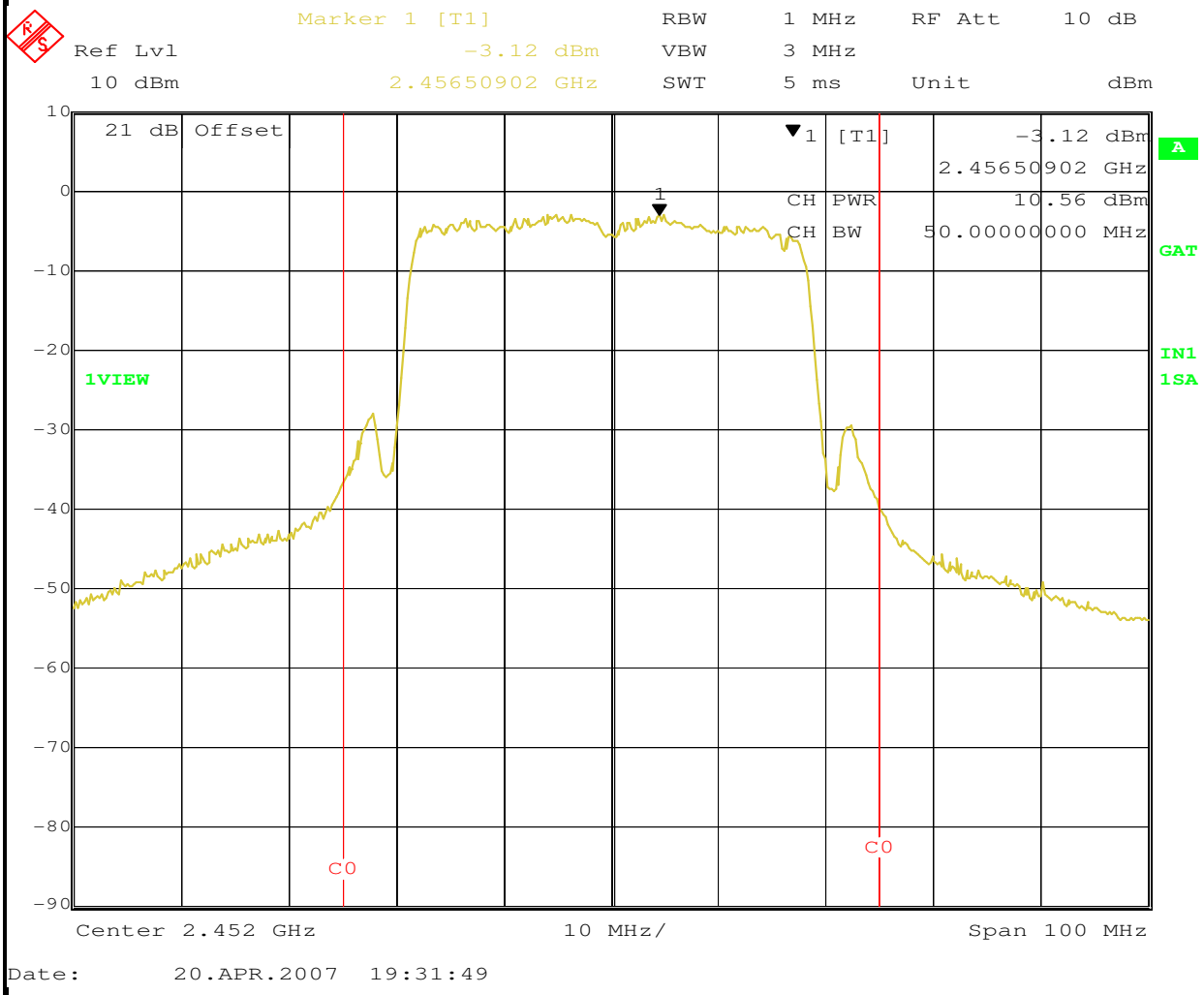


EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

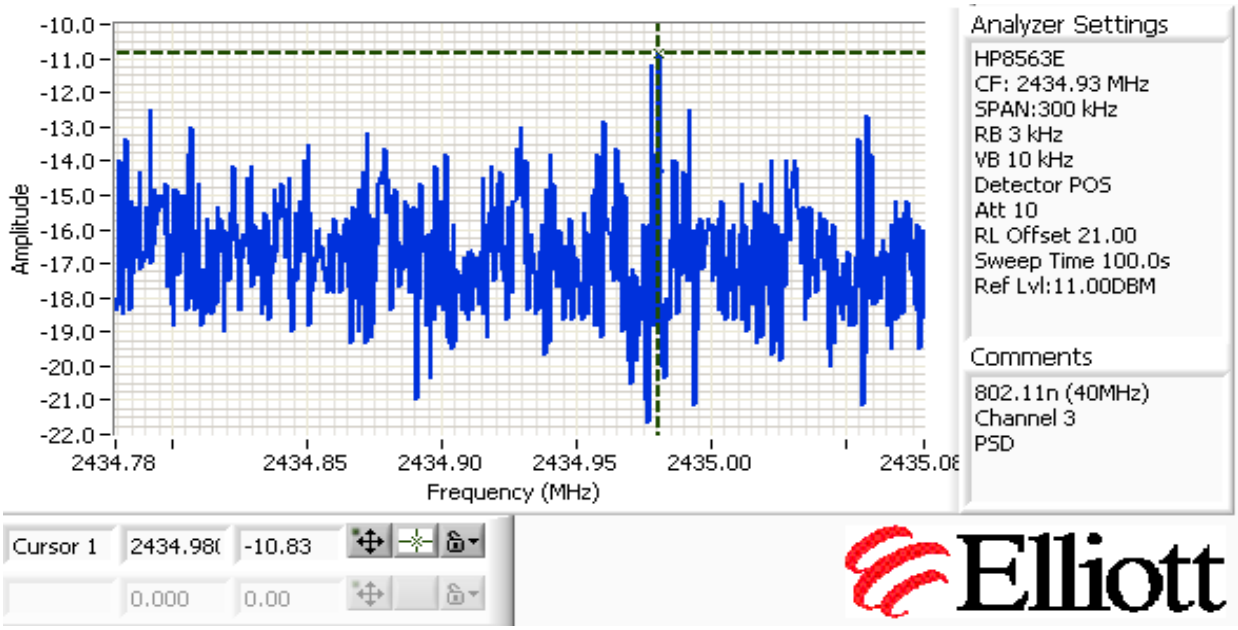


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

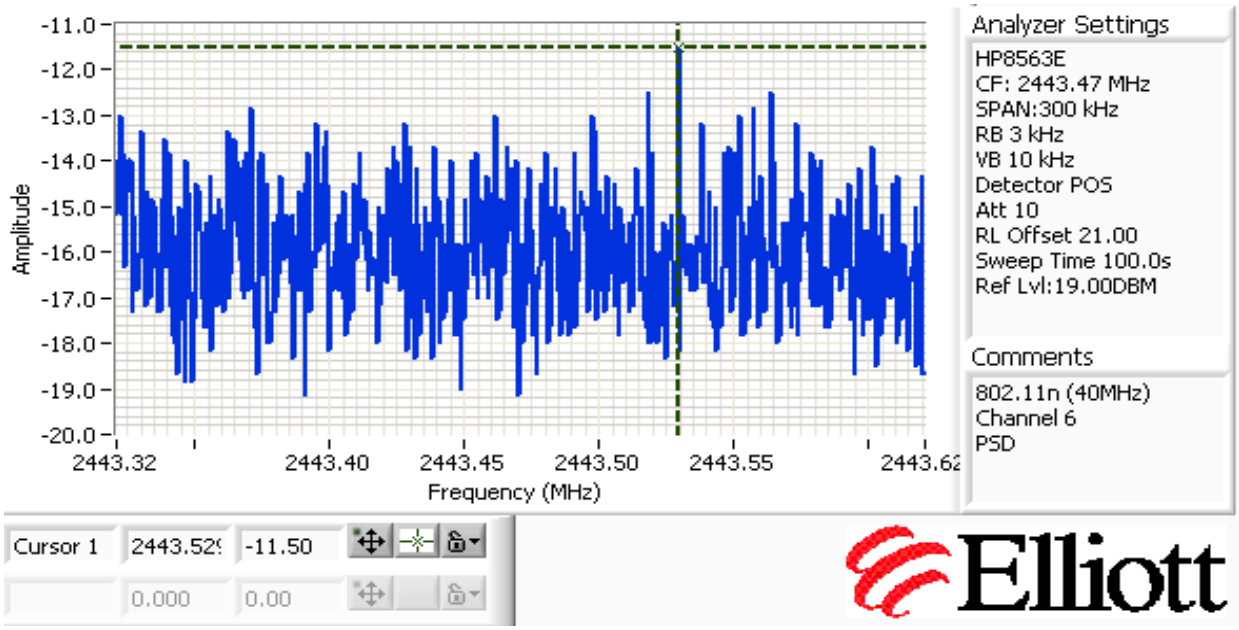
Run #2: Power spectral Density (MCS0)

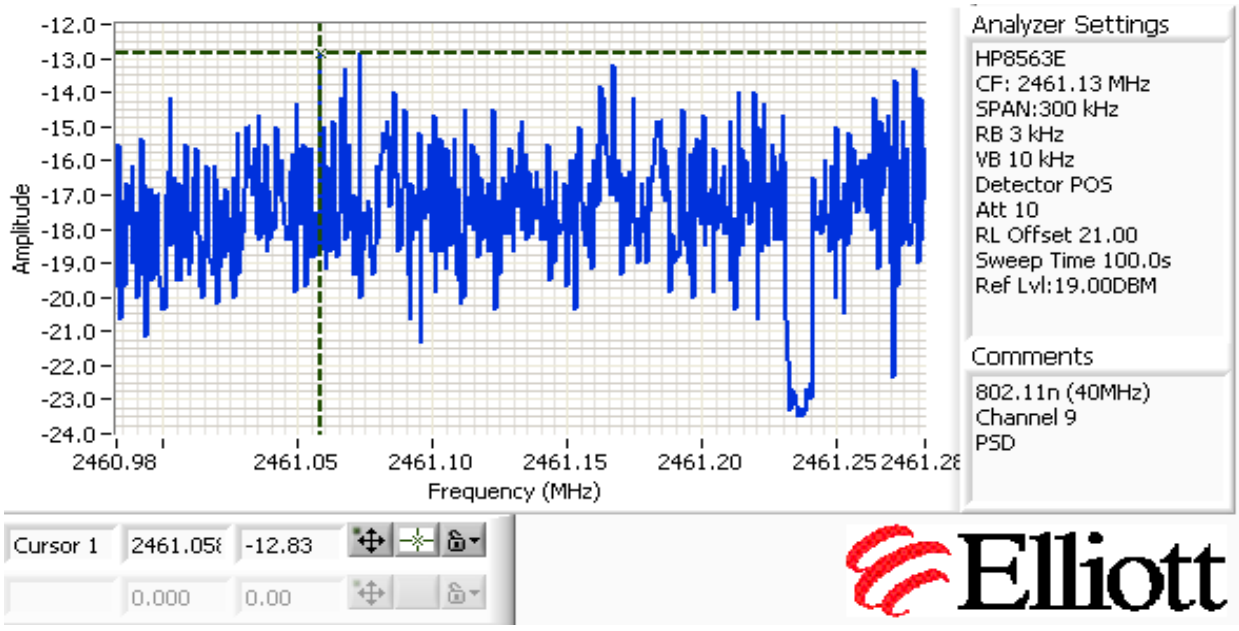
Power Setting	Frequency (MHz)	PSD (dBm/3kHz) Note 1	Limit dBm/3kHz	Result
12.5	2422	-10.83	8.0	Pass
13.0	2437	-11.50	8.0	Pass
12.0	2452	-12.83	8.0	Pass

Note 1:	Power spectral density measured using RB=3 kHz, VB=10kHz, analyzer with peak detector and with a sweep time set to ensure a dwell time of at least 1 second per 3kHz. The measurement is made at the frequency of PPSD determined from preliminary scans using RB=3kHz using multiple sweeps at a faster rate over the 6dB bandwidth of the signal.



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



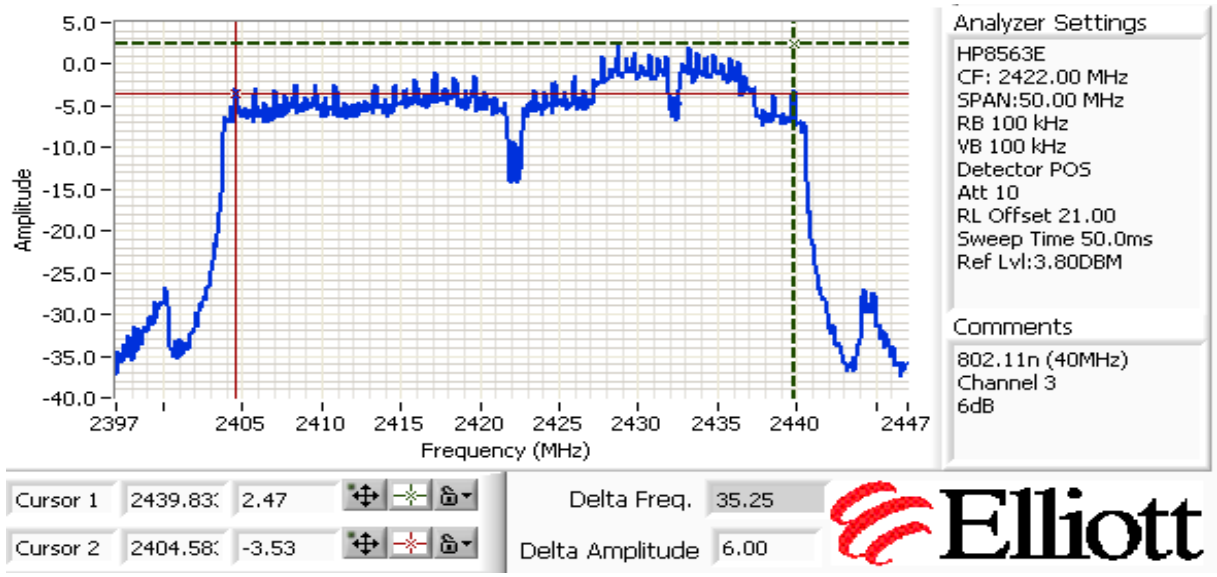


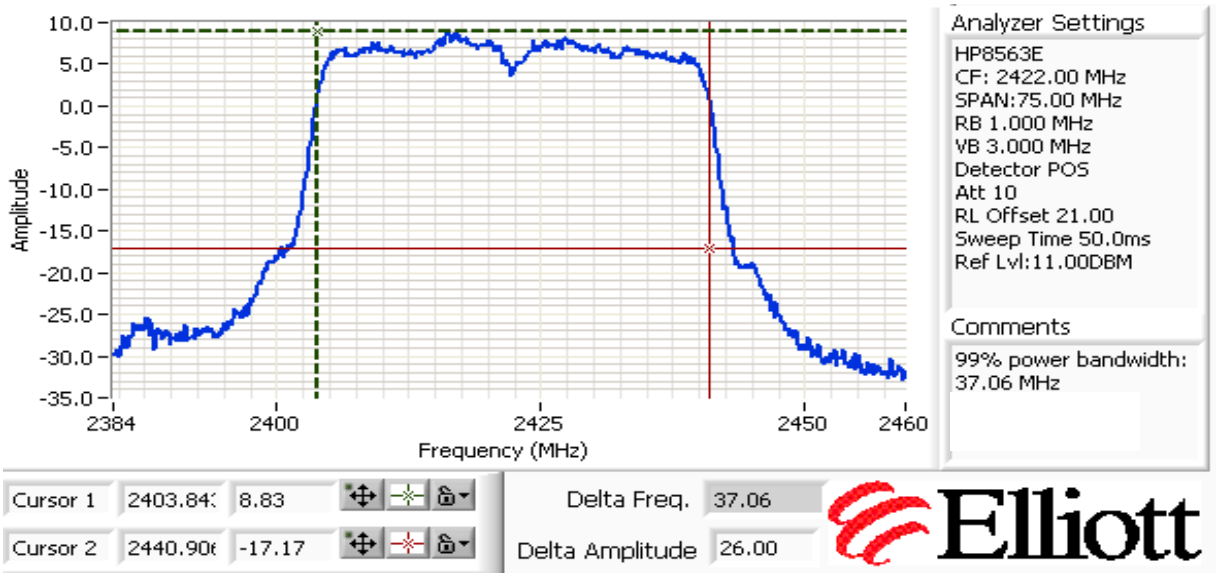
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Run #3: Signal Bandwidth (MCS0)

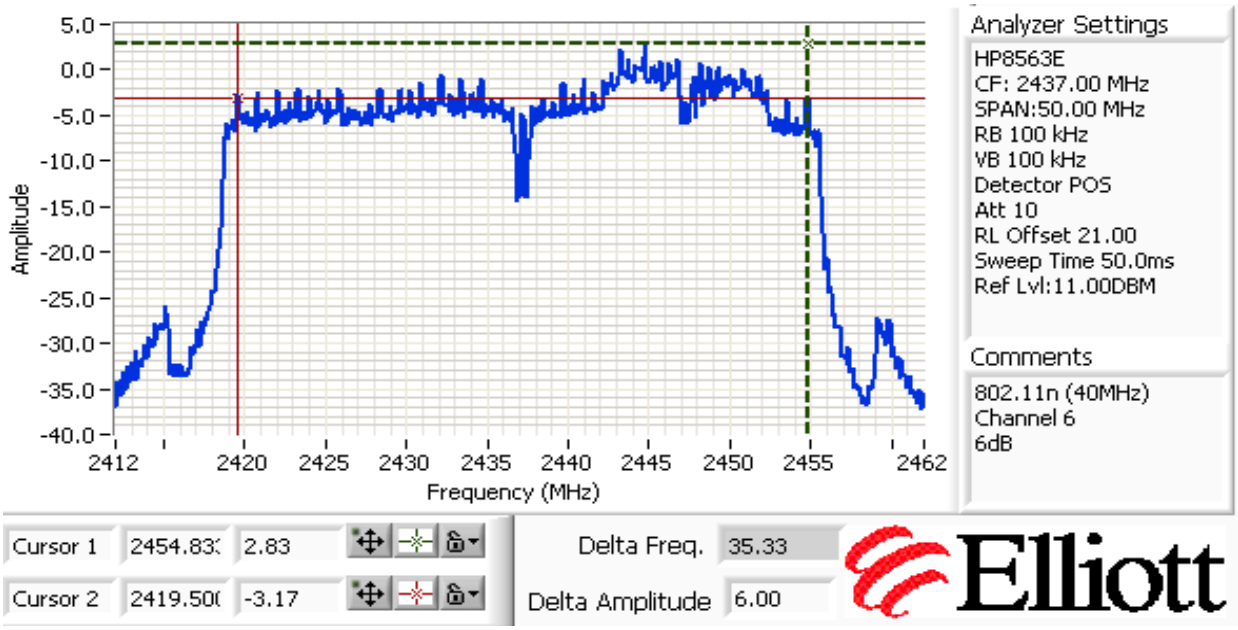
Power Setting	Frequency (MHz)	Resolution Bandwidth	Bandwidth (MHz) 6dB	99%
12.50	2422	100kHz	35.3	37.1
13.00	2437	100kHz	35.3	36.8
12.00	2452	100kHz	35.3	36.9

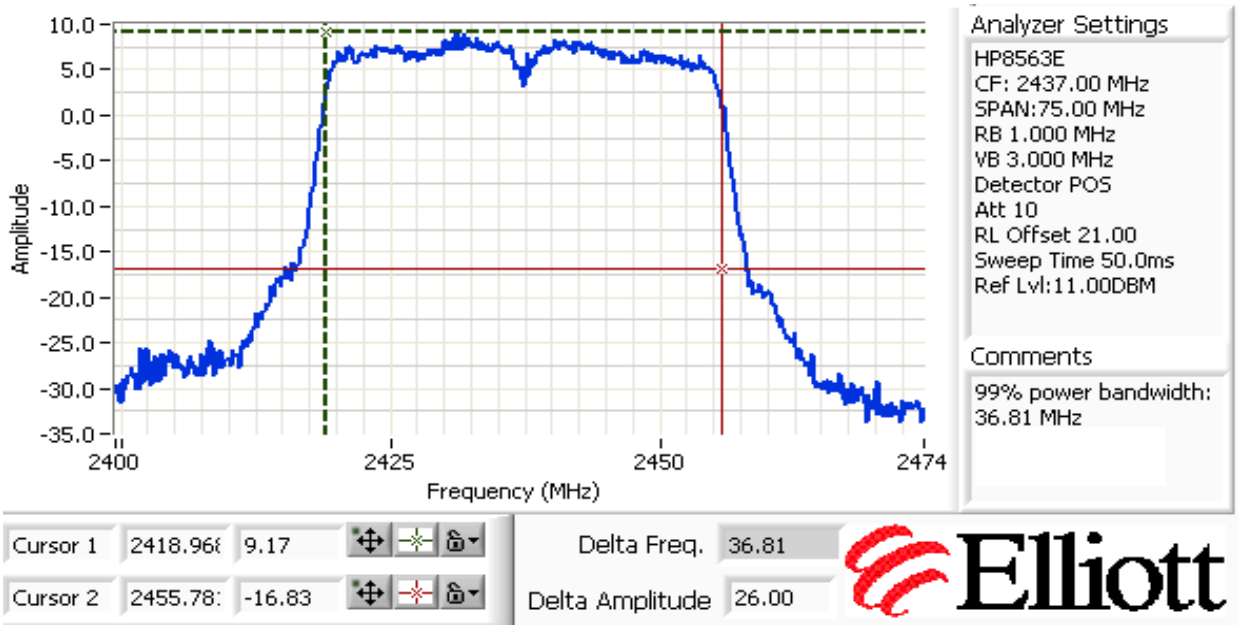
Note 1:	99% bandwidth measured in accordance with RSS GEN, with RB > 1% of the span and VB > 3xRB



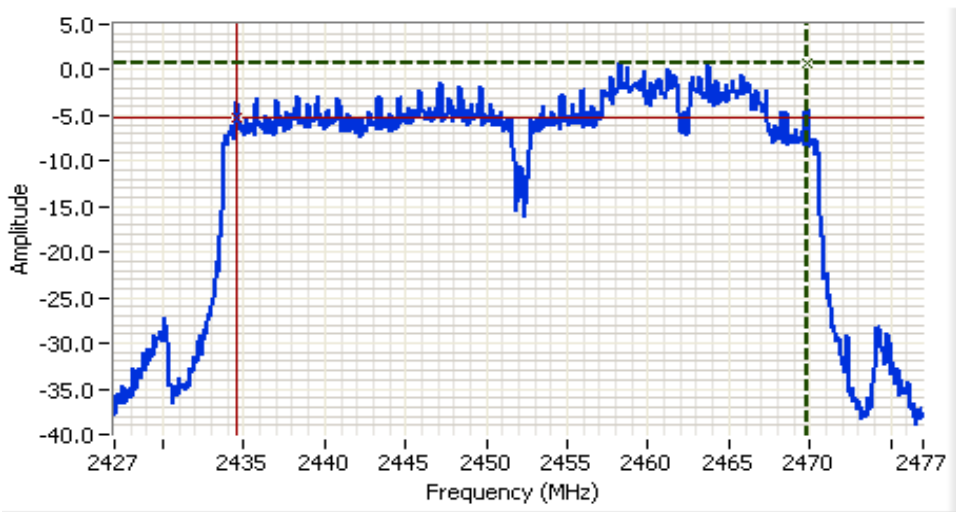


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A





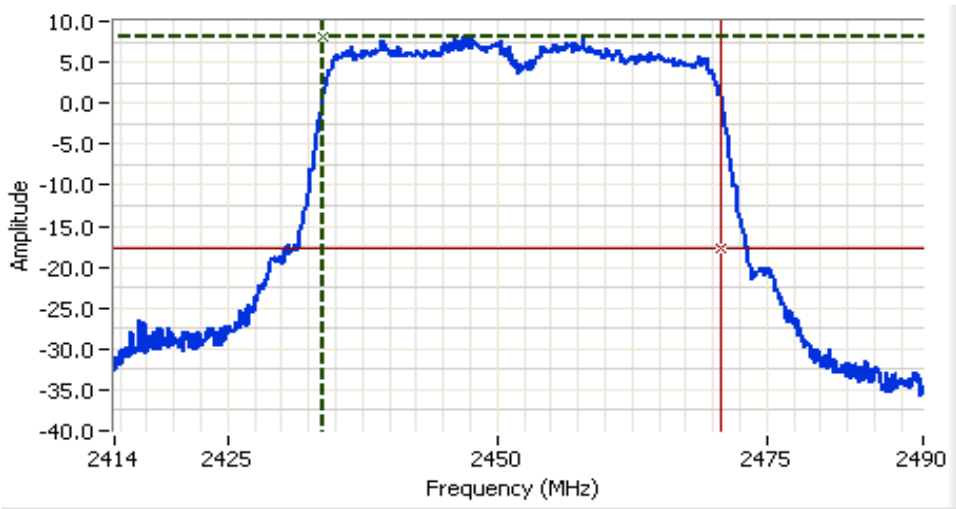
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



Analyzer Settings
HP8563E
CF: 2452.00 MHz
SPAN:50.00 MHz
RB 100 kHz
VB 100 kHz
Detector POS
Att 10
RL Offset 21.00
Sweep Time 50.0ms
Ref Lvl:11.00DBM

Comments
802.11n (40MHz)
Channel 9
6dB

Cursor 1	2469.83	0.83	Delta Freq.	35.33	Elliott
Cursor 2	2434.50	-5.17	Delta Amplitude	6.00	



Analyzer Settings
HP8563E
CF: 2452.00 MHz
SPAN:75.00 MHz
RB 1.000 MHz
VB 3.000 MHz
Detector POS
Att 10
RL Offset 21.00
Sweep Time 50.0ms
Ref Lvl:11.00DBM

Comments
99% power bandwidth:
36.94 MHz

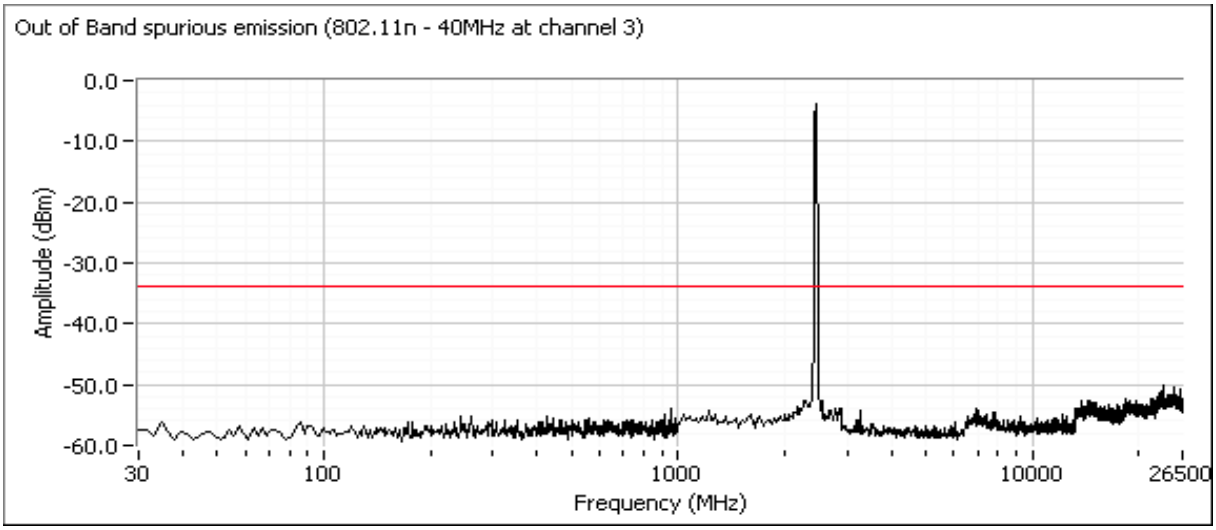
Cursor 1	2433.84	8.17	Delta Freq.	36.94	Elliott
Cursor 2	2470.78	-17.83	Delta Amplitude	26.00	

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

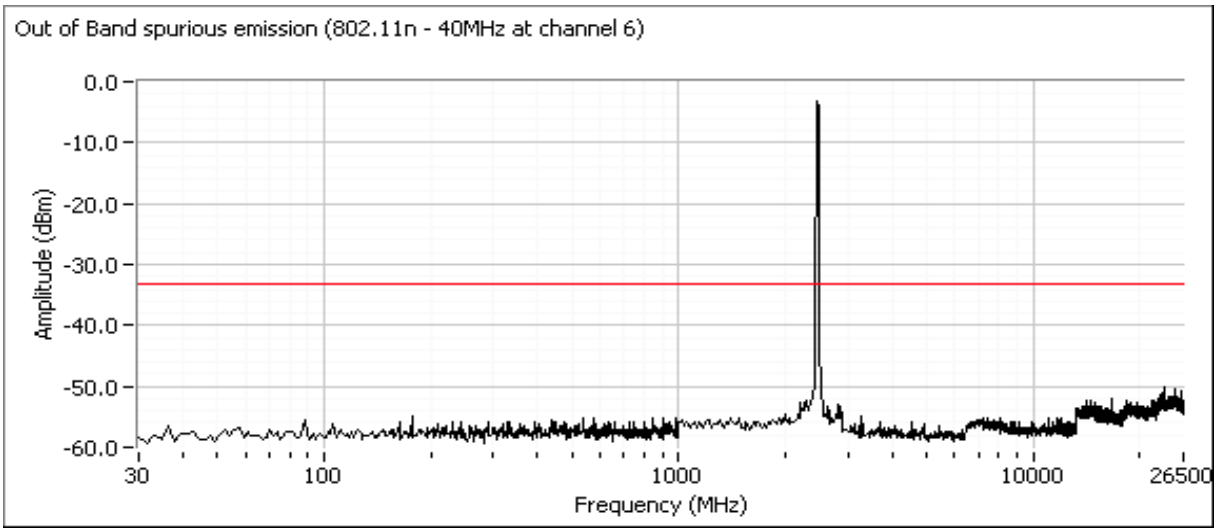
Run #4: Out of Band Spurious Emissions (MCS0)

Frequency (MHz)	Limit	Result
2422	-30dBc	Pass
2437	-30dBc	Pass
2452	-30dBc	Pass

Plots for low channel, power setting(s) = 12.5

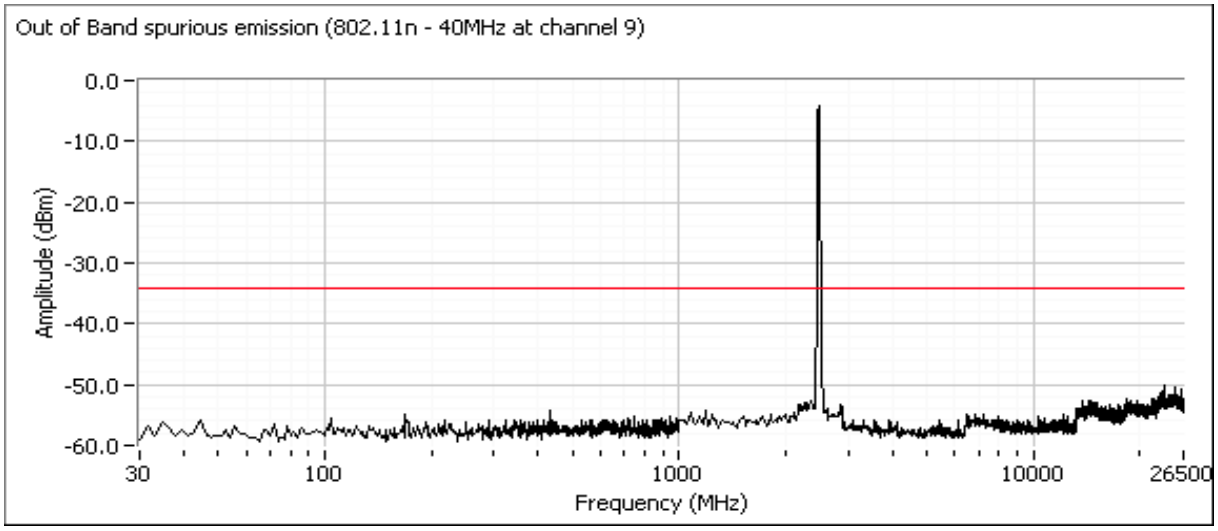


Plots for center channel, power setting(s) = 13



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots for high channel, power setting(s) = 12

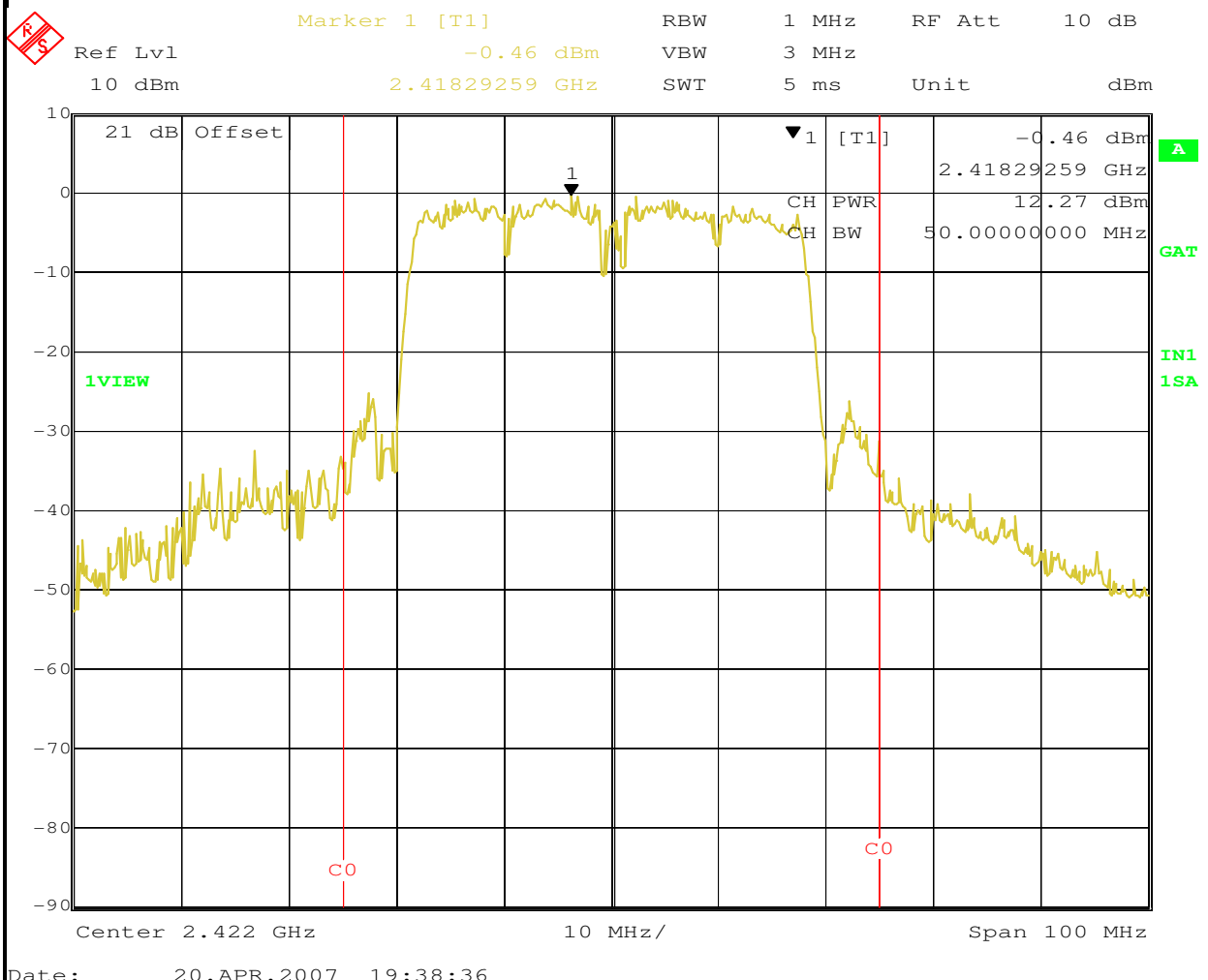


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

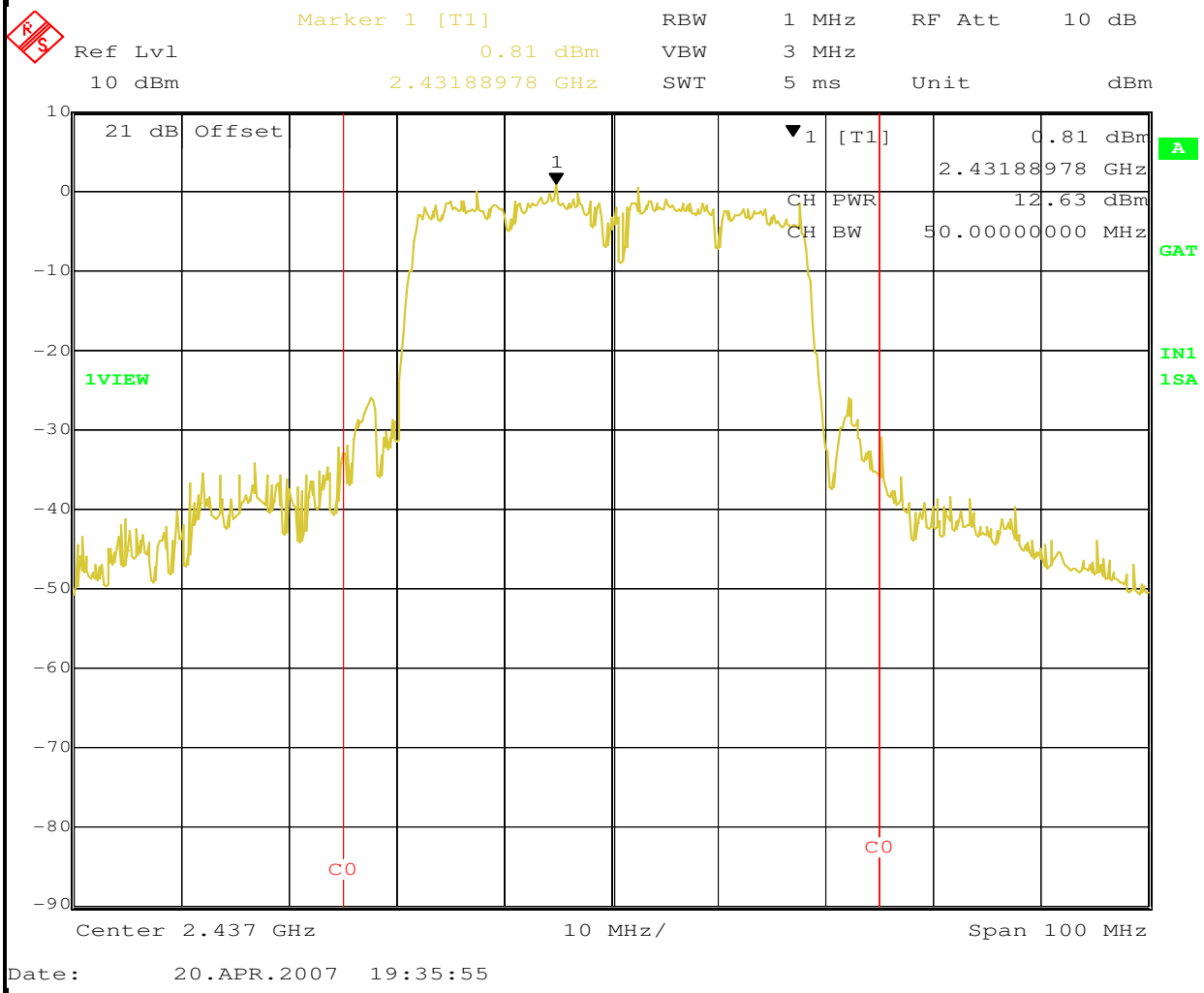
Run #5: Output Power (MCS15)

Power Setting[2]	Frequency (MHz)	Output Power (dBm)[1]	Output Power mW	Antenna Gain (dBi)	Result	EIRP[Note 2] dBm	EIRP[Note 2] W	Output Power (dBm)[3]	Output Power mW
14.0	2422	12.3	16.9	3.36	Pass	15.6	0.037		
14.5	2437	12.6	18.3	3.36	Pass	16.0	0.040		
13.5	2452	11.4	13.8	3.36	Pass	14.8	0.030		

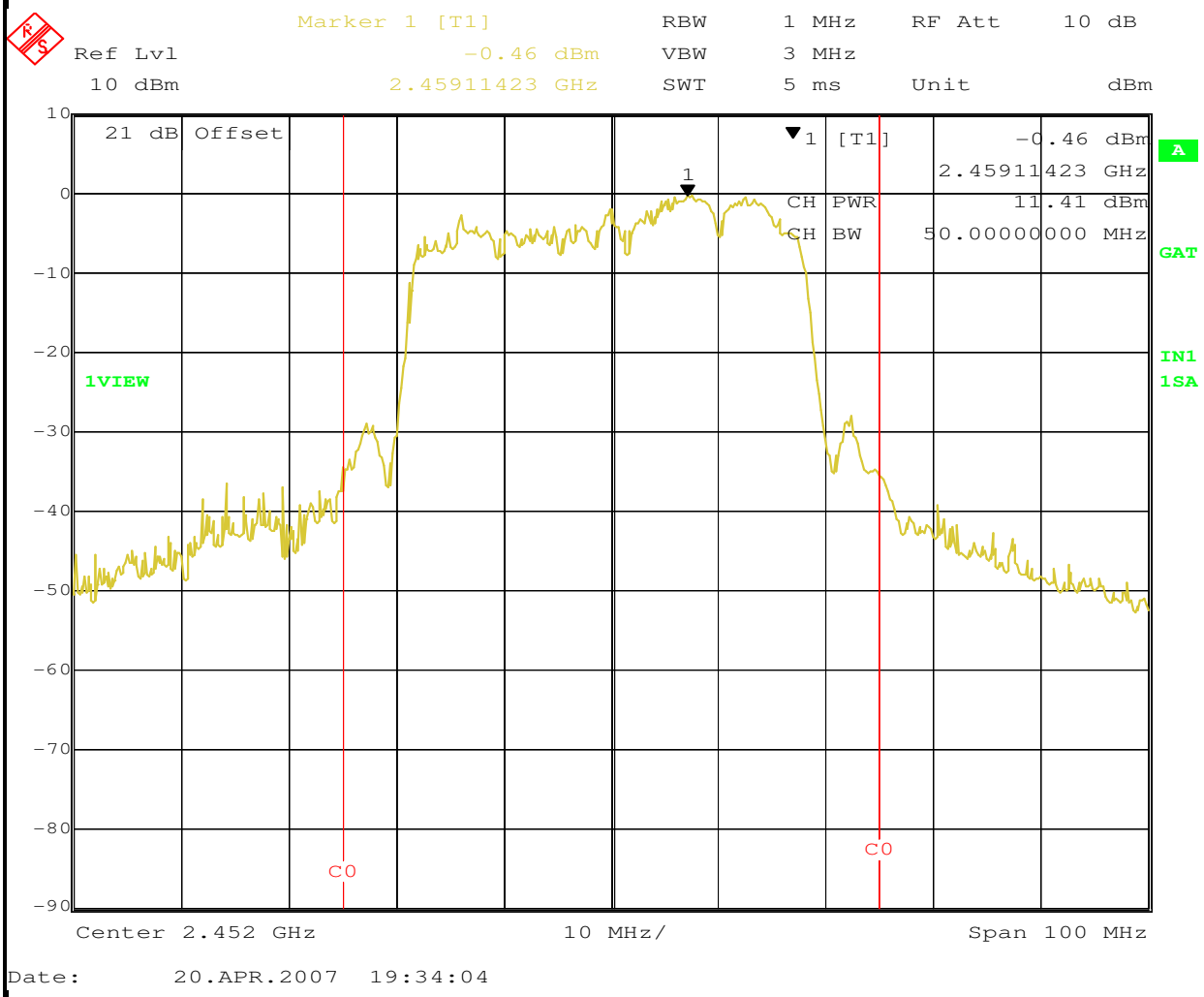
Note 1:	RBW=1MHz, VB=3 MHz, sample detector, max hold (transmitted signal was not continuous) and power integration over 30 MHz.
Note 2:	Power setting - the software power setting used during testing, included for reference only.
Note 3:	Power measured using average power meter and is included for reference only.



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

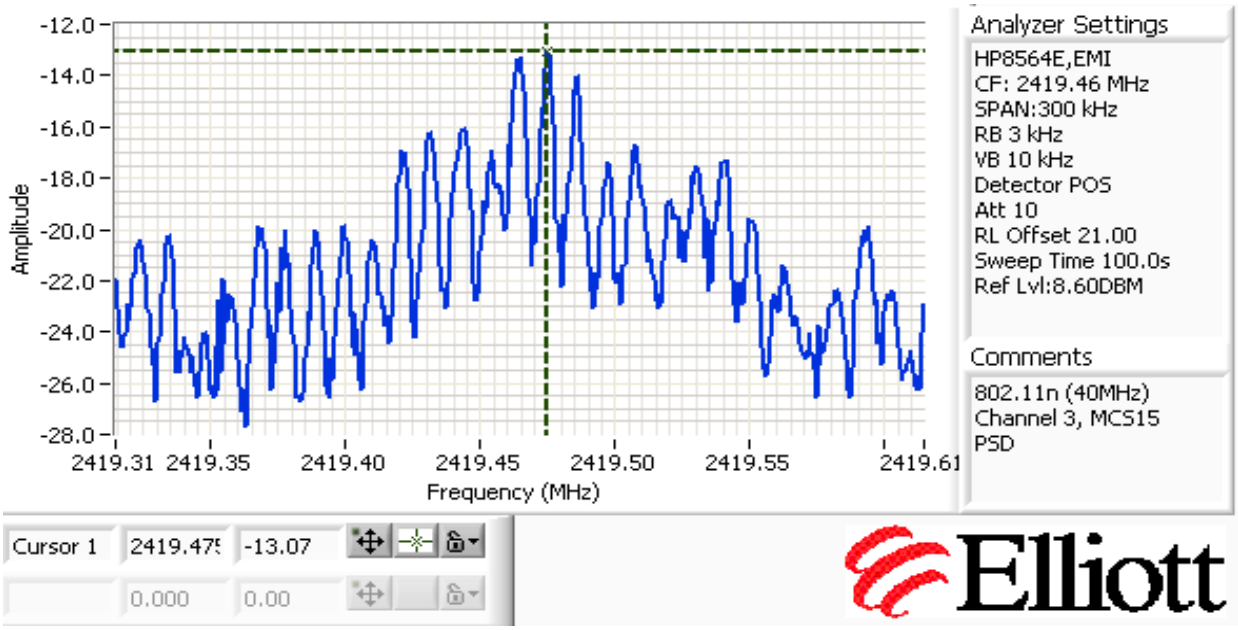


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

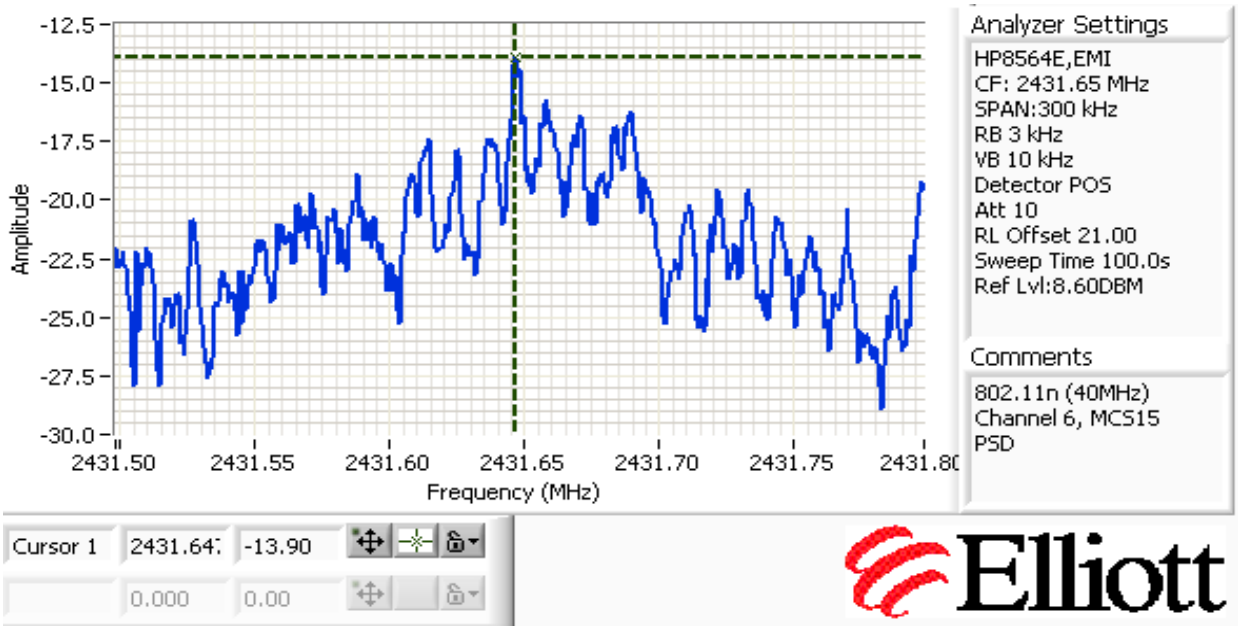
Run #6: Power spectral Density (MCS15)

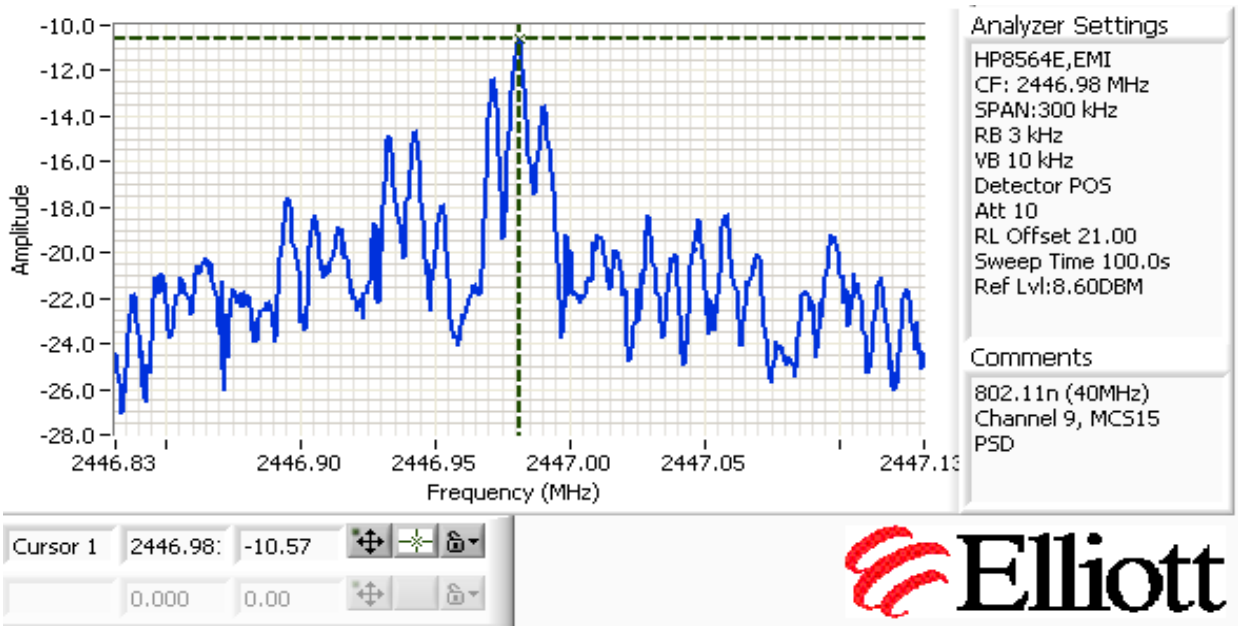
Power Setting	Frequency (MHz)	PSD (dBm/3kHz) Note 1	Limit dBm/3kHz	Result
14.0	2422	-13.1	8.0	Pass
14.5	2437	-13.9	8.0	Pass
13.5	2452	-10.6	8.0	Pass

Note 1:	Power spectral density measured using RB=3 kHz, VB=10kHz, analyzer with peak detector and with a sweep time set to ensure a dwell time of at least 1 second per 3kHz. The measurement is made at the frequency of PPSD determined from preliminary scans using RB=3kHz using multiple sweeps at a faster rate over the 6dB bandwidth of the signal.



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



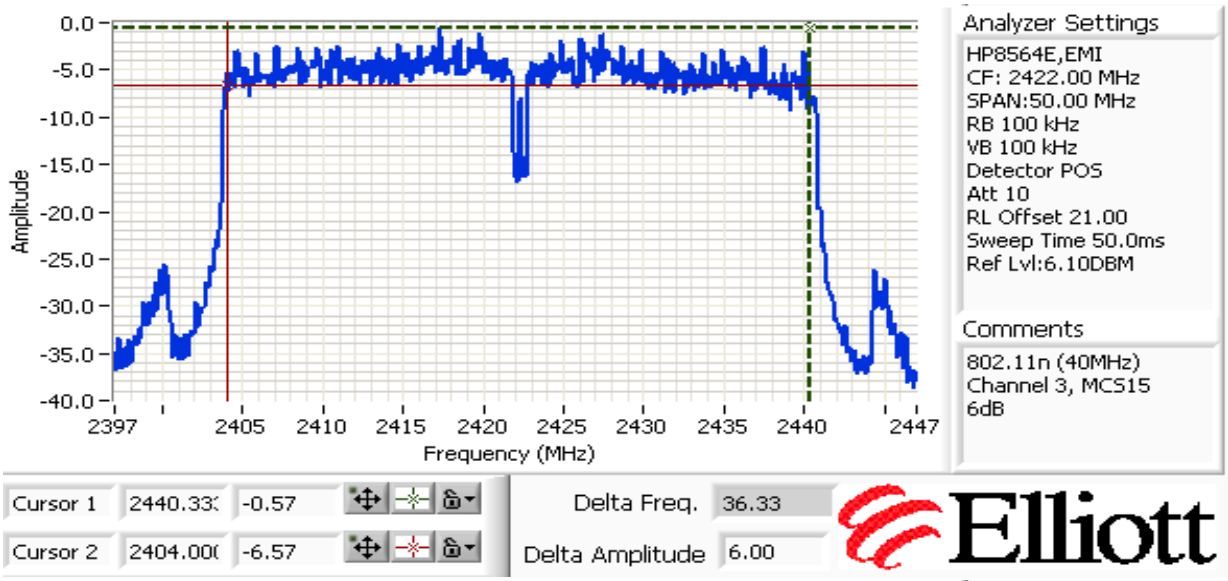


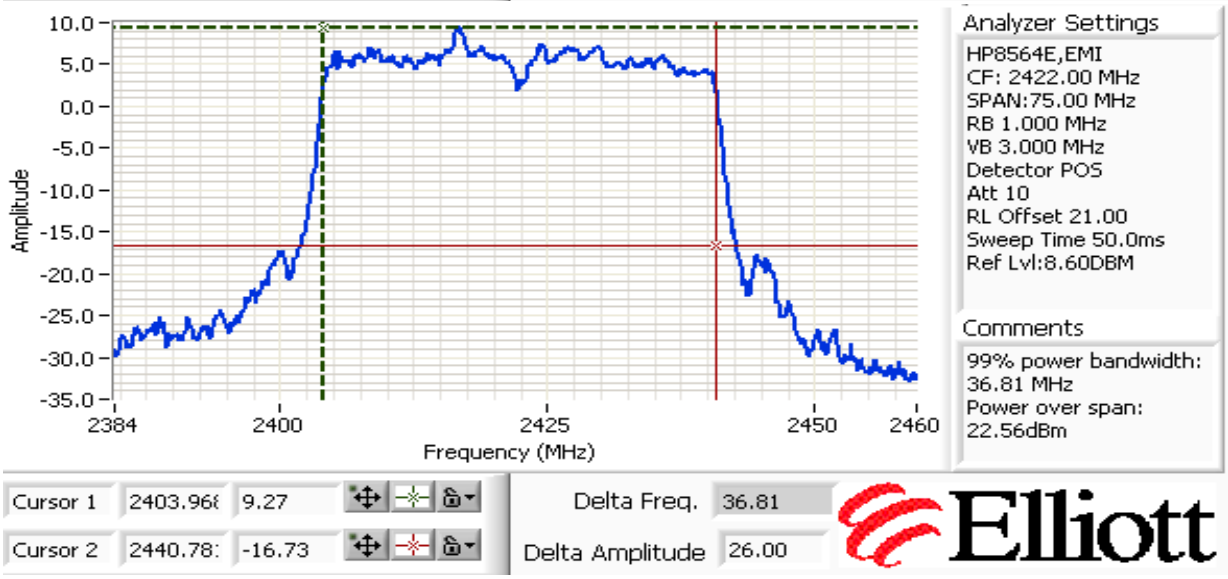
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Run #7: Signal Bandwidth (MCS15)

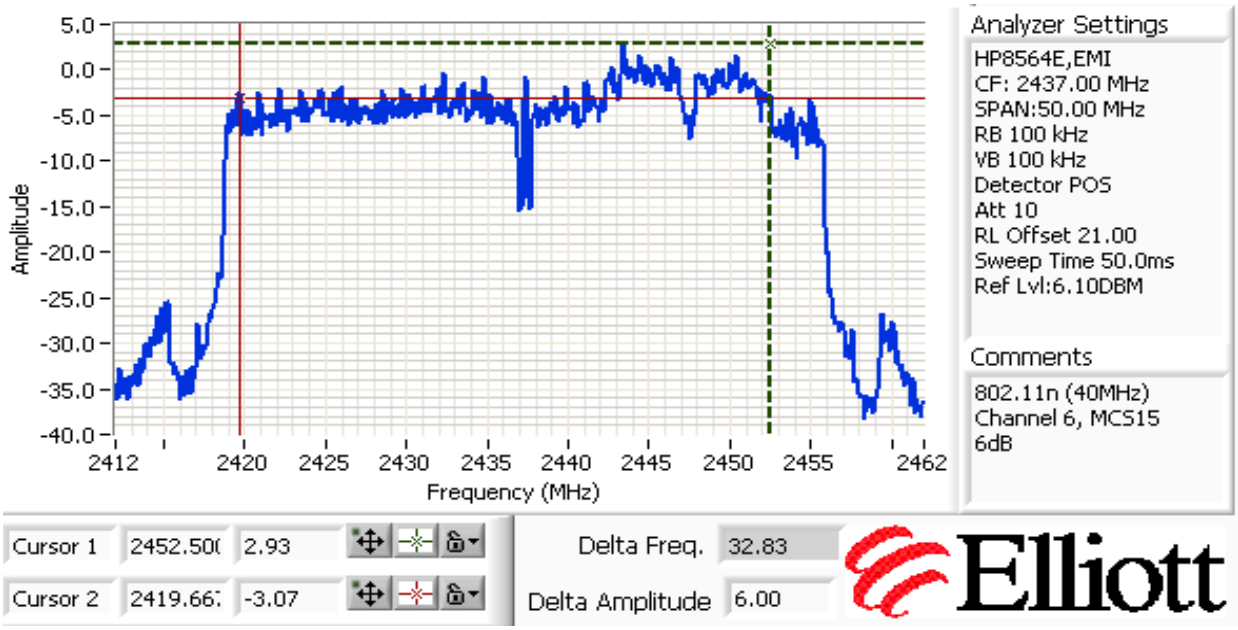
Power Setting	Frequency (MHz)	Resolution Bandwidth	Bandwidth (MHz) 6dB	99%
14.0	2422	1MHz	36.3	36.8
14.5	2437	1MHz	32.8	36.8
13.5	2452	1MHz	36.3	37.1

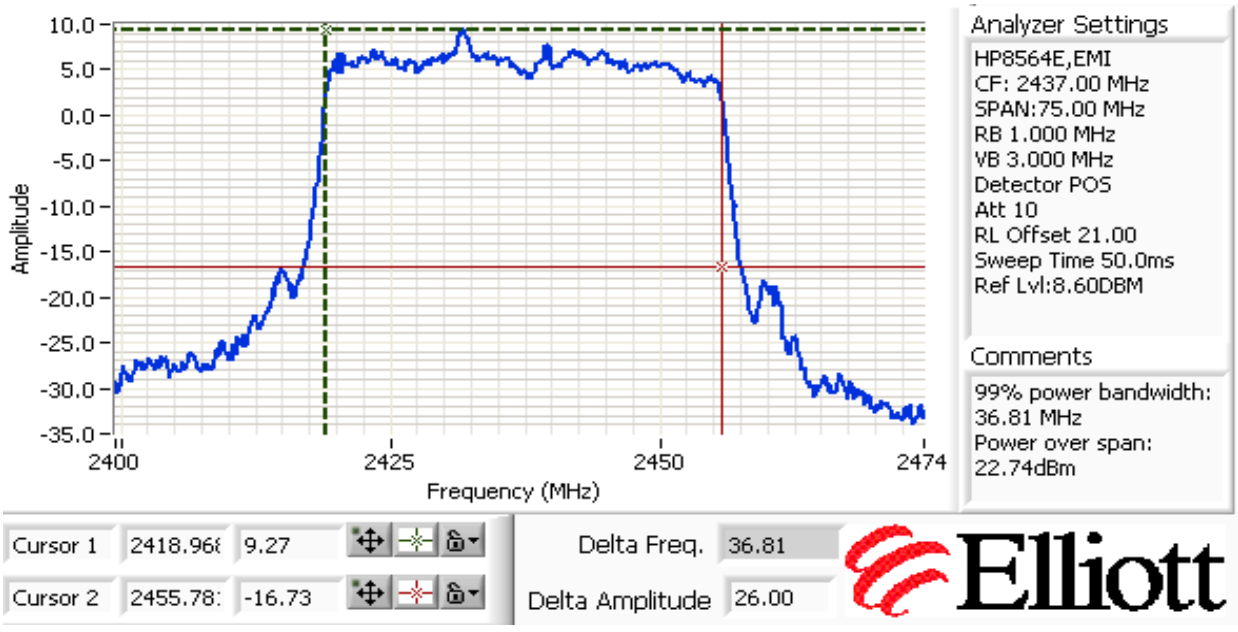
Note 1:	99% bandwidth measured in accordance with RSS GEN, with RB > 1% of the span and VB > 3xRB



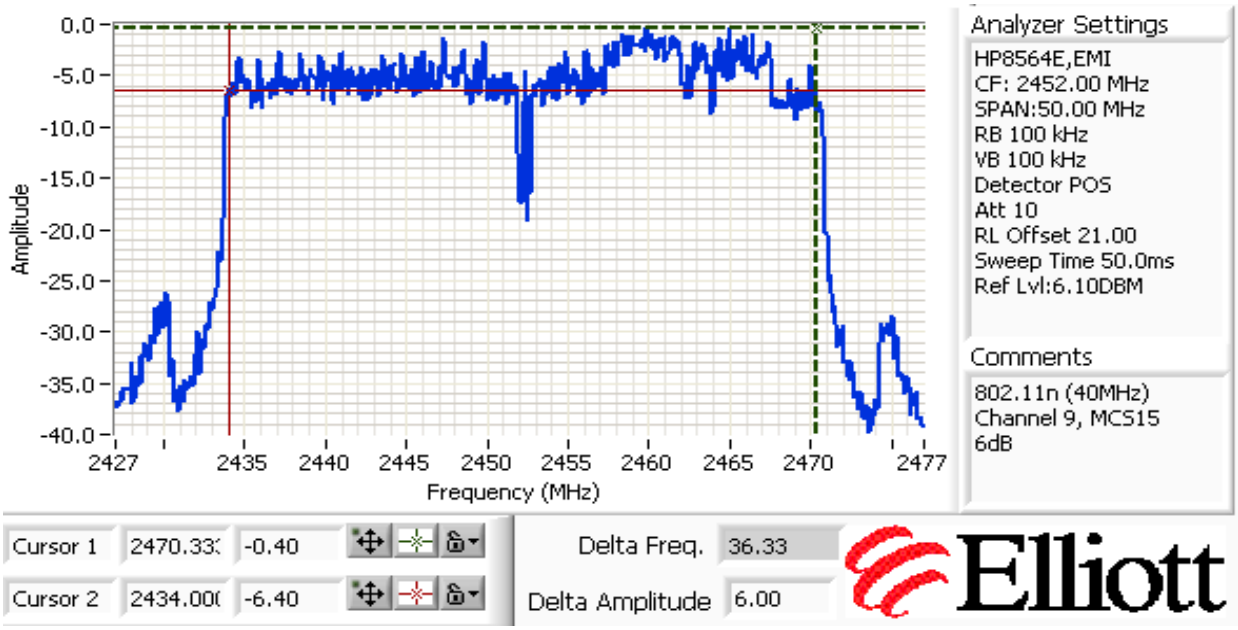


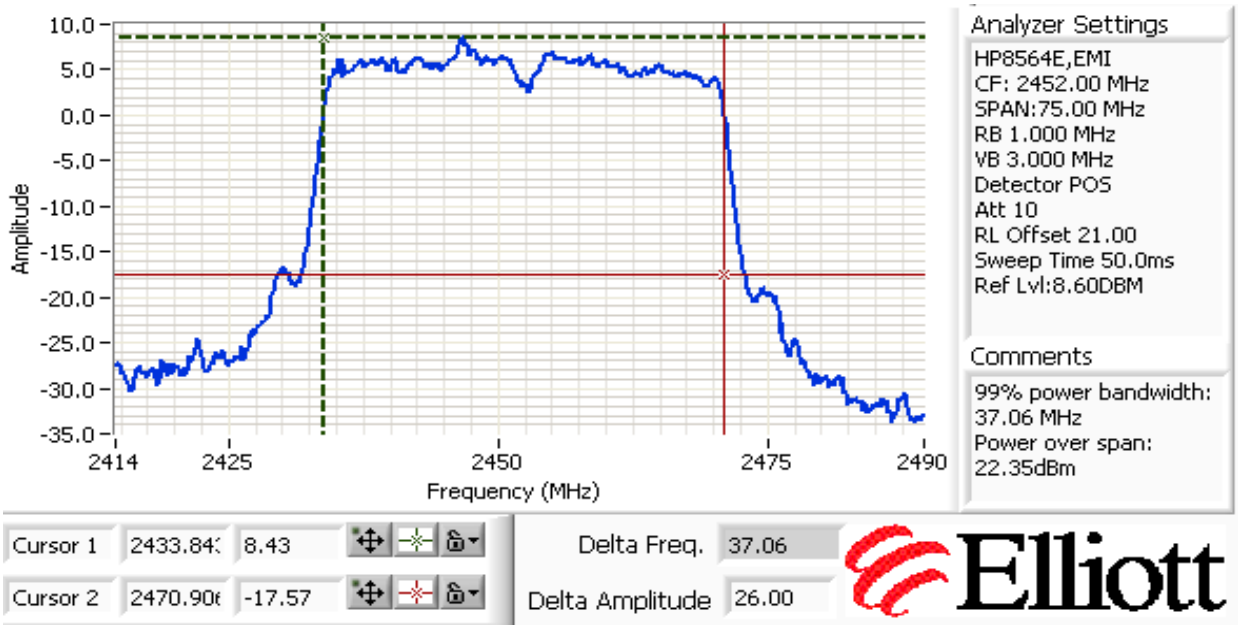
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A





Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



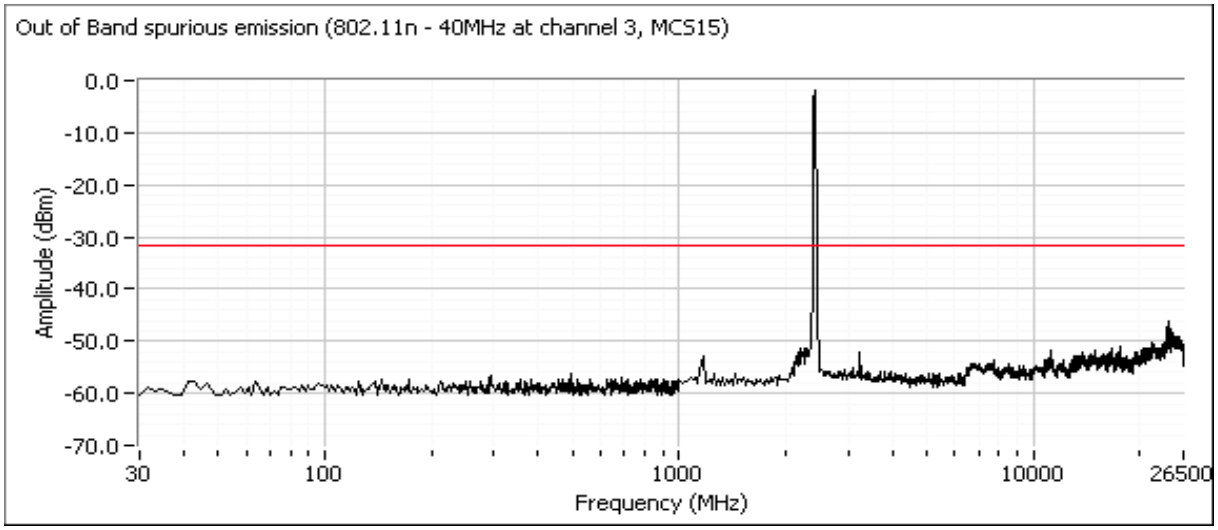


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

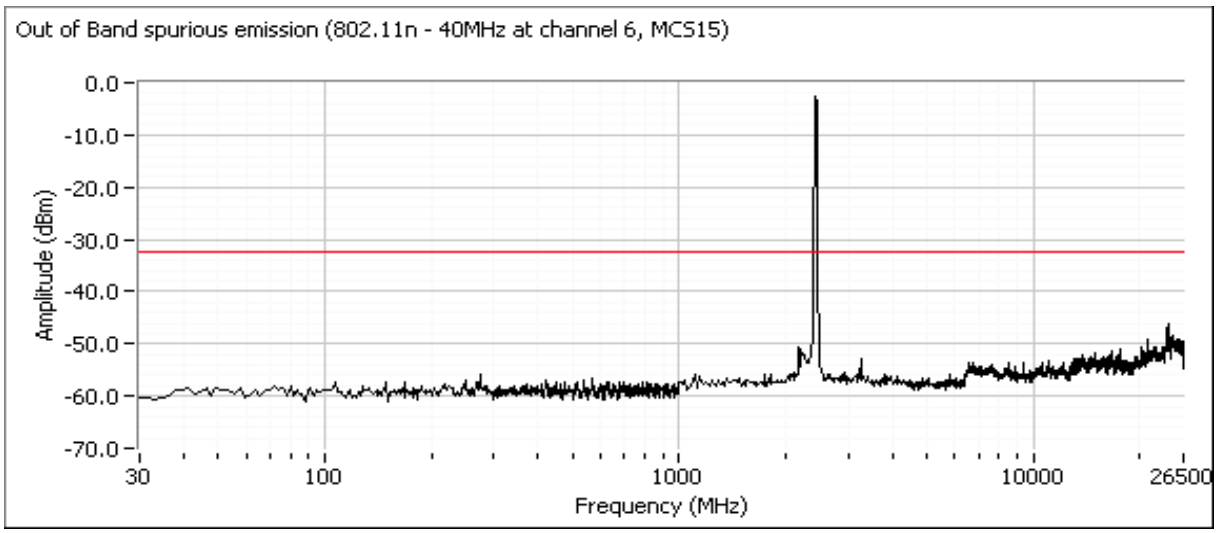
Run #8: Out of Band Spurious Emissions (MCS15)

Frequency (MHz)	Limit	Result
2422	-30dBc	Pass
2437	-30dBc	Pass
2452	-30dBc	Pass

Plots for low channel, power setting(s) = 14

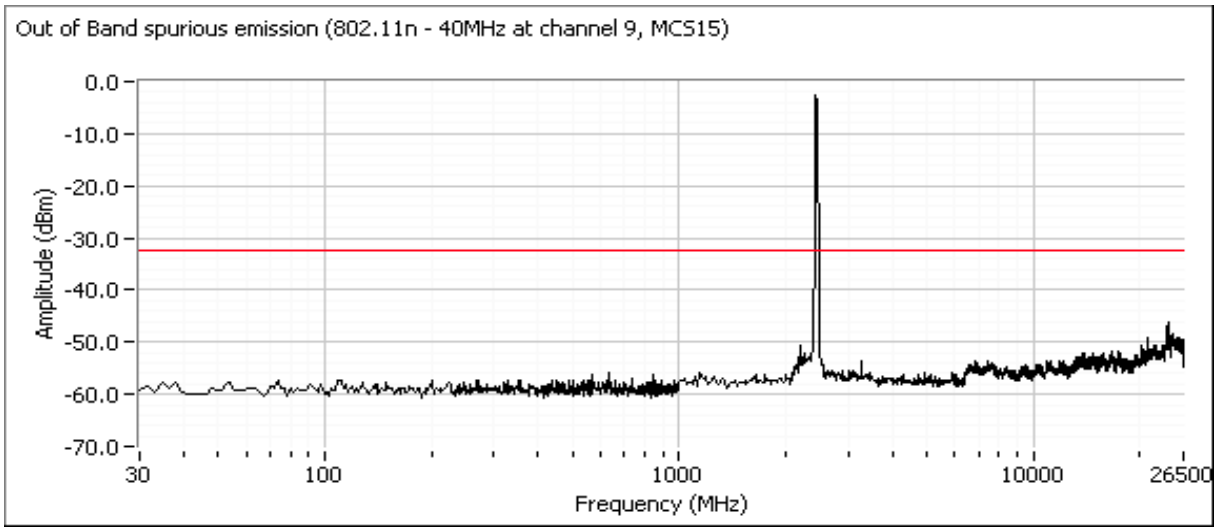


Plots for center channel, power setting(s) = 14.5



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots for high channel, power setting(s) = 13.5



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

FCC Part 15.247 Tests (802.11n, 20 Mhz) 5725 - 5850 MHz

Test standard(s)ifics

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: 4/24/2007
Test Engineer: Mehran Birgani
Test Location: Fremont Chamber #4

Config. Used: 1
Config Change: None
Host Unit 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: 18 °C
Rel. Humidity: 35 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Output Power	15.247(b)	Pass	14.2dBm
1	Power spectral Density (PSD)	15.247(d)	Pass	0.16 dBm/kHz
1	6dB Bandwidth	15.247(a)	Pass	17.42
1	99% Bandwidth	RSS GEN	-	18.3MHz
2	Spurious emissions	15.247(b)	Pass	< -30dBc

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:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Run #1a: Output Power

Transmitted signal on chain is coherent ? Yes

Regulatory Final Power Measurements:

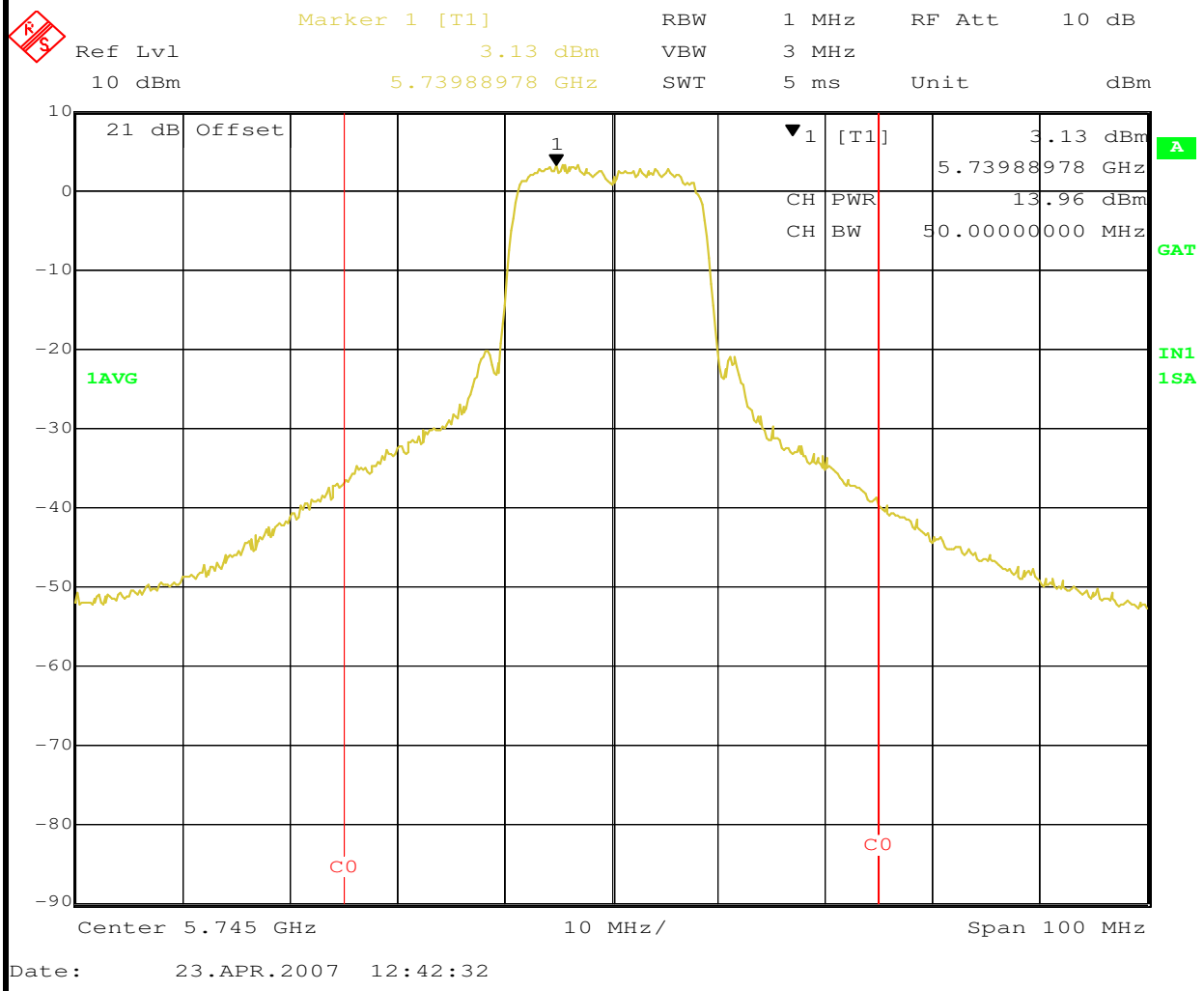
Power Setting[4]	Frequency (MHz)	Output Power (dBm) Note 1			Antenna Gain (dBi) Note 3			EIRP Note 2	
		Chain 1	Chain 2	Total	Chain 1	Chain 2	Total	dBm	W
17.0	5745		14.0	14.1	6.2	6.2	9.2	20.4	0.109
17.5	5785		14.0	14.2	6.2	6.2	9.2	20.4	0.110
17.5	5825		14.0	14.1	6.2	6.2	9.2	20.4	0.109

Frequency (MHz)	Power Setting	Bandwidth		Output Power[1] dBm		Power (Watts)	PSD[2] dBm/MHz			Result
		26dB	99%[4]	Measured	Limit		Measured	FCC Limit	RSS Limit[3]	
5745	17.0	-	18.3	14.1	30.0	0.026	0.16	8.0	8.0	Pass
5785	17.5	-	18.1	14.2	30.0	0.026	-0.67	8.0	8.0	Pass
5825	17.5	-	18.2	14.1	30.0	0.026	-0.67	8.0	8.0	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.
Note 5:	Power levels were not measured on Chain 1 as we were only verifying the now active middle port and measurements were only collected for that port only. Refer to test report to view previous power reported on the FCC website.

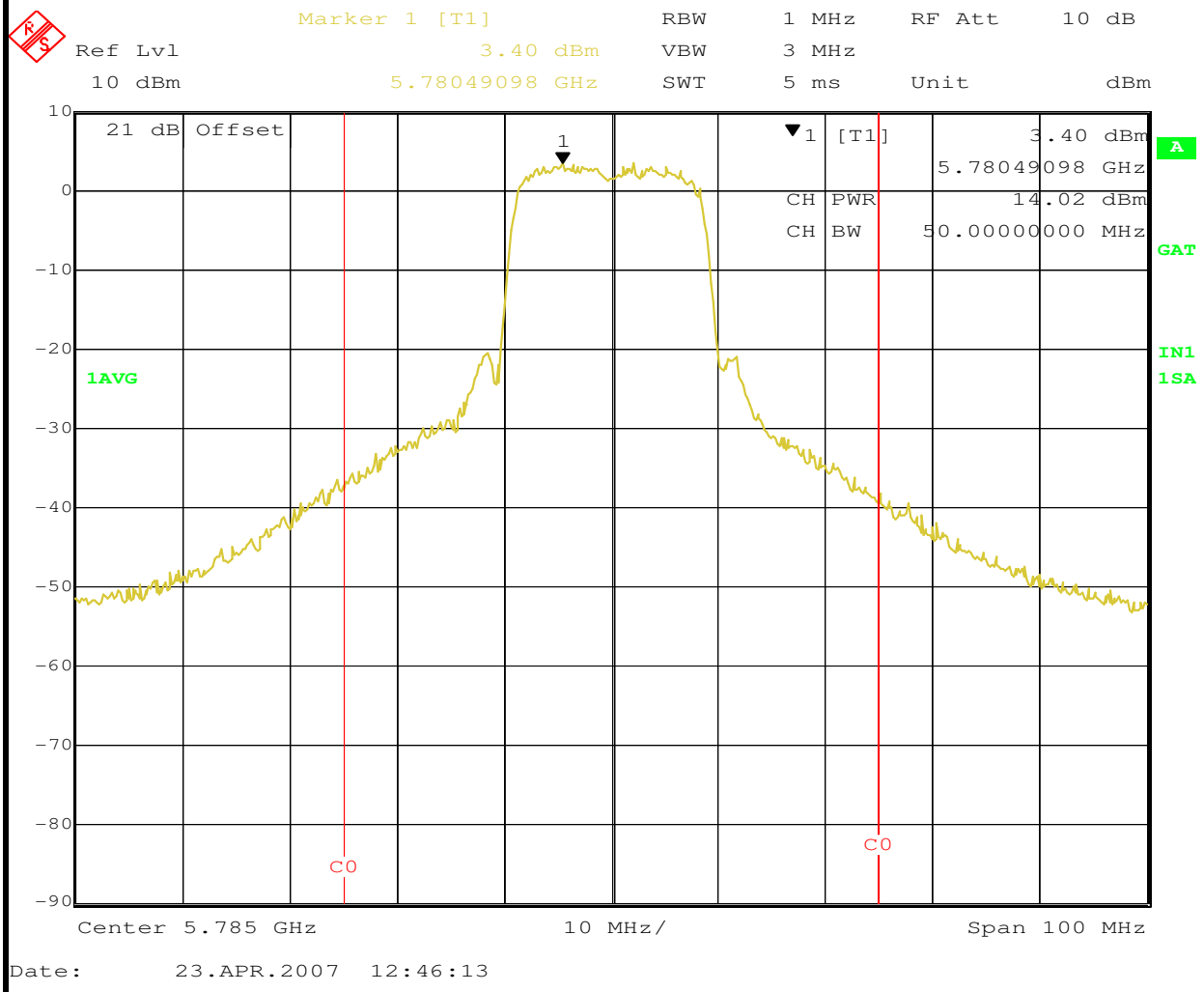
EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



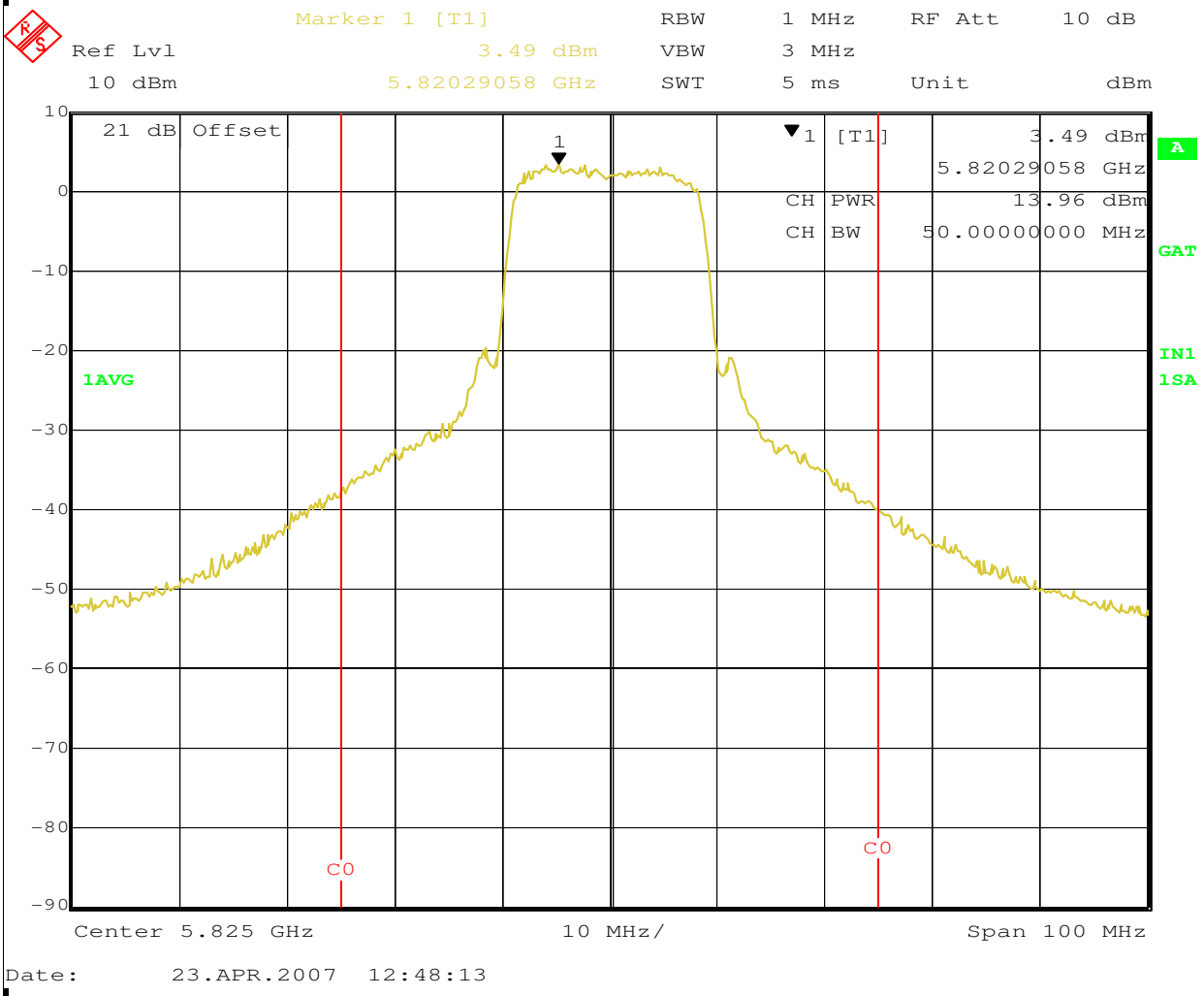
EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

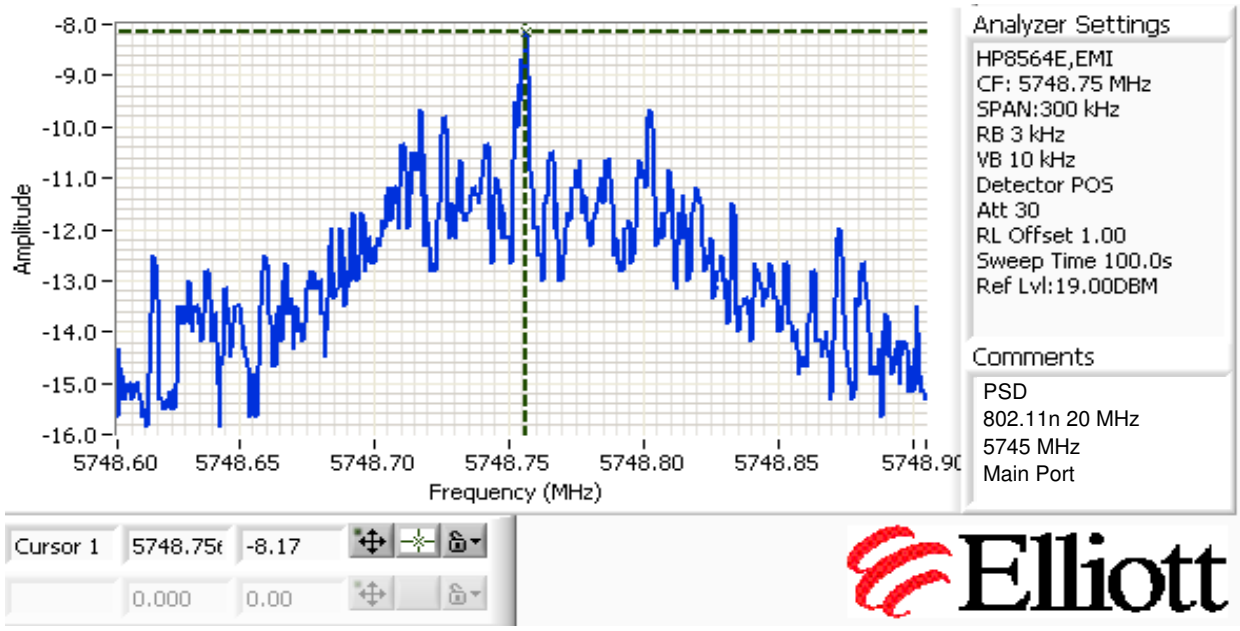
Run #1b: Power Spectral Density

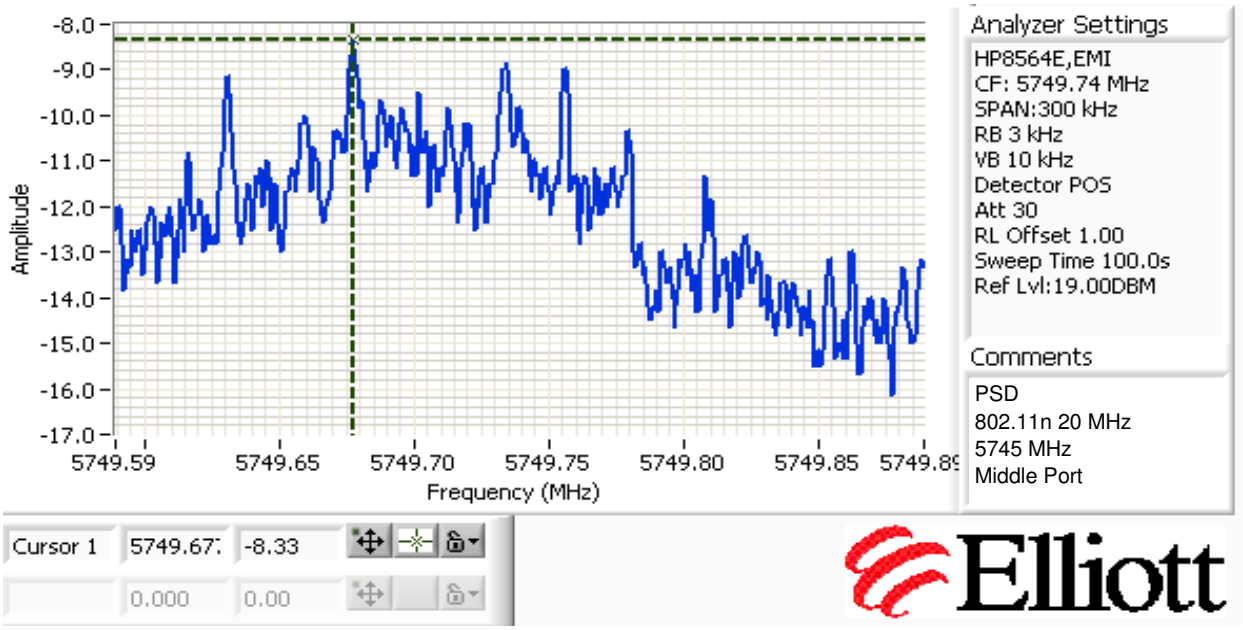
Mode	Power Setting	Frequency (MHz)	PSD (dBm/3kHz) Note 1			Limit	Result
			Chain 1	Chain 2	Total	dBm/3kHz	
n 20MHz	-	5745	-8.2	-8.3	0.2	8.0	Pass
n 20MHz	-	5785	-6.0	-5.3	-0.7	8.0	Pass
n 20MHz	-	5825	-6.0	-5.3	-0.7	8.0	Pass

Note 1:	Power standard(s)tral density measured using RB=3 kHz, VB=10kHz, analyzer with peak detector and with a sweep time set to ensure a dwell time of at least 1 second per 3kHz. The measurement is made at the frequency of PPSD determined from preliminary scans using RB=3kHz using multiple sweeps at a faster rate over the 6dB bandwidth of the signal.

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

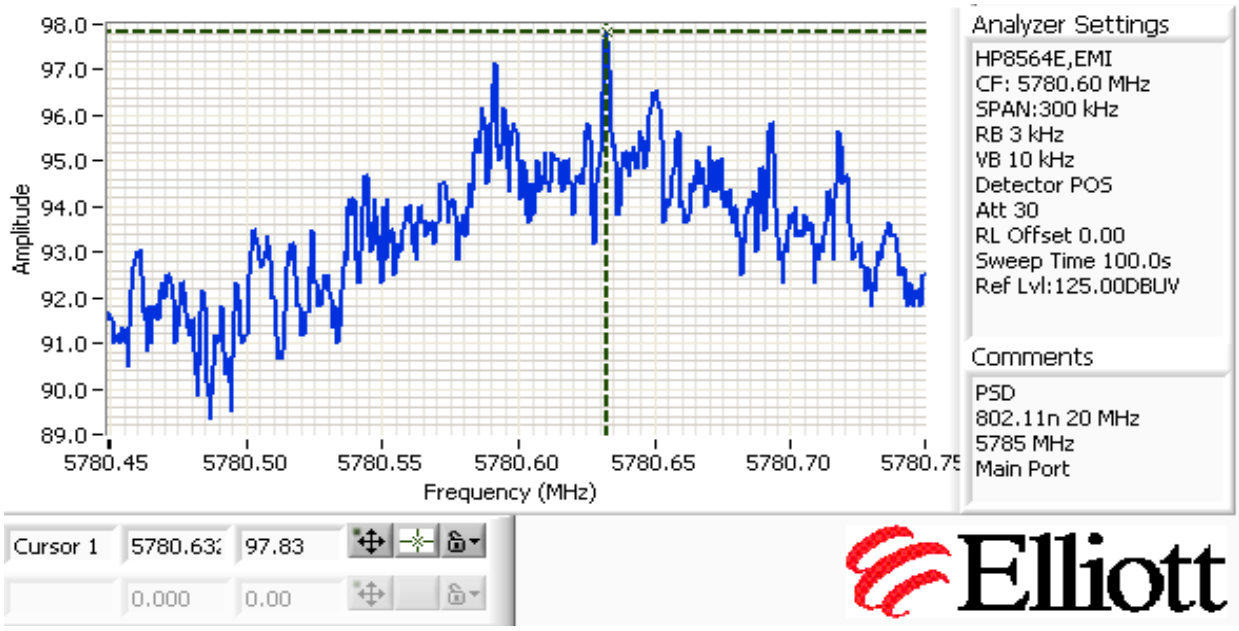
Low Channel - 5745 MHz

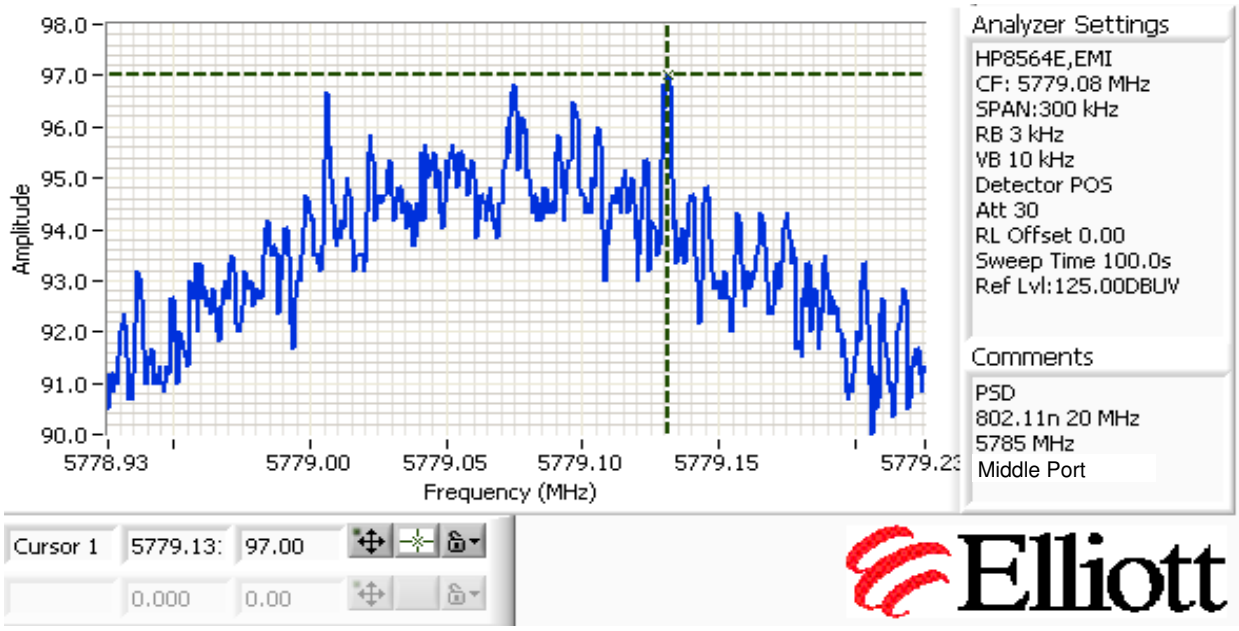




Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

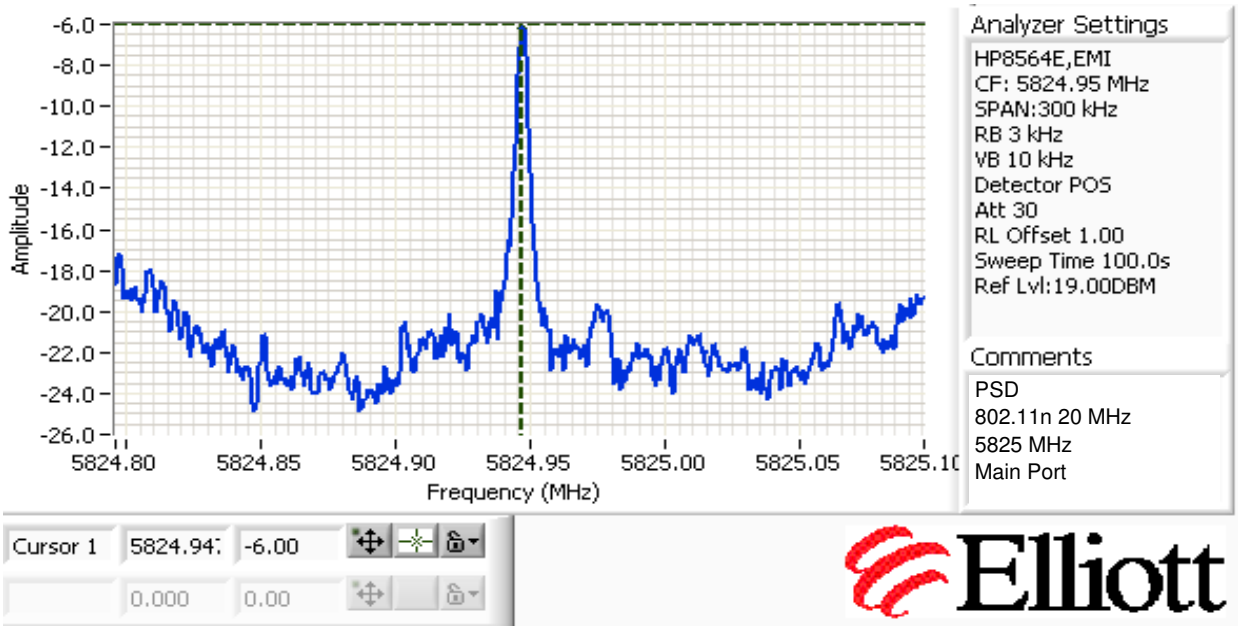
Middle Channel - 5785 MHz

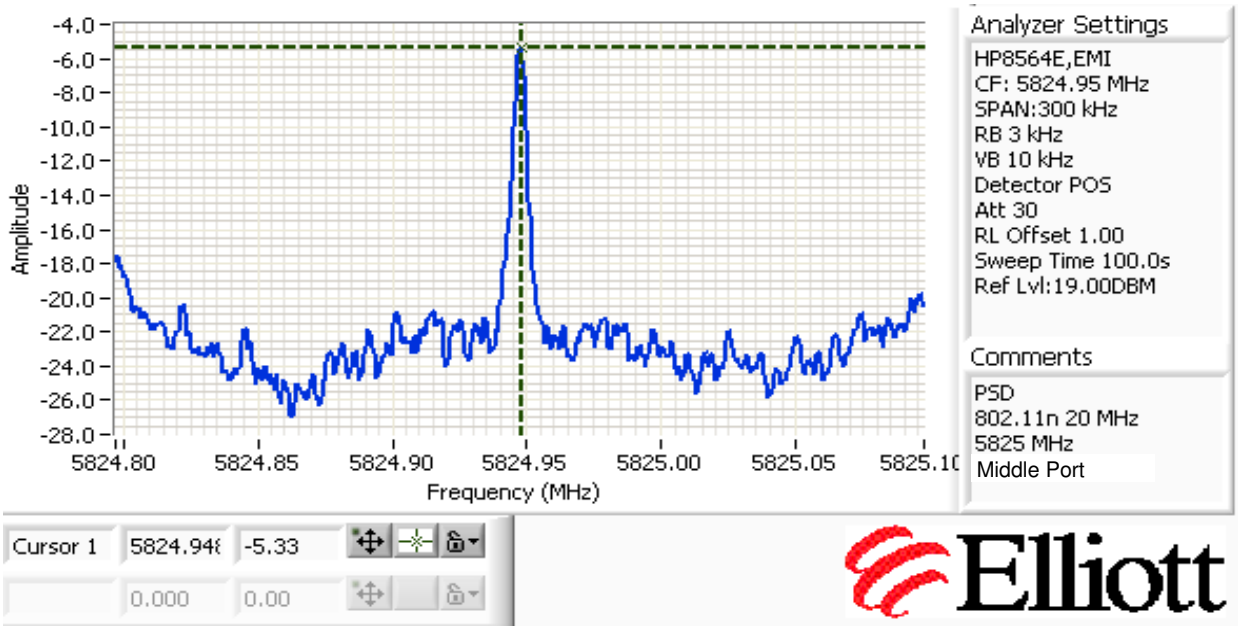




Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

High Channel - 5825 MHz





Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

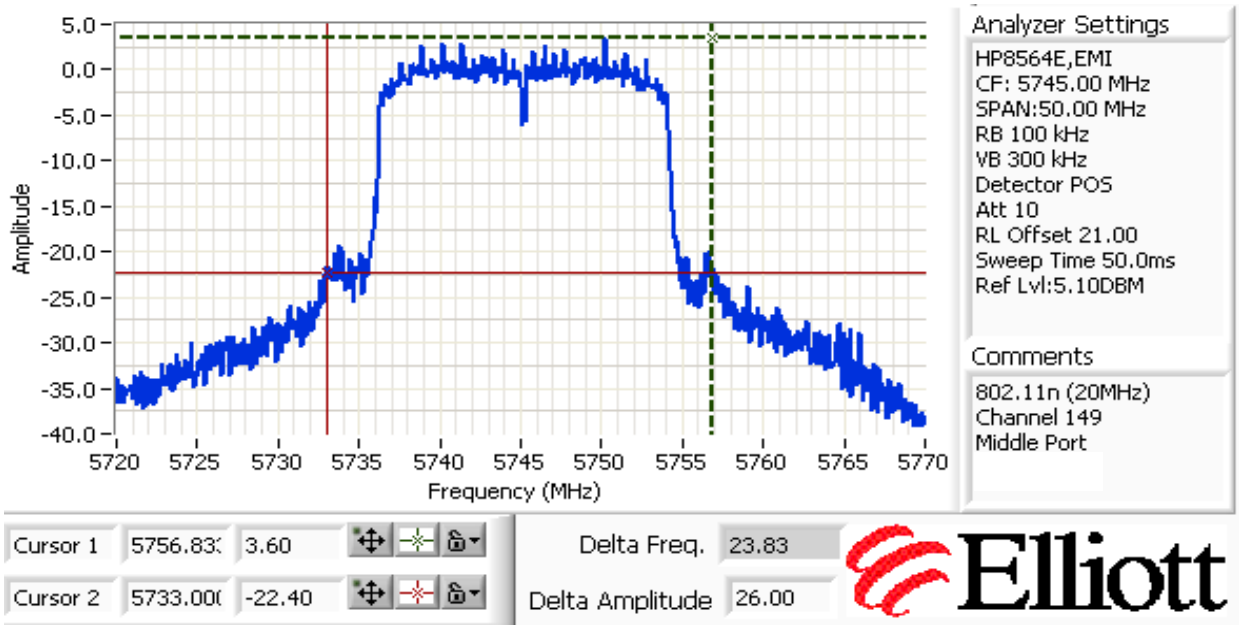
Run #1c: Signal Bandwidth

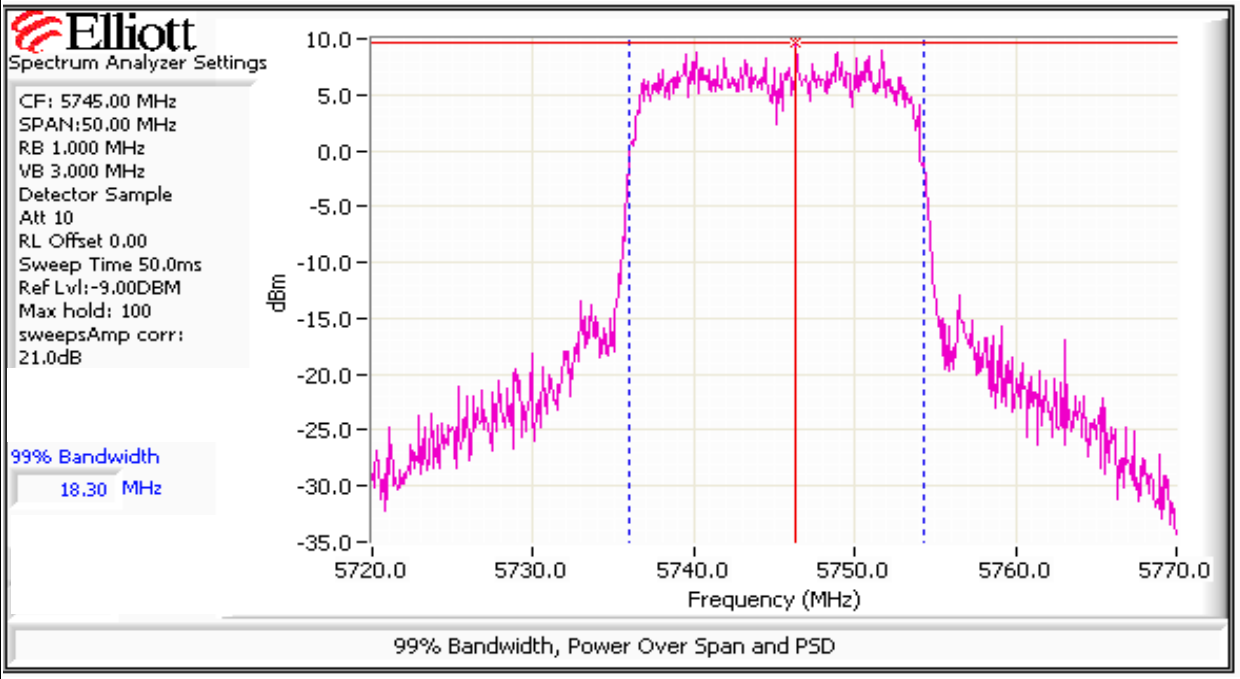
Power Setting	Frequency (MHz)	Resolution Bandwidth	Bandwidth (MHz) 6dB	99%
17.0	5745	100kHz	17.40	18.3
17.5	5785	100kHz	16.83	18.1
17.5	5825	100kHz	17.33	18.2

Note 1: 99% bandwidth measured in accordance with RSS GEN, with RB > 1% of the span and VB > 3xRB

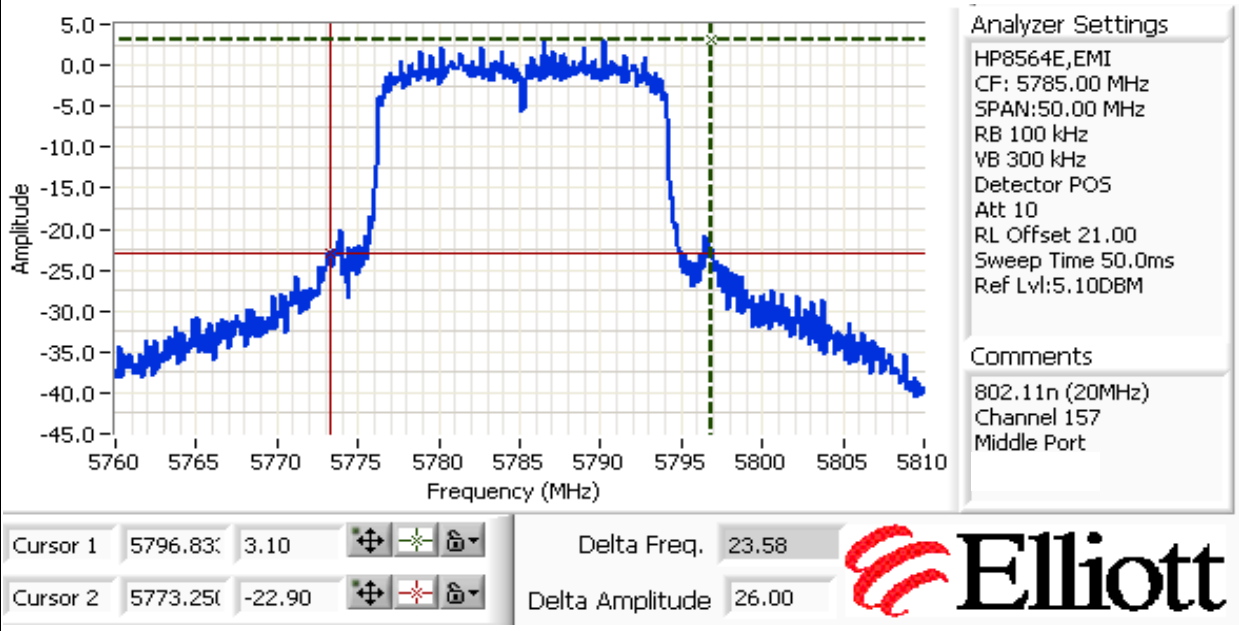
EMC Test Data

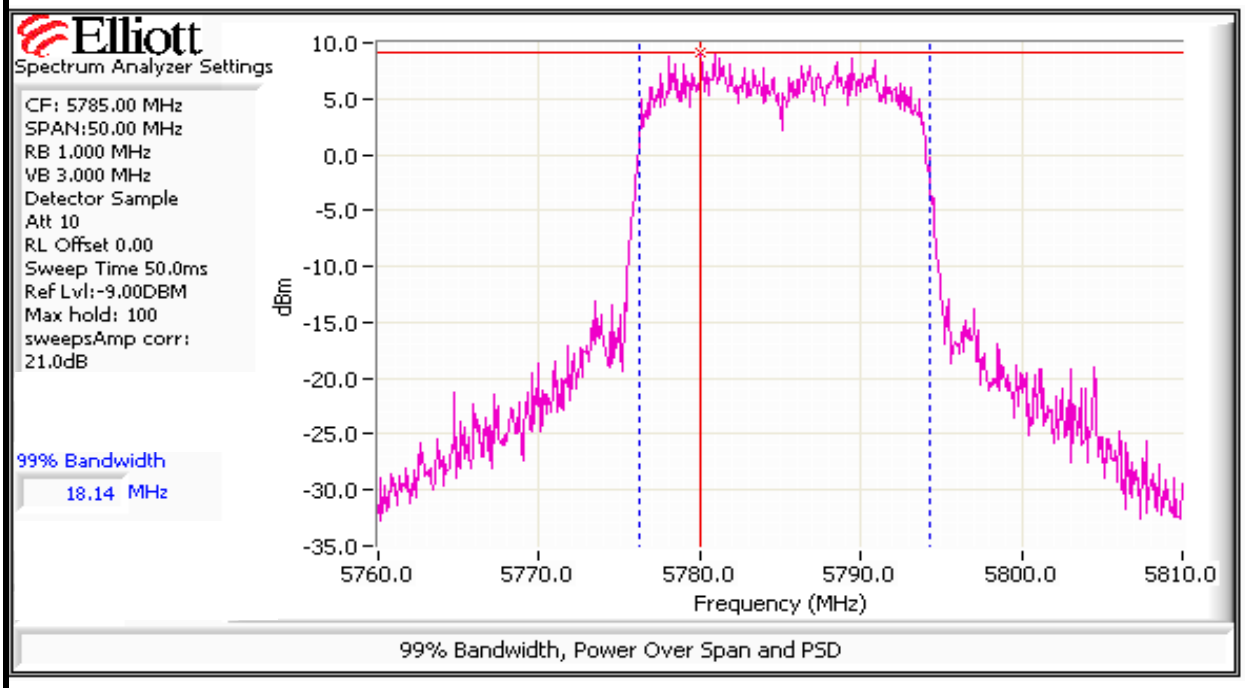
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A





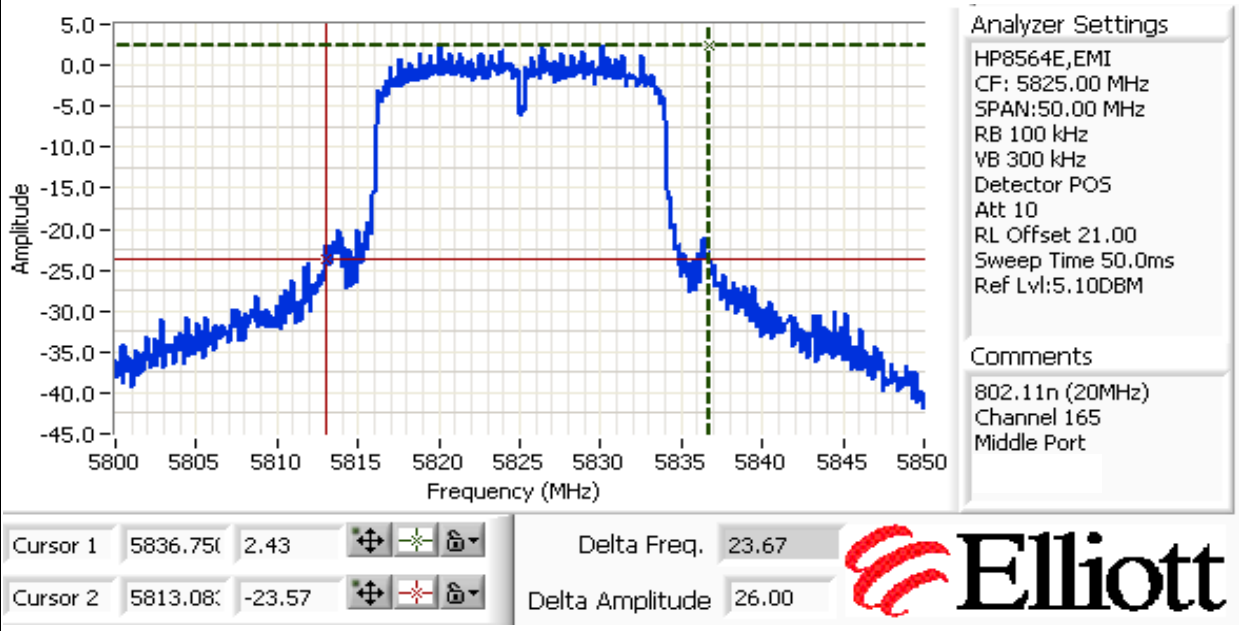
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

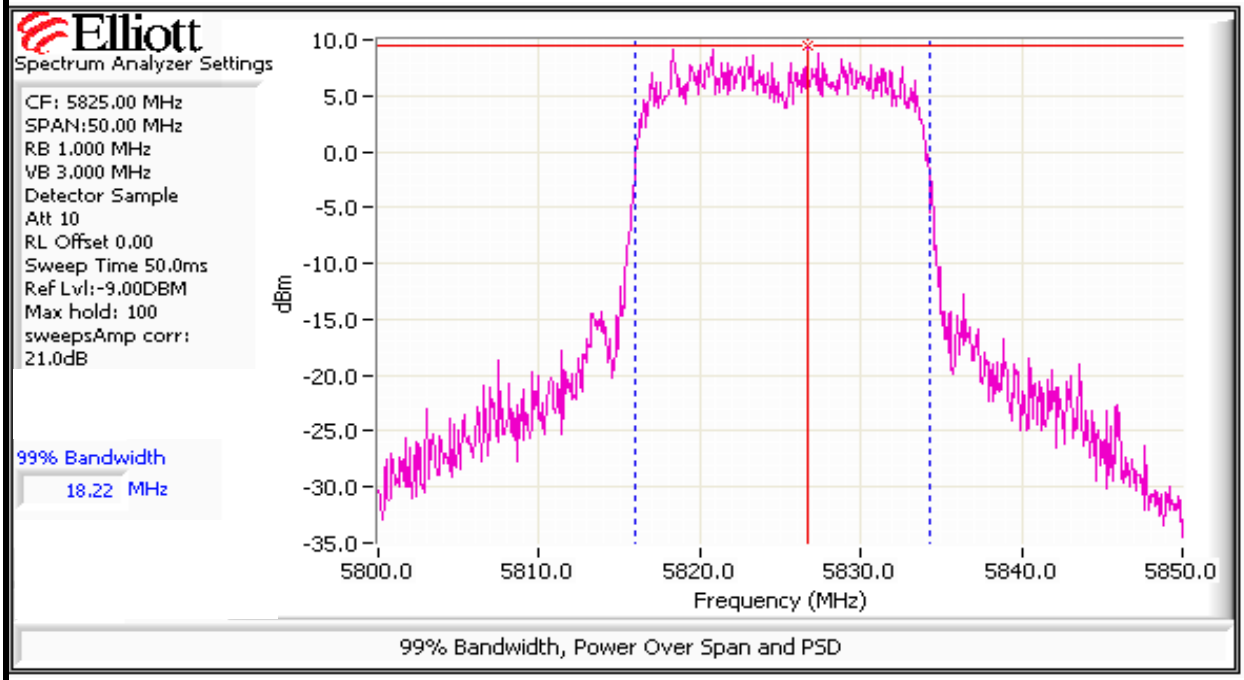




EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A





Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

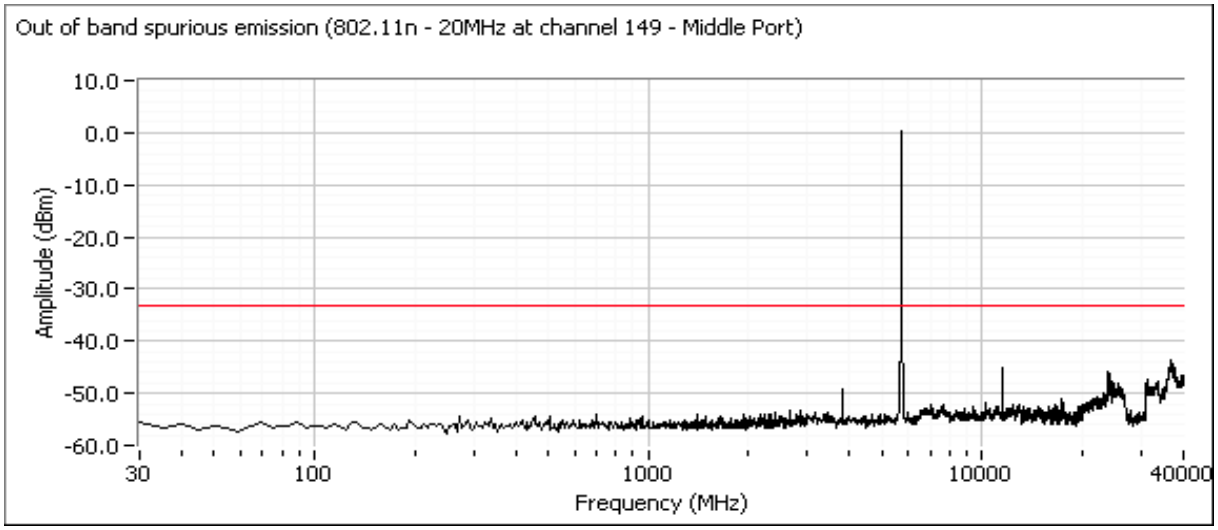
Run #2: Out Of Band Spurious Emissions - Antenna Conducted

Maximum Antenna Gain:	6.02	dBi
Spurious Limit:	-27	dBm/MHz eirp
Limit Used On Plots [Note 1]:	-33.02	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.

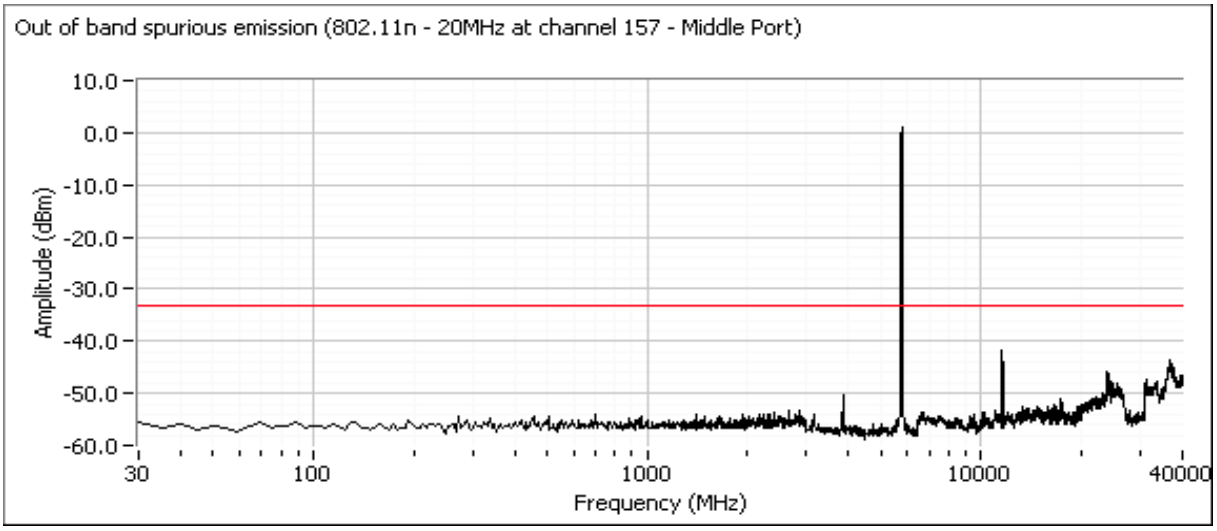
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

Plots for channel 149, power setting(s) = 17

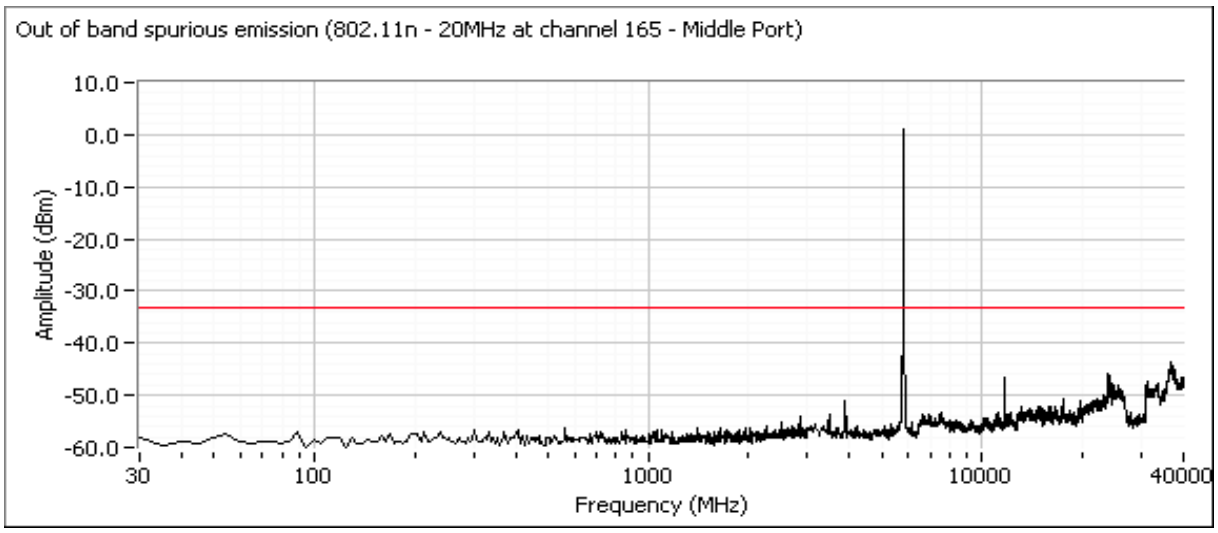


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots for channel 157, power setting(s) = 17.5



Plots for channel 165, power setting(s) = 17.5



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

FCC Part 15.247 Tests (802.11n, 40 Mhz) 5725 - 5850 MHz

Test standard(s)ifics

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: 4/24/2007
Test Engineer: Mehran Birgani
Test Location: Fremont Chamber #4
Config. Used: 1
Config Change: None
Host Unit 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: 18 °C
Rel. Humidity: 35 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Output Power	15.247(b)	Pass	14.4dBm
1	Power spectral Density (PSD)	15.247(d)	Pass	3.48 dBm/kHz
1	6dB Bandwidth	15.247(a)	Pass	35.7
1	99% Bandwidth	RSS GEN	-	37.2 MHz
2	Spurious emissions	15.247(b)	Pass	< -30dBc

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:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Run #1: Output Power

Transmitted signal on chain is coherent ? Yes

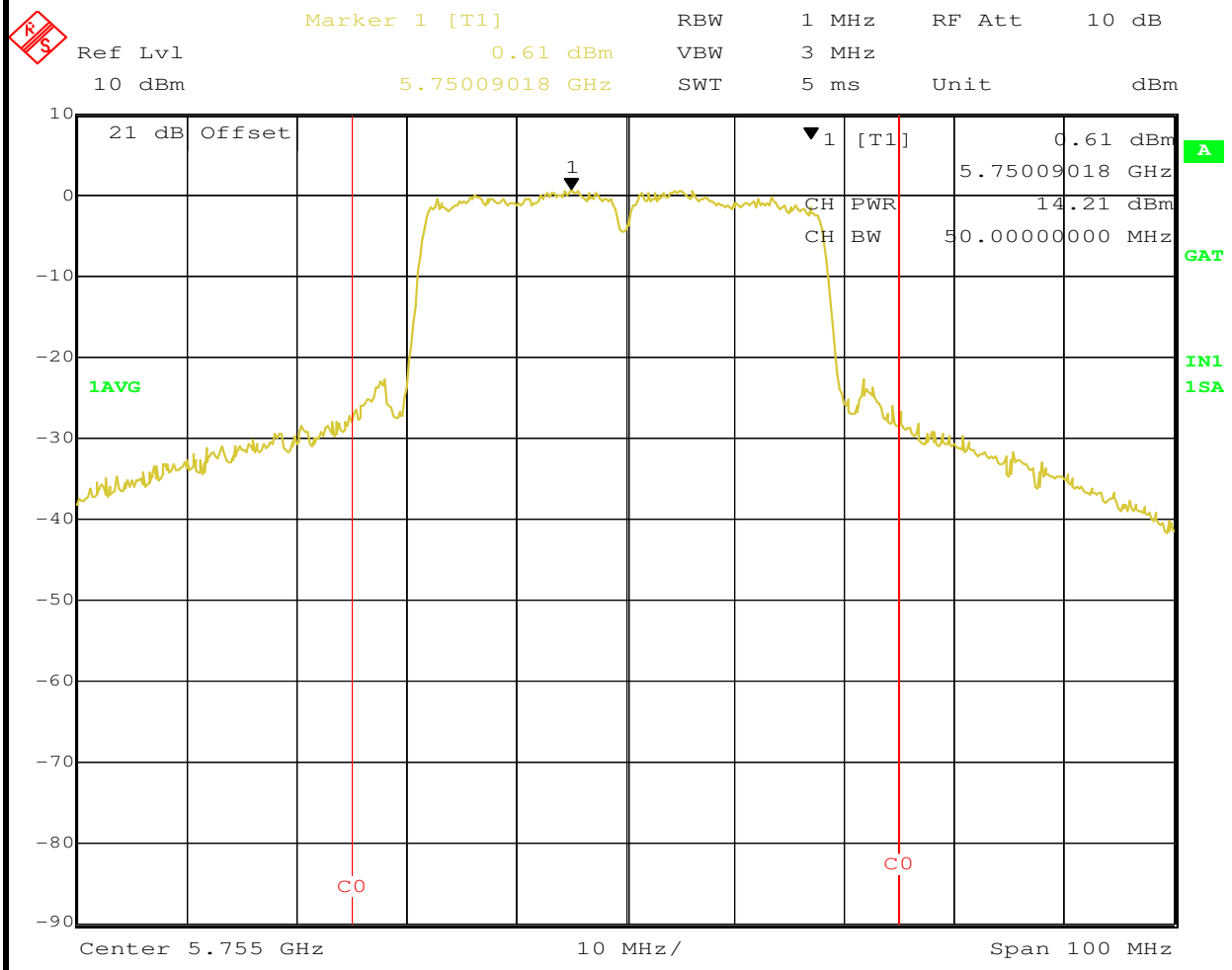
Regulatory Final Power Measurements:

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
18.0	5755		14.2	14.4	6.0	6.0	9.0	20.4	0.109
19.0	5795		14.0	14.1	6.0	6.0	9.0	20.2	0.104

Frequency (MHz)	Power Setting	Bandwidth		Output Power[1] dBm		Power (Watts)	PSD[2] dBm/MHz			Result
		26dB	99%[4]	Measured	Limit		Measured	FCC Limit	RSS Limit[3]	
5755	18.0	-	37.2	14.4	27.0	0.027	-1.00	8.0	8.0	Pass
5795	19.0	-	36.9	14.1	27.0	0.026	3.48	8.0	8.0	Pass

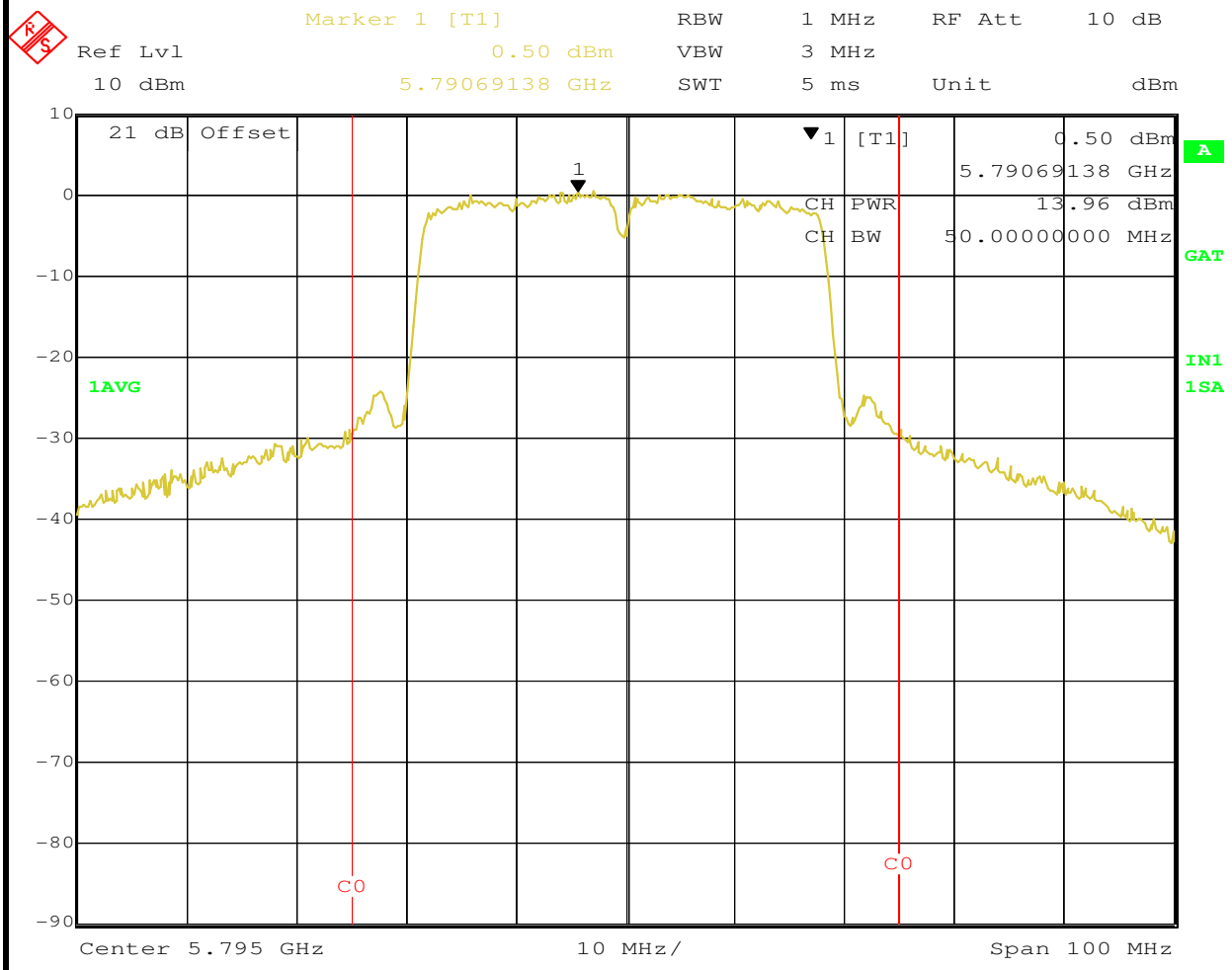
Note 1:	RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was not continuous but the ESI analyzer was configured with a gated sweep such that the analyzer was only sweeping when the device was transmitting) and power integration over 100 MHz
Note 2:	EIRP - if transmit chains 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.
Note 5:	Power levels were not measured on Chain 1 as we were only verifying the now active middle port and measurements were only collected for that port only. Refer to test report to view previous power reported on the FCC website.

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

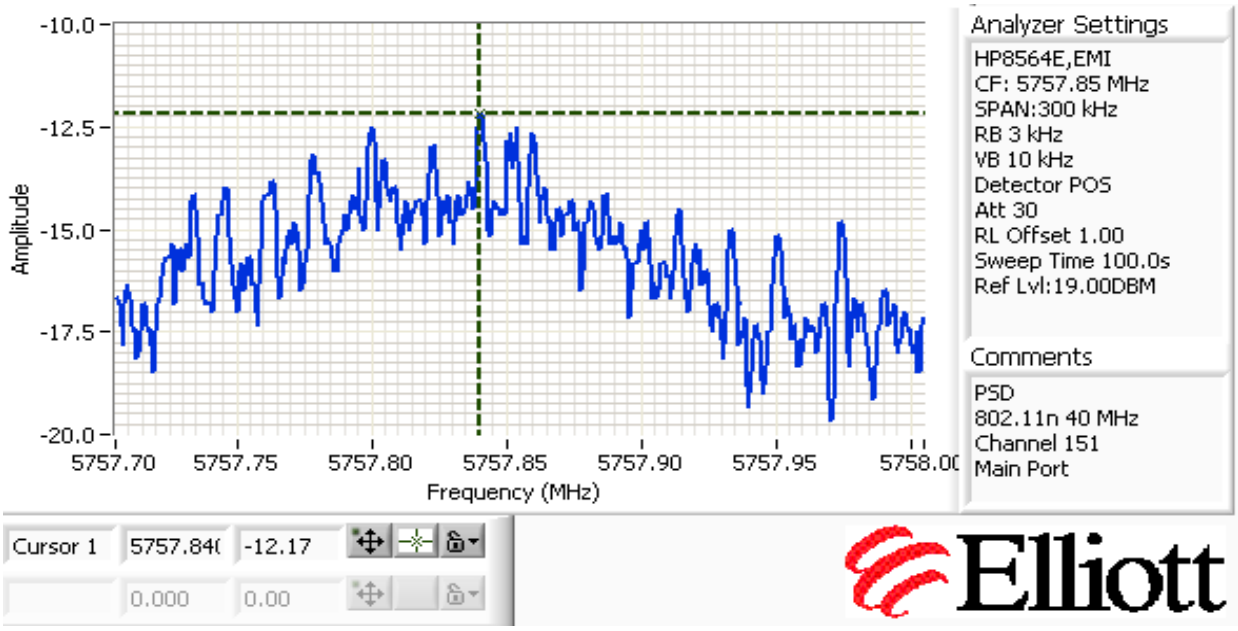
Run #1b: Power spectral Density

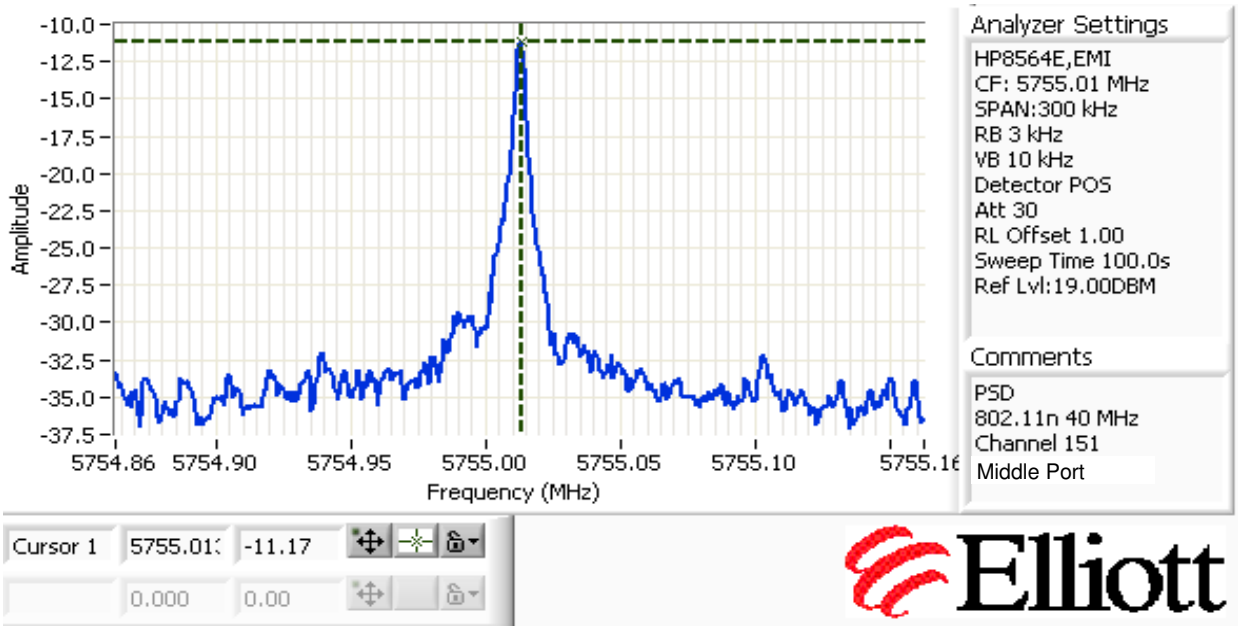
Mode	Power Setting	Frequency (MHz)	PSD (dBm/3kHz) Note 1			Limit	Result
			Chain 1	Chain 2	Total	dBm/3kHz	
n 40MHz	18	5755	-12.2	-11.2	-1.0	8.0	Pass
n 40MHz	19	5795	-13.2	-16.7	3.5	8.0	Pass

Note 1:	Power standard(s)tral density measured using RB=3 kHz, VB=10kHz, analyzer with peak detector and with a sweep time set to ensure a dwell time of at least 1 second per 3kHz. The measurement is made at the frequency of PPSD determined from preliminary scans using RB=3kHz using multiple sweeps at a faster rate over the 6dB bandwidth of the signal.

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

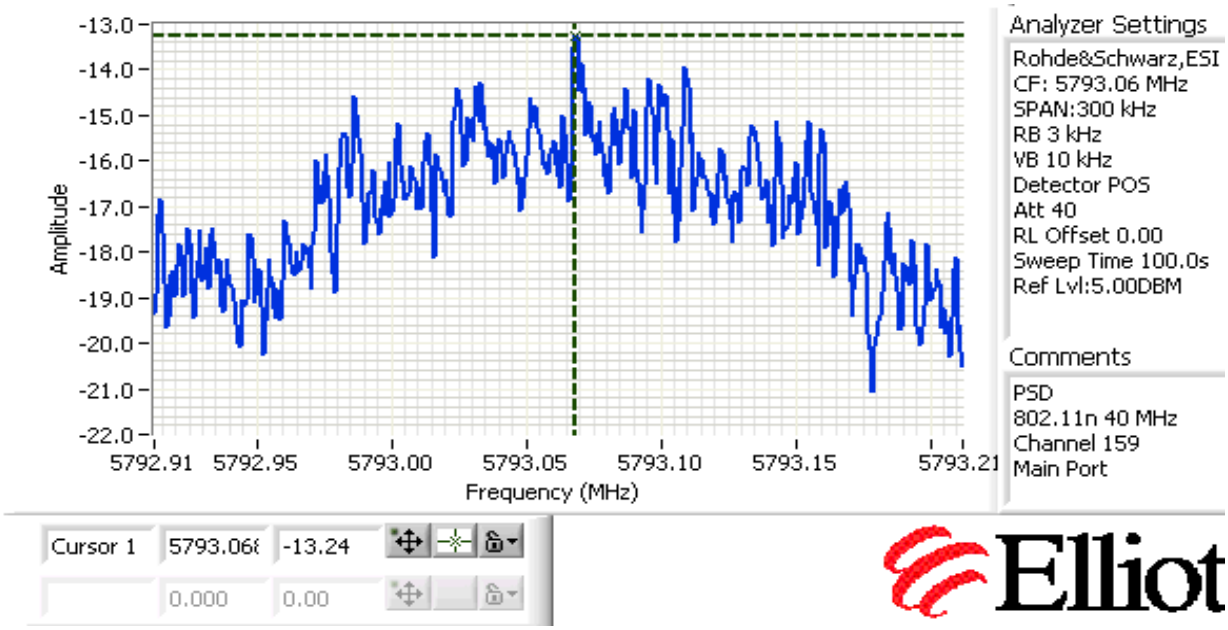
802.11n 40 MHz - Channel 151

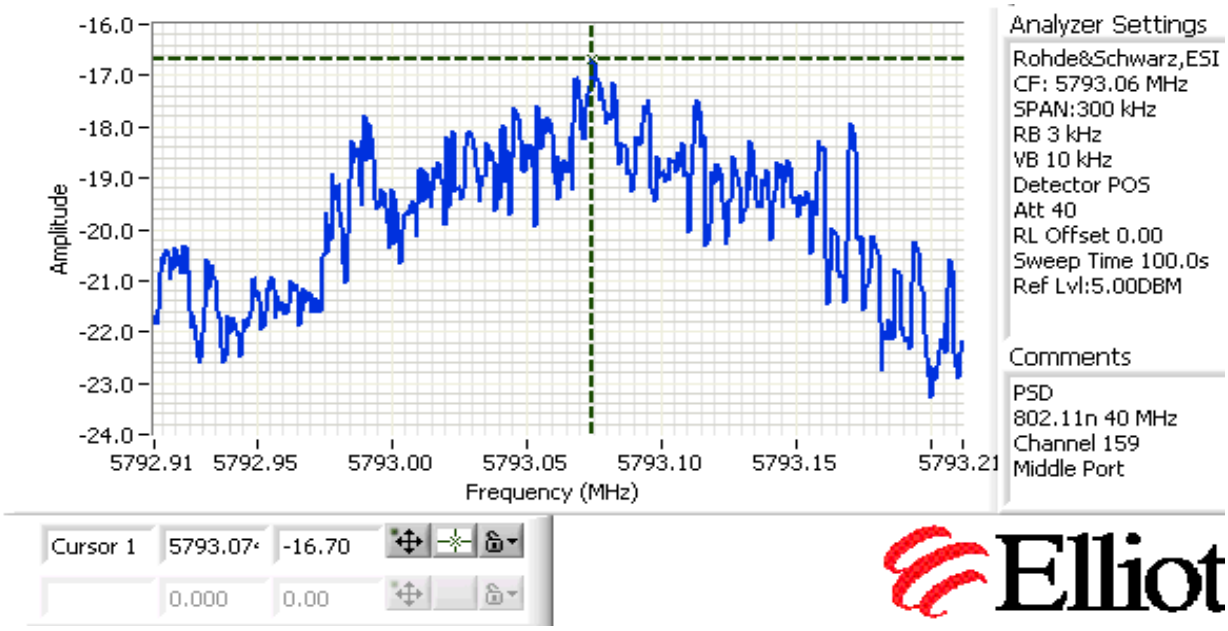




Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

802.11n 40 MHz - Channel 159





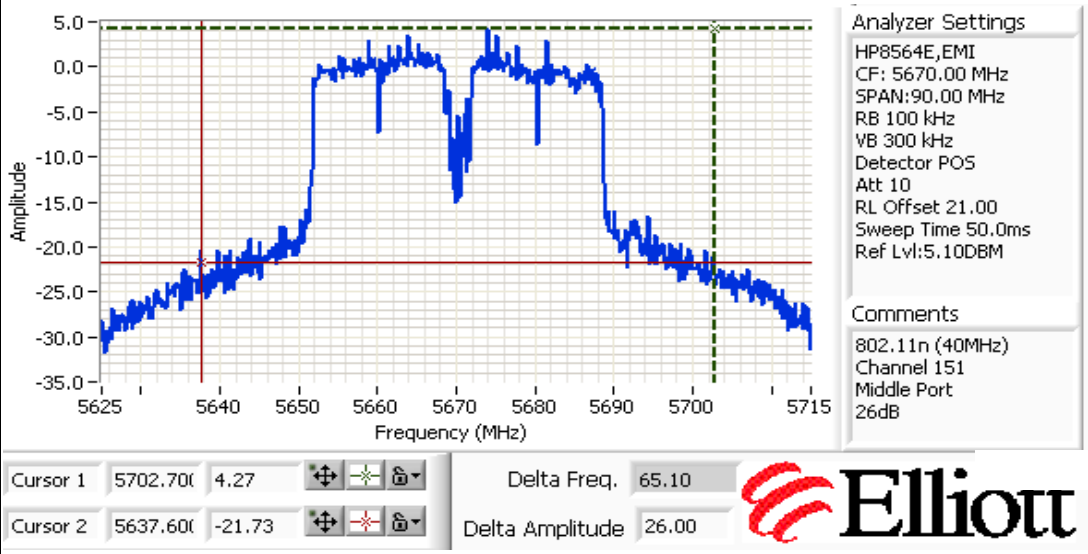
EMC Test Data

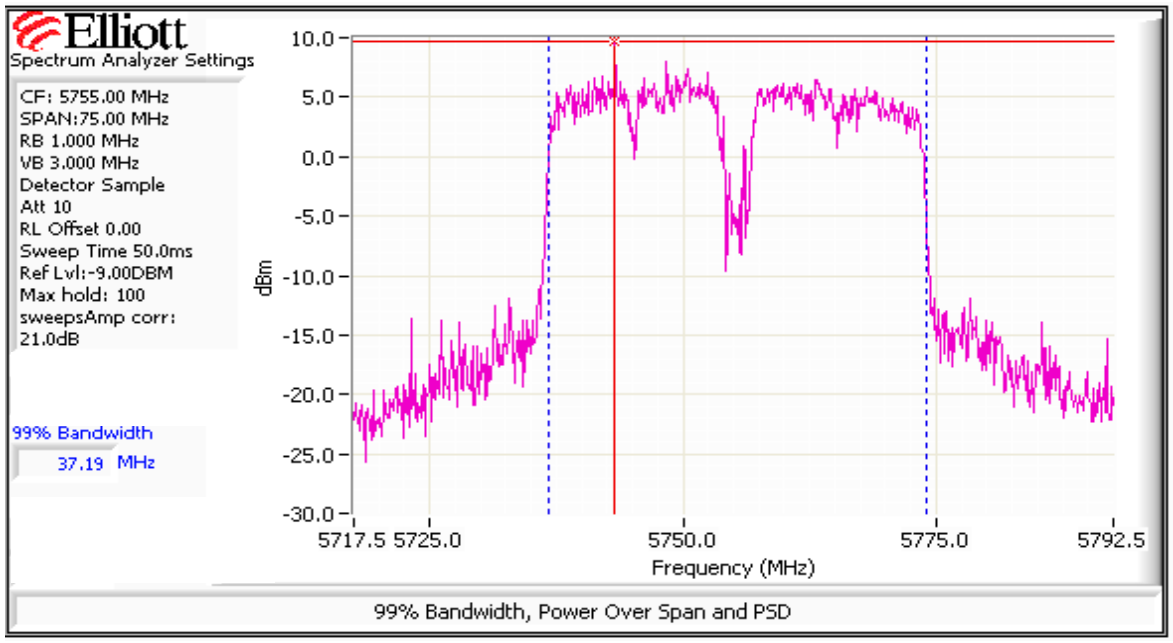
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Run #1c: Signal Bandwidth

Power Setting	Frequency (MHz)	Resolution Bandwidth	Bandwidth (MHz) 6dB	99%
18.0	5755	100kHz	35.4	37.2
19.0	5795	100kHz	35.7	36.9

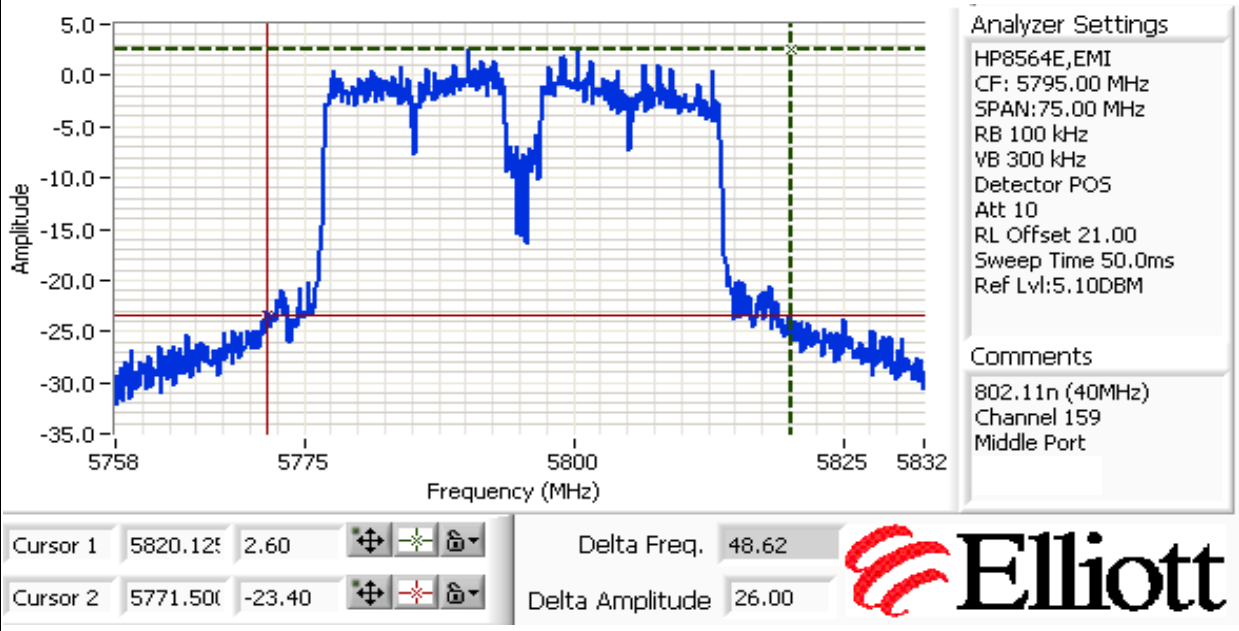
Note 1:	99% bandwidth measured in accordance with RSS GEN, with RB > 1% of the span and VB > 3xRB

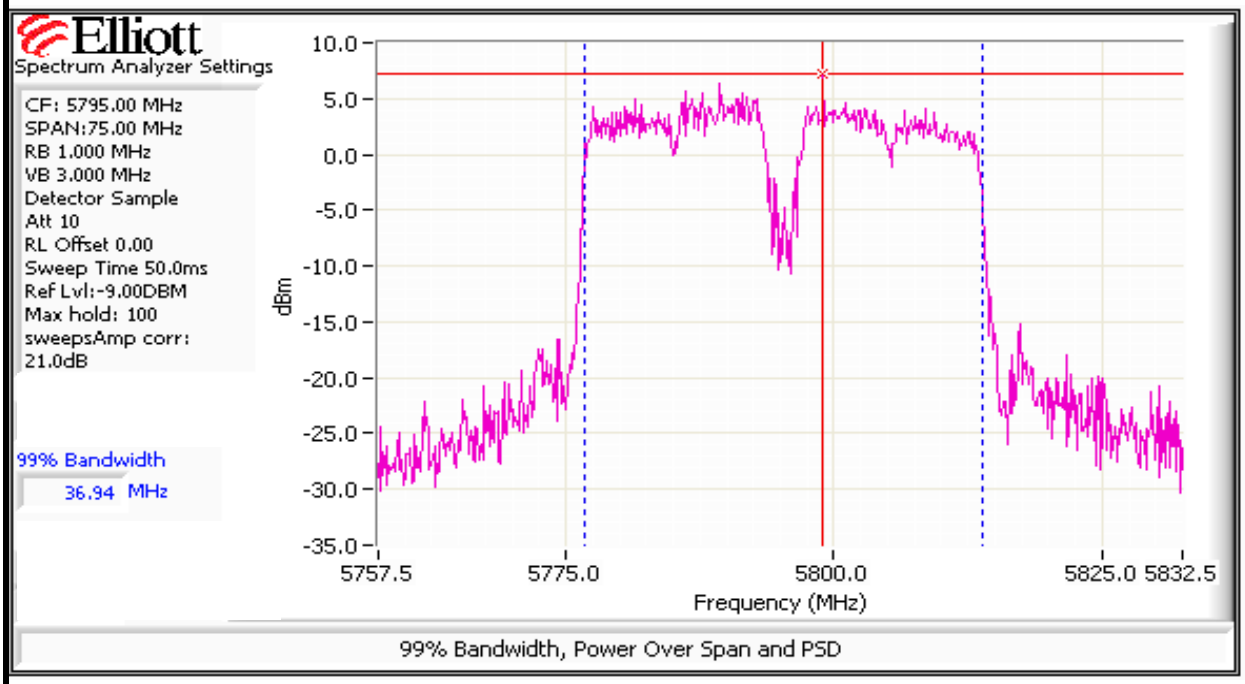




EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A





Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

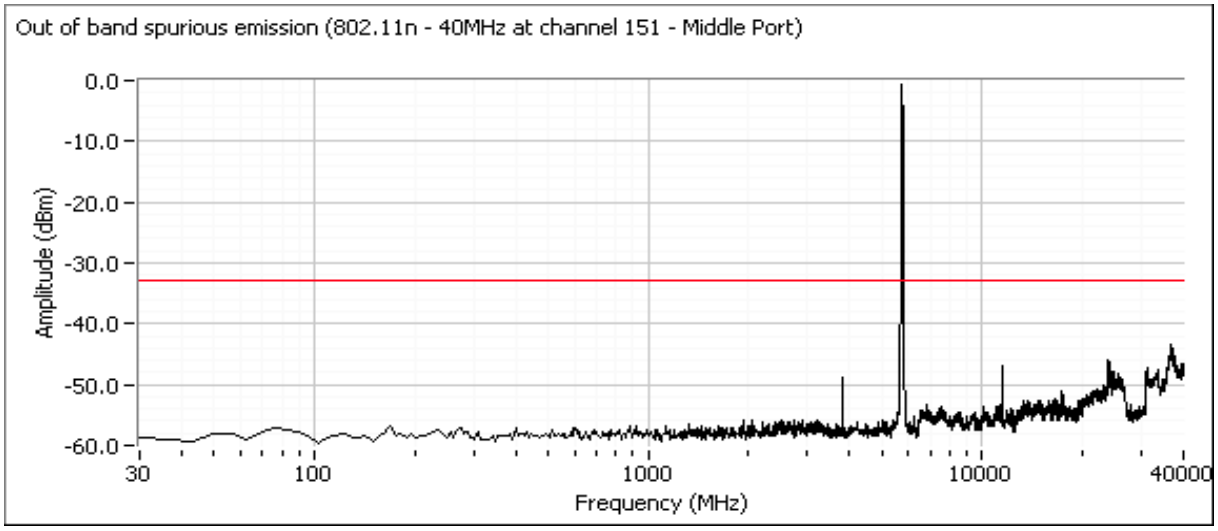
Run #4: Out Of Band Spurious Emissions - Antenna Conducted

Maximum Antenna Gain:	6.02	dBi
Spurious Limit:	-27	dBm/MHz eirp
Limit Used On Plots [Note 1]:	-33.02	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.

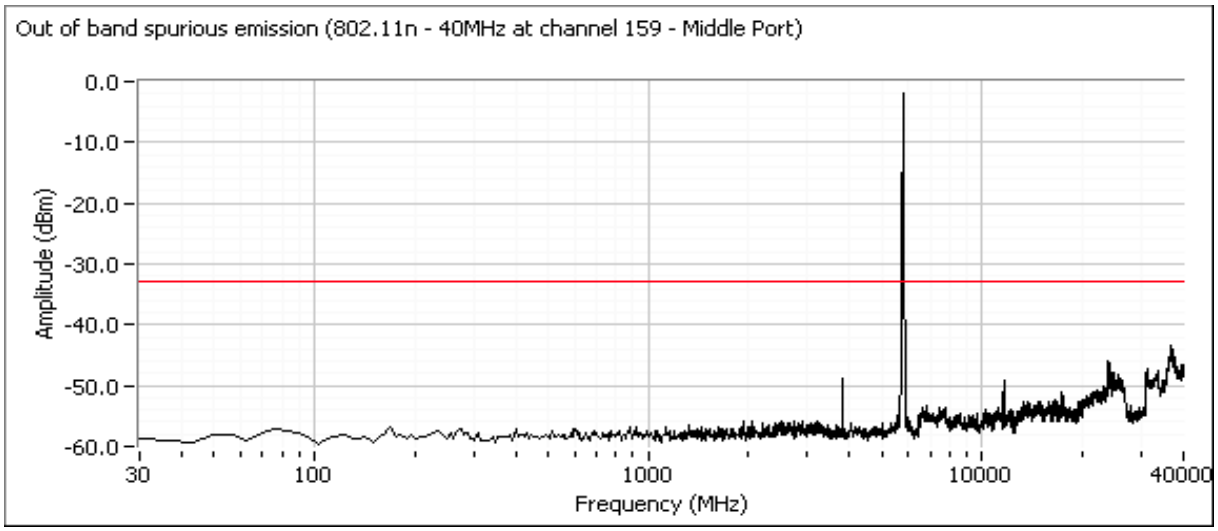
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

Plots for channel 151, power setting(s) = 18



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots for channel 159, power setting(s) = 19



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

FCC Part 15 Subpart E Tests

Test standard(s)ifics

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: 4/23/2007
Test Engineer: Mehran Birgani
Test Location: Fremont Chamber #4

Config. Used: 1
Config Change: None
Host Unit 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: 18 °C
Rel. Humidity: 35 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5150 - 5350MHz	15.407(a) (1), (2)	Pass	15 dBm
1	PSD, 5150 - 5350MHz	15.407(a) (1), (2)	Pass	5.0 dBm/1MHz
1	26dB Bandwidth	15.407	-	18.4 MHz
1	99% Bandwidth	RSS 210	-	18.1 MHz
2	Peak Excursion Envelope	15.407(a) (6)	Pass	12.6 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.

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	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
10.0	5180	8.6	7.2	11.0	6.23	6.23	9.2	17.2	0.053
14.0	5260	12.4	11.4	15.0	6.23	6.23	9.2	21.2	0.131
13.0	5320	11.7	11.3	14.5	6.23	6.23	9.2	20.7	0.119

Frequency (MHz)	Power 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	10.0	18.4	18.0	11.0	15.8	0.013	0.4	0.8	1.4	Pass
5260	14.0	18.3	18.1	15.0	15.8	0.031	5.0	7.8	5.4	Pass
5320	13.0	18.4	18.0	14.5	15.8	0.028	3.9	7.8	5.0	Pass

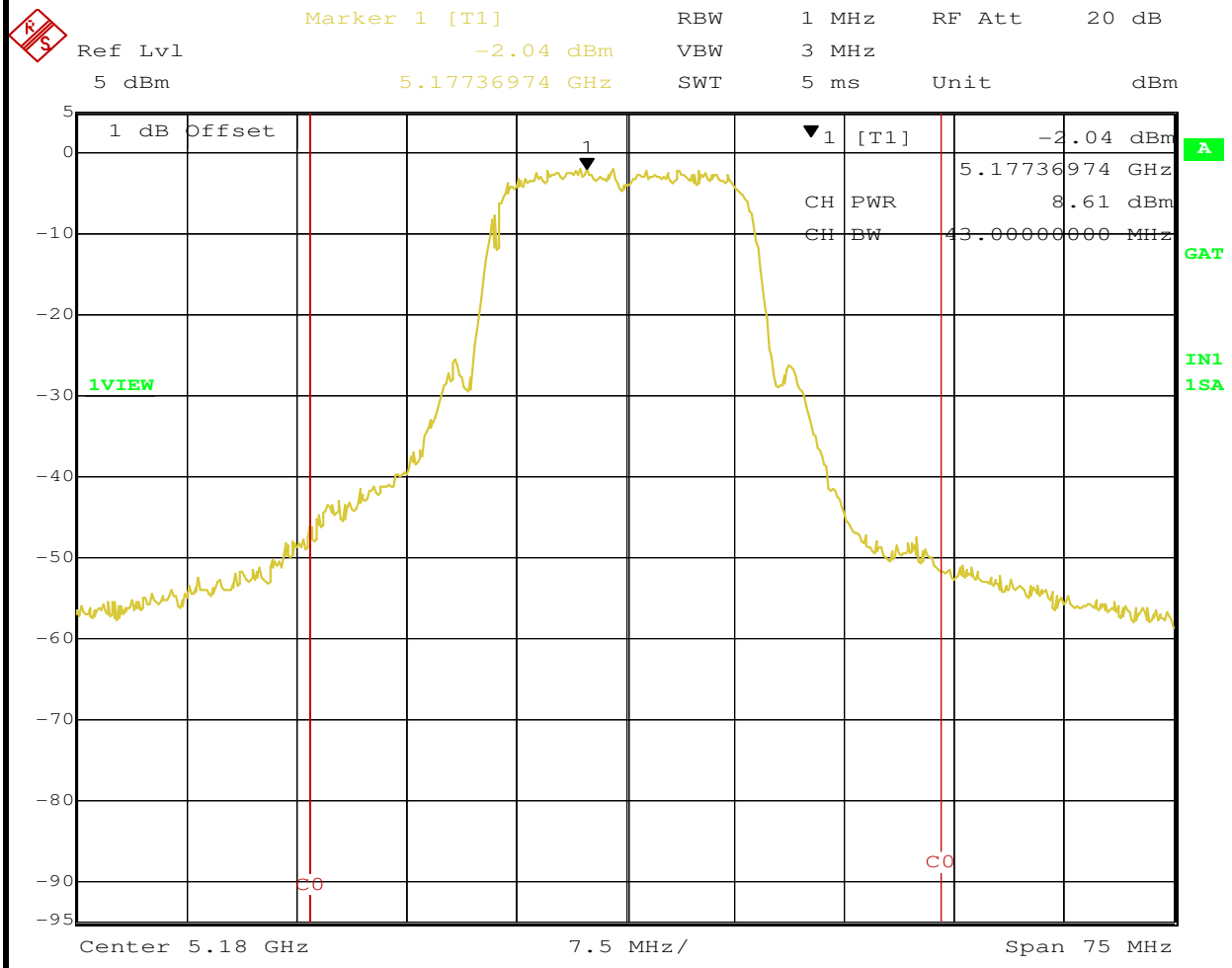
Note 1:	RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was not continuous but the ESI analyzer was configured with a gated sweep such that the analyzer was only sweeping when the device was transmitting) and power integration over 100 MHz
Note 2:	EIRP - if transmit chains 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.
Note 5:	Power levels on chain 1 were taken from the original test report. Refer to the FCC website.

Run #1b: Power spectral Density

Power Setting	Frequency (MHz)	PSD (dBm/1MHz) Note 1				
		Main (dBm)	Center (dBm)	Total	dBm/1MHz	
10.0	5180	-2.0	-3.3	0.4	0.8	Pass
16.0	5260	2.6	1.2	5.0	7.8	Pass
13.0	5320	1.2	0.6	3.9	7.8	Pass

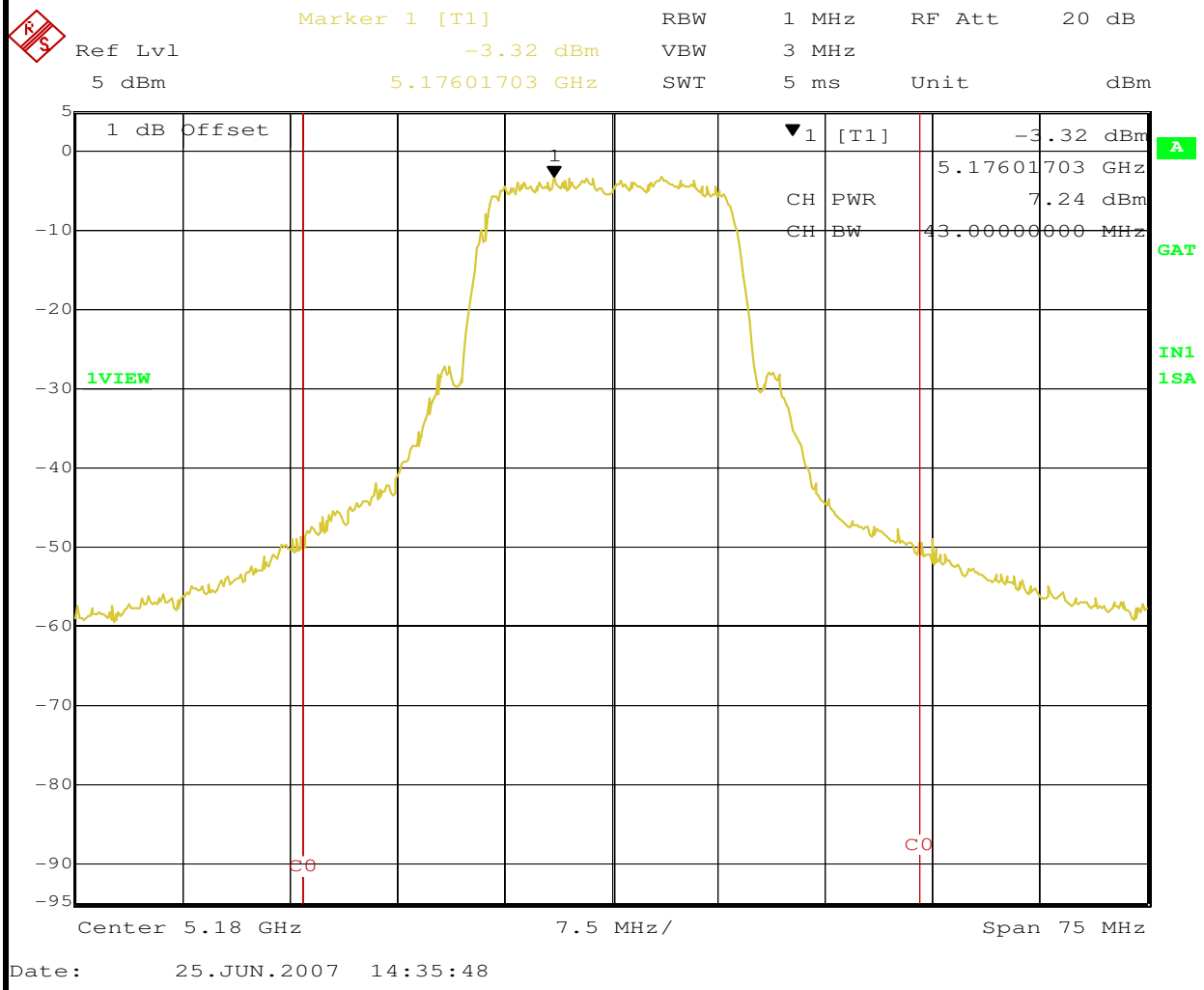
Note 1:	PSD - if transmit chains are coherent then the PSD is calculated from the sum of the antenna gains plus the total power (i.e. beam-forming is assumed because of coherency on the chains). If the individual chains are incoherent then the PSD is calculated from the sum of the individual EIRPs for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

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



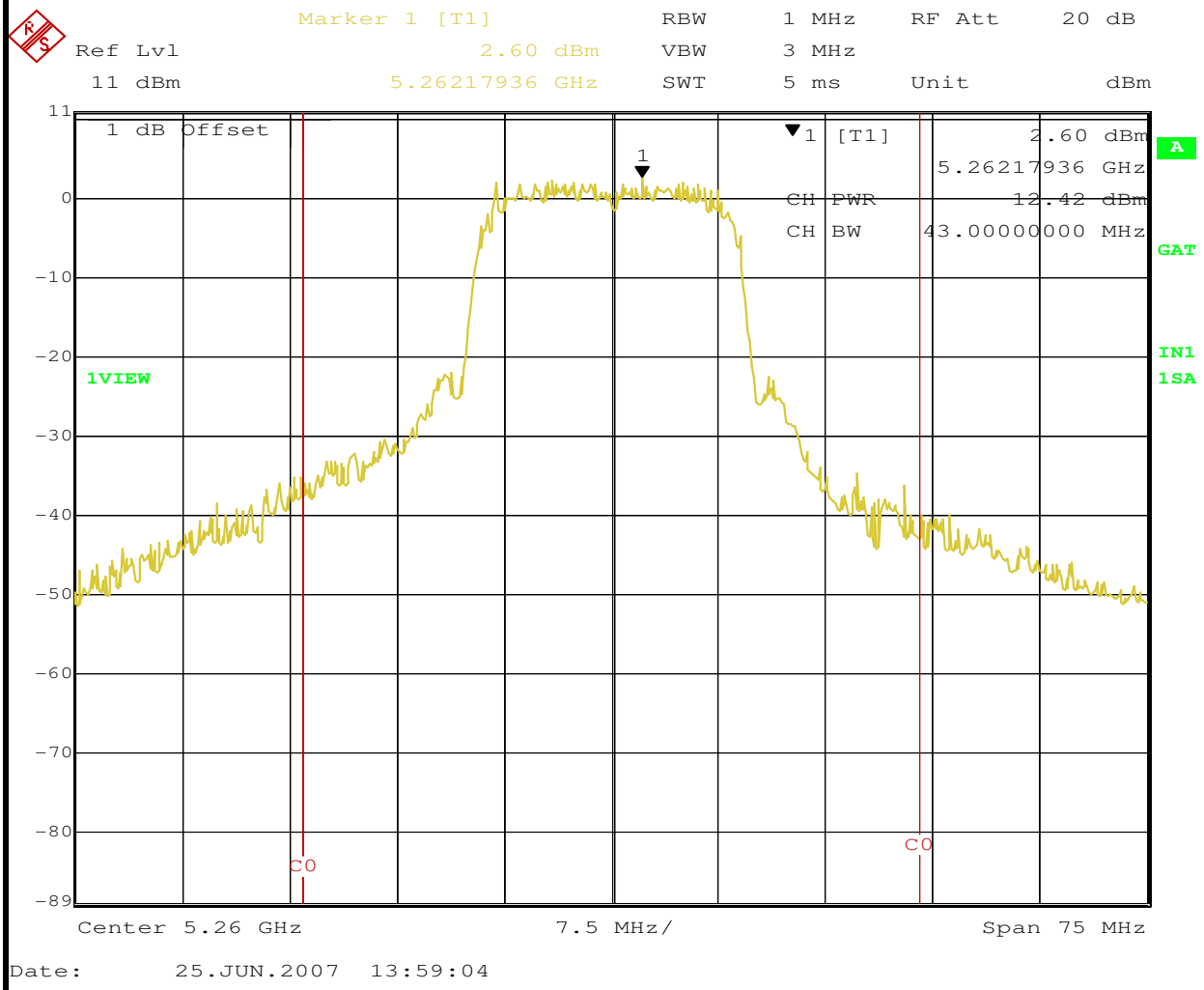
EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

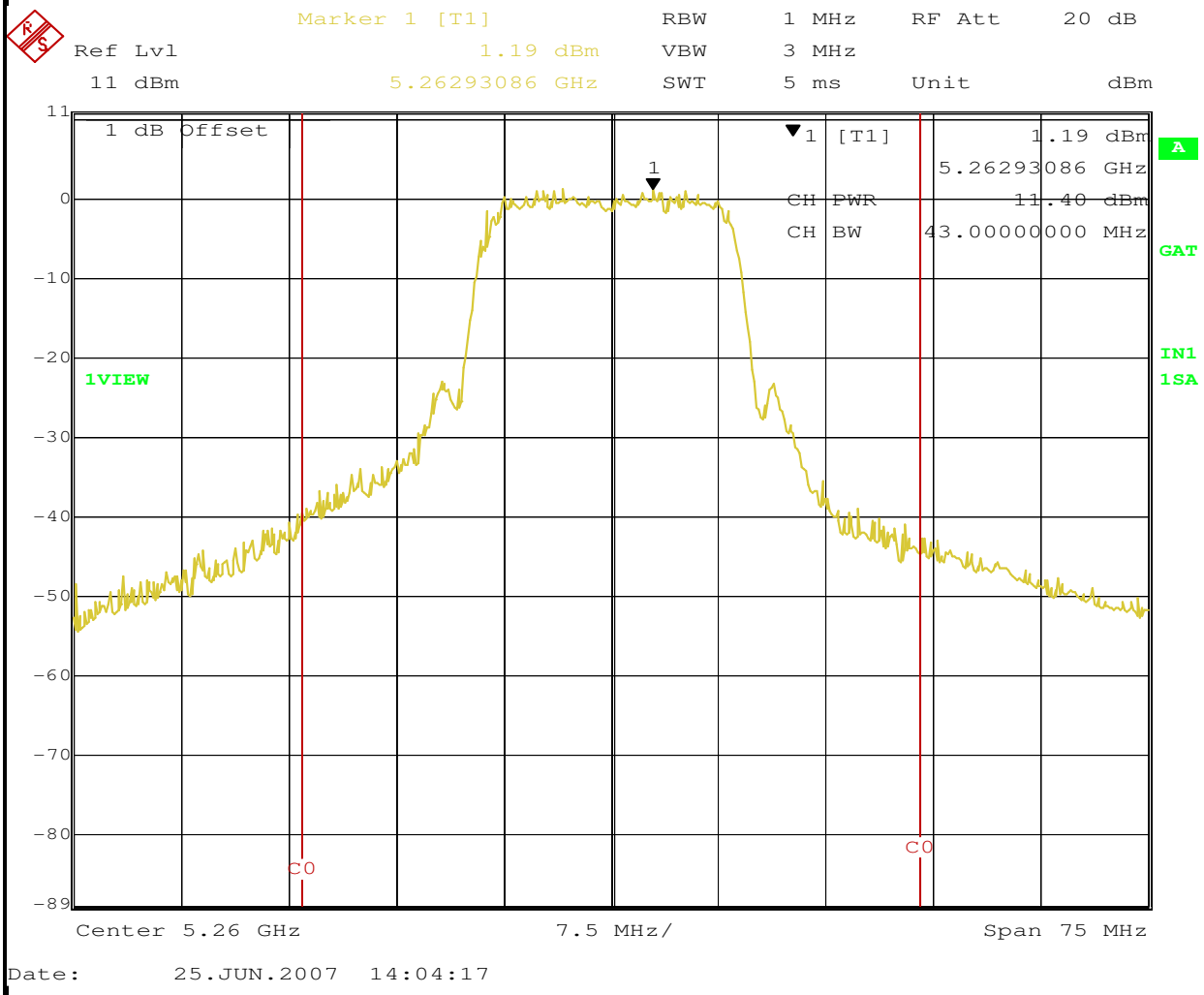


EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

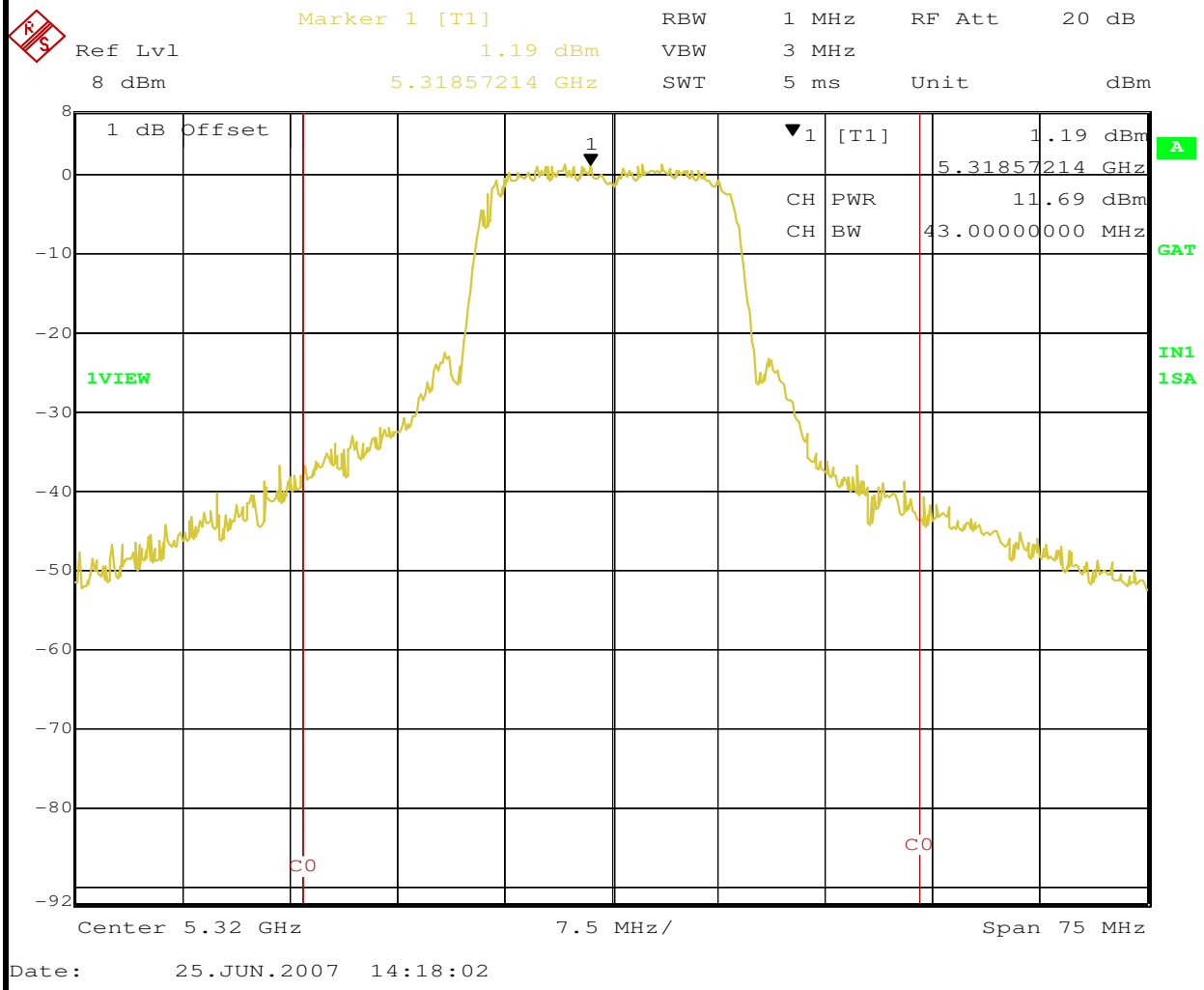


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



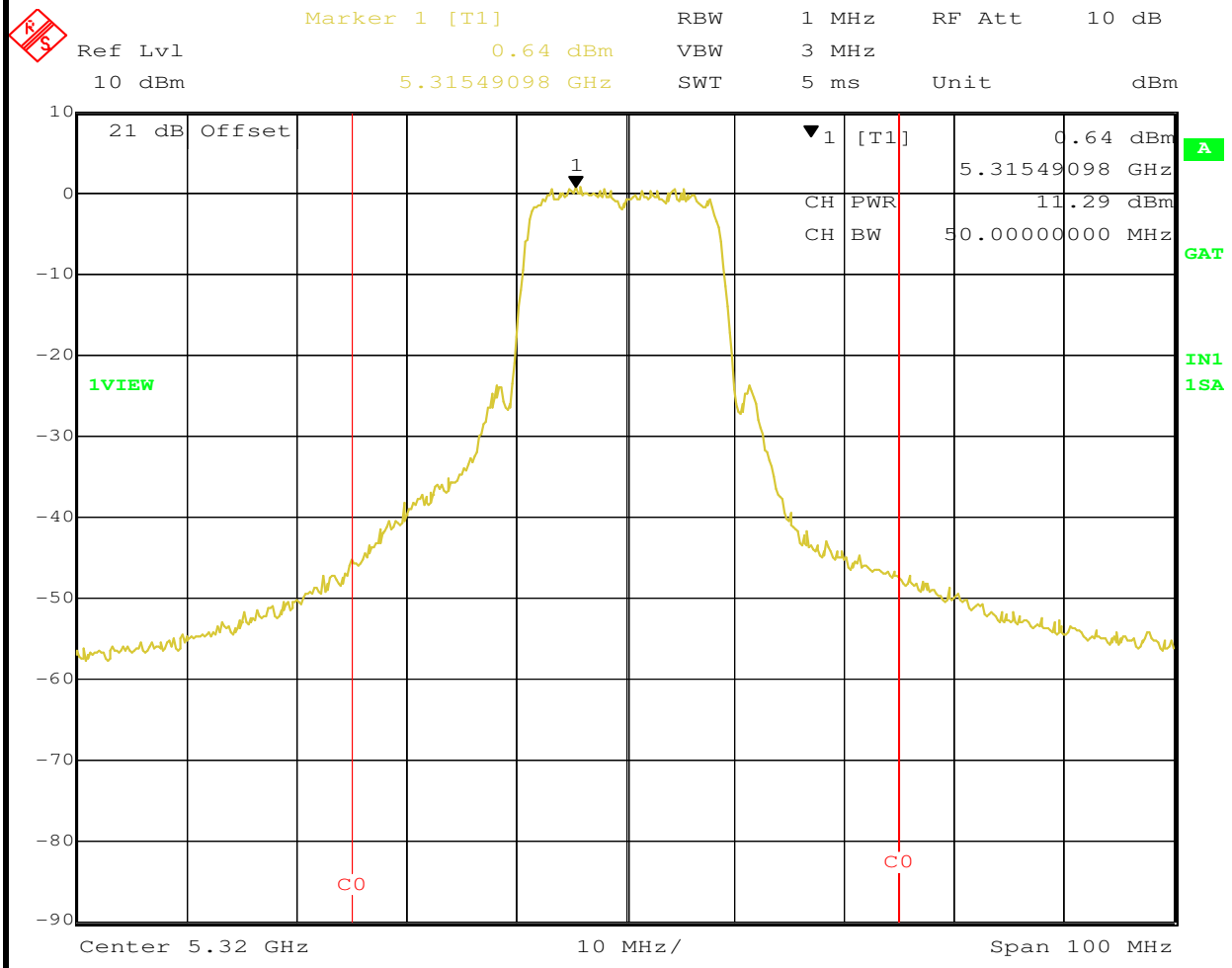
EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

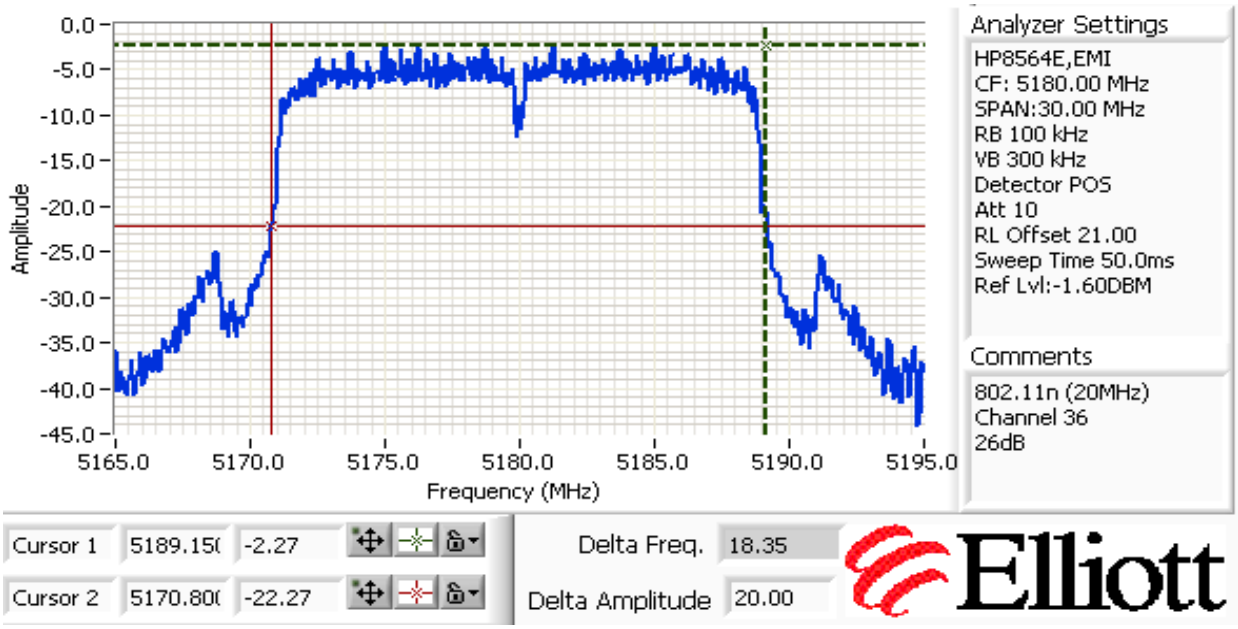


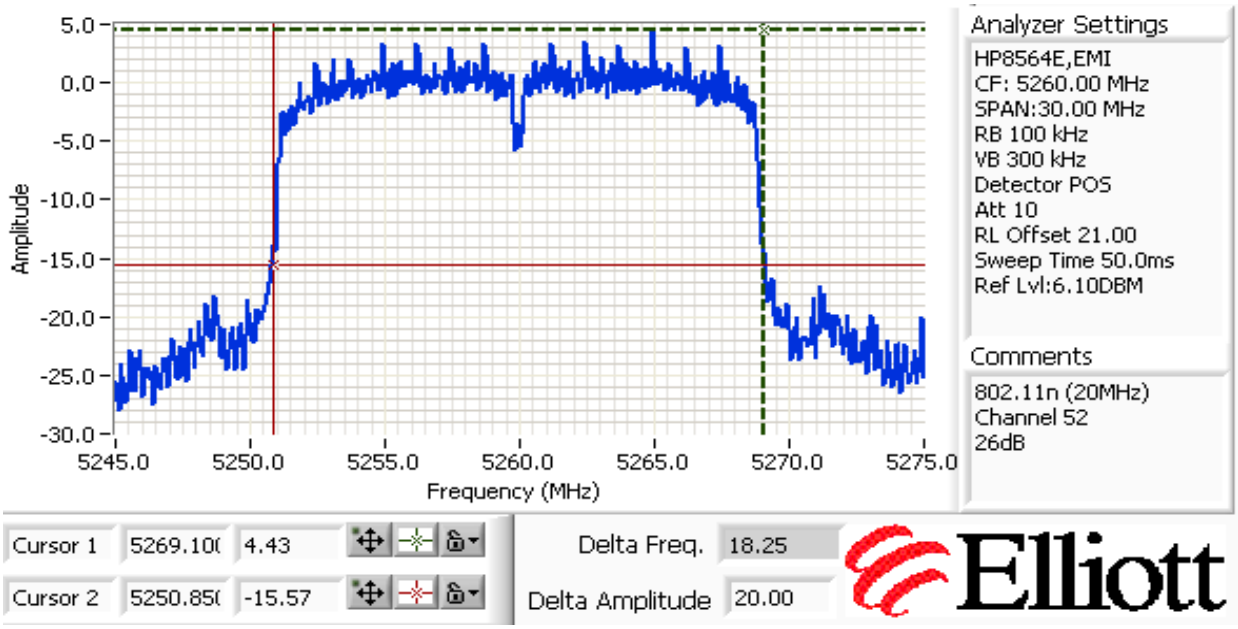
EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



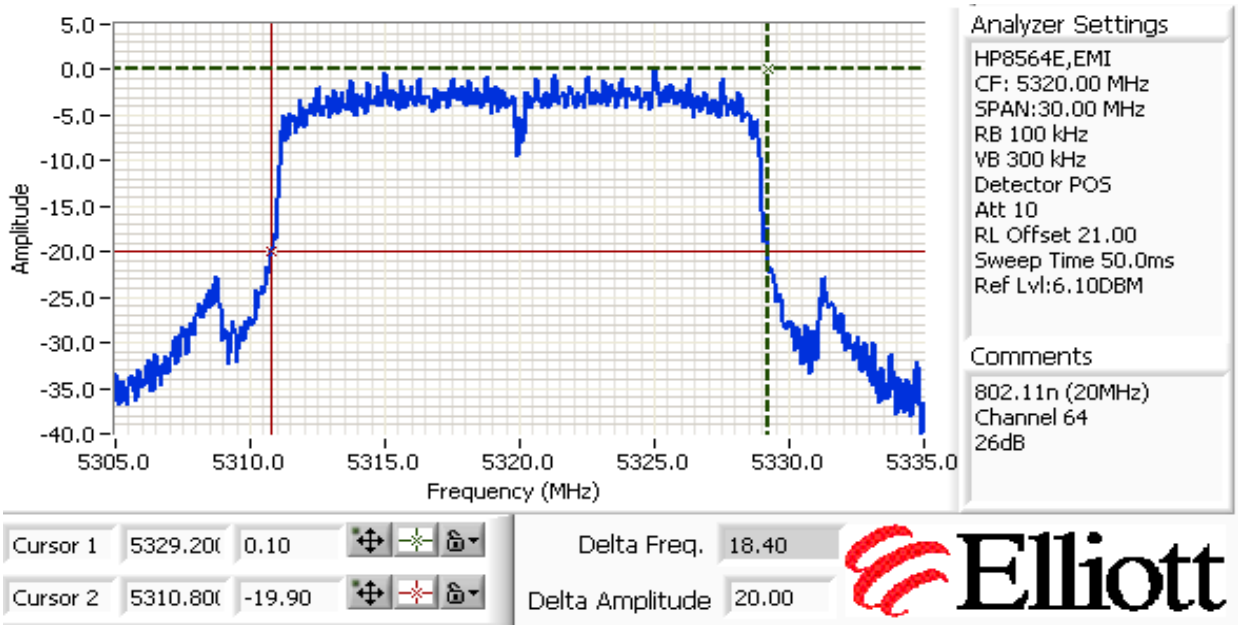
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

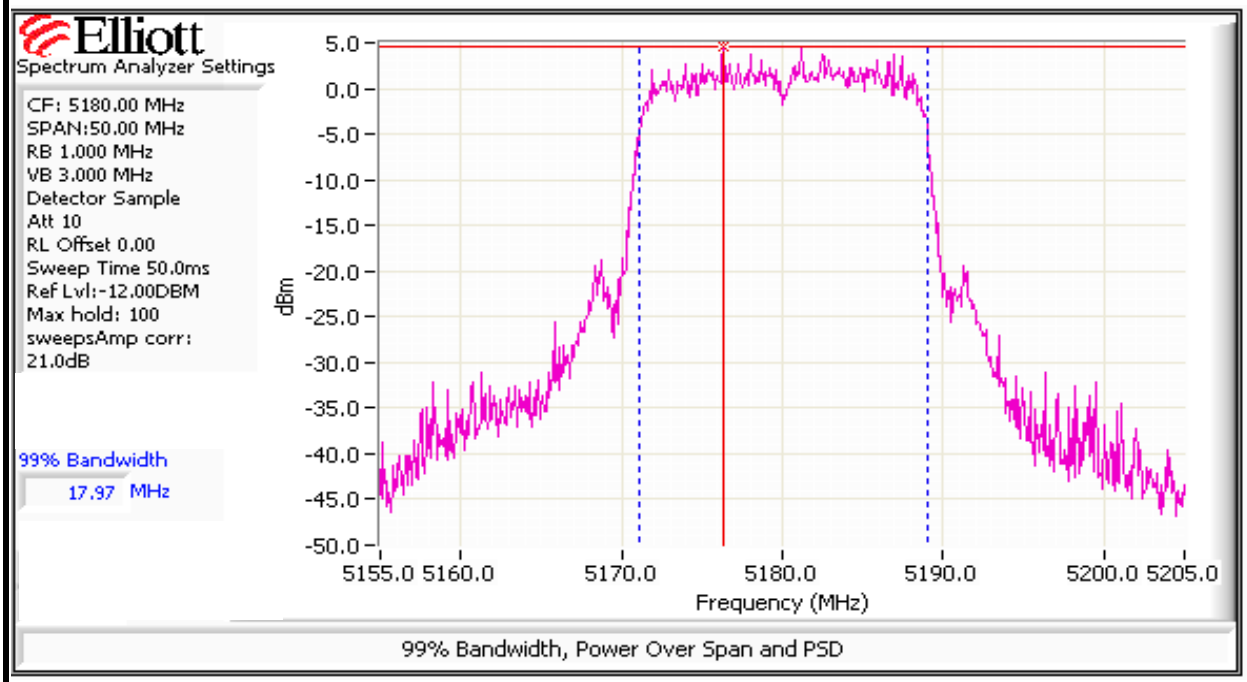




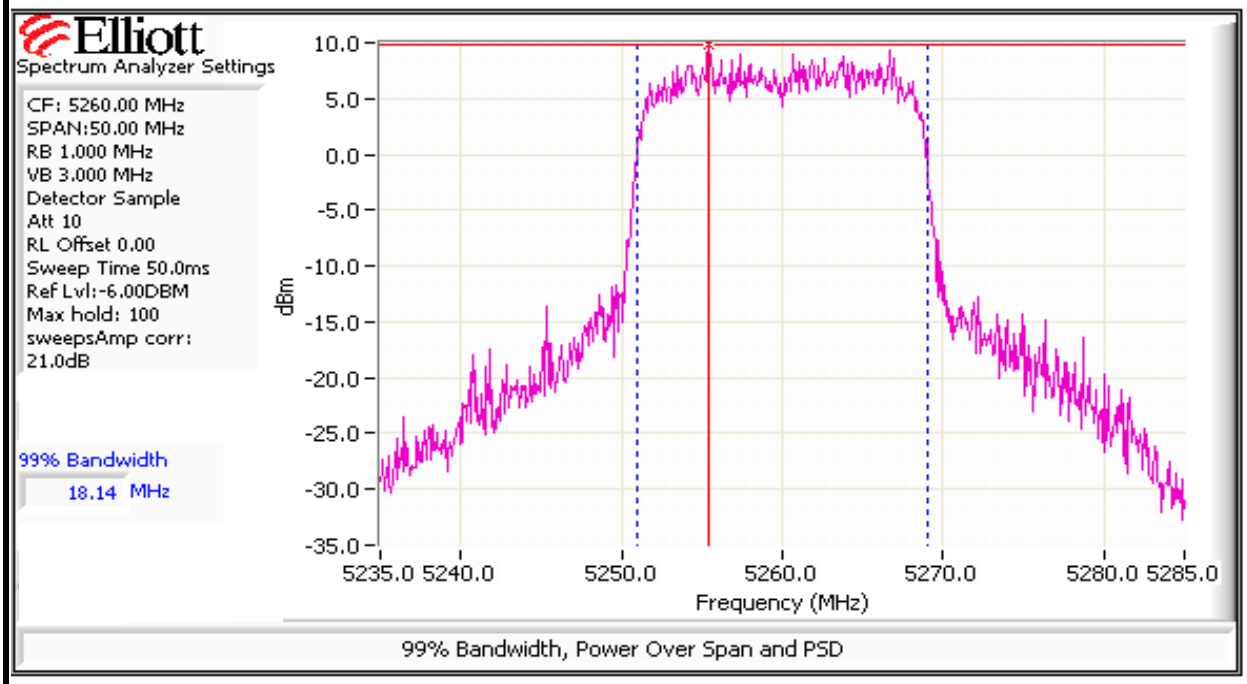
EMC Test Data

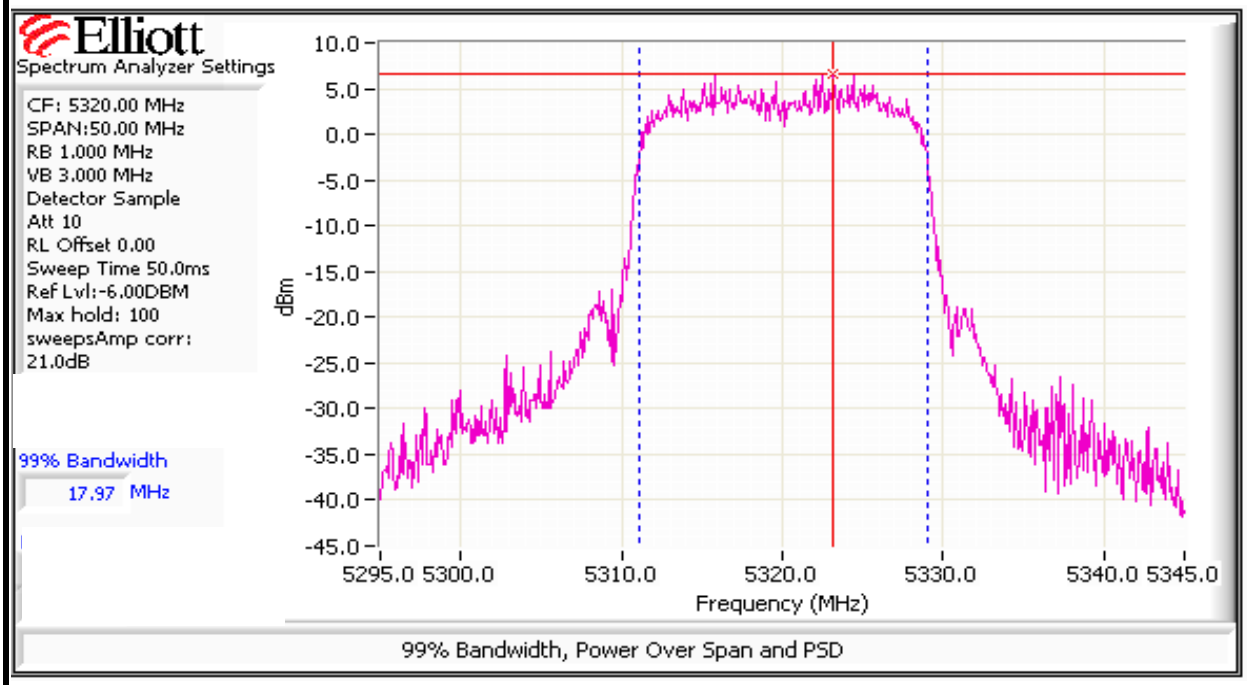
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A





Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

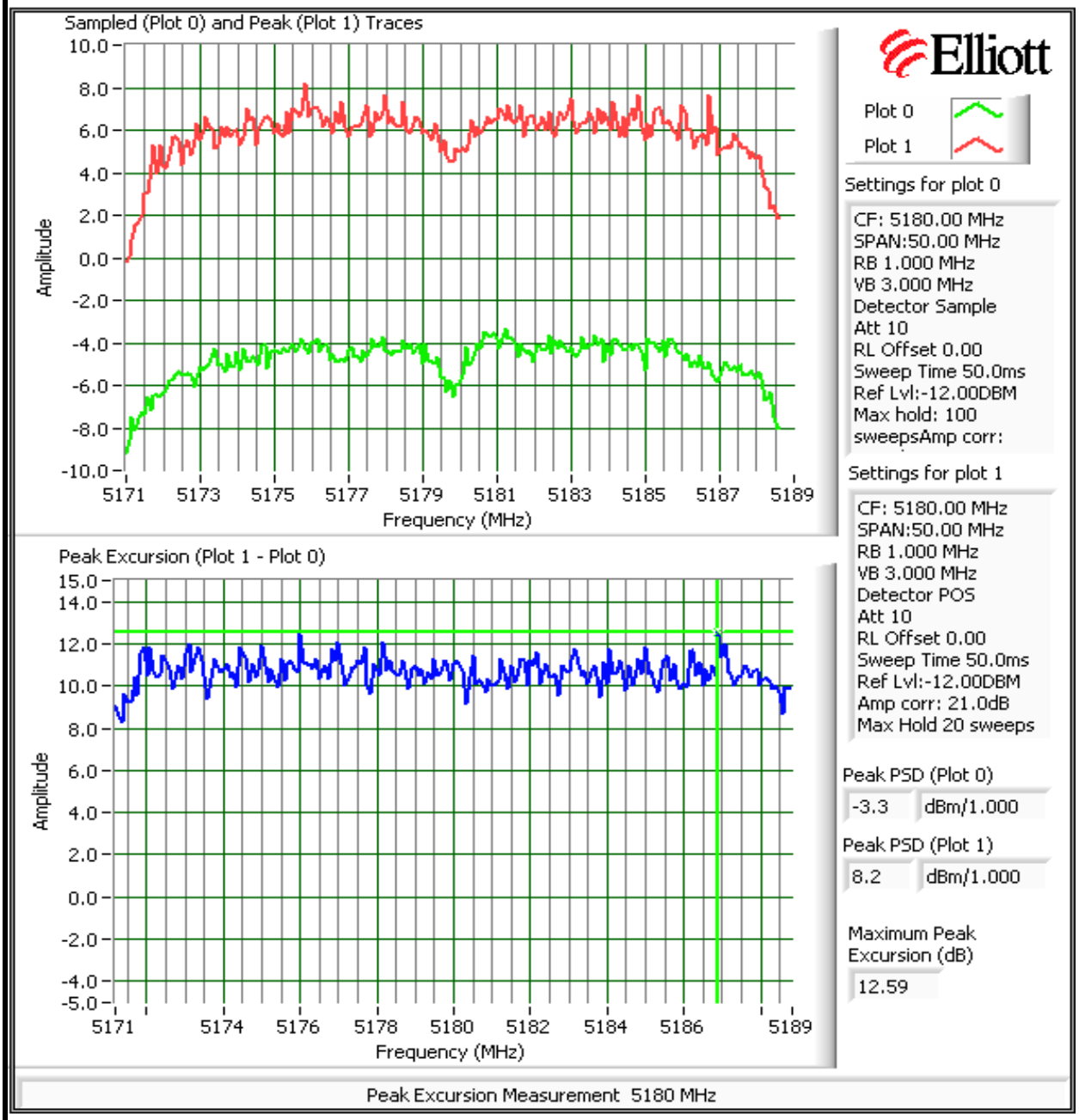




Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

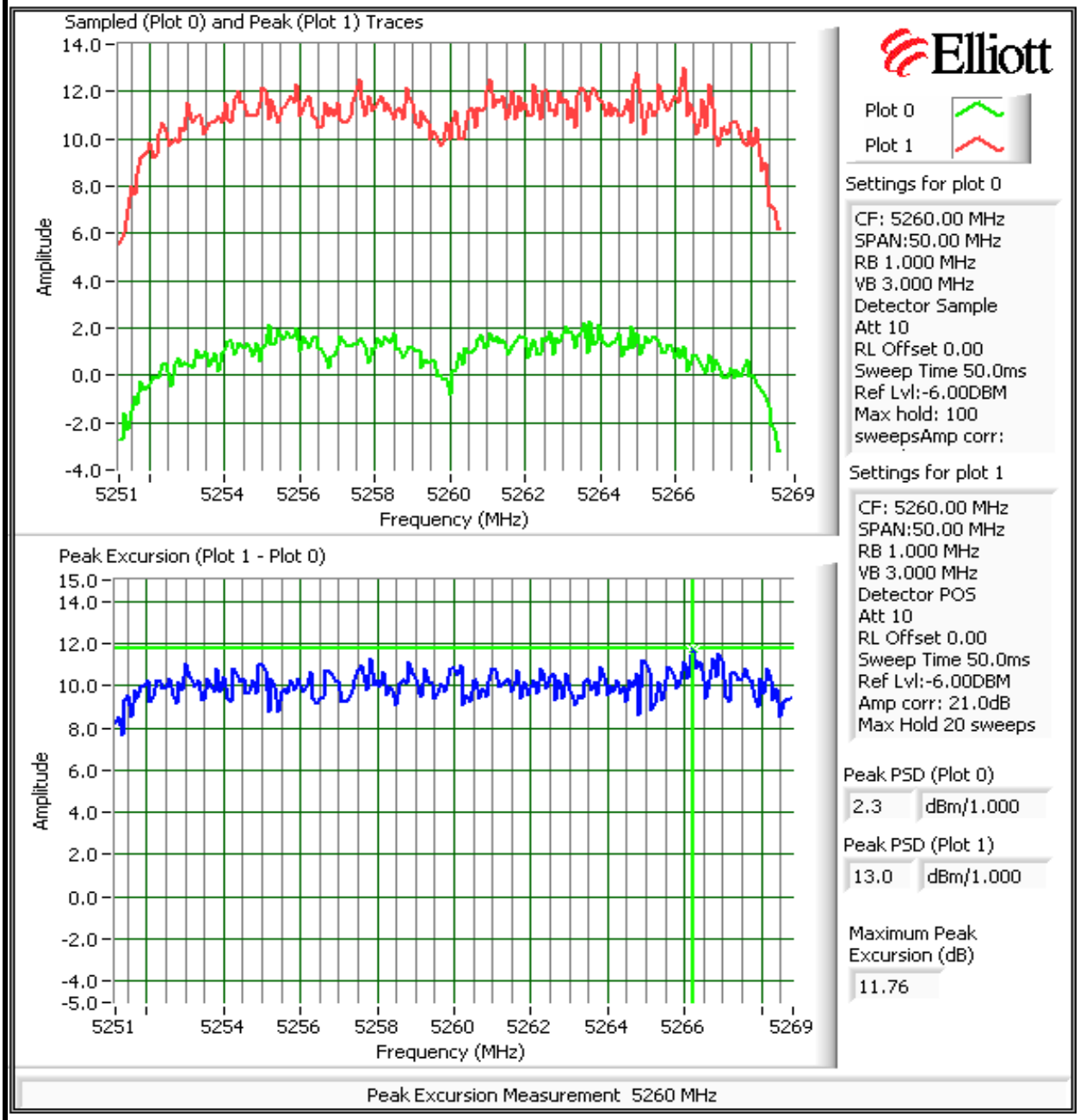
Run #2: Peak Excursion Measurement

Plots Showing Peak Excursion (Channel 36 - 5180MHz)



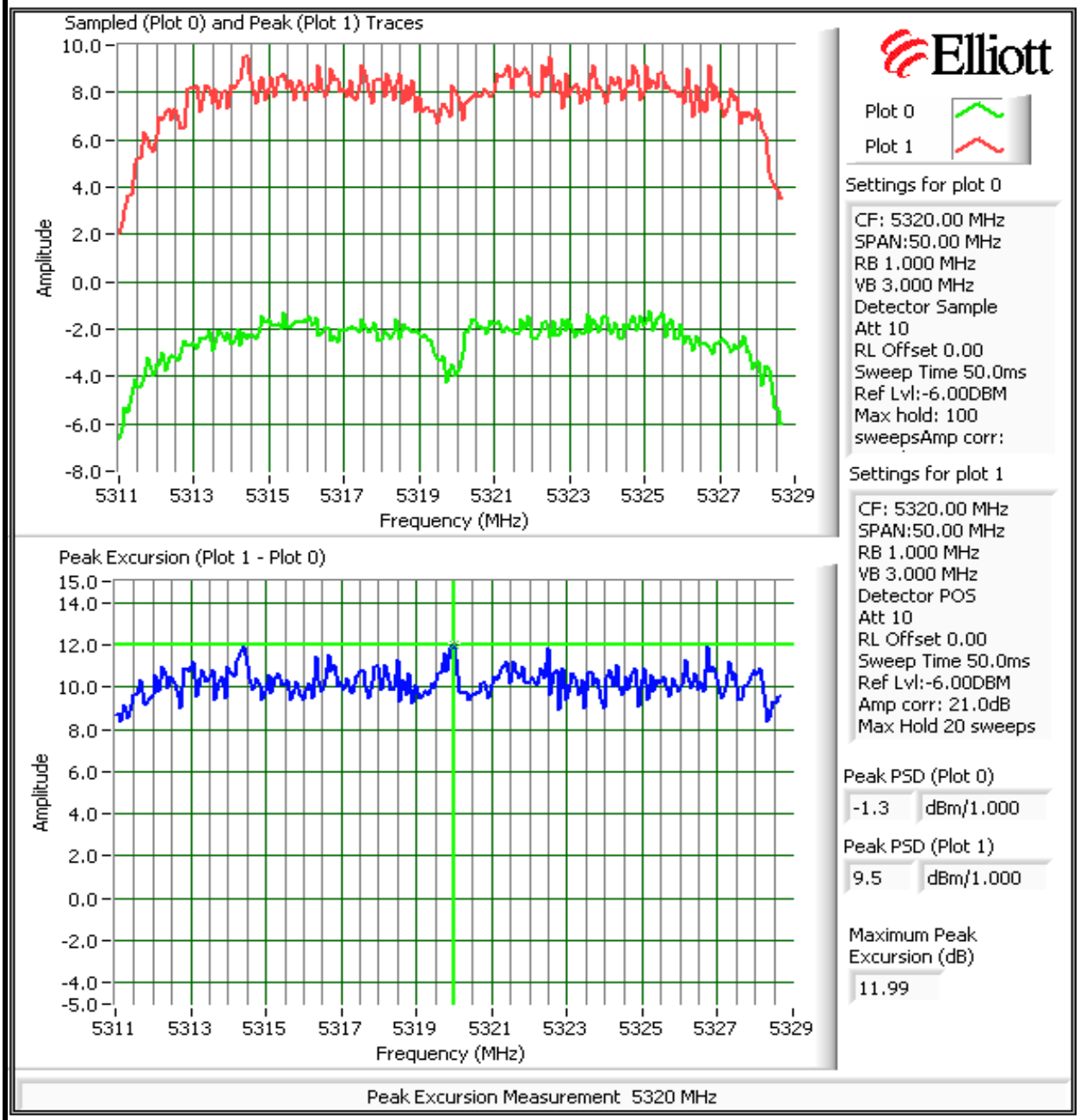
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots Showing Peak Excursion (Channel 52 - 5260MHz)



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots Showing Peak Excursion (Channel 64 - 5320MHz)



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

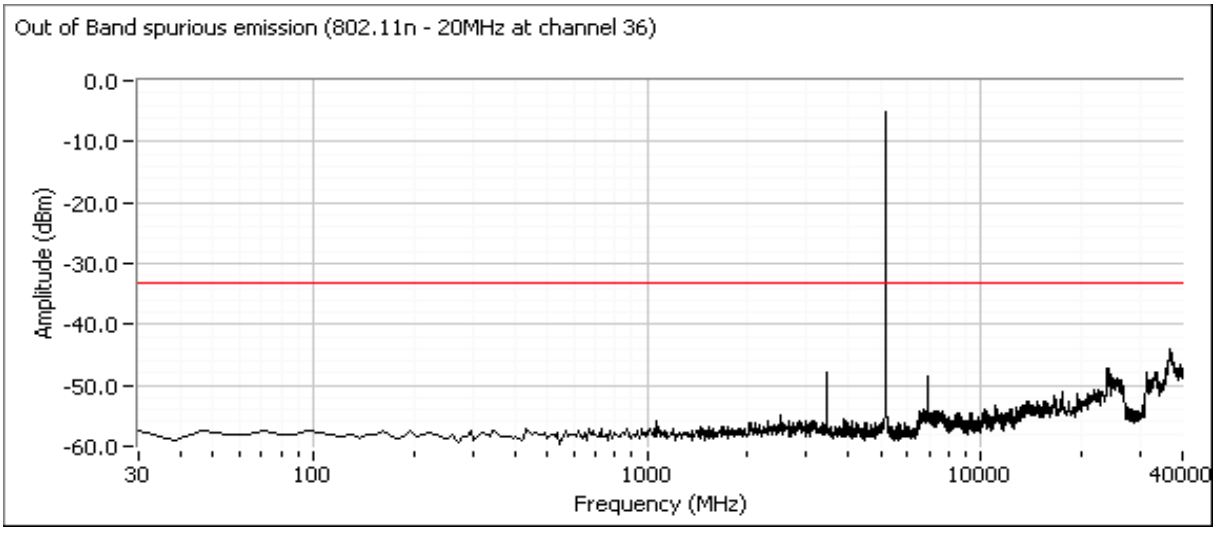
Run #4: Out Of Band Spurious Emissions - Antenna Conducted

Maximum Antenna Gain:	6.23	dBi
Spurious Limit:	-27	dBm/MHz eirp
Limit Used On Plots [Note 1]:	-33.23	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 3:	Signals within 10MHz of the 5.725 or 5.825 Band edge are subject to a limit of -17dBm EIRP
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.

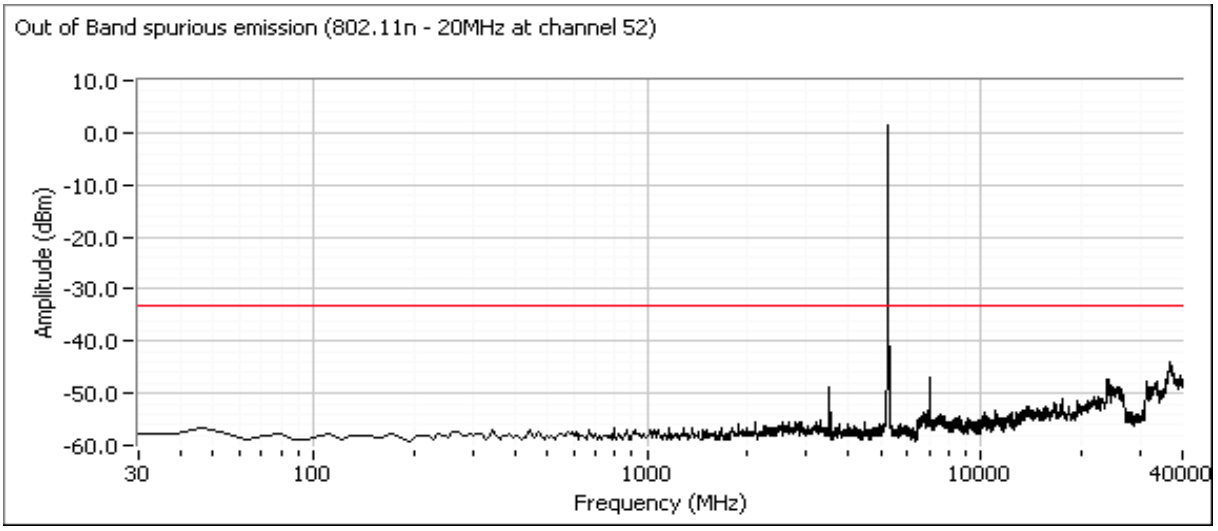
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

Plots for low channel, power setting(s) = 10

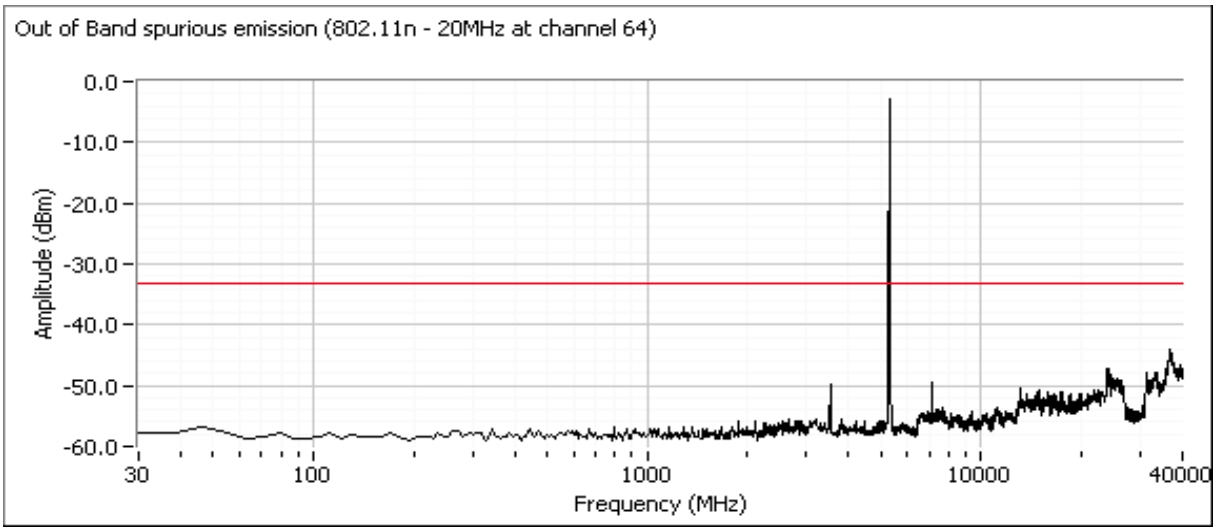


Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots for center channel, power setting(s) = 16



Plots for high channel, power setting(s) = 13



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

FCC Part 15 Subpart E Tests

Test standard(s)ifics

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: 4/23/2007
Test Engineer: Mehran Birgani
Test Location: Fremont Chamber #4

Config. Used: 1
Config Change: None
Host Unit 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: 18 °C
Rel. Humidity: 35 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5150 - 5350MHz	15.407(a) (1), (2)	Pass	18dBm
1	PSD, 5150 - 5350MHz	15.407(a) (1), (2)	Pass	4dBm/MHz
1	26dB Bandwidth	15.407	Pass	> 20 MHz
1	99% Bandwidth	RSS 210	-	36.4 MHz
2	Peak Excursion Envelope	15.407(a) (6)	Pass	5.6 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.

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	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
12.0	5190	10.5	10.6	13.5	6.2	6.2	9.2	19.8	0.095
15.5	5270	15.8	13.9	18.0	6.2	6.2	9.2	24.2	0.264
12.0	5310	12.2	10.5	14.4	6.2	6.2	9.2	20.7	0.117

Frequency (MHz)	Power 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	12.0	37.1	36.3	13.5	13.7	0.023	0.7	0.8	0.9	Pass
5270	15.5	37.2	36.4	18.0	20.7	0.063	4.0	7.8	5.4	Pass
5310	12.0	37.2	36.4	14.4	20.7	0.028	1.4	7.8	1.8	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:	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.
Note 5:	Power levels on chain 1 were taken from the original test report. Refer to the FCC website.

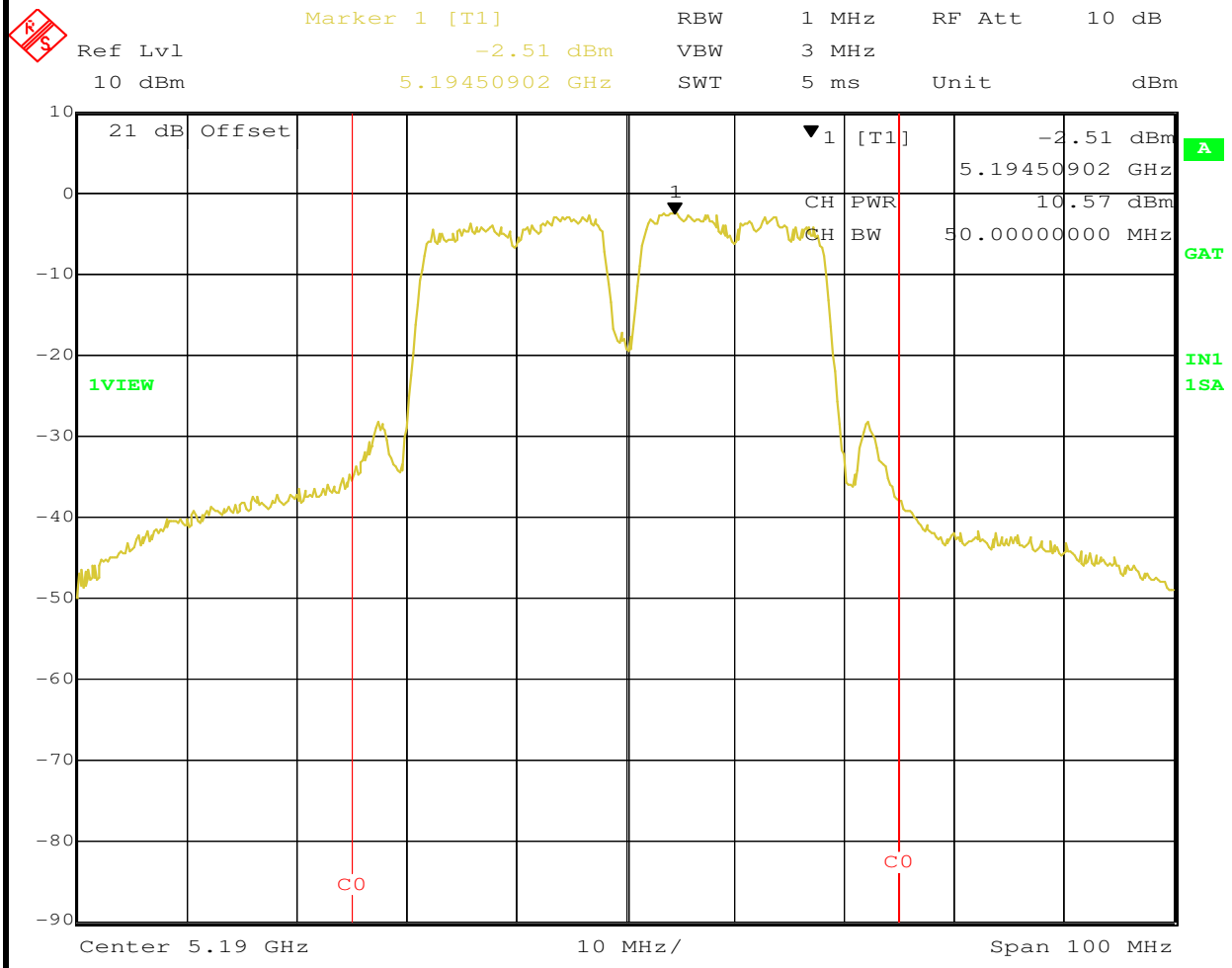
Run #1b: Power spectral Density

Power Setting	Frequency (MHz)	PSD (dBm/1MHz) Note 1				
		Main (dBm)	Center (dBm)	Total	dBm/1MHz	
12.0	5190	-2.1	-2.5	0.7	0.8	Pass
15.5	5270	0.8	1.2	4.0	7.8	Pass
12.0	5310	-0.9	-2.4	1.4	7.8	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.

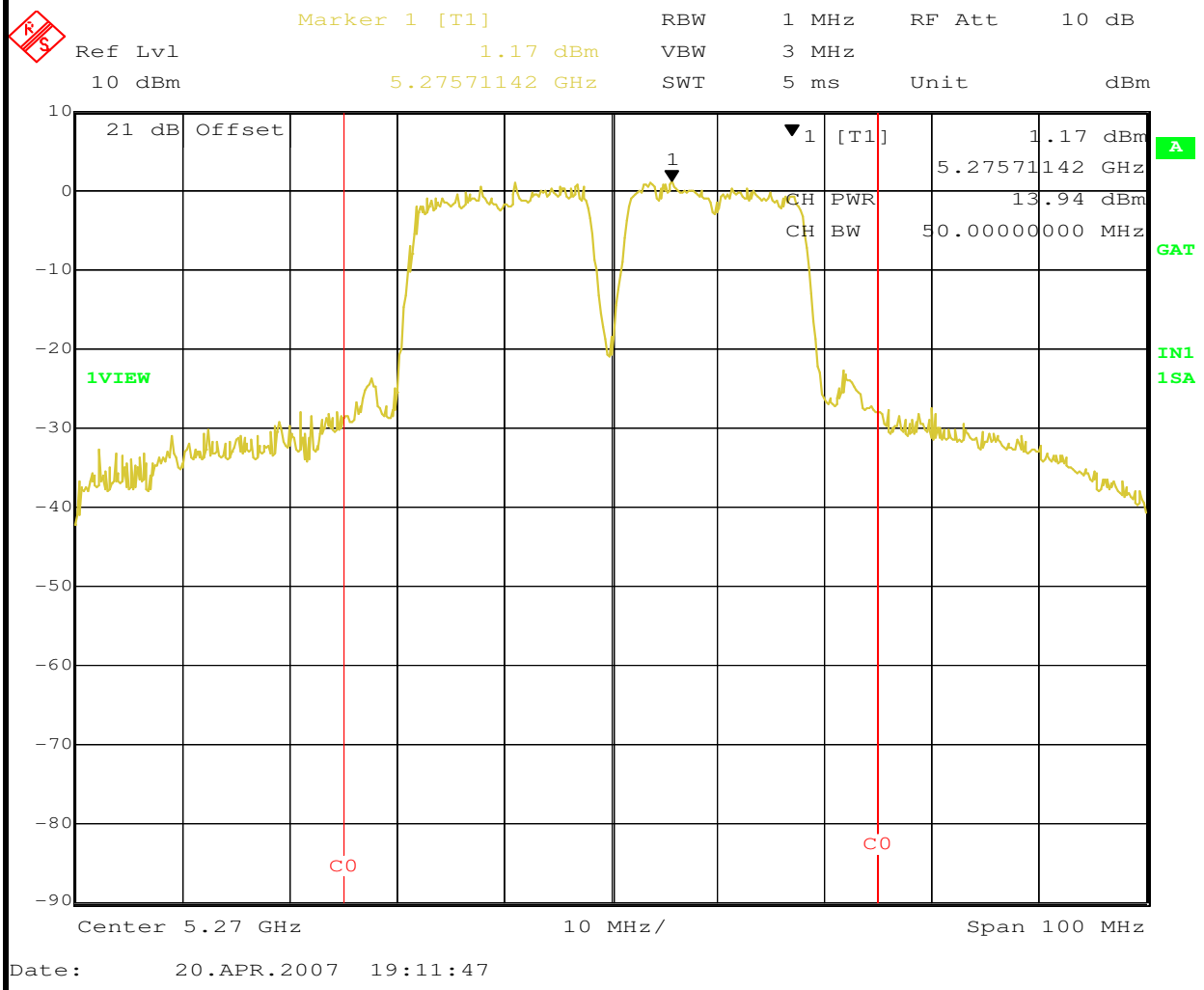
EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



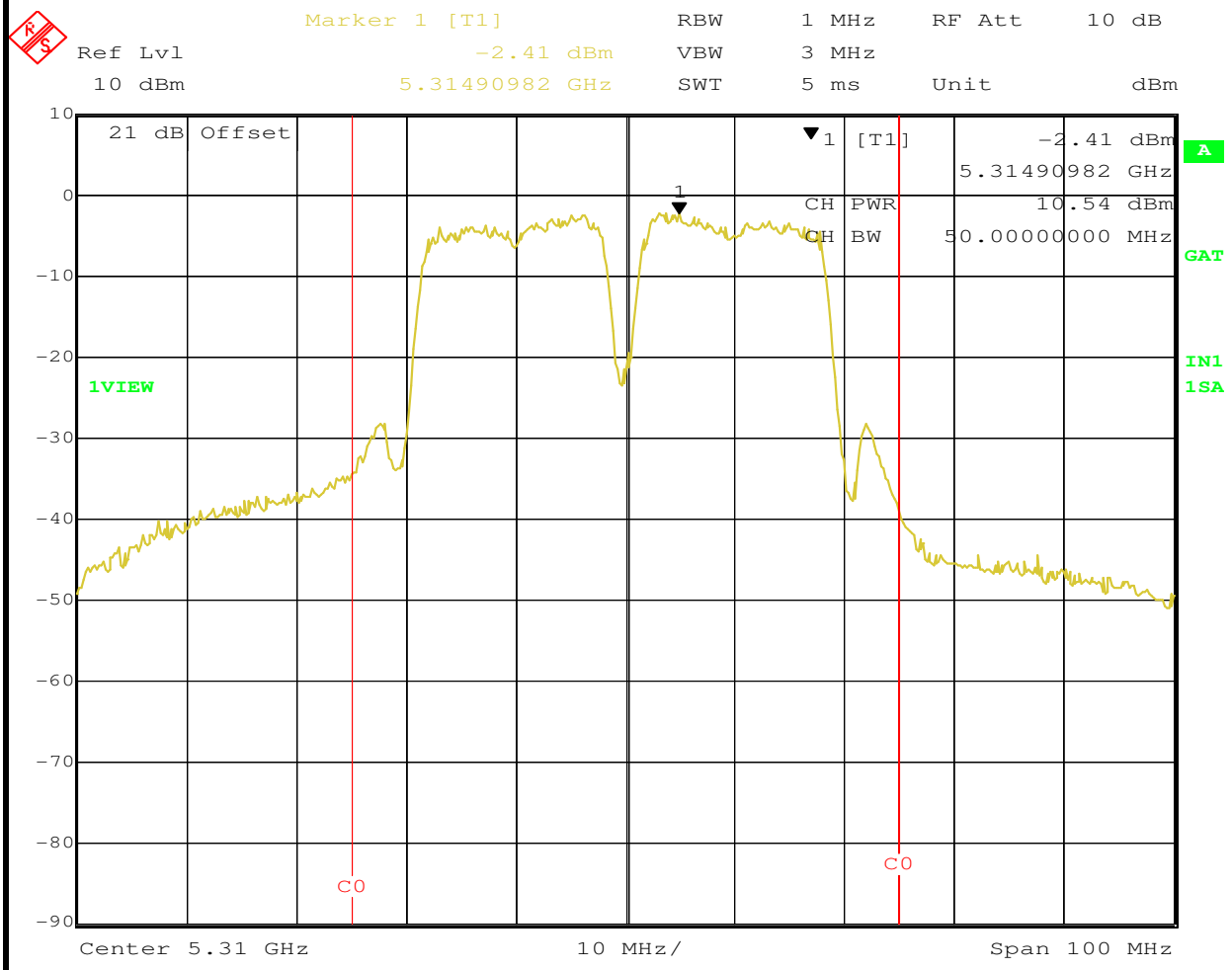
EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

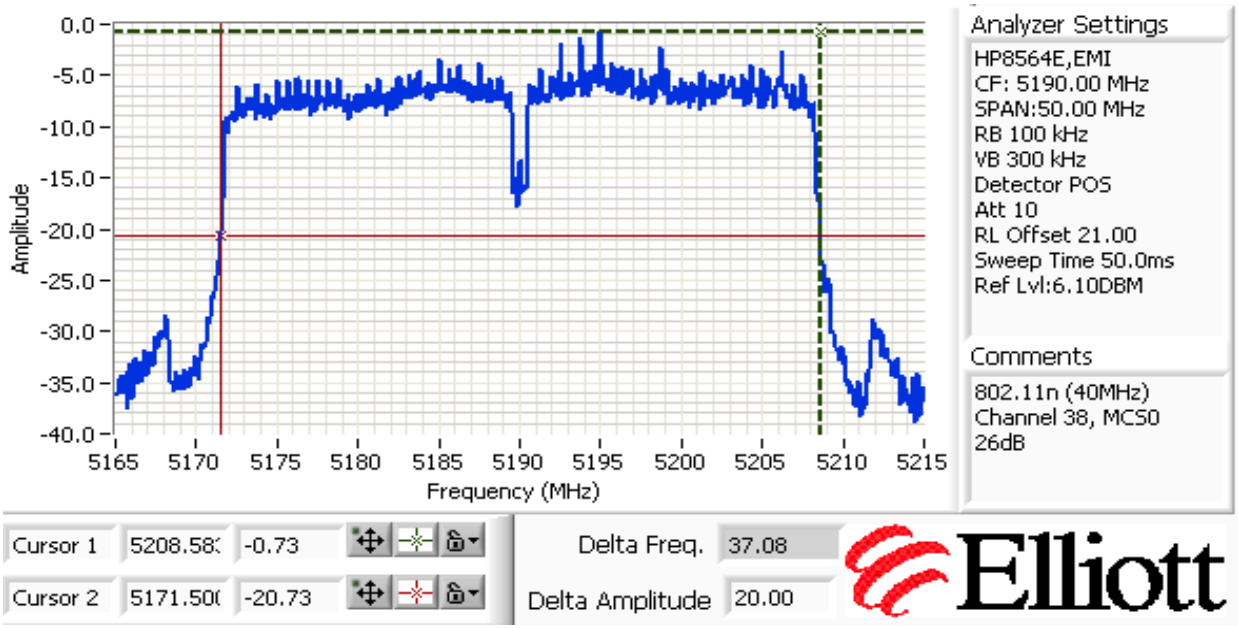


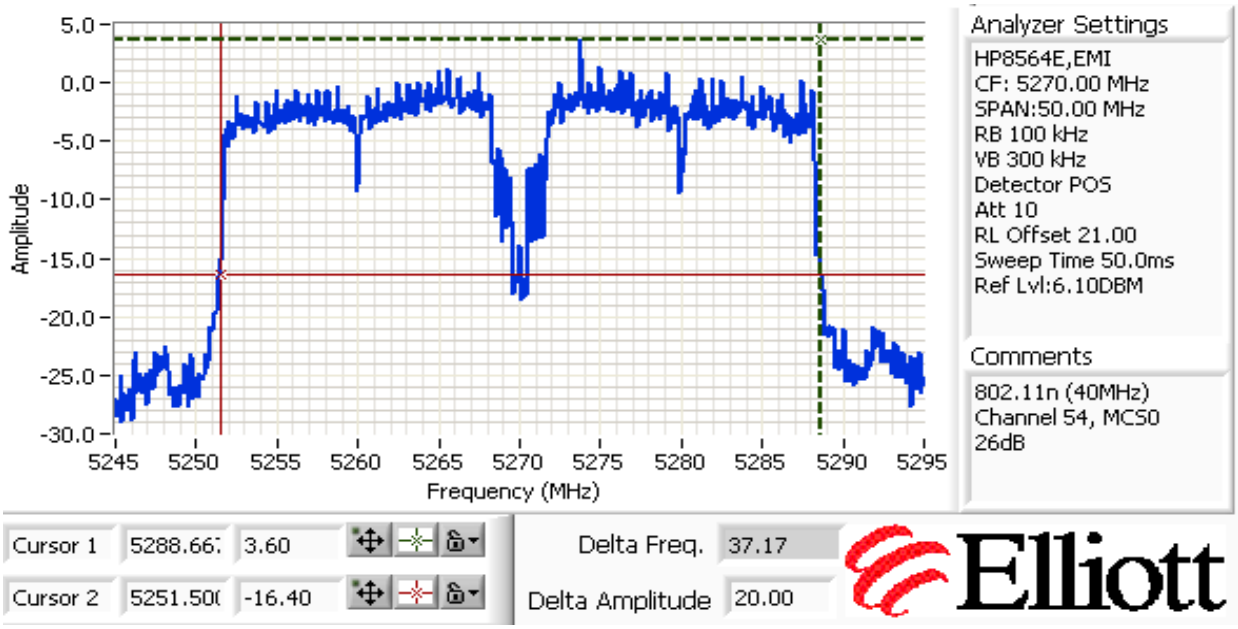
EMC Test Data

Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

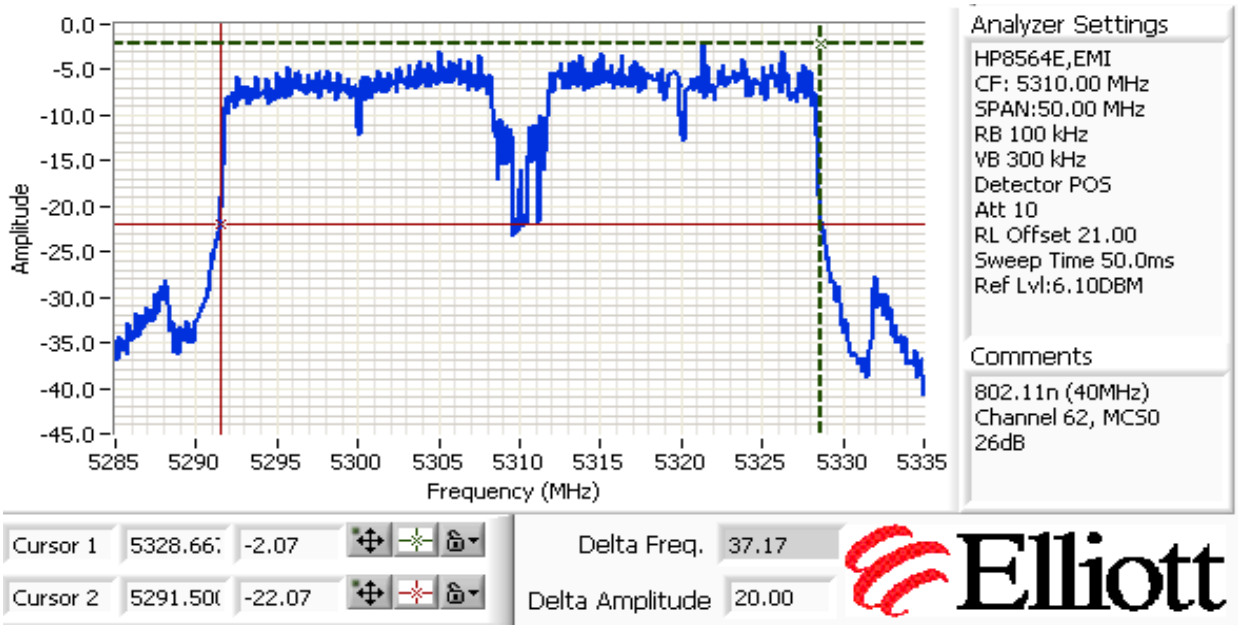


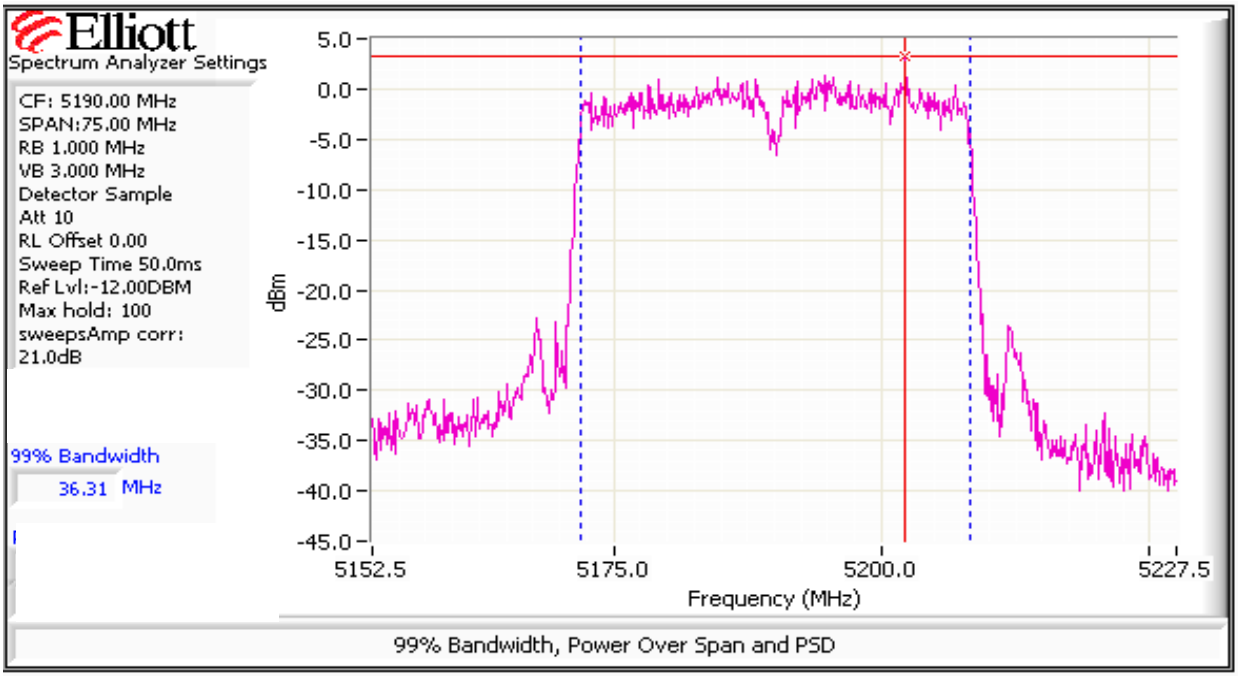
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A



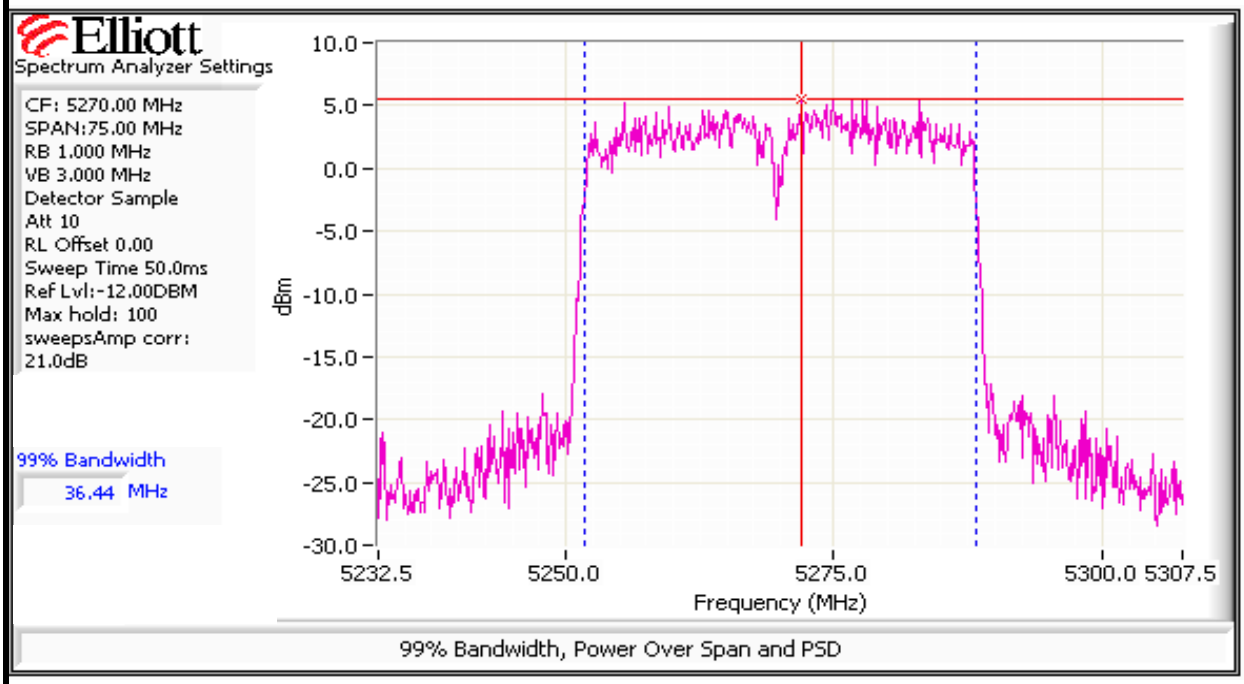


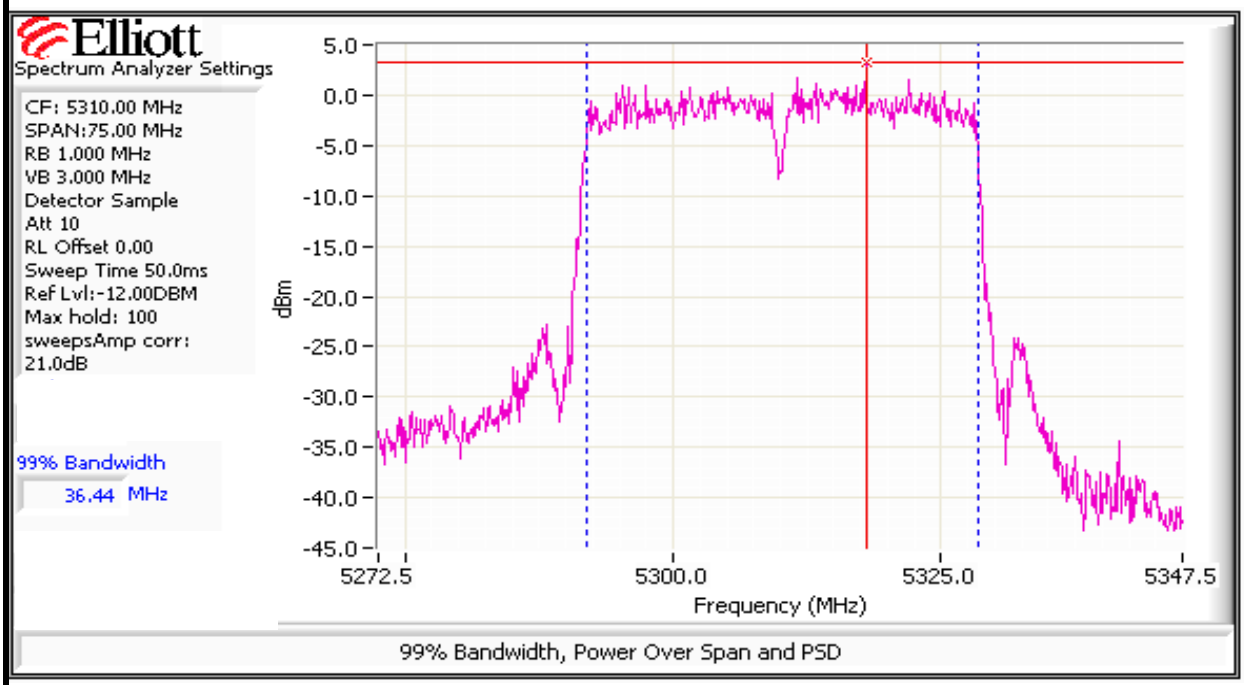
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A





Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

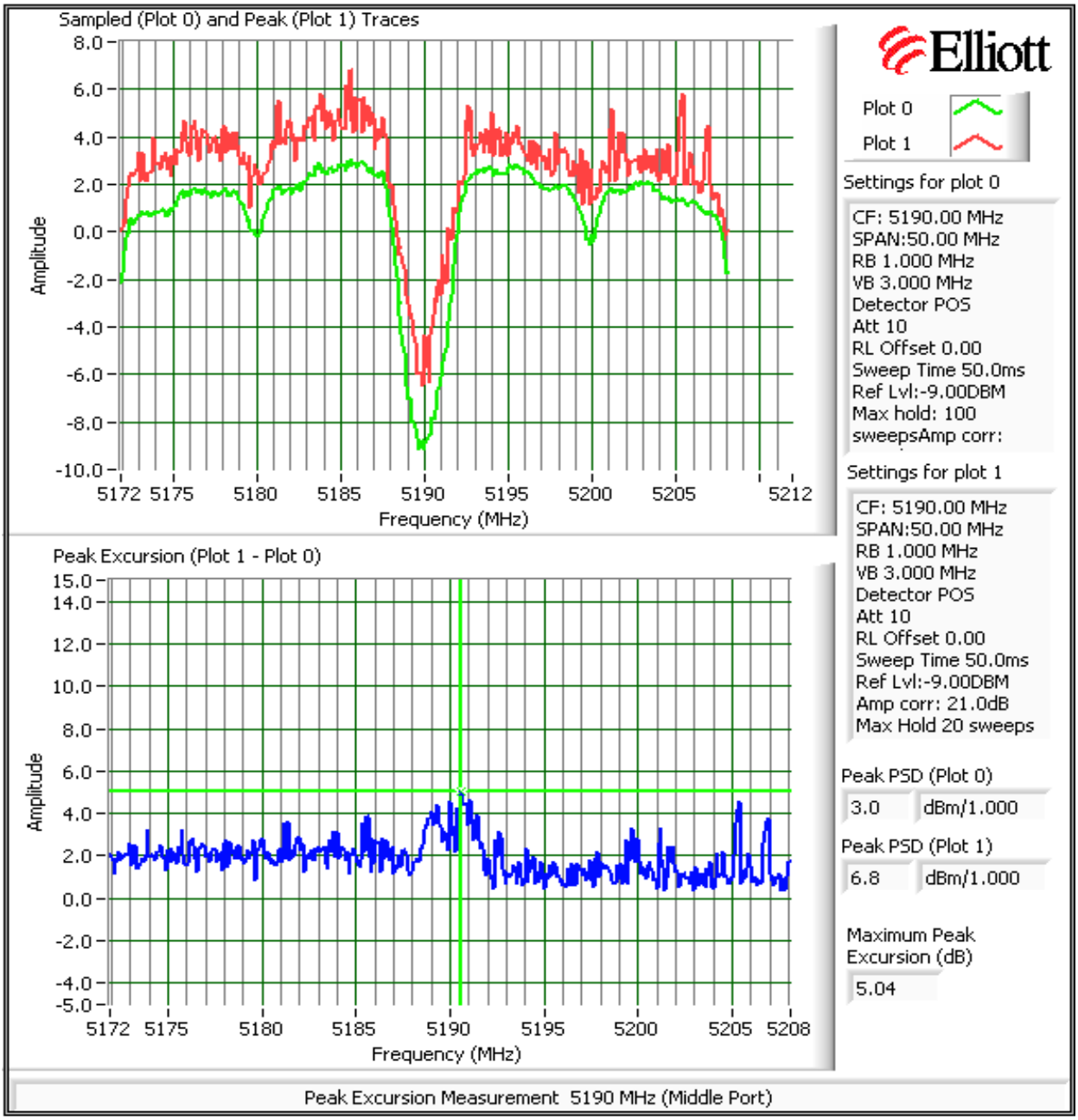




Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

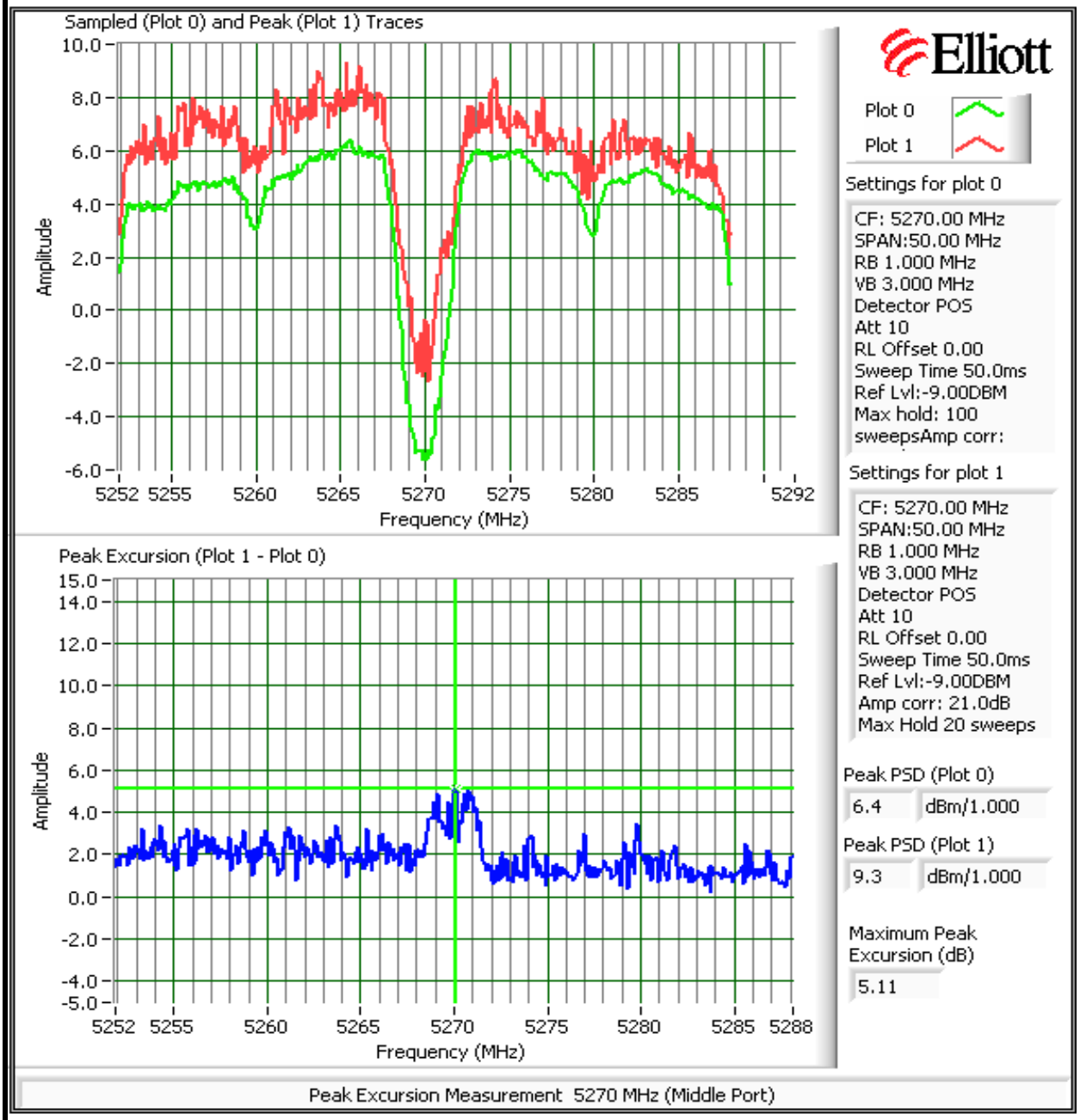
Run #2: Peak Excursion Measurement

Plots Showing Peak Excursion (Channel 38 - 5190MHz)



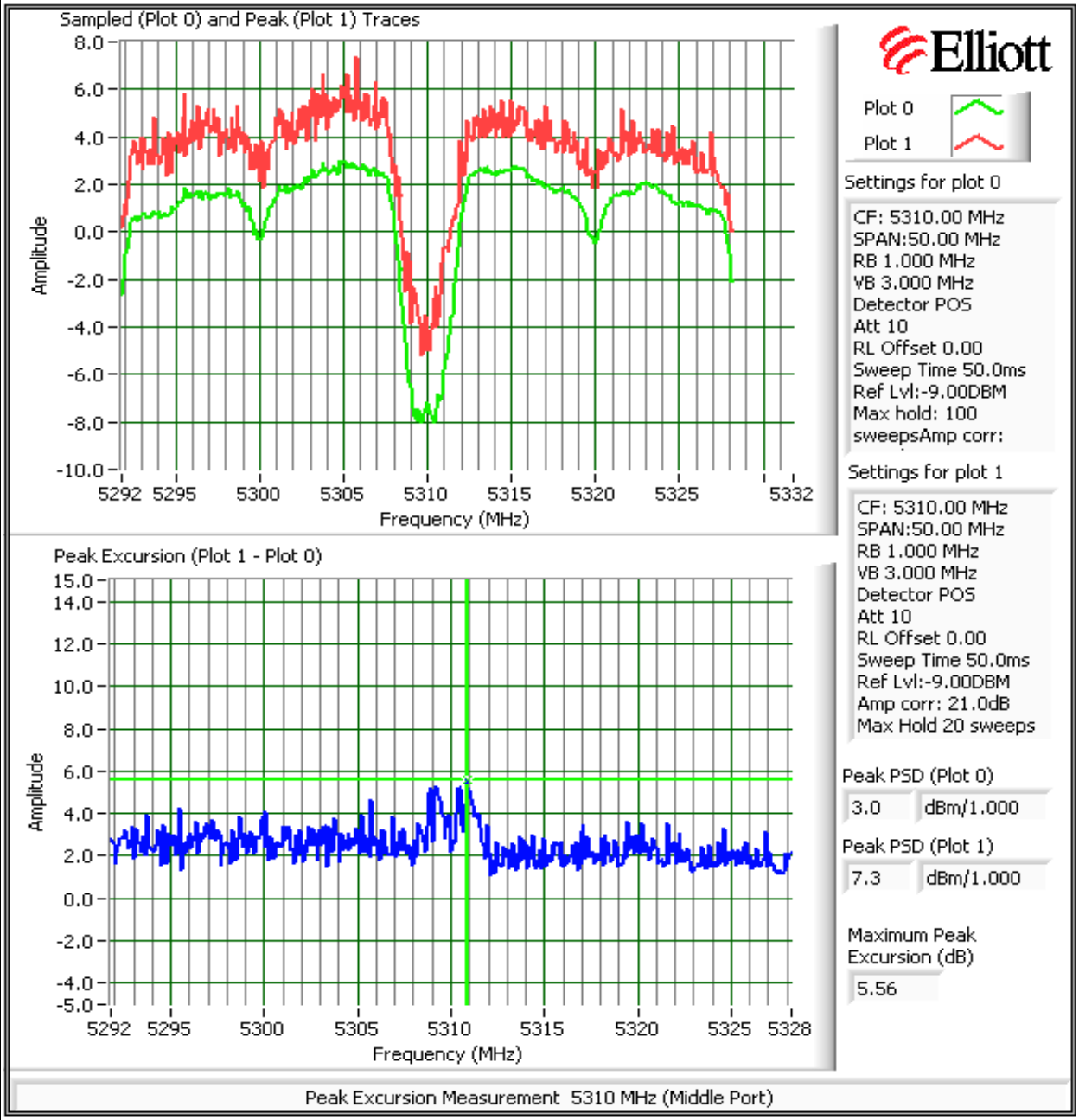
Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots Showing Peak Excursion (Channel 54 - 5270MHz)



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots Showing Peak Excursion (Channel 62 - 5310MHz)



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

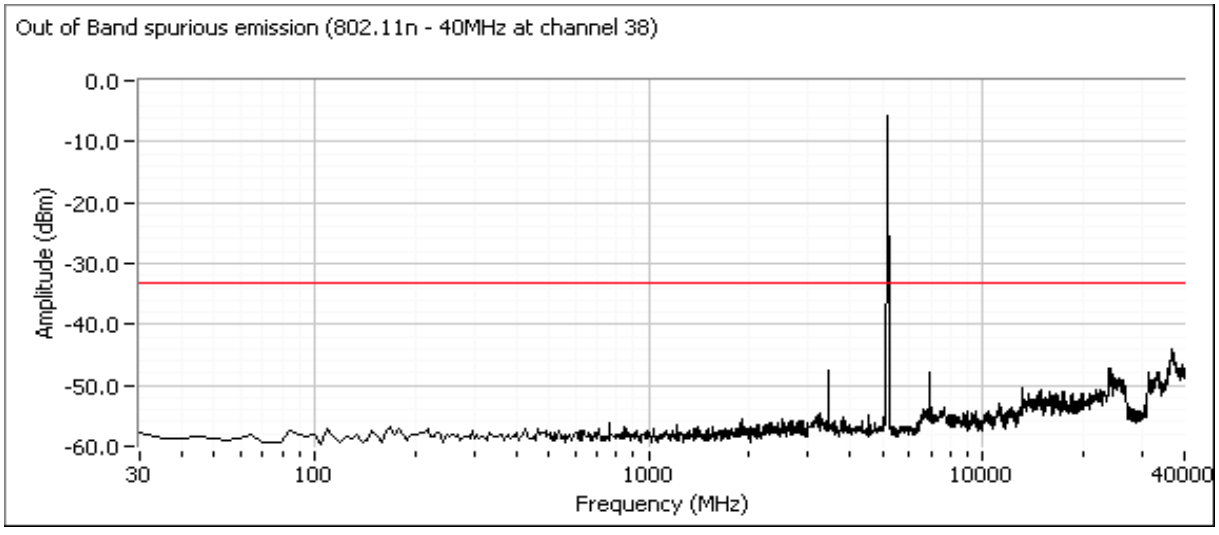
Run #4: Out Of Band Spurious Emissions - Antenna Conducted

Maximum Antenna Gain:	6.23	dBi
Spurious Limit:	-27	dBm/MHz eirp
Limit Used On Plots [Note 1]:	-33.23	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 3:	Signals within 10MHz of the 5.725 or 5.825 Band edge are subject to a limit of -17dBm EIRP
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.

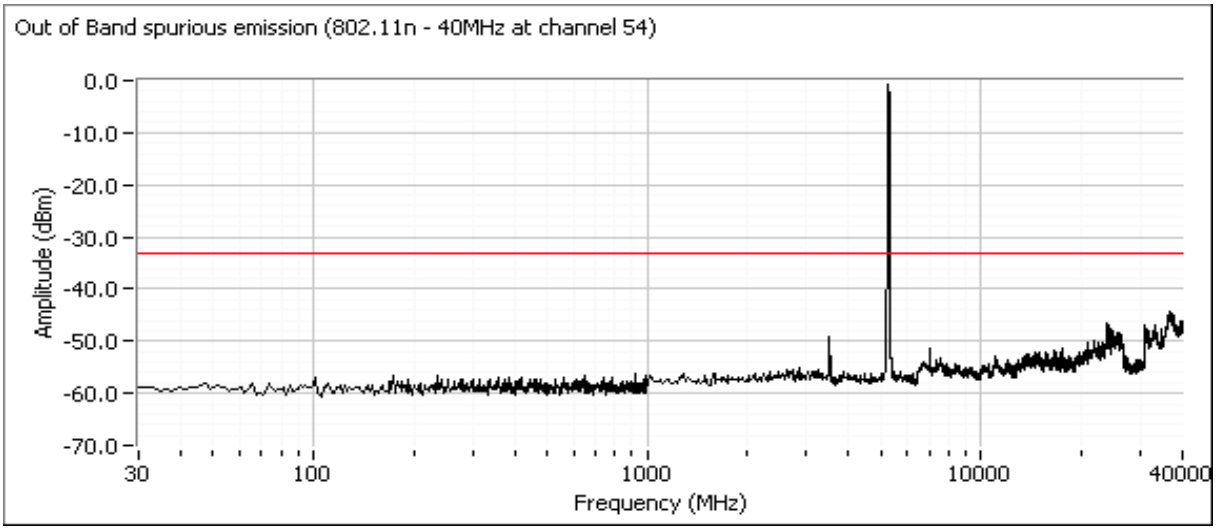
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)

Plots for low channel, power setting(s) = 12



Client:	Broadcom	Job Number:	J67652
Model:	BCM94321MC	T-Log Number:	T67683
		Account Manager:	Dean Ericksen
Contact:	David Boldy		
Standard:	FCC 15.247	Class:	N/A

Plots for center channel, power setting(s) = 15.5



Plots for high channel, power setting(s) = 12