Elliott Laboratories Inc.
www.elliottlabs.com
684 West Maude Avenue
Sunnyvale, CA 94085-3518
408-245-7800 Phone
408-245-3499 Fax

Electromagnetic Emissions Test Report and Application for Grant of Equipment Authorization pursuant to

Industry Canada RSS-Gen Issue 2 / RSS 210 Issue 7 FCC Part 15, Subpart E

on the Broadcom Corporation Transmitter Model: BCM94322HM8L

UPN:	4324A-BRCM1031
FCC ID:	QDS-BRCM1031
GRANTEE:	Broadcom Corporation 190 Mathilda Avenue Sunnyvale, CA 94086
TEST SITE:	Elliott Laboratories, Inc. 684 W. Maude Ave Sunnyvale, CA 94086
REPORT DATE:	January 14, 2008
FINAL TEST DATE:	December 31, 2007 thru January 15, 2008

AUTHORIZED SIGNATORY:

Mark E. Hill
Staff Engineer

ACCREDITED

Testing Cert #2016-01

REVISION HISTORY

Rev #	Date	Comments	Modified By
1	2/11/08	Initial release	DG

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

SCOPE

An electromagnetic emissions test has been performed on the Broadcom Corporation model BCM94322HM8L pursuant to the following rules:

Industry Canada RSS-Gen Issue 2
RSS 210 Issue 7 "Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment"
CC Part 15, Subpart E requirements for UNII Devices (using FCC DA 02-2138, August 30, 2002)

Conducted and radiated emissions data has been collected, reduced, and analyzed within this report in accordance with measurement guidelines set forth in the following reference standards and as outlined in Elliott Laboratories test procedures:

The intentional radiator above has been tested in a simulated typical installation to demonstrate compliance with the relevant Industry Canada performance and procedural standards.

Final system data was gathered in a mode that tended to maximize emissions by varying orientation of EUT, orientation of power and I/O cabling, antenna search height, and antenna polarization.

Every practical effort was made to perform an impartial test using appropriate test equipment of known calibration. All pertinent factors have been applied to reach the determination of compliance.

The test results recorded herein are based on a single type test of the Broadcom Corporation model BCM94322HM8L and therefore apply only to the tested sample. The sample was selected and prepared by David Boldy of Broadcom Corporation.

OBJECTIVE

The primary objective of the manufacturer is compliance with the regulations outlined in the previous section.

Prior to marketing in the USA, all unlicensed transmitters and transceivers require certification. Receive-only devices operating between 30 MHz and 960 MHz are subject to either certification or a manufacturer's declaration of conformity, with all other receive-only devices exempt from the technical requirements.

Prior to marketing in Canada, Class I transmitters, receivers and transceivers require certification. Class II devices are required to meet the appropriate technical requirements but are exempt from certification requirements.

Certification is a procedure where the manufacturer submits test data and technical information to a certification body and receives a certificate or grant of equipment authorization upon successful completion of the certification body's review of the submitted documents. Once the equipment authorization has been obtained, the label indicating compliance must be attached to all identical units, which are subsequently manufactured.

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product which may result in increased emissions should be checked to ensure compliance has been maintained (i.e., printed circuit board layout changes, different line filter, different power supply, harnessing or I/O cable changes, etc.).

STATEMENT OF COMPLIANCE

The tested sample of Broadcom Corporation model BCM94322HM8L complied with the requirements of the following regulations:

RSS 210 Issue 7 "Low-power Licence-exempt Radiocommunication Devices (All Frequency Bands): Category I Equipment"
FCC Part 15, Subpart E requirements for UNII Devices

Maintenance of compliance is the responsibility of the manufacturer. Any modification of the product which may result in increased emissions should be checked to ensure compliance has been maintained (i.e., printed circuit board layout changes, different line filter, different power supply, harnessing or I/O cable changes, etc.).

TEST RESULTS SUMMARY

UNII / LELAN DEVICES

Operation in the 5.15 – 5.25 GHz Band

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
15.407(e)		Indoor operation only	Refer to user's manual	N/A	Complies
15.407(a) (1)		26dB Bandwidth	19.6 MHz (802.11a) 20.0 MHz (802.11 20MHz CDD) 39.0 MHz (40MHz CDD)	N/A – limits output power if < 20MHz	N/A
15.407(a) (1)	A9.2(1)	Output Power	15.3 dBm (0.034 W)		Complies
15.407(a) (1))	A9.2(1)	Power Spectral Density	4.0 dBm/MHz	4.0 dBm/MHz	Complies
	A9.5 (2)	Power Spectral Density	4.0 dBm/MHz	Shall not exceed the average value by more than 3dB	Complies

Operation in the 5.25 – 5.35 GHz Band

Note: The device is restricted to indoor use only, therefore the spectral density of spurious emissions in the 5.15 – 5.25 GHz band were limited to the power spectral limits for intentional signals detailed in FCC 15.407(a)(1) and RSS 210 6.2.2 q1 (i)

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result (margin)
15.407(a) (2)		26dB Bandwidth	25.1 MHz (802.11a) 22.4 MHz (802.11n 20 MHz CDD) 41.7 MHz (802.11n 40 MHz CDD)	N/A – limits output power if < 20MHz	N/A
15.407(a) (2)	A9.2(2)	Output Power	18.7 dBm (0.074 W)		Complies
15.407(a) (2))		Power Spectral Density	7.9 dBm/MHz	8.4 dBm/MHz	Complies
	A9.2(2) / A9.5 (2)	Power Spectral Density		11 dBm / MHz	Complies
	A9.5 (2)	Peak Spectral Density	7.9 dBm/MHz	Shall not exceed the average value by more than 3dB	Complies

Operation in the 5.47 – 5.725 GHz Band

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result (margin)
15.407(a) (2)		26dB Bandwidth	28.6 MHz (802.11a) 30.0 MHz (802.11n 20 MHz CDD) 77.0 MHz (802.11n 40 MHz CDD	N/A – limits output power if < 20MHz	N/A
15.407(a) (2)	A9.2(2)	Output Power	20.7 dBm (0.107 W)	24 dBm / 250mW (eirp < 30dBm)	Complies
15.407(a) (2))		Power Spectral Density	8.7 dBm/MHz	11 dBm/MHz	Complies
	A9.2(2) / A9.5 (2)	Power Spectral Density		11 dBm / MHz	Complies
N/A	A9.5	Non-operation in 5600 – 5650 MHz sub band	Device is a client device.		Complies

General requirements for all bands

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
	A9.5a	Modulation	OFDM modulation is used	Digital modulation is required	Complies
	RSP 100	99% bandwidth	5150-5250 MHz 17.6 MHz (802.11a) 18.6 MHz (802.11n 20 MHz CDD) 36.9 MHz (802.11n 40 MHz CDD 5250-5350 MHz 17.6 MHz (802.11a) 18.6 MHz (802.11n 20 MHz CDD) 37.8 MHz (802.11n 40 MHz CDD 5470-5725 MHz 17.7 MHz (802.11a) 18.6 MHz (802.11n 20 MHz CDD) 51.2 MHz (802.11n 40 MHz CDD	Information only	
15.407(b) (5) / 15.209	A9.3	Spurious Emissions below 1GHz	No emissions below 1 GHz detected		Complies
15.407(b) (2)	A9.3	Spurious Emissions above 1GHz	51.7dBµV/m (384.6µV/m) @ 5460.0MHz (-2.3dB)		Complies
15.407(a)(6)	-	Peak Excursion Ratio	12.6 dB	< 13dB	Complies
	A9.5 (3)	Channel Selection	Spurious emissions tested at outermost channels in each band	Device was tested on the top, bottom and center channels in each band	N/A
15.35(m)			Measurements on three channels in each band		N/A
15.407 (c)	A9.5(4)	Operation in the	Operation is	Device shall	Complies

FCC Rule Part	RSS Rule Part	Description	Measured Value / Comments	Limit / Requirement	Result
		absence of information to transmit	discontinued in the absence of information	automatically discontinue operation in the absence of information to transmit	
15.407 (g)	A9.5 (5)	Frequency Stability	Frequency stability is better than 10ppm (Operational Description)		Complies
15.407 (h1)	A9.4	Transmit Power Control	TPC is not required as the device operates at below 500mW eirp	The U-NII device shall have the capability to operate with a mean EIRP value lower than 24dBm (250mW)	Complies
15.407 (h2)	A9.4	Dynamic frequency Selection (device without radar detection)	Refer to separate test report, reference R70538	Channel move time < 10s Channel closing transmission time < 260ms	Complies
	A9.5 (7)	User Manual information	Refer to Exhibit 6 for details		Complies

GENERAL REQUIREMENTS APPLICABLE TO ALL BANDS

FCC Rule Part	RSS Rule part	Description	Measured Value / Comments	Limit / Requirement	Result (margin)
15.203	-	RF Connector	Device uses a unique connector type		Complies
15.109	RSS GEN 7.2.3 Table 1	Receiver spurious emissions	61.0dBµV/m (1122.0µV/m) @ 2499.6MHz (-13.0dB)		Complies
15.207	RSS GEN Table 2	AC Conducted Emissions	31.4dBµV (37.2µV) @ 2.174MHz (-14.6dB)	Refer to standard	Complies
15.247 (b) (5) 15.407 (f)	RSS 102	RF Exposure Requirements	Refer to MPE calculations in Exhibit 11, RSS 102 declaration and User Manual statements.	Refer to OET 65, FCC Part 1 and RSS 102	Complies
	RSP 100 RSS GEN 7.1.5	User Manual		Statement required regarding non-interference	Complies
	RSP 100 RSS GEN 7.1.5	User Manual		Statement required regarding detachable antenna	

MEASUREMENT UNCERTAINTIES

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level and were calculated in accordance with UKAS document LAB 34.

Measurement Type	Frequency Range (MHz)	Calculated Uncertainty (dB)
Conducted Emissions	0.15 to 30	± 2.4
Radiated Emissions	0.015 to 30	± 3.0
Radiated Emissions	30 to 1000	± 3.6
Radiated Emissions	1000 to 40000	± 6.0

EQUIPMENT UNDER TEST (EUT) DETAILS

GENERAL

The Broadcom Corporation model BCM94322HM8L is an 802.11ag/Draft 802.11n WLAN PCI-E Minicard that is designed to enable wireless data transmission in PCs. 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 3.3Vdc from the host.

The sample was received on December 31, 2007 and tested on December 31, 2007 thru January 15, 2008. The EUT consisted of the following component(s):

Manufacturer	Model	Description	Serial Number	FCC ID
Broadcom	BCM94322HM8L	802.11ag/Draft 802.11n WLAN PCI-E Minicard		QDS-BRCM1031

ANTENNA SYSTEM

The EUT antenna is a stamped metal sheet antenna with peak gains of 3.9dBi/2.4GHz and 5.8dBi/5GHz.

The antenna connects to the EUT via a Hirose antenna connector, thereby meeting the requirements of FCC 15.203.

ENCLOSURE

The EUT does not have an enclosure as it is designed to be installed within the enclosure of a host computer or system.

MODIFICATIONS

The EUT did not require modifications during testing in order to comply with emissions specifications.

SUPPORT EQUIPMENT

The following equipment was used as local support equipment for emissions testing:

Manufacturer	Model	Description	Serial Number	FCC ID
HP	-	Laptop Computer	-	DoC
Dell*	Inspiron 0000	Laptop Computer	901014-70166-57K-01JT	DoC
HP*	C6490A	Printer	MY3883K42P	DoC

* - Dell laptop and printer used for conducted emissions testing only

EUT INTERFACE PORTS

The I/O cabling configuration during emissions testing was as follows:

Port	Connected To	Cable(s)		
		Description	Shielded or Unshielded	Length(m)
Main RF Port	Antenna	coax	shielded	0.15
Aux RF Port	Antenna	coax	shielded	0.15
PCMCIA Buss	Extender Card with EUT	Direct Connection	-	-
DC Power on Computer	AC/DC Adapter	multiconductor	shielded	1.5
AC/DC Adapter	AC Mains	3 wire	unshielded	1.5
USB on Computer	Printer	multiconductor	shielded	1.5

EUT OPERATION

During testing, the EUT was configured to either transmit continuously on the desired channel or set into a receive mode at the desired channel, as noted on the test data sheets.

All transmitter spurious emissions testing (radiated or conducted) was done at the highest power setting within the band. All band edge, power and other measurements were taken at the maximum power allowed by the EUT's power table for that particular channel.

TEST SITE

GENERAL INFORMATION

Final test measurements were taken on December 31, 2007 thru January 15, 2008 at the Elliott Laboratories Open Area Test Site # or semi anechoic chamber # located at 684 West Maude Avenue, Sunnyvale, California or 41039 Boyce Road, Fremont, California Pursuant to section 2.948 of the FCC's Rules and section 3.3 of RSP-100, construction, calibration, and equipment data has been filed with the Commission.

ANSI C63.4:2003 recommends that ambient noise at the test site be at least 6 dB below the allowable limits. Ambient levels are below this requirement with the exception of predictable local TV, radio, and mobile communications traffic. The test site contains separate areas for radiated and conducted emissions testing. Considerable engineering effort has been expended to ensure that the facilities conform to all pertinent requirements of ANSI C63.4:2003.

CONDUCTED EMISSIONS CONSIDERATIONS

Conducted emissions testing is performed in conformance with ANSI C63.4:2003. Measurements are made with the EUT connected to the public power network through a nominal, standardized RF impedance, which is provided by a line impedance stabilization network, known as a LISN. A LISN is inserted in series with each current-carrying conductor in the EUT power cord.

RADIATED EMISSIONS CONSIDERATIONS

The FCC has determined that radiation measurements made in a shielded enclosure are not suitable for determining levels of radiated emissions. Radiated measurements are performed in an open field environment or in a semi-anechoic chamber. The test sites are maintained free of conductive objects within the CISPR defined elliptical area incorporated in ANSI C63.4:2003 guidelines and meet the Normalized Site Attenuation (NSA) requirements of ANSI C63.4:2003.

MEASUREMENT INSTRUMENTATION

RECEIVER SYSTEM

An EMI receiver as specified in CISPR 16-1 is used for emissions measurements. The receivers used can measure over the frequency range of 9 kHz up to 2000 MHz. These receivers allow both ease of measurement and high accuracy to be achieved. The receivers have Peak, Average, and CISPR (Quasi-peak) detectors built into their design so no external adapters are necessary. The receiver automatically sets the required bandwidth for the CISPR detector used during measurements. If the repetition frequency of the signal being measured is below 20Hz, peak measurements are made in lieu of Quasi-Peak measurements.

For measurements above the frequency range of the receivers, a spectrum analyzer is utilized because it provides visibility of the entire spectrum along with the precision and versatility required to support engineering analysis. Average measurements above 1000MHz are performed on the spectrum analyzer using the linear-average method with a resolution bandwidth of 1 MHz and a video bandwidth of 10 Hz, unless the signal is pulsed in which case the average (or video) bandwidth of the measuring instrument is reduced to onset of pulse desensitization and then increased.

INSTRUMENT CONTROL COMPUTER

The receivers utilize either a Rohde & Schwarz EZM Spectrum Monitor/Controller or contain an internal Spectrum Monitor/Controller to view and convert the receiver measurements to the field strength at an antenna or voltage developed at the LISN measurement port, which is then compared directly with the appropriate specification limit. This provides faster, more accurate readings by performing the conversions described under Sample Calculations within the Test Procedures section of this report. Results are printed in a graphic and/or tabular format, as appropriate. A personal computer is used to record all measurements made with the receivers.

The Spectrum Monitor provides a visual display of the signal being measured. In addition, the controller or a personal computer run automated data collection programs which control the receivers. This provides added accuracy since all site correction factors, such as cable loss and antenna factors are added automatically.

LINE IMPEDANCE STABILIZATION NETWORK (LISN)

Line conducted measurements utilize a fifty microhenry Line Impedance Stabilization Network as the monitoring point. The LISN used also contains a 250 uH CISPR adapter. This network provides for calibrated radio frequency noise measurements by the design of the internal low pass and high pass filters on the EUT and measurement ports, respectively.

FILTERS/ATTENUATORS

External filters and precision attenuators are often connected between the receiving antenna or LISN and the receiver. This eliminates saturation effects and non-linear operation due to high amplitude transient events.

ANTENNAS

A loop antenna is used below 30 MHz. For the measurement range 30 MHz to 1000 MHz either a combination of a biconical antenna and a log periodic or a bi-log antenna is used. Above 1000 MHz, horn antennas are used. The antenna calibration factors to convert the received voltage to an electric field strength are included with appropriate cable loss and amplifier gain factors to determine an overall site factor, which is then programmed into the test receivers or incorporated into the test software.

ANTENNA MAST AND EQUIPMENT TURNTABLE

The antennas used to measure the radiated electric field strength are mounted on a non-conductive antenna mast equipped with a motor-drive to vary the antenna height. Measurements below 30 MHz are made with the loop antenna at a fixed height of 1m above the ground plane.

ANSI C63.4:2003 specifies that the test height above ground for table mounted devices shall be 80 centimeters. Floor mounted equipment shall be placed on the ground plane if the device is normally used on a conductive floor or separated from the ground plane by insulating material from 3 to 12 mm if the device is normally used on a non-conductive floor. During radiated measurements, the EUT is positioned on a motorized turntable in conformance with this requirement.

INSTRUMENT CALIBRATION

All test equipment is regularly checked to ensure that performance is maintained in accordance with the manufacturer's specifications. All antennas are calibrated at regular intervals with respect to tuned half-wave dipoles. An exhibit of this report contains the list of test equipment used and calibration information.

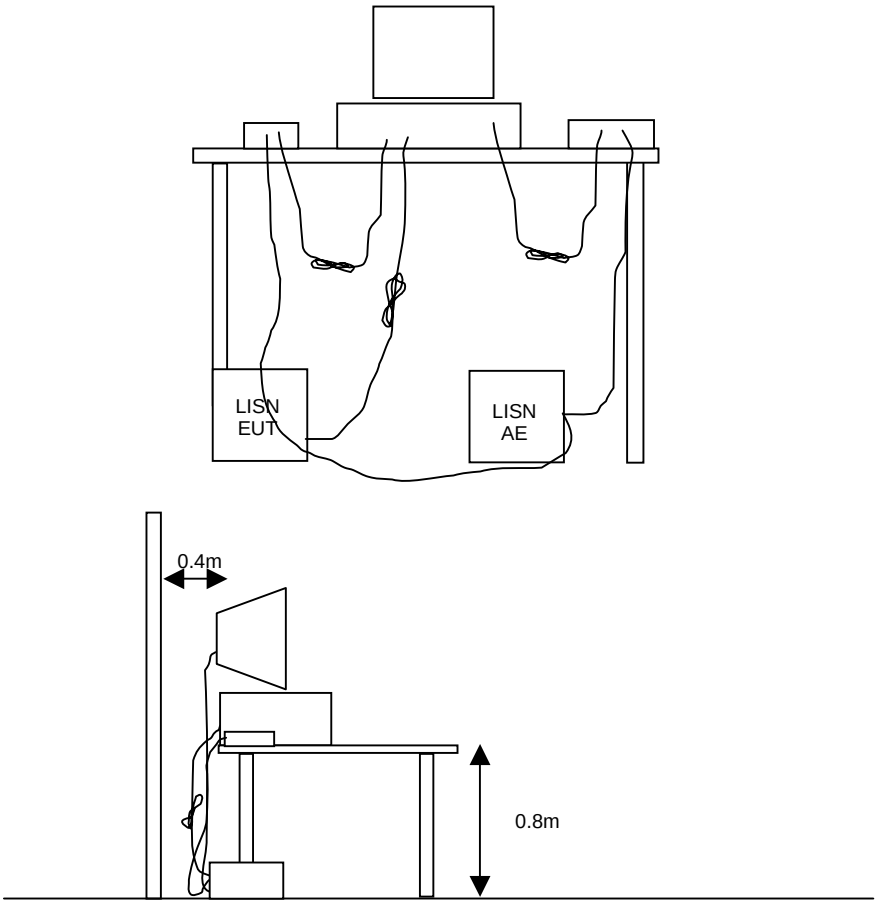
TEST PROCEDURES

EUT AND CABLE PLACEMENT

The regulations require that interconnecting cables be connected to the available ports of the unit and that the placement of the unit and the attached cables simulate the worst case orientation that can be expected from a typical installation, so far as practicable. To this end, the position of the unit and associated cabling is varied within the guidelines of ANSI C63.4:2003, and the worst-case orientation is used for final measurements.

CONDUCTED EMISSIONS

Conducted emissions are measured at the plug end of the power cord supplied with the EUT. Excess power cord length is wrapped in a bundle between 30 and 40 centimeters in length near the center of the cord. Preliminary measurements are made to determine the highest amplitude emission relative to the specification limit for all the modes of operation. Placement of system components and varying of cable positions are performed in each mode. A final peak mode scan is then performed in the position and mode for which the highest emission was noted on all current carrying conductors of the power cord.

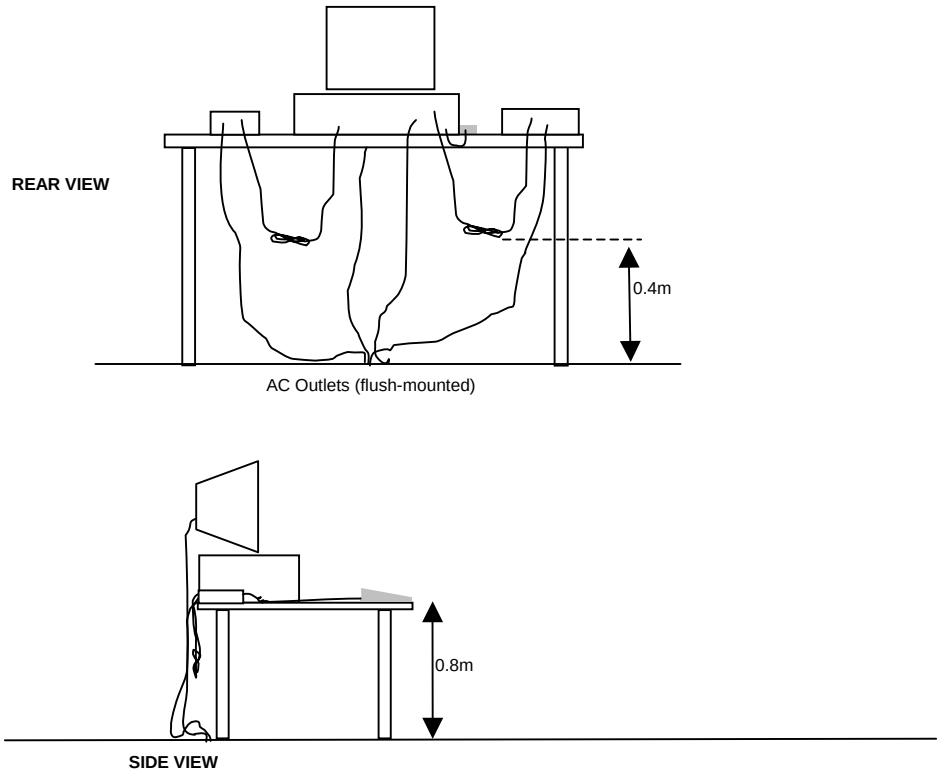


A preliminary scan of the radiated emissions is performed in which all significant EUT frequencies are identified with the system in a nominal configuration. At least two scans are performed, one scan for each antenna polarization (horizontal and vertical; loop parallel and perpendicular to the EUT). During the preliminary scans, the EUT is rotated through 360˚, the antenna height is varied (for measurements above 30 MHz) and cable positions are varied to determine the highest emission relative to the limit. Preliminary scans may be performed in a fully anechoic chamber for the purposes of identifying the frequencies of the highest emissions from the EUT.

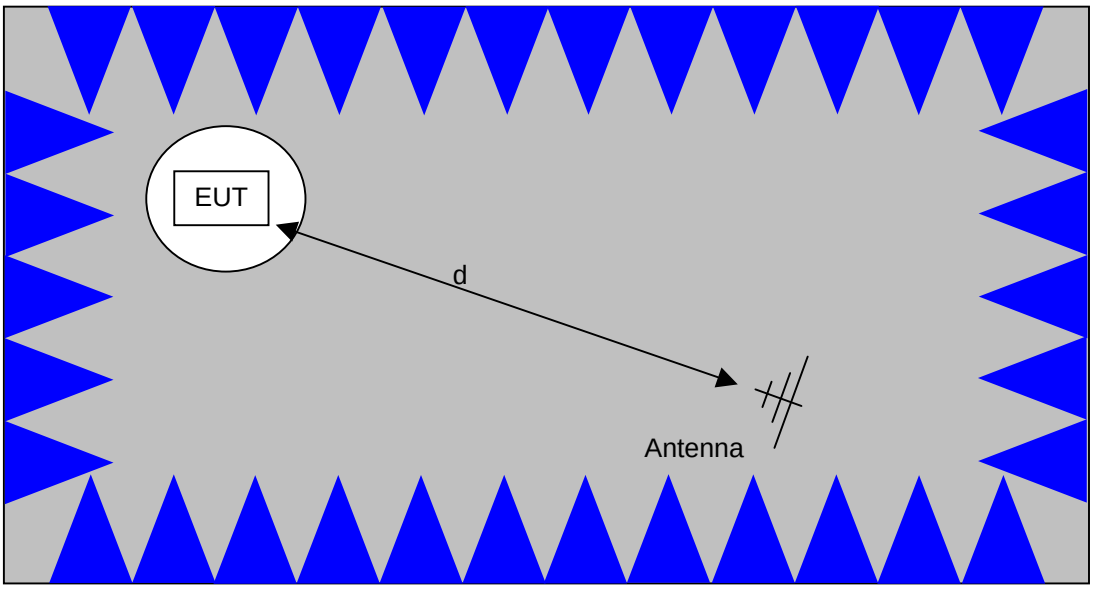
A speaker is provided in the receiver to aid in discriminating between EUT and ambient emissions. Other methods used during the preliminary scan for EUT emissions involve scanning with near field magnetic loops, monitoring I/O cables with RF current clamps, and cycling power to the EUT.

Final maximization is a phase in which the highest amplitude emissions identified in the spectral search are viewed while the EUT azimuth angle is varied from 0 to 360 degrees relative to the receiving antenna. The azimuth, which results in the highest emission is then maintained while varying the antenna height from one to four meters (for measurements above 30 MHz, measurements below 30 MHz are made with the loop antenna at a fixed height of 1m). The result is the identification of the highest amplitude for each of the highest peaks. Each recorded level is corrected in the receiver using appropriate factors for cables, connectors, antennas, and preamplifier gain.

When testing above 18 GHz, the receive antenna is located at 1meter from the EUT and the antenna height is restricted to a maximum of 2.5 meters.

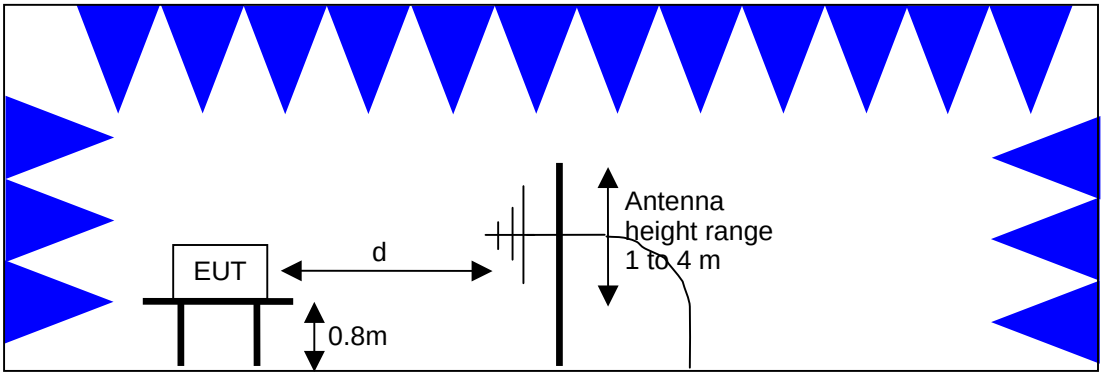


Typical Test Configuration for Radiated Field Strength Measurements



The anechoic materials on the walls and ceiling ensure compliance with the normalized site attenuation requirements of CISPR 16 / CISPR 22 / ANSI C63.4 for an alternate test site at the measurement distances used.

Floor-standing equipment is placed on the floor with insulating supports between the unit and the ground plane.



Test Configuration for Radiated Field Strength Measurements
Semi-Anechoic Chamber, Plan and Side Views

BANDWIDTH MEASUREMENTS

The 6dB, 20dB and/or 26dB signal bandwidth is measured in using the bandwidths recommended by ANSI C63.4. When required, the 99% bandwidth is measured using the methods detailed in RSS GEN.

SPECIFICATION LIMITS AND SAMPLE CALCULATIONS

The limits for conducted emissions are given in units of microvolts, and the limits for radiated emissions are given in units of microvolts per meter at a specified test distance. Data is measured in the logarithmic form of decibels relative to one microvolt, or dB microvolts (dBuV). For radiated emissions, the measured data is converted to the field strength at the antenna in dB microvolts per meter (dBuV/m). The results are then converted to the linear forms of uV and uV/m for comparison to published specifications.

For reference, converting the specification limits from linear to decibel form is accomplished by taking the base ten logarithm, then multiplying by 20. These limits in both linear and logarithmic form are as follows:

GENERAL TRANSMITTER RADIATED EMISSIONS SPECIFICATION LIMITS

The table below shows the limits for the spurious emissions from transmitters that fall in restricted bands[1] (with the exception of transmitters operating under FCC Part 15 Subpart D and RSS 210 Annex 9), the limits for all emissions from a low power device operating under the general rules of RSS 310 (tables 3 and 4), RSS 210 (table 2) and FCC Part 15 Subpart C section 15.209.

Frequency Range (MHz)	Limit (uV/m)	Limit (dBuV/m @ 3m)
0.009-0.490	$2400/F_{KHz}$ @ 300m	$67.6-20*\log_{10}(F_{KHz})$ @ 300m
0.490-1.705	$24000/F_{KHz}$ @ 30m	$87.6-20*\log_{10}(F_{KHz})$ @ 30m
1.705 to 30	30 @ 30m	29.5 @ 30m
30 to 88	100 @ 3m	40 @ 3m
88 to 216	150 @ 3m	43.5 @ 3m
216 to 960	200 @ 3m	46.0 @ 3m
Above 960	500 @ 3m	54.0 @ 3m

FCC 15.407 (a) OUTPUT POWER LIMITS

The table below shows the limits for output power and output power density. Where the signal bandwidth is less than 20 MHz the maximum output power is reduced to the power spectral density limit plus 10 times the log of the bandwidth (in MHz).

Operating Frequency (MHz)	Output Power	Power Spectral Density
5150 - 5250	50mW (17 dBm)	4 dBm/MHz
5250 - 5350	250 mW (24 dBm)	11 dBm/MHz
5725 – 5825	1 Watts (30 dBm)	17 dBm/MHz

For system using antennas with gains exceeding 6dBi, the output power and power spectral density limits are reduced by 1dB for every dB the antenna gain exceeds 6dBi. Fixed point-to-point applications using the 5725 – 5825 MHz band may use antennas with gains of up to 23dBi without this limitation. If the gain exceeds 23dBi then the output power limit of 1 Watt is reduced by 1dB for every dB the gain exceeds 23dBi.

[1] The restricted bands are detailed in FCC 15.203, RSS 210 Table 1 and RSS 310 Table 2

OUTPUT POWER AND SPURIOUS LIMITS –UNII DEVICES

The table below shows the limits for output power and output power density defined by FCC Part 15 Subpart E. Where the signal bandwidth is less than 20 MHz the maximum output power is reduced to the power spectral density limit plus 10 times the log of the bandwidth (in MHz).

Operating Frequency (MHz)	Output Power	Power Spectral Density
5150 - 5250	50mW (17 dBm)	10 dBm/MHz
5250 - 5350	250 mW (24 dBm)	11 dBm/MHz
5470 - 5725	250 mW (24 dBm)	11 dBm/MHz
5725 – 5825	1 Watts (30 dBm)	17 dBm/MHz

The peak excursion envelope is limited to 13dB.

For system using antennas with gains exceeding 6dBi, the output power and power spectral density limits are reduced by 1dB for every dB the antenna gain exceeds 6dBi. Fixed point-to-point applications using the 5725 – 5825 MHz band may use antennas with gains of up to 23dBi without this limitation. If the gain exceeds 23dBi then the output power limit of 1 Watt is reduced by 1dB for every dB the gain exceeds 23dBi.

SAMPLE CALCULATIONS - CONDUCTED EMISSIONS

Receiver readings are compared directly to the conducted emissions specification limit (decibel form) as follows:

$$R_r - S = M$$

where:

R_r = Receiver Reading in dBuV

S = Specification Limit in dBuV

M = Margin to Specification in +/- dB

Receiver readings are compared directly to the specification limit (decibel form). The receiver internally corrects for cable loss, preamplifier gain, and antenna factor. The calculations are in the reverse direction of the actual signal flow, thus cable loss is added and the amplifier gain is subtracted. The Antenna Factor converts the voltage at the antenna coaxial connector to the field strength at the antenna elements.

A distance factor, when used for electric field measurements above 30MHz, is calculated by using the following formula:

$$F_d = 20*LOG_{10} (D_m/D_s)$$

where:

F_d = Distance Factor in dB

D_m = Measurement Distance in meters

D_s = Specification Distance in meters

For electric field measurements below 30MHz the extrapolation factor is either determined by making measurements at multiple distances or a theoretical value is calculated using the formula:

$$F_d = 40*LOG_{10} (D_m/D_s)$$

Measurement Distance is the distance at which the measurements were taken and Specification Distance is the distance at which the specification limits are based. The antenna factor converts the voltage at the antenna coaxial connector to the field strength at the antenna elements.

The margin of a given emission peak relative to the limit is calculated as follows:

$$R_c = R_r + F_d$$

and

$$M = R_c - L_s$$

where:

R_r = Receiver Reading in dBuV/m

F_d = Distance Factor in dB

R_c = Corrected Reading in dBuV/m

L_s = Specification Limit in dBuV/m

M = Margin in dB Relative to Spec

SAMPLE CALCULATIONS - FIELD STRENGTH TO EIRP CONVERSION

Where the radiated electric field strength is expressed in terms of the equivalent isotropic radiated power (eirp), or where a field strength measurement of output power is made in lieu of a direct measurement, the following formula is used to convert between eirp and field strength at a distance of 3m from the equipment under test:

$$E = \frac{1000000 \sqrt{30 P}}{3} \text{ microvolts per meter}$$

where P is the eirp (Watts)

EXHIBIT 1: Test Equipment Calibration Data

1 Page

Radiated Emissions, 30 - 40,000 MHz, 31-Dec-07
Engineer: Mehran Birgani

Manufacturer	Description	Model #	Asset #	Cal Due
Hewlett Packard	Microwave Preamplifier, 1-26.5GHz	8449B	785	29-May-08
EMCO	Antenna, Horn, 1-18 GHz	3115	1561	10-May-08
Hewlett Packard	High Pass filter, 8.2 GHz (Purple System)	P/N 84300-80039 (84125C)	1767	06-Nov-08
Hewlett Packard	SpecAn 9 kHz - 40 GHz, (SA40)	8564E	CH5273	20-Jul-08

Radio Antenna Port (Power and Spurious Emissions), 02-Jan-08
Engineer: Mehran Birgani

Manufacturer	Description	Model #	Asset #	Cal Due
Hewlett Packard	SpecAn 9 kHz - 40 GHz, FMT (SA40) Blue	8564E (84125C)	1393	17-Jan-08
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1756	04-Dec-08
Rohde & Schwarz	Attenuator, 20 dB , 50 □, 10W, DC-18 GHz	20dB, 10W, Type N	1795	12-Feb-08

Radio Antenna Port (Power and Spurious Emissions), 03 & 4-Jan-08
Engineer: Mehran Birgani

Manufacturer	Description	Model #	Asset #	Cal Due
Rohde & Schwarz	EMI Test Receiver, 20 Hz-7 GHz	ESIB7	1538	25-Aug-08
Hewlett Packard	SpecAn 9 kHz - 40 GHz, (SA40) Purple	8564E (84125C)	1771	17-Dec-08
Rohde & Schwarz	Attenuator, 20 dB , 50 □, 10W, DC-18 GHz	20dB, 10W, Type N	1795	12-Feb-08

EXHIBIT 2: Test Measurement Data

215 Pages

Elliott	EMC Test Data

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		-
Emissions Standard(s):	FCC Part 15.E/RSS-210	Class:	-
Immunity Standard(s):	-	Environment:	-

EMC Test Data

For The

Broadcom Corporation

Model

BCM94322HM8L

Date of Last Test: 1/10/2008

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manger:	Dean Eriksen
Contact:	David Boldy		
Emissions Standard(s):	FCC Part 15.E/RSS-210	Class:	-
Immunity Standard(s):	-	Environment:	-

EUT INFORMATION

The following information was collected during the test session(s).
The client agreed to provide the following information after the test session(s).

General Description

The EUT is an 802.11ag/Draft 802.11n WLAN PCI-E Minicard that is designed to enable wireless data transmission in PCs. 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 3.3Vdc from the host.

Equipment Under Test

Manufacturer	Model	Description	Serial Number	FCC ID
Broadc om	BCM94322HM8L	802.11ag/Draft 802.11n WLAN PCI-E Minicard		QDS-BRCM1031

EUT Antenna (Intentional Radiators Only)

The EUT antenna is a stamped metal sheet antenna with peak gains of 3.9dBi/2.4GHz and 5.8dBi/5GHz.

The antenna connects to the EUT via a Hirose antenna connector, thereby meeting the requirements of FCC 15.203.

EUT Enclosure

The EUT does not have an enclosure as it is designed to be installed within the enclosure of a host computer or system.

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.

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manger:	Dean Eriksen
Contact:	David Boldy		
Emissions Standard(s):	FCC Part 15.E/RSS-210	Class:	-
Immunity Standard(s):	-	Environment:	-

Test Configuration #1

Local Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
HP	-	Laptop Computer	-	DoC
Dell*	Inspiron 0000	Laptop Computer	901014-70166-57K-01JT	DoC
HP*	C6490A	Printer	MY3883K42P	DoC

* - Dell laptop and printer used for conducted emissions testing only

Remote Support Equipment

Manufacturer	Model	Description	Serial Number	FCC ID
None	-	-	-	-

Cabling and Ports

Port	Connected To	Cable(s)		
		Description	Shielded or Unshielded	Length(m)
Main RF Port	Antenna	coax	shielded	0.15
Aux RF Port	Antenna	coax	shielded	0.15
PCMCIA Buss	Extender Card with EUT	Direct Connection	-	-
DC Power on Computer	AC/DC Adapter	multiconductor	shielded	1.5
AC/DC Adapter	AC Mains	3 wire	unshielded	1.5
USB on Computer	Printer	multiconductor	shielded	1.5

EUT Operation During Emissions Tests

During testing, the EUT was configured to either transmit continuously on the desired channel or set into a receive mode at the desired channel, as noted on the test data sheets.

All transmitter spurious emissions testing (radiated or conducted) was done at the highest power setting within the band. All band edge, power and other measurements were taken at the maximum power allowed by the EUTs power table for that particular channel.

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Radiated 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: 1/2/2008
Test Engineer: Ben Jing
Test Location: FT Chamber # 5

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. Unless otherwise stated, all peak measurements were taken with RBW=VBW=1 MHz and for average with RBW=1 MHz, VBW=10 Hz.

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

Ambient Conditions:

Temperature: 16 °C
Rel. Humidity: 42 %

Summary of Results

Run #1	TX Mode	Channel	Power Setting	Pass/Fail	Margin
1a	a legacy	36	-	Pass	42.7dBµV/m (136.5µV/m) @ 15539.7MHz (-11.3dB)
1b	a legacy	40	-	Pass	41.2dBµV/m (114.8µV/m) @ 15597.3MHz (-12.8dB)
1c	a legacy	48	-	Pass	39.7dBµV/m (96.6µV/m) @ 15716.2MHz (-14.3dB)
2a	a legacy	52	-	Pass	49.5dBµV/m (298.5µV/m) @ 15780.0MHz (-4.5dB)
2b	a legacy	60	-	Pass	50.5dBµV/m (335.0µV/m) @ 15904.3MHz (-3.5dB)
2c	a legacy	64	-	Pass	45.4dBµV/m (186.2µV/m) @ 15962.9MHz (-8.6dB)
3a	a legacy	100	-	Pass	45.8dBµV/m (195.0µV/m) @ 16491.9MHz (-8.2dB)
3b	a legacy	120	-	Pass	49.2dBµV/m (288.4µV/m) @ 16801.8MHz (-4.8dB)
3c	a legacy	140	-	Pass	48.9dBµV/m (278.6µV/m) @ 17097.5MHz (-5.1dB)
3d	a legacy	104	-	Pass	47.2dBµV/m (229.1µV/m) @ 16563.5MHz (-6.8dB)

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

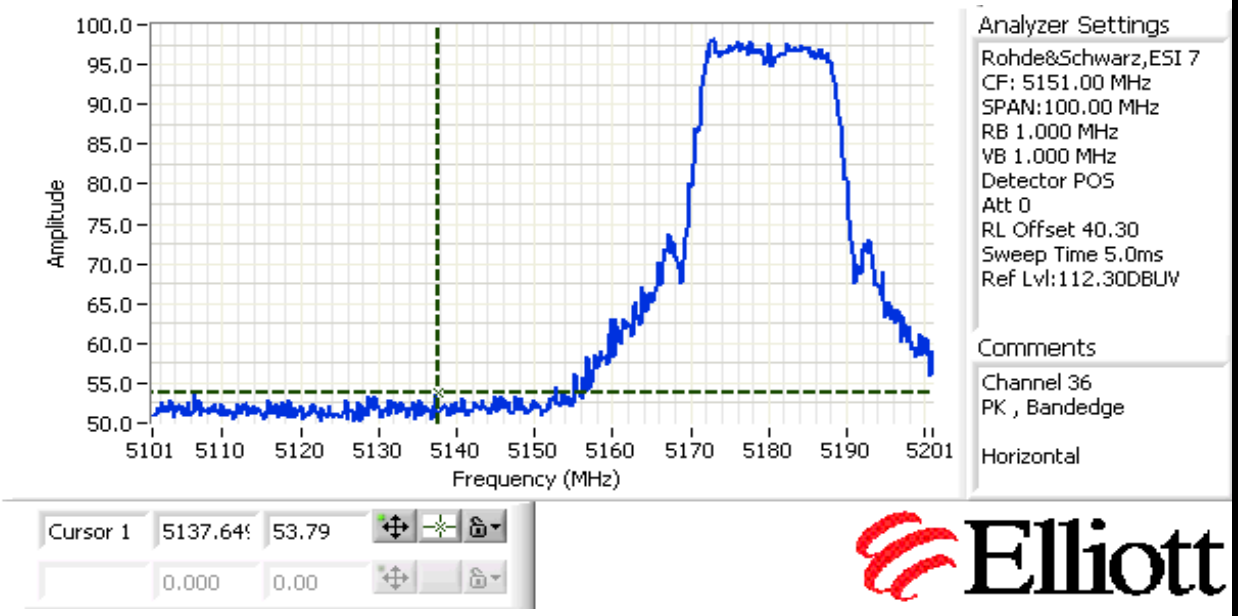
Modifications Made During Testing

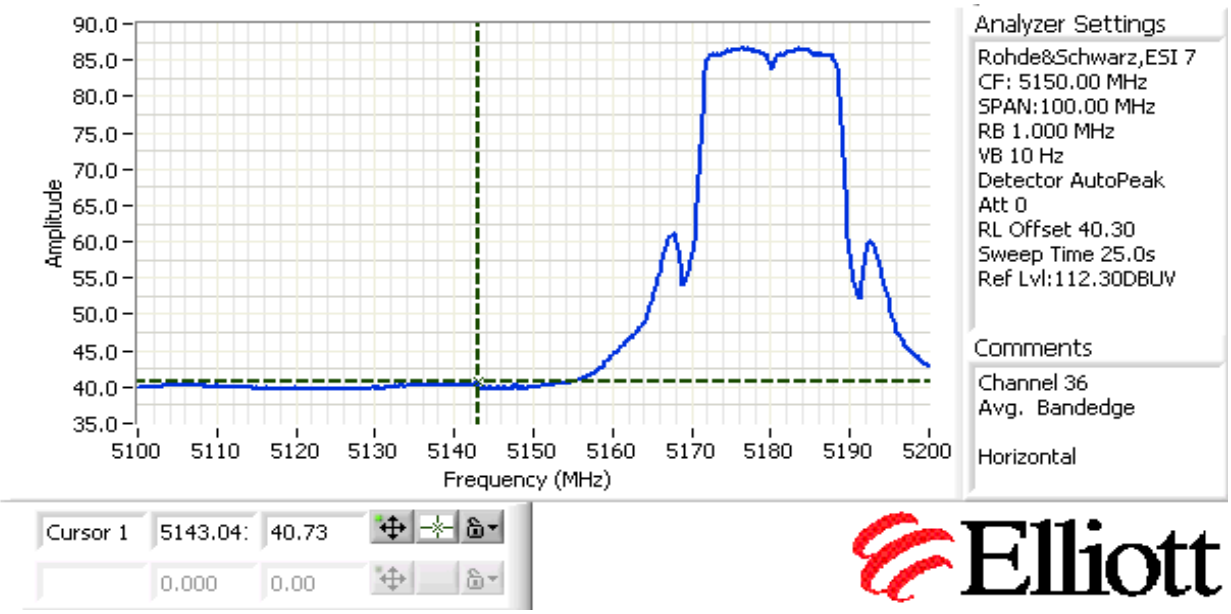
No modifications were made to the EUT during testing

Deviations From The Standard

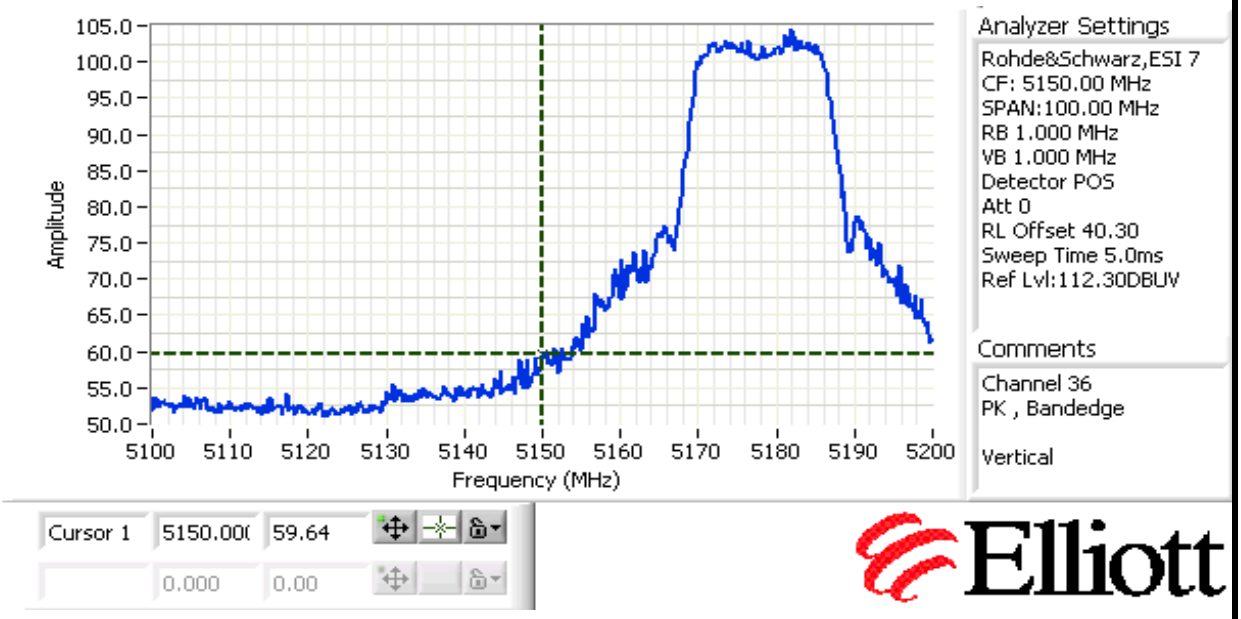
No deviations were made from the requirements of the standard.

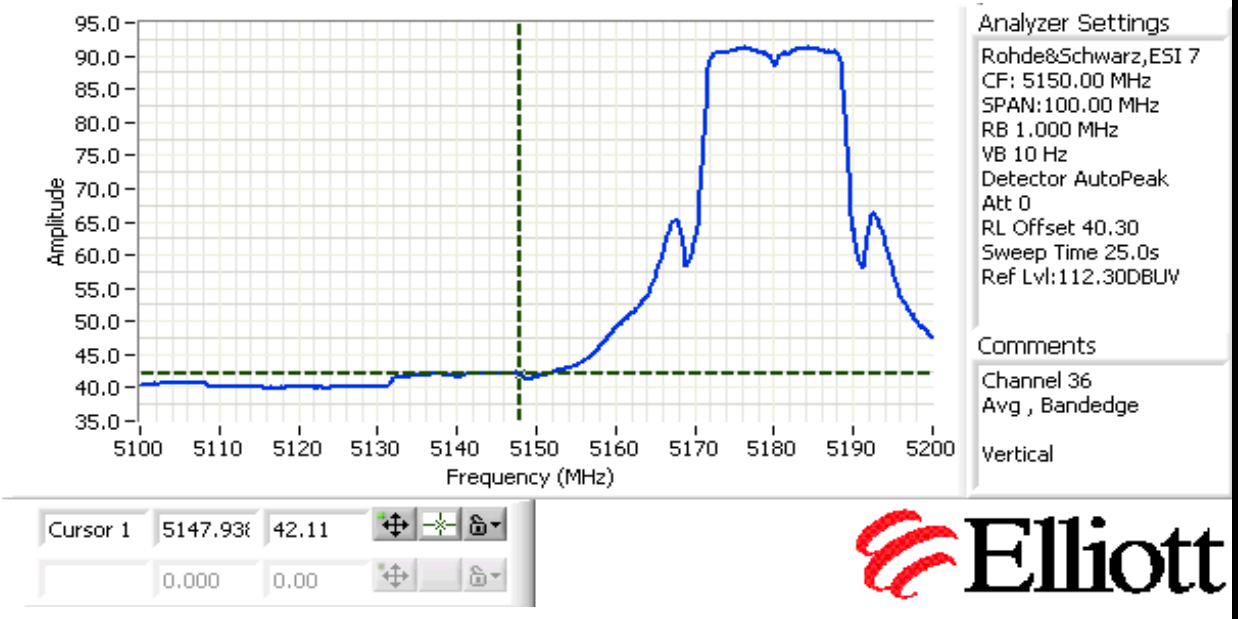
Run #1a: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5180 MHz





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

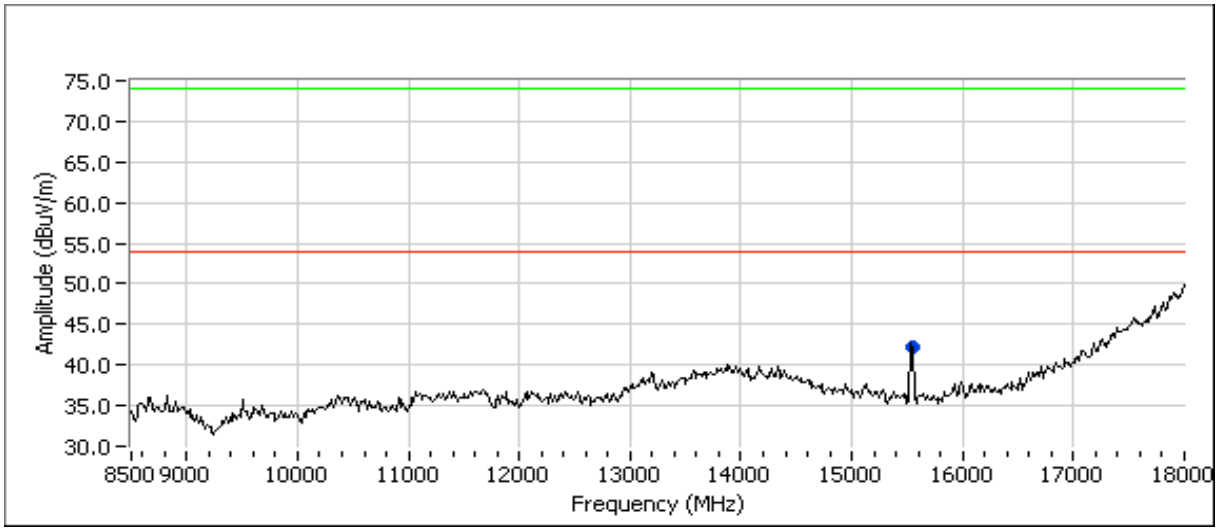




Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5150.0	42.10	V	54.0	-11.9	Avg	175	1.0	
5150.0	40.7	H	54.0	-13.3	Avg	125	1.1	
5150.0	59.60	V	74.0	-14.4	Pk	175	1.0	
5150.0	53.8	H	74.0	-20.2	Pk	125	1.1	



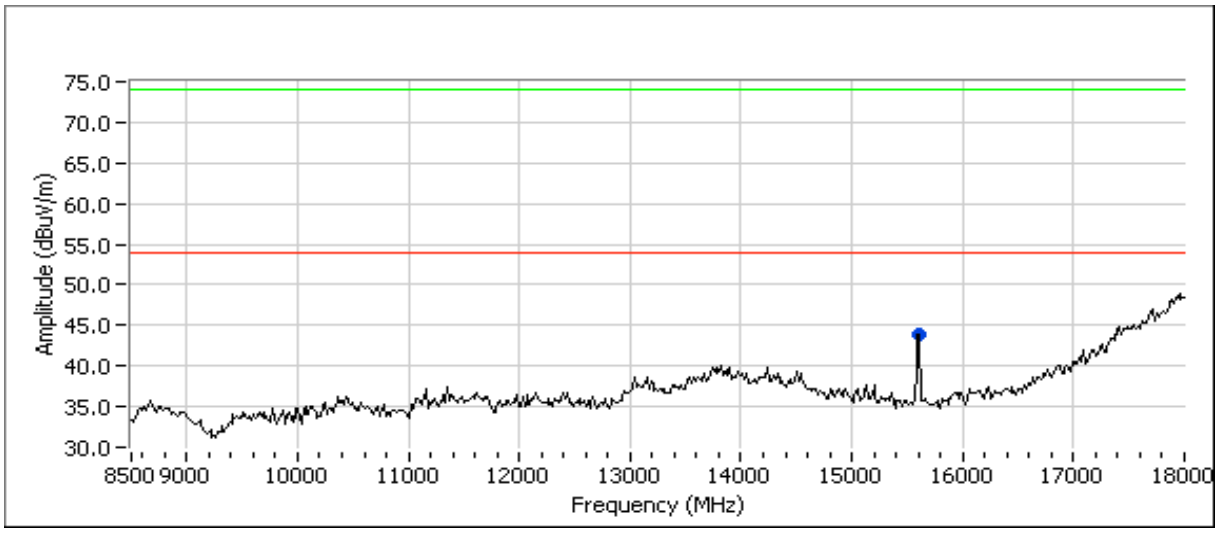
Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
15539.70	42.7	V	54.0	-11.3	AVG	91	1.0	
15539.70	57.6	V	74.0	-16.4	PK	91	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #1b: Radiated Spurious Emissions, 30 - 40000 MHz. Center Channel @ 5200 MHz

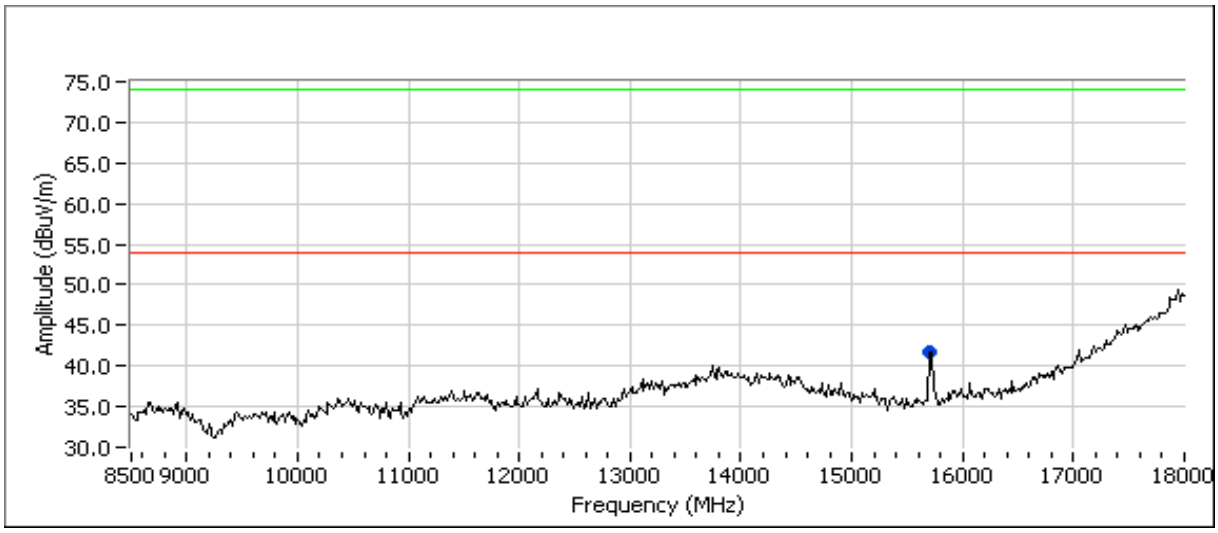


Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
15597.33	41.2	V	54.0	-12.8	AVG	95	1.0	
15597.33	55.6	V	74.0	-18.4	PK	95	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #1c: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5240 MHz



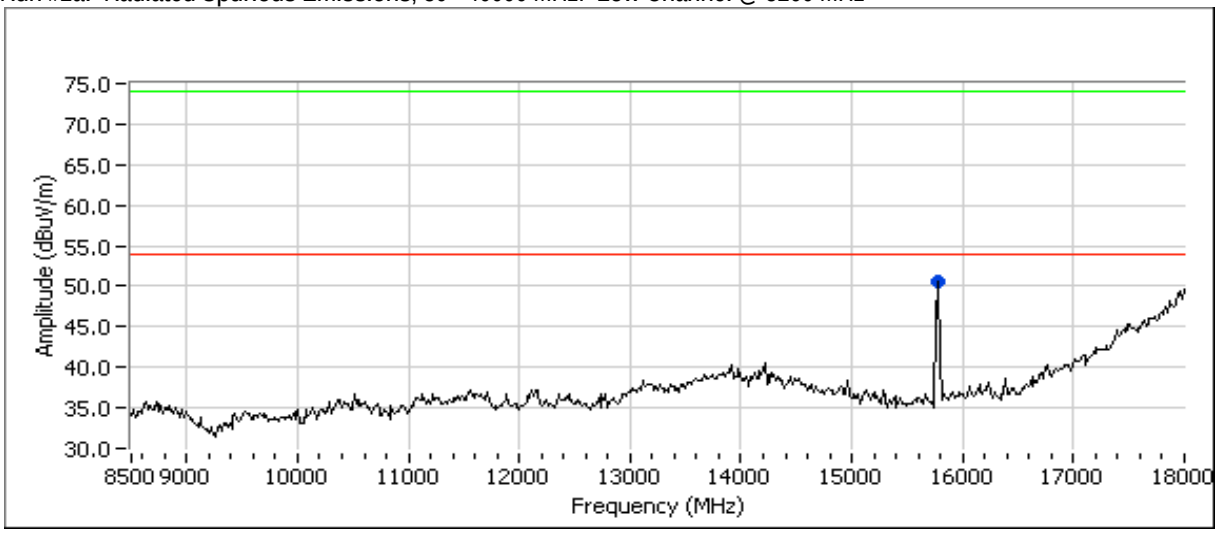
Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
15716.22	39.7	V	54.0	-14.3	AVG	97	1.0	
15716.22	56.8	V	74.0	-17.2	PK	97	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #2a: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5260 MHz

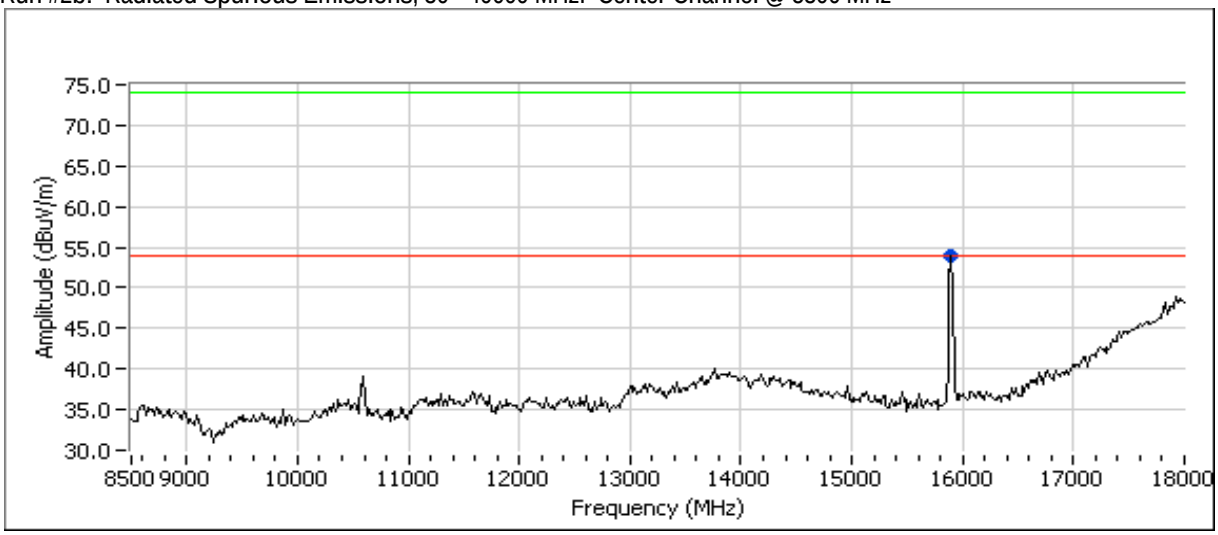


Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
15780.00	49.5	V	54.0	-4.5	AVG	96	1.0	
15780.00	61.9	V	74.0	-12.1	PK	96	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

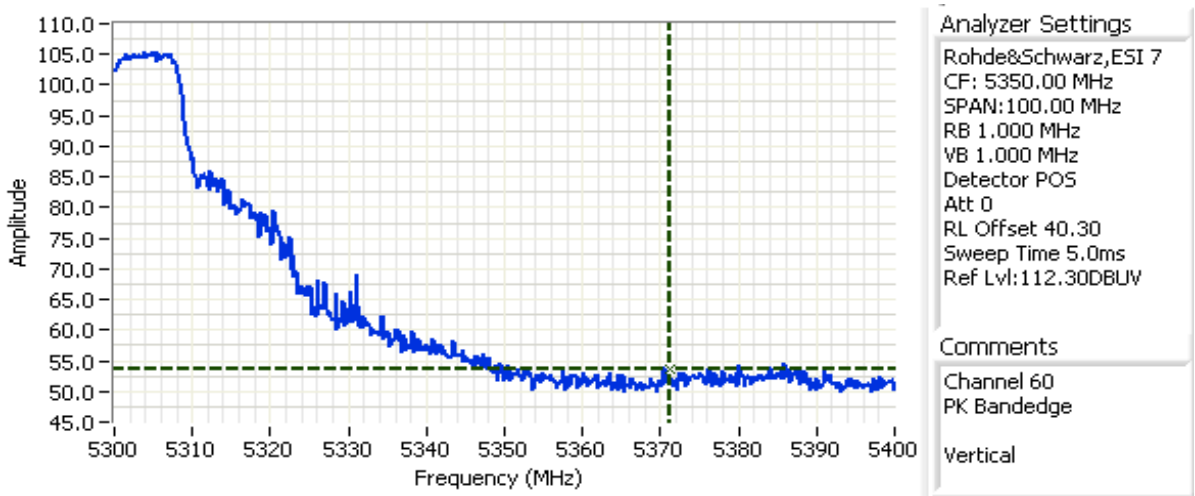
Run #2b: Radiated Spurious Emissions, 30 - 40000 MHz. Center Channel @ 5300 MHz

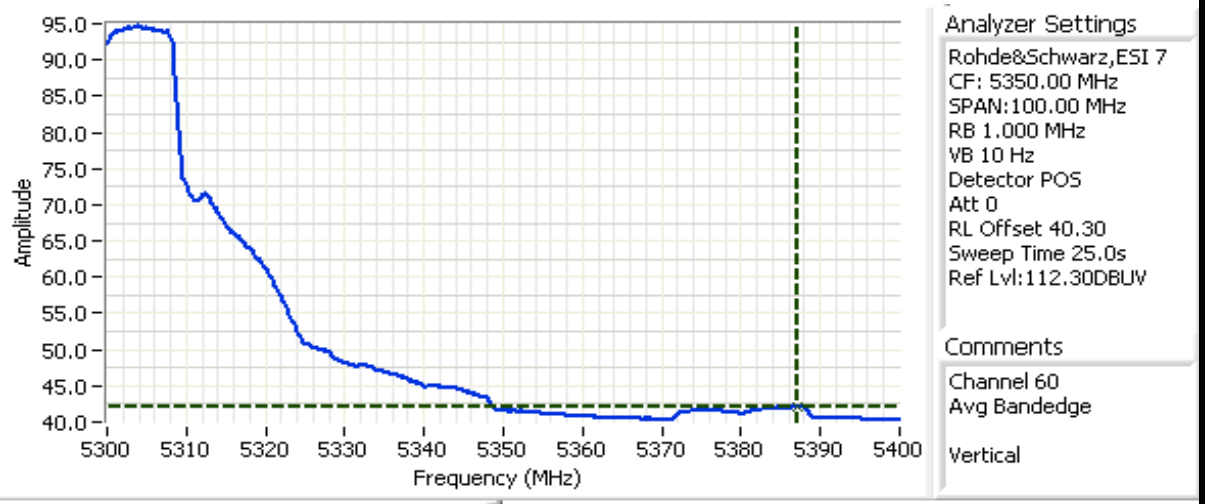


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

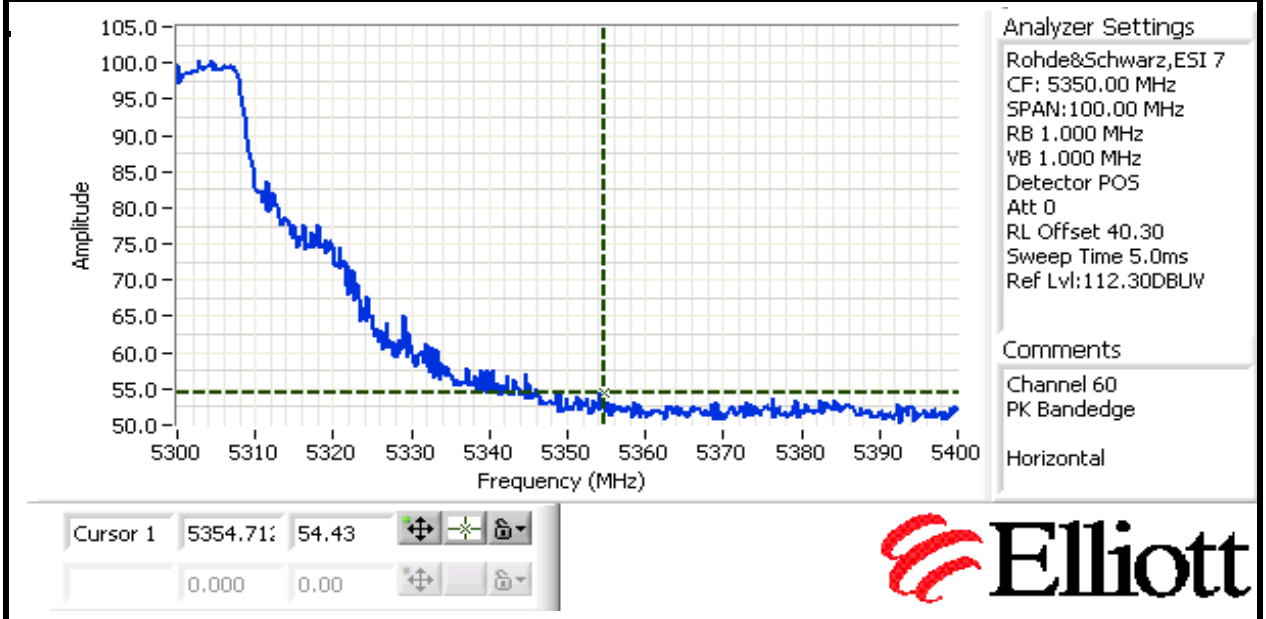
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
15904.31	50.5	V	54.0	-3.5	AVG	96	1.0	
15904.31	64.2	V	74.0	-9.8	PK	96	1.0	

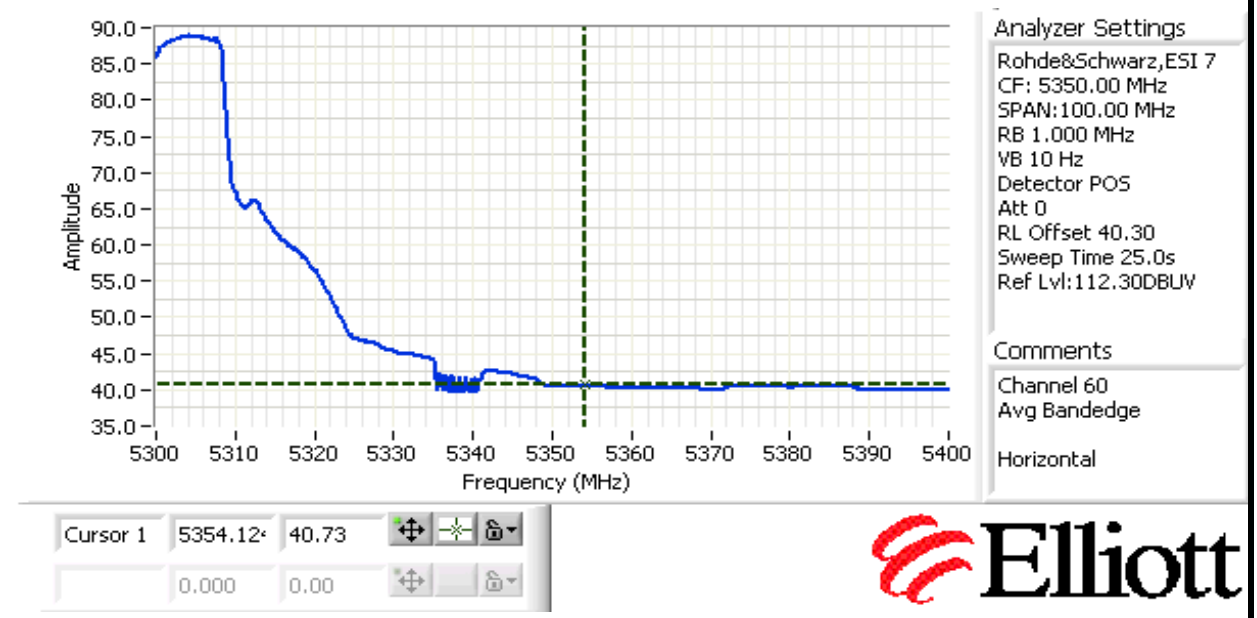
Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



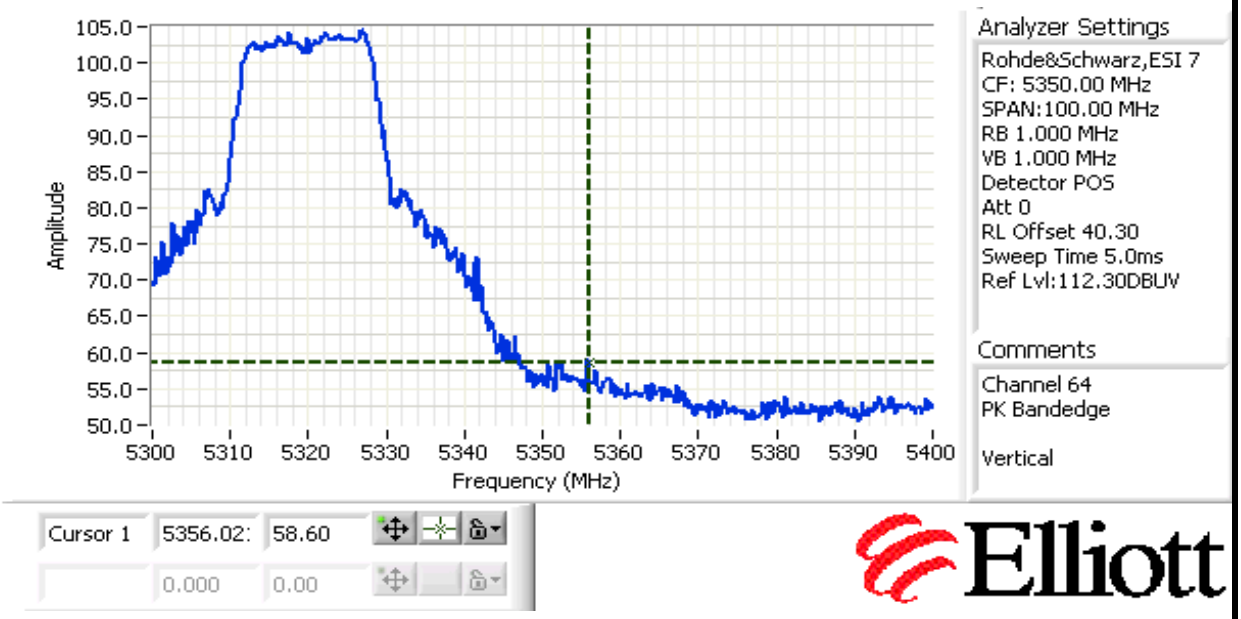


Band Edge Signal Radiated Field Strength

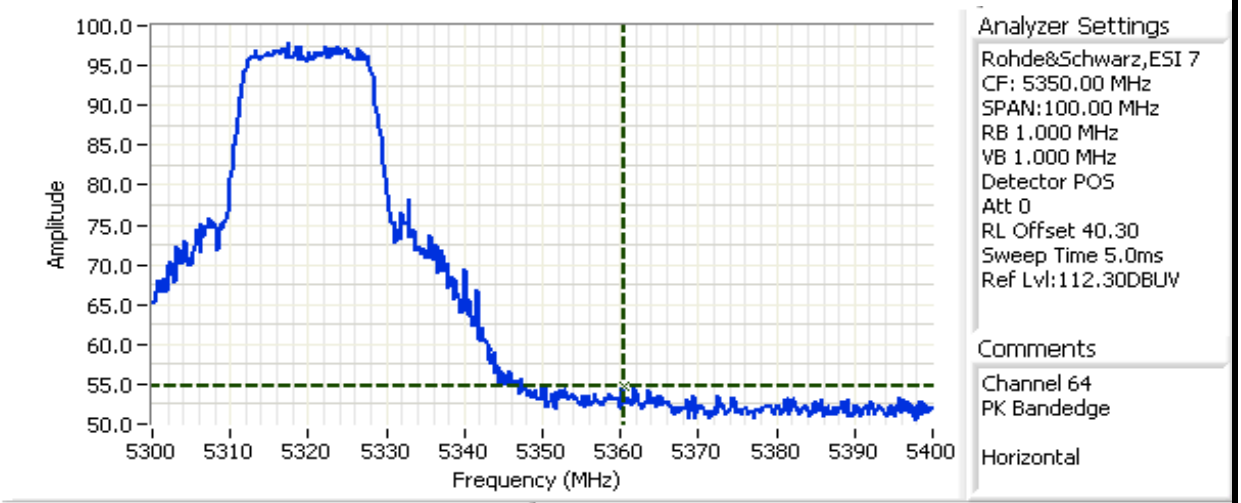
Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.000	41.9	V	54.0	-12.1	Avg	172	1.0	
5350.000	40.4	H	54.0	-13.6	Avg	180	1.0	
5350.000	54.4	H	74.0	-19.6	Pk	180	1.0	
5350.000	53.7	V	74.0	-20.3	Pk	172	1.0	

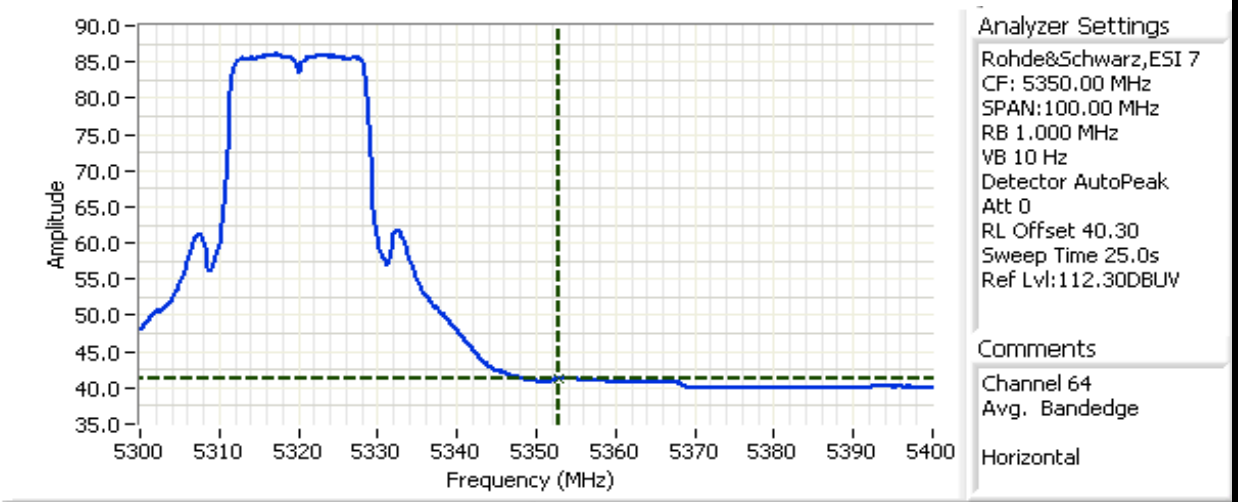
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #2c: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5320 MHz



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

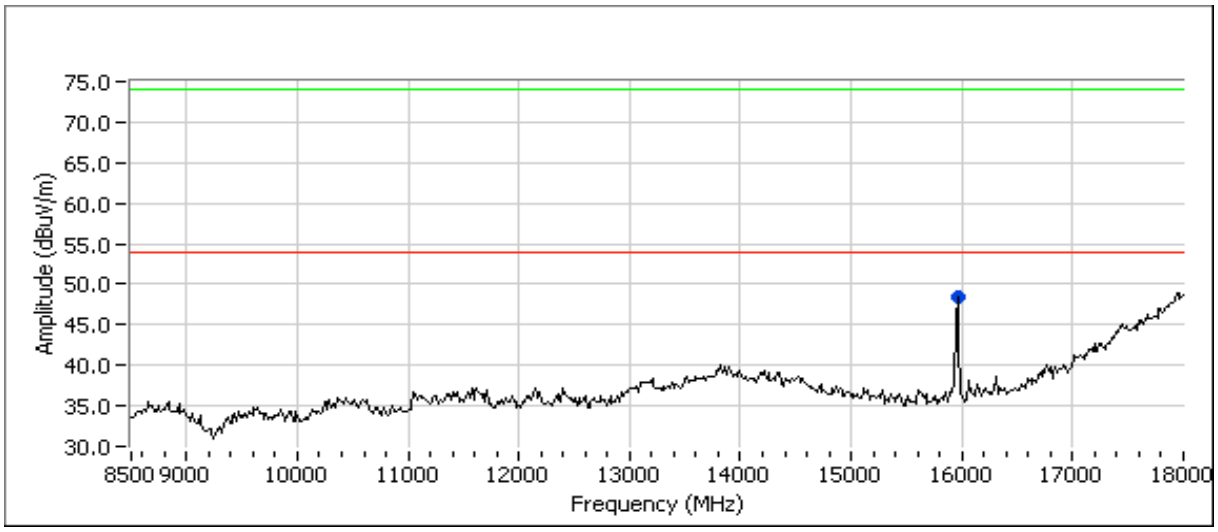




Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.00	43.5	V	54.0	-10.5	Avg	142	1.0	
5350.00	41.2	H	54.0	-12.8	Avg	210	1.0	
5350.00	58.7	V	74.0	-15.3	Pk	142	1.0	
5350.00	54.7	H	74.0	-19.3	Pk	210	1.0	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



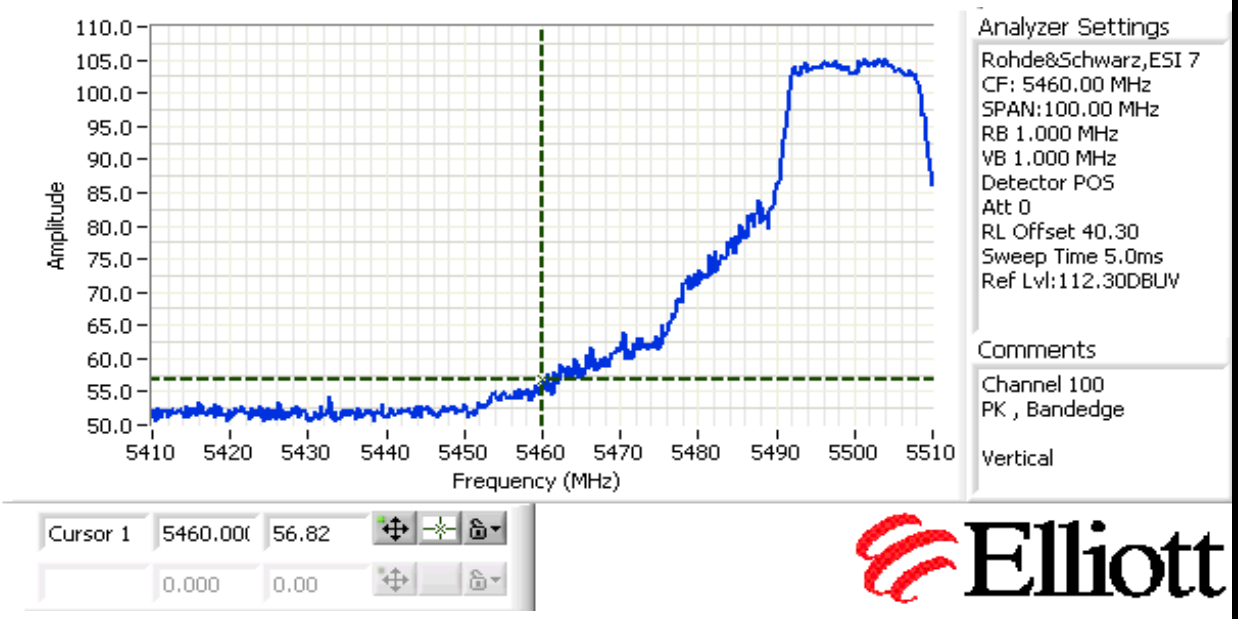
Other Spurious Radiated Emissions:

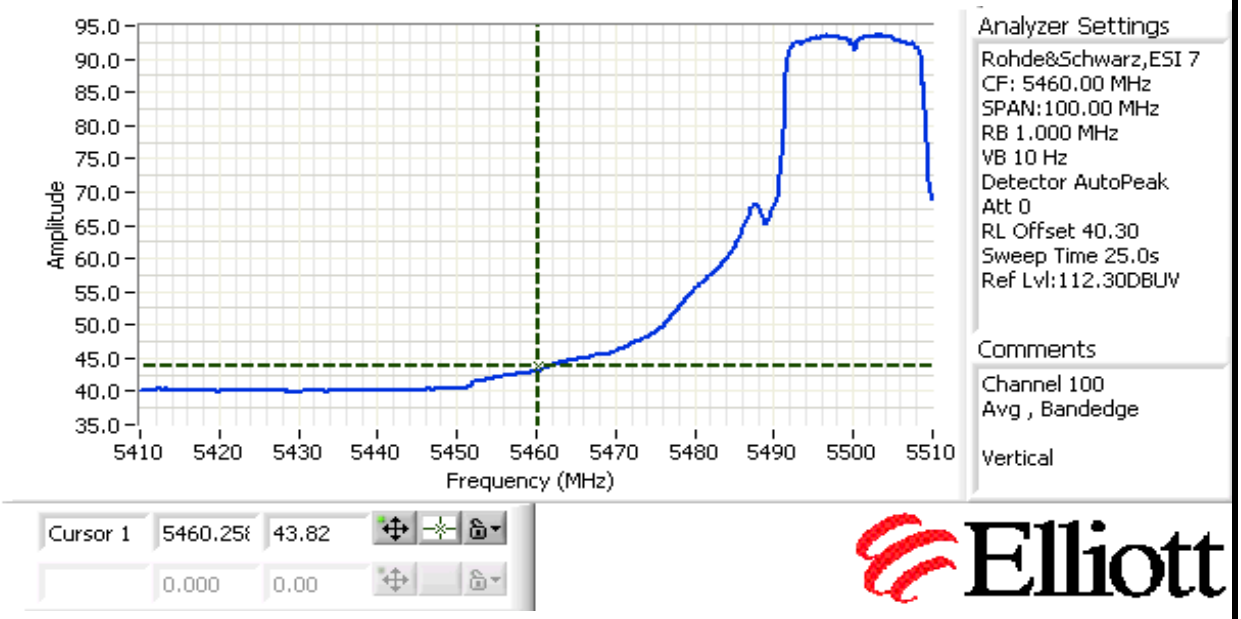
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
15962.85	45.4	V	54.0	-8.6	AVG	95	1.0	
15962.85	61.0	V	74.0	-13.0	PK	95	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

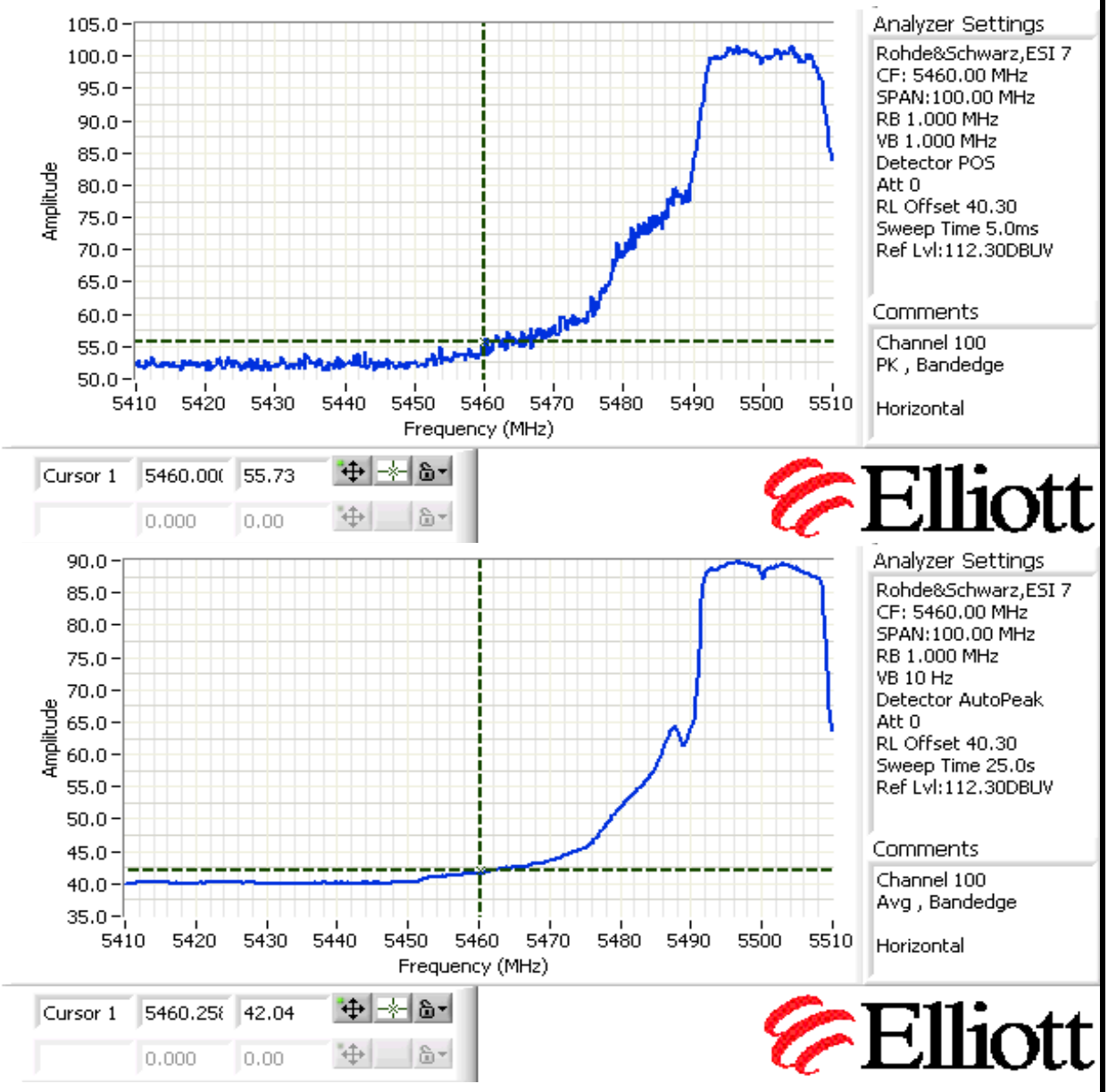
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #3a: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5500 MHz





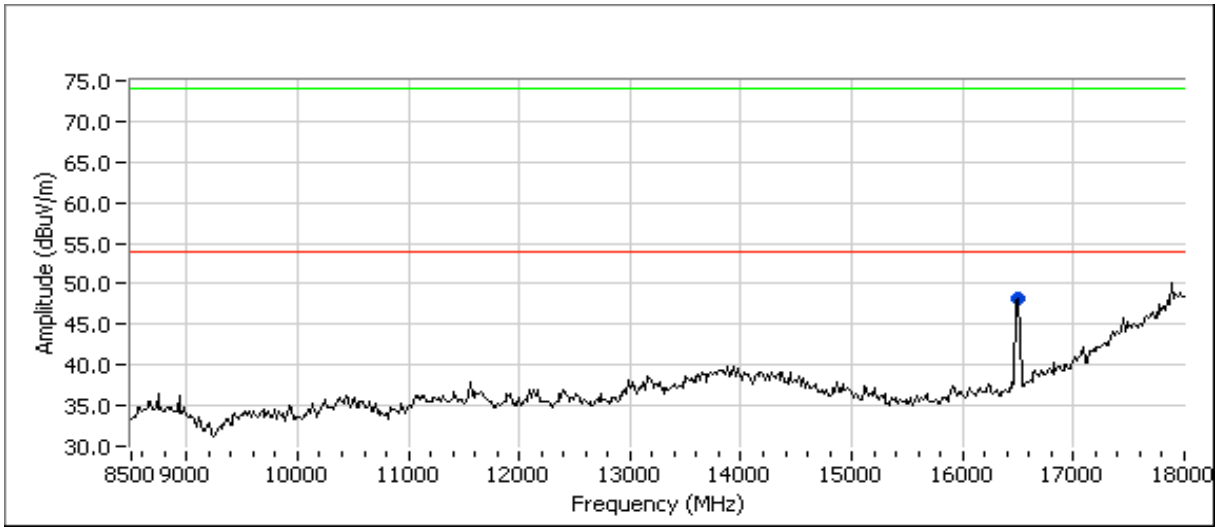
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5460.000	43.8	V	54.0	-10.2	Avg	177	1.0	
5460.000	42.0	H	54.0	-12.0	Avg	116	1.1	
5460.000	56.8	V	74.0	-17.2	Pk	177	1.0	
5460.000	55.7	H	74.0	-18.3	Pk	116	1.1	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

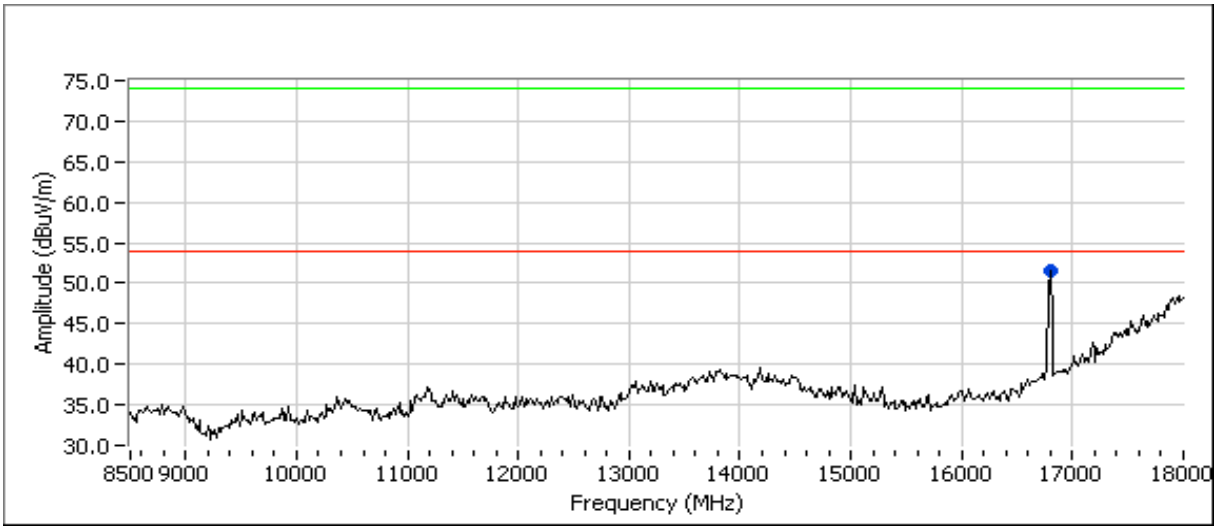


Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
16491.92	45.8	V	54.0	-8.2	AVG	90	1.0	Unrestricted with restricted limit.
16491.92	44.3	V	74.0	-29.7	PK	90	1.0	Unrestricted with restricted limit.

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Run #3b: Radiated Spurious Emissions, 30 - 40000 MHz. Center Channel @ 5600 MHz



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
16801.82	49.2	V	54.0	-4.8	AVG	85	1.0	Unrestricted with restricted limit.
16801.82	62.7	V	74.0	-11.3	PK	85	1.0	Unrestricted with restricted limit.

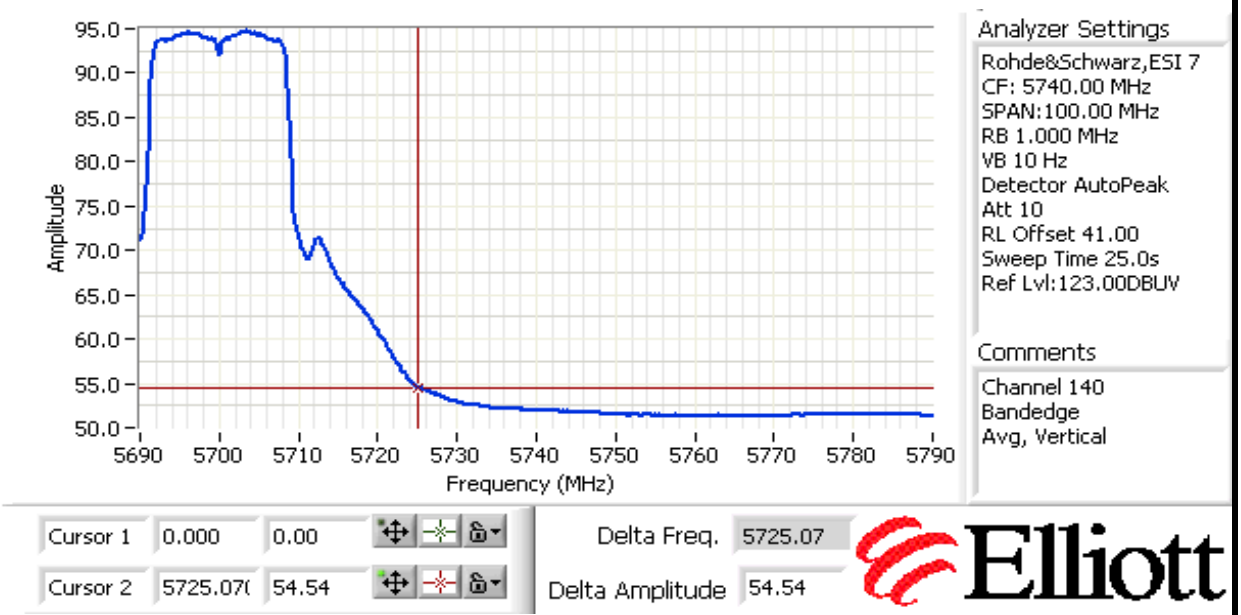
Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Run #3c: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5700 MHz

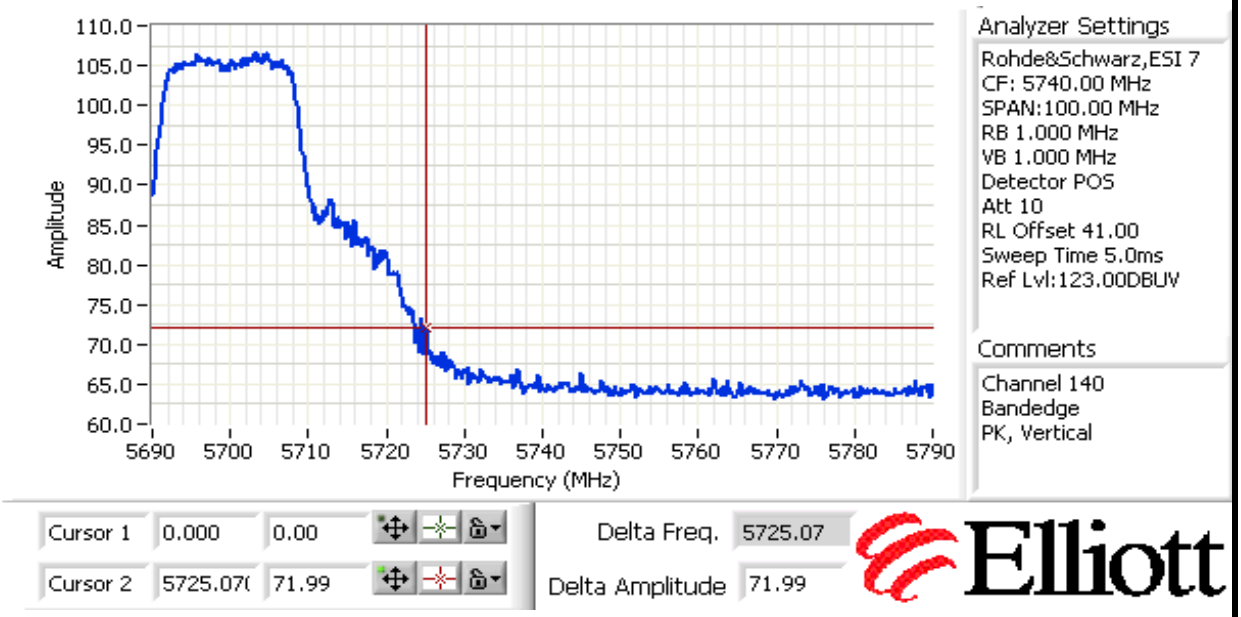
Band Edge Signal Radiated Field Strength

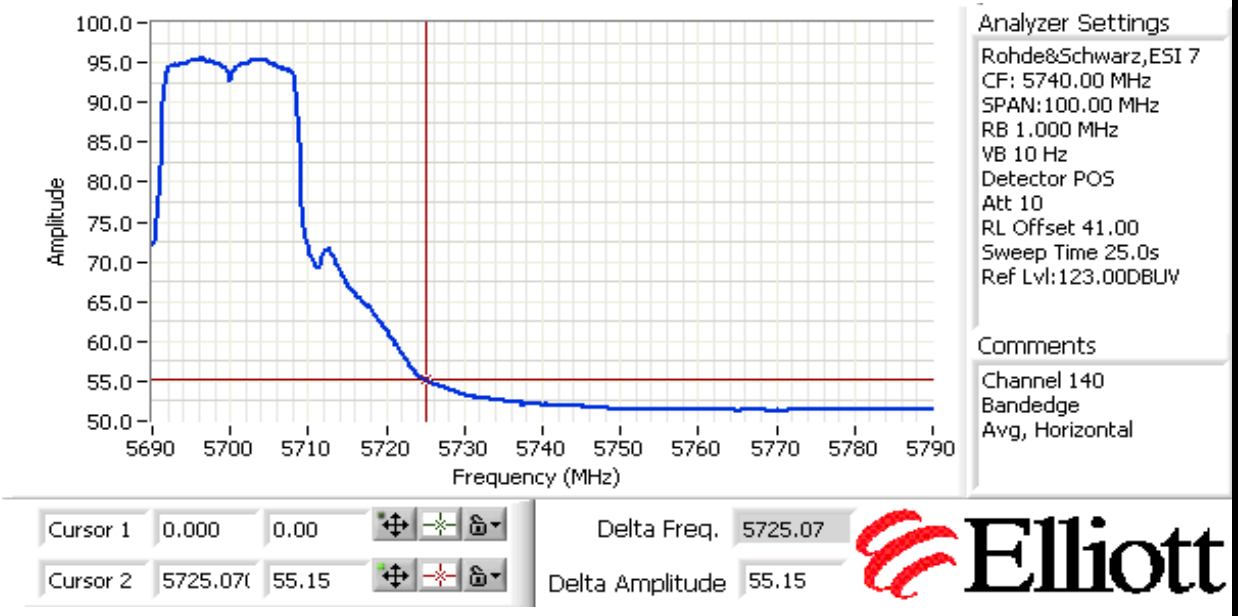
Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5725.070	55.2	H	68.3	-13.2	Avg	79	1.2	Note 1
5725.070	54.5	V	68.3	-13.8	Avg	203	1.1	Note 1
5725.270	73.0	H	88.3	-15.3	Pk	79	1.2	Note 1
5725.070	72.0	V	88.3	-16.3	Pk	203	1.1	Note 1

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

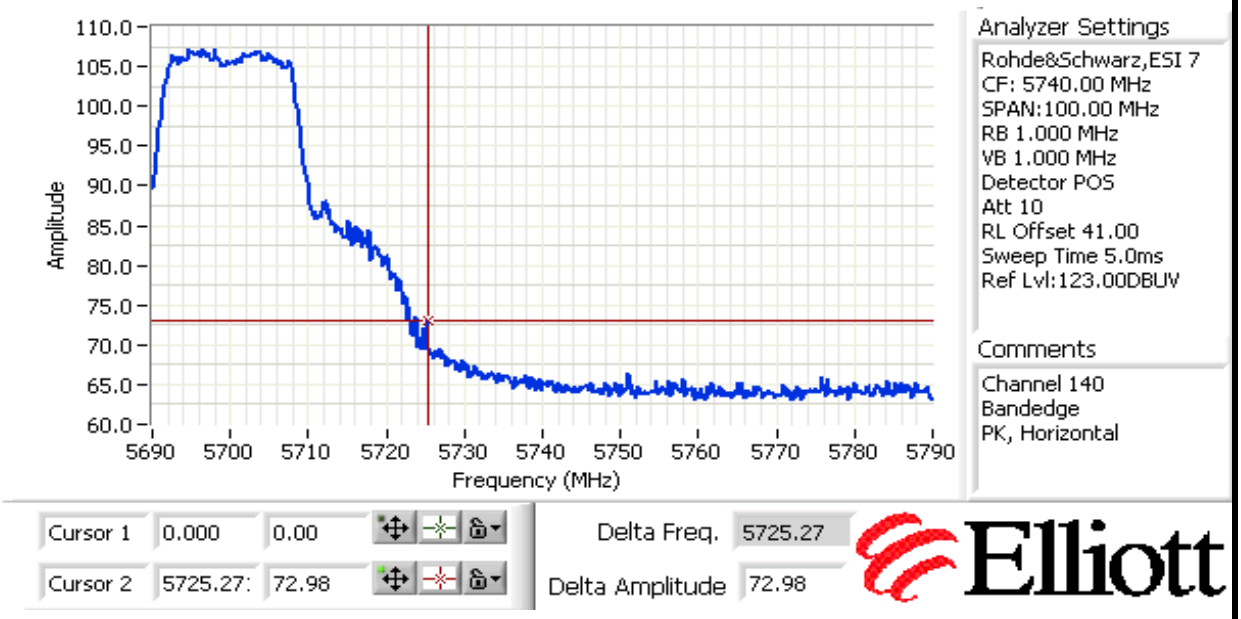


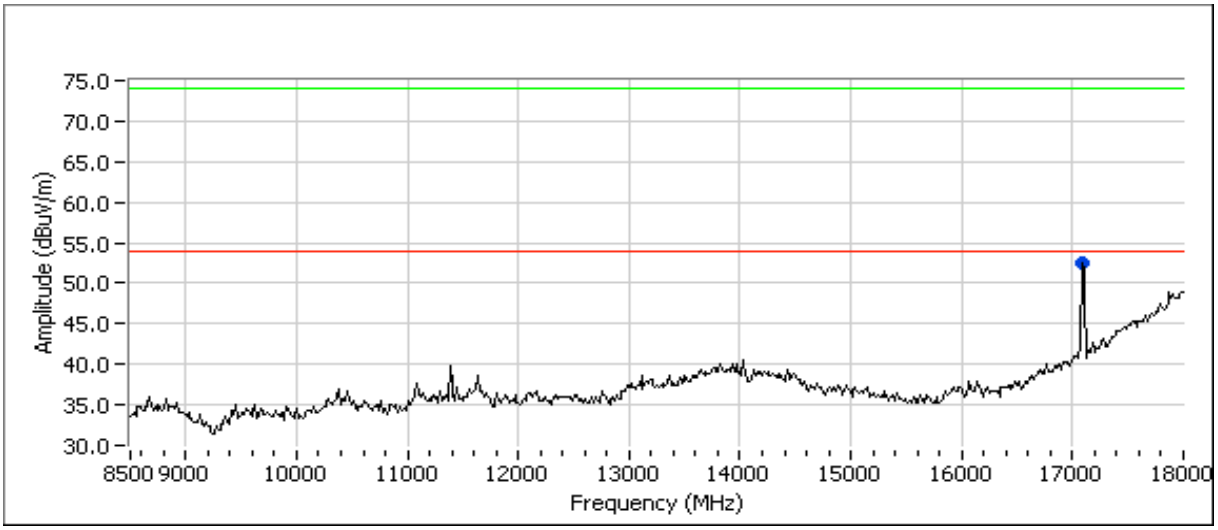
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A





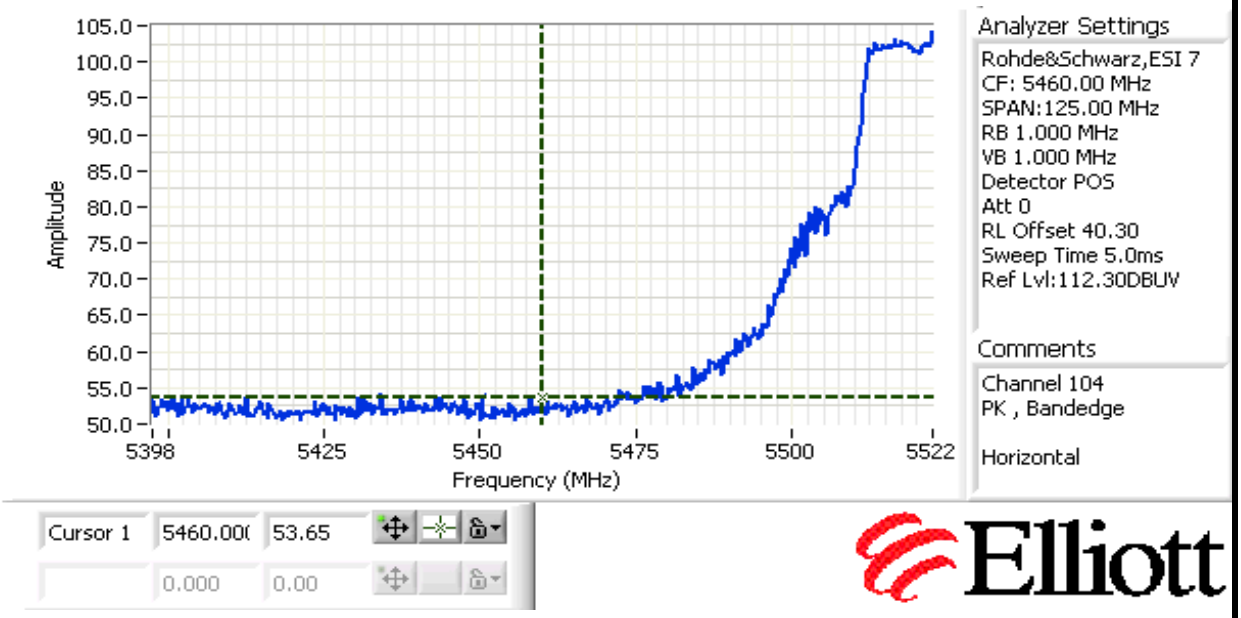
Other Spurious Radiated Emissions:

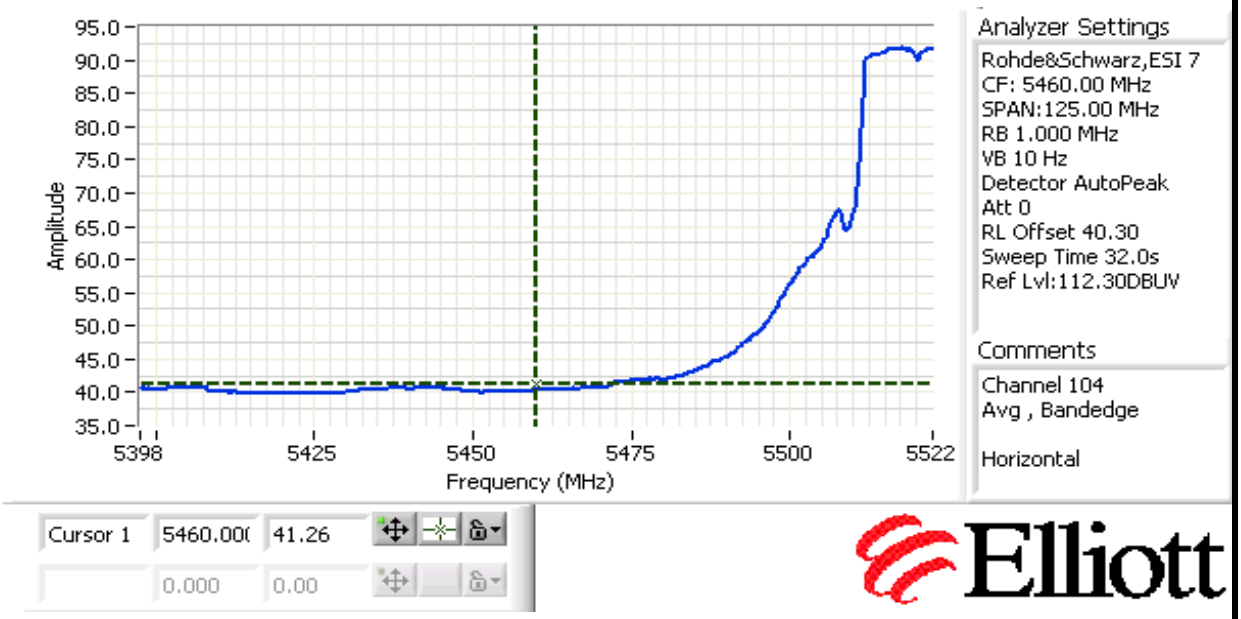
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
17097.52	48.9	V	54.0	-5.1	AVG	77	1.0	Unrestricted with restricted limit.
17097.52	67.5	V	74.0	-6.5	PK	77	1.0	Unrestricted with restricted limit.

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

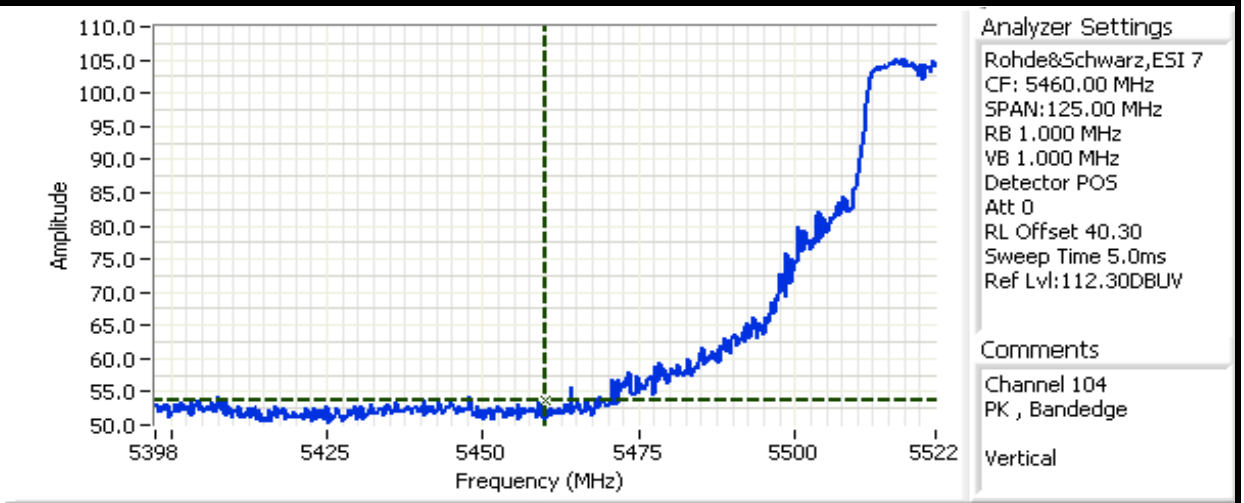
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

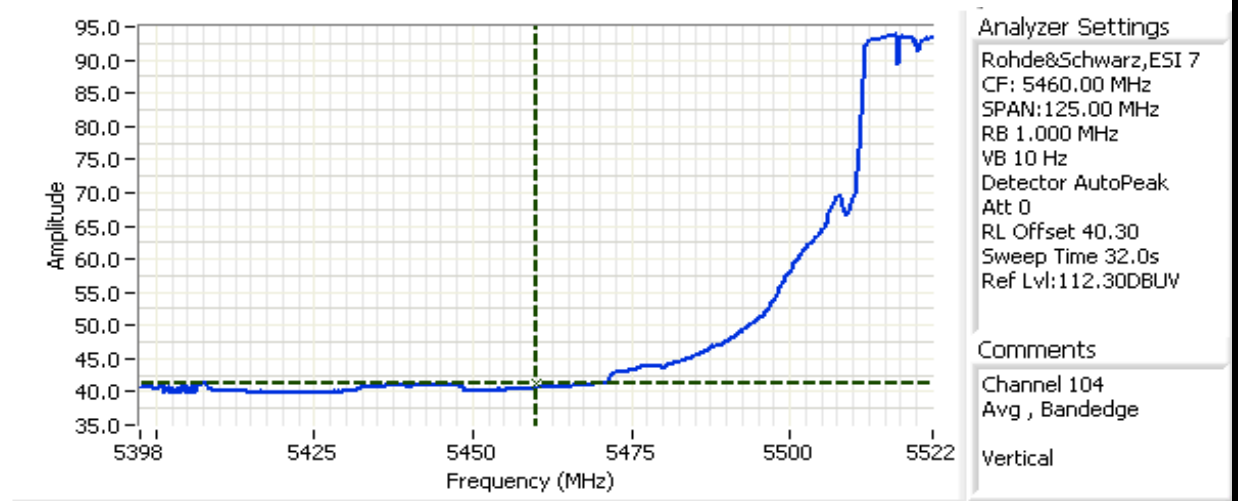
Run #3d: Radiated Spurious Emissions, 30 - 40000 MHz. Channel @ 5520 MHz





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

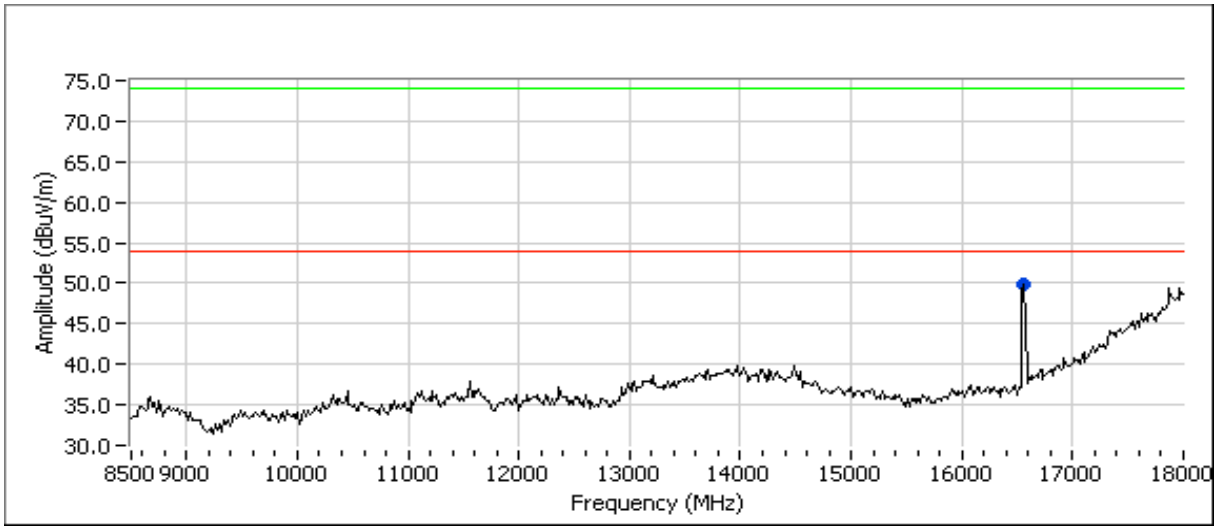




Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5460.000	41.3	H	54.0	-12.7	Avg	117	1.2	
5460.000	41.3	V	54.0	-12.7	Avg	167	1.3	
5460.000	53.7	H	74.0	-20.3	Pk	117	1.2	
5460.000	53.7	V	74.0	-20.3	Pk	167	1.3	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
16563.47	47.2	V	54.0	-6.8	AVG	86	1.0	
16563.47	61.2	V	74.0	-12.8	PK	86	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Radiated 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:
Test Engineer:
Test Location:

Config. Used: 1
Config Change: -
Host EUT Voltage: 120V/ 60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. Unless otherwise stated, all peak measurements were taken with RBW=VBW=1 MHz and for average with RBW=1 MHz, VBW=10 Hz.

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

Ambient Conditions:

Temperature: 16 °C
Rel. Humidity: 42 %

Summary of Results

Run #1	TX Mode	Channel	Power Setting	Pass/Fail	Margin
1a	20 MHz CDD	36	-	Pass	42.0dBµV/m (126.5µV/m) @ 5150.0MHz (-12.0dB)
1b	20 MHz CDD	40	-	Pass	<20dB below limit
1c	20 MHz CDD	48	-	Pass	<20dB below limit
2a	20 MHz CDD	52	-	Pass	42.4dBµV/m (131.8µV/m) @ 15779.5MHz (-11.6dB)
2b	20 MHz CDD	60	-	Pass	46.1dBµV/m (201.8µV/m) @ 15899.2MHz (-7.9dB)
2c	20 MHz CDD	64	-	Pass	45.0dBµV/m (176.8µV/m) @ 5350.0MHz (-9.1dB)
3a	20 MHz CDD	100	-	Pass	45.7dBµV/m (192.5µV/m) @ 5460.0MHz (-8.3dB)
3b	20 MHz CDD	104	-	Pass	42.7dBµV/m (136.6µV/m) @ 5460.0MHz (-11.3dB)
3c	20 MHz CDD	120	-	Pass	50.2dBµV/m (323.6µV/m) @ 16802.2MHz (-18.1dB)
3d	20 MHz CDD	140	-	Pass	59.7dBµV/m (960.5µV/m) @ 5725.1MHz (-8.7dB)

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

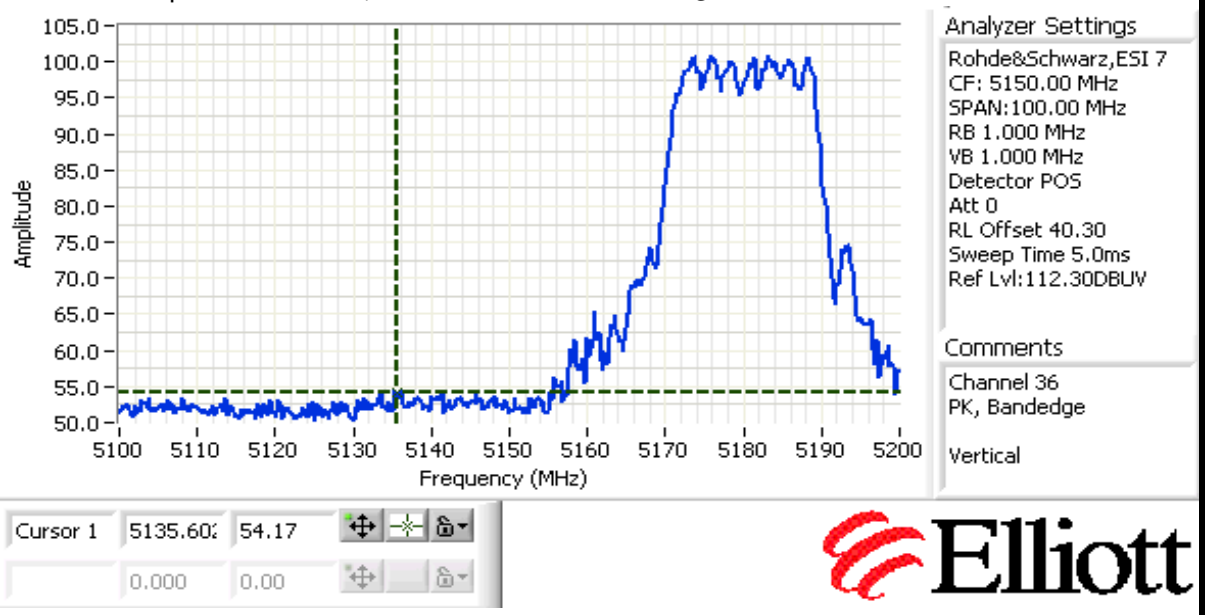
Modifications Made During Testing

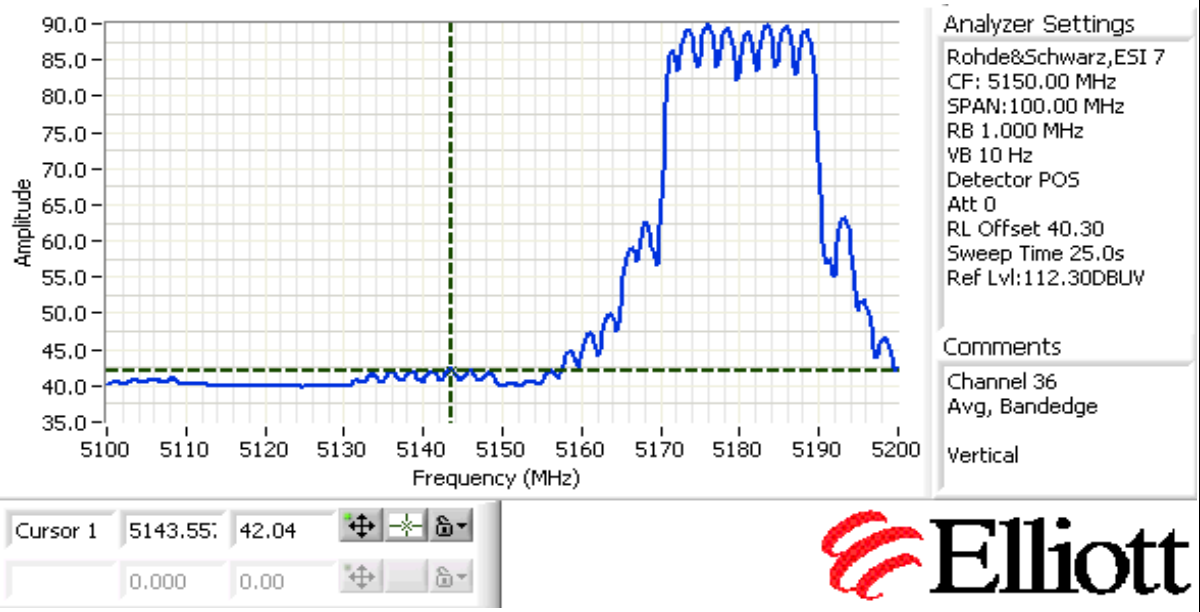
No modifications were made to the EUT during testing

Deviations From The Standard

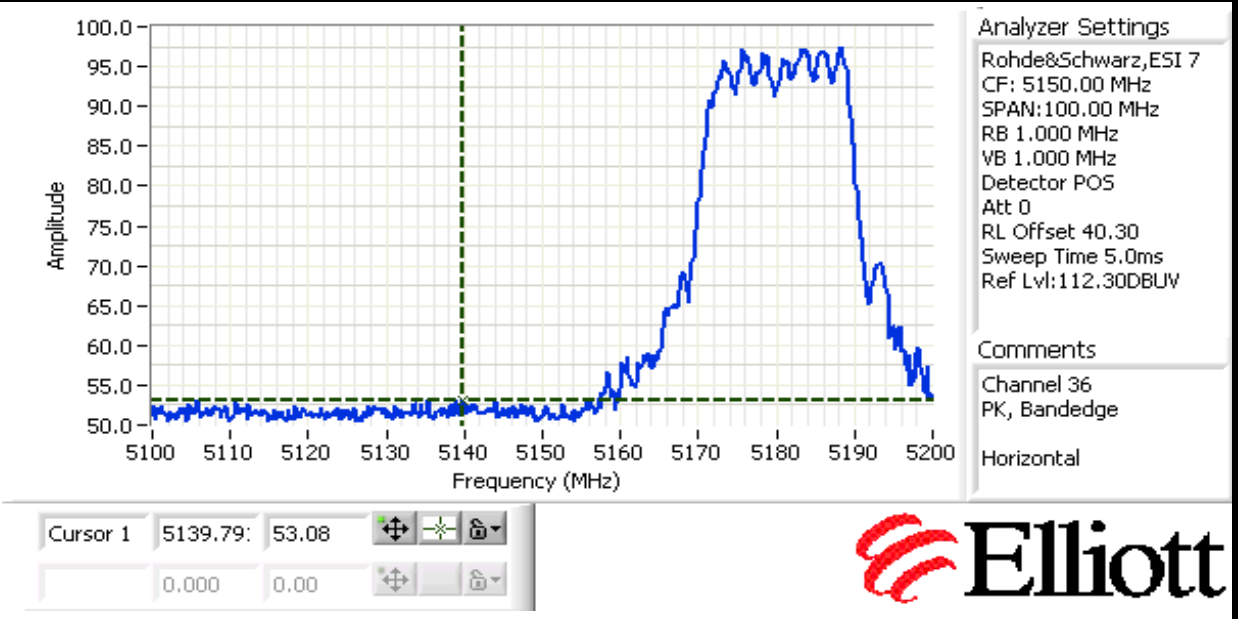
No deviations were made from the requirements of the standard.

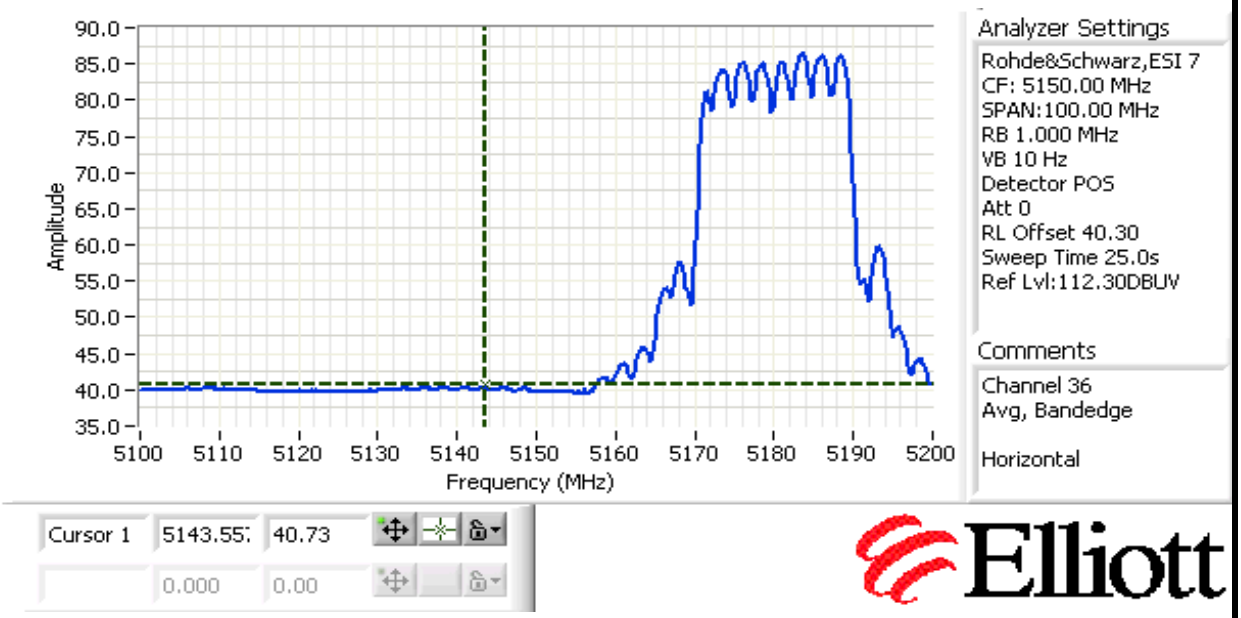
Run #1a: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5180 MHz





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

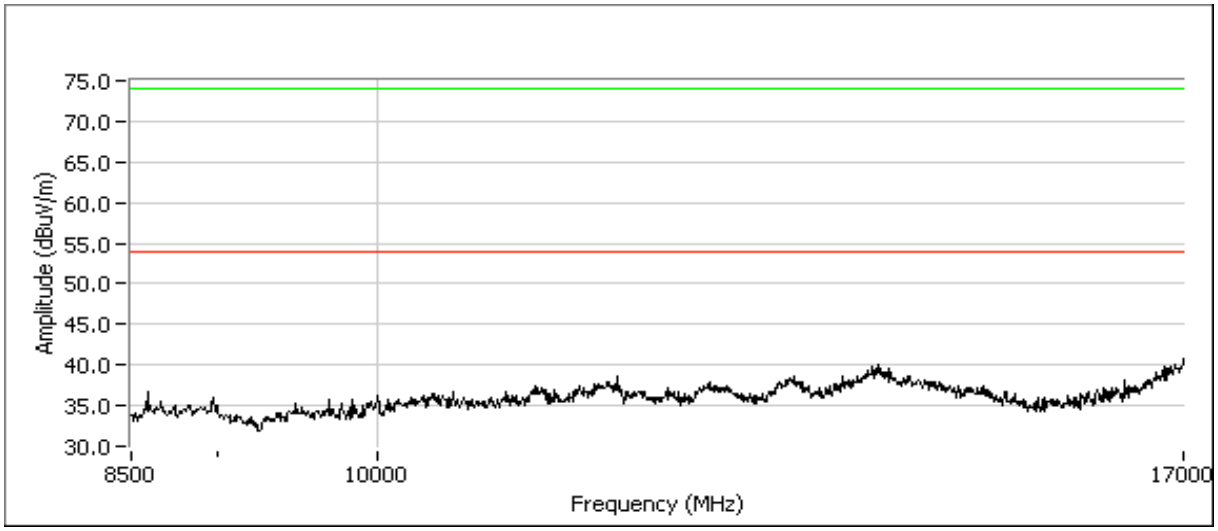




Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
5150.000	42.0	V	54.0	-12.0	Avg	135	1.0	
5150.000	40.7	H	54.0	-13.3	Avg	240	1.0	
5150.000	54.2	V	74.0	-19.8	Pk	135	1.0	
5150.000	53.1	H	74.0	-20.9	Pk	240	1.0	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

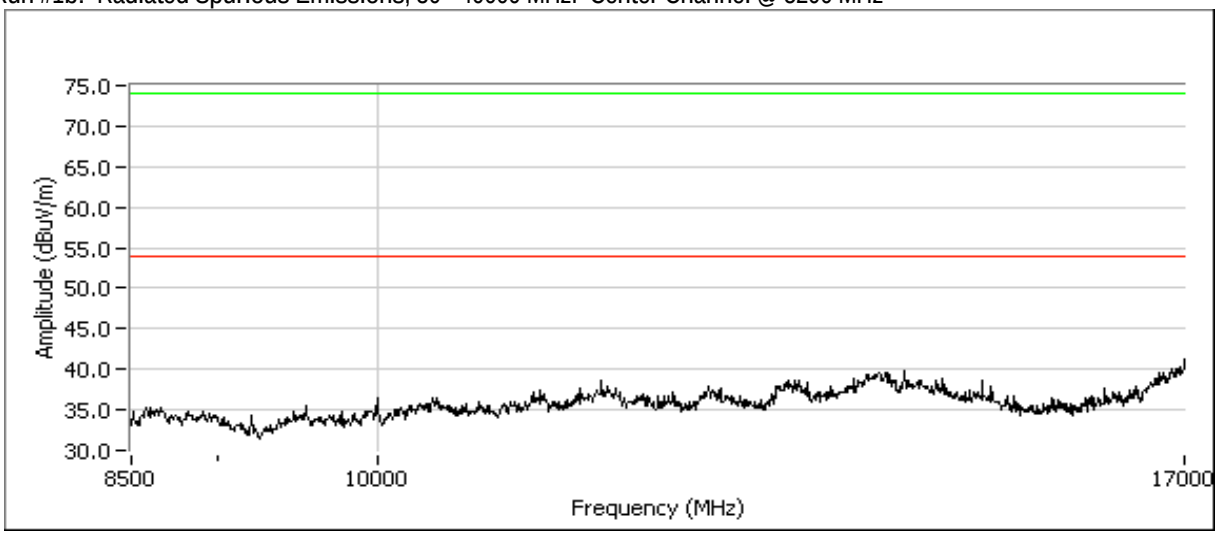


Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
All signals were more than 20dB below the limit.								

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

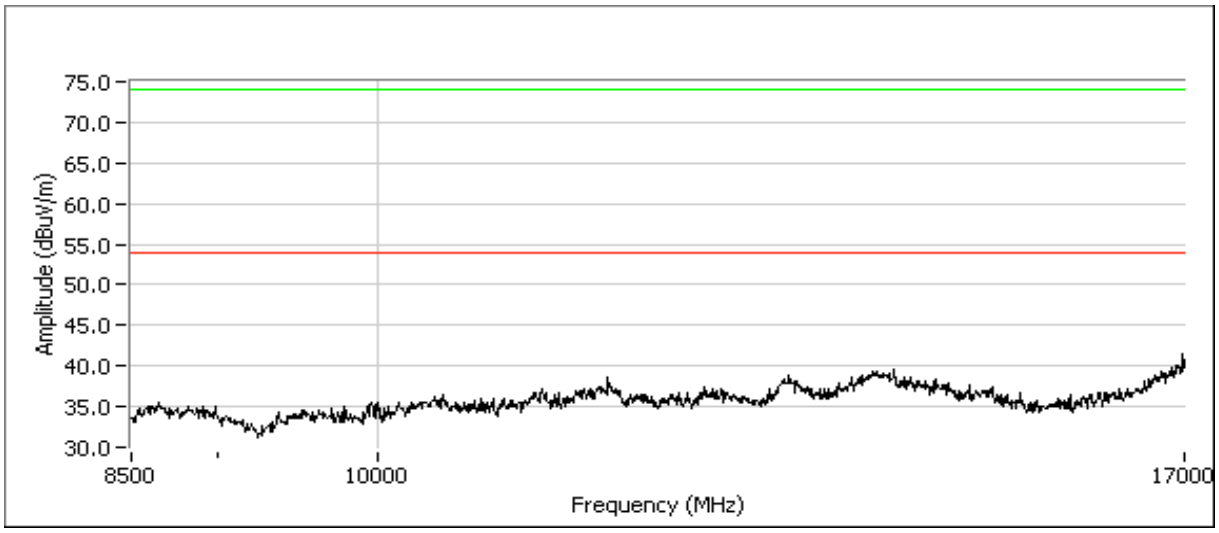
Run #1b: Radiated Spurious Emissions, 30 - 40000 MHz. Center Channel @ 5200 MHz



Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
All signals were more than 20dB below the limit.								

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #1c: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5240 MHz

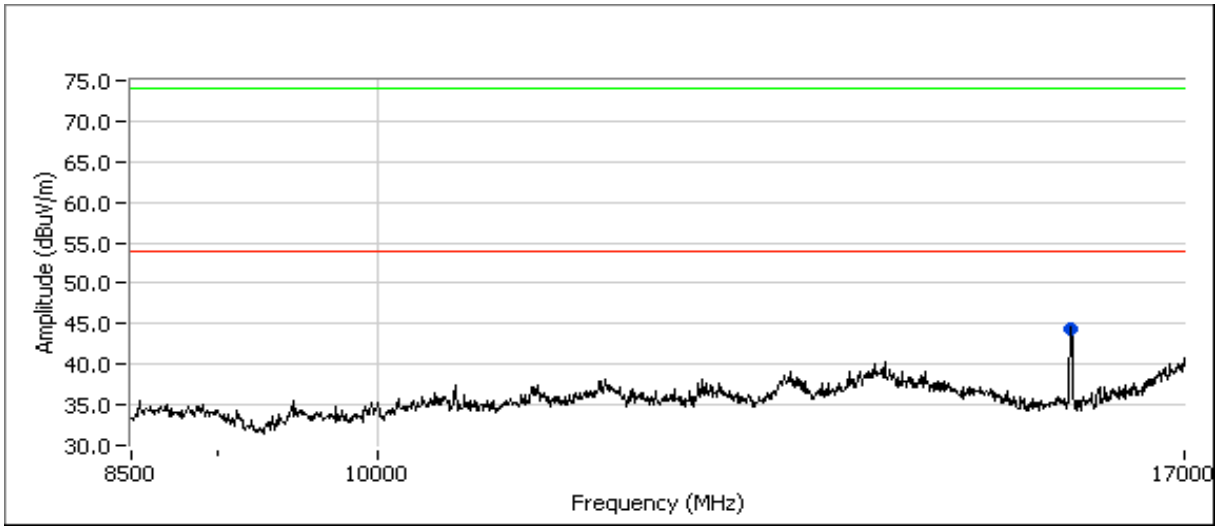


Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
All signals were more than 20dB below the limit.								

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #2a: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5260 MHz

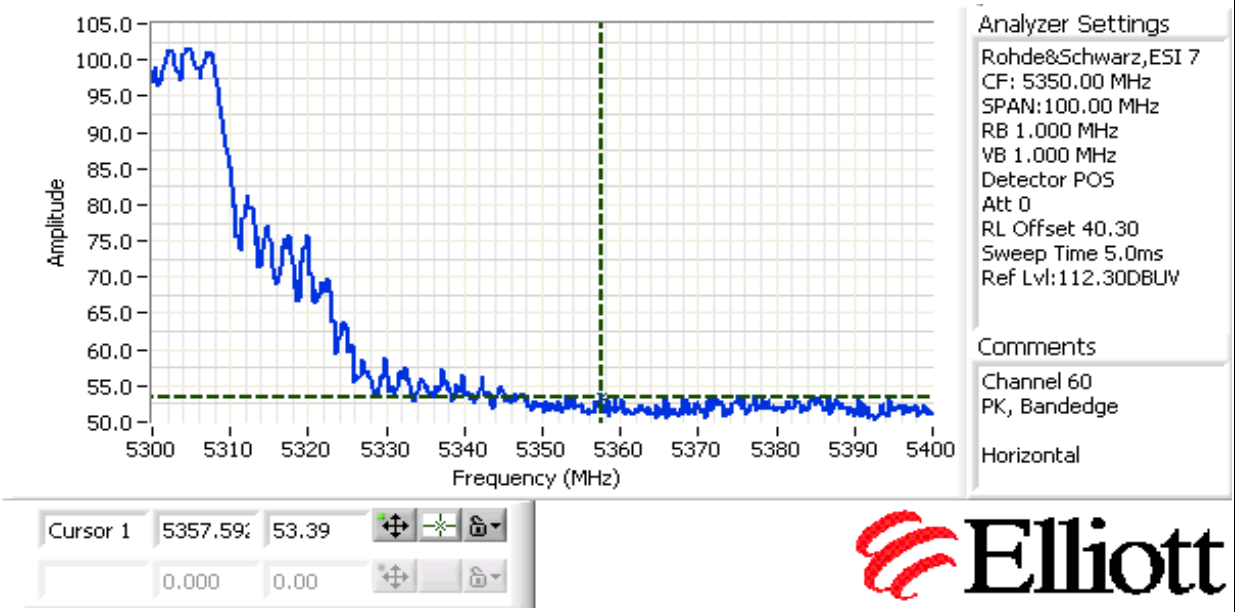


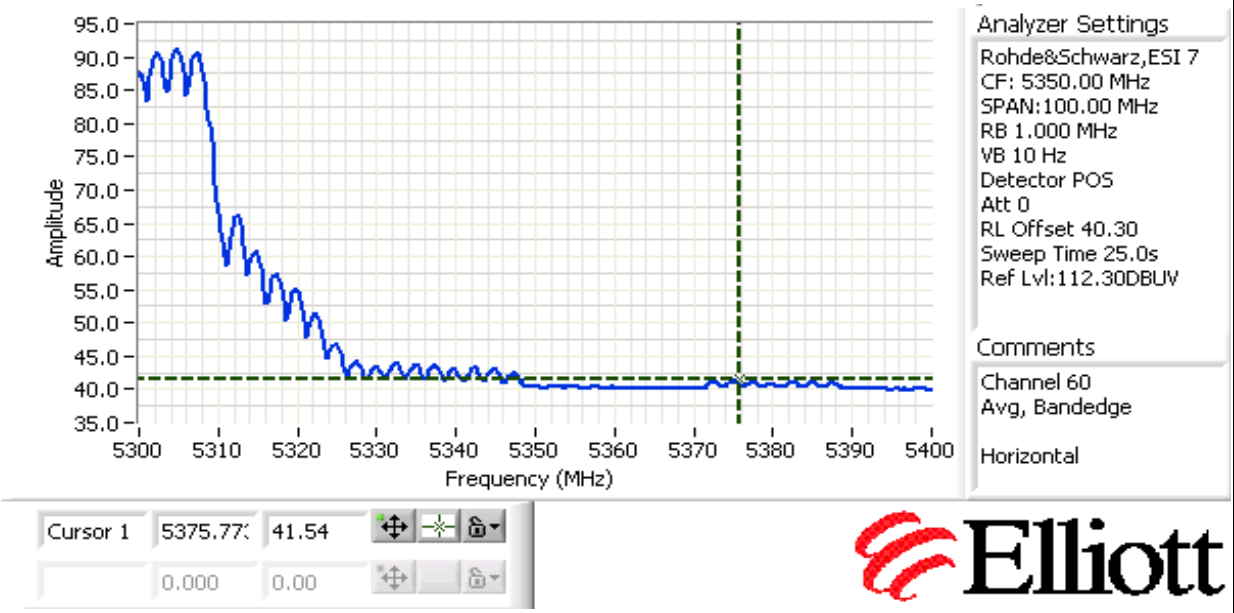
Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
15779.50	42.4	V	54.0	-11.6	AVG	270	1.0	
15779.50	56.8	V	74.0	-17.2	PK	270	1.0	

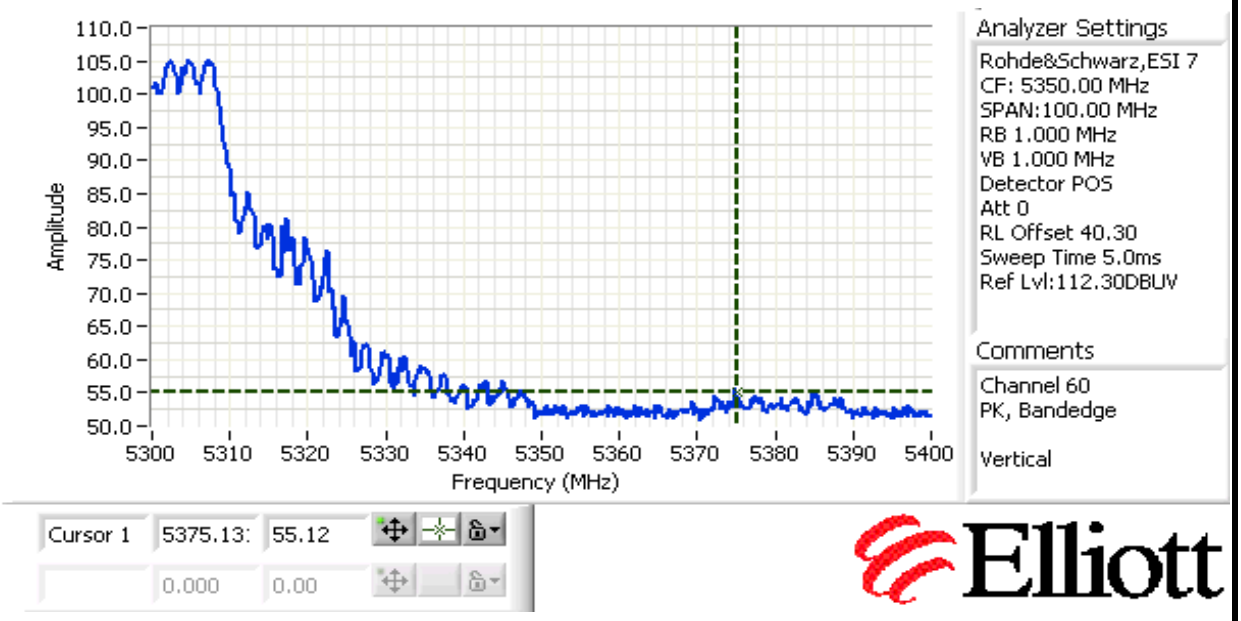
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

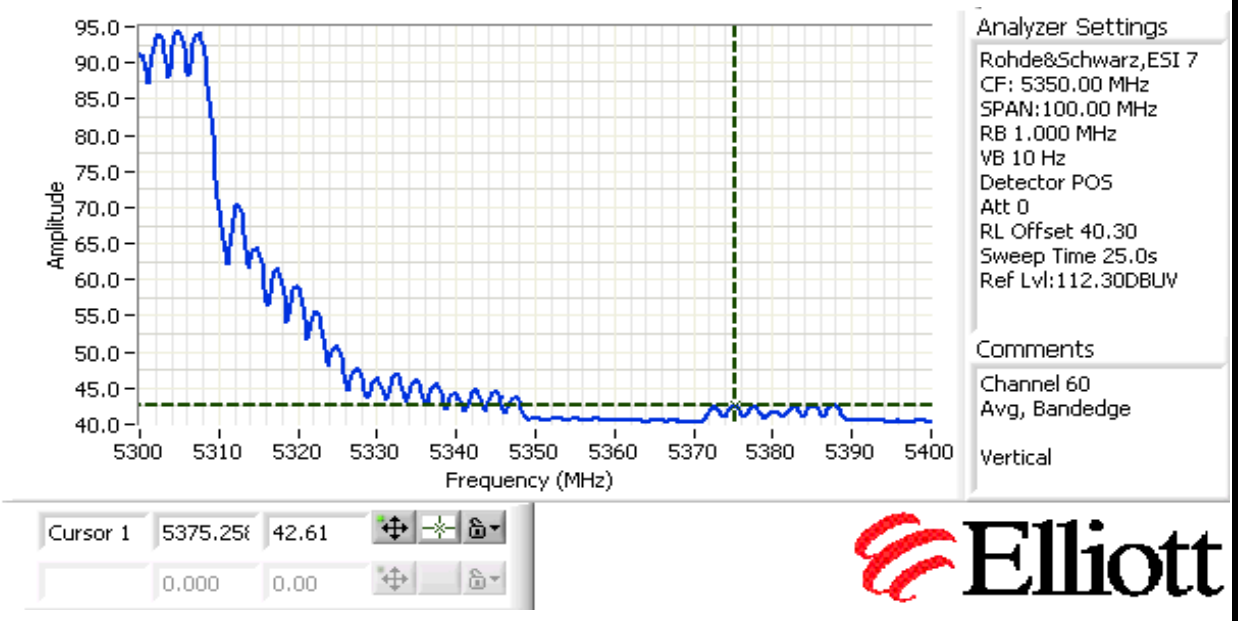
Run #2b: Radiated Spurious Emissions, 30 - 40000 MHz. Center Channel @ 5300 MHz





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

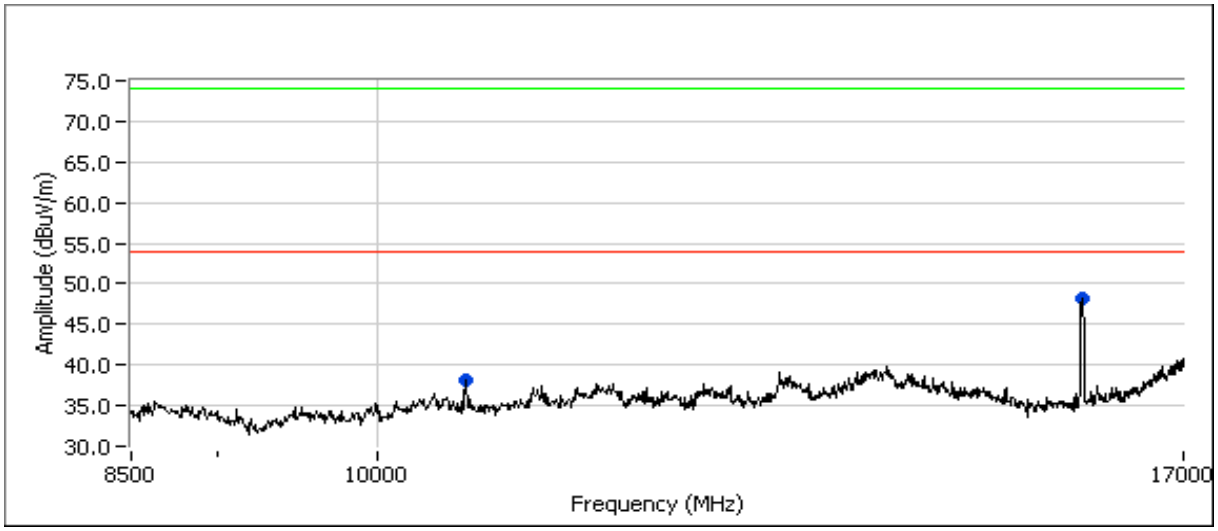




Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.000	42.6	V	54.0	-11.4	Avg	145	1.0	
5350.000	41.5	H	54.0	-12.5	Avg	185	1.0	
5350.000	55.1	V	74.0	-18.9	Pk	145	1.0	
5350.000	53.4	H	74.0	-20.6	Pk	185	1.0	

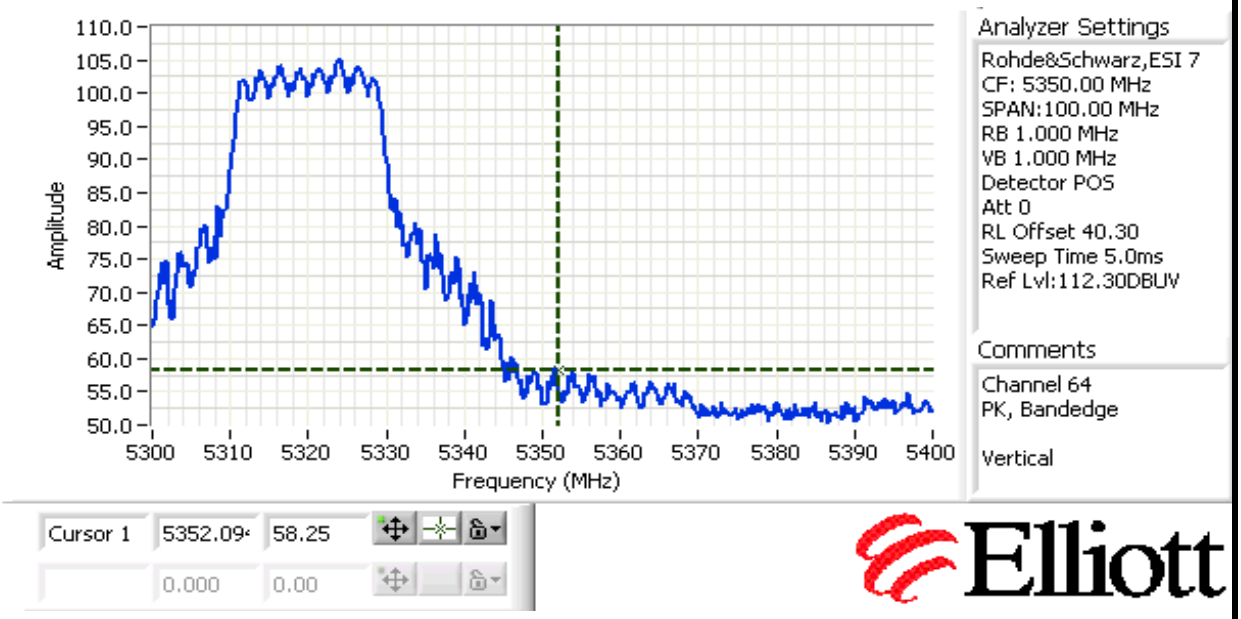
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

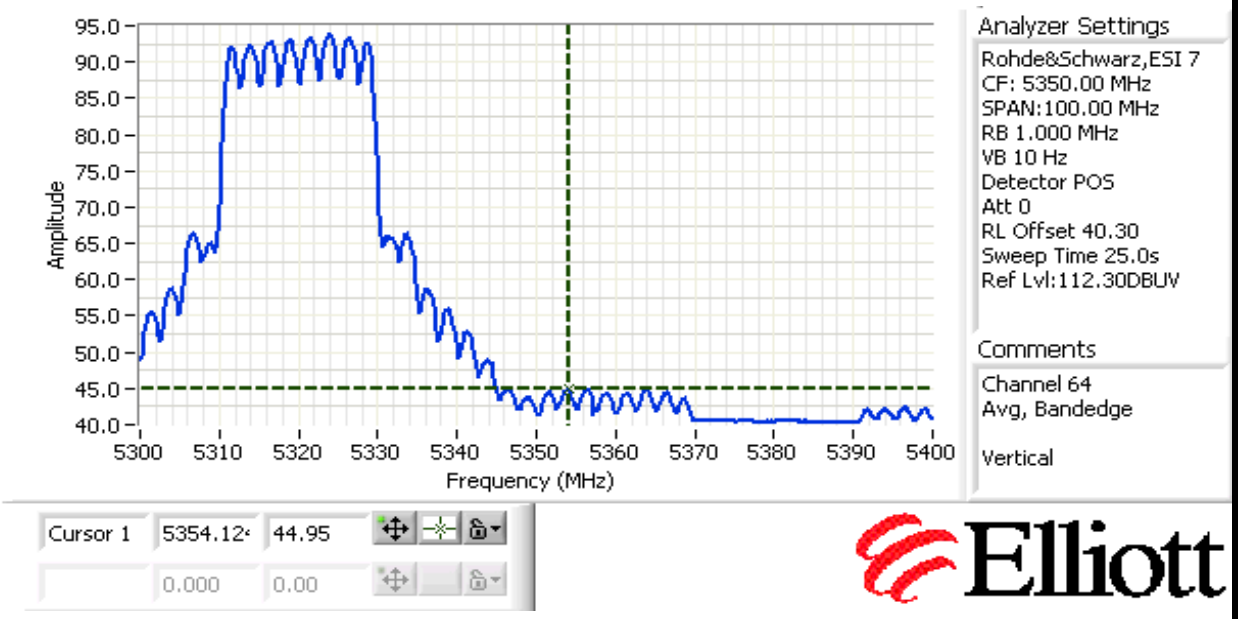


Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
15899.24	46.1	V	54.0	-7.9	AVG	269	1.0	
15899.24	59.8	V	74.0	-14.2	PK	269	1.0	
15903.74	37.7	H	54.0	-16.3	AVG	244	1.0	
10599.30	34.2	H	54.0	-19.8	AVG	11	1.2	
15903.74	51.6	H	74.0	-22.4	PK	244	1.0	
10599.30	47.5	H	74.0	-26.5	PK	11	1.2	

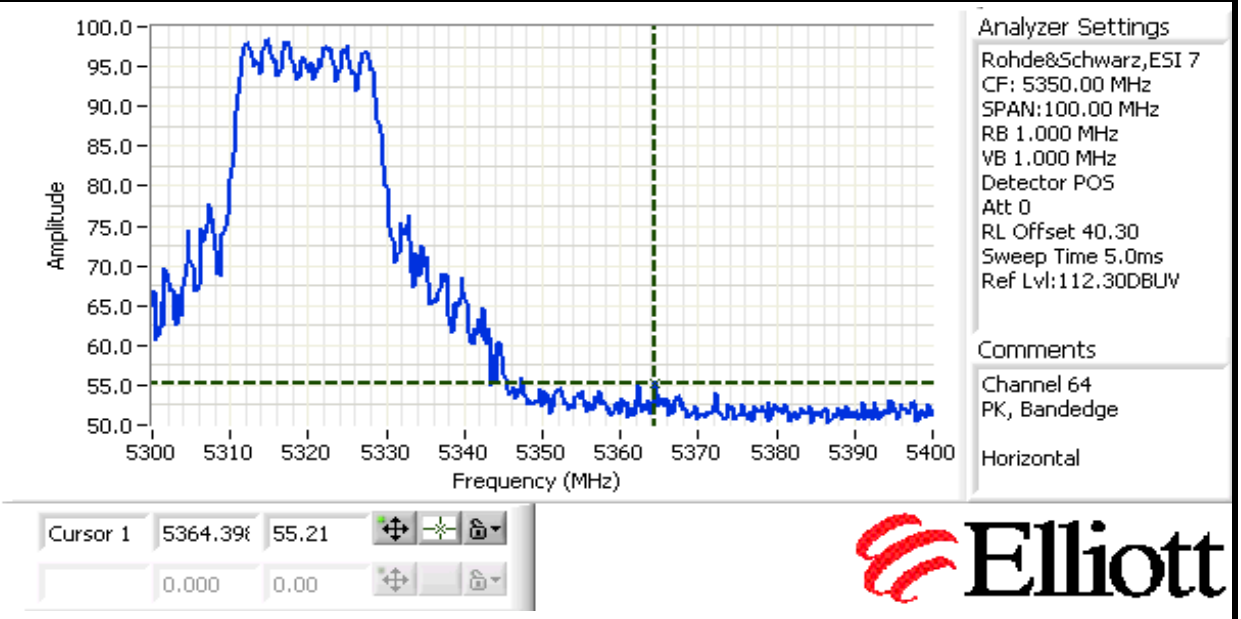
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

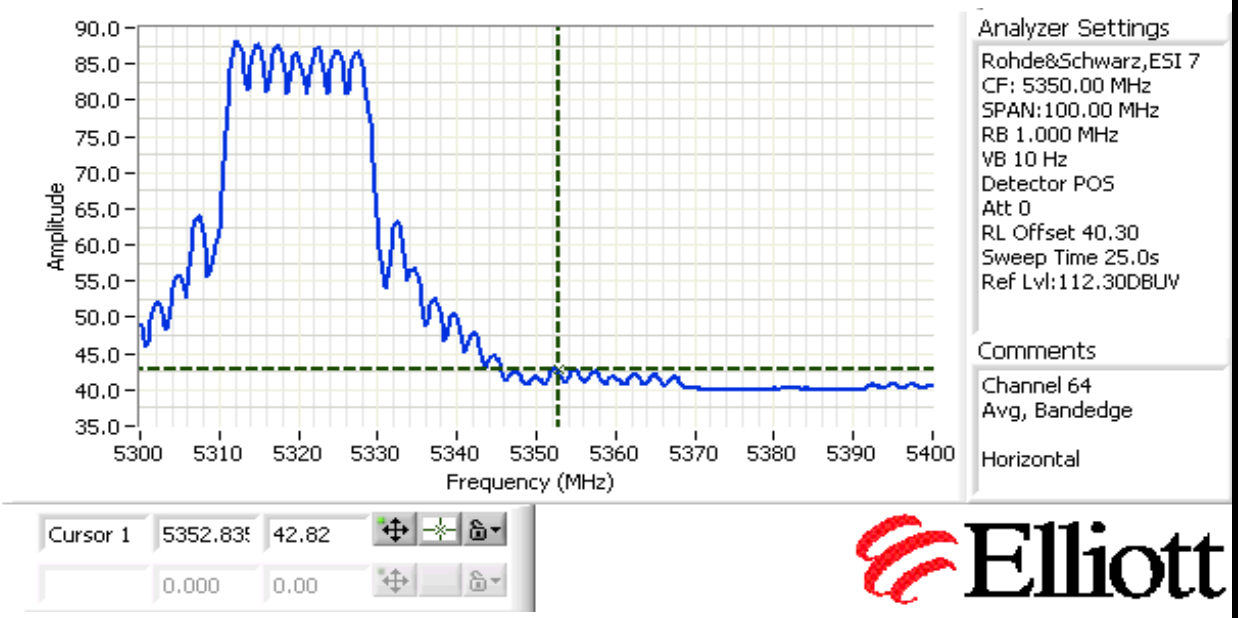
Run #2c: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5320 MHz





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

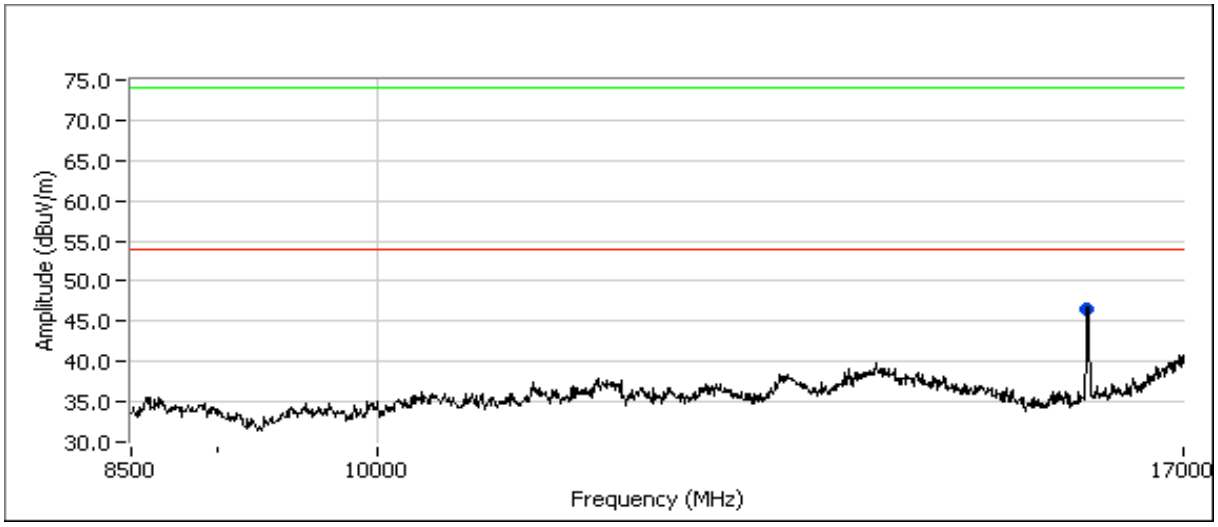




Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.000	45.0	V	54.0	-9.1	Avg	138	1.0	
5350.000	42.8	H	54.0	-11.2	Avg	180	1.0	
5350.000	58.3	V	74.0	-15.8	Pk	138	1.0	
5350.000	55.2	H	74.0	-18.8	Pk	180	1.0	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

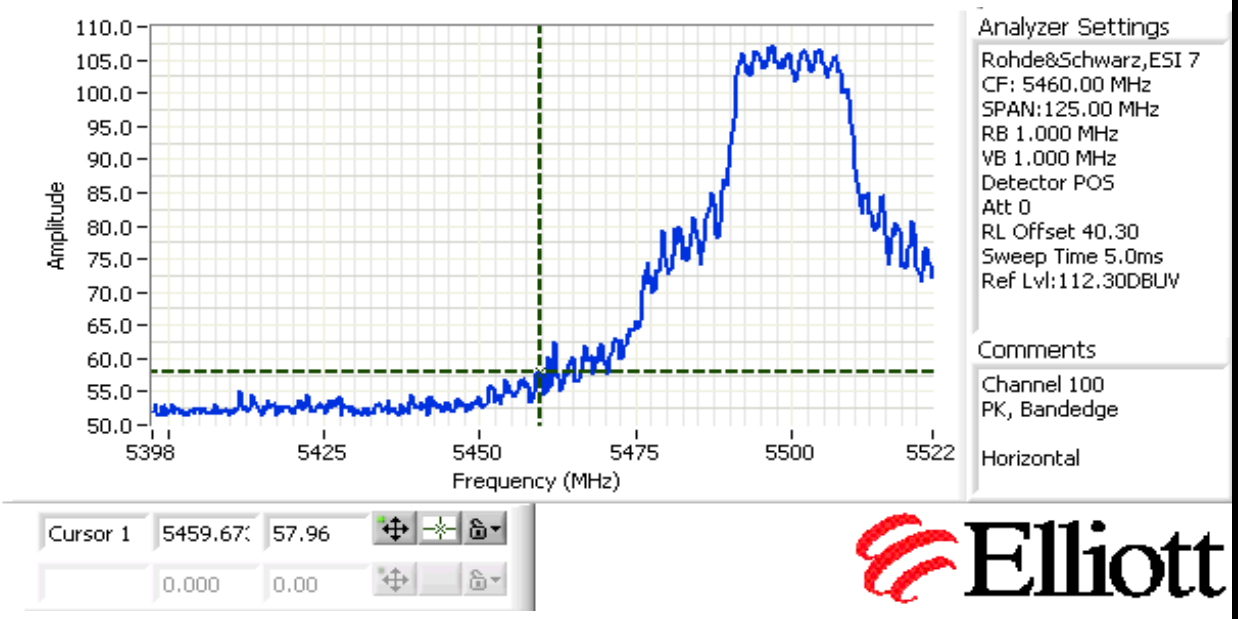


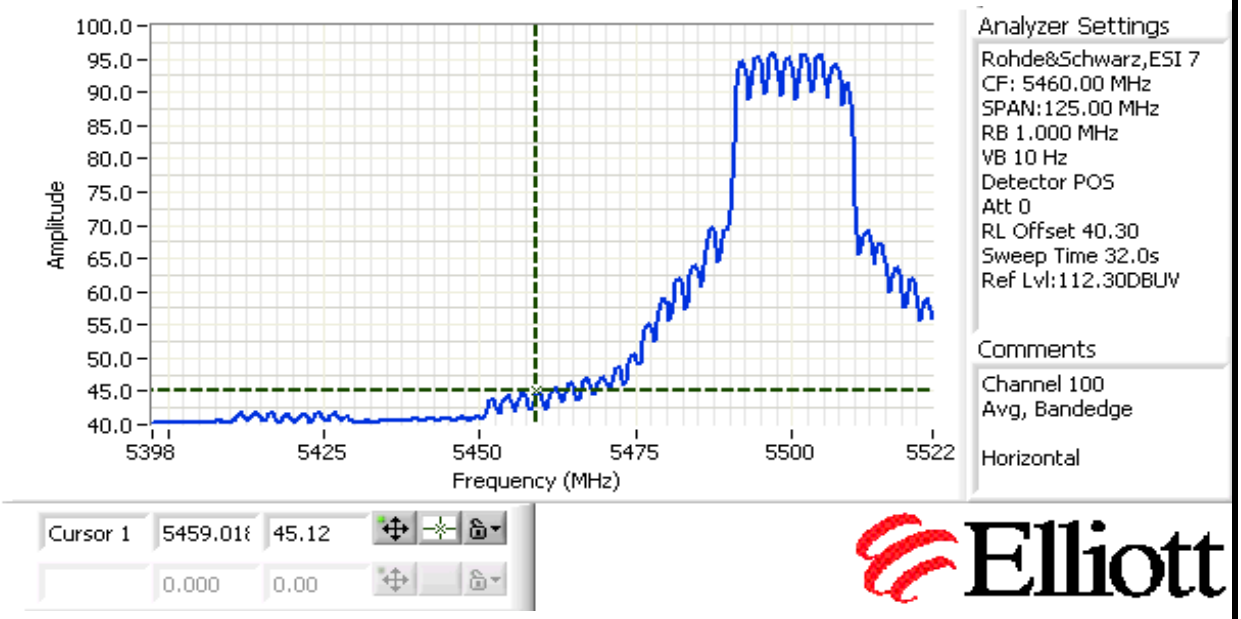
Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
15961.83	43.1	V	54.0	-10.9	AVG	270	1.0	
15961.33	34.1	H	54.0	-19.9	AVG	248	1.0	
15961.83	50.7	V	74.0	-23.3	PK	270	1.0	
15961.33	46.8	H	74.0	-27.2	PK	248	1.0	

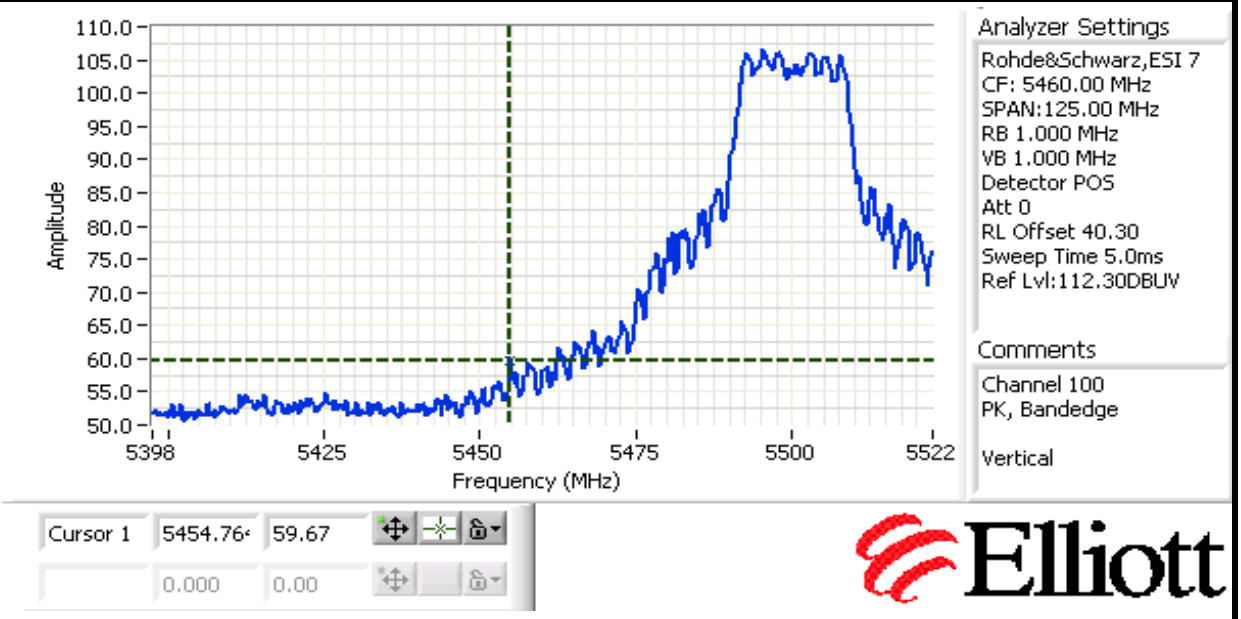
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

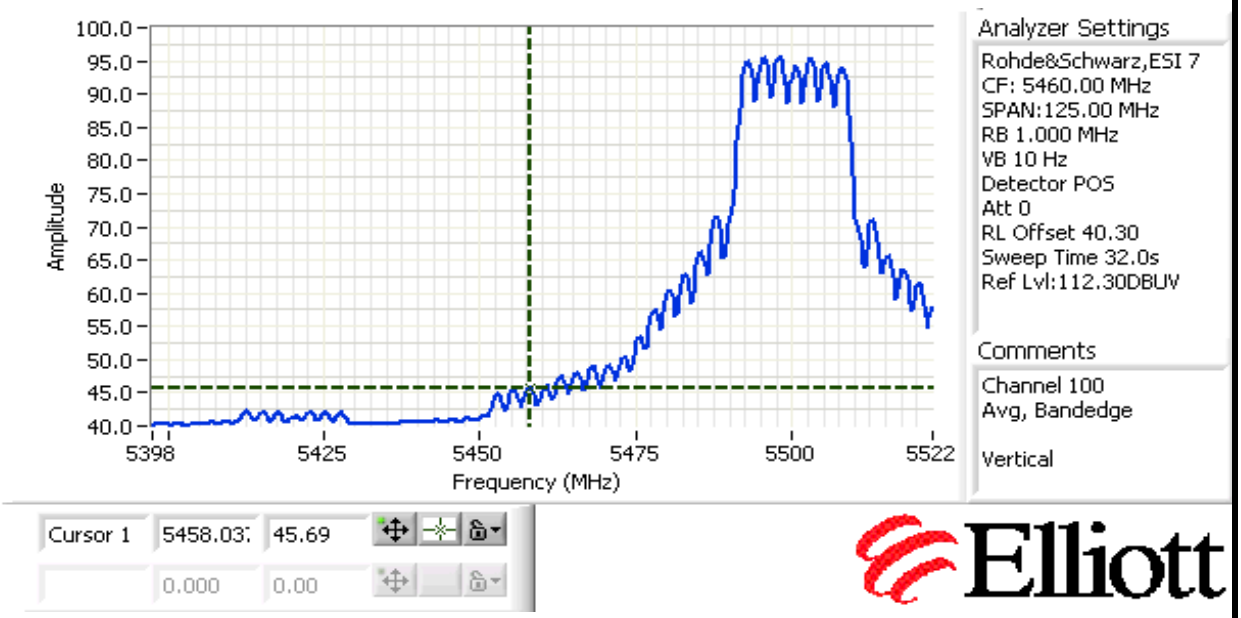
Run #3a: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5500 MHz





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

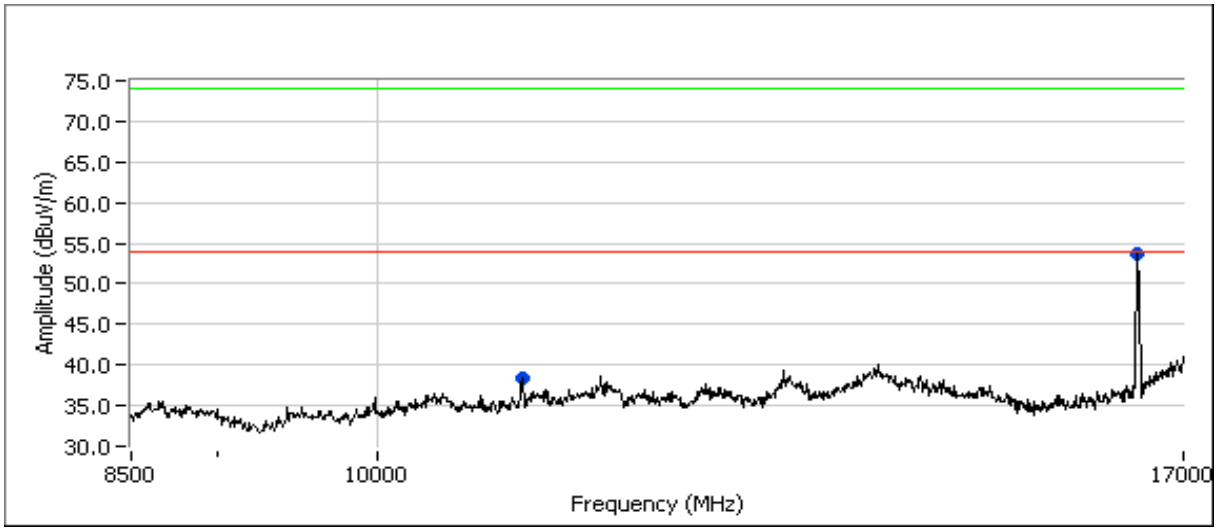




Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
5460.000	45.7	V	54.0	-8.3	Avg	146	1.0	
5460.000	45.1	H	54.0	-8.9	Avg	255	1.3	
5460.000	59.7	V	74.0	-14.3	Pk	146	1.0	
5460.000	58.0	H	74.0	-16.0	Pk	255	1.3	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

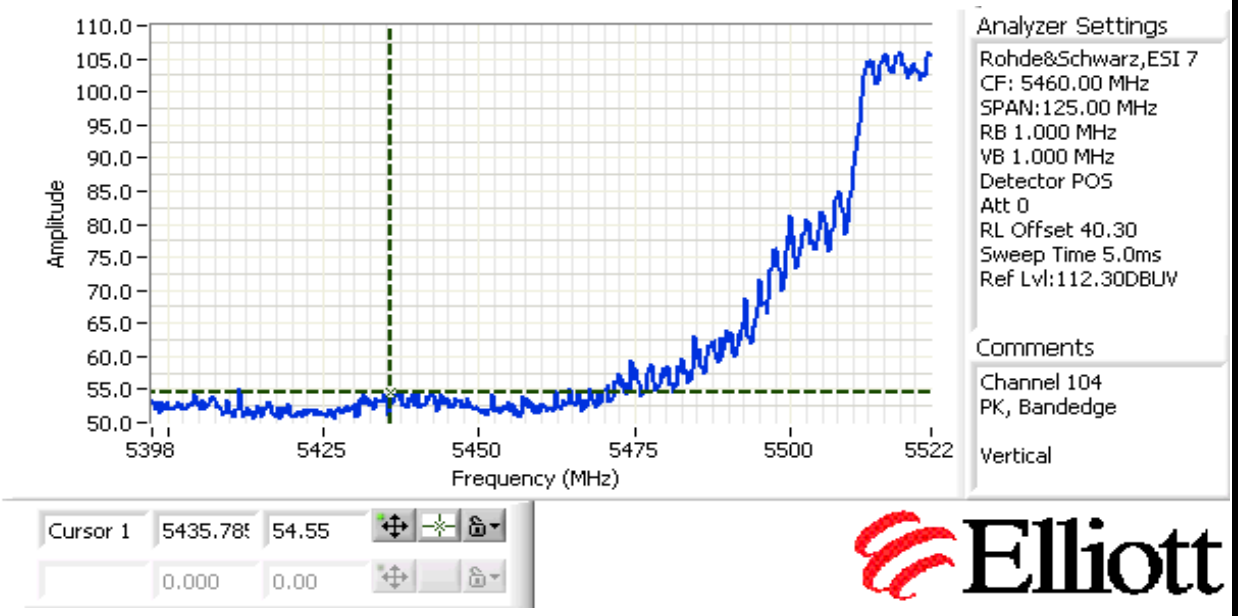


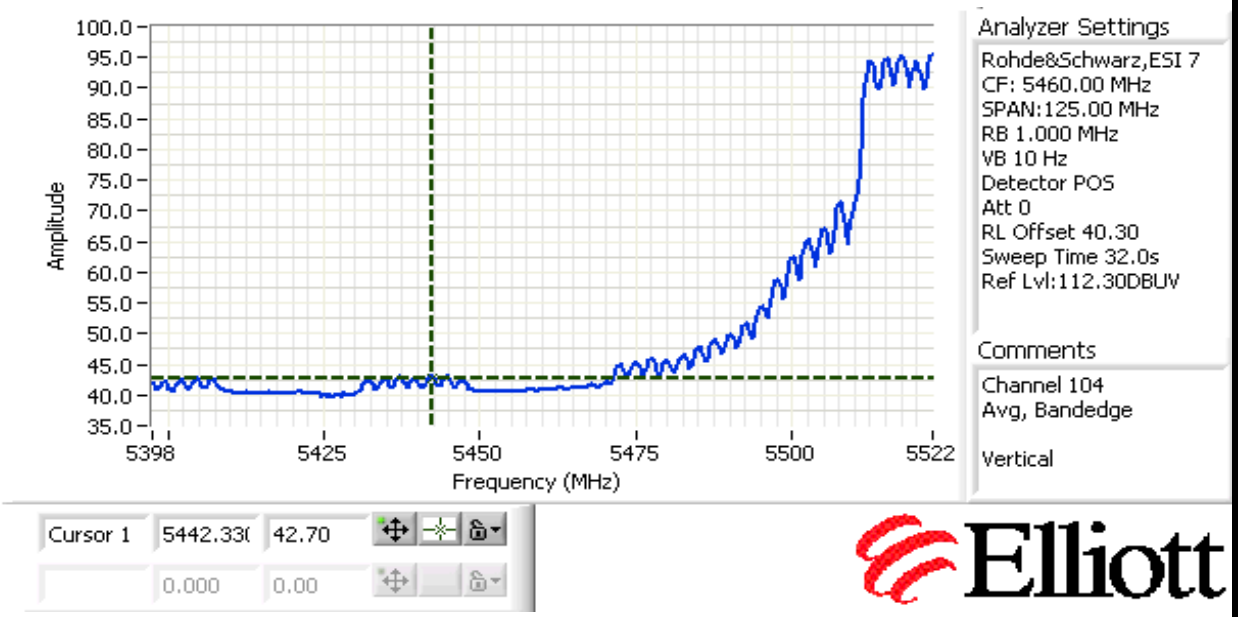
Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
11001.03	35.2	H	54.0	-18.8	AVG	21	1.1	
16502.22	49.0	V	68.3	-19.3	AVG	270	1.0	
16504.13	43.4	H	68.3	-24.9	AVG	246	1.0	
16502.22	63.1	V	88.3	-25.2	PK	270	1.0	
11001.03	48.1	H	74.0	-25.9	PK	21	1.1	
16504.13	56.5	H	88.3	-31.8	PK	246	1.0	

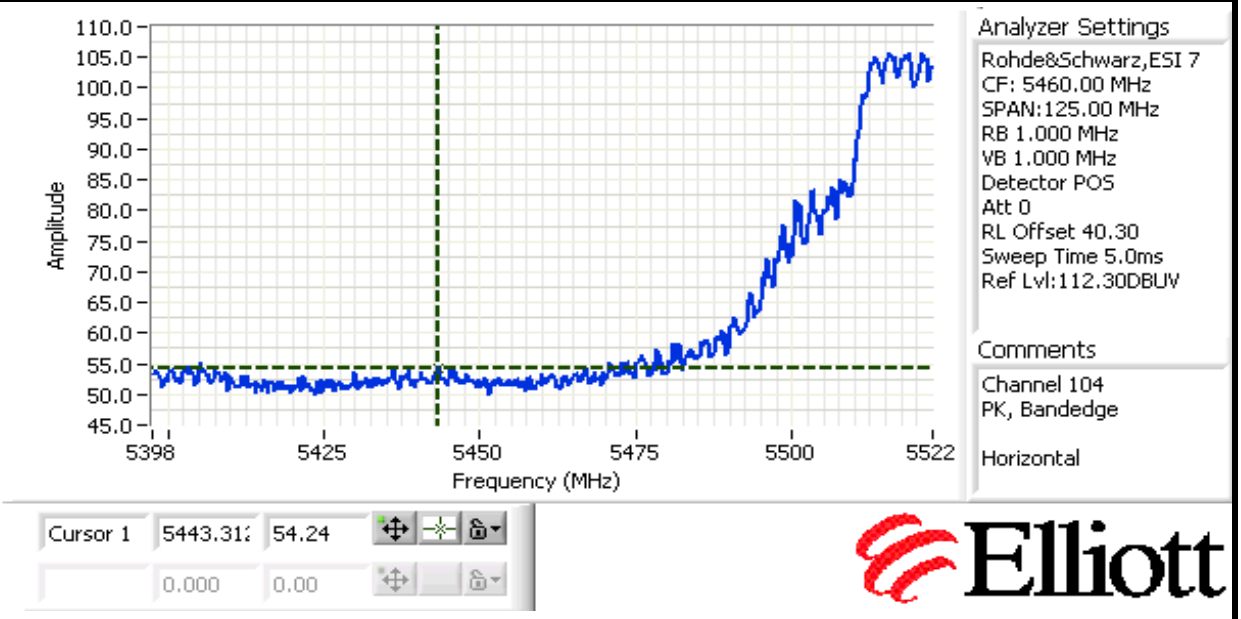
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

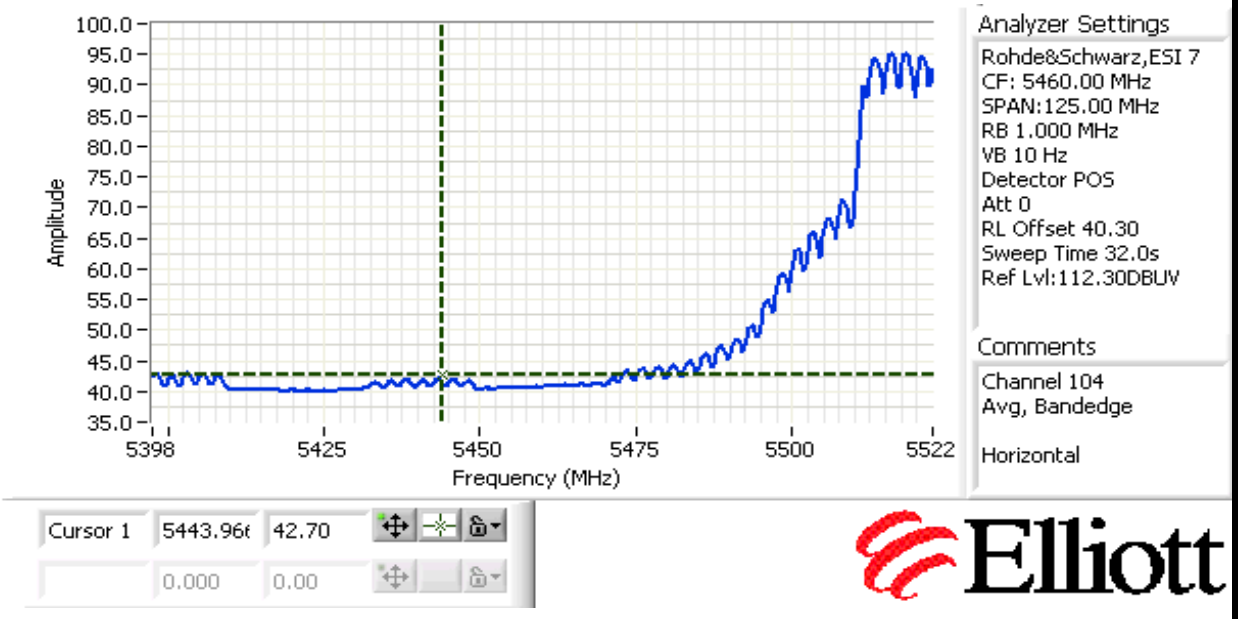
Run #3b: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5520 MHz





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

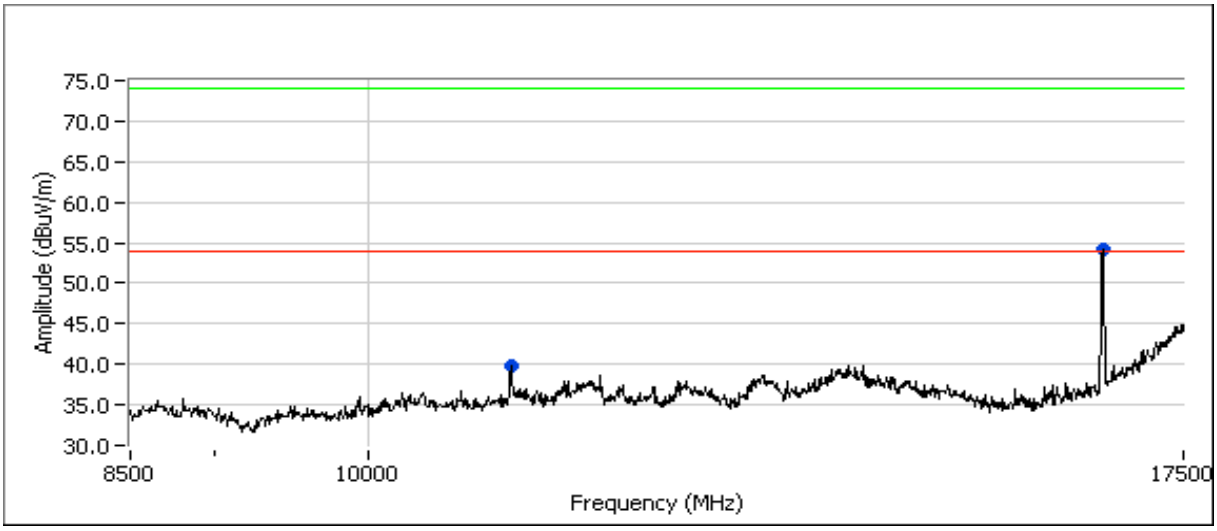




Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
5460.00	42.7	H	54.0	-11.3	Avg	185	1.2	
5460.00	42.7	V	54.0	-11.3	Avg	265	1.3	
5460.00	54.6	H	74.0	-19.4	Pk	185	1.2	
5460.00	54.2	V	74.0	-19.8	Pk	265	1.3	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

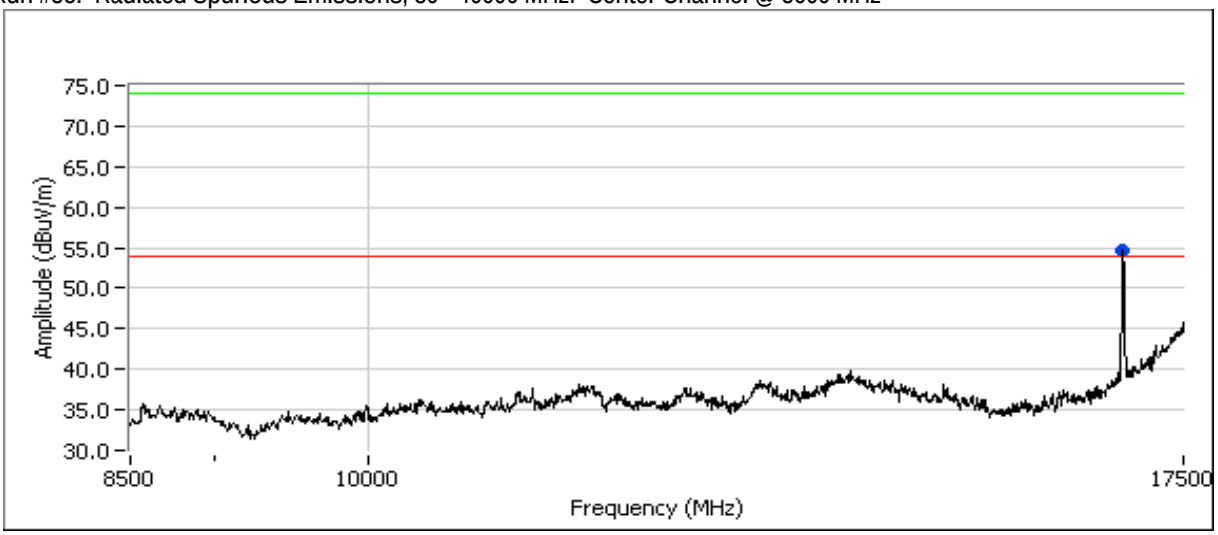


Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
16559.20	50.5	V	68.3	-17.8	AVG	256	1.0	
11035.91	31.5	H	54.0	-22.5	AVG	245	1.0	
16559.20	63.3	V	88.3	-25.0	PK	256	1.0	
16562.33	43.0	H	68.3	-25.3	AVG	245	0.0	
11035.91	43.3	H	74.0	-30.7	PK	245	1.0	
16562.33	55.4	H	88.3	-32.9	PK	245	0.0	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #3c: Radiated Spurious Emissions, 30 - 40000 MHz. Center Channel @ 5600 MHz



Other Spurious Radiated Emissions:

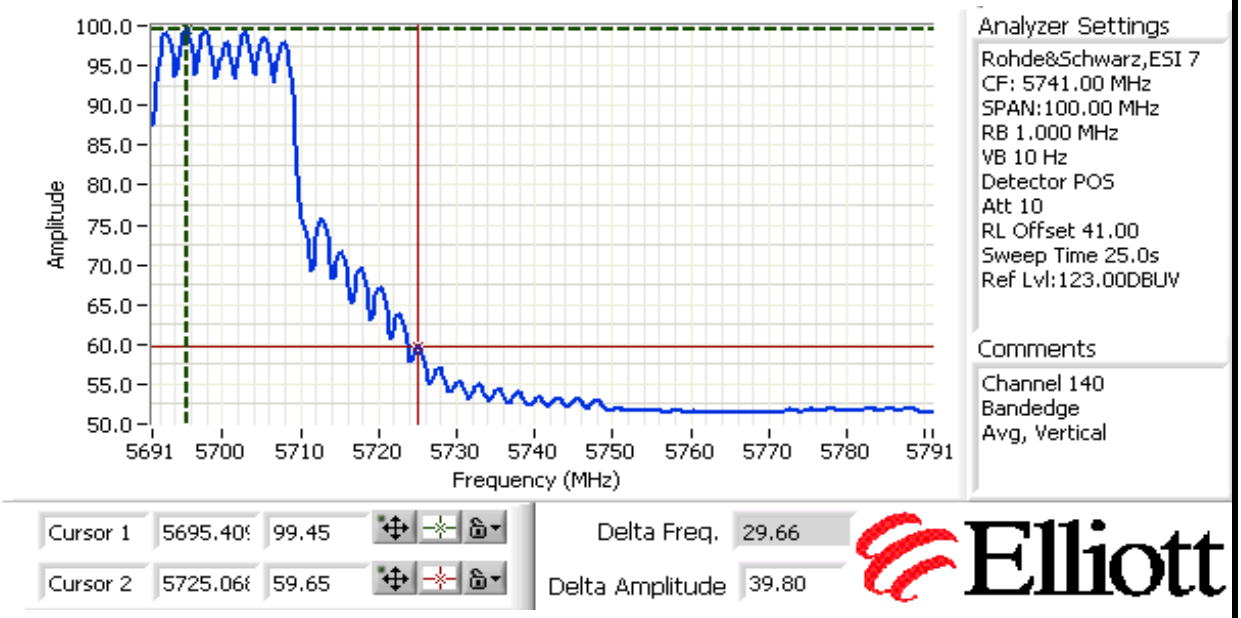
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
16802.18	50.2	V	68.3	-18.1	AVG	258	1.0	
16802.18	63.5	V	88.3	-24.8	PK	258	1.0	
16799.87	42.7	H	68.3	-25.6	AVG	238	1.0	
16799.87	54.5	H	88.3	-33.8	PK	238	1.0	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #3d: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5700 MHz

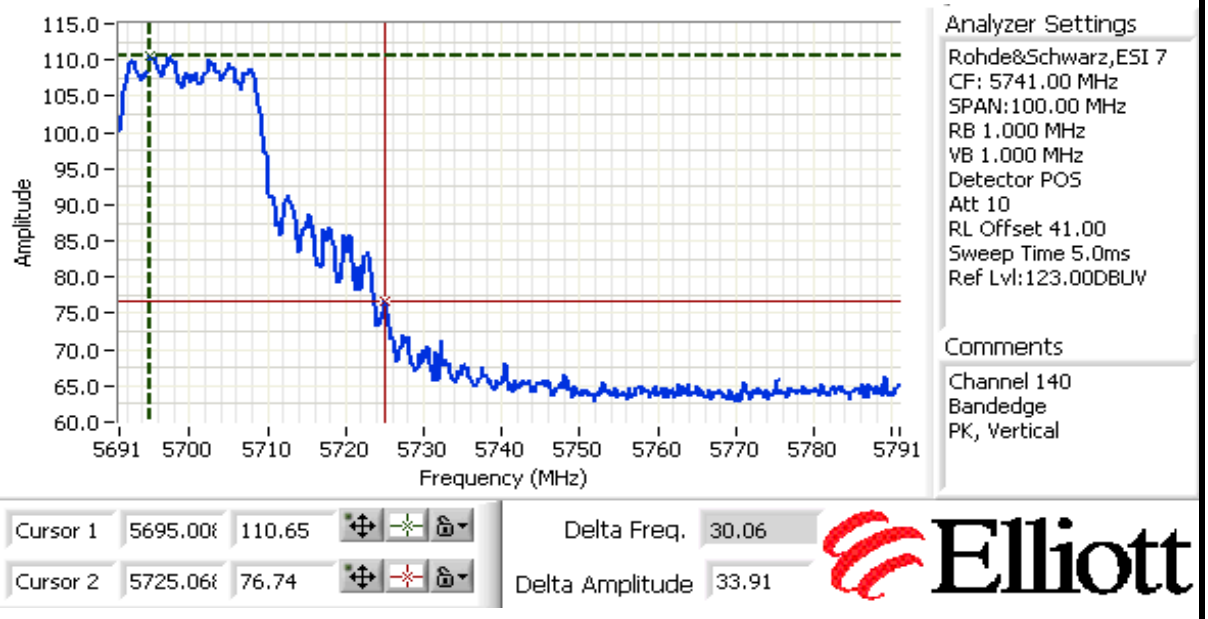
Band Edge Signal Radiated Field Strength

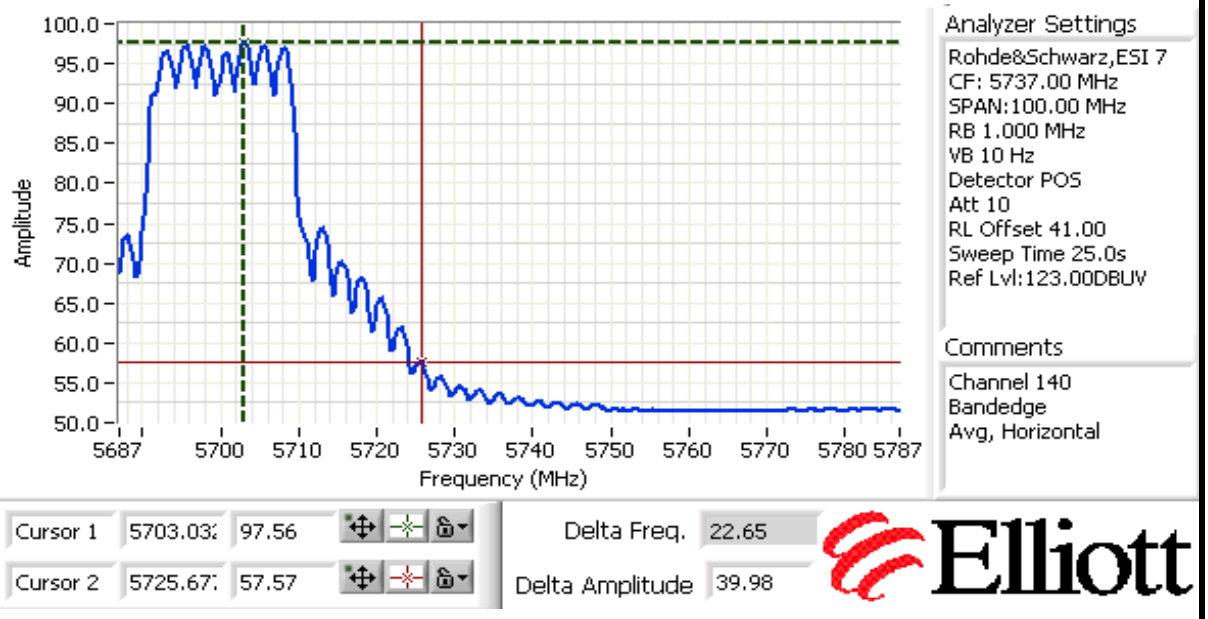
Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
5725.100	59.7	V	68.3	-8.7	Avg	176	1.1	
5725.670	57.6	H	68.3	-10.7	Pk	97	1.2	
5725.065	76.7	V	88.3	-11.6	Pk	176	1.1	
5725.670	73.6	H	88.3	-14.7	Avg	97	1.2	



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

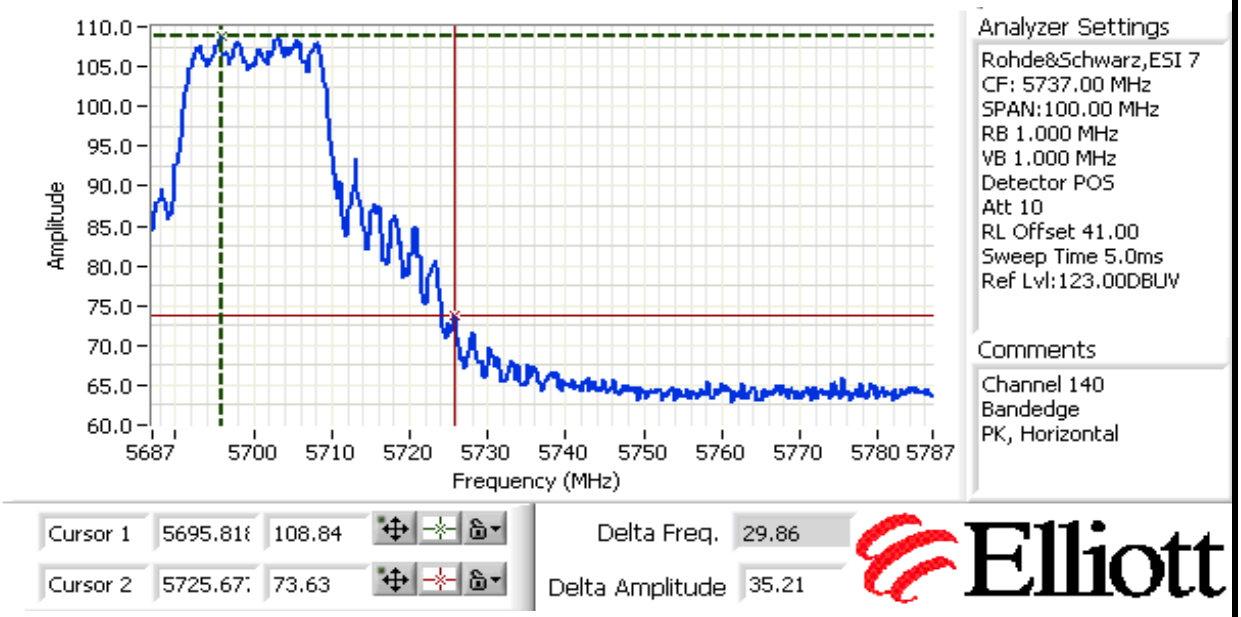
Run #3d: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5700 MHz





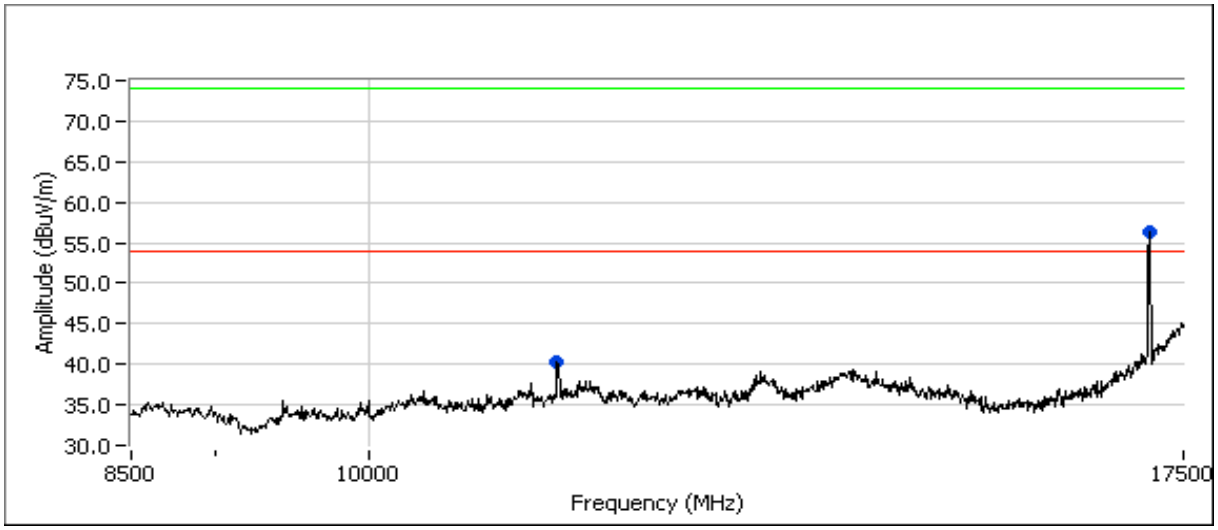
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #3d: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5700 MHz



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #3d: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5700 MHz



Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
17100.01	52.2	V	68.3	-16.1	AVG	253	1.0	
11400.47	36.2	H	54.0	-17.8	AVG	296	1.0	
17100.24	47.4	H	68.3	-20.9	AVG	241	1.0	
17100.01	64.5	V	88.3	-23.8	PK	253	1.0	
11400.47	47.8	H	74.0	-26.2	PK	296	1.0	
17100.24	59.8	H	88.3	-28.5	PK	241	1.0	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Radiated 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: 1/2/2008
Test Engineer: Ben Jing
Test Location: FT Chamber # 5

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. Unless otherwise stated, all peak measurements were taken with RBW=VBW=1 MHz and for average with RBW=1 MHz, VBW=10 Hz.

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

Ambient Conditions:

Temperature: 16 °C
Rel. Humidity: 42 %

Summary of Results

Run #1	TX Mode	Channel	Power Setting	Pass/Fail	Margin
1a	40 MHz CDD	38	-	Pass	47.6dBµV/m (239.3µV/m) @ 5150.0MHz (-6.4dB)
1b	40 MHz CDD	46	-	Pass	38.4dBµV/m (83.2µV/m) @ 15684.2MHz (-15.6dB)
2a	40 MHz CDD	54	-	Pass	44.4dBµV/m (165.6µV/m) @ 5350.0MHz (-9.6dB)
2b	40 MHz CDD	62	-	Pass	51.5dBµV/m (374.5µV/m) @ 5350.0MHz (-2.5dB)
3a	40 MHz CDD	102	-	Pass	51.7dBµV/m (384.6µV/m) @ 5460.0MHz (-2.3dB)
3b	40 MHz CDD	110	-	Pass	46.3dBµV/m (205.6µV/m) @ 5460.0MHz (-7.7dB)
3c	40 MHz CDD	118	-	Pass	54.5dBµV/m (530.9µV/m) @ 16772.5MHz (-13.8dB)
3d	40 MHz CDD	134	-	Pass	57.0dBµV/m (707.1µV/m) @ 5725.2MHz (-11.3dB)

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 Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #1a: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5190 MHz

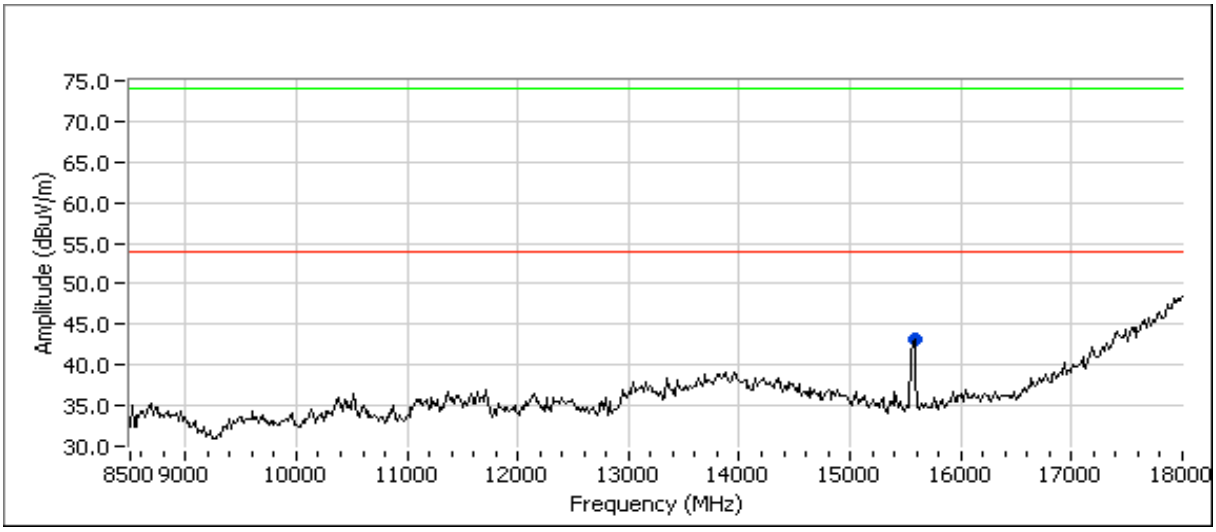
Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
5150.000	47.6	V	54.0	-6.4	Avg	136	1.1	
5150.000	64.6	V	74.0	-9.4	Pk	136	1.1	
5150.000	44.4	H	54.0	-9.6	Avg	105	1.1	
5150.000	60.7	H	74.0	-13.3	Pk	105	1.1	

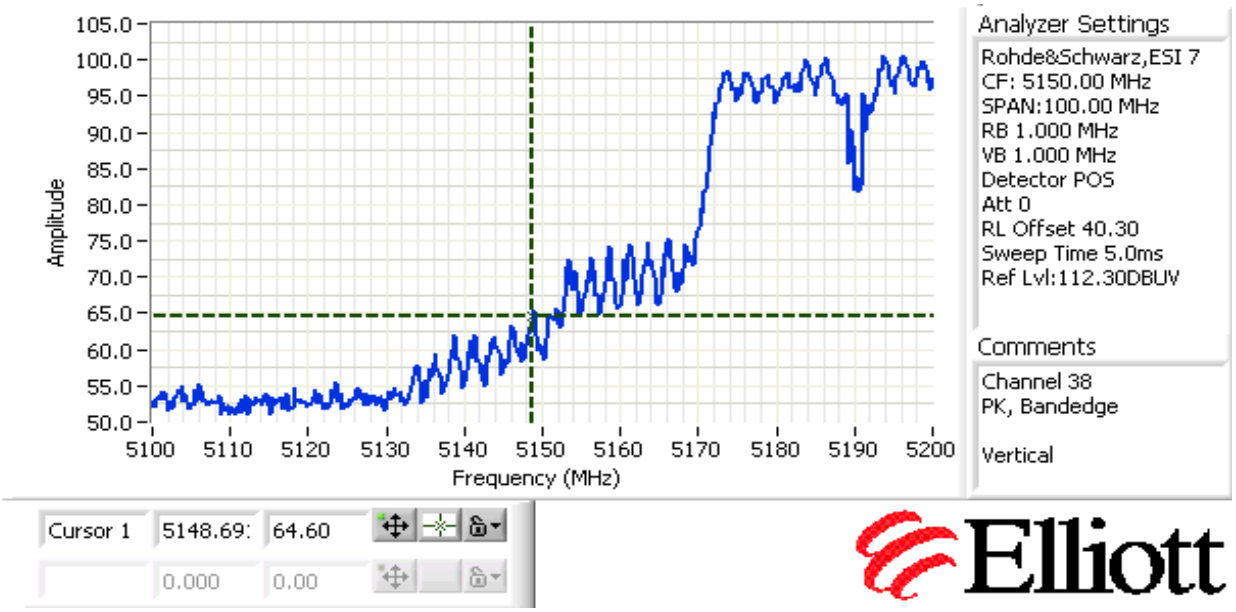
Other Spurious Radiated Emissions:

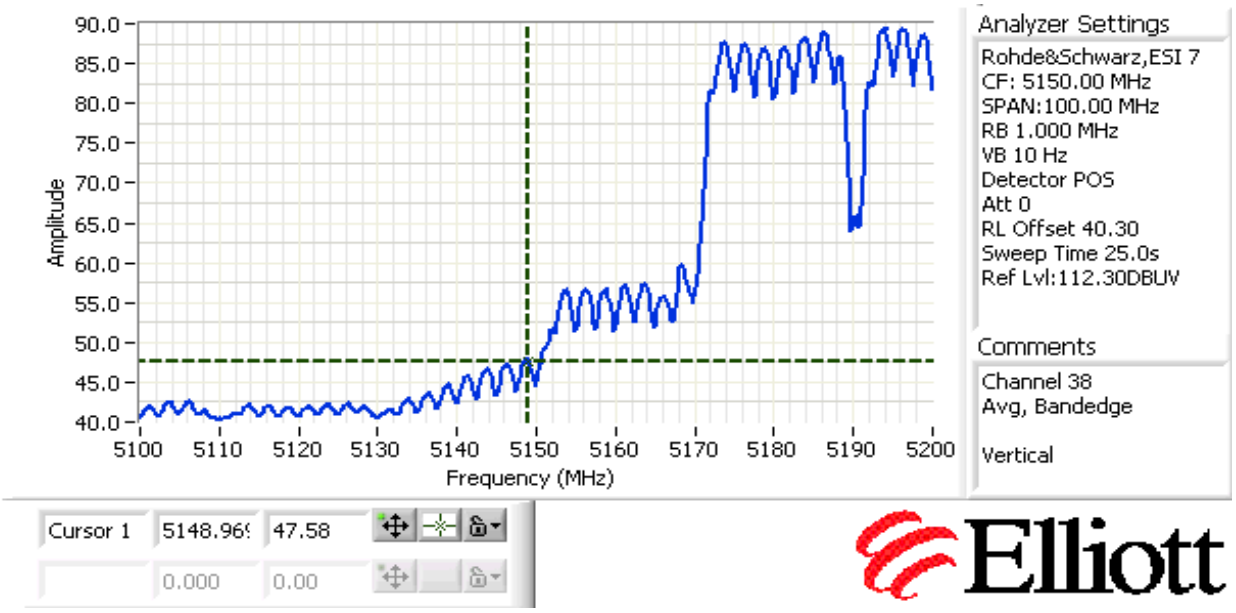
Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
15578.81	39.8	V	54.0	-14.2	AVG	95	1.0	
15578.81	54.7	V	74.0	-19.3	PK	95	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).



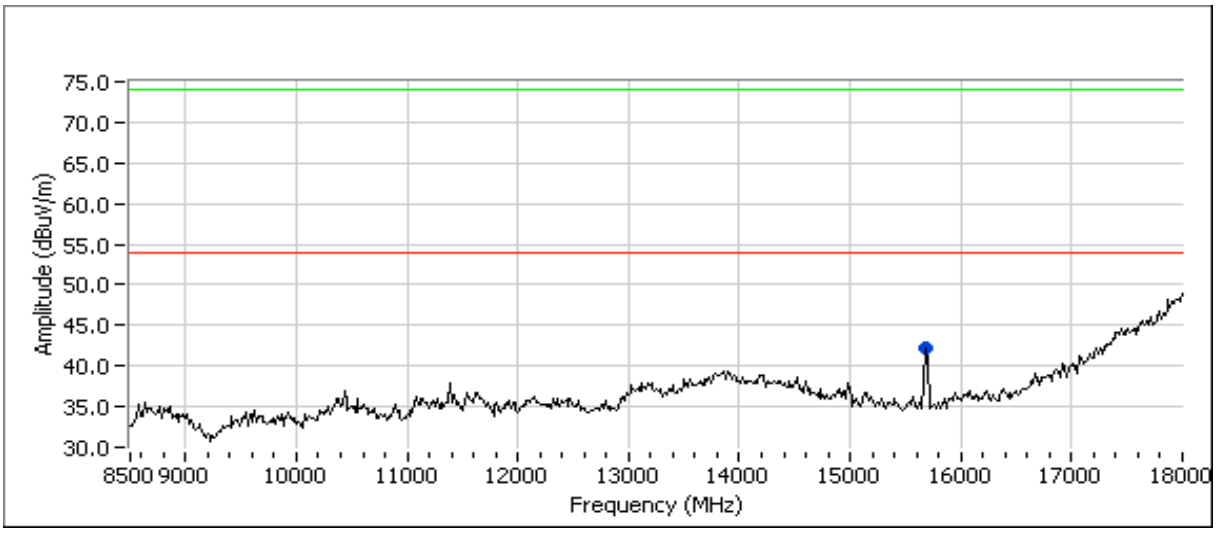
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #1b: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5230 MHz



Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
15684.21	38.4	V	54.0	-15.6	AVG	94	1.0	
15684.21	52.4	V	74.0	-21.6	PK	94	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #2a: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5270 MHz

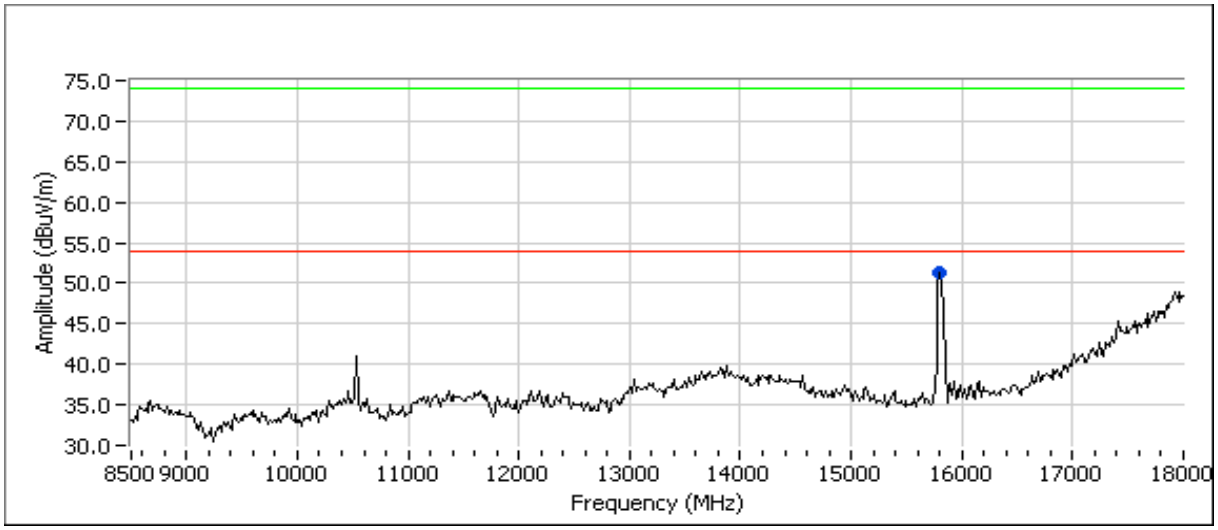
Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.000	44.4	V	54.0	-9.6	Avg	143	1.0	
5350.000	43.6	H	54.0	-10.4	Avg	240	1.0	
5350.000	57.3	V	74.0	-16.7	Pk	143	1.0	
5350.000	55.2	H	74.0	-18.8	Pk	240	1.0	

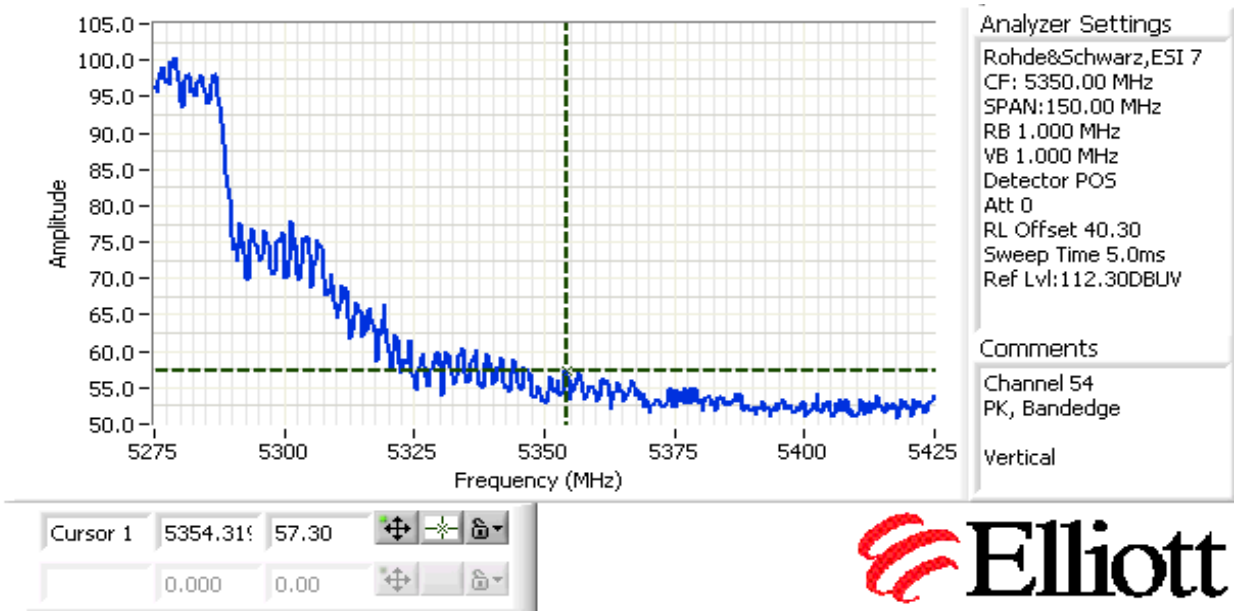
Other Spurious Radiated Emissions:

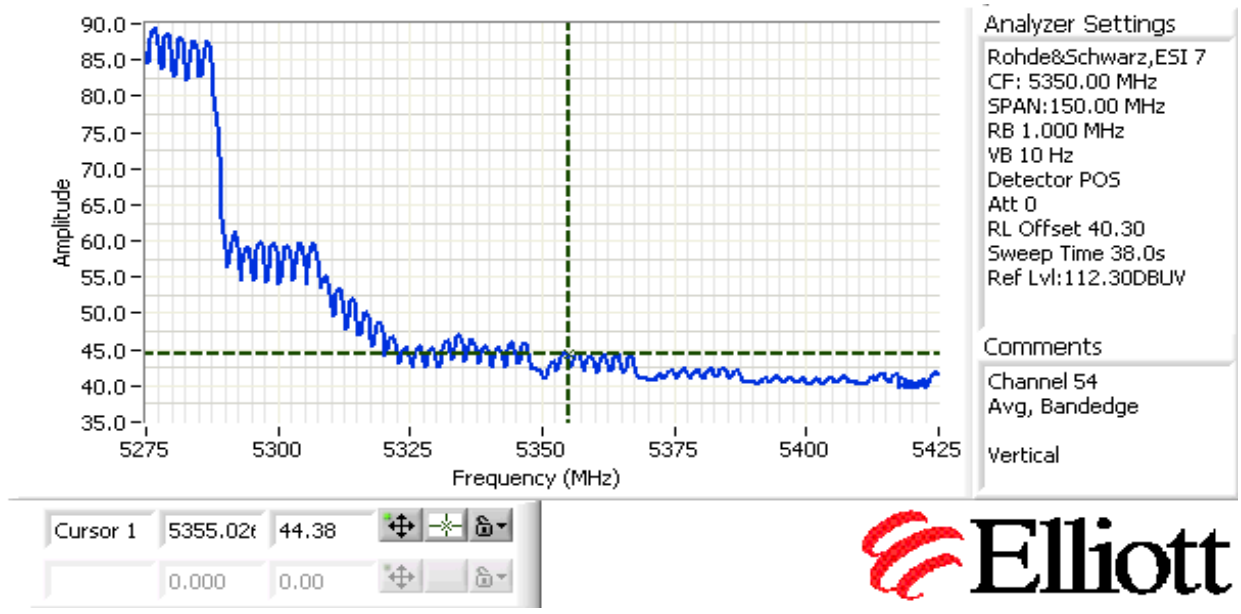
Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
15799.58	44.1	V	54.0	-9.9	AVG	96	1.0	
15799.58	56.7	V	74.0	-17.3	PK	96	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #2b: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5310 MHz

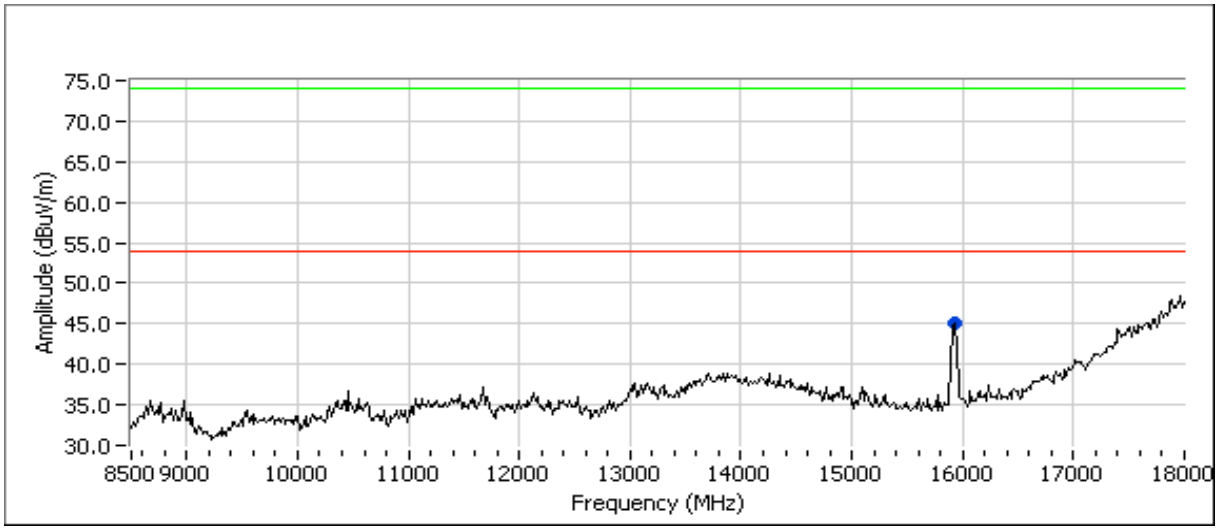
Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5350.000	51.5	V	54.0	-2.5	Avg	138	1.0	
5350.000	67.7	V	74.0	-6.3	Pk	138	1.0	
5350.000	48.3	H	54.0	-5.7	Avg	238	1.1	
5350.000	63.7	H	74.0	-10.3	Pk	238	1.1	

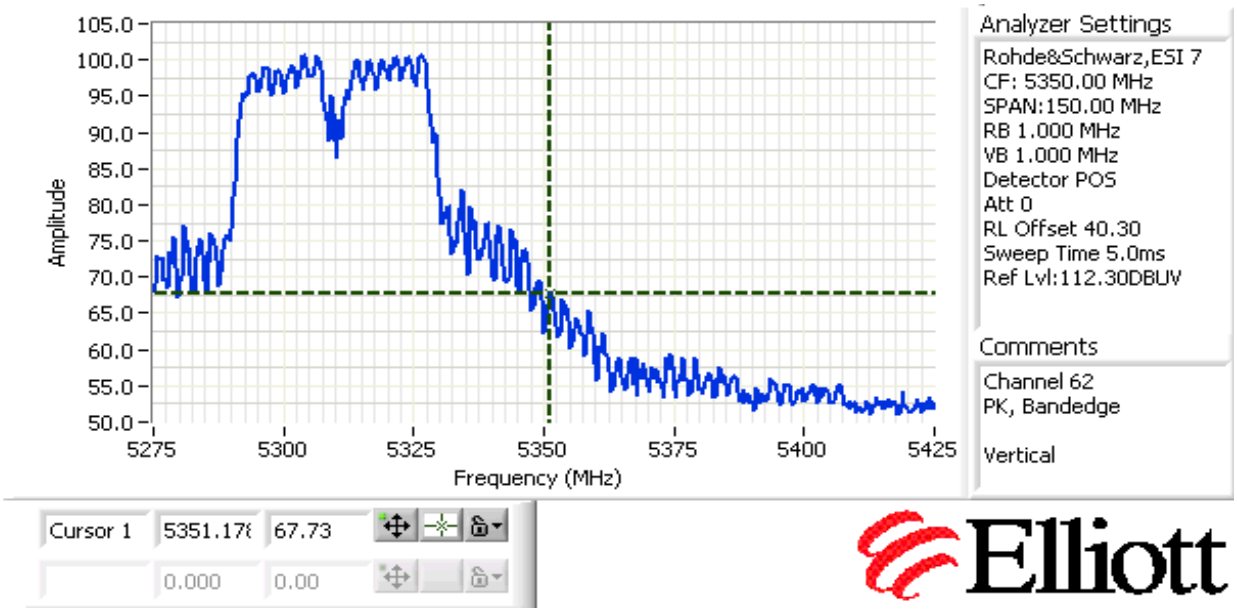
Other Spurious Radiated Emissions:

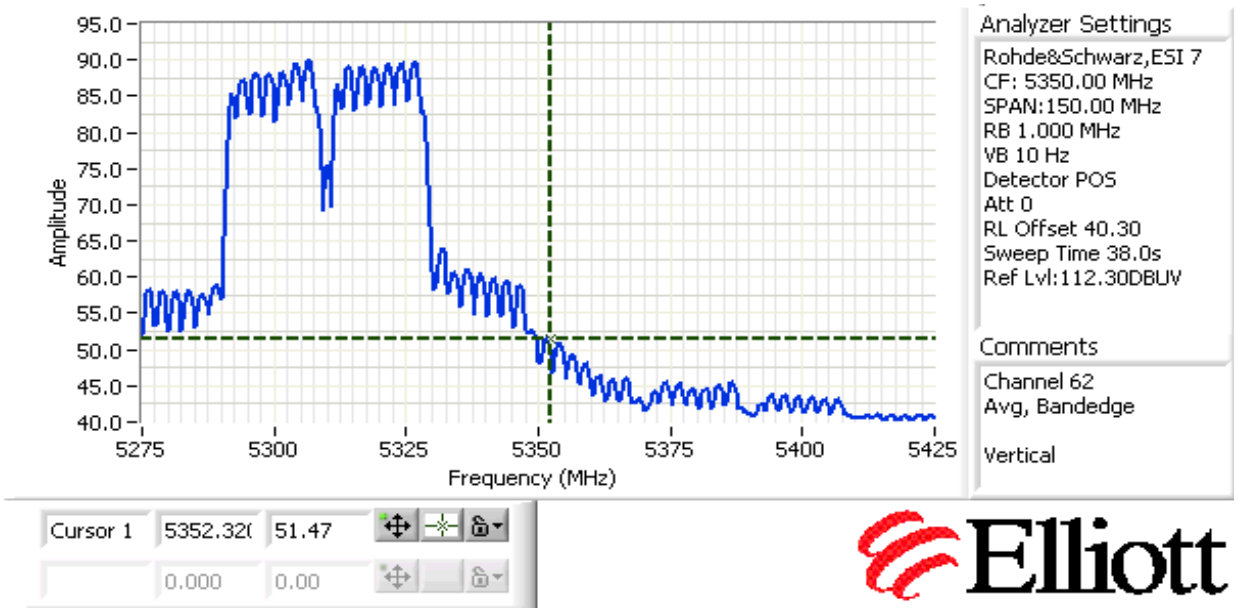
Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
15936.82	40.8	V	54.0	-13.2	AVG	92	1.0	
15936.82	55.2	V	74.0	-18.8	PK	92	1.0	

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #3a: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5510 MHz

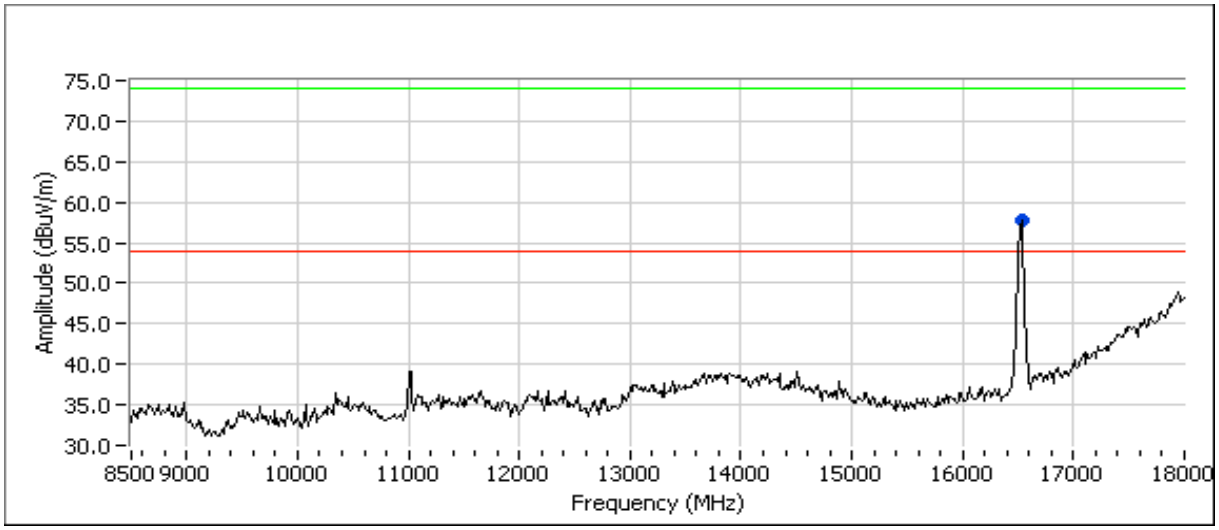
Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5460.000	51.7	V	54.0	-2.3	Avg	178	1.0	
5460.000	66.9	V	74.0	-7.1	Pk	178	1.0	
5460.000	49.0	H	54.0	-5.0	Avg	243	1.6	
5460.000	63.8	H	74.0	-10.2	Pk	243	1.6	

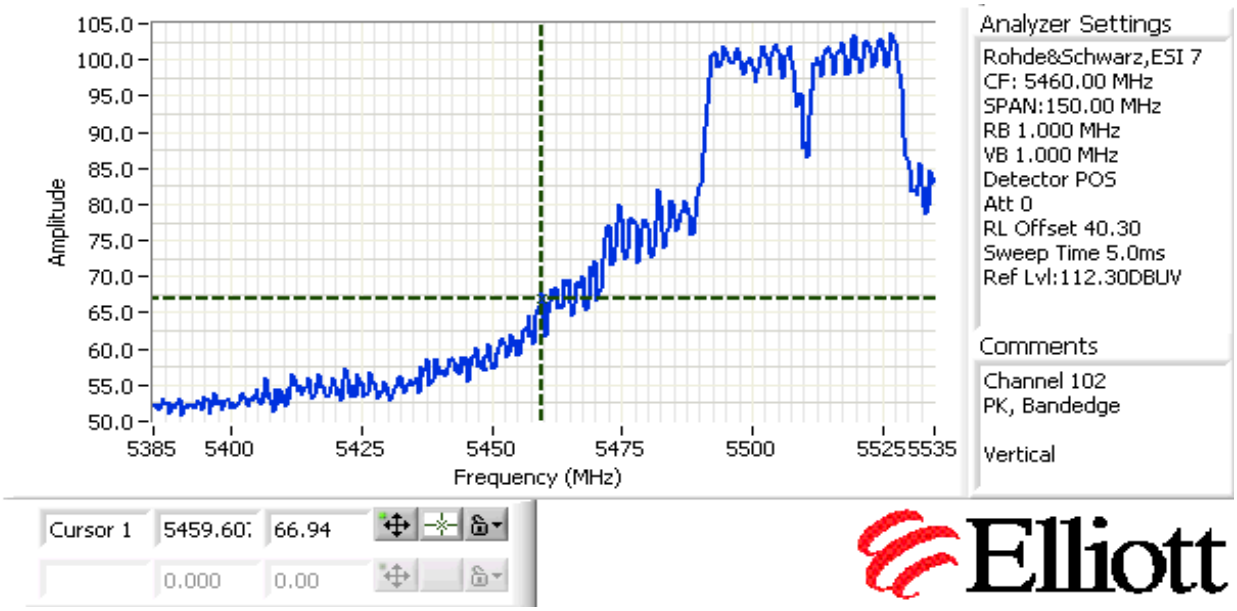
Other Spurious Radiated Emissions:

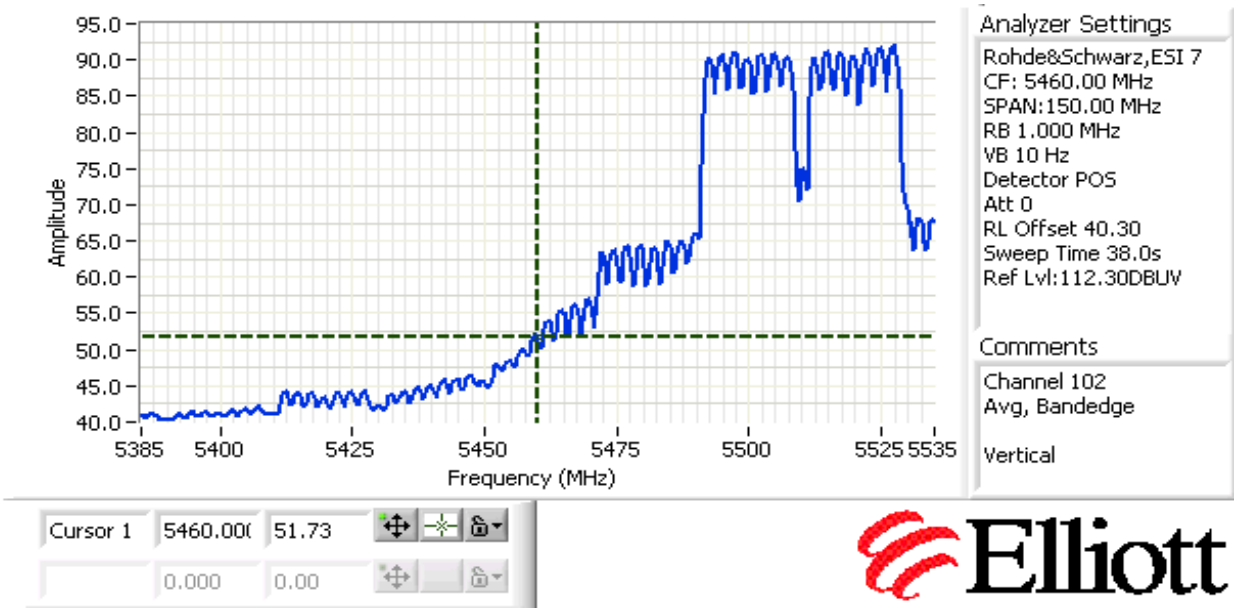
Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
16526.87	53.0	V	68.3	-15.3	AVG	90	1.0	Note 1
16526.87	65.4	V	88.3	-22.9	PK	90	1.0	Note 1

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).



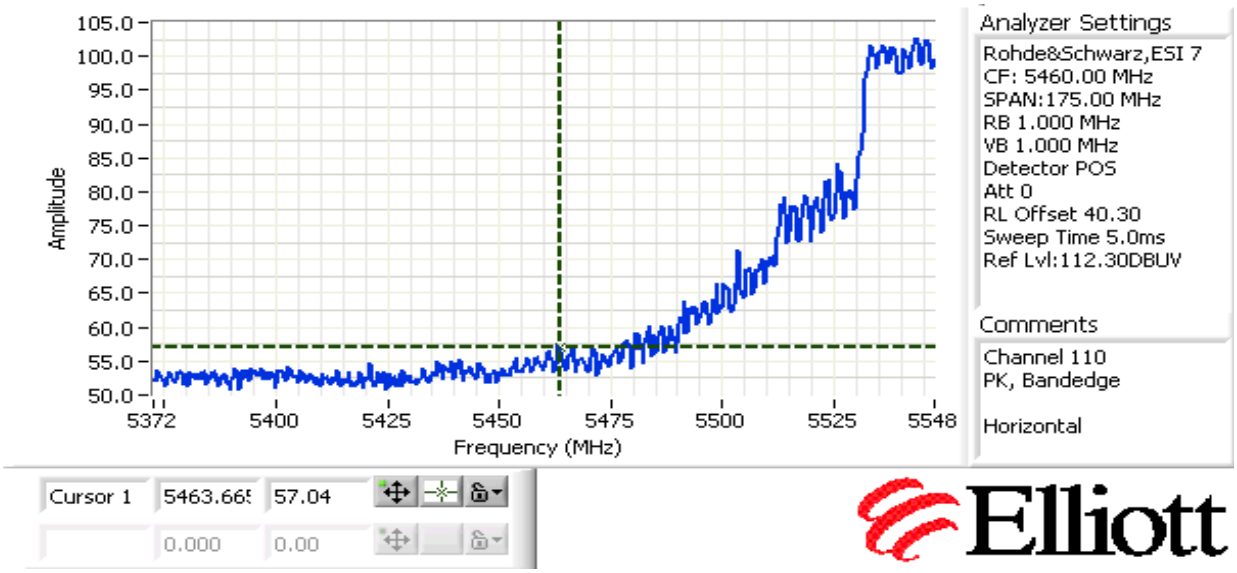
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

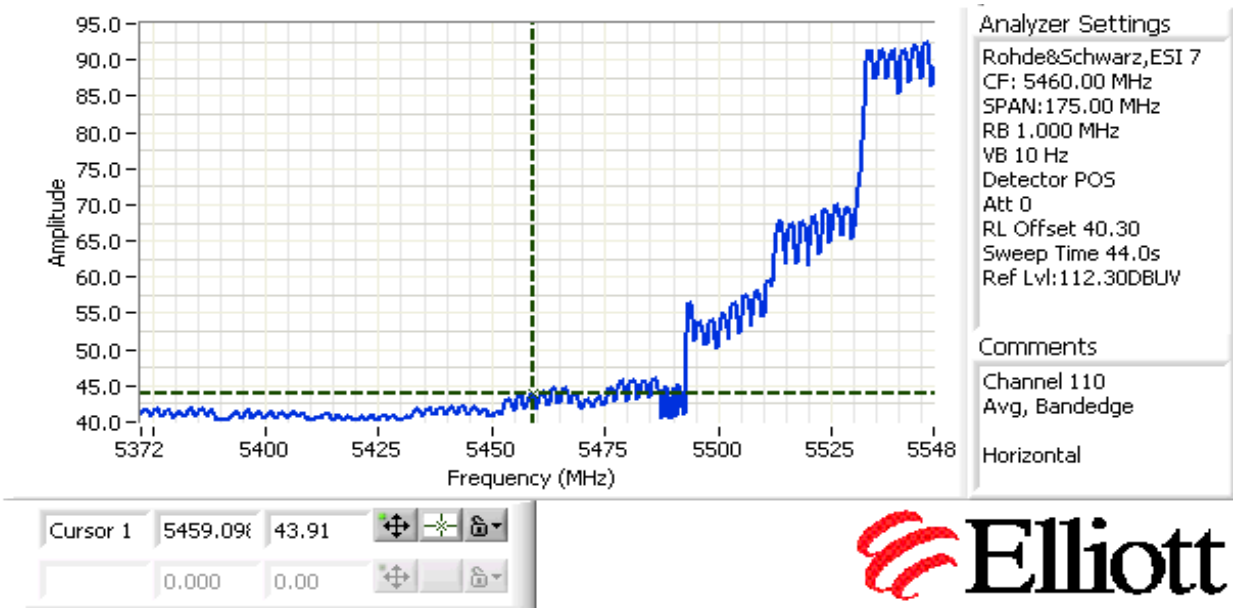




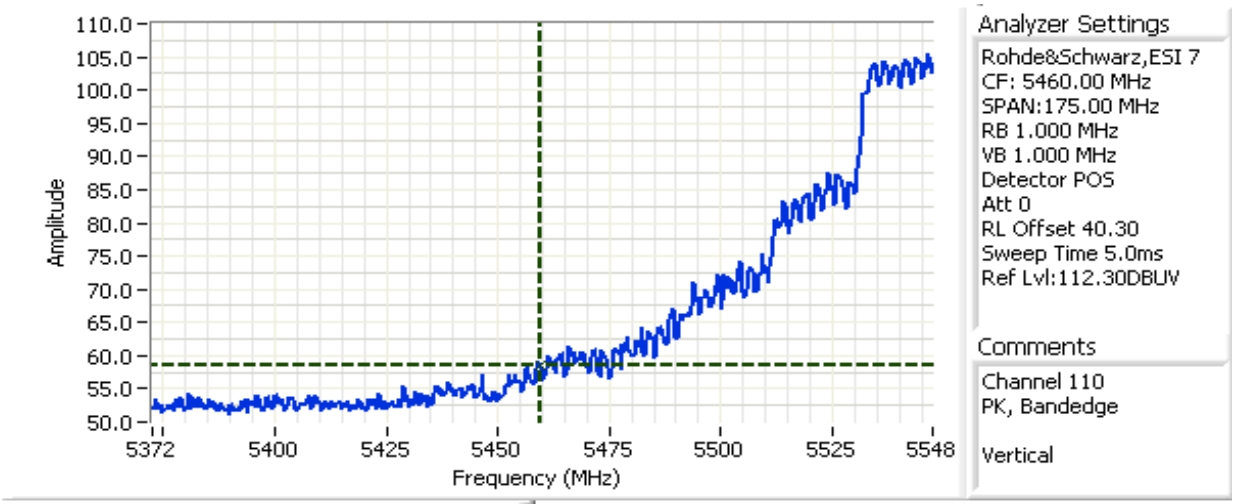
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

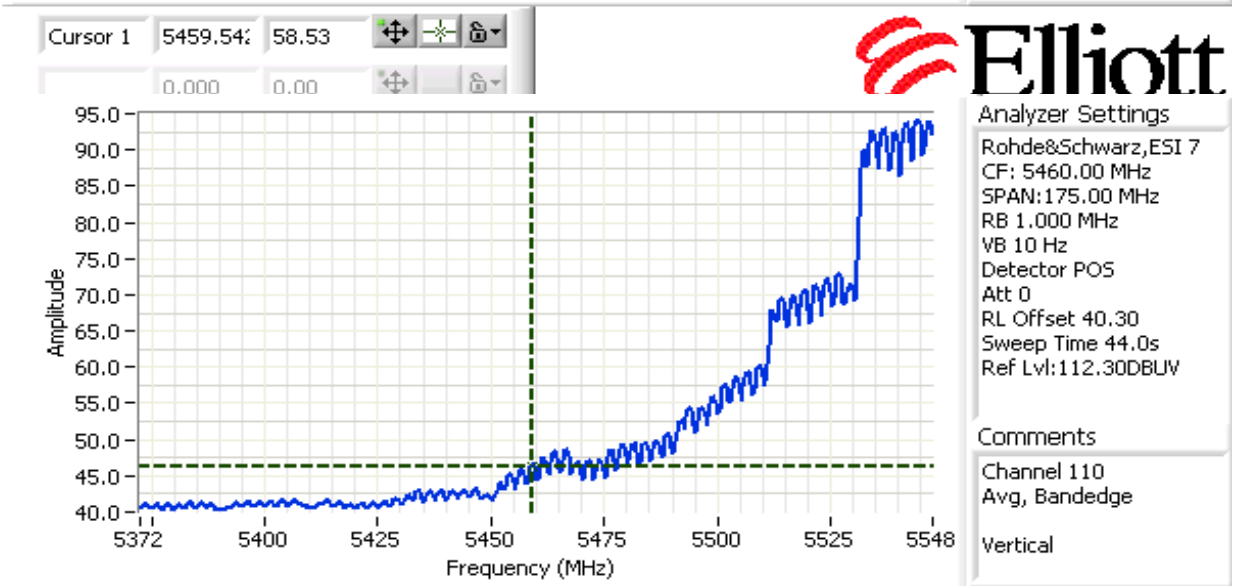
Run #3b: Radiated Spurious Emissions, 30 - 40000 MHz. Low Channel @ 5550 MHz





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



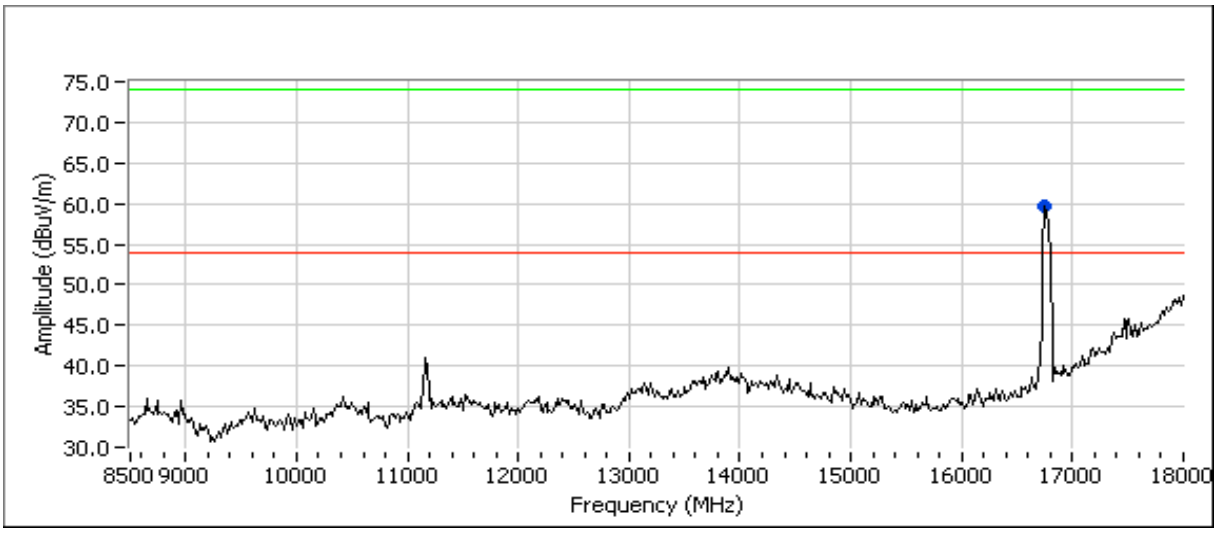


Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5460.000	46.3	V	54.0	-7.7	Avg	135	1.0	
5460.000	43.9	H	54.0	-10.1	Avg	278	1.7	
5460.000	58.5	V	74.0	-15.5	Pk	135	1.0	
5460.000	57.0	H	74.0	-17.0	Pk	278	1.7	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #3c: Radiated Spurious Emissions, 30 - 40000 MHz. Center Channel @ 5590 MHz



Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
16772.46	54.5	V	68.3	-13.8	AVG	85	1.0	Unrestricted with restricted limit
16772.46	67.1	V	88.3	-21.2	PK	85	1.0	Unrestricted with restricted limit

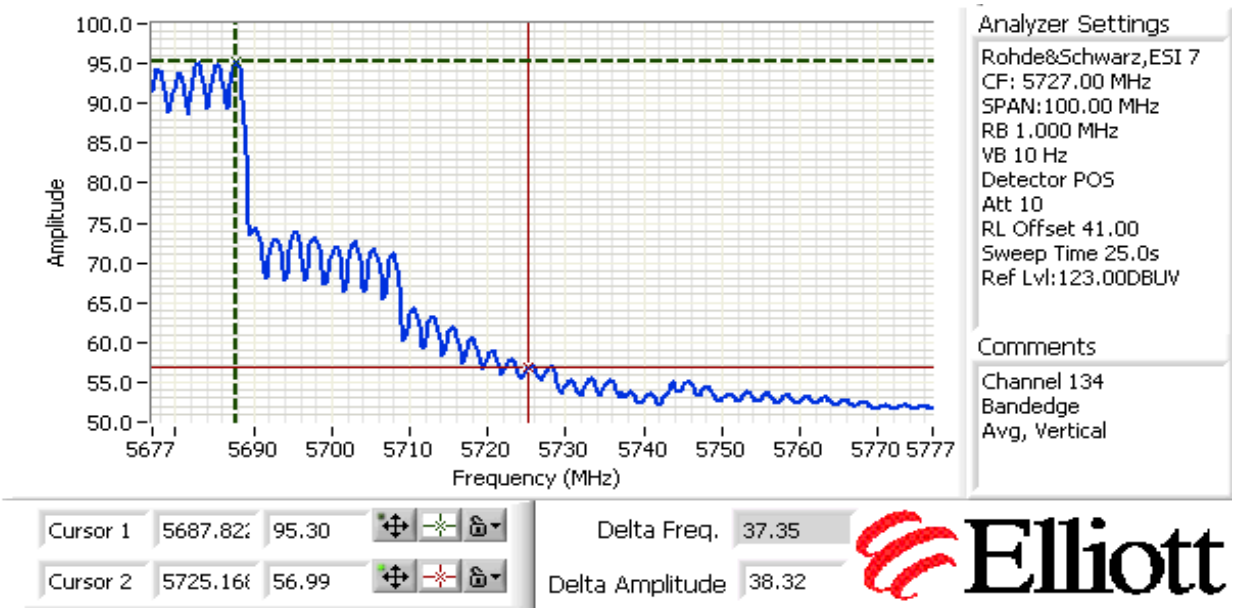
Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Run #3d: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5670 MHz

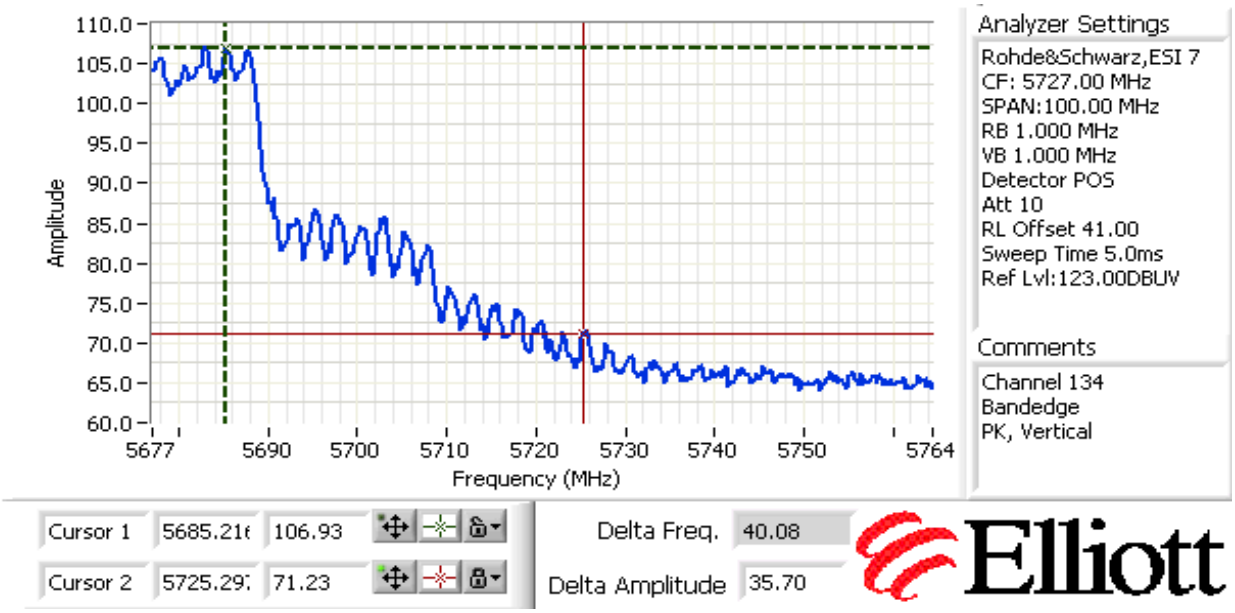
Band Edge Signal Radiated Field Strength

Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
5725.168	57.0	V	68.3	-11.3	Avg	181	1.2	
5725.900	53.7	H	68.3	-14.6	Avg	227	1.1	
5725.290	71.2	V	88.3	-17.1	Pk	181	1.2	
5727.300	70.8	H	88.3	-17.5	Pk	227	1.1	

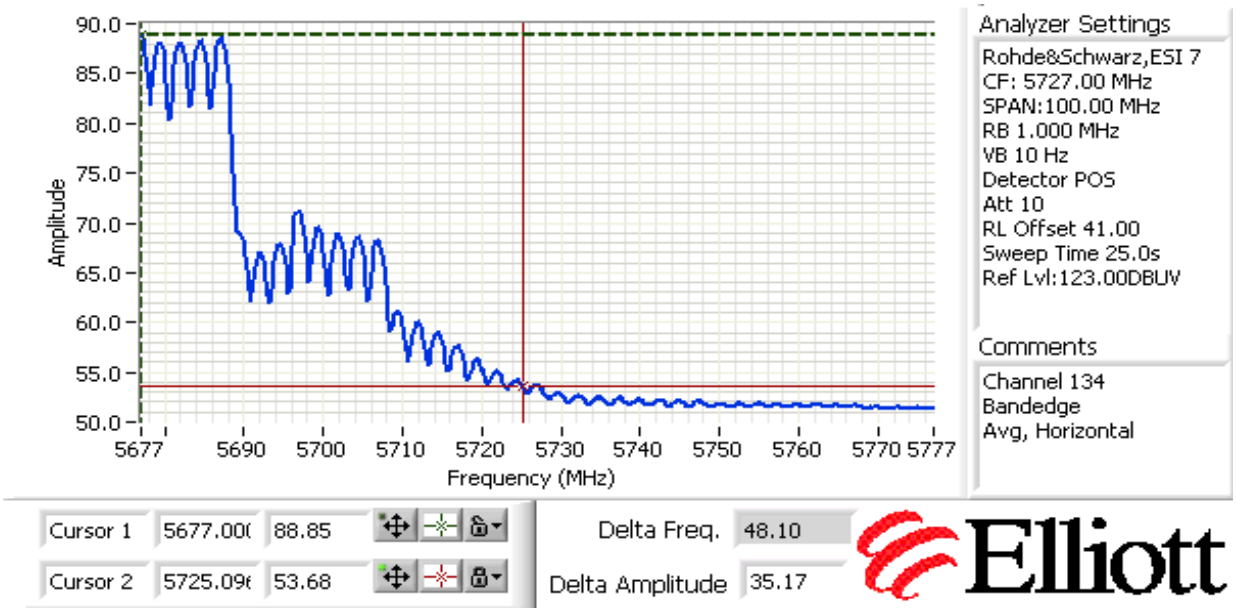
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



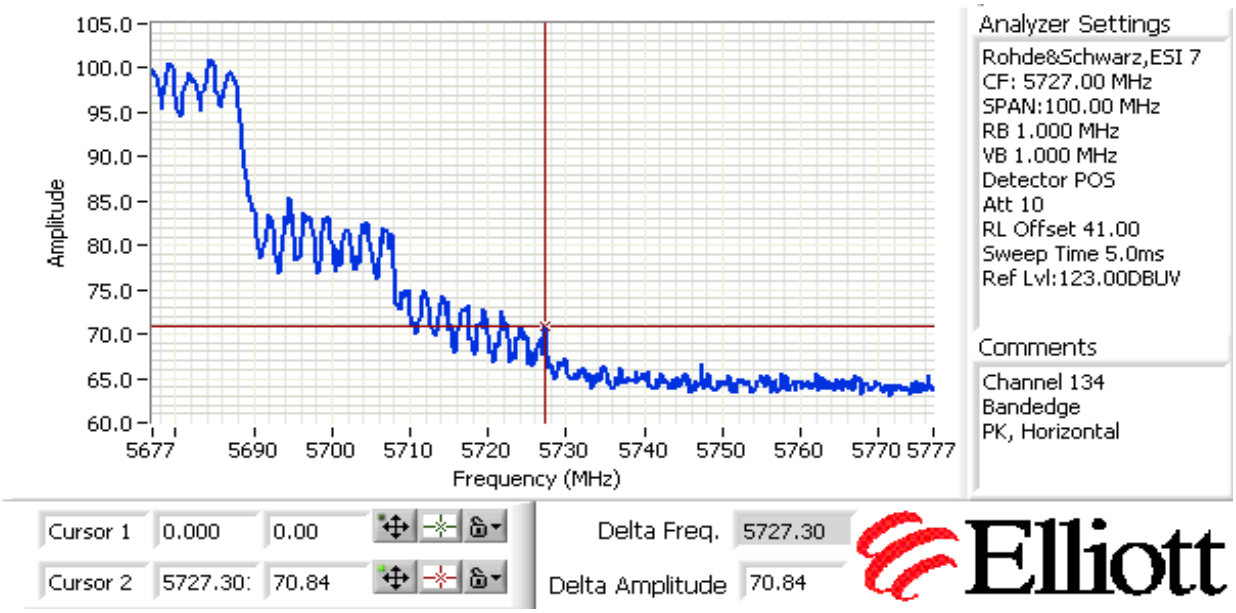
Run #3d: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5670 MHz



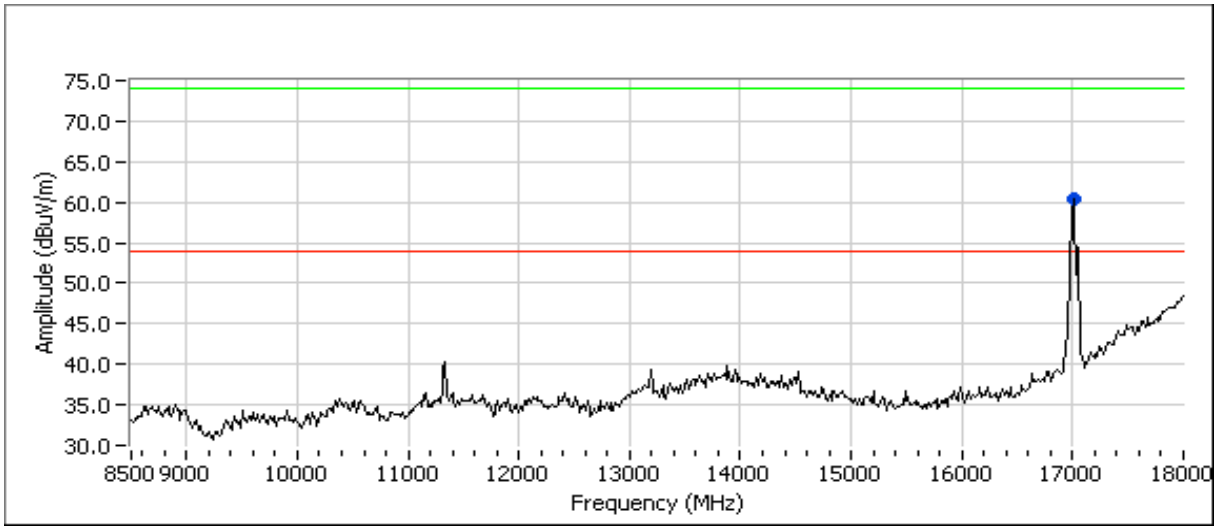
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



Run #3d: Radiated Spurious Emissions, 30 - 40000 MHz. High Channel @ 5670 MHz



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
16997.54	53.4	V	68.3	-14.9	AVG	79	1.0	Unrestricted with restricted limit
16997.54	64.3	V	88.3	-24.0	PK	79	1.0	Unrestricted with restricted limit

Note 1:	For emissions in restricted bands, the limit of 15.209 was used. For all other emissions, the limit was set to -27dBm/MHz (~68dBuV/m).

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

FCC Part 15 Subpart E Tests

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: 1/2/2008
Test Engineer: Mehran Birgani
Test Location: FT Chamber #5

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: 16 °C
Rel. Humidity: 42 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	14.8dBm (27.9 mW)
1	Power, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	18.0dBm (58.6 mW)
1	Power, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	17.7dBm (66.1 mW)
1	PSD, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	4.0 dBm/MHz
1	PSD, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	7.5 dBm/ MHz
1	PSD, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	7.5 dBm/ MHz
1	26dB Bandwidth	15.407	Pass	> 20 MHz
1	99% Bandwidth	RSS 210	-	17.7MHz
2	Peak Excursion Envelope	15.407(a) (6)	Pass	12.31 dBm
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 Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

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

Run #1a: Bandwidth, Output Power and Power spectral Density (5150-5250 MHz and 5250-5350 MHz)

Antenna Gain: 5.6 dBi

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	-	19.6	17.6	14.5	16.9	0.028	3.7	4.0	4.4	Pass
5200	-	19.9	17.6	14.7	17.0	0.030	4.0	4.0	4.4	Pass
5240	-	19.8	17.6	14.3	17.0	0.027	3.7	4.0	4.4	Pass
5260	-	26.8	17.6	17.7	24.0	0.059	6.9	11.0	11.0	Pass
5300	-	27.8	17.6	18.0	24.0	0.063	7.5	11.0	11.0	Pass
5320	-	25.1	17.6	16.2	24.0	0.042	5.8	11.0	11.0	Pass

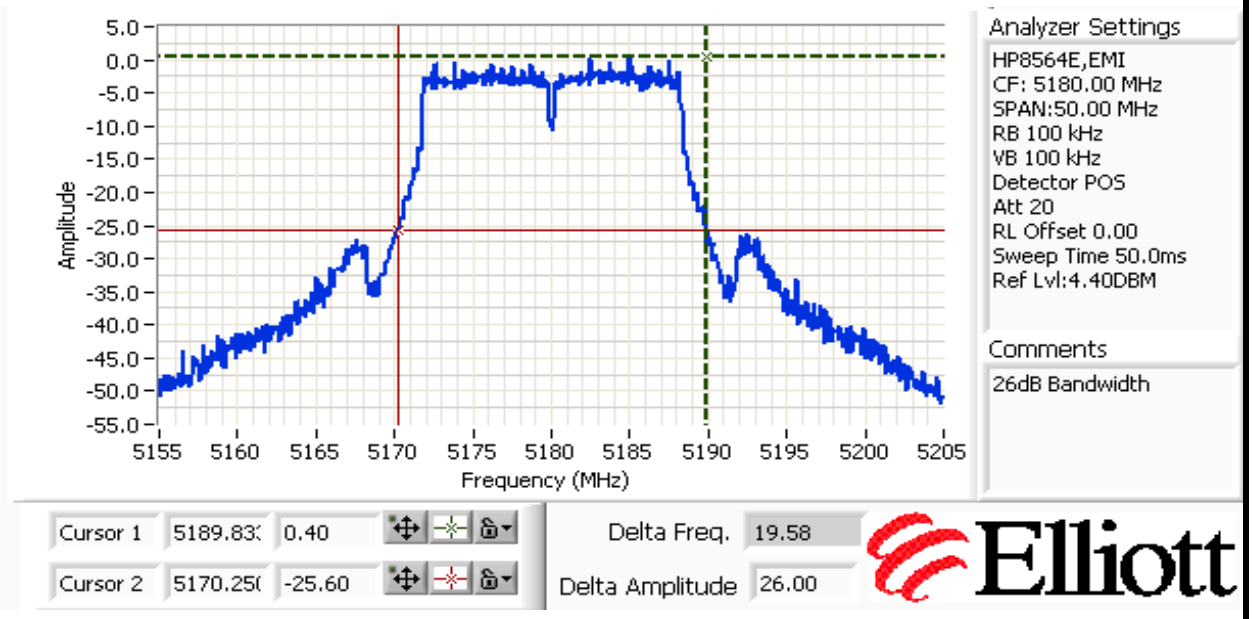
Run #1b: Bandwidth, Output Power and Power spectral Density (5470-5725MHz)

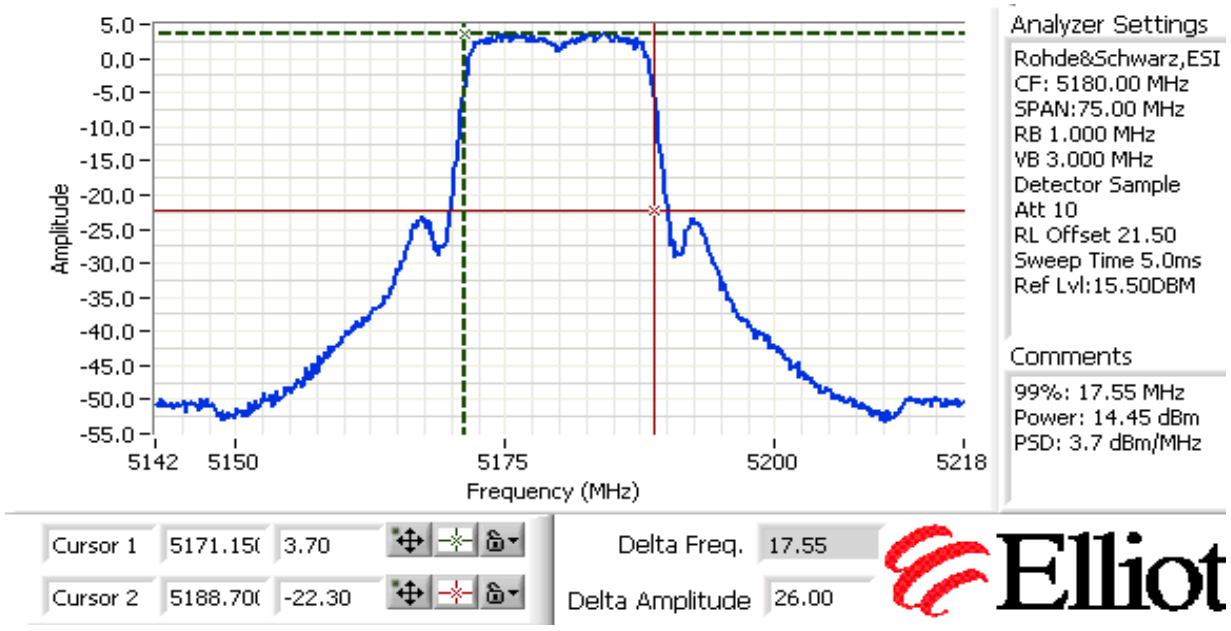
Antenna Gain: 4.2 dBi

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]	
5500	-	27.5	17.6	17.4	24.0	0.055	6.7	11.0	11.0	Pass
5600	-	26.6	17.6	18.1	24.0	0.064	7.5	11.0	11.0	Pass
5700	-	28.6	17.7	18.2	24.0	0.066	7.4	11.0	11.0	Pass

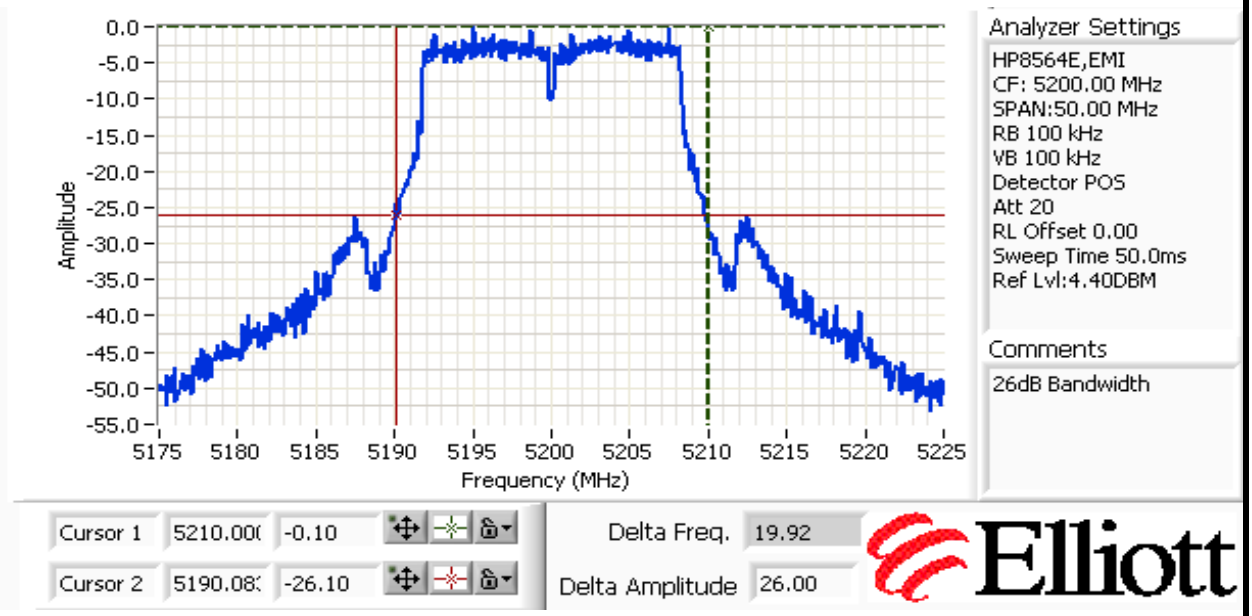
Note 1:	RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was not continuous but the ESI analyzer was configured with a gated sweep such that the analyzer was only sweeping when the device was transmitting) and power integration over 50MHz (reference method 1 of FCC DA 02-2138, August 30, 2002)
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum eirp allowed is 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSD exceeds the average PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB by the amount that the measured value exceeds the average by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB >=3xRB

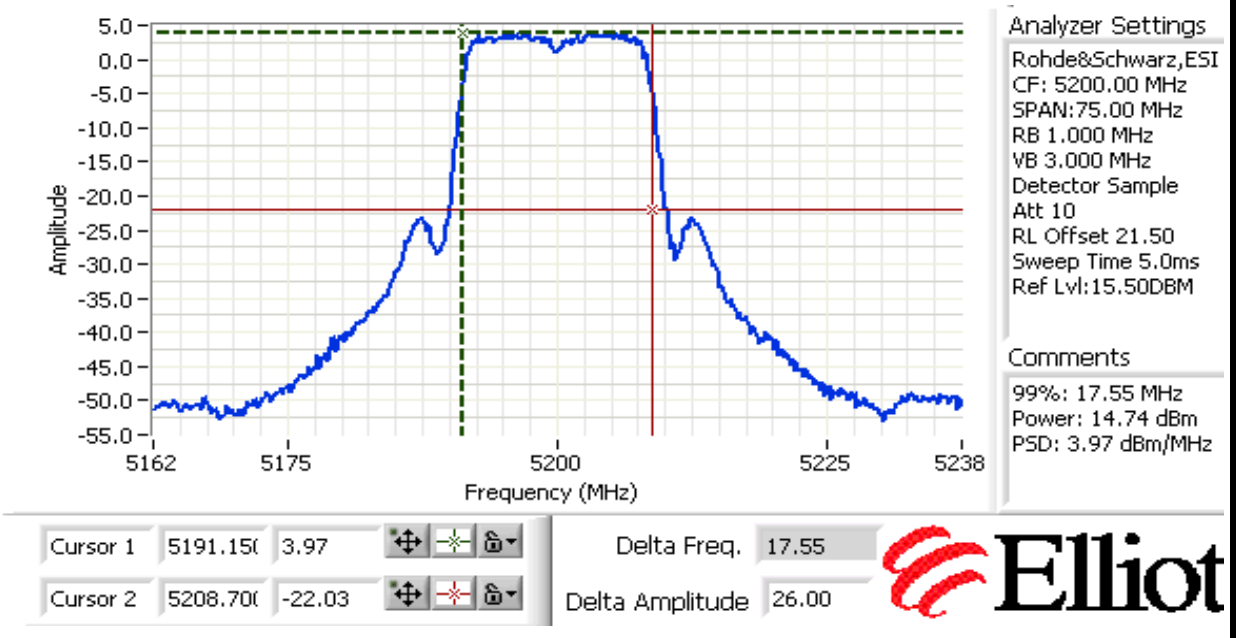
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



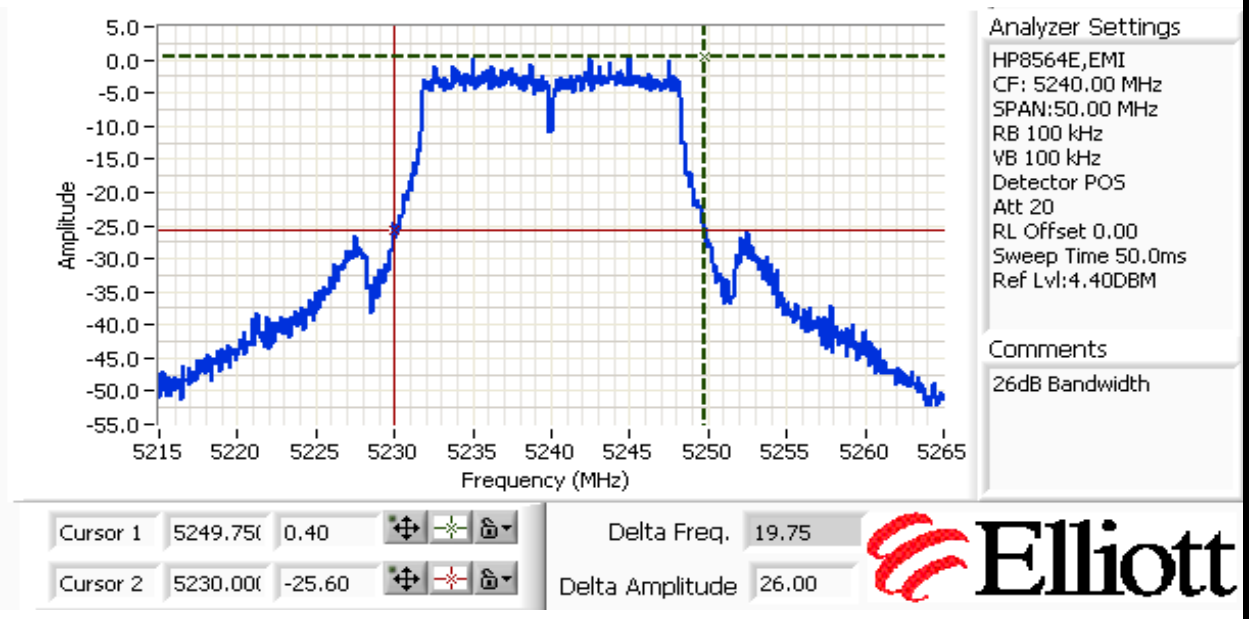


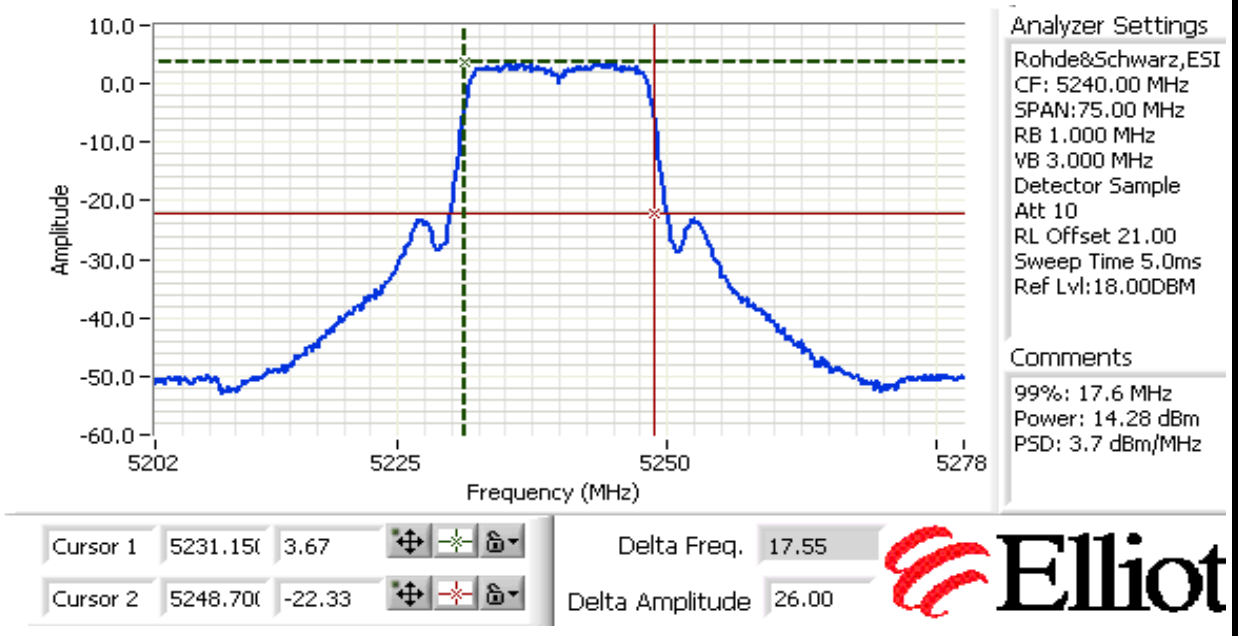
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



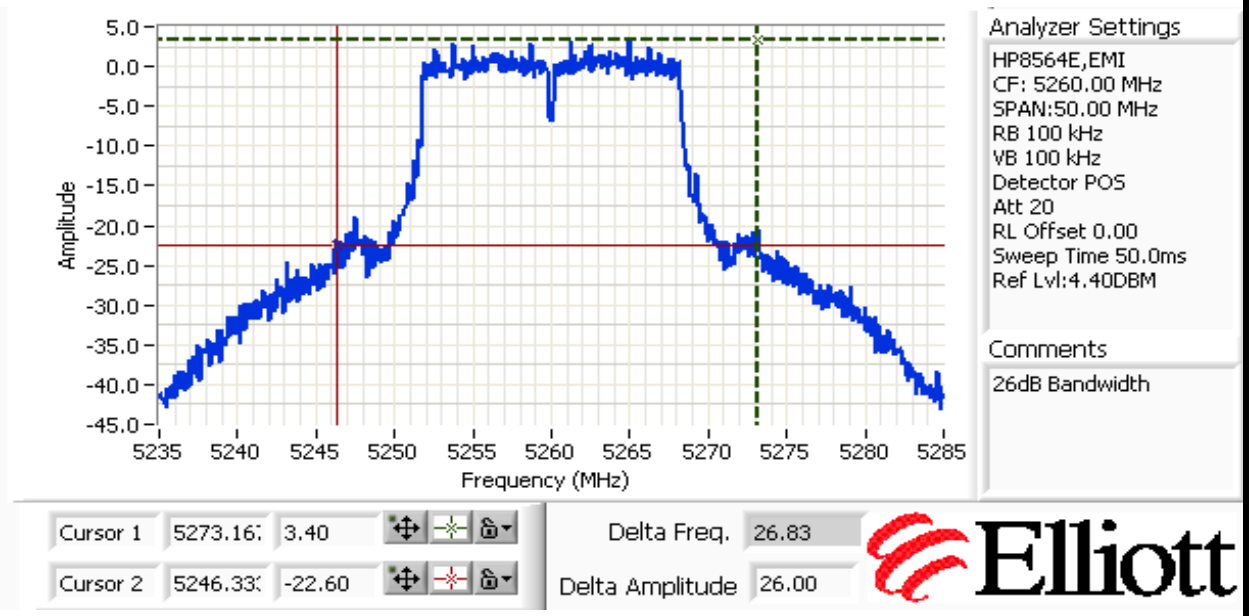


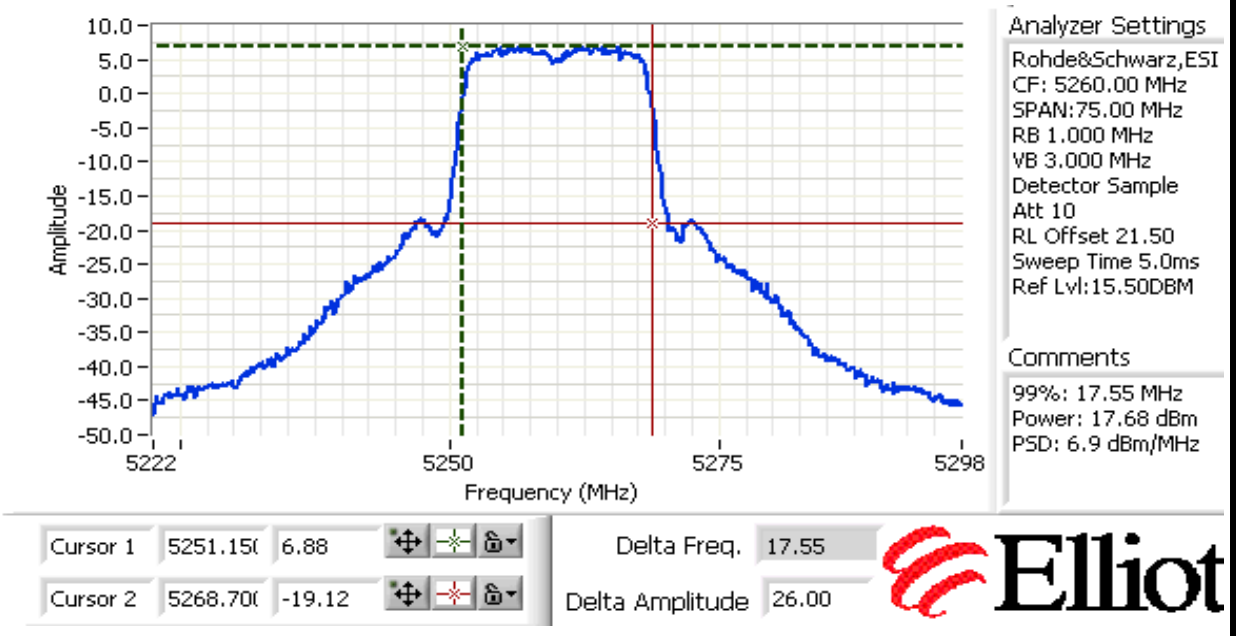
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



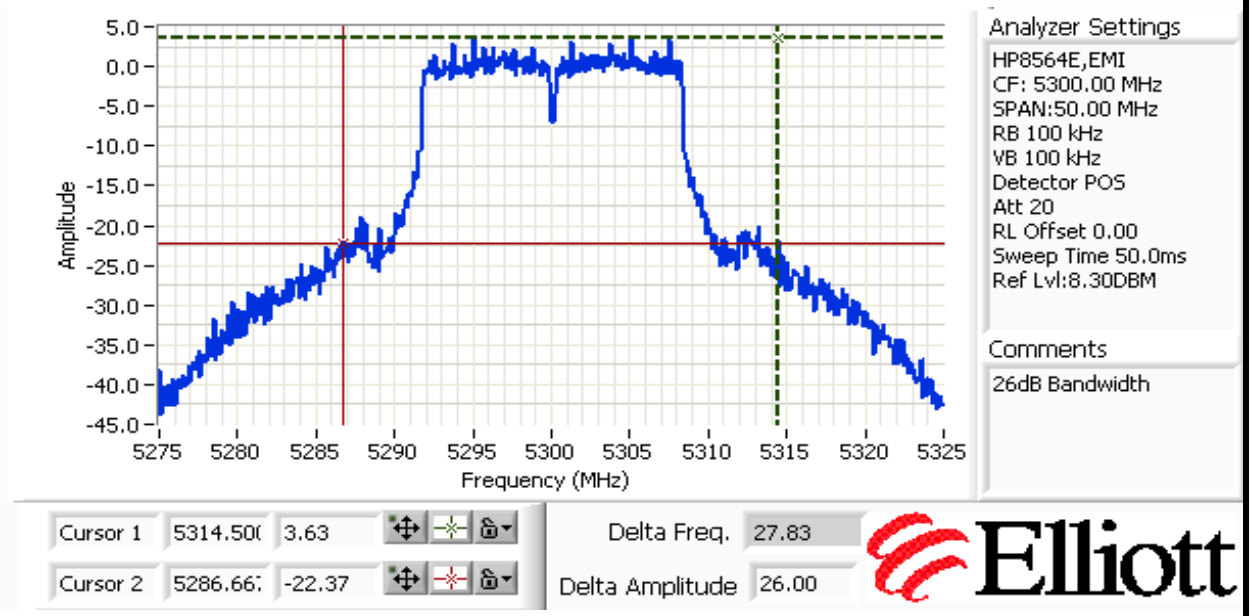


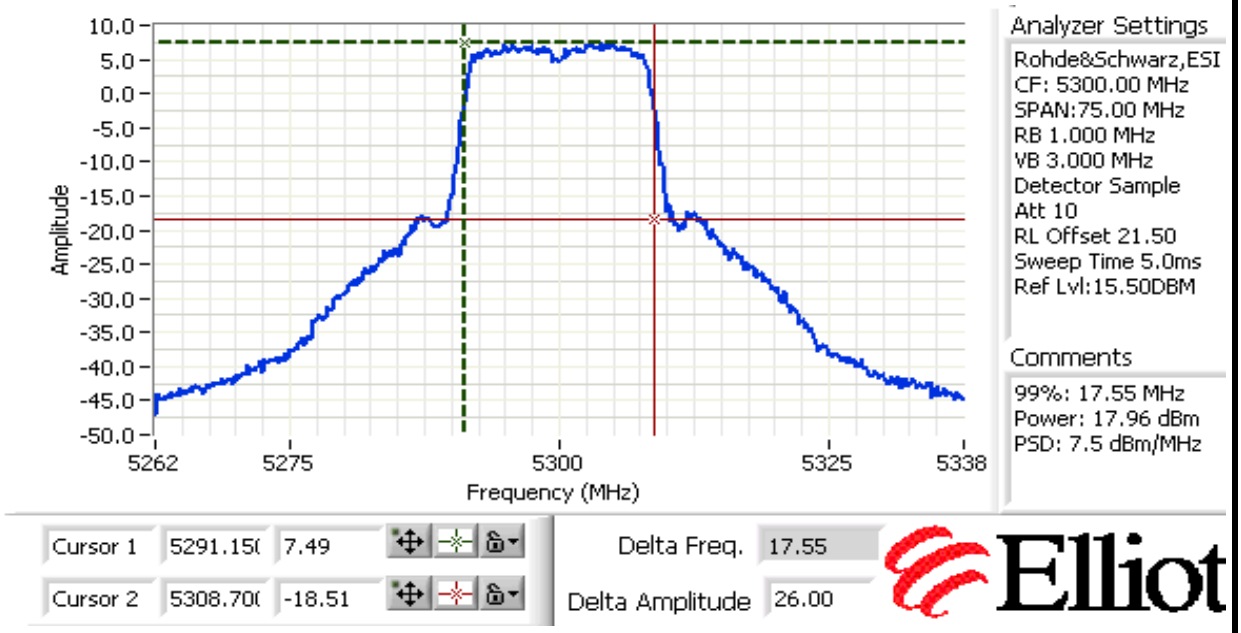
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



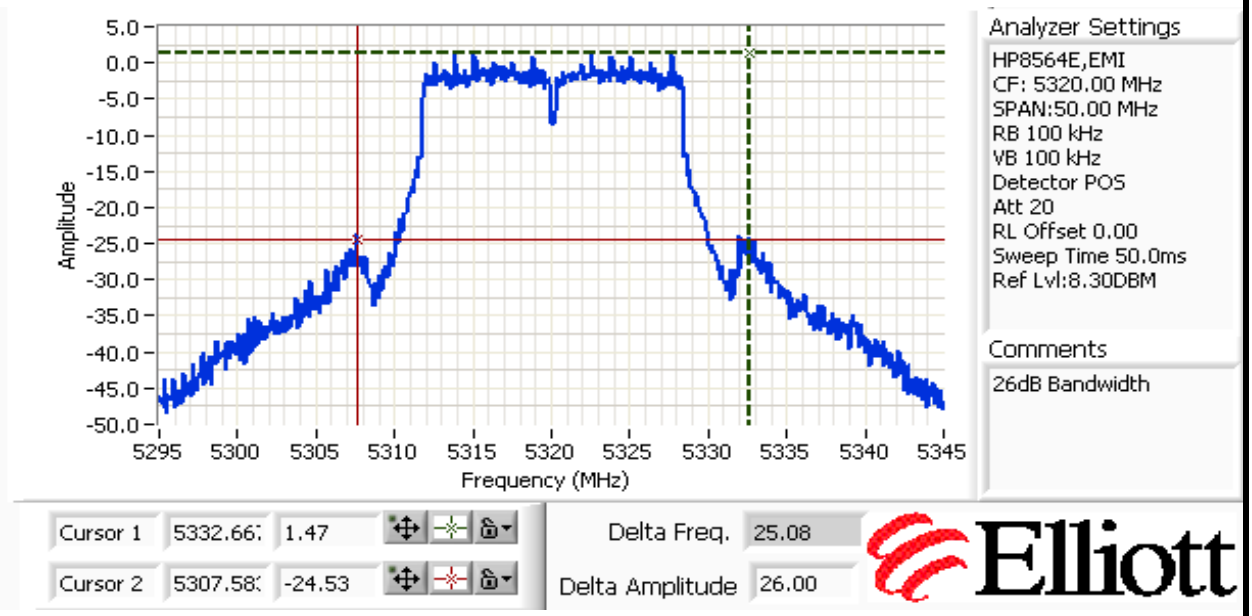


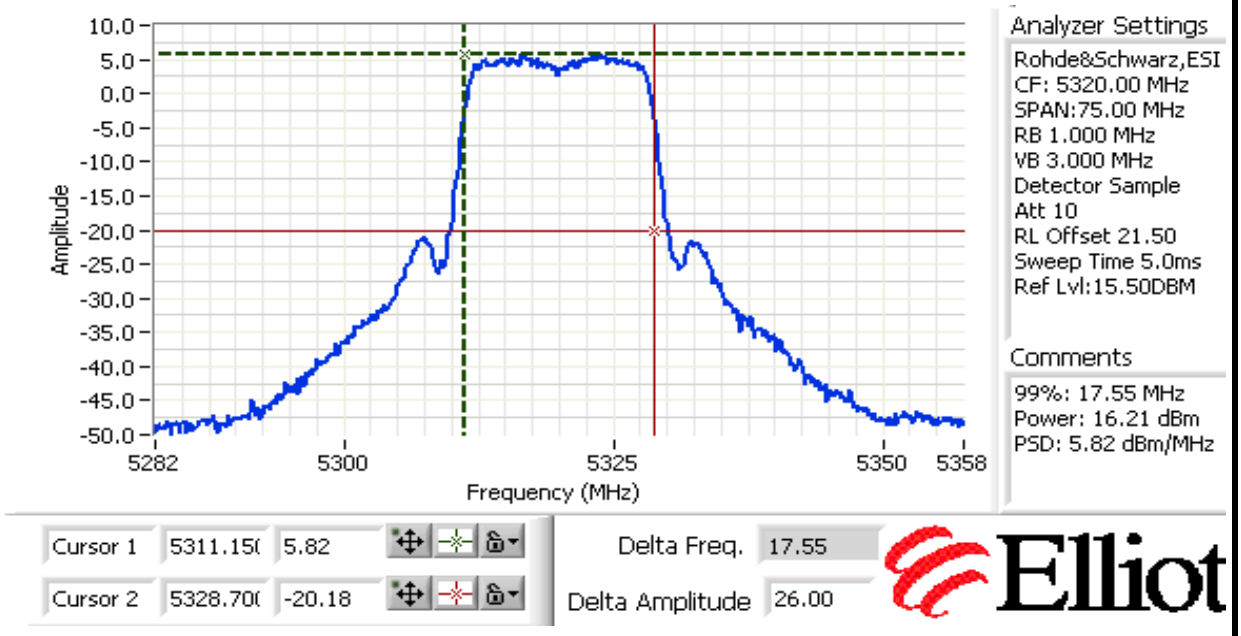
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



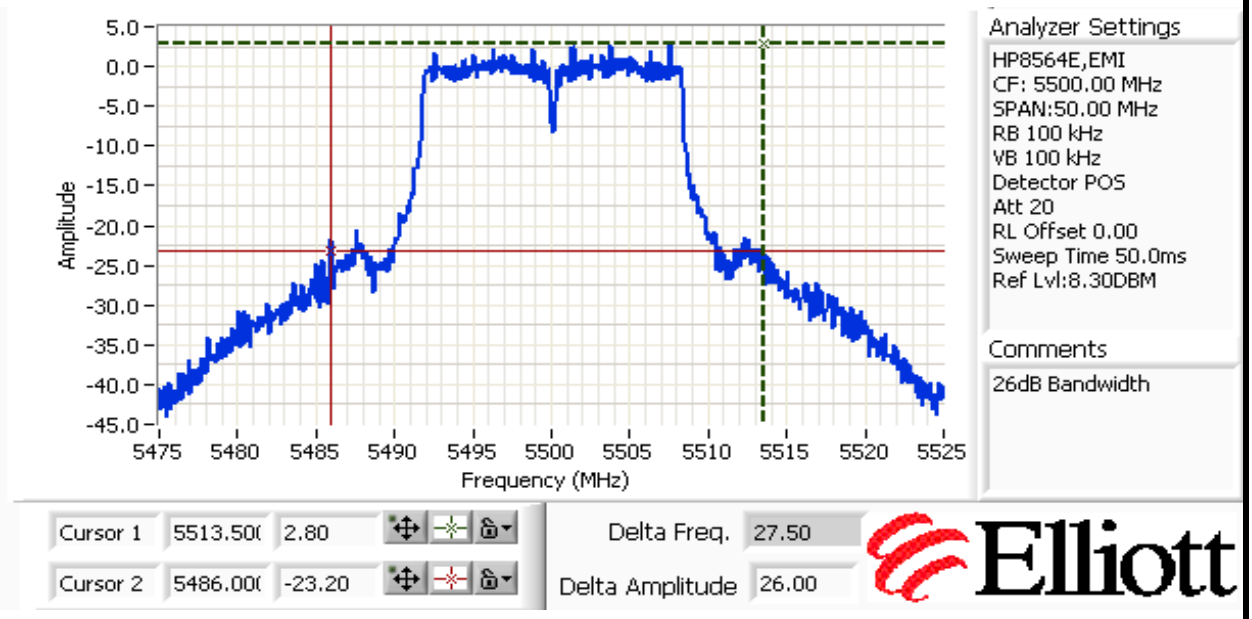


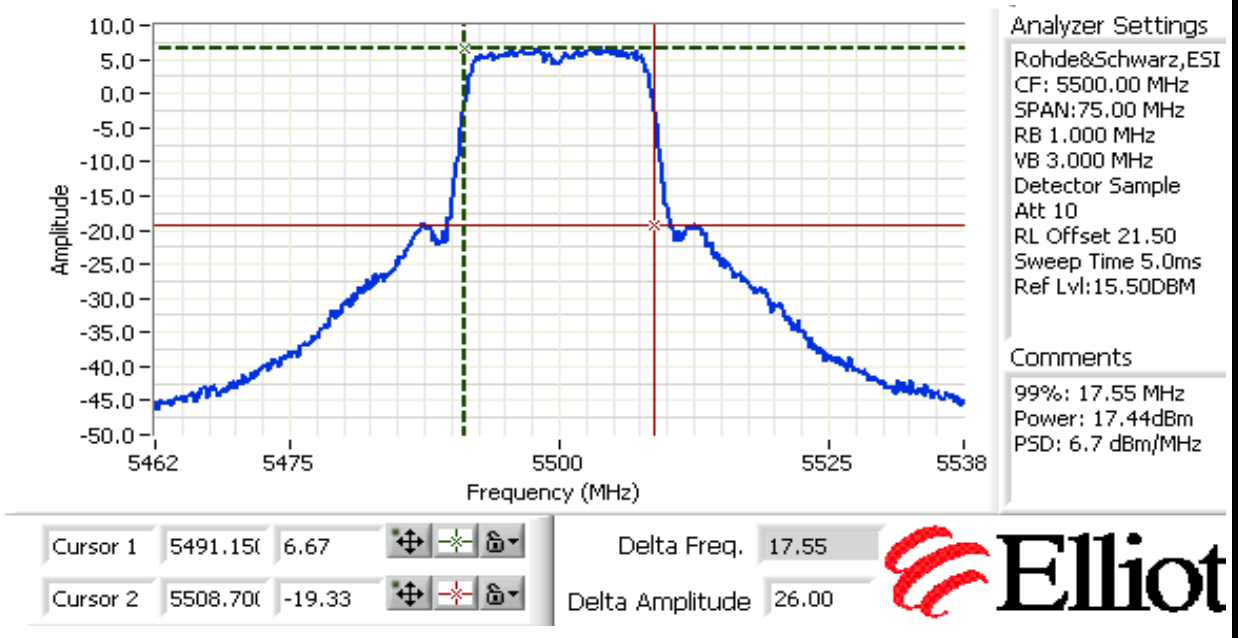
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



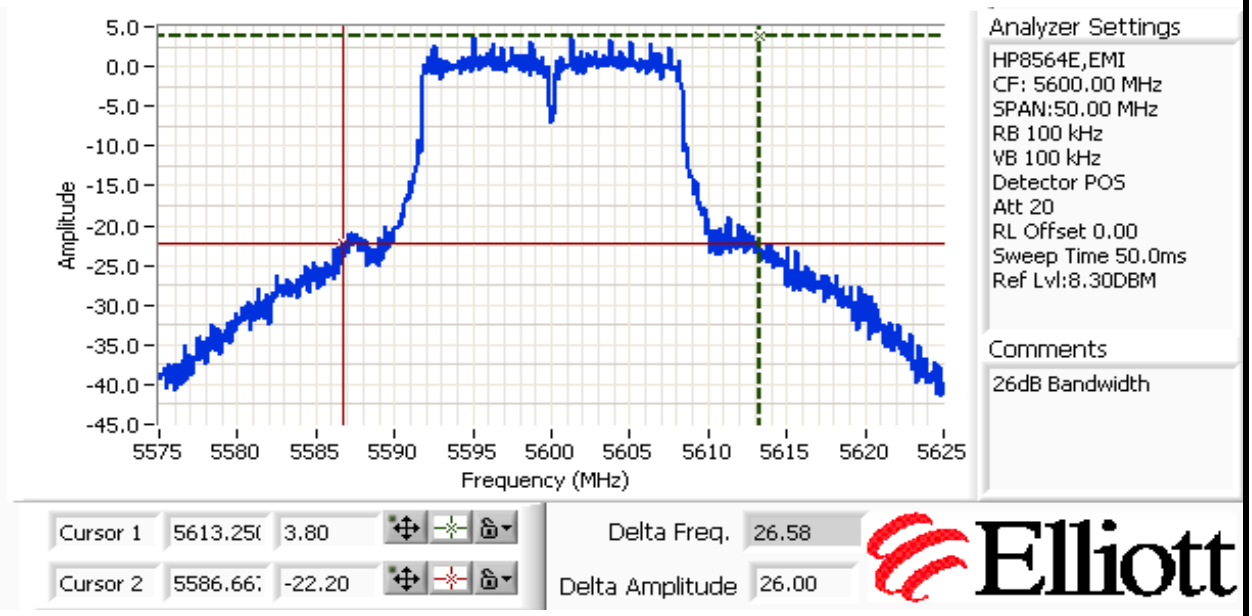


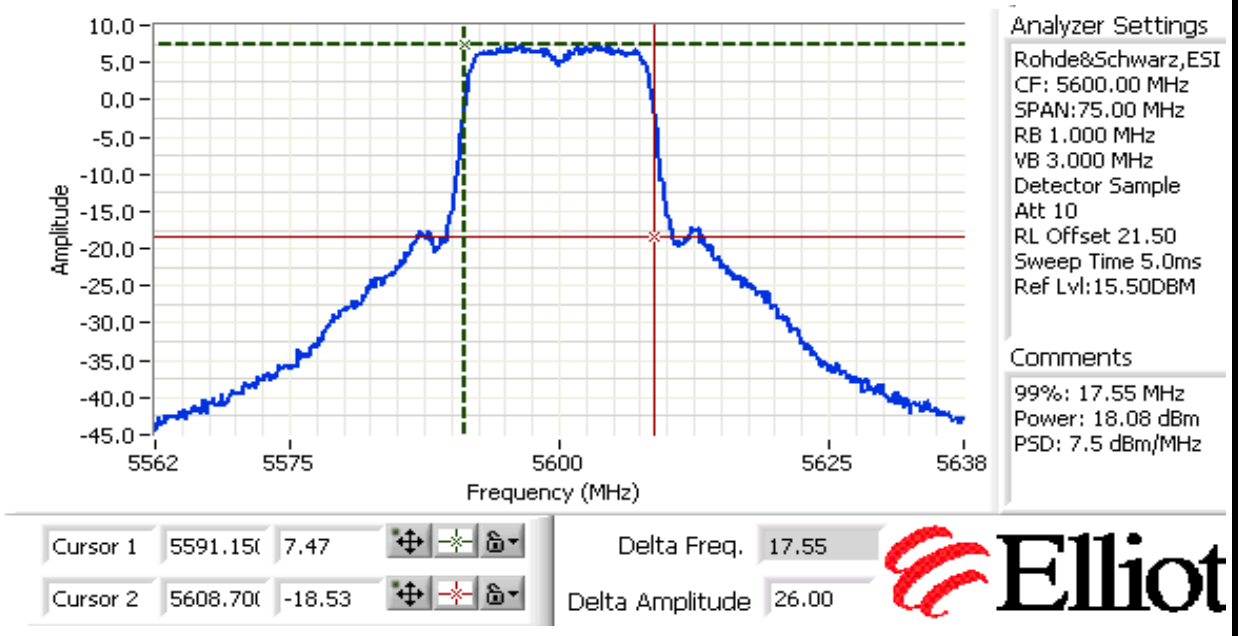
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



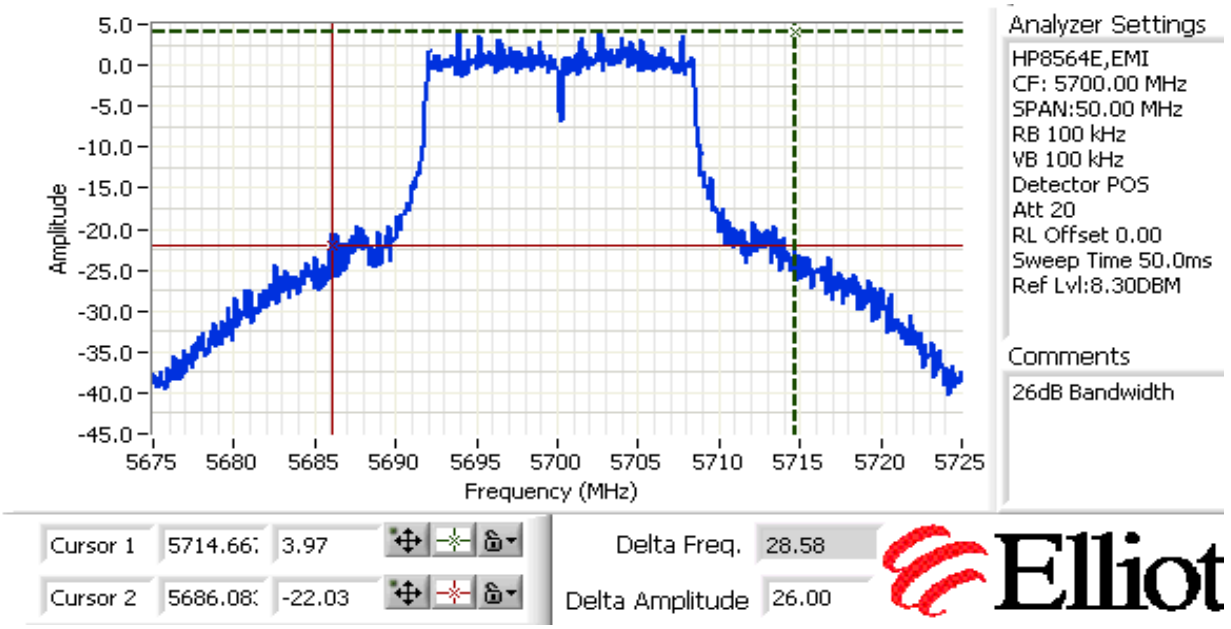


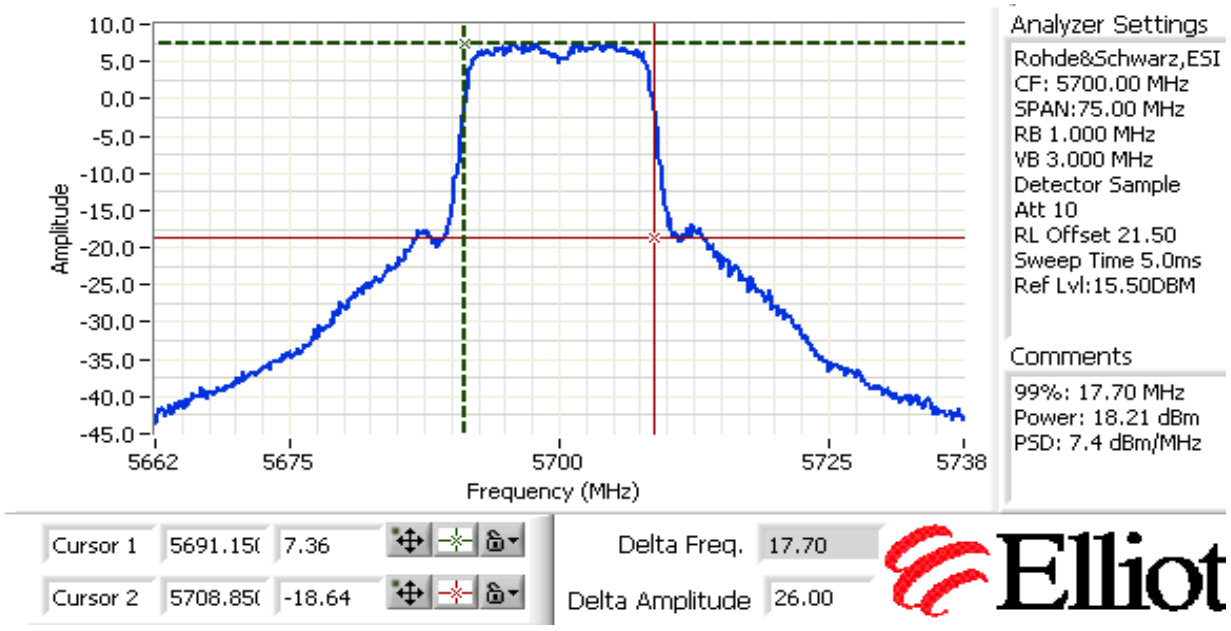
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

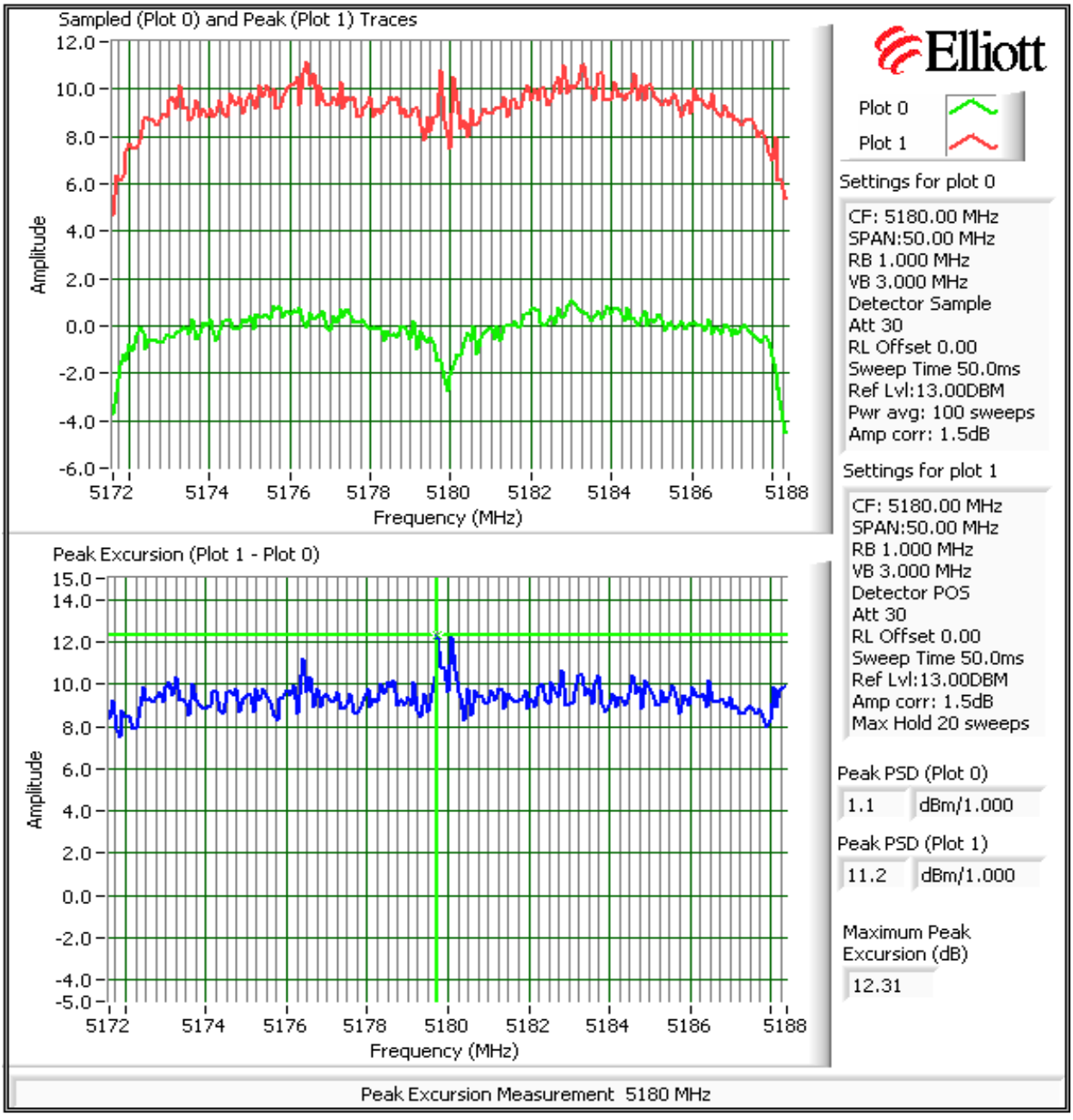




Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #2: Peak Excursion Measurement

Plots Showing Peak Excursion
Trace A: RBW = VBW = 1MHz
Trace B: RBW = 1 MHz, VBW = 30kHz

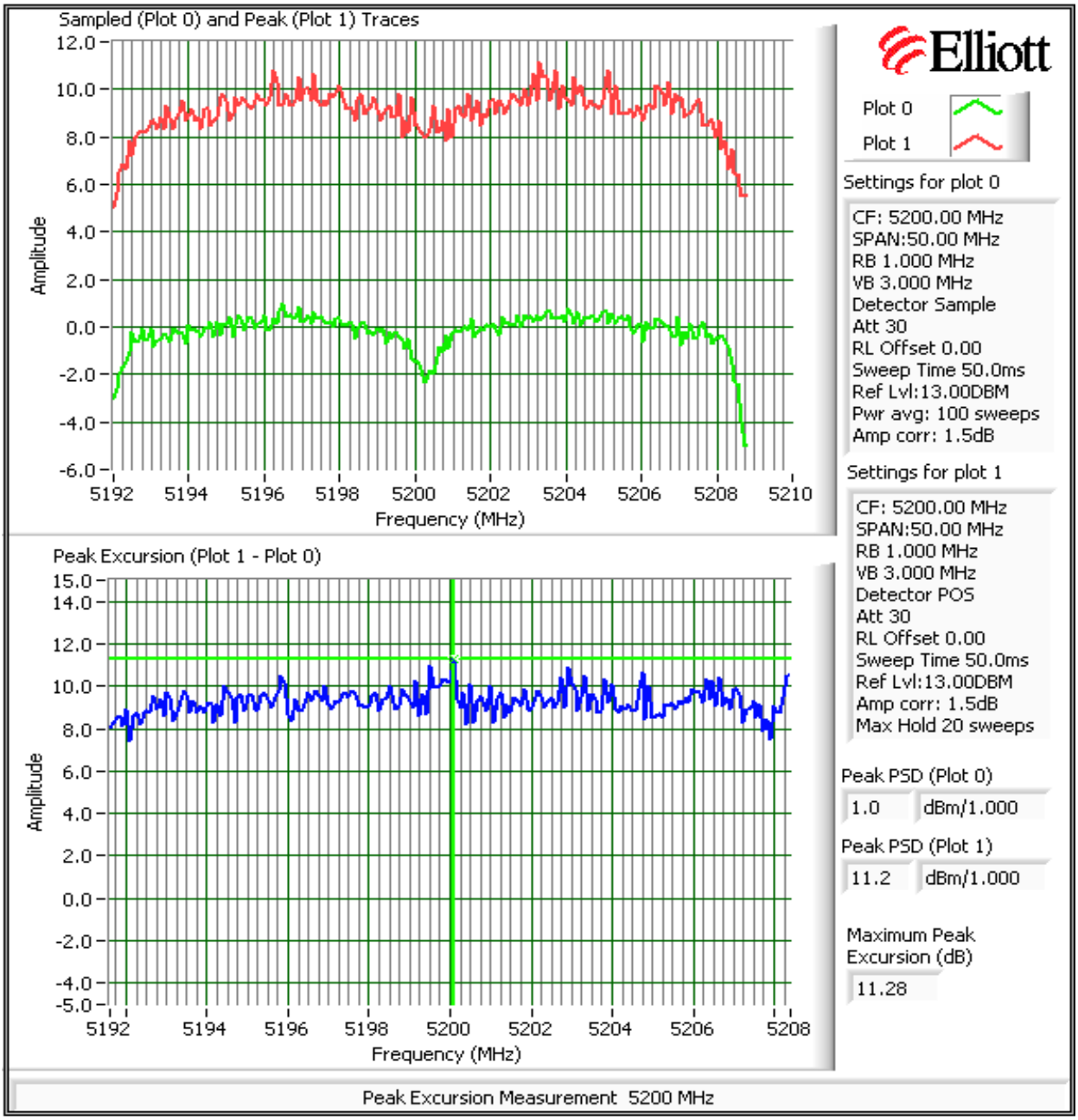


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

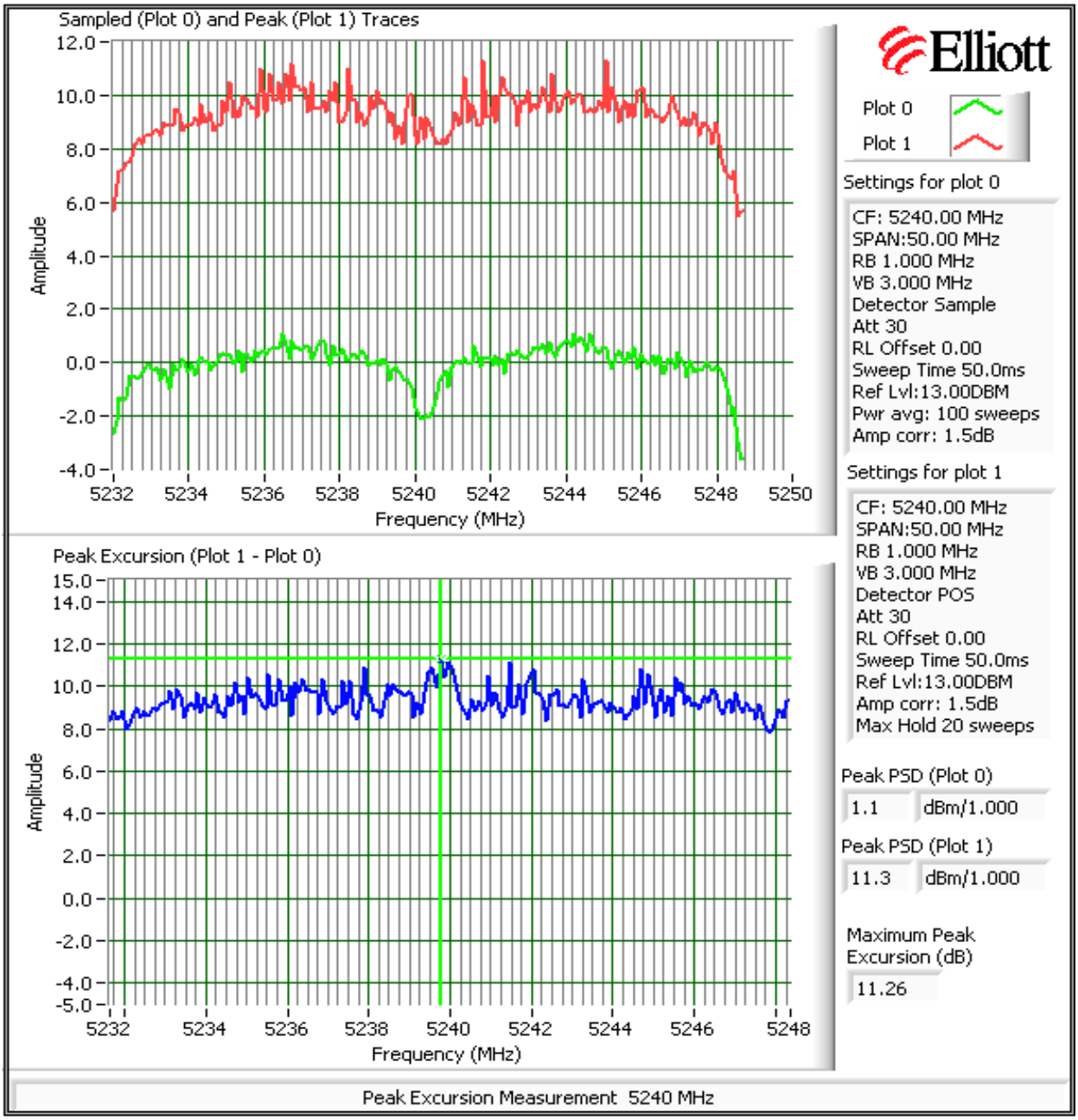


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

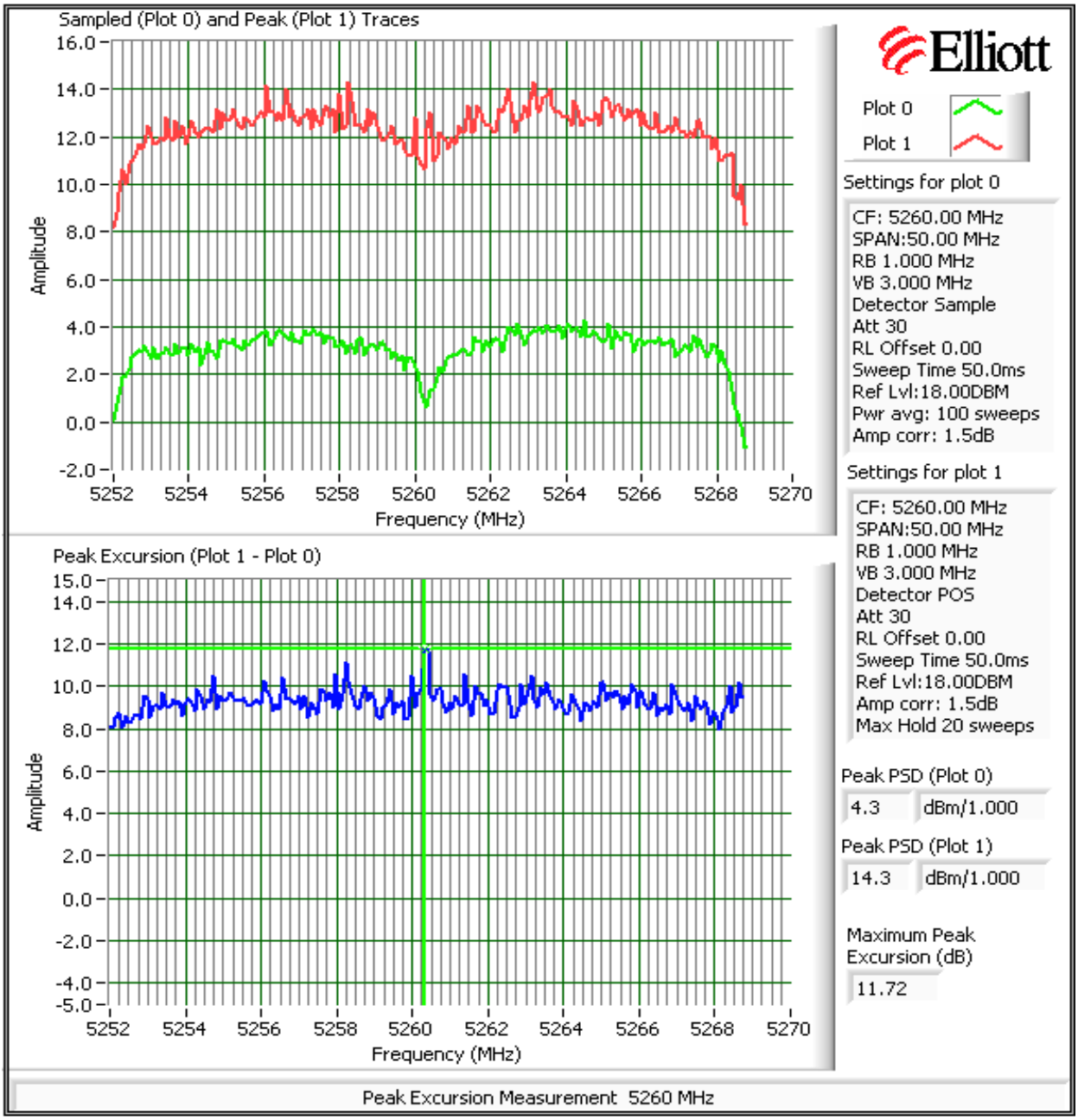


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

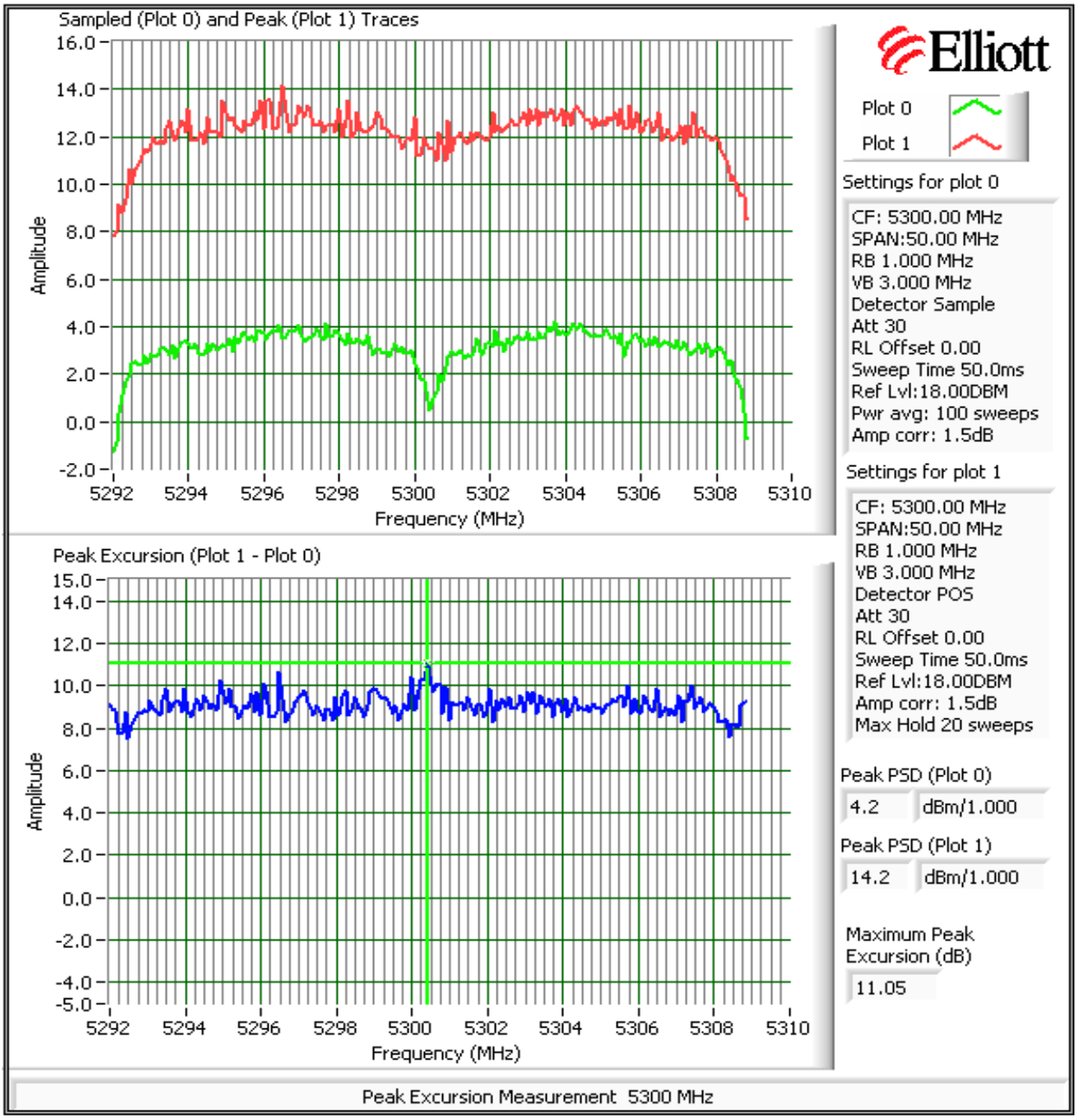
Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion
Trace A: RBW = VBW = 1MHz
Trace B: RBW = 1 MHz, VBW = 30kHz

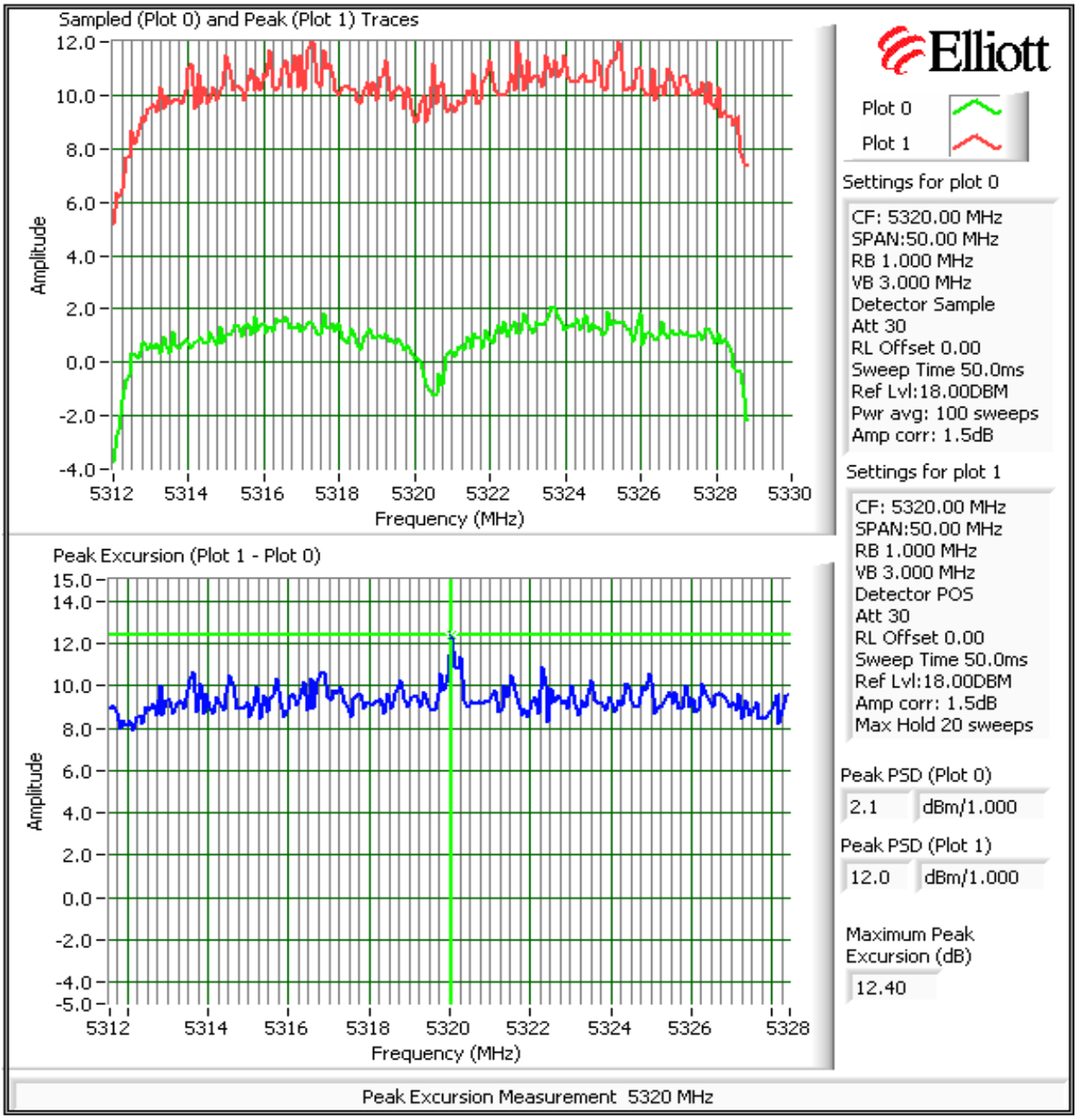


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

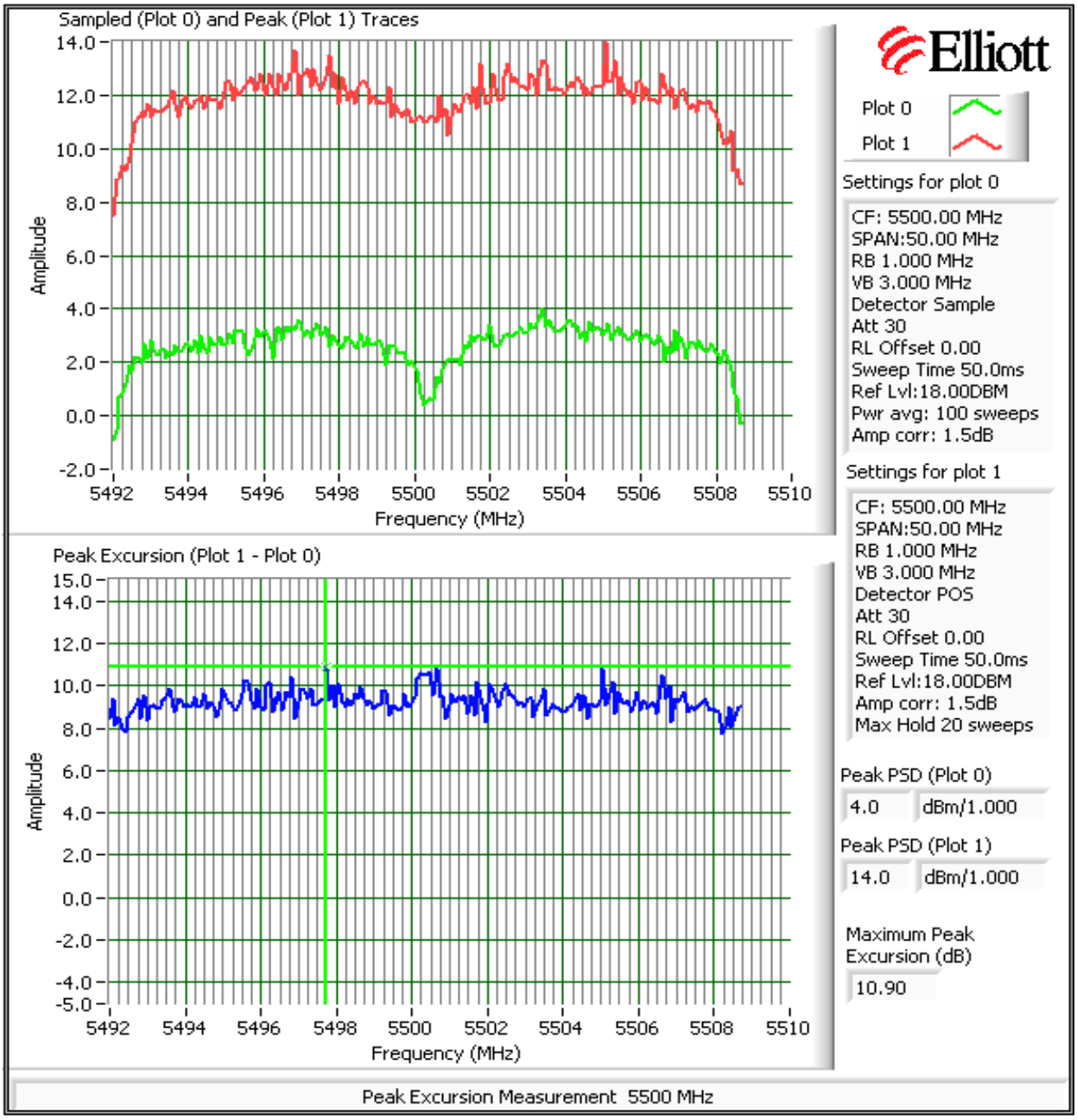


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

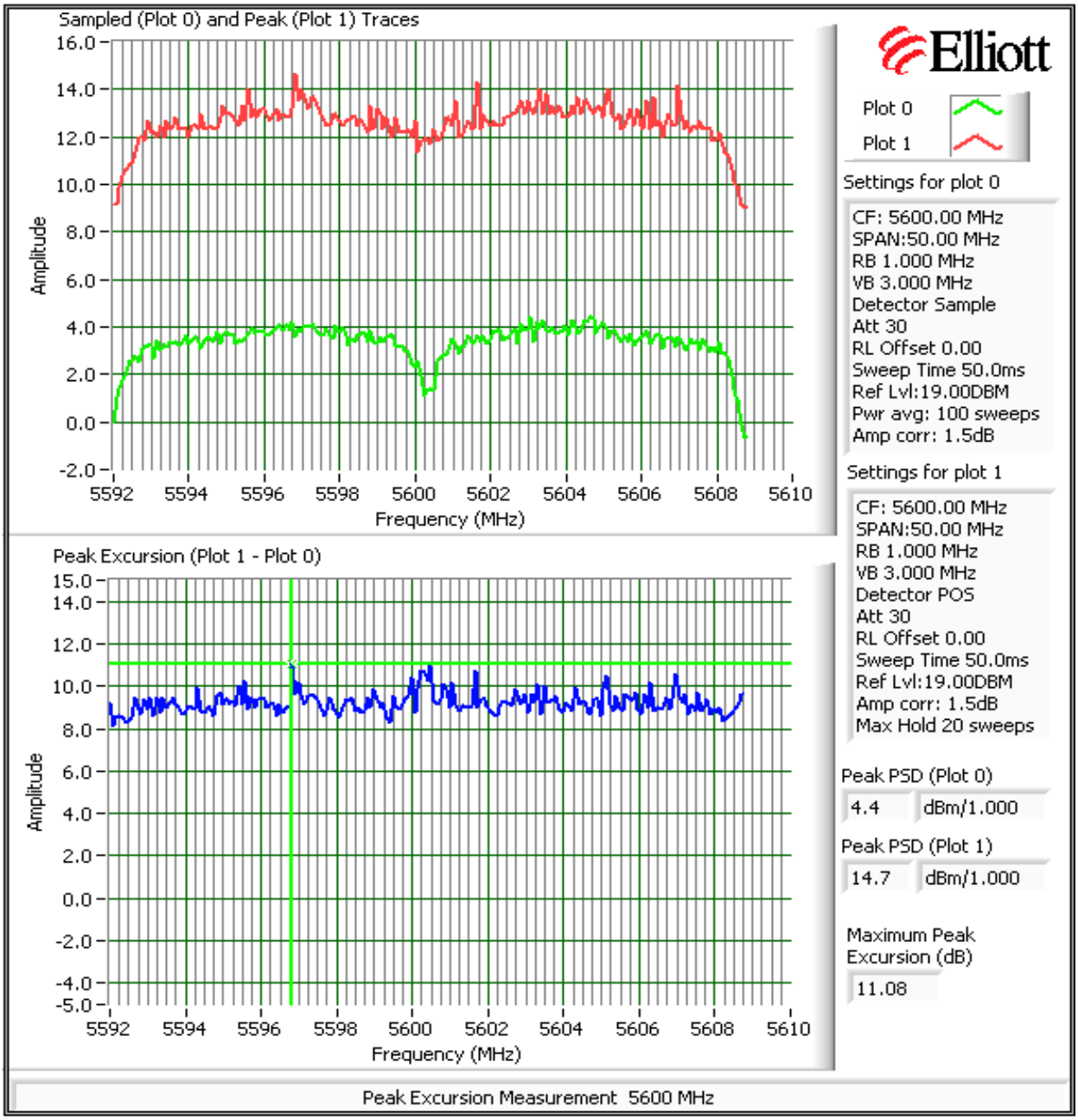


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

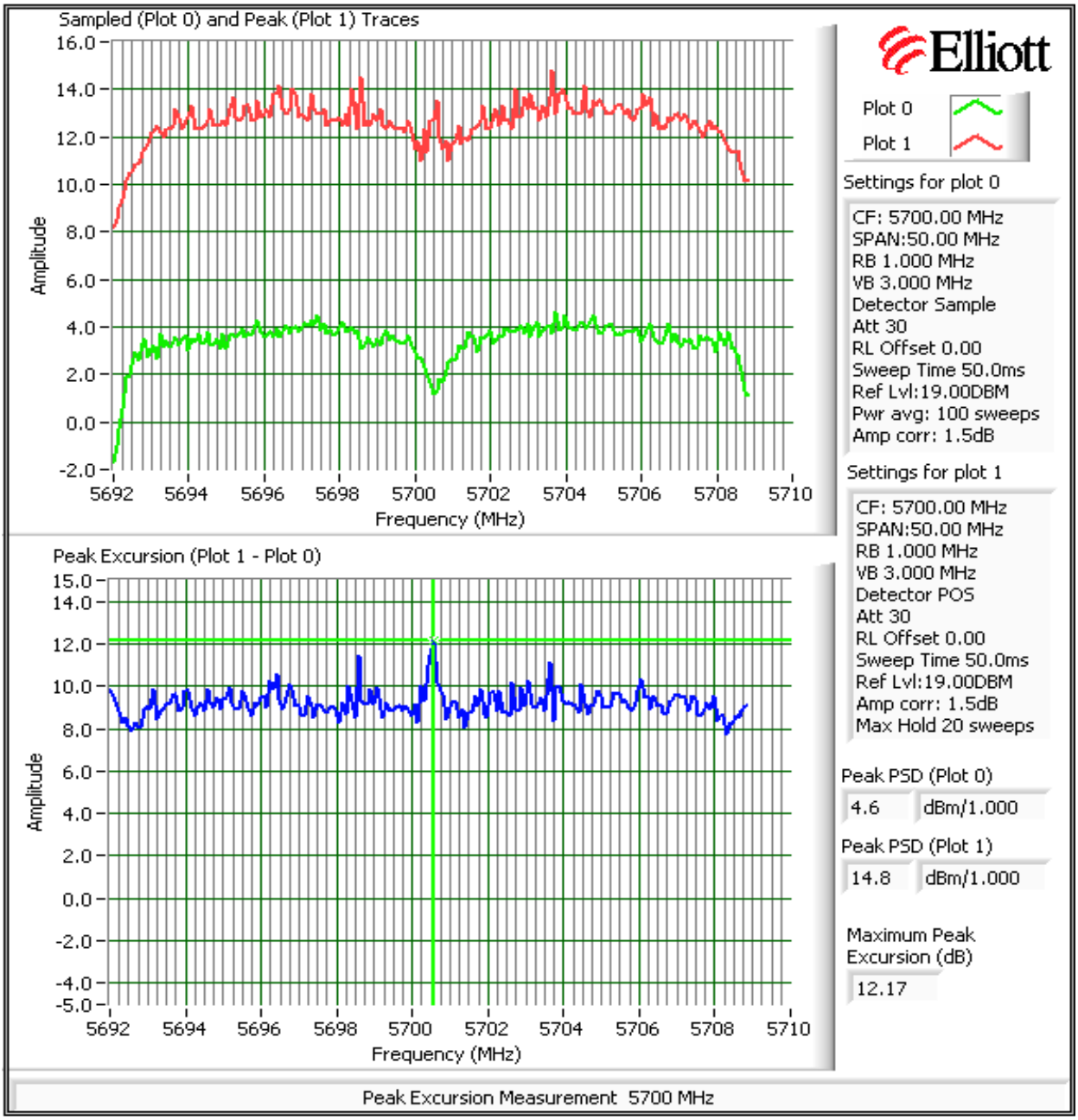


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz



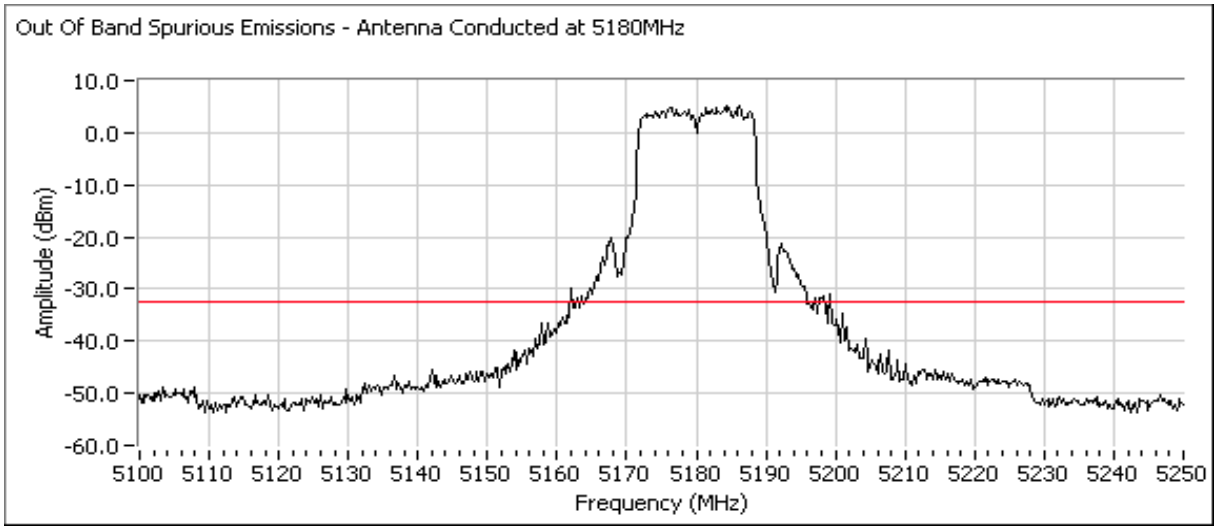
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

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

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:	Signals that fall in the restricted bands of 15.205 are subject to the limit of 15.209.

Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

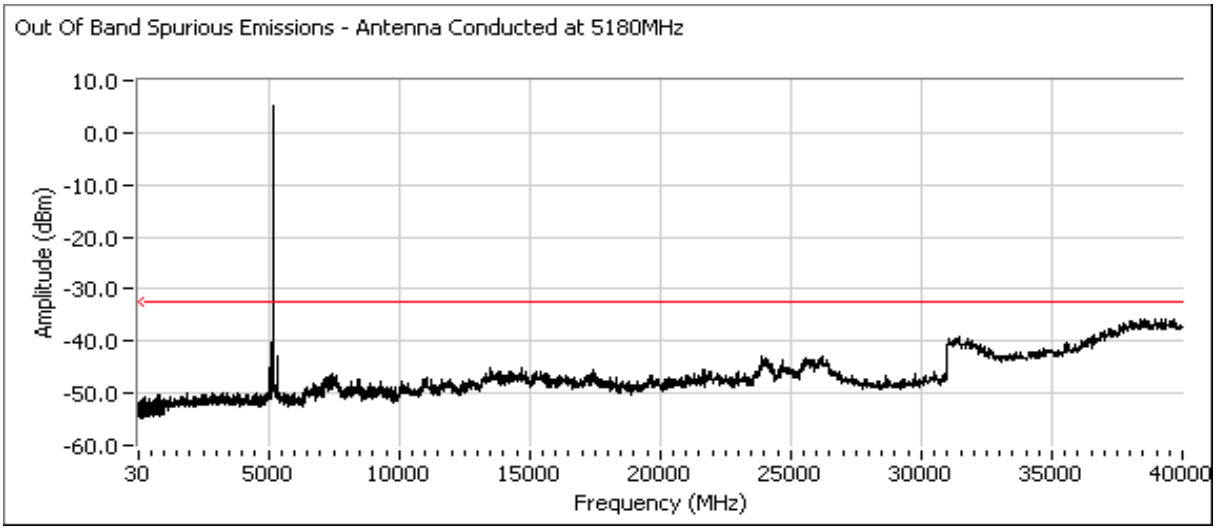
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

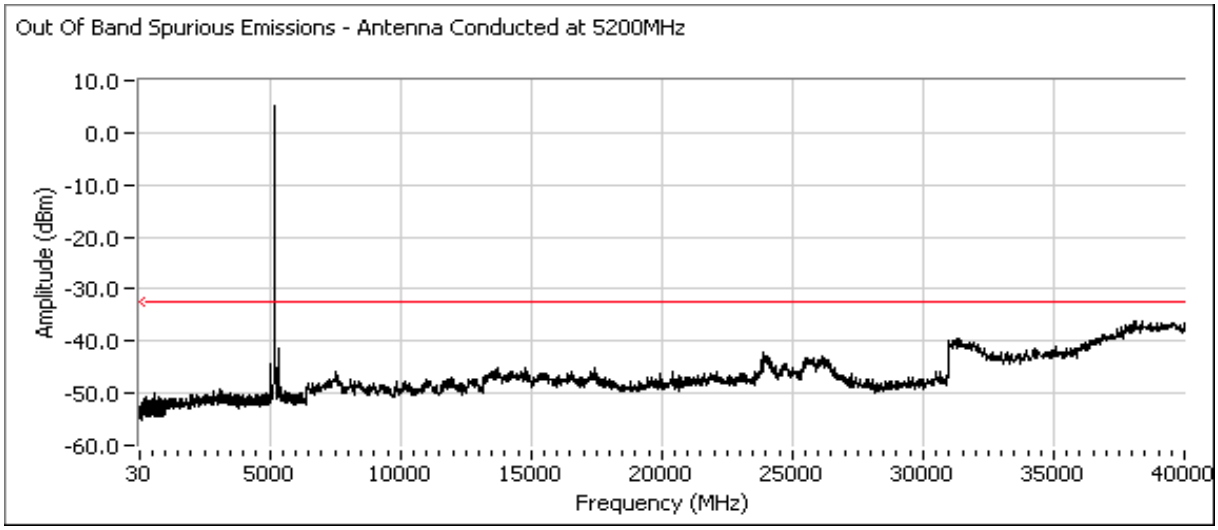
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

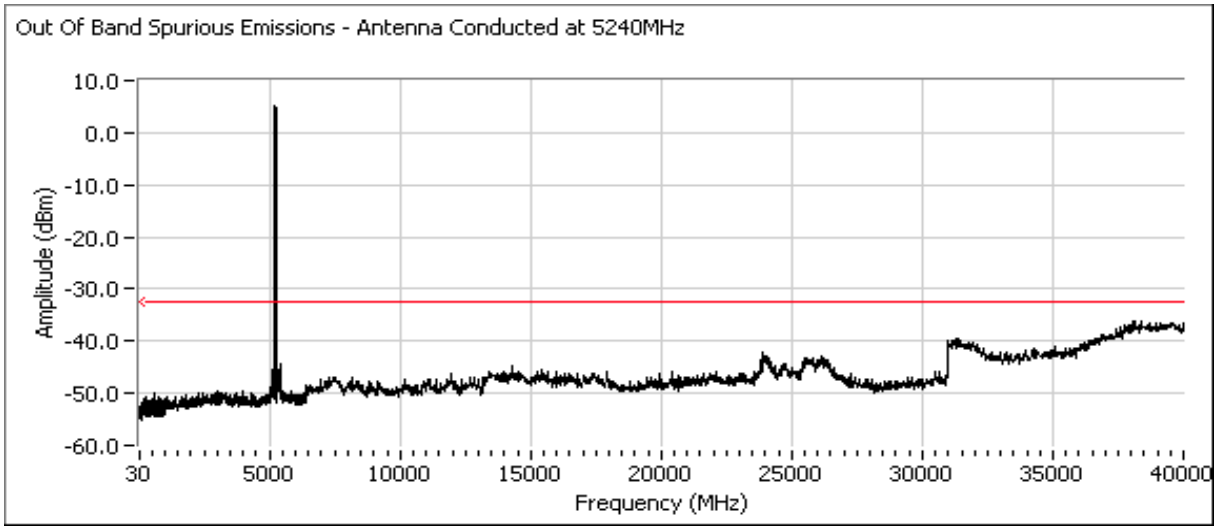
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

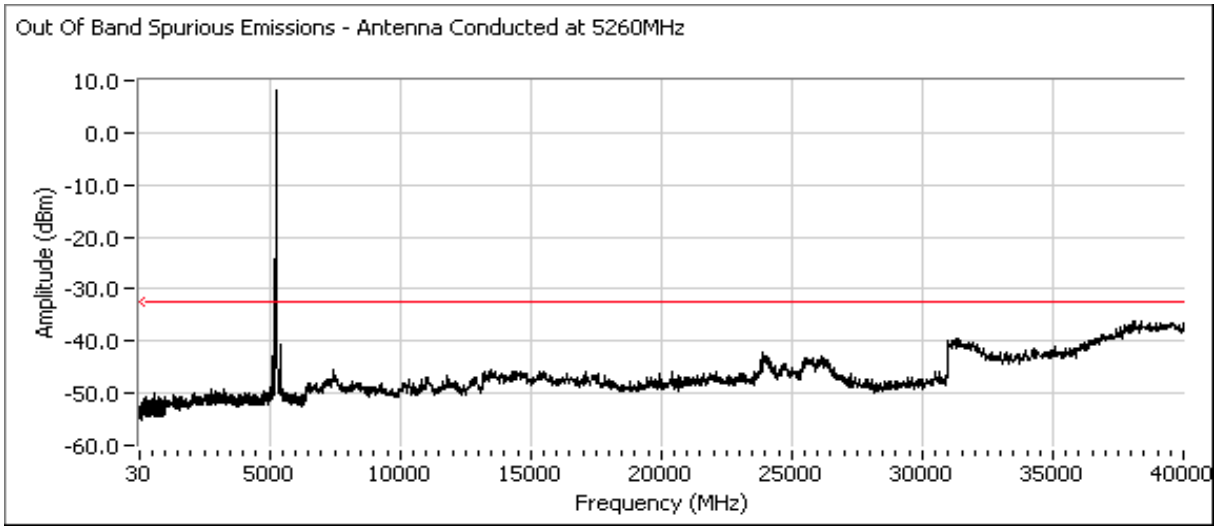
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

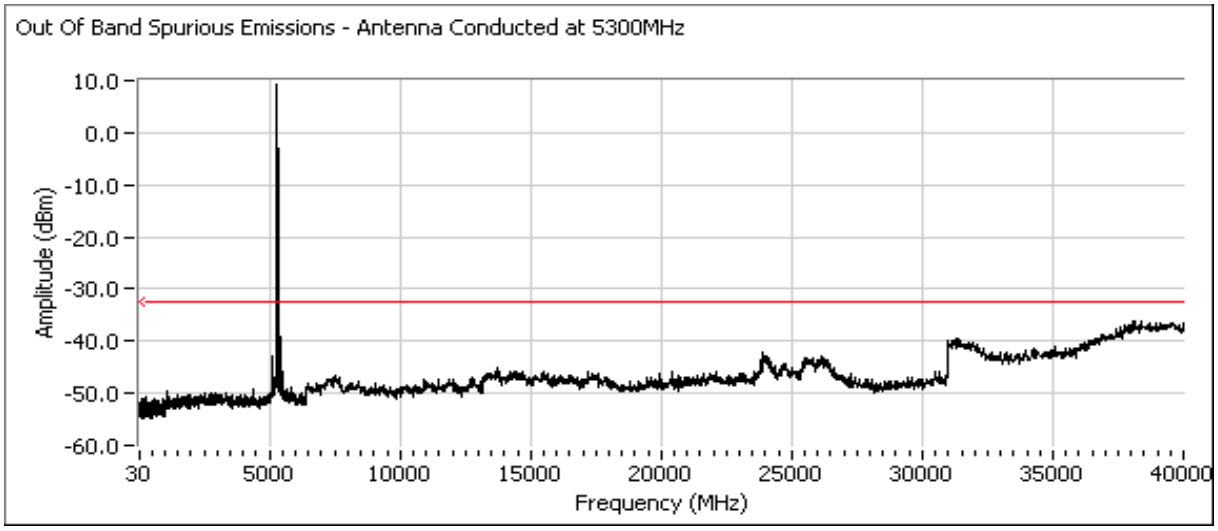
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

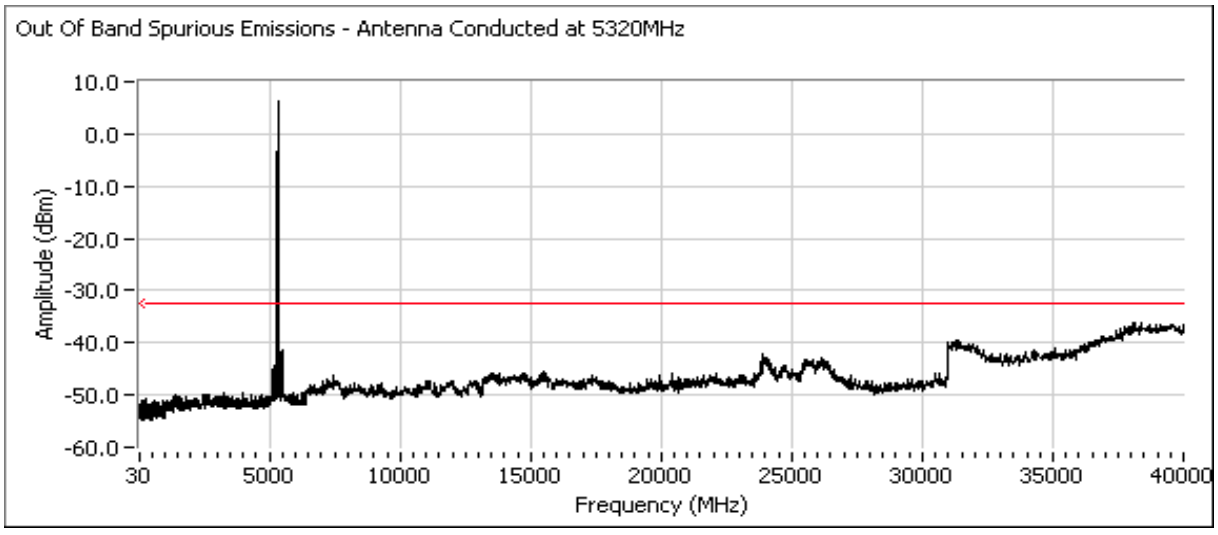
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

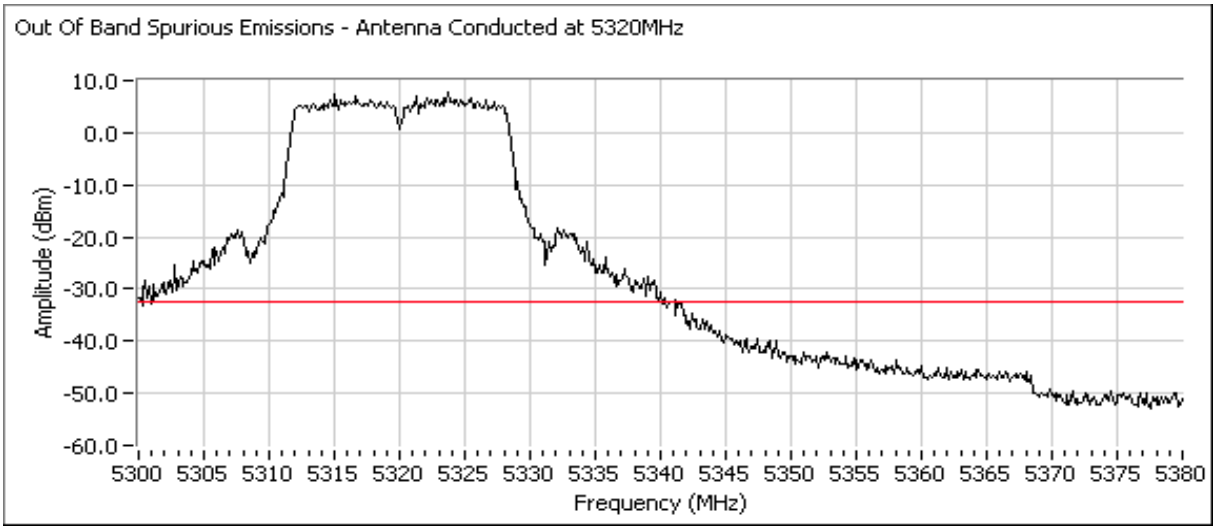
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

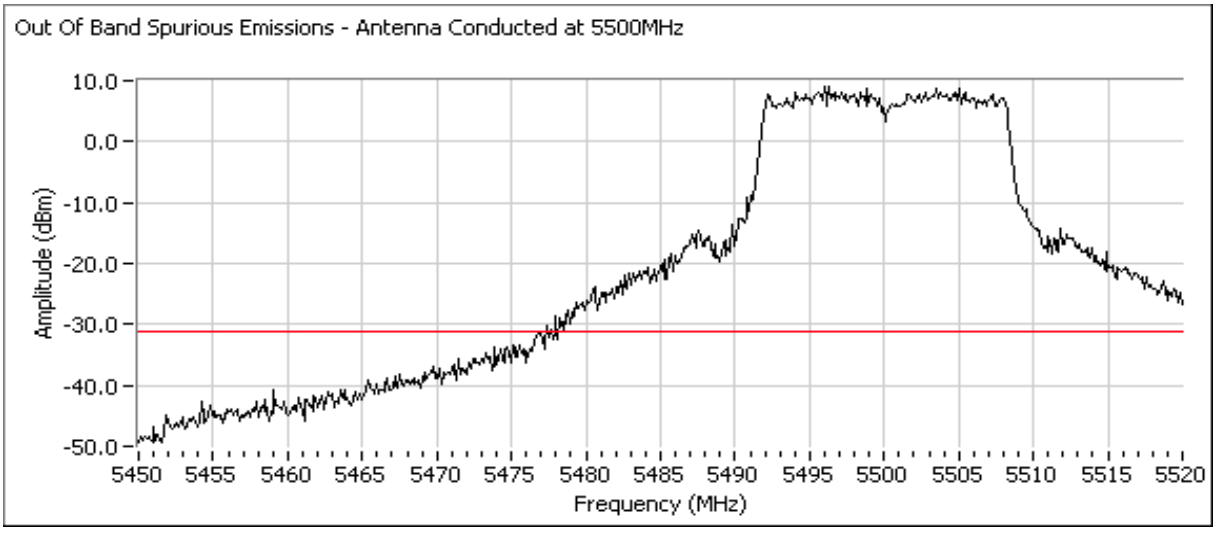
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

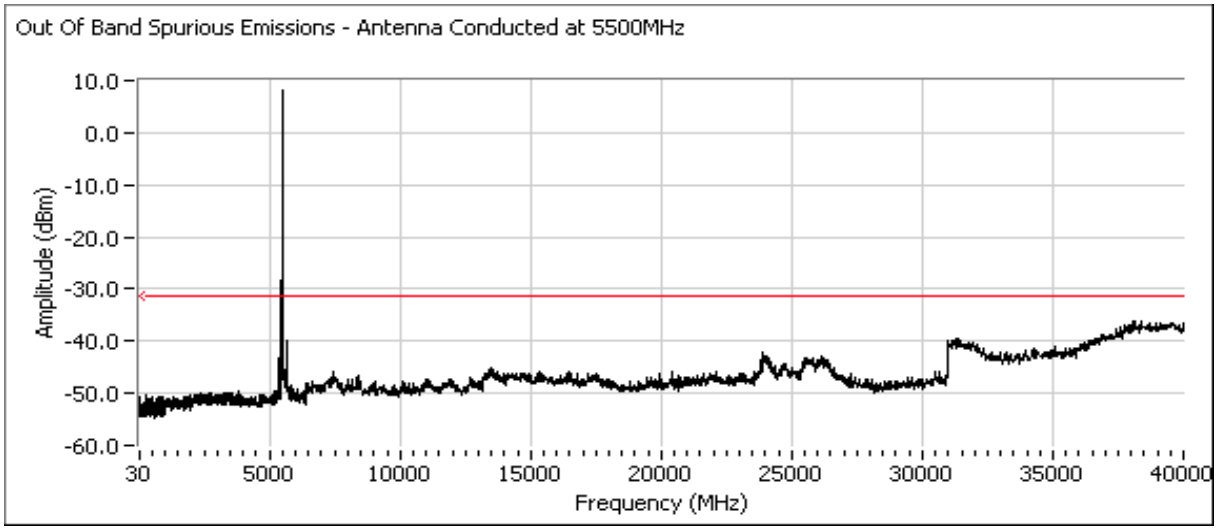
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

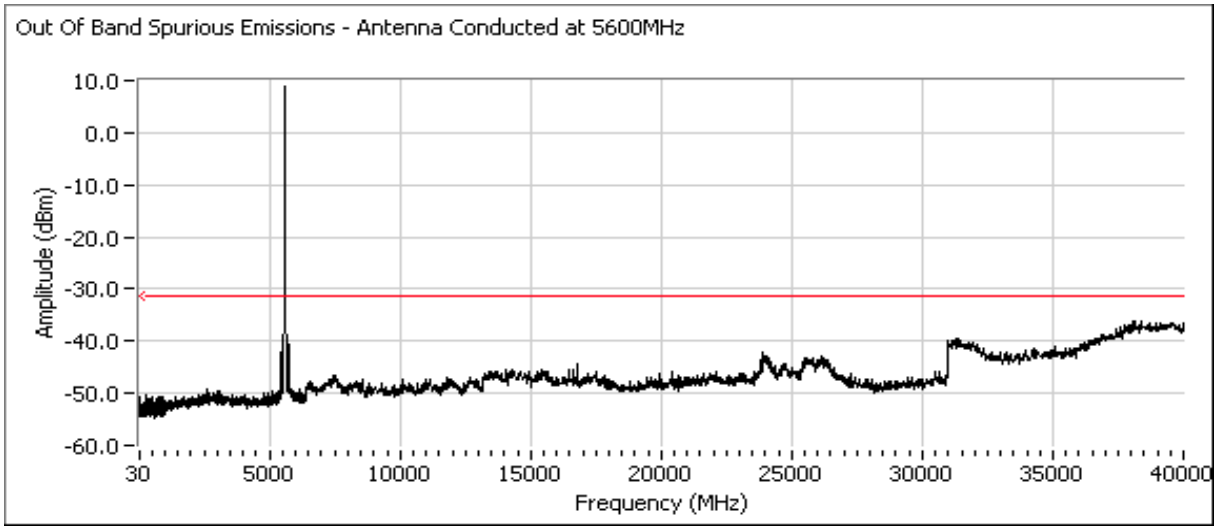
Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

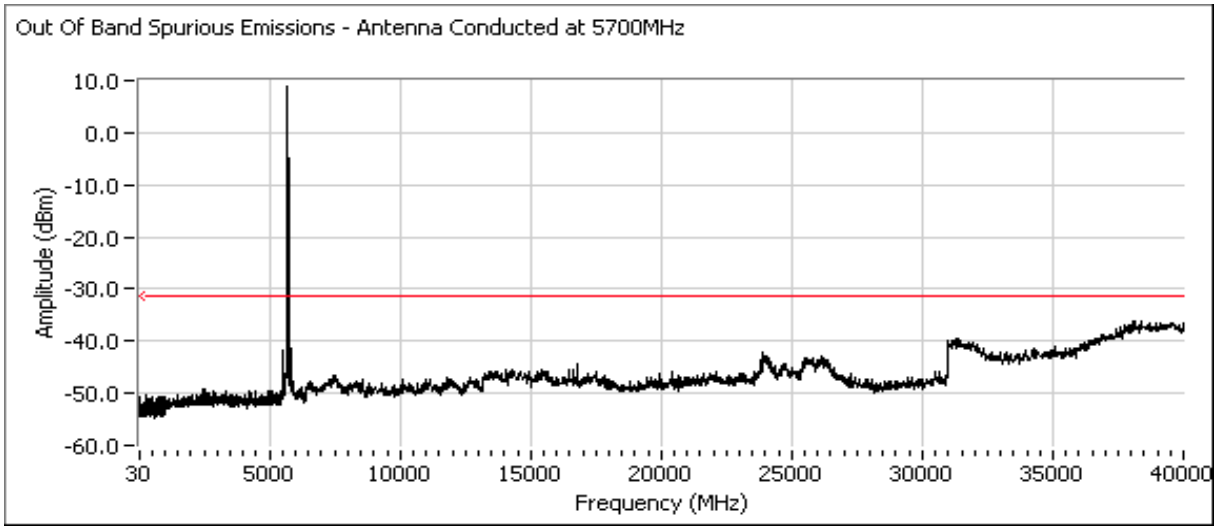
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

FCC Part 15 Subpart E Tests

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: 1/3/2008
Test Engineer: Mehran Birgani
Test Location: FT 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: 14 °C
Rel. Humidity: 49 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	12.0dBm (15.9mW)
1	Power, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	18.7dBm (73.9mW)
1	Power, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	19.6dBm (90.6mW)
1	PSD, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	1.2dBm/MHz (1.3mW/MHz)
1	PSD, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	7.9dBm/MHz (6.2mW/MHz)
1	PSD, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	8.7dBm/MHz (7.3mW/MHz)
1	26dB Bandwidth	15.407	-	30.0MHz
1	99% Bandwidth	RSS 210	-	18.6MHz
2	Peak Excursion Envelope	15.407(a) (6)	Pass	12.52dBm
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 Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

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

Run #1a: Bandwidth, Output Power and Power spectral Density (5150-5250 MHz and 5250-5350 MHz)

	Chain 1	Chain 2	Chain 3	Coherent	Effective[5]
Antenna Gain (dBi):	5.6	5.6		Yes	8.6

Frequency (MHz)	Software Setting	26dB BW(MHz)	Measured Output Power[1] dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
5180	-	20.0	8.6	9.0		15.2	11.8	17.0	0.016	PASS
5200	-	22.4	8.6	9.0		15.2	11.8	17.0		PASS
5240	-	22.8	8.8	9.2		15.9	12.0	17.0		PASS
5260	-	26.0	15.8	15.4		72.5	18.6	24.0	0.074	PASS
5300	-	26.6	15.7	15.6		73.9	18.7	24.0		PASS
5320	-	22.4	13.8	13.8		48.0	16.8	24.0		PASS

Frequency (MHz)	99%[4] BW	Total Power	PSD[2] dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210[3]	
5180	18.6	17.0	-2.2	-1.8		1.3	1.0	1.4	10.0	PASS
5200	18.6	17.0	-2.3	-1.8		1.2	1.0	1.4	10.0	PASS
5240	18.6	17.0	-1.9	-1.7		1.3	1.2	1.4	10.0	PASS
5260	18.6	24.0	4.9	4.6		6.0	7.8	8.4	11.0	PASS
5300	18.6	24.0	4.8	5.0		6.2	7.9	8.4	11.0	PASS
5320	18.6	24.0	2.7	2.9		3.8	5.8	8.4	11.0	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 50MHz (reference method 1 of FCC DA 02-2138, August 30, 2002)
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum eirp allowed is 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSD exceeds the average PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB by the amount that the measured value exceeds the average by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB >=3xRB
Note 5:	For MIMO systems the total output power and total PSD are calculated form the sum of the powers of the individual chains (in linear terms). The antenna gain used to determine the EIRP and limits for PSD/Output power depends on the operating mode of the MIMO device. If the signals on the non-coherent between the transmit chains then the gain used to determine the limits is the highest gain of the individual chains and the EIRP is the sum of the products of gain and power on each chain. If the signals are coherent then the effective antenna gain is the sum (in linear terms) of the gains for each chain and the EIRP is the product of the effective gain and total power.

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Data to support the use of two antennas with lower gain, such that the effective gain is 6dBi or less, at an increased power level.

	Chain 1	Chain 2	Chain 3	Coherent	Effective[5]
Antenna Gain (dBi):	2.95	2.95		Yes	6.0

Frequency (MHz)	Software Setting	26dB BW(MHz)	Measured Output Power[1] dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
5180	-	20.0	9.8	9.7		18.9	12.8	17.0	0.019	PASS
5200	-	22.4	9.7	9.8		18.9	12.8	17.0		PASS
5240	-	22.8	9.9	9.8		19.3	12.9	17.0		PASS

Frequency (MHz)	99%[4] BW	Total Power	PSD[2] dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210[3]	
5180	18.6	17.0	-1.0	-0.9		1.6	2.0	4.0	10.0	PASS
5200	18.5	17.0	-1.1	-1.1		1.6	1.9	4.0	10.0	PASS
5240	18.6	17.0	-1.1	-0.9		1.6	2.0	4.0	10.0	PASS

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #1b: Bandwidth, Output Power and Power spectral Density (5470-5725MHz)

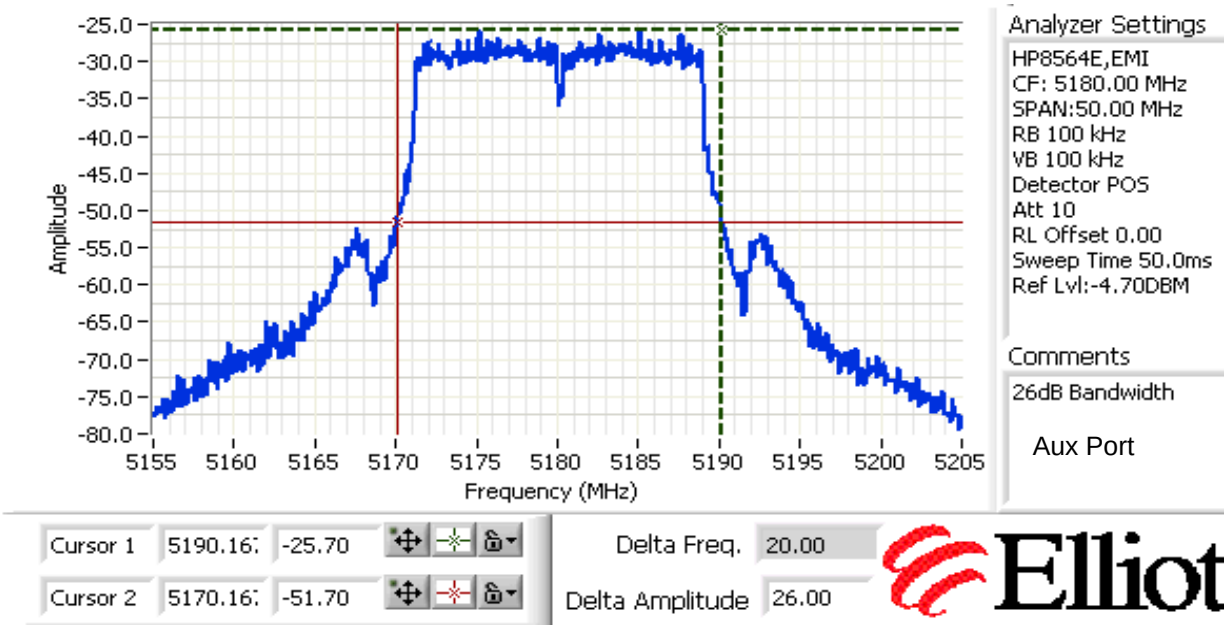
	Chain 1	Chain 2	Chain 3	Coherent	Effective[5]
Antenna Gain (dBi):	4.2	4.2		Yes	7.2

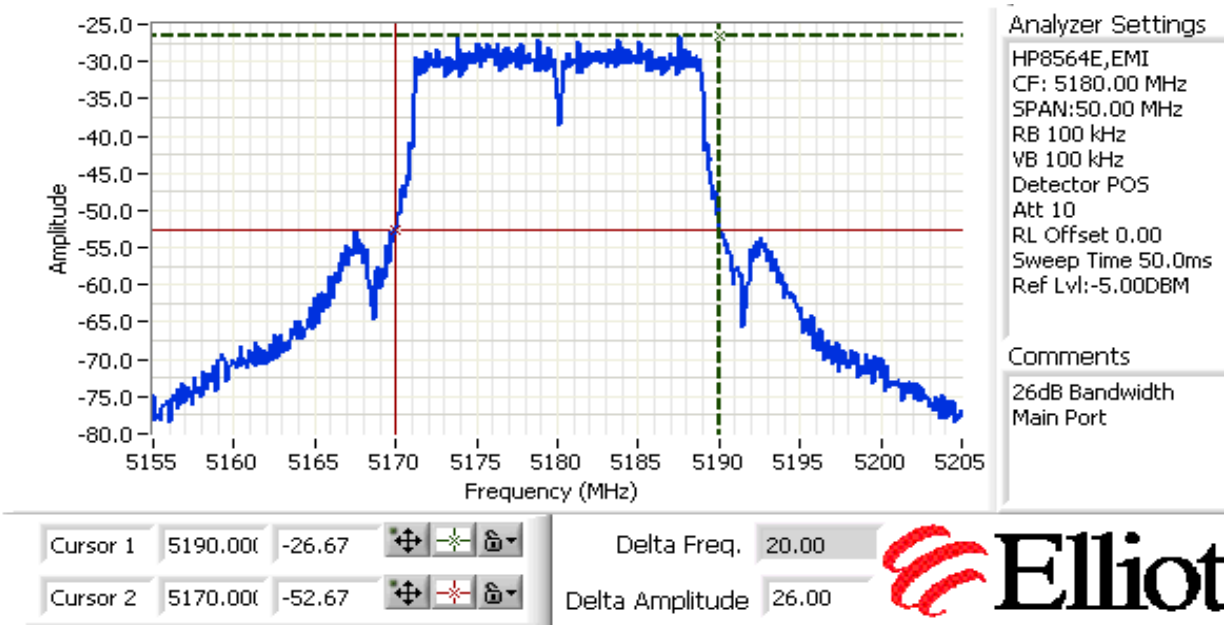
Frequency (MHz)	Software Setting	26dB BW(MHz)	Measured Output Power[1] dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
5500	-	27.3	16.0	15.7		76.3	18.8	24.0	0.091	PASS
5600	-	30.0	16.8	16.3		90.6	19.6	24.0		PASS
5700	-	28.0	16.6	16.4		88.6	19.5	24.0		PASS

Frequency (MHz)	99%[4] BW	Total Power	PSD[2] dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210[3]	
5500	18.6	24.0	5.2	5.1		6.5	8.2	11.0	11.0	PASS
5600	18.6	24.0	5.9	5.5		7.4	8.7	11.0	11.0	PASS
5700	18.6	24.0	5.7	5.6		7.3	8.7	11.0	11.0	PASS

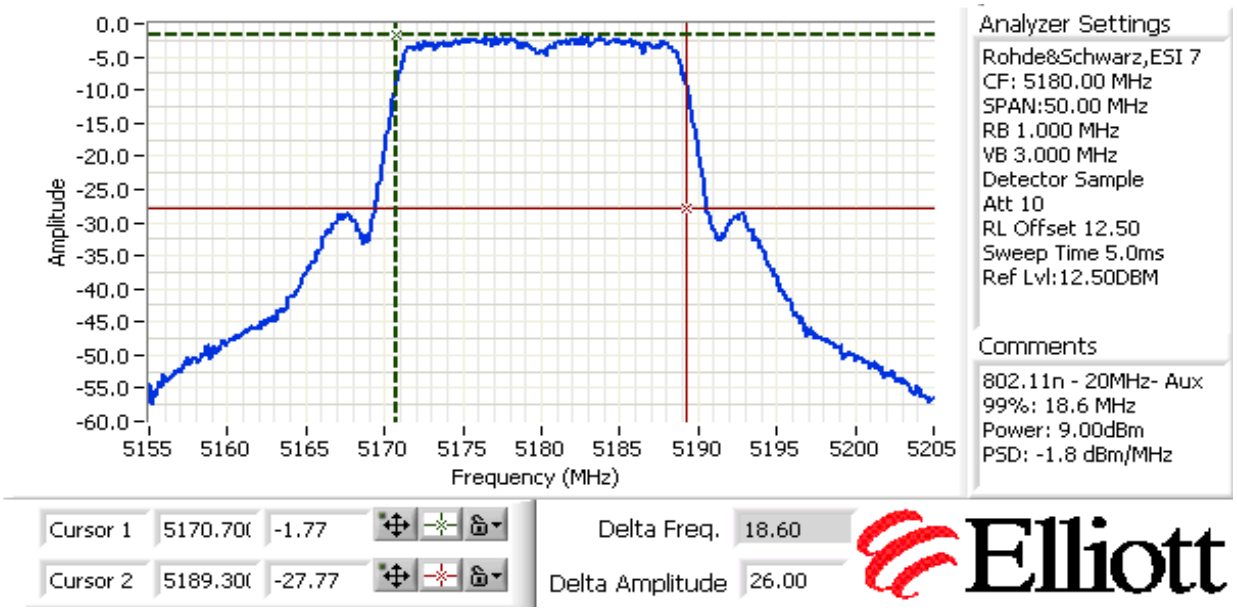
Note 1:	RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was not continuous but the ESI analyzer was configured with a gated sweep such that the analyzer was only sweeping when the device was transmitting) and power integration over 50MHz (reference method 1 of FCC DA 02-2138, August 30, 2002)
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum eirp allowed is 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSD exceeds the average PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB by the amount that the measured value exceeds the average by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB >=3xRB

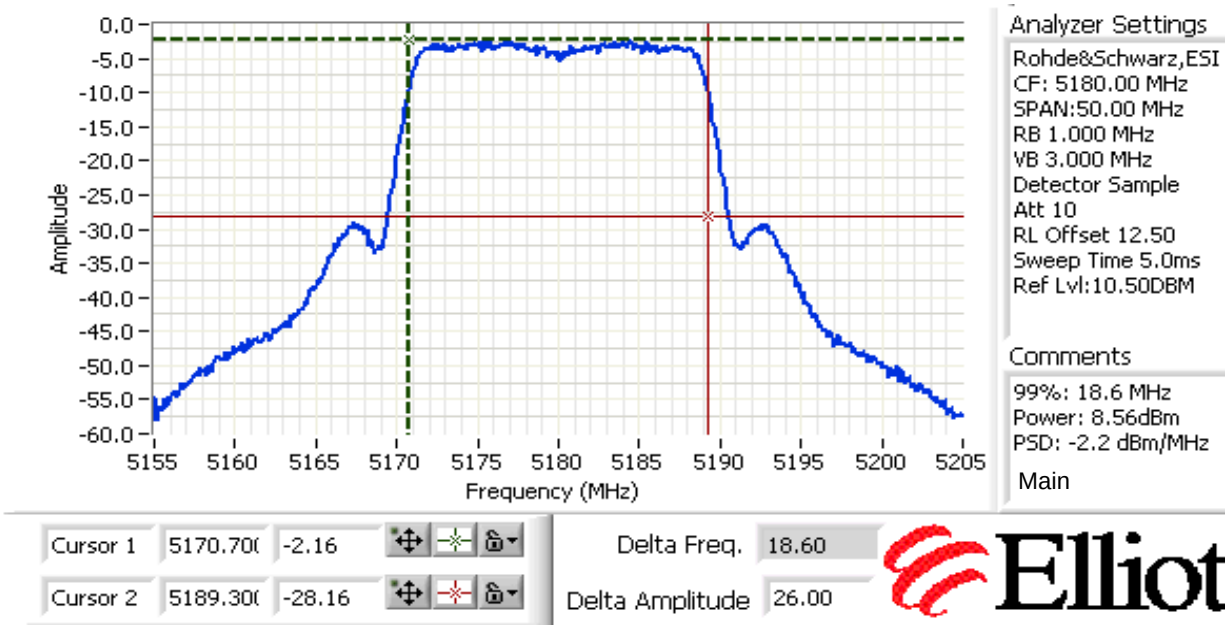
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



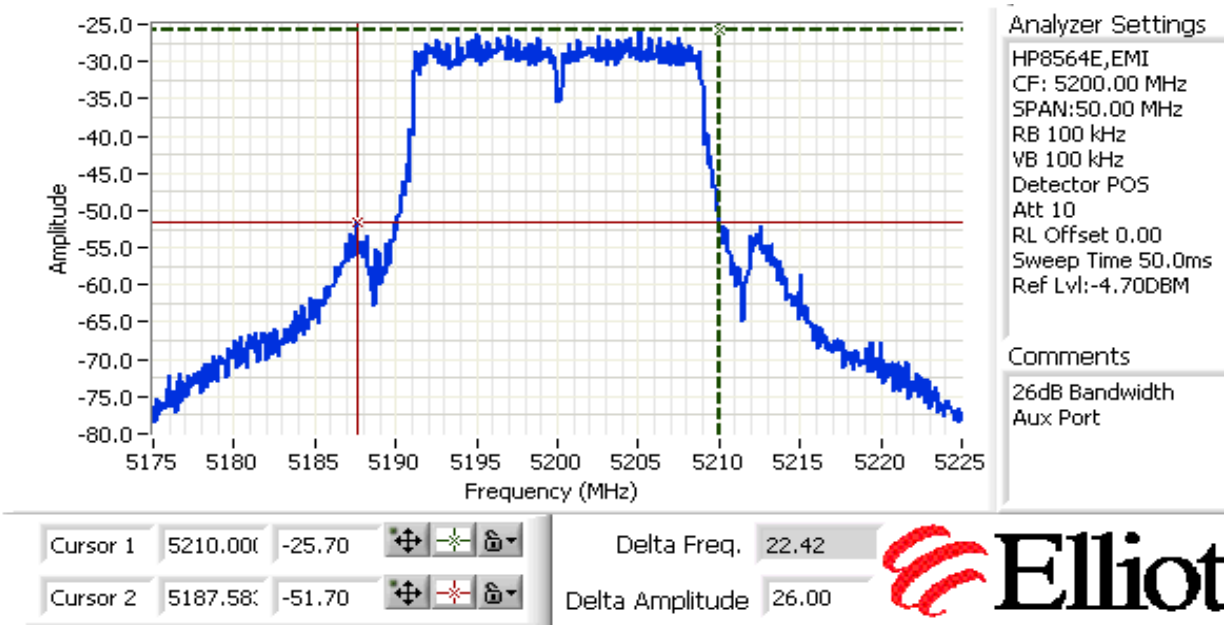


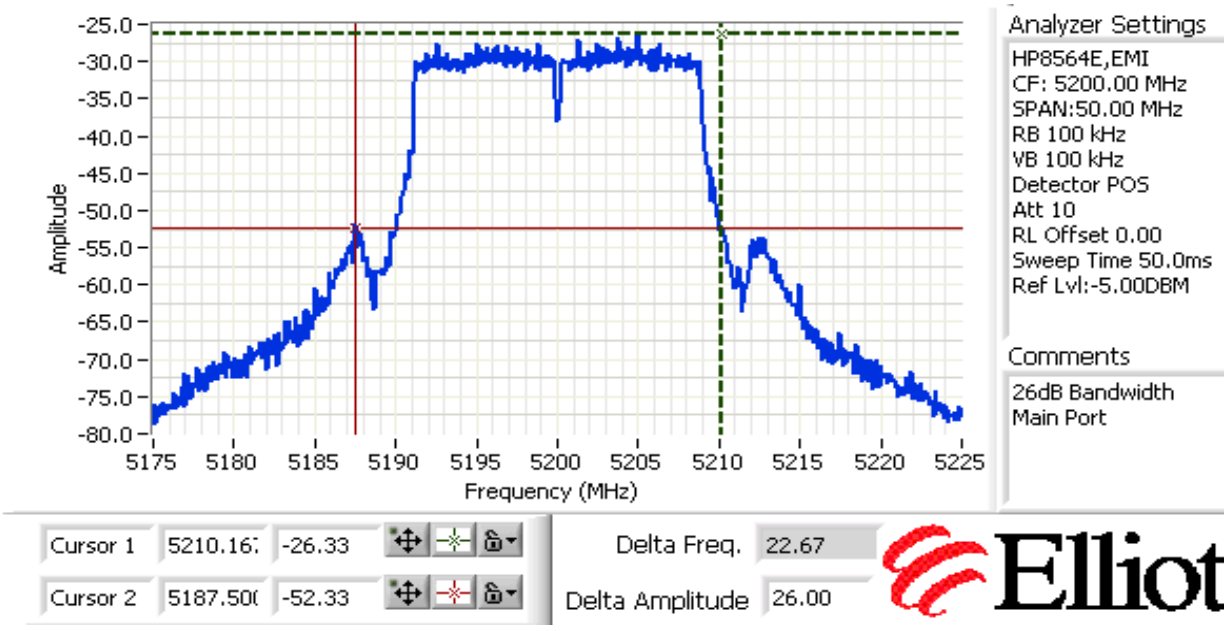
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



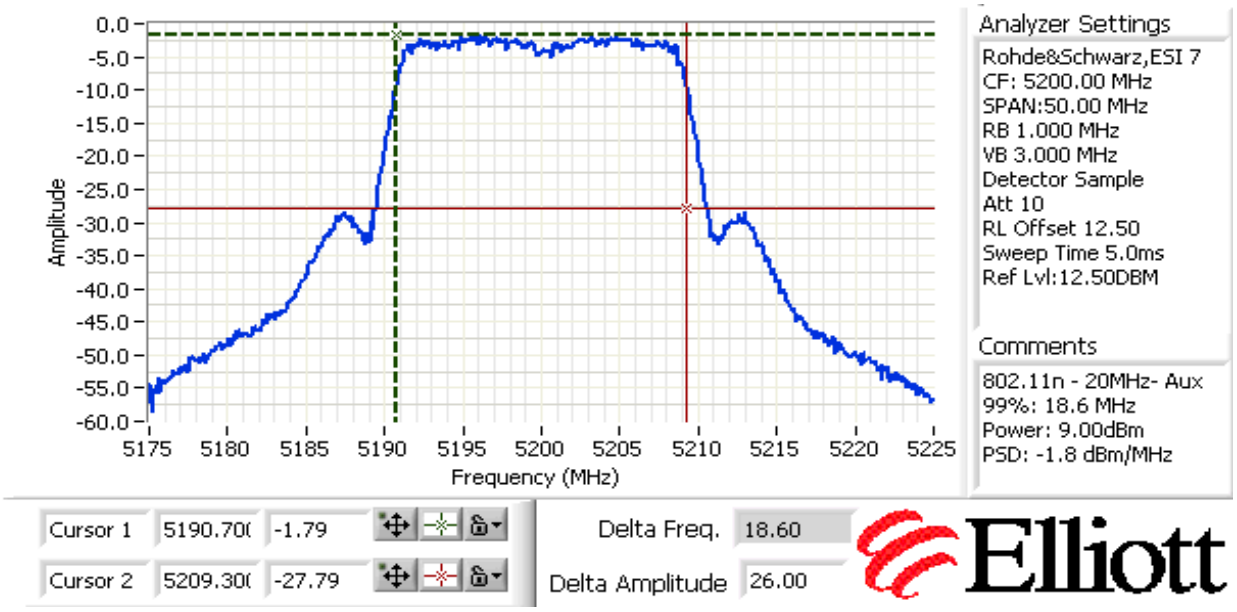


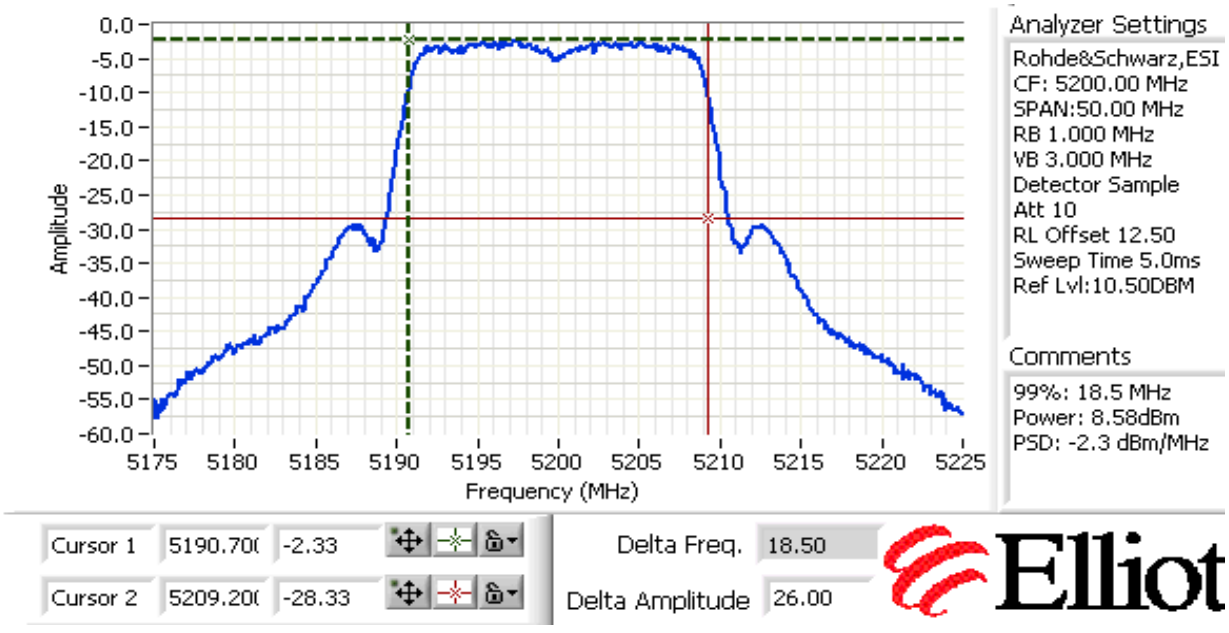
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



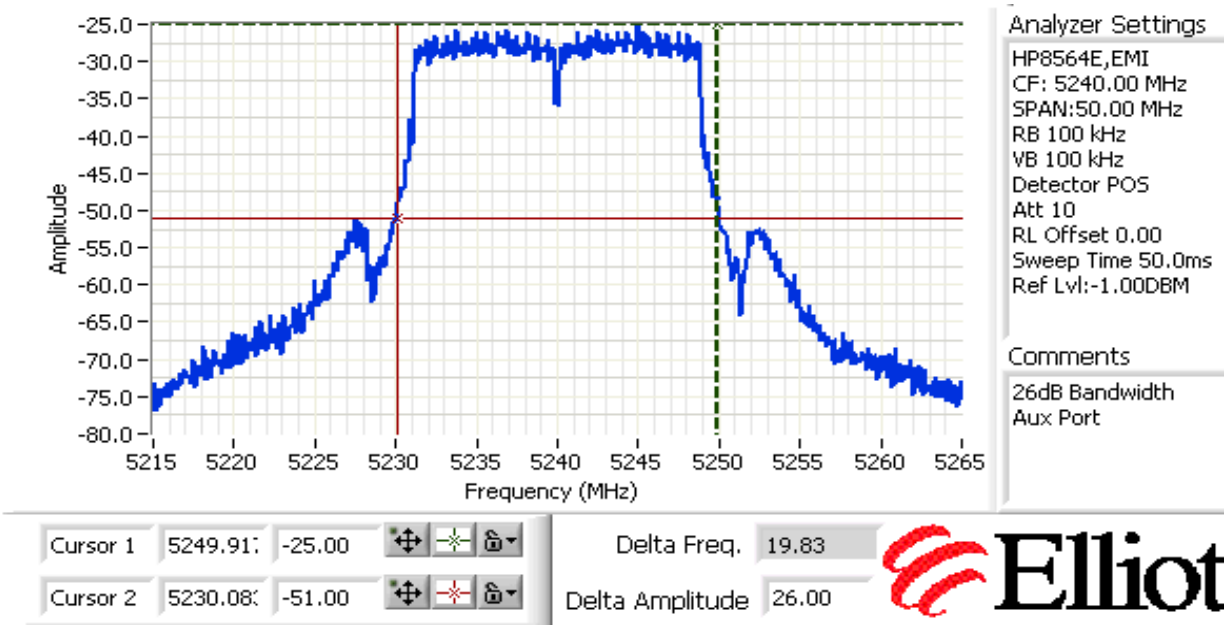


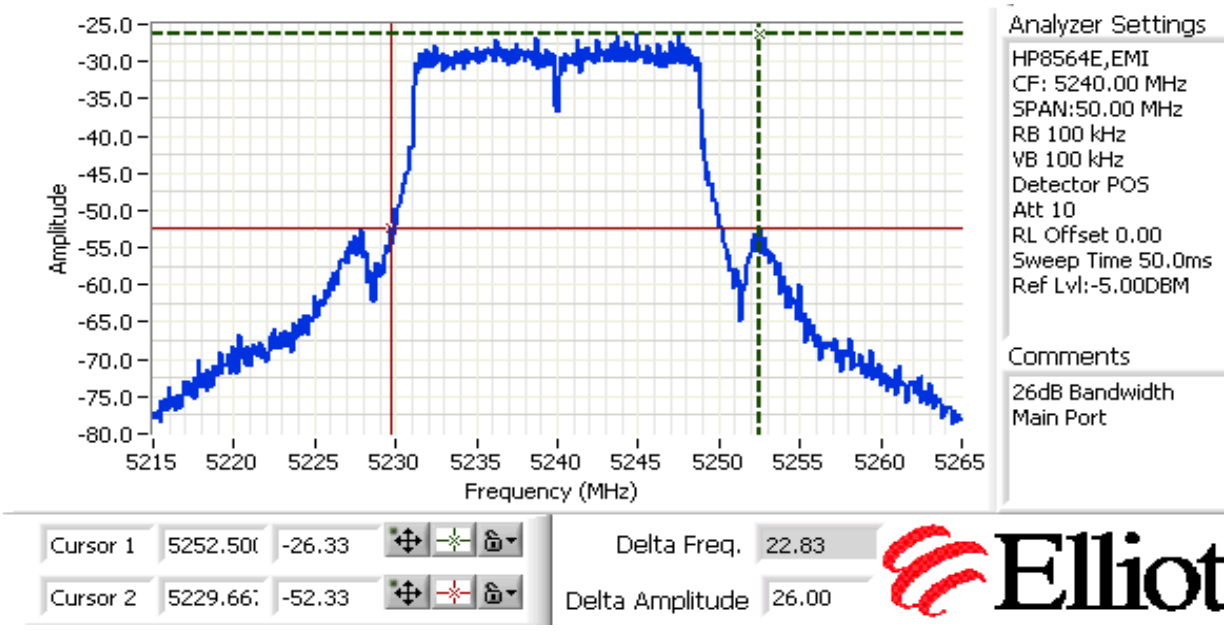
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



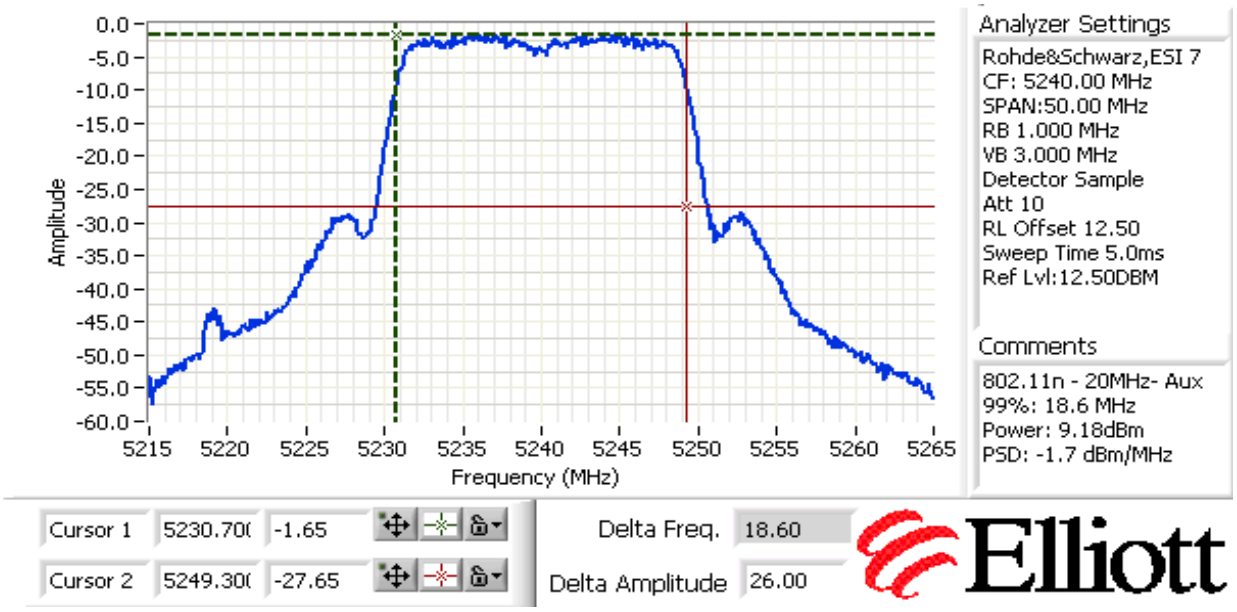


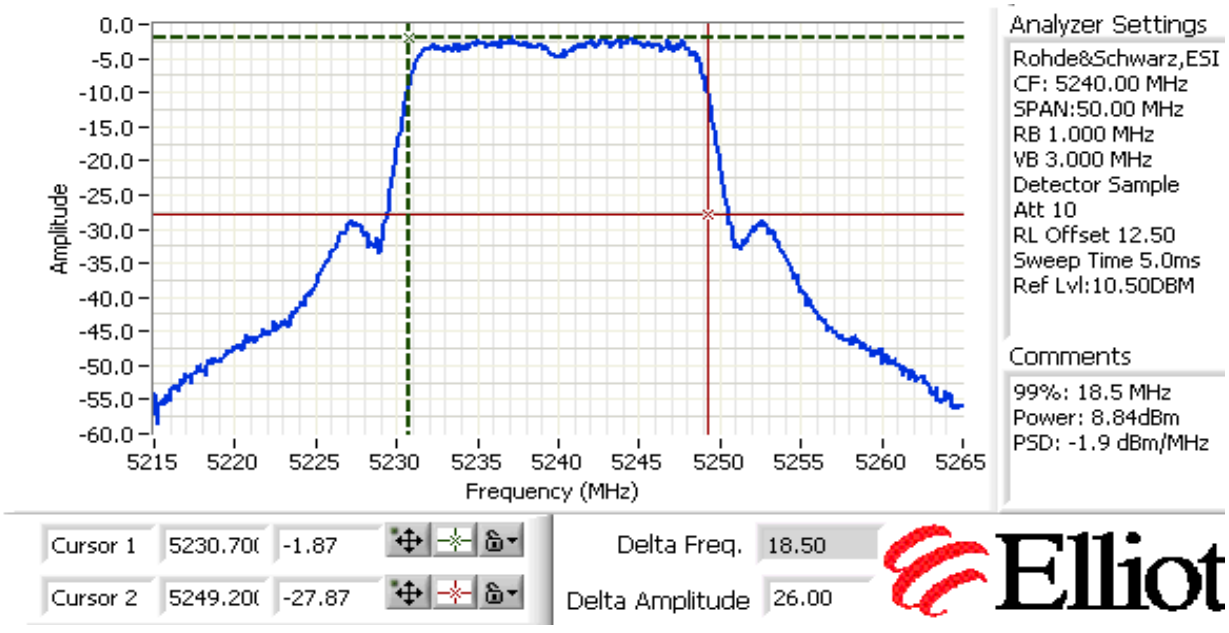
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



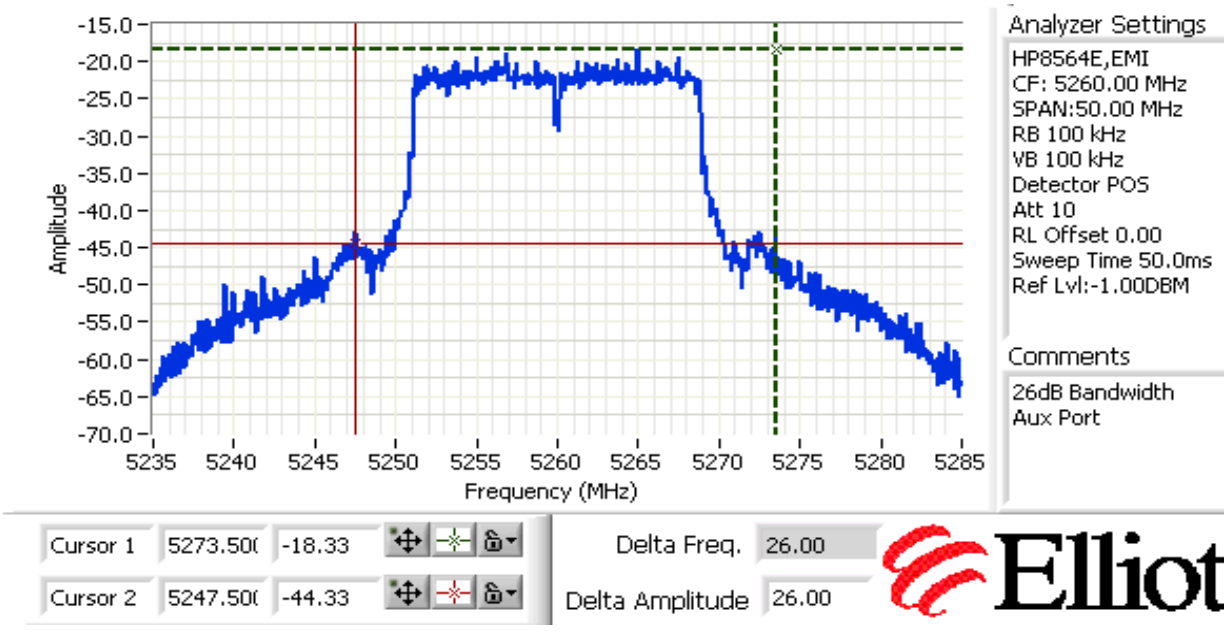


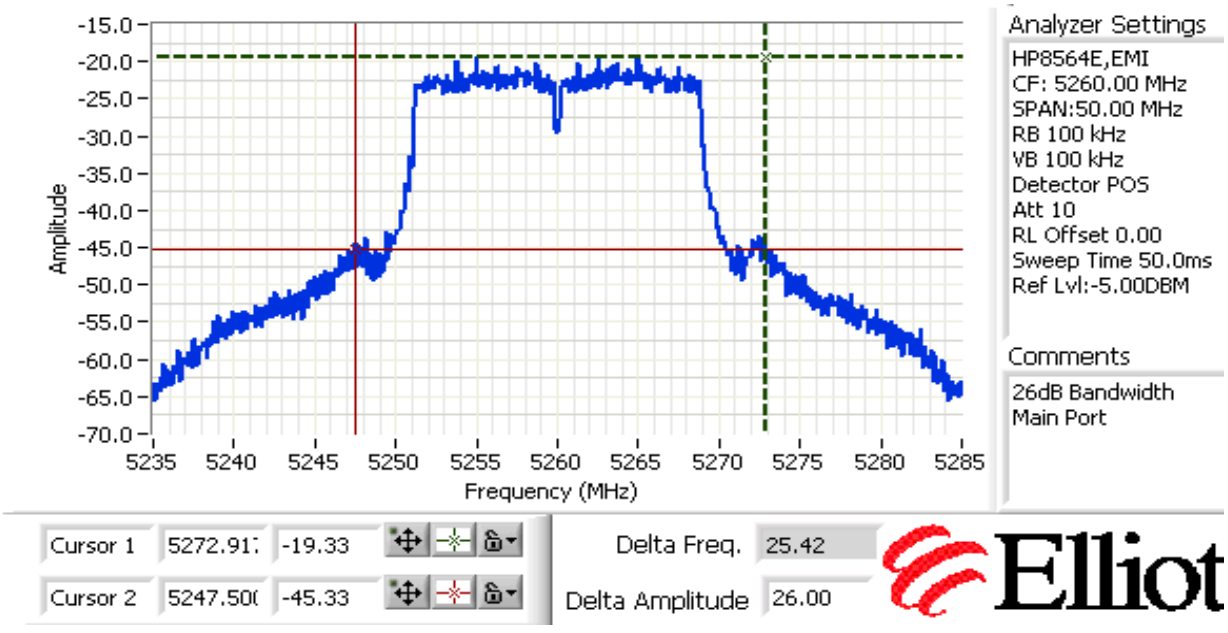
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



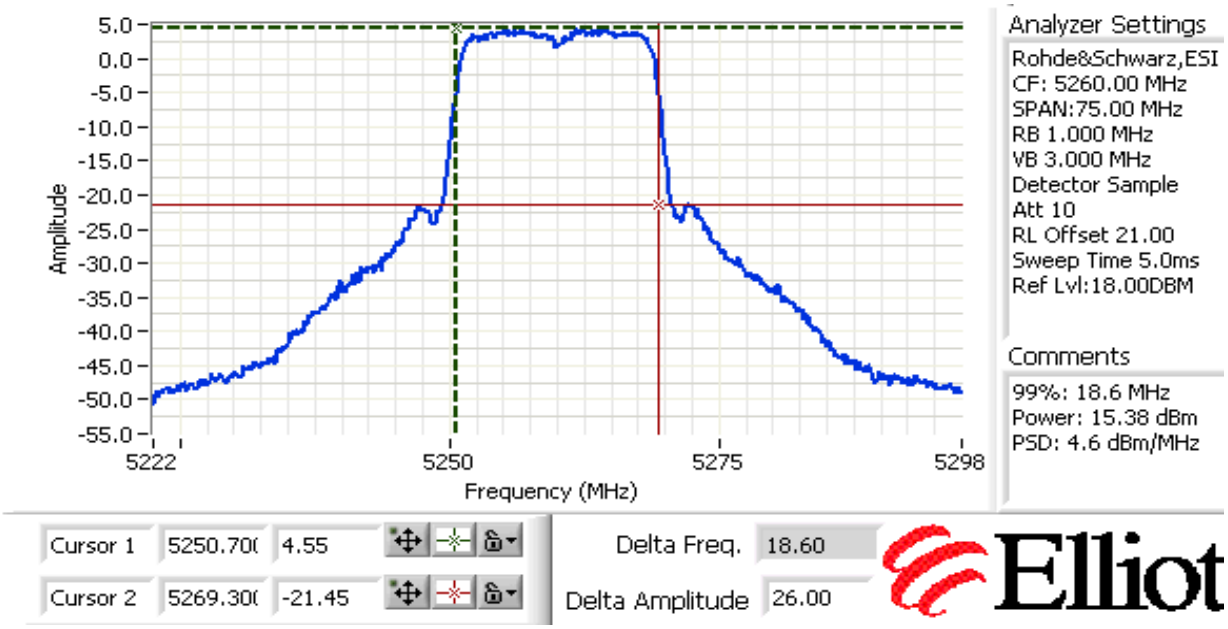


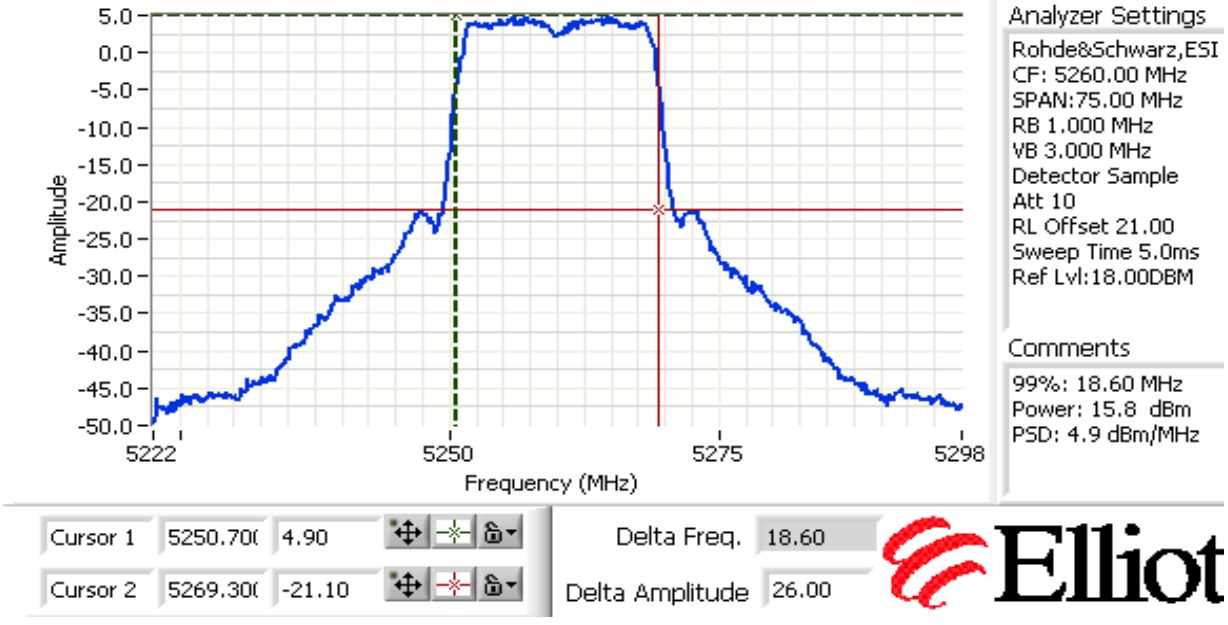
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



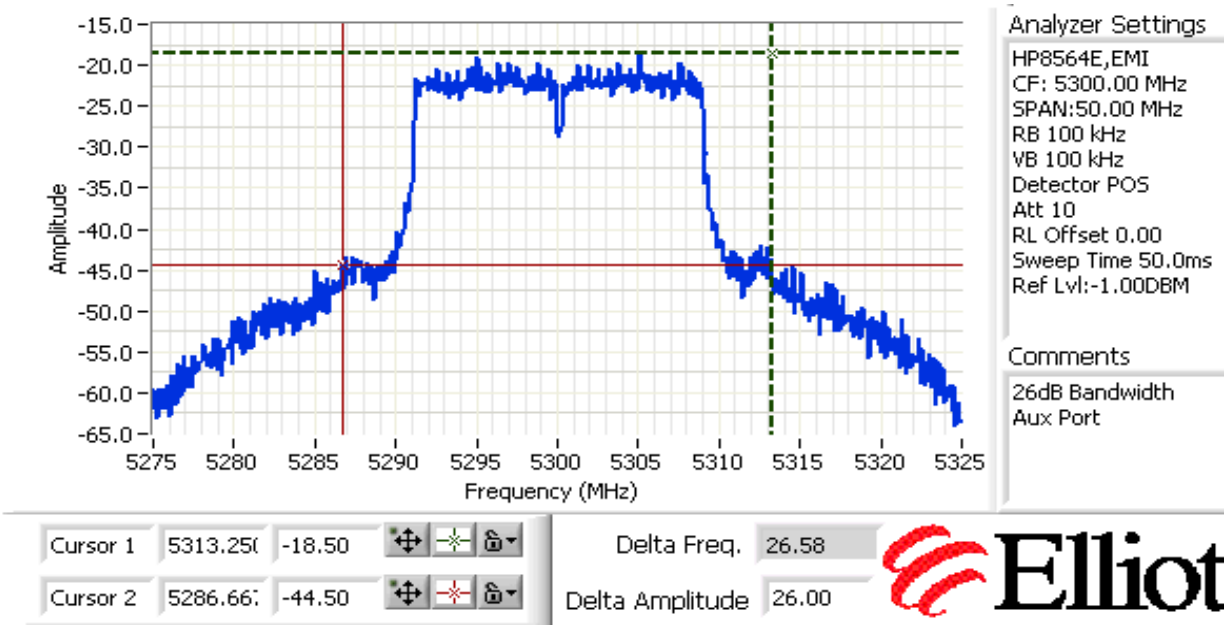


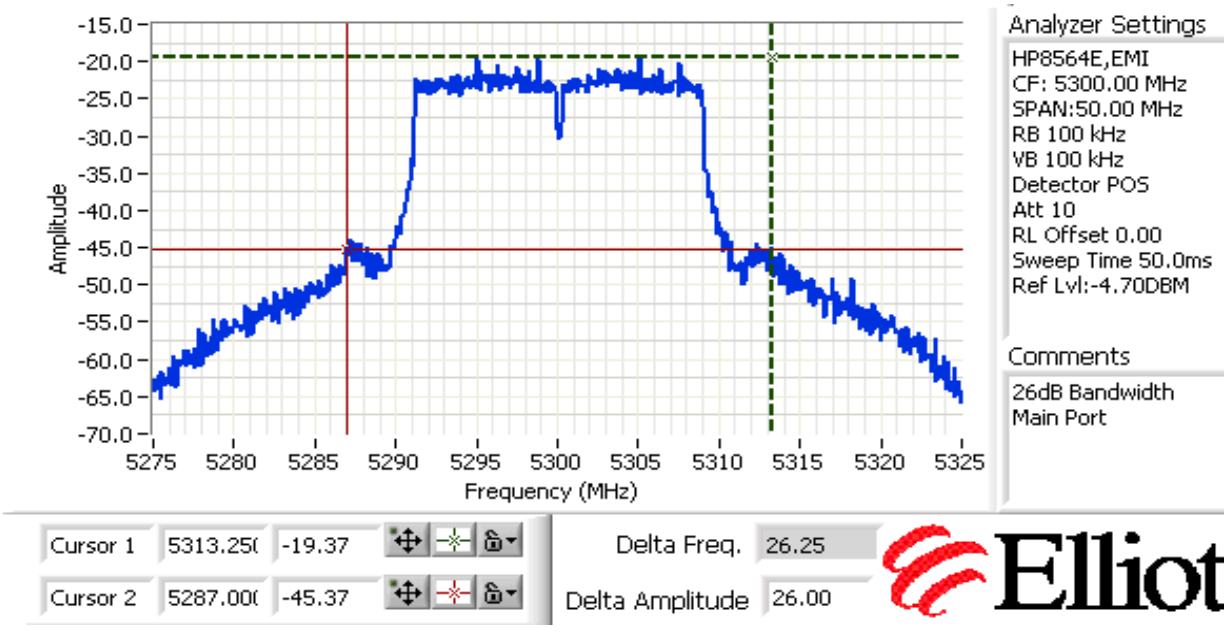
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



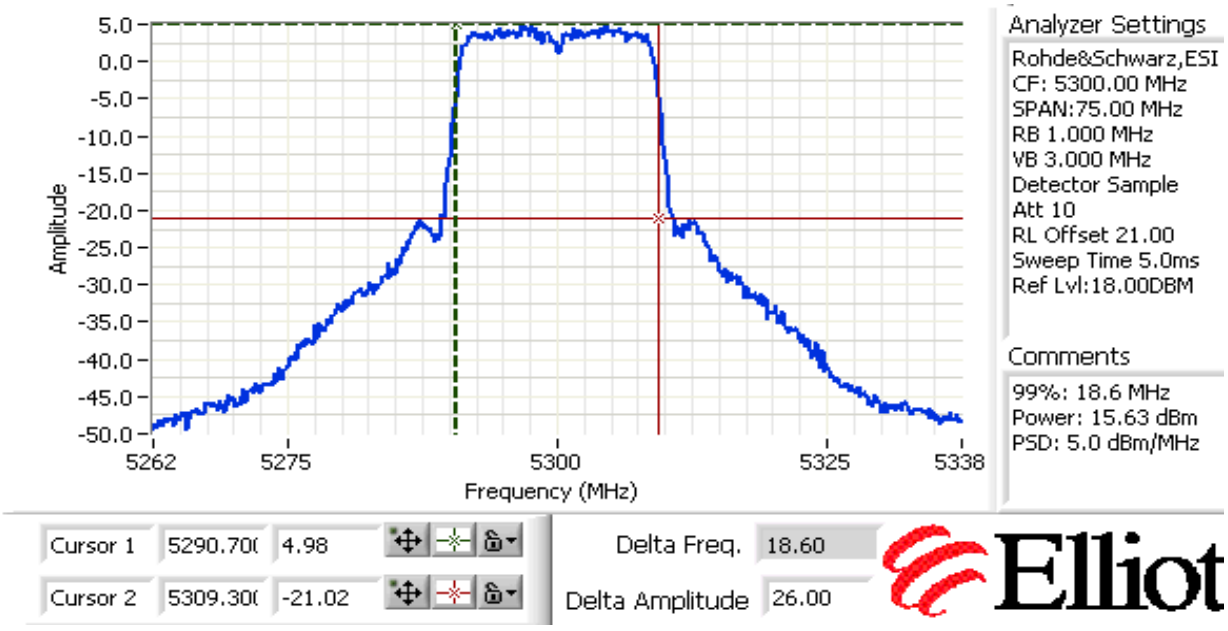


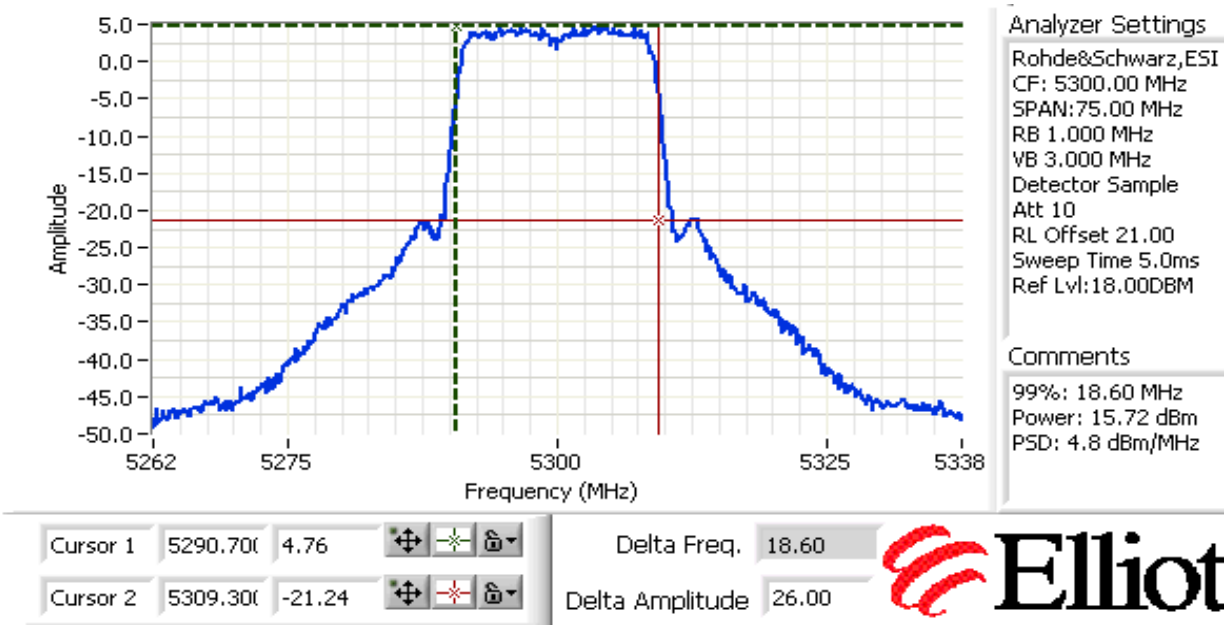
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



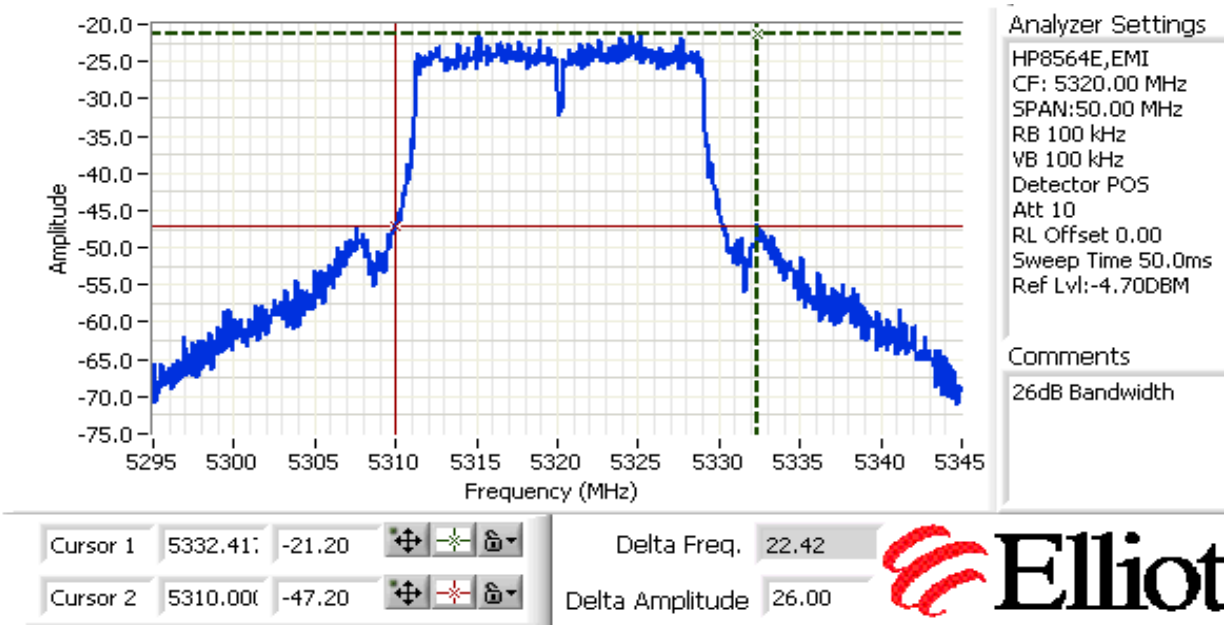


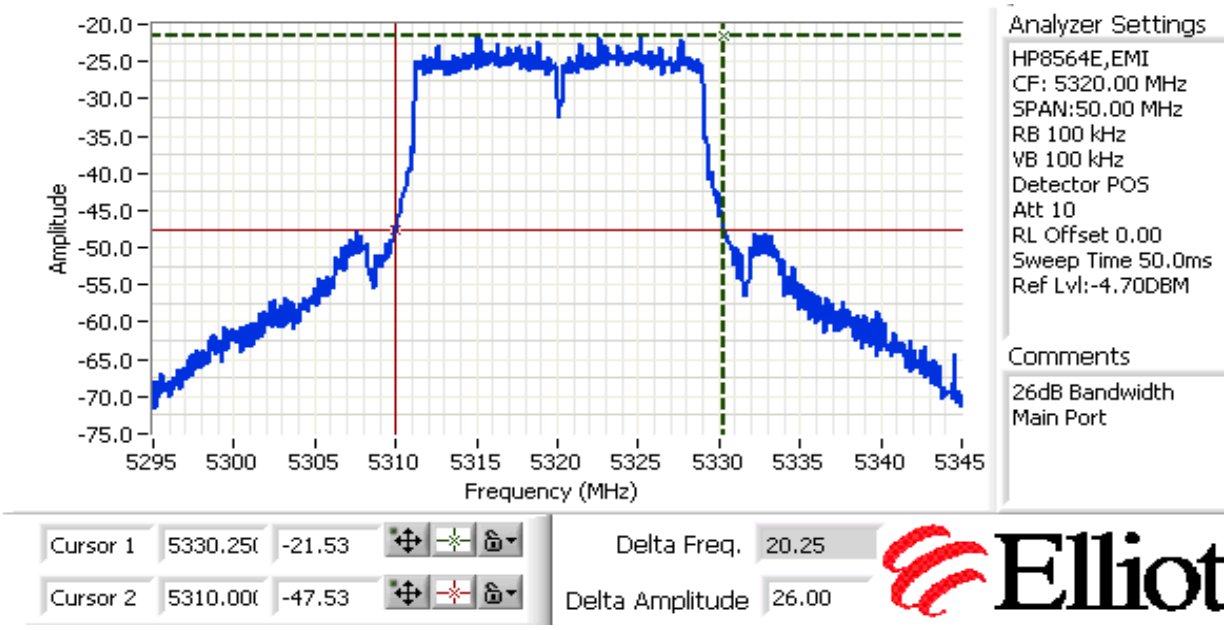
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



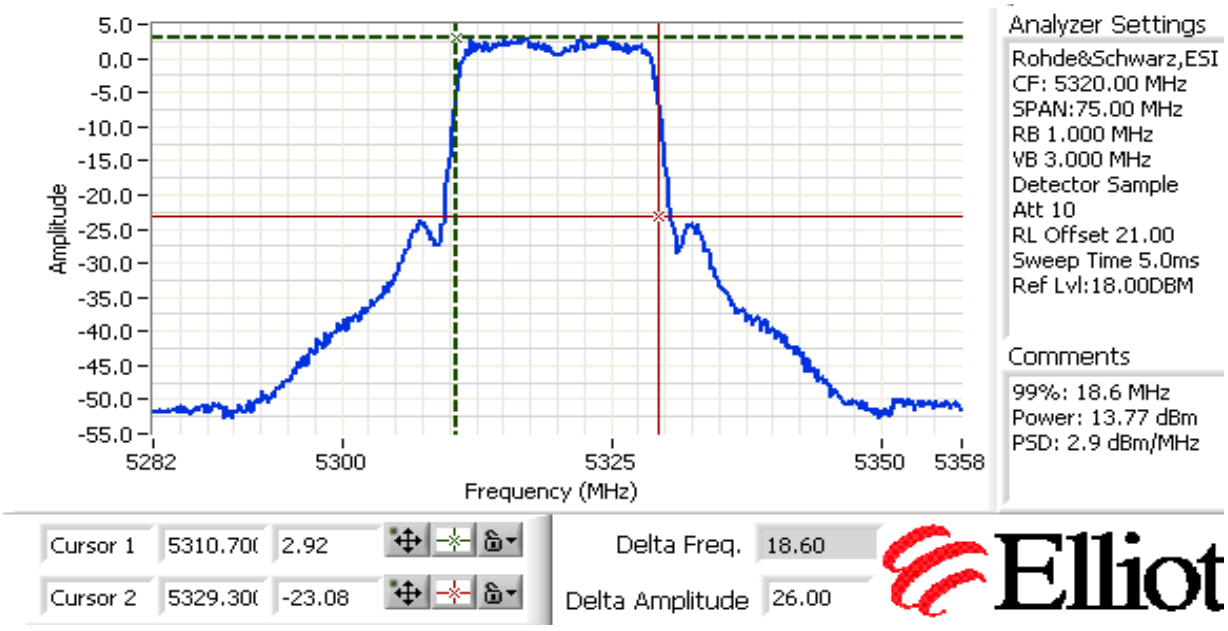


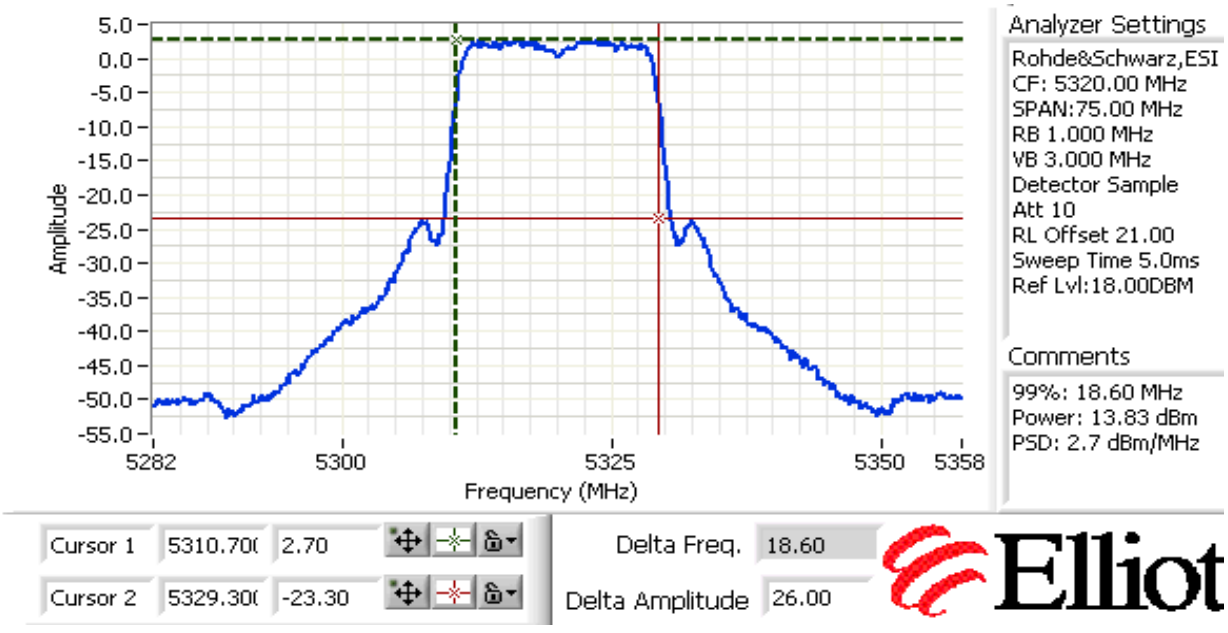
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



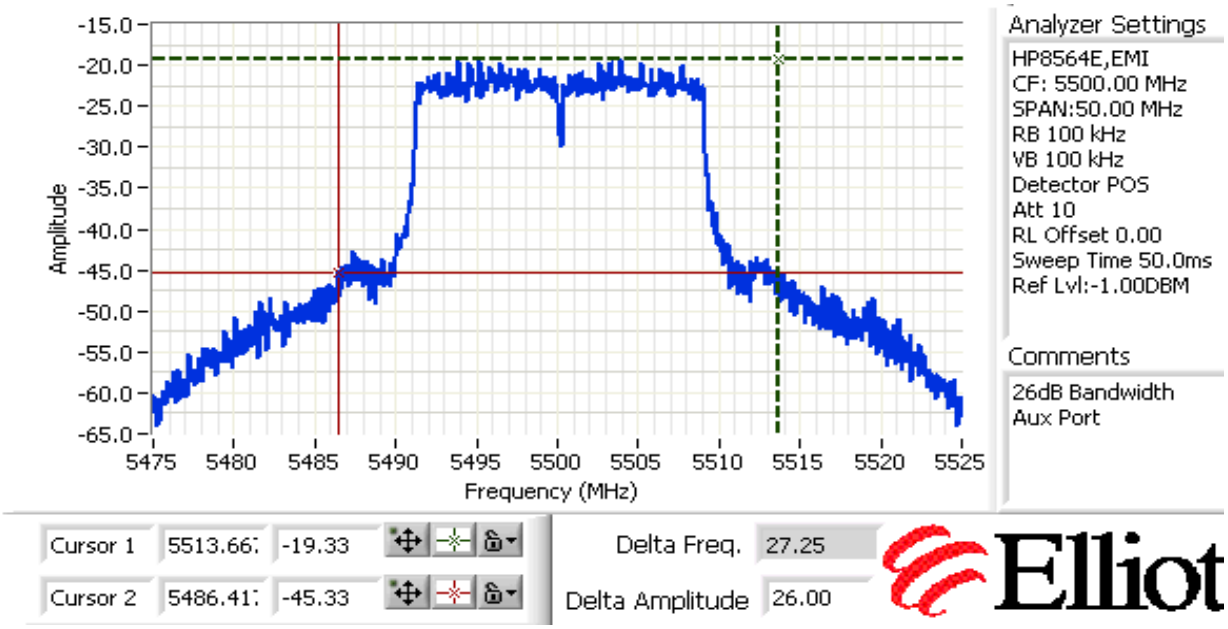


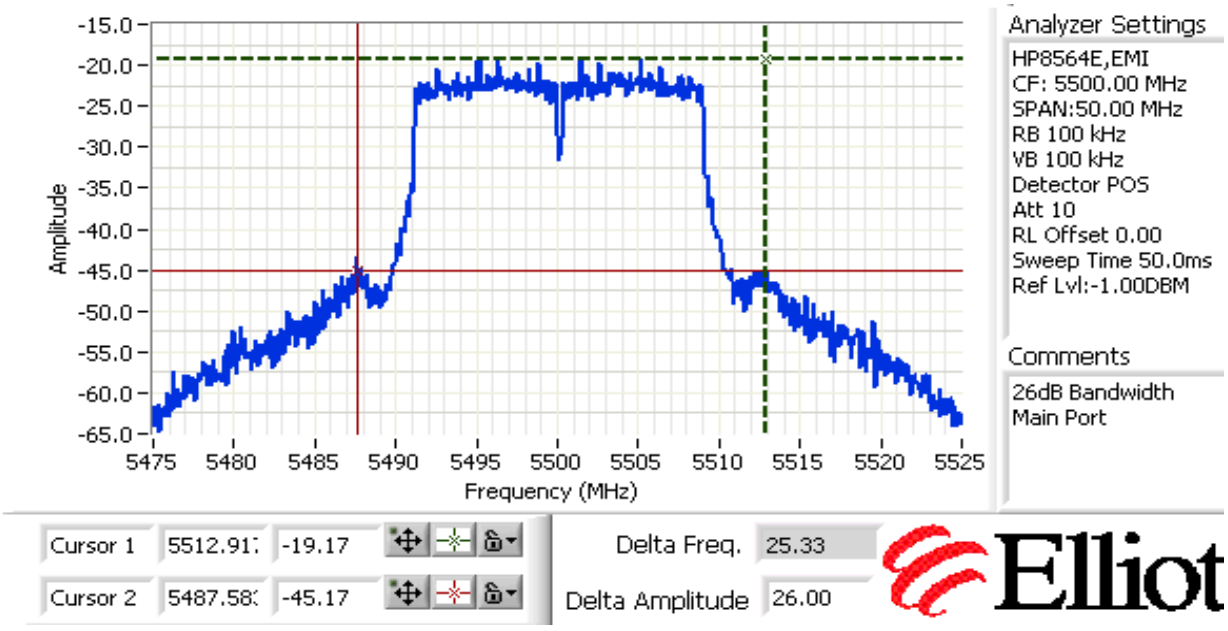
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



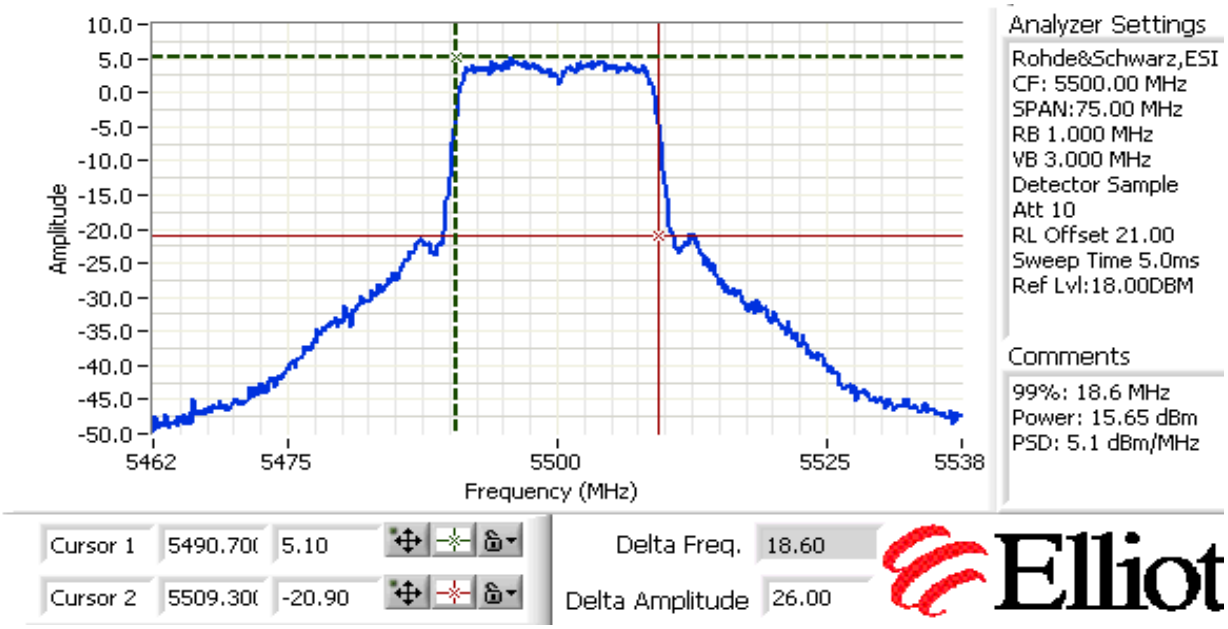


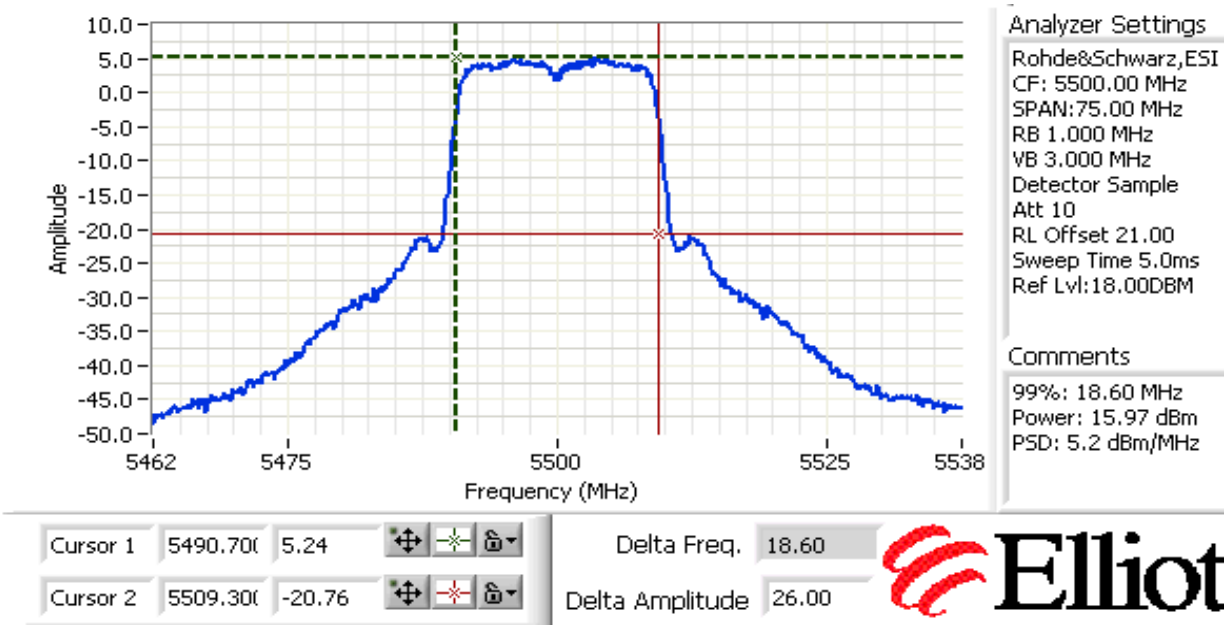
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



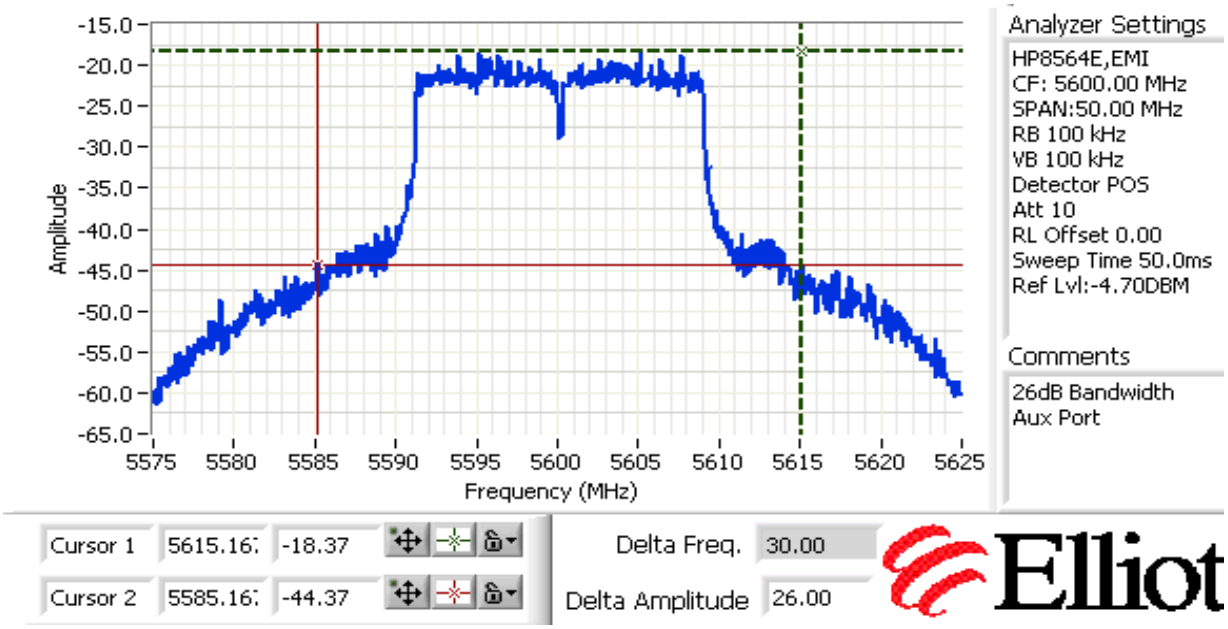


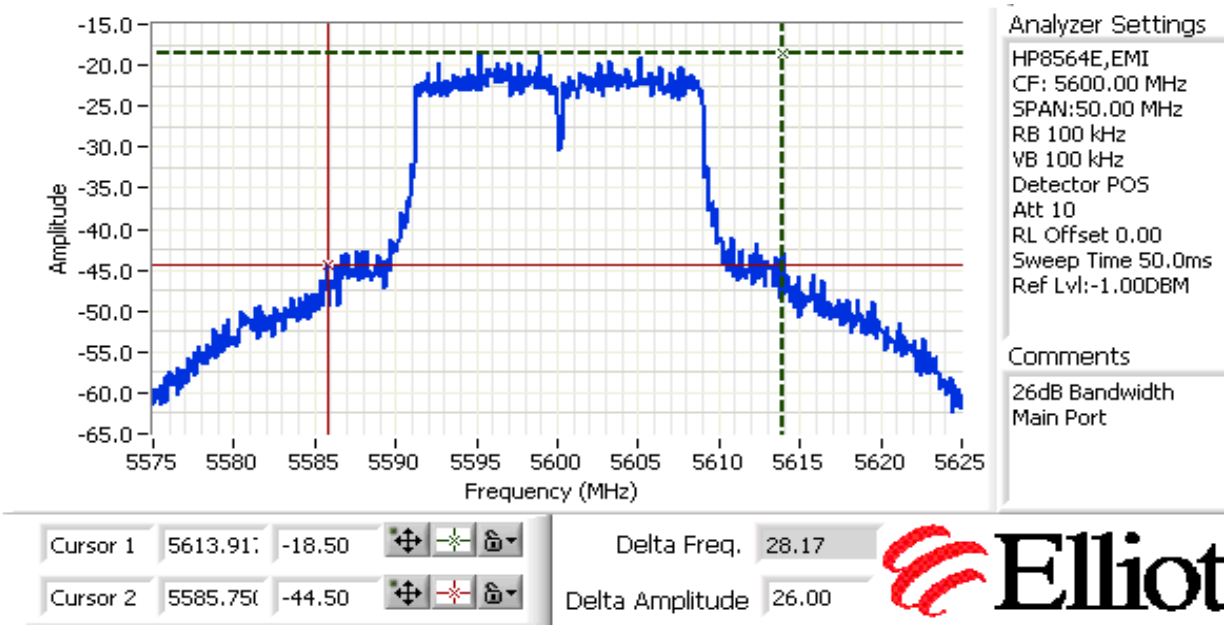
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



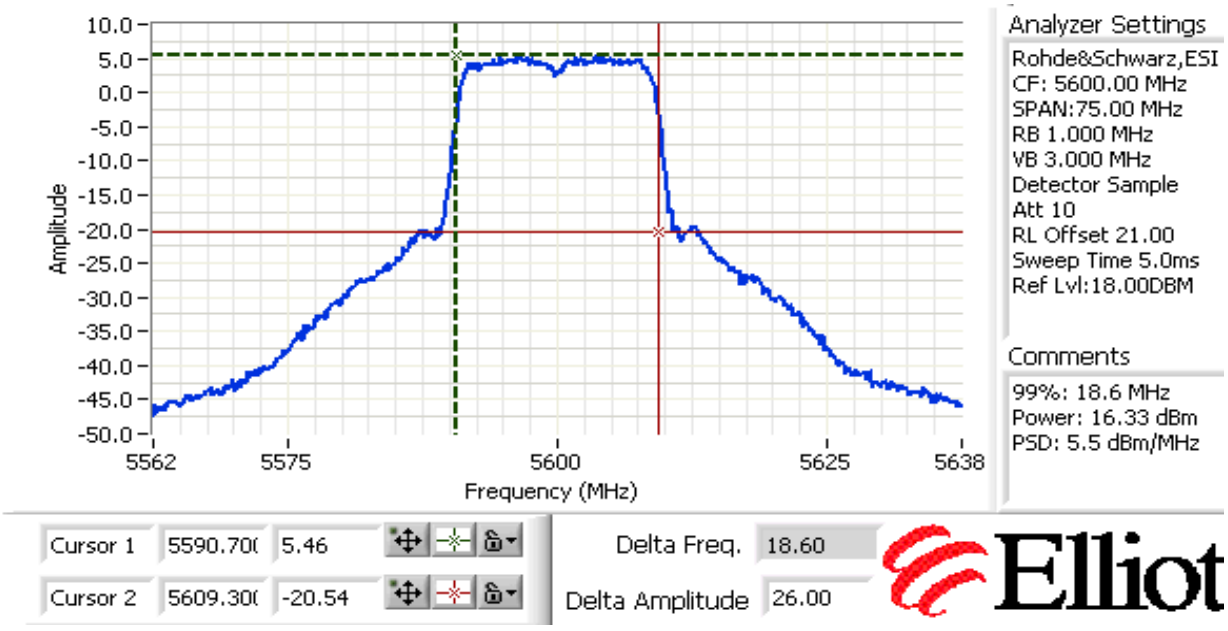


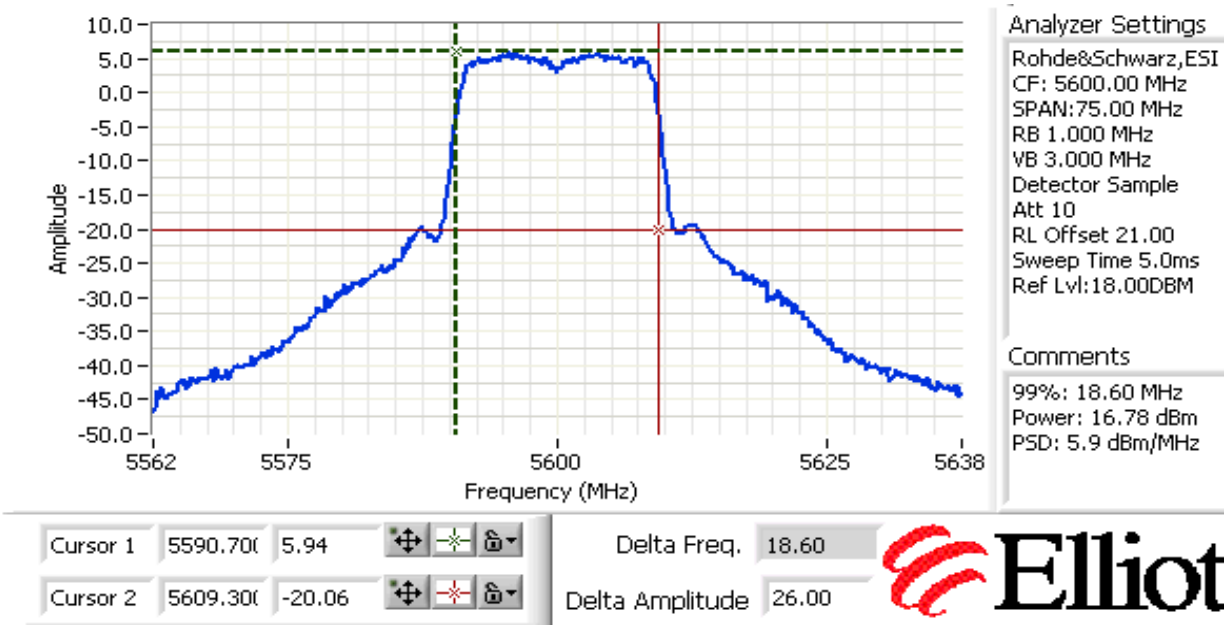
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



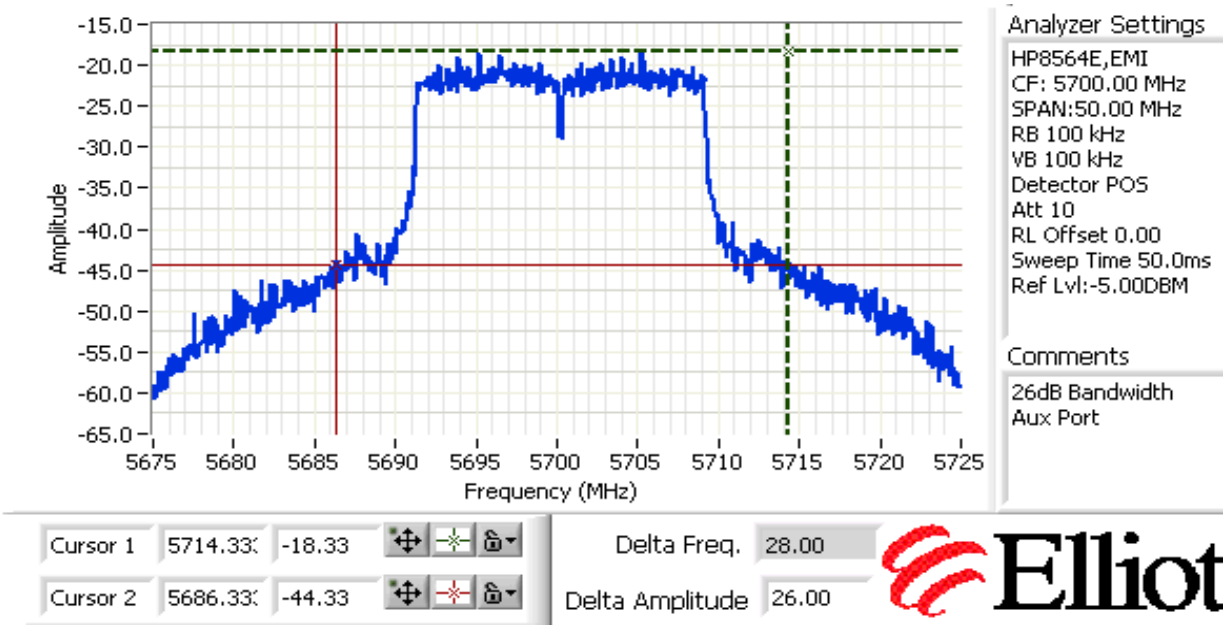


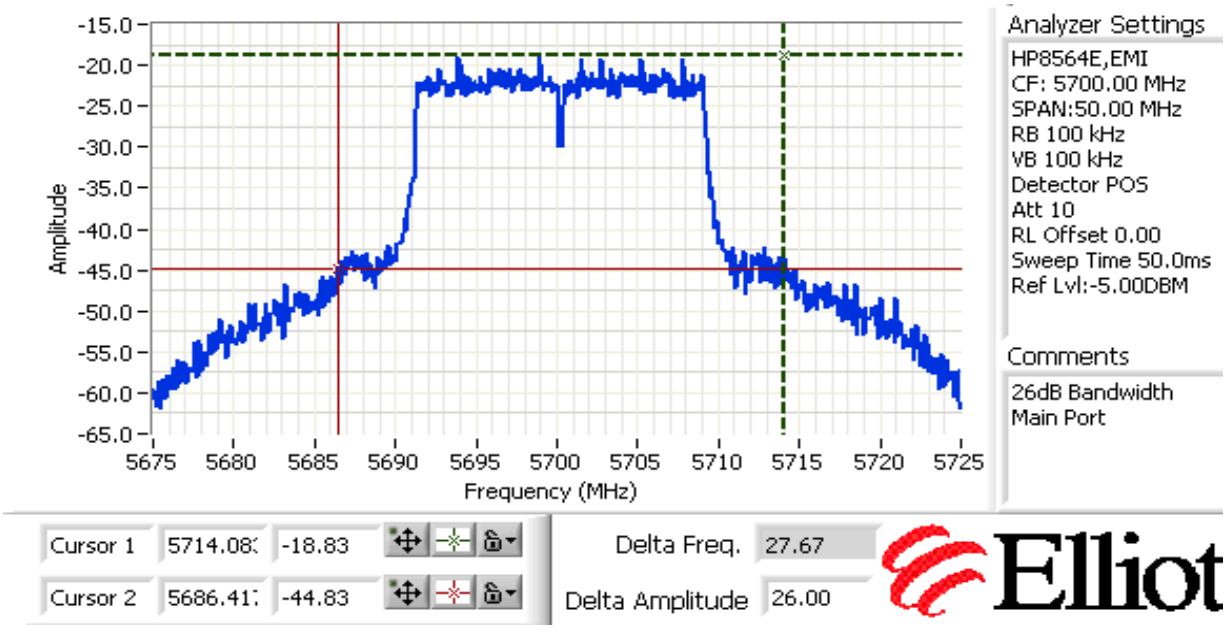
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



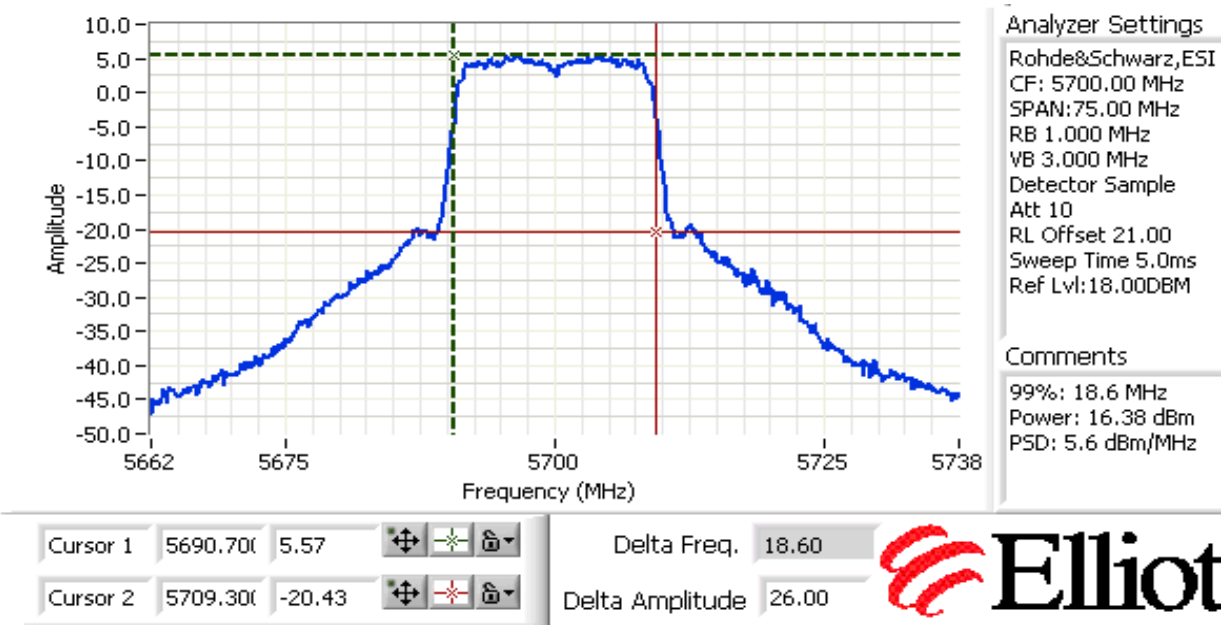


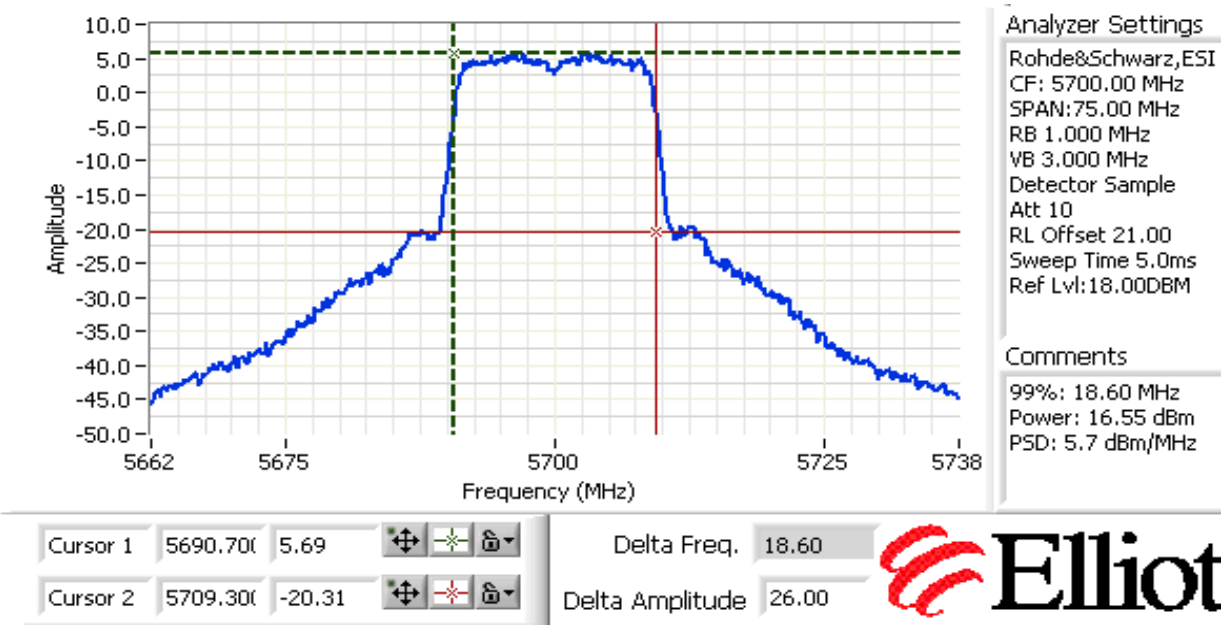
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A





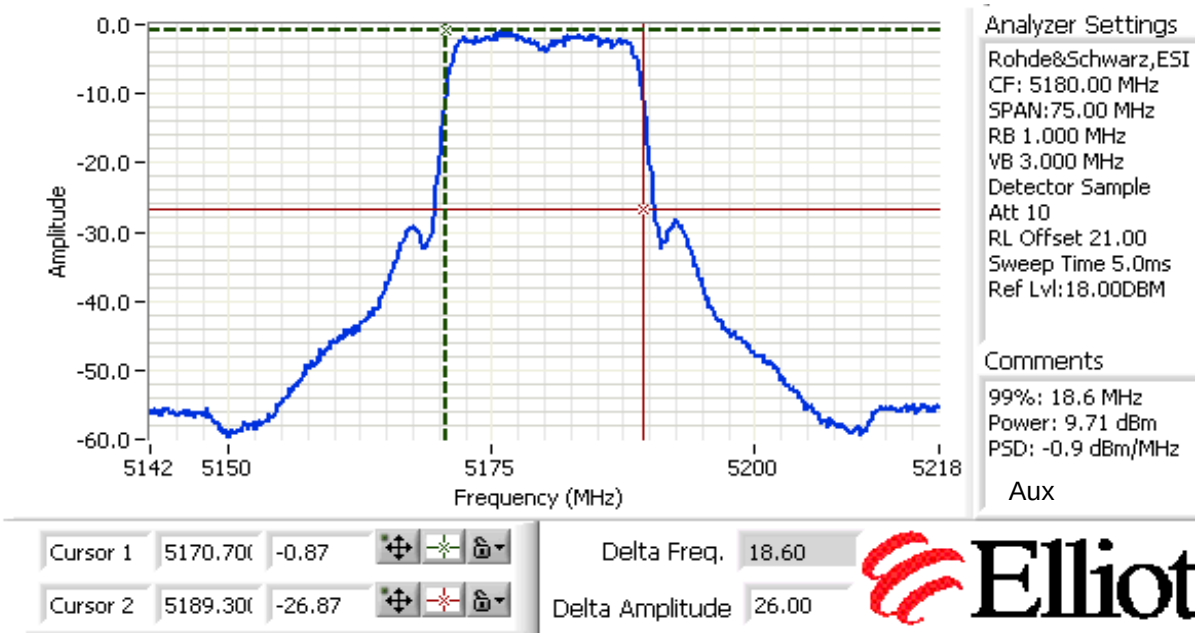
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

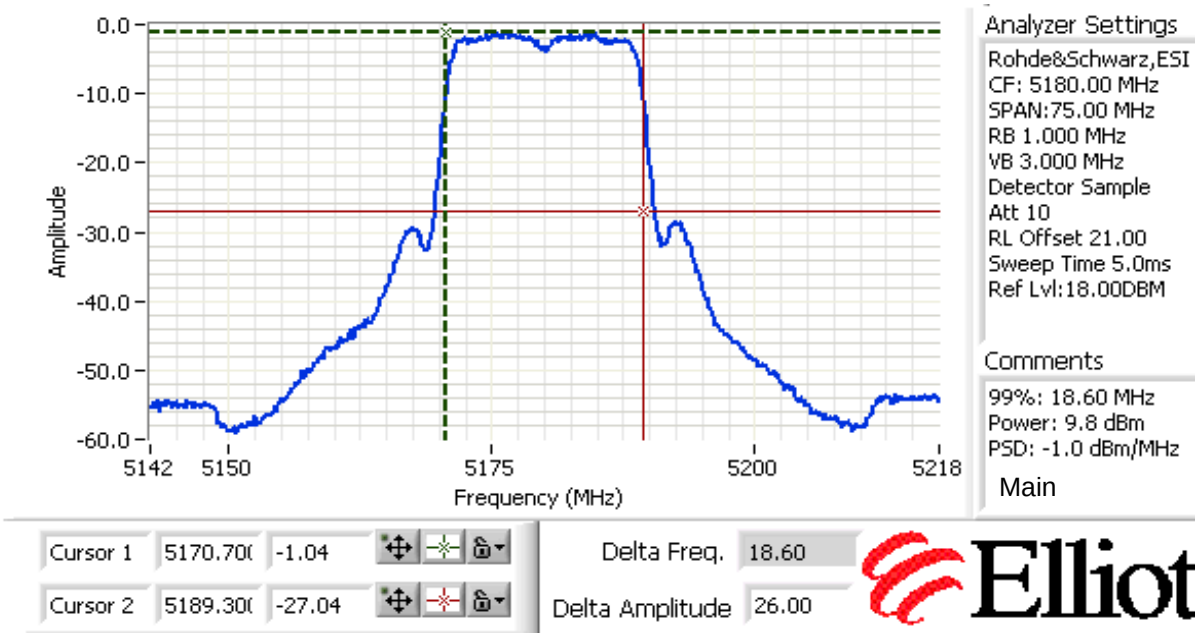




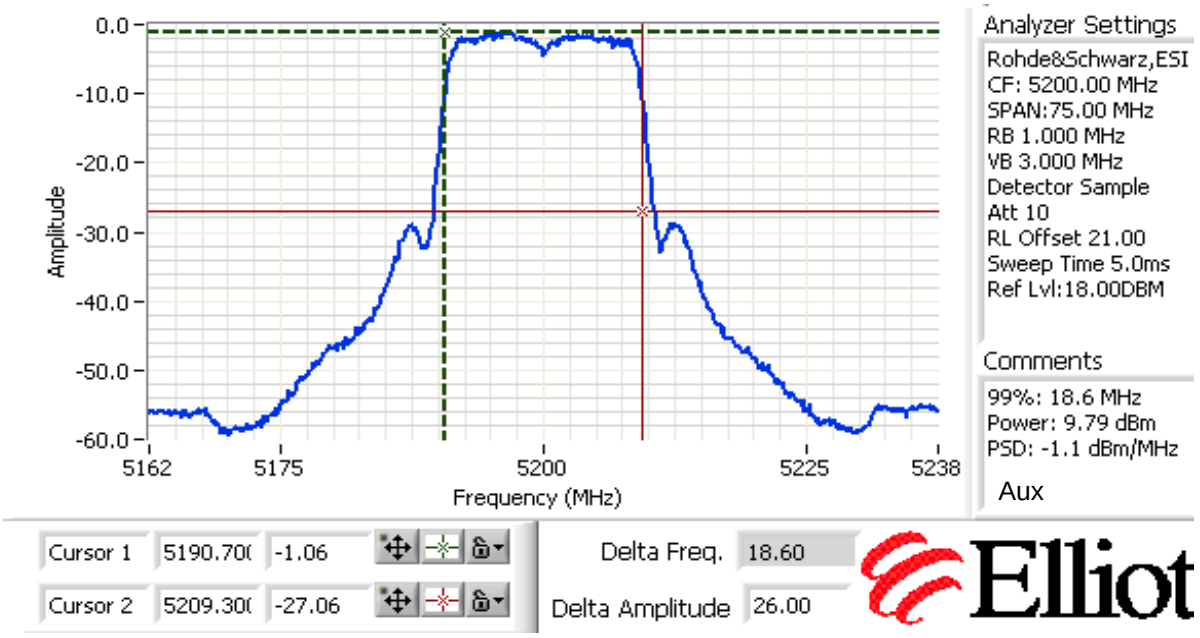
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

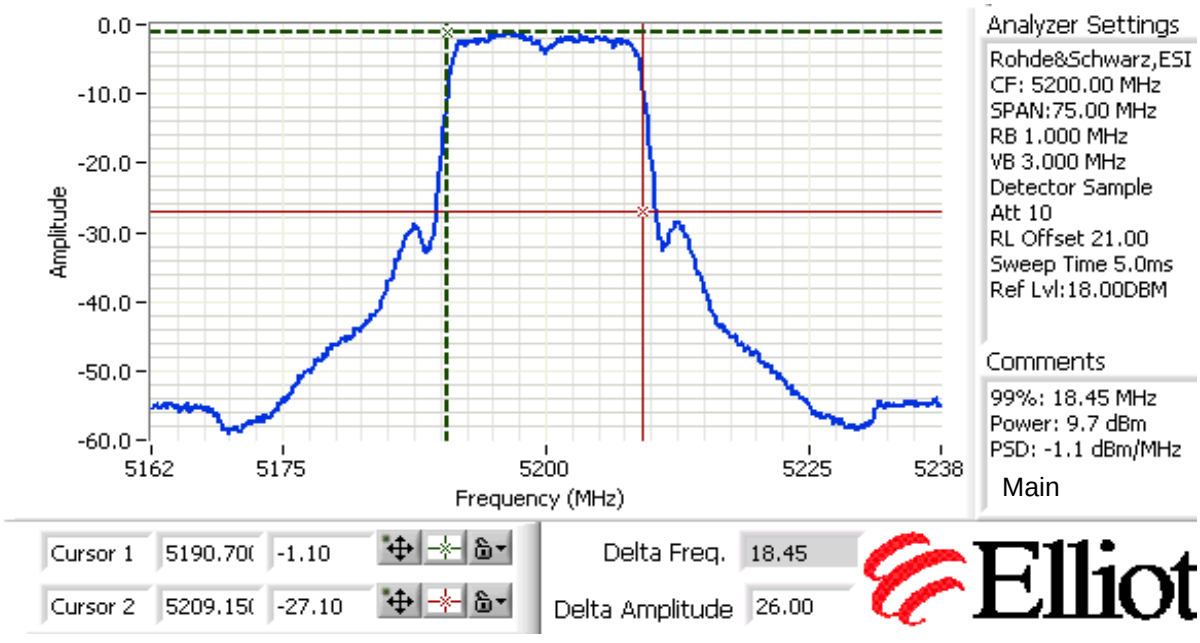
Plots for Power and PSD for 5150-5250 with power set for an effective gain of 6dBi



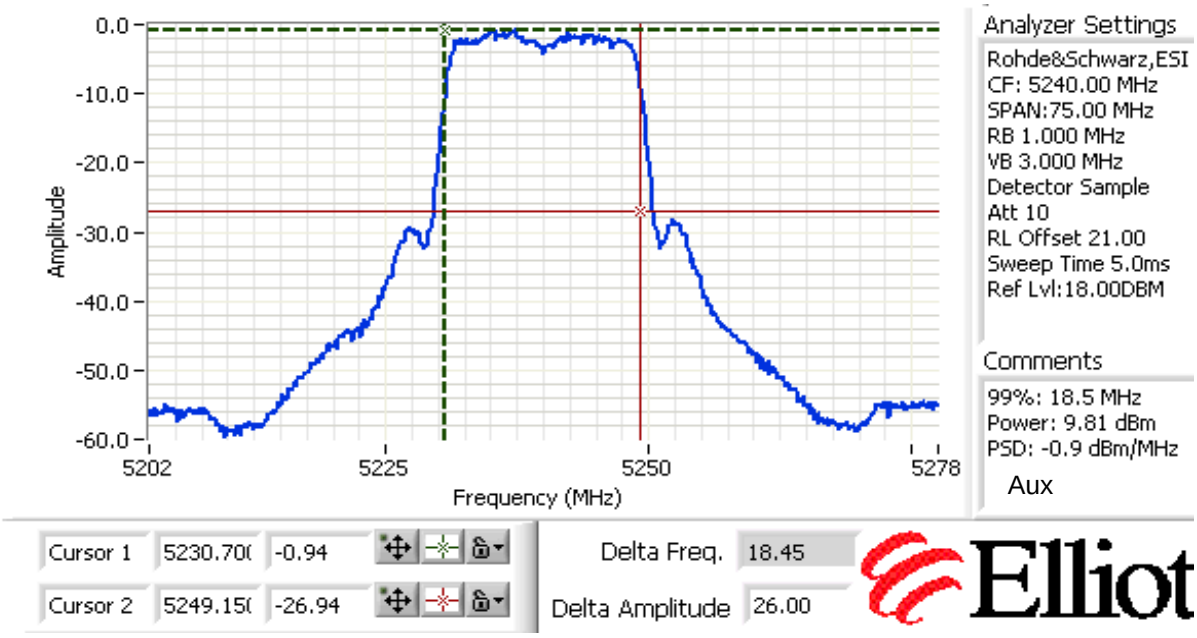


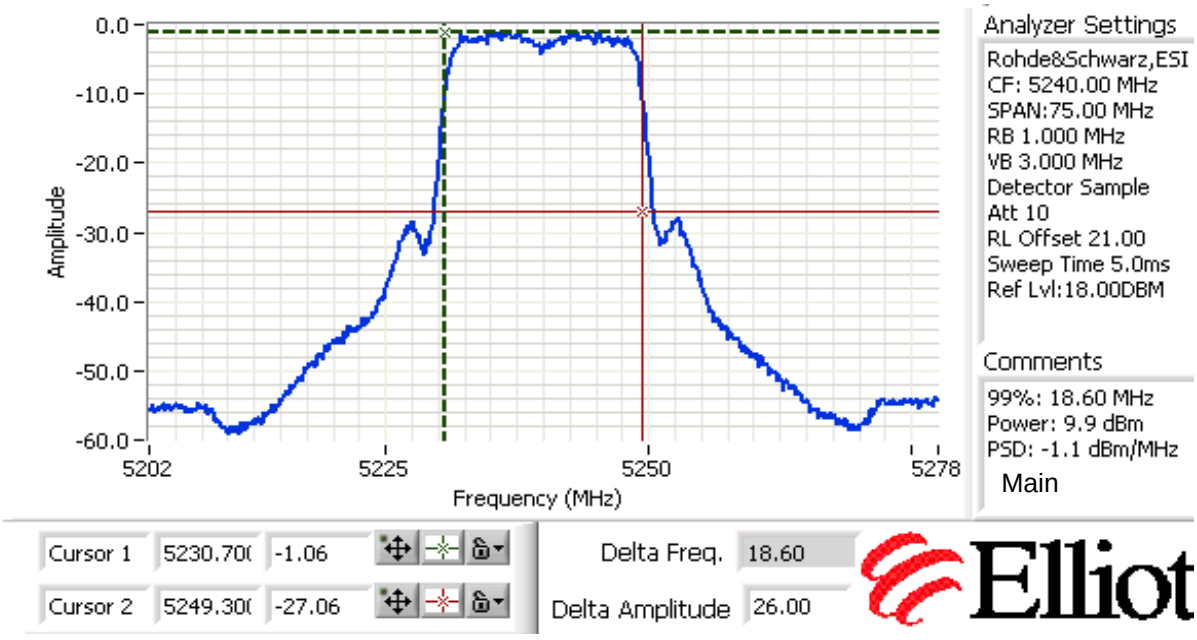
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

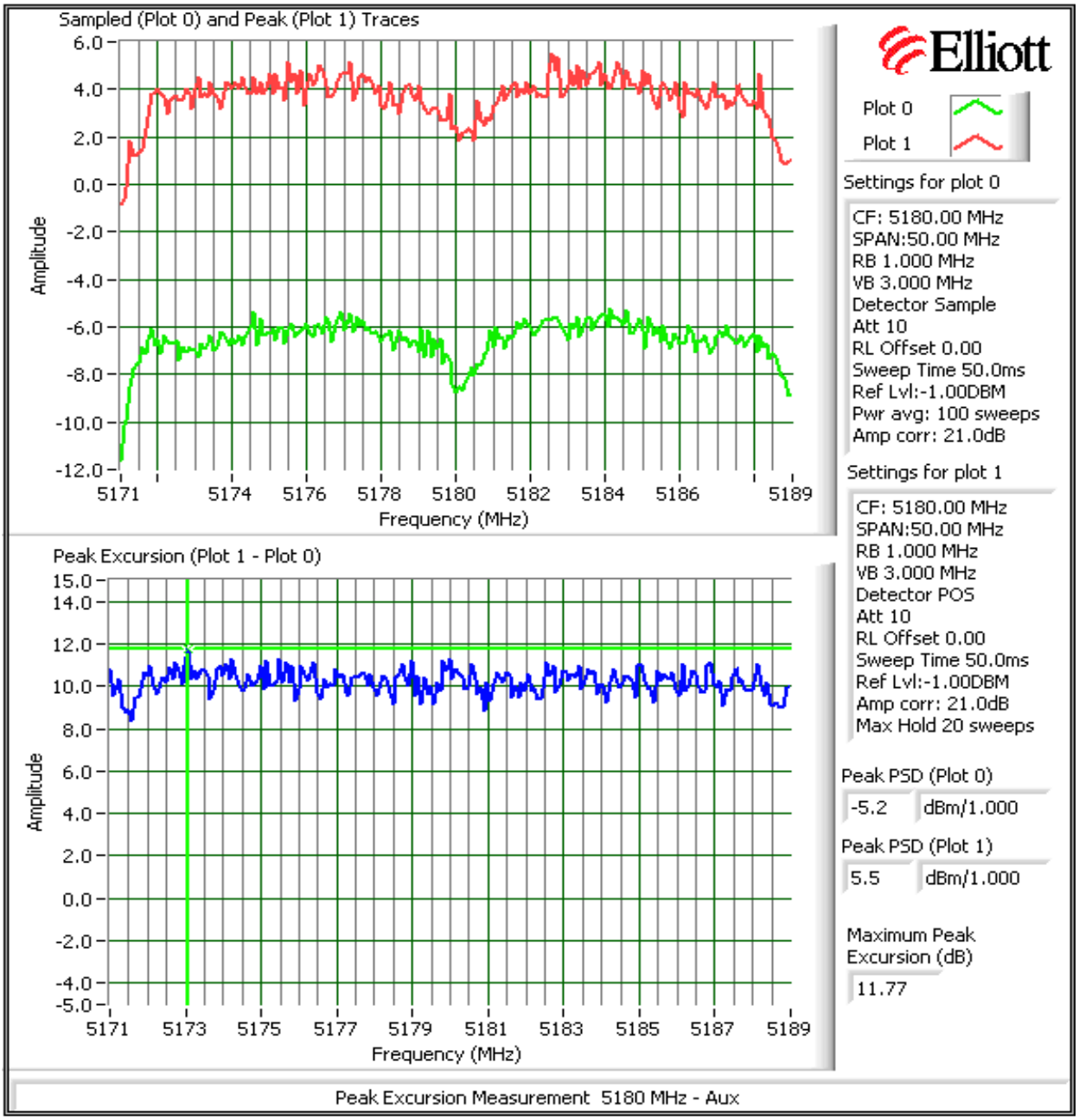




Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #2: Peak Excursion Measurement

Plots Showing Peak Excursion
Trace A: RBW = VBW = 1MHz
Trace B: RBW = 1 MHz, VBW = 30kHz

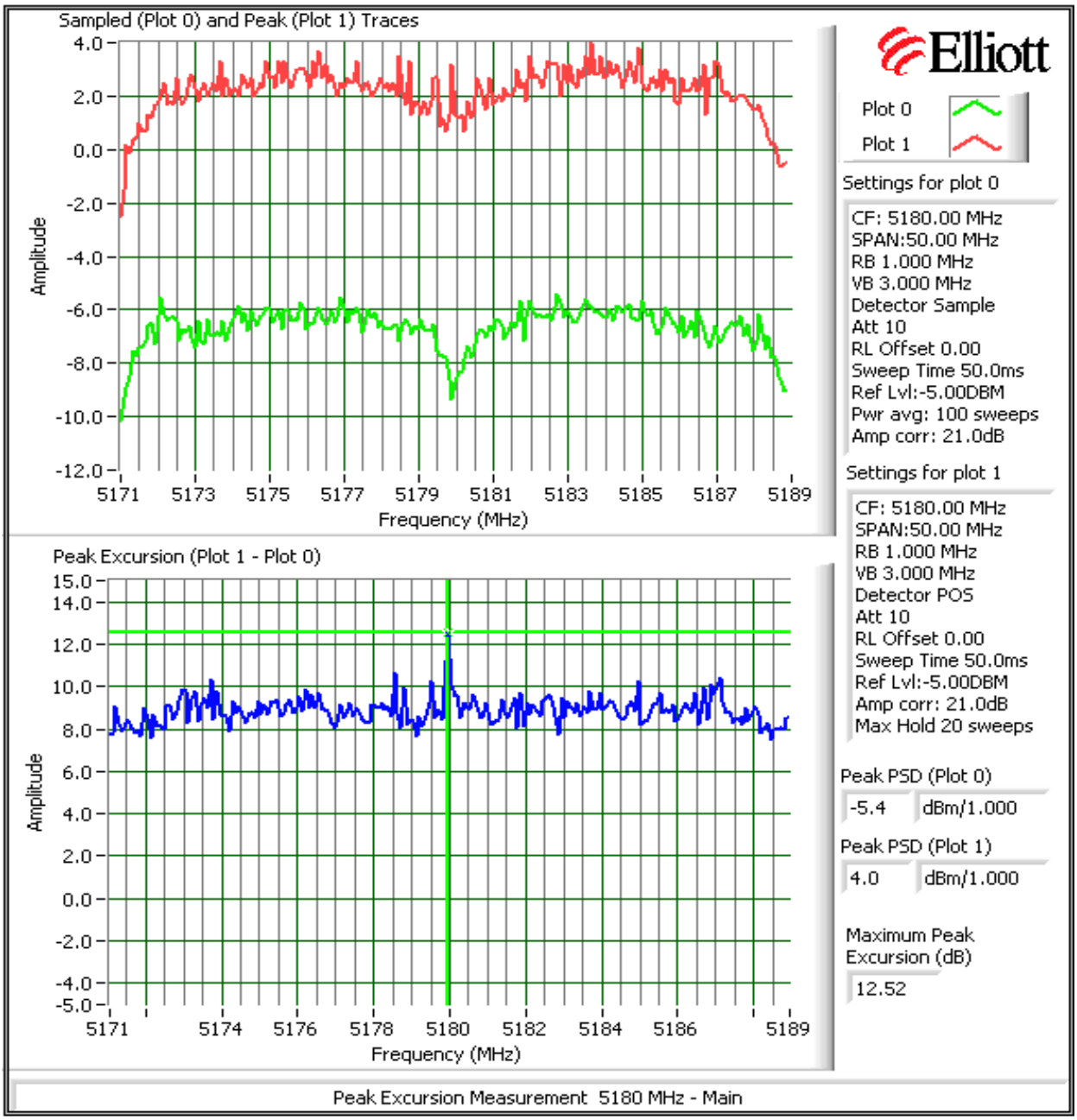


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

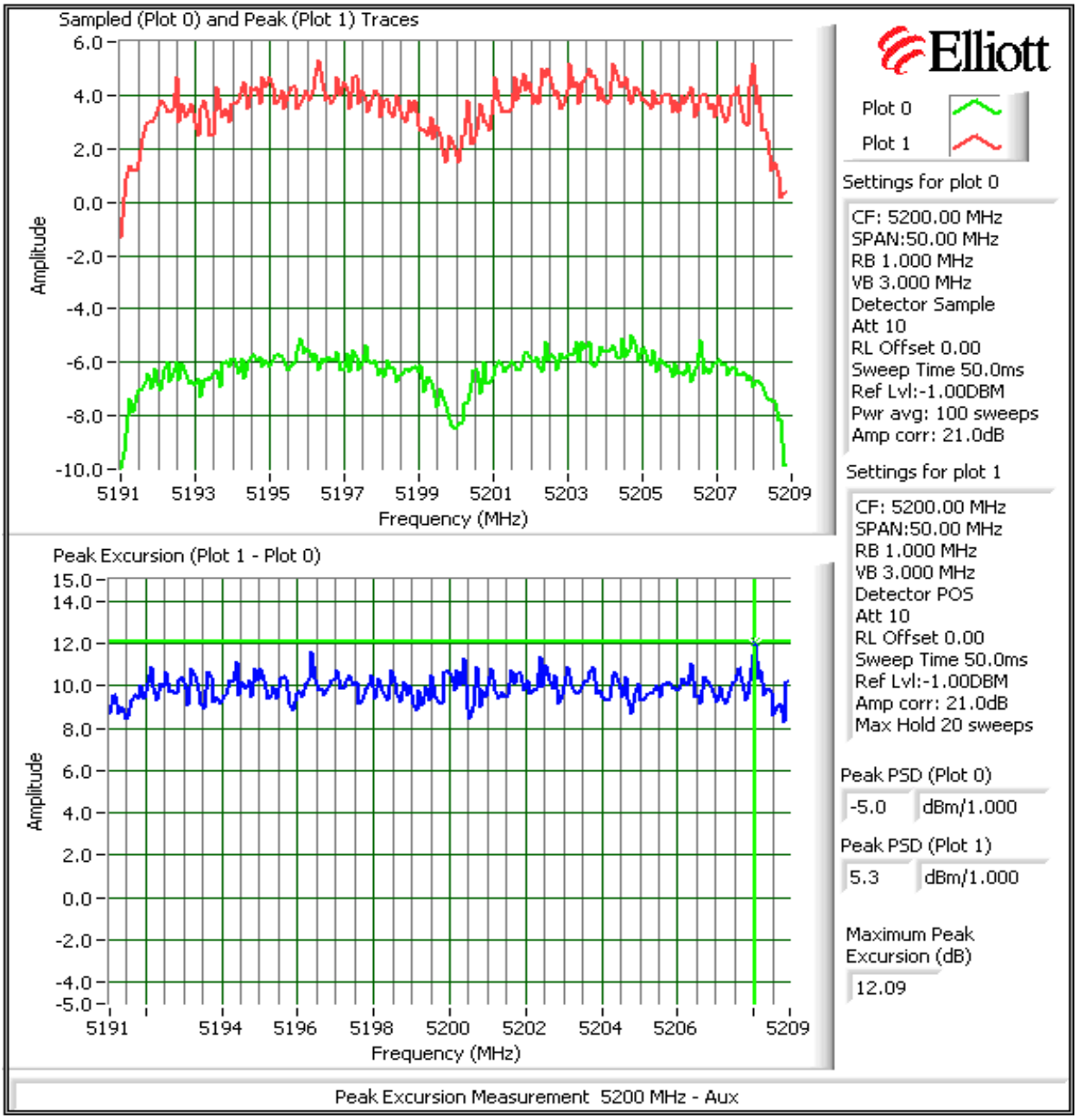
Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion
Trace A: RBW = VBW = 1MHz
Trace B: RBW = 1 MHz, VBW = 30kHz

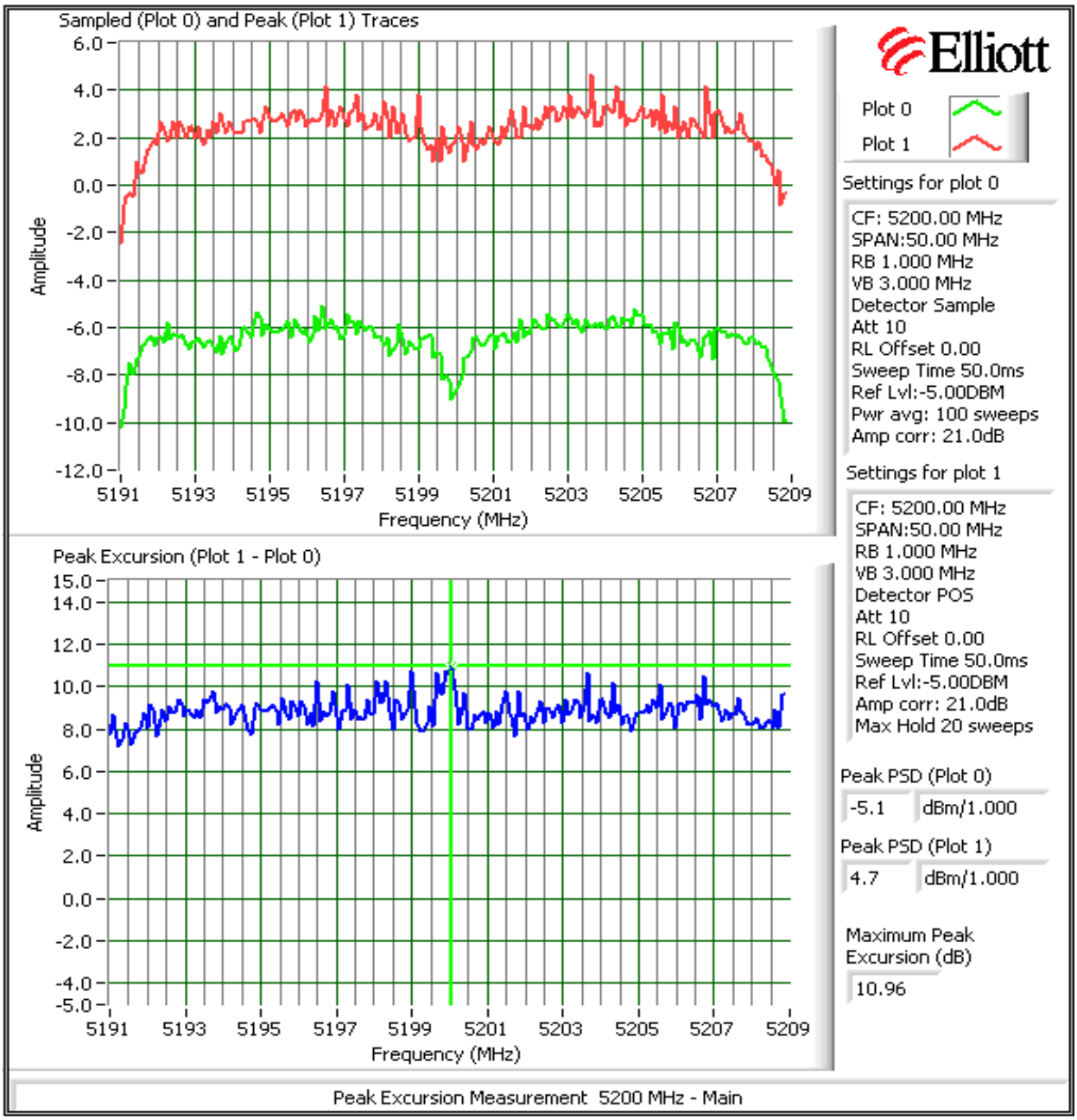


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

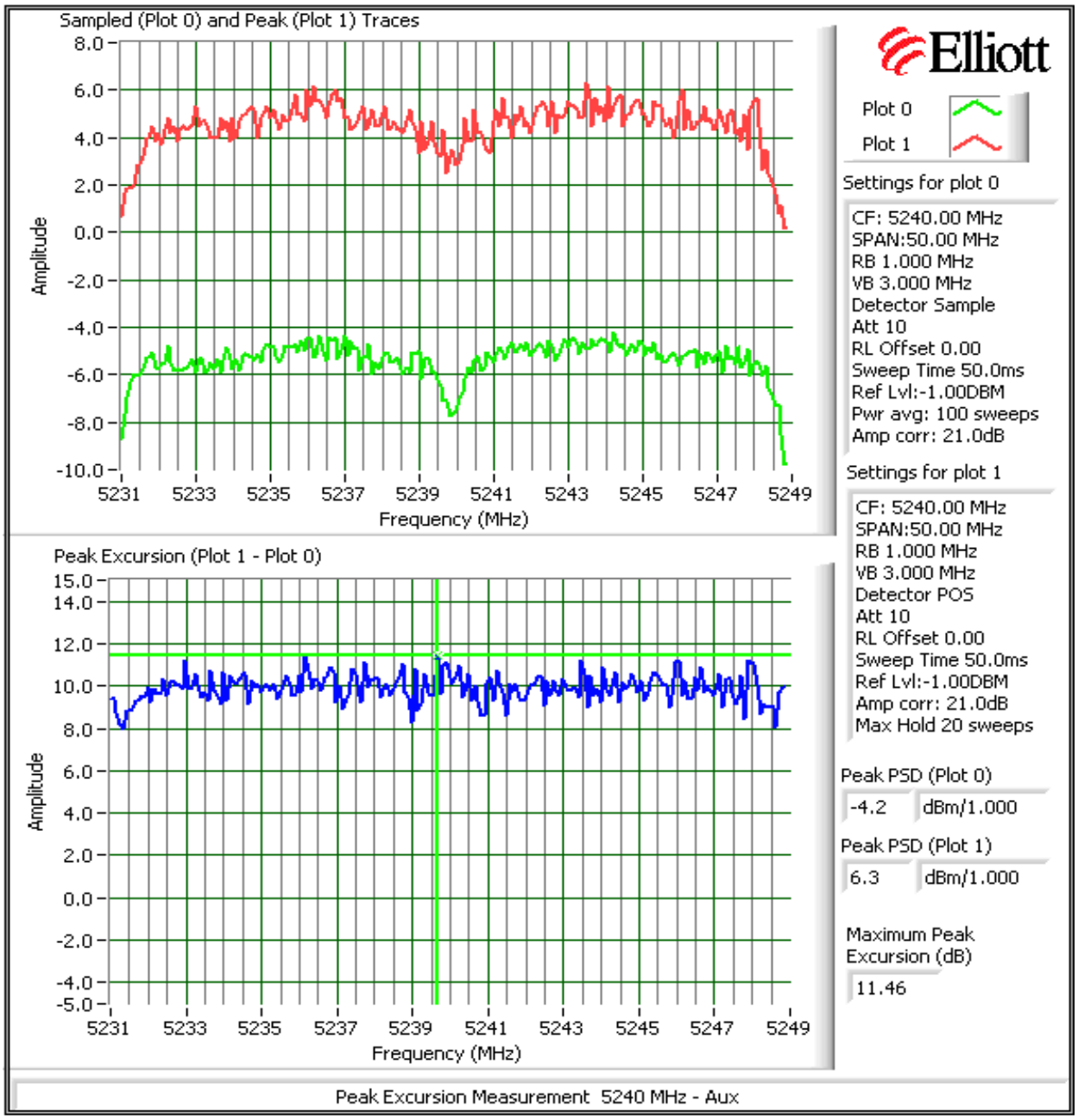


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

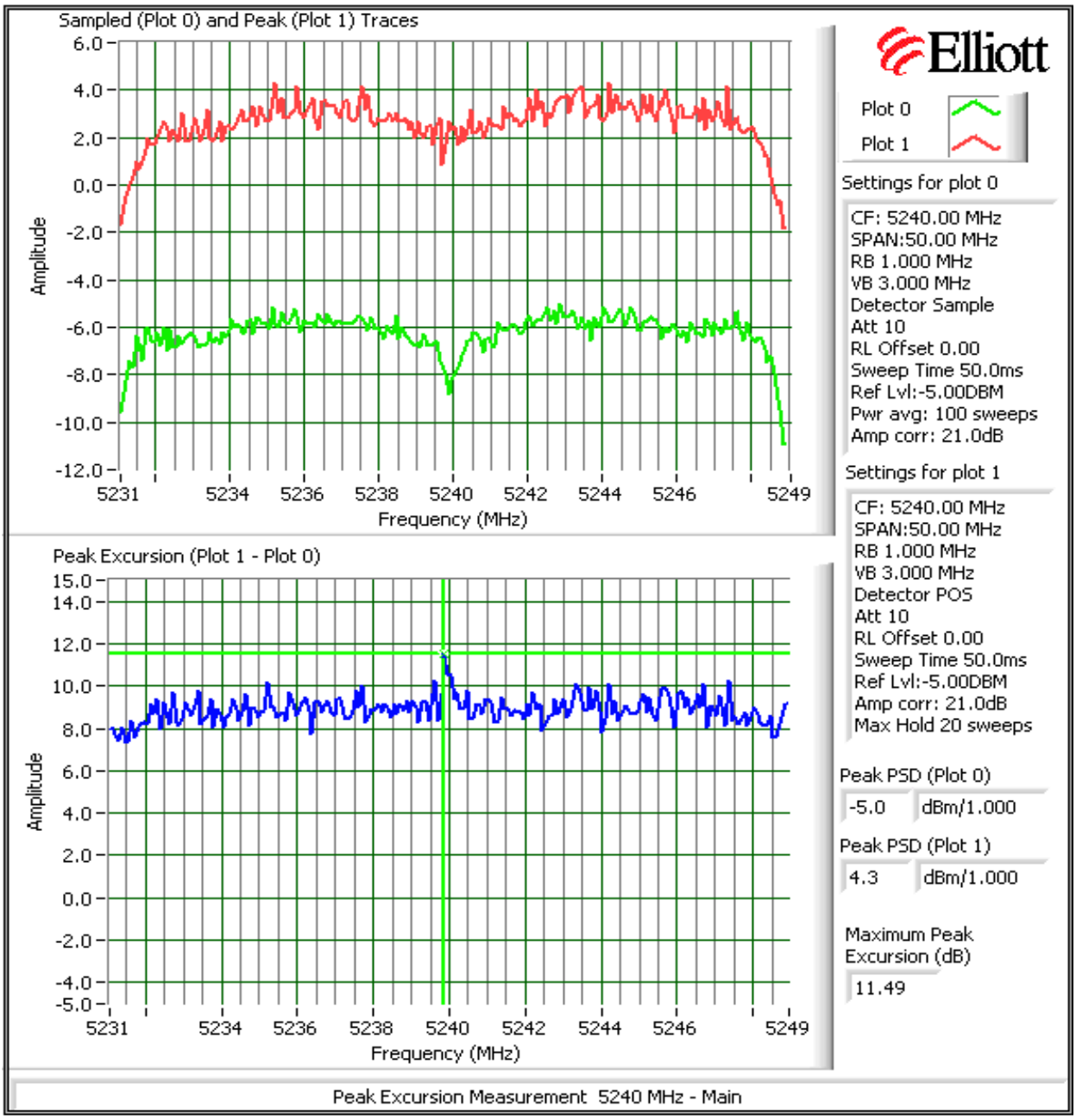


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

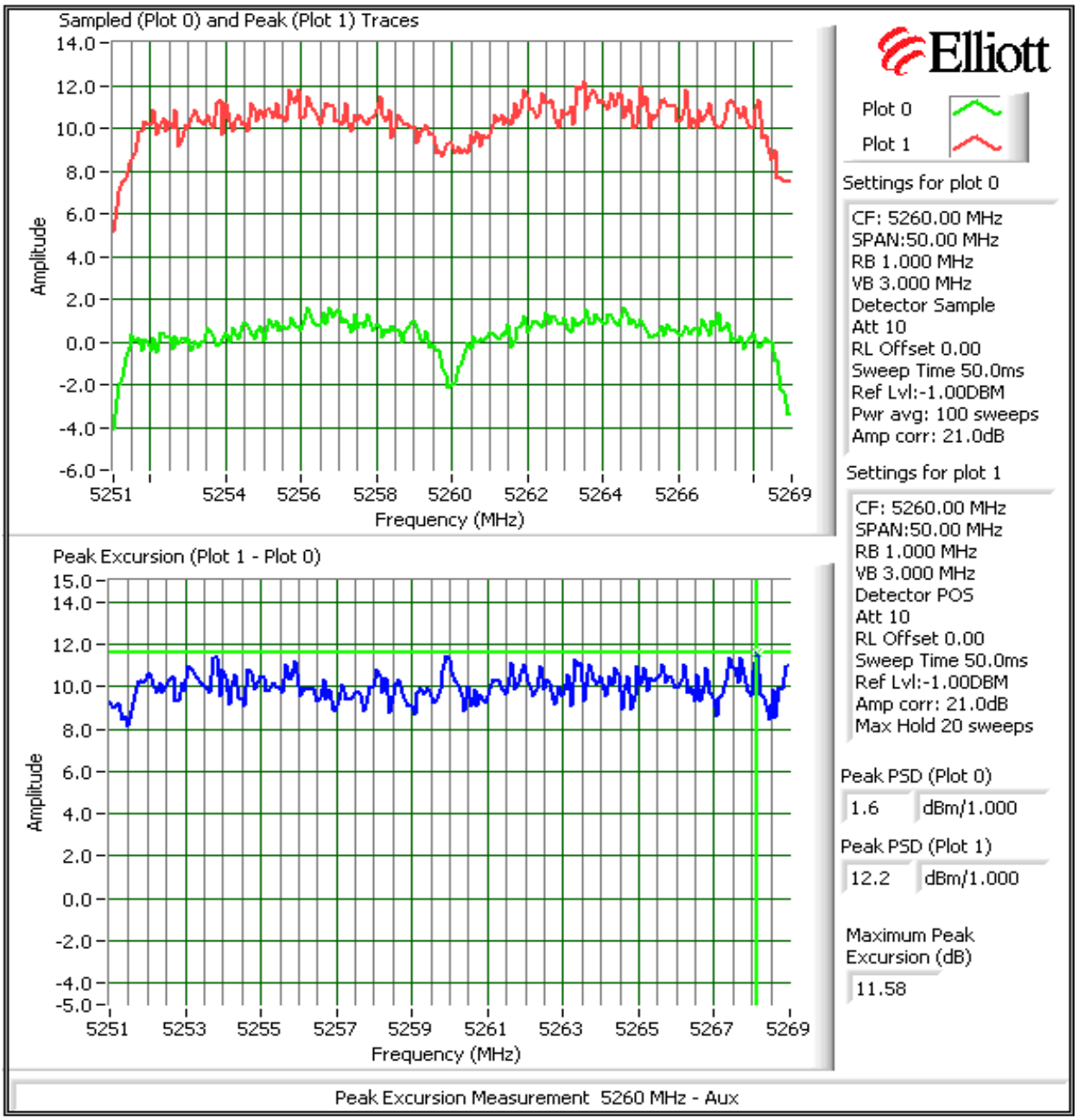


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

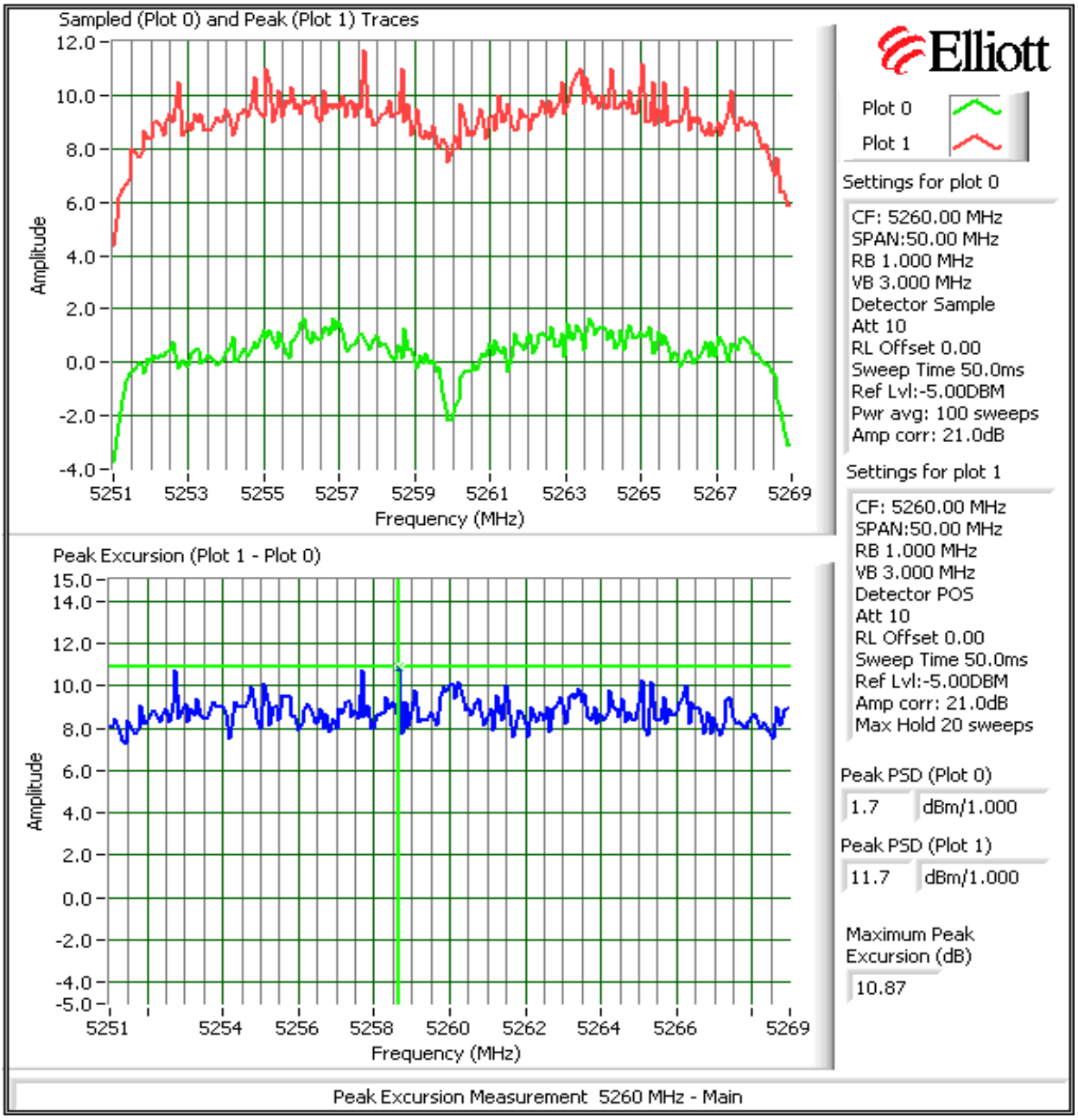


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

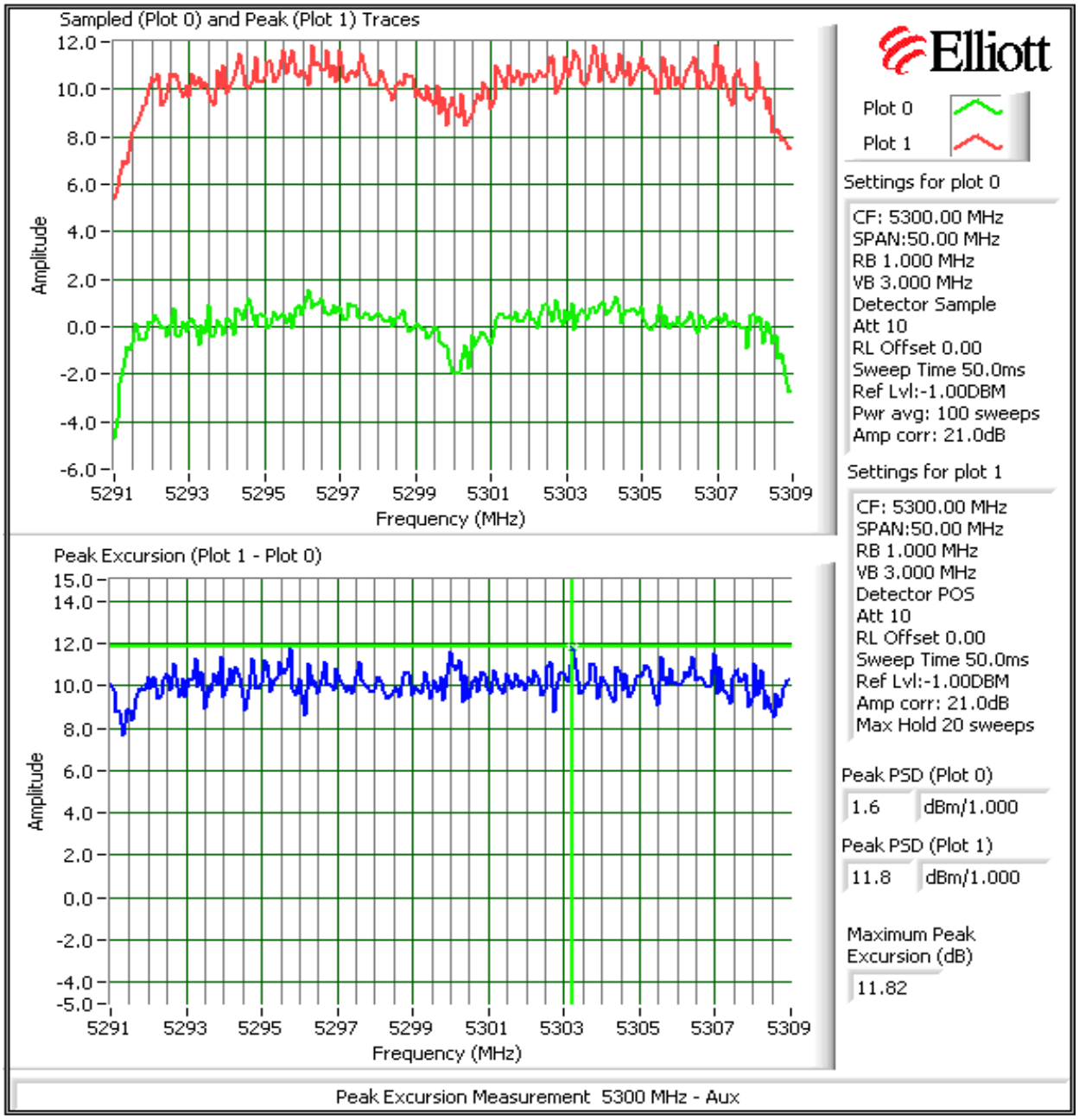


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

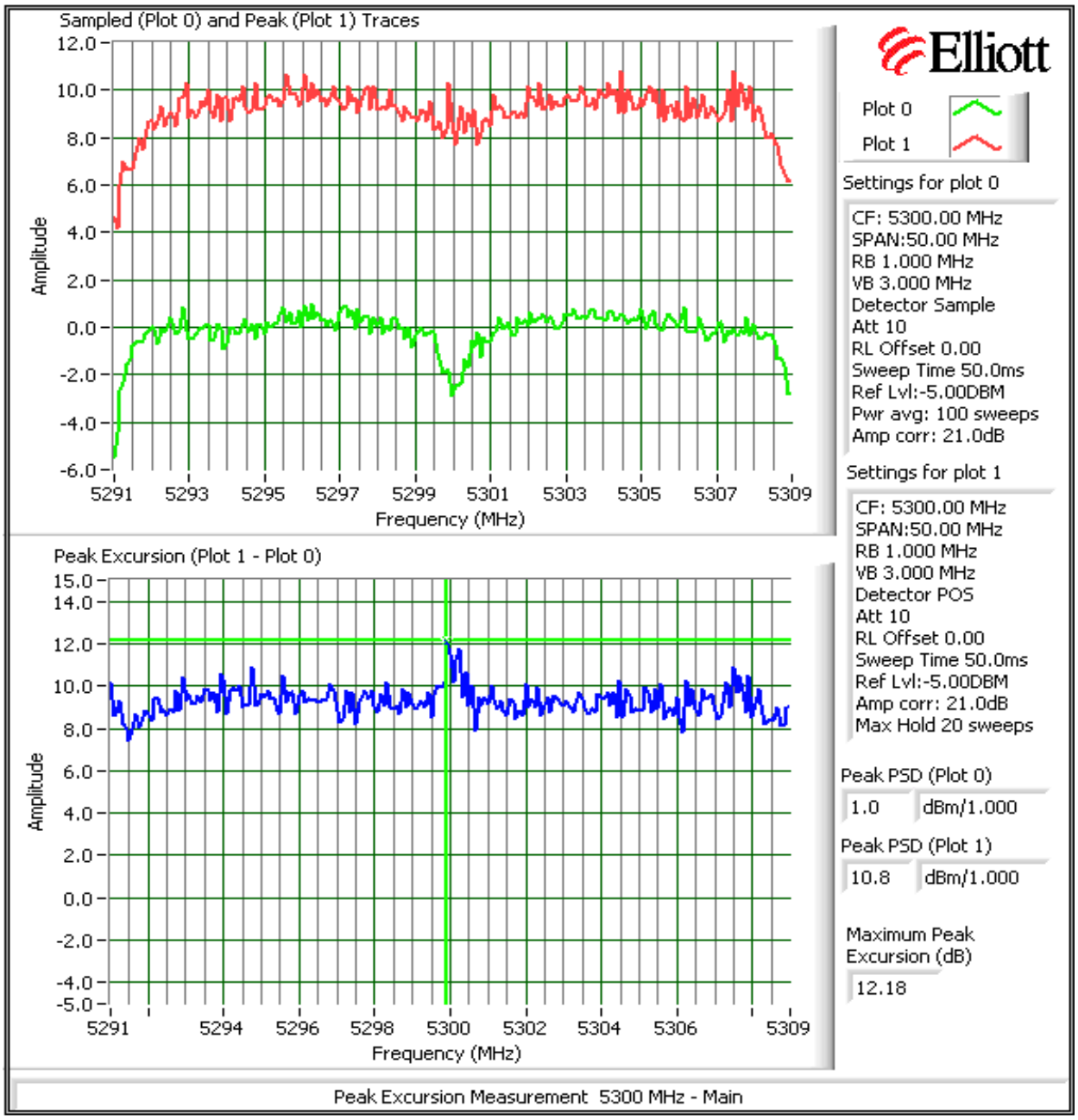


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

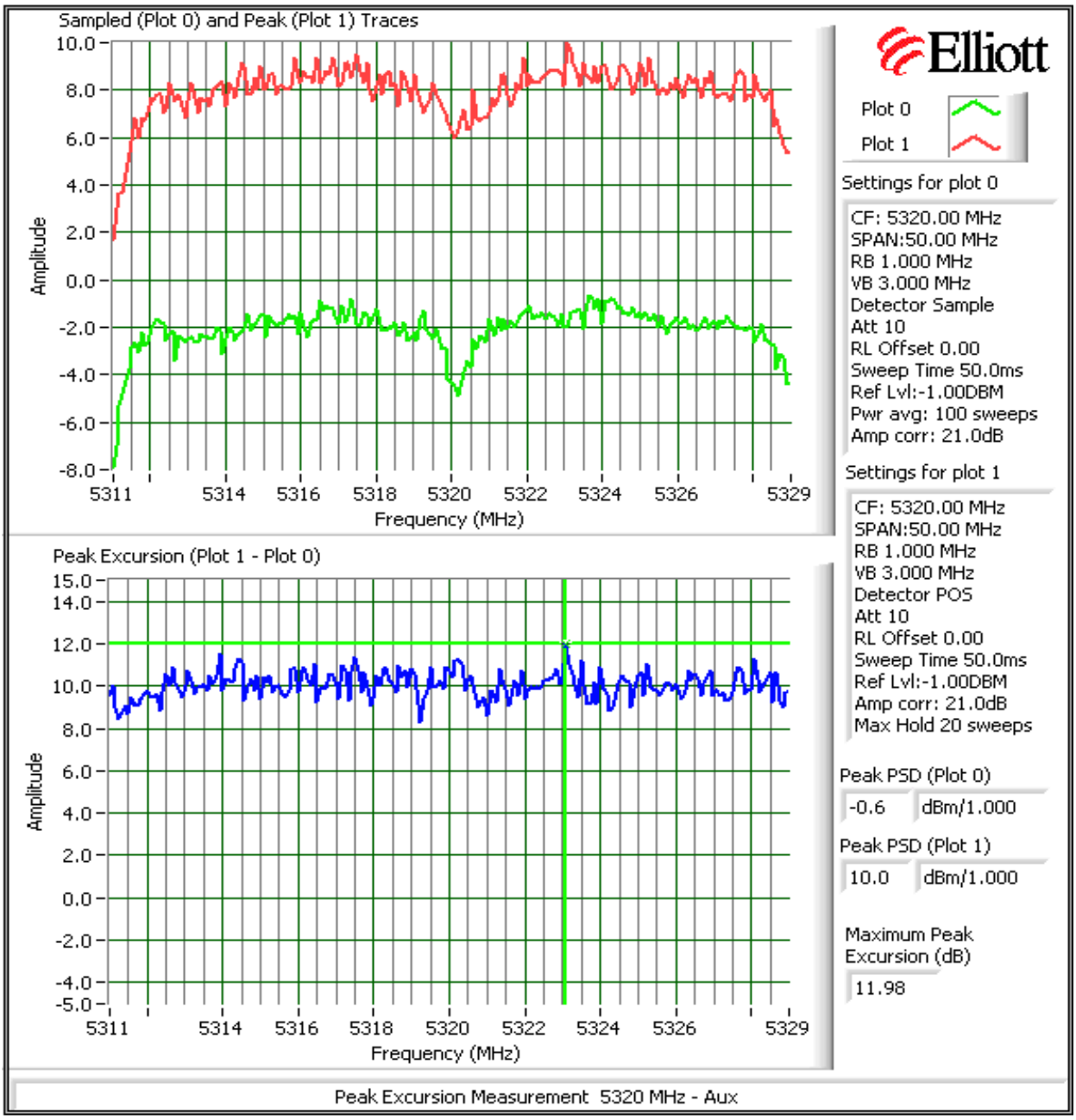


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

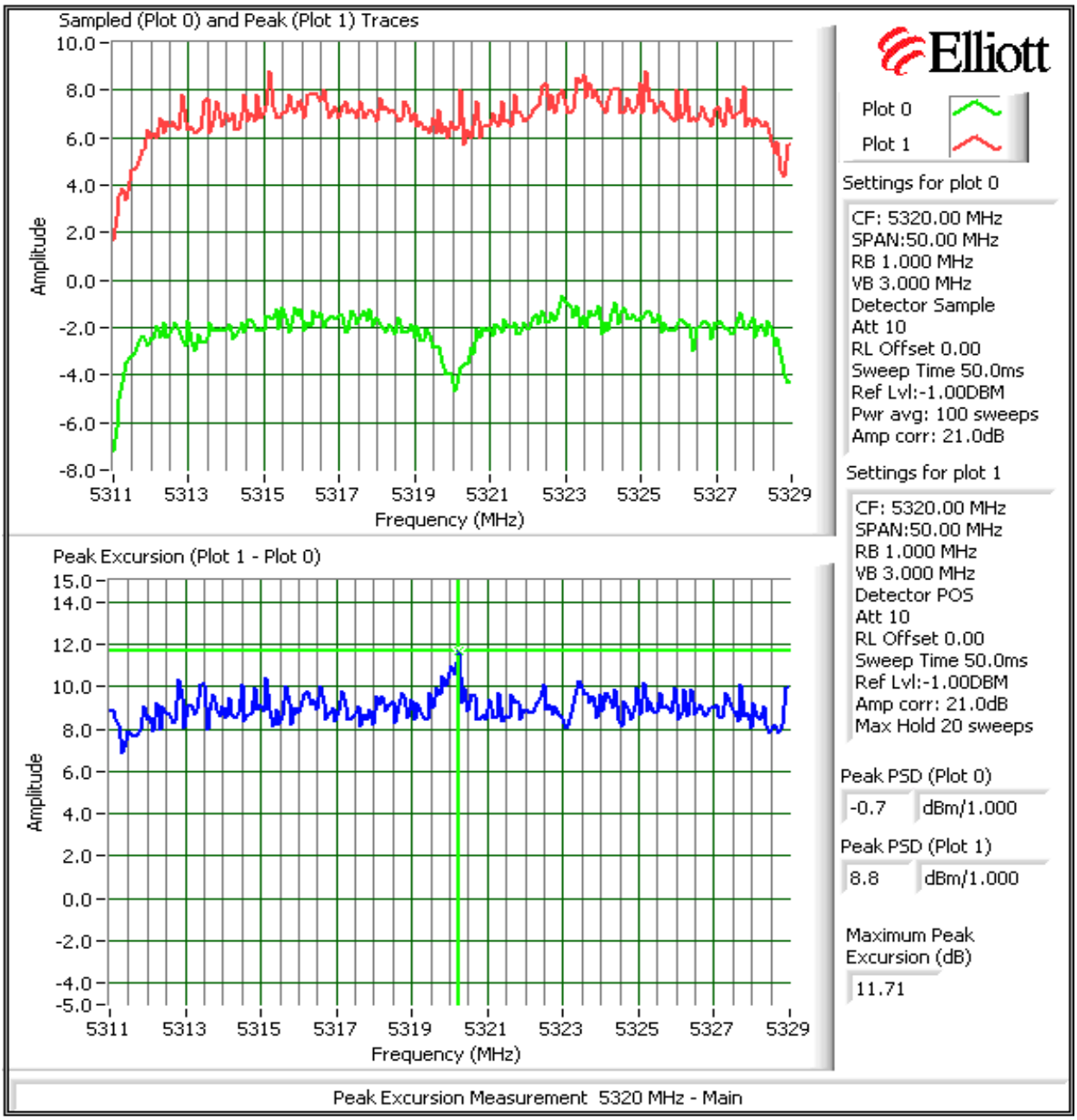


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

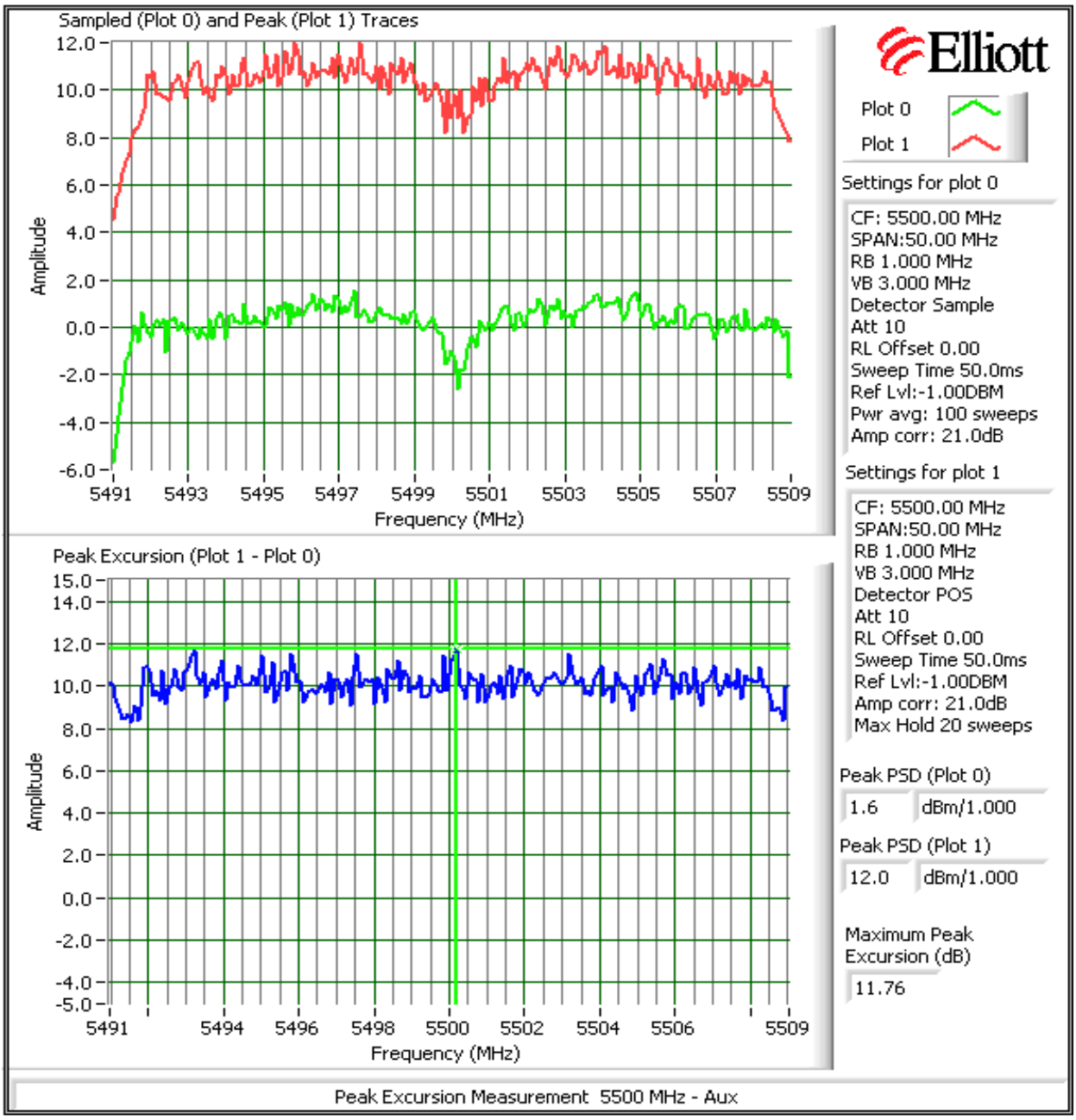


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

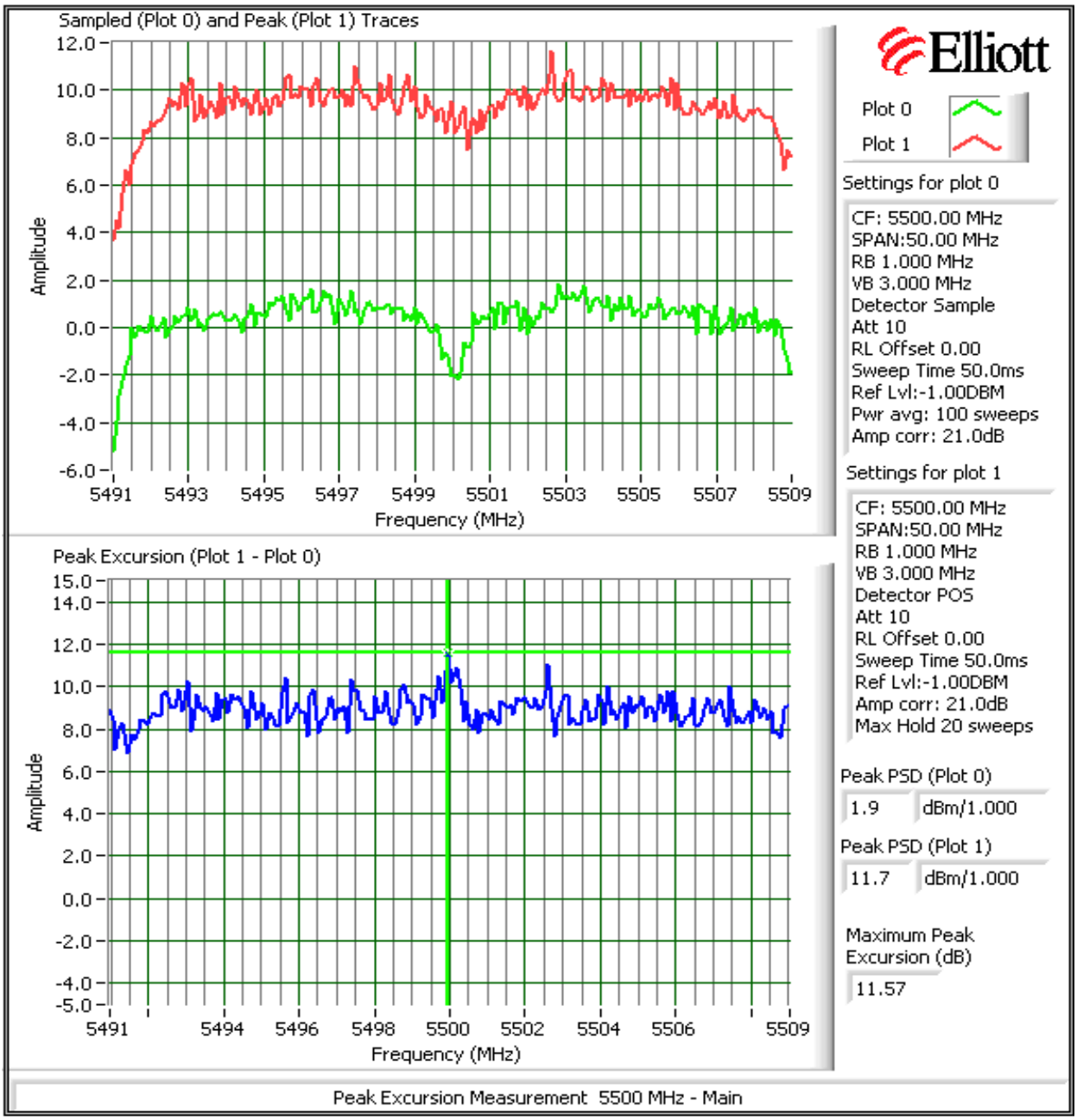


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

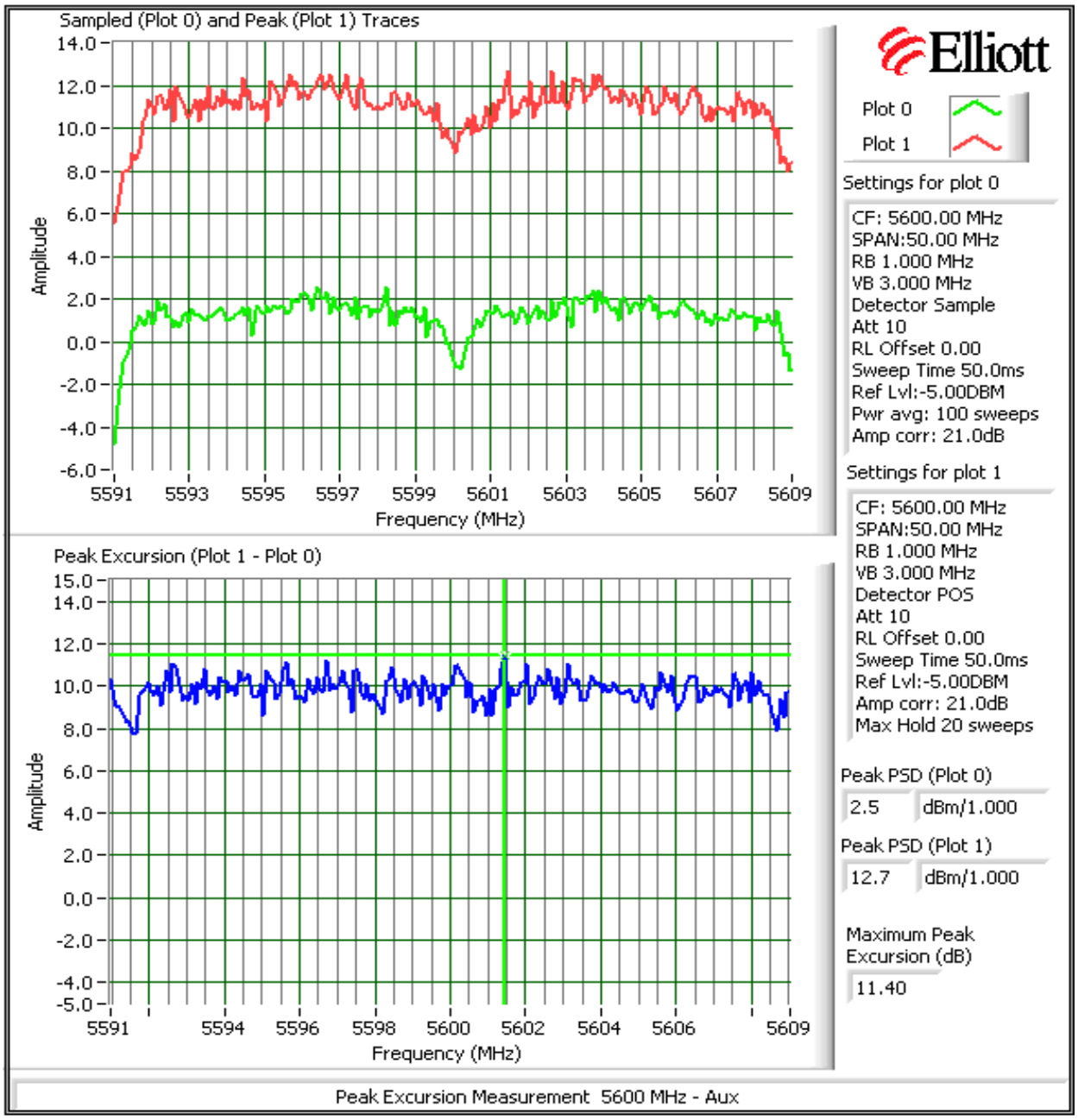


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

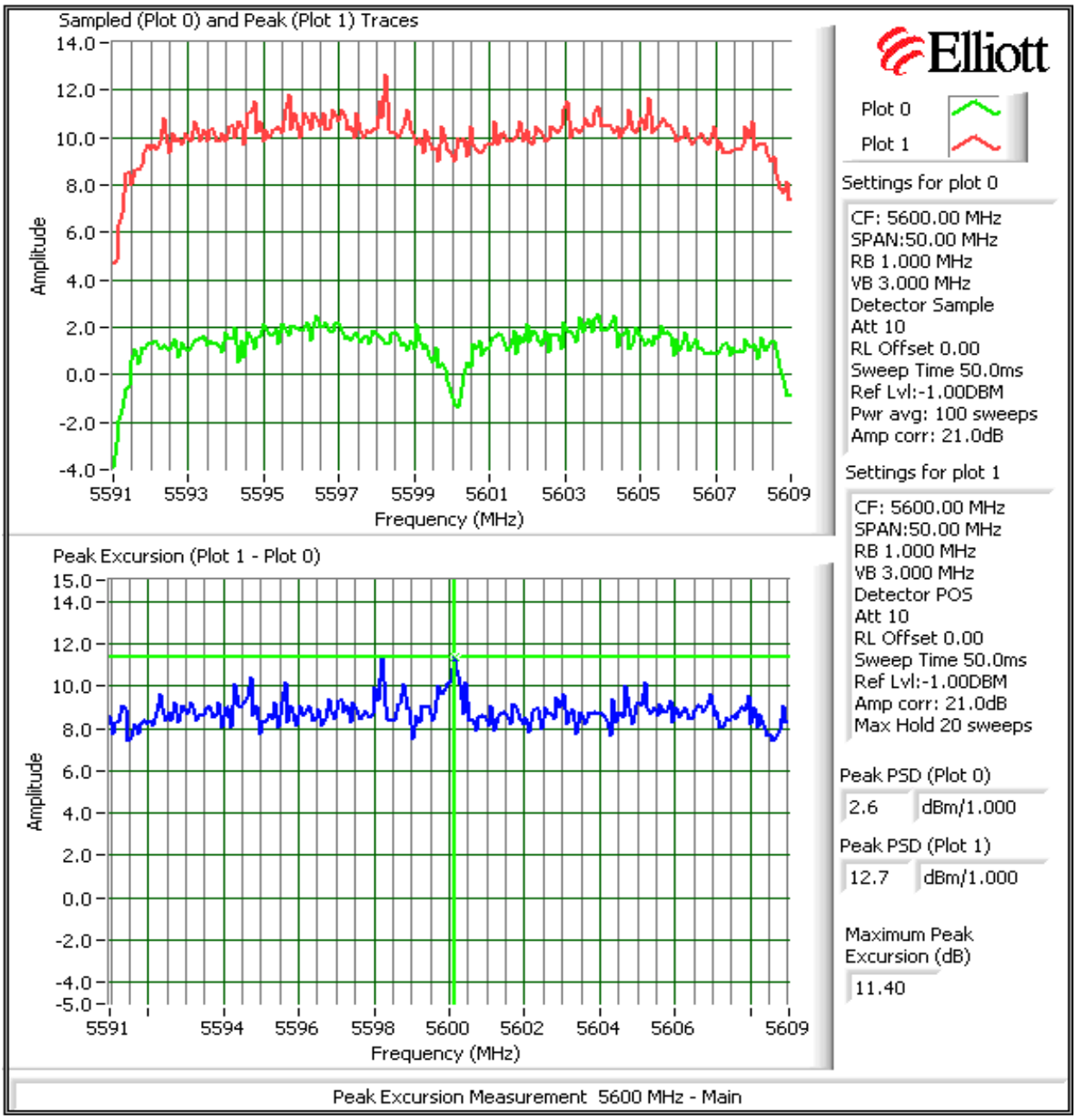


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

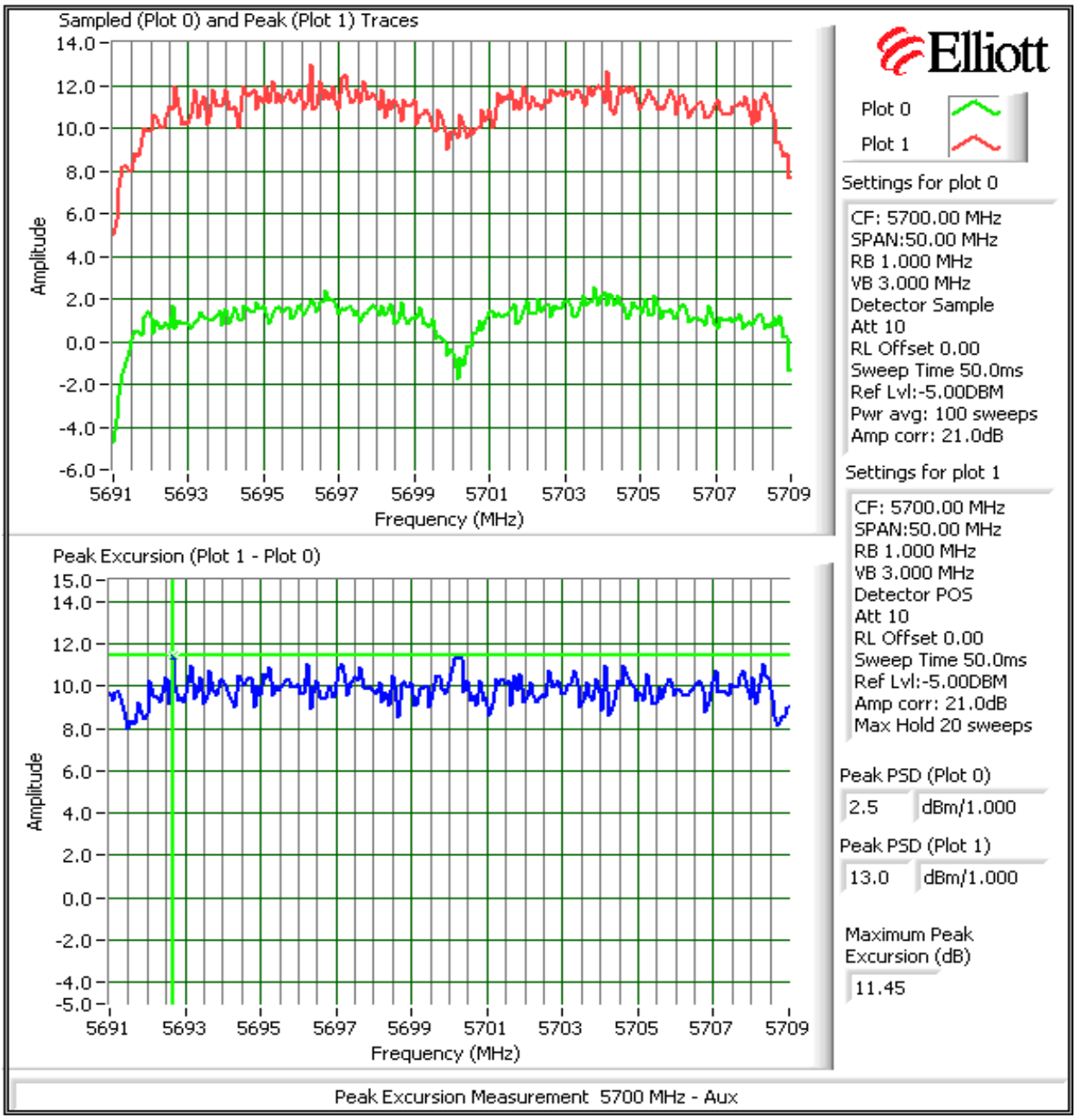


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz

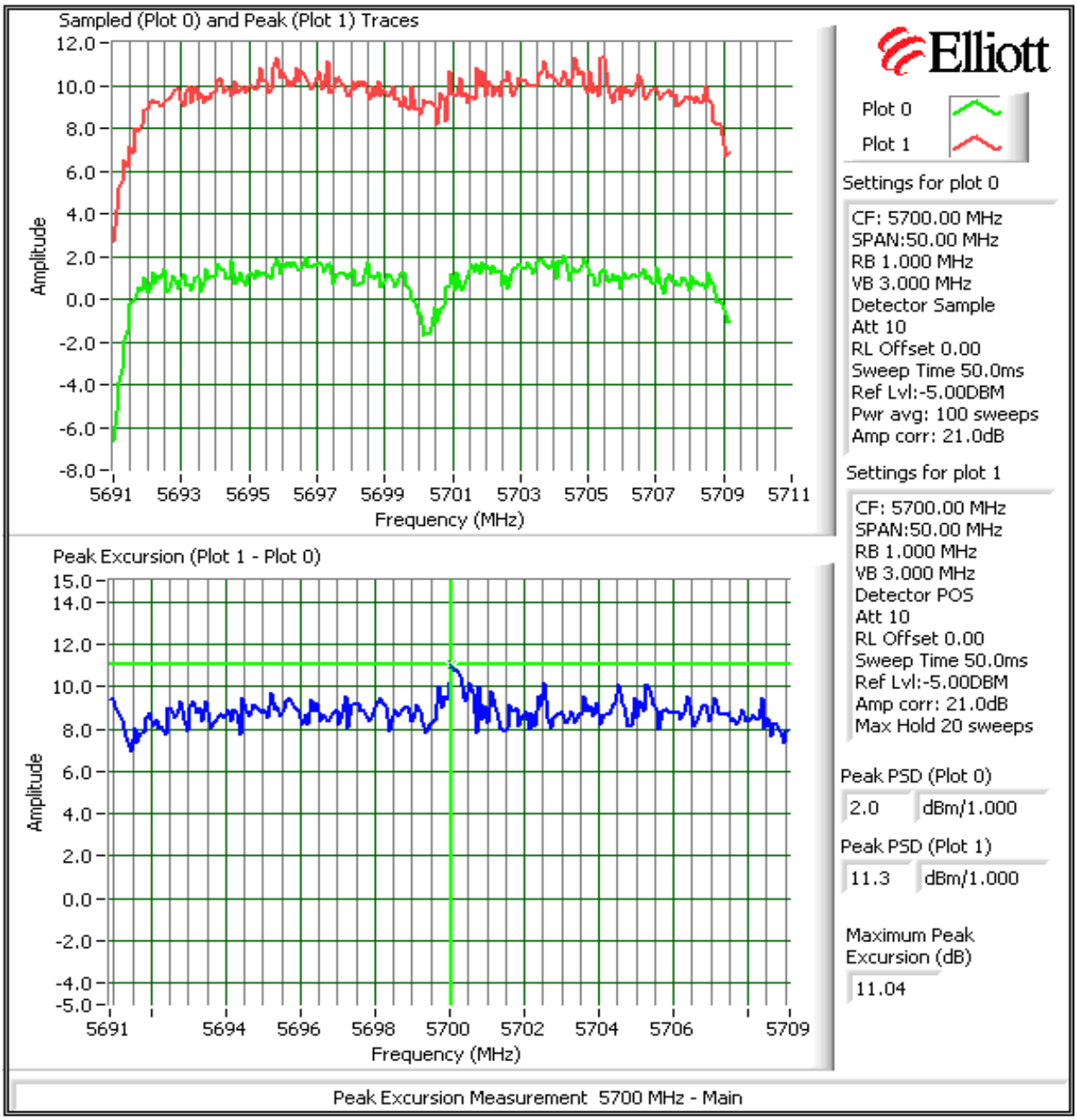


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

Trace B: RBW = 1 MHz, VBW = 30kHz



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

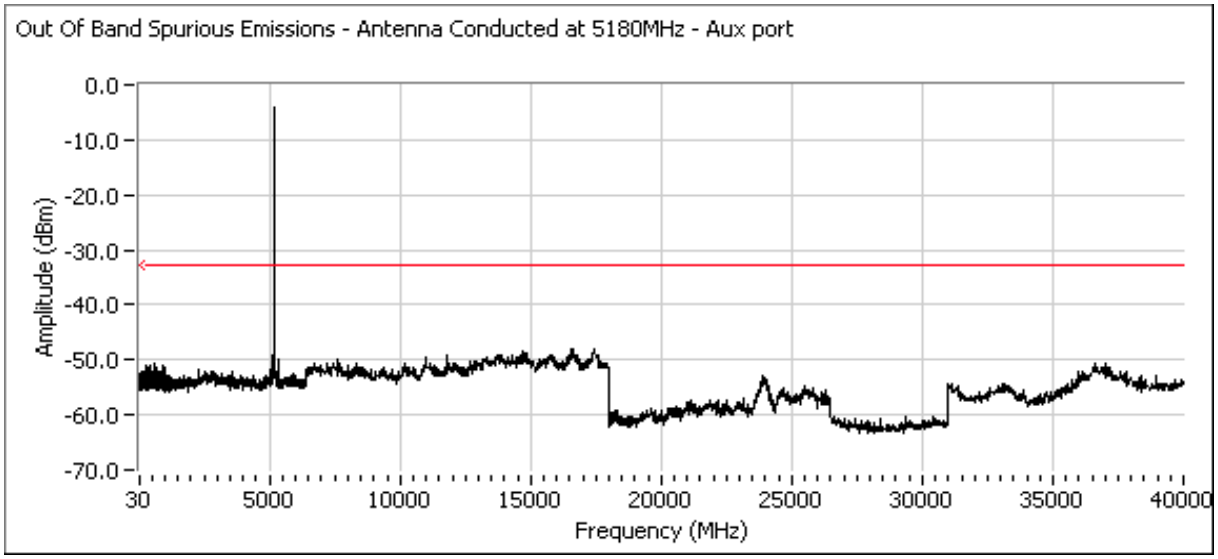
Run #3: Out Of Band Spurious Emissions - Antenna Conducted

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:	Signals that fall in the restricted bands of 15.205 are subject to the limit of 15.209.
Note 3:	20dB attenuator pad was added in front of analyzer for all ranges. From 30-18000MHz, 10dB attenuation was added to software. 10dB attenuation was not added from 18-40GHz.

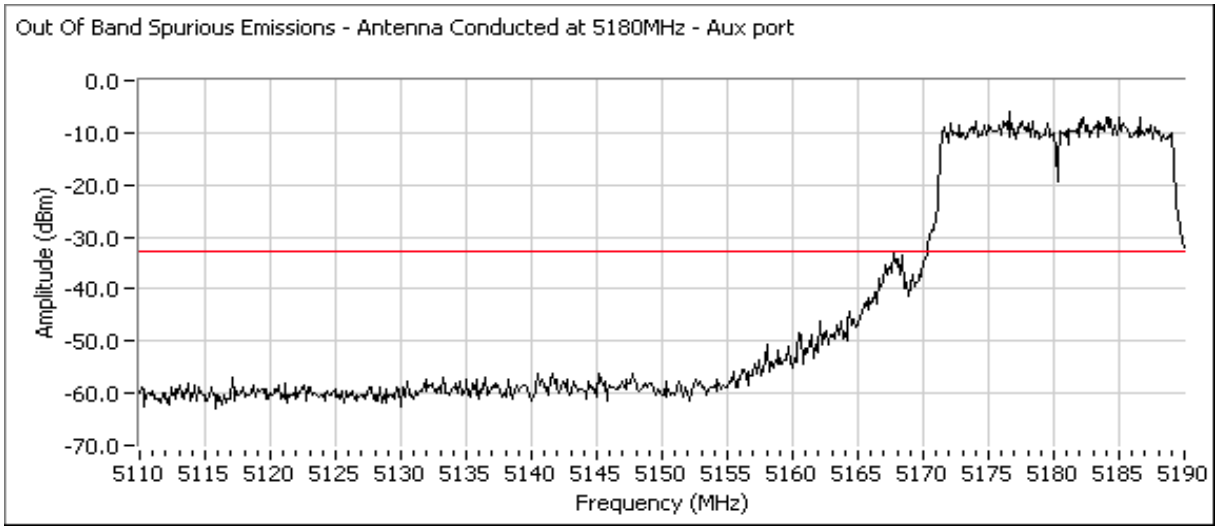
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



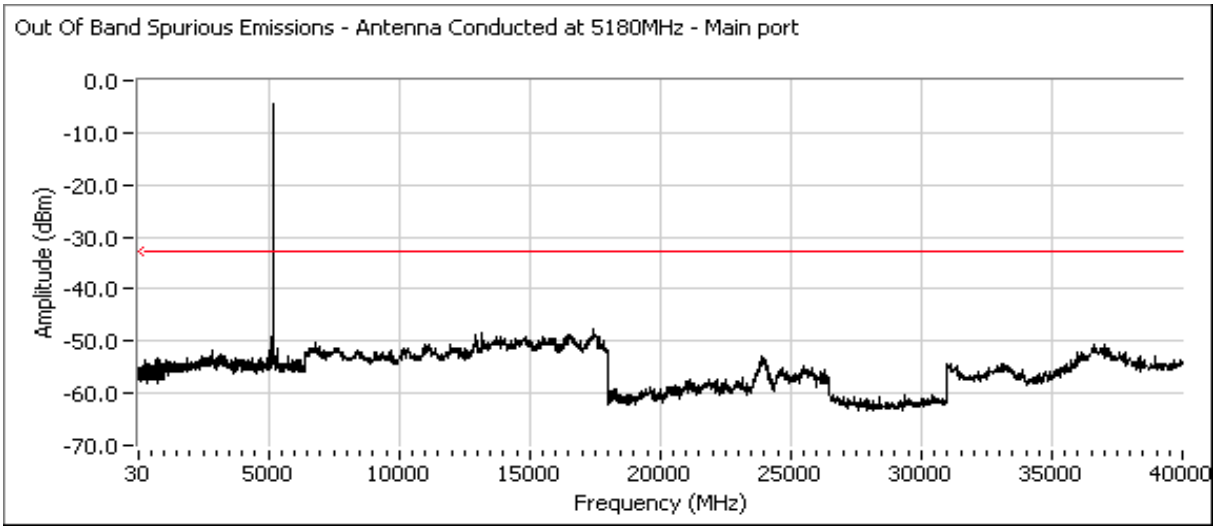
Plots Showing Out-Of-Band Emissions (RBW=VBW=100kHz)



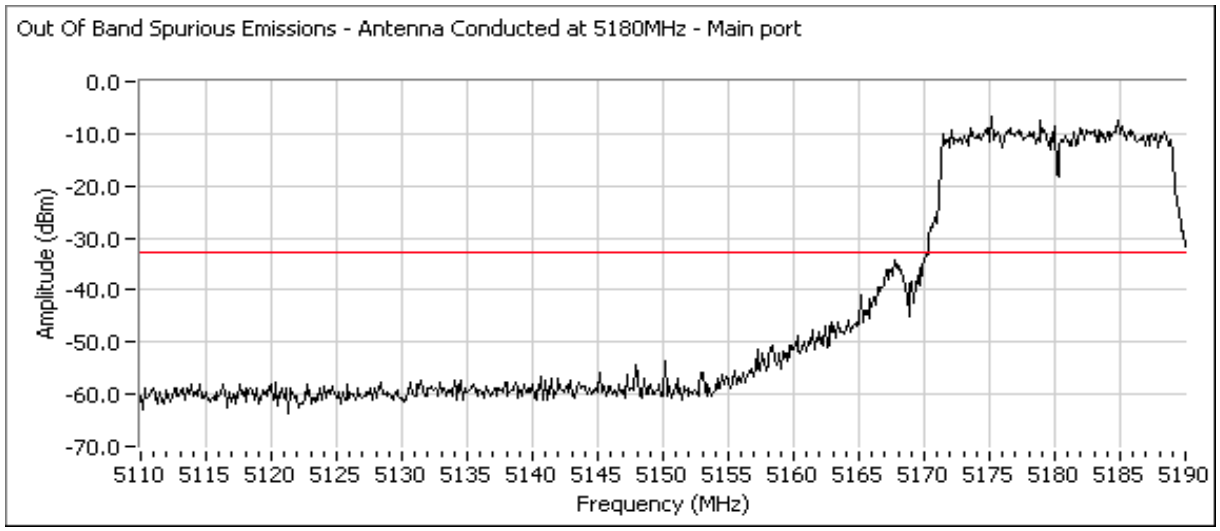
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



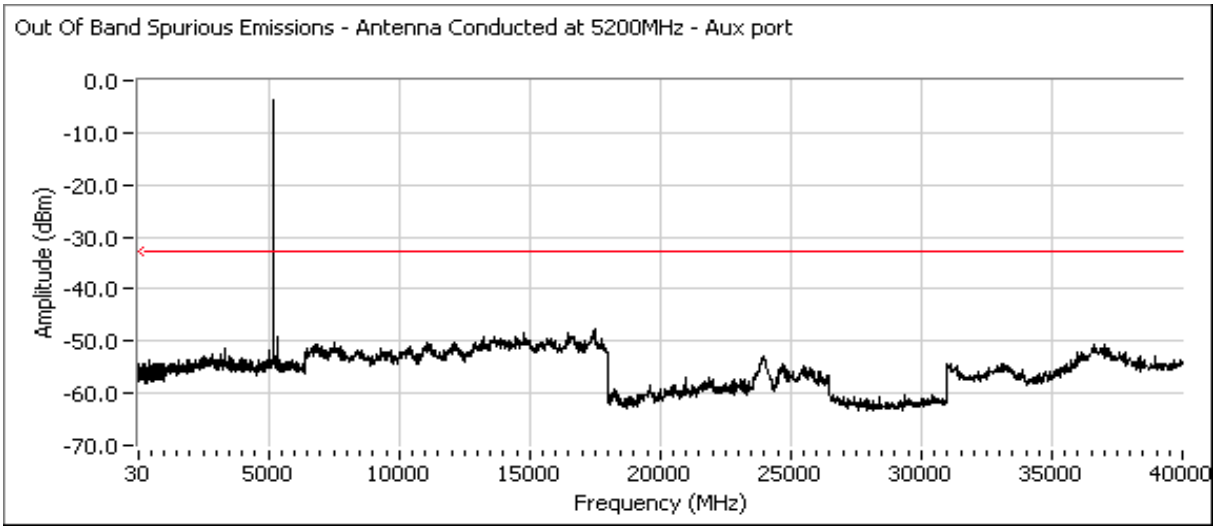
Plots Showing Out-Of-Band Emissions (RBW=VBW=100kHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

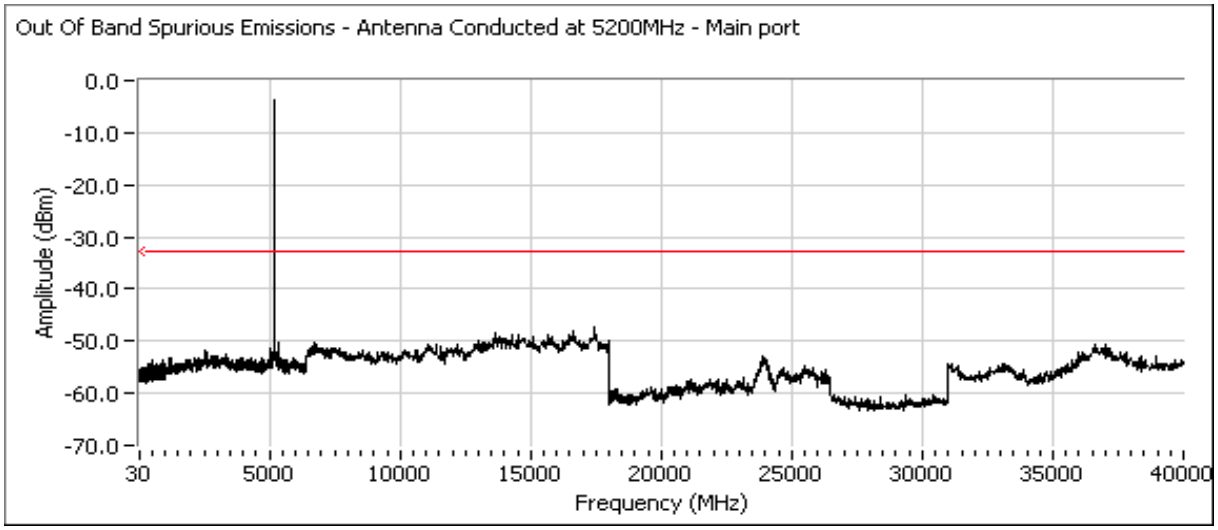
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

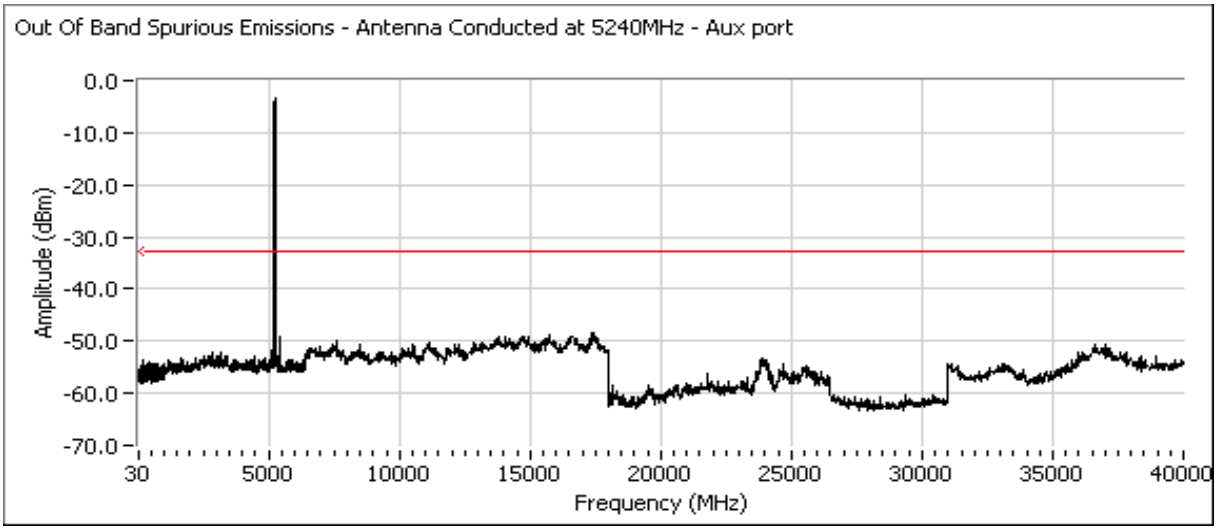
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

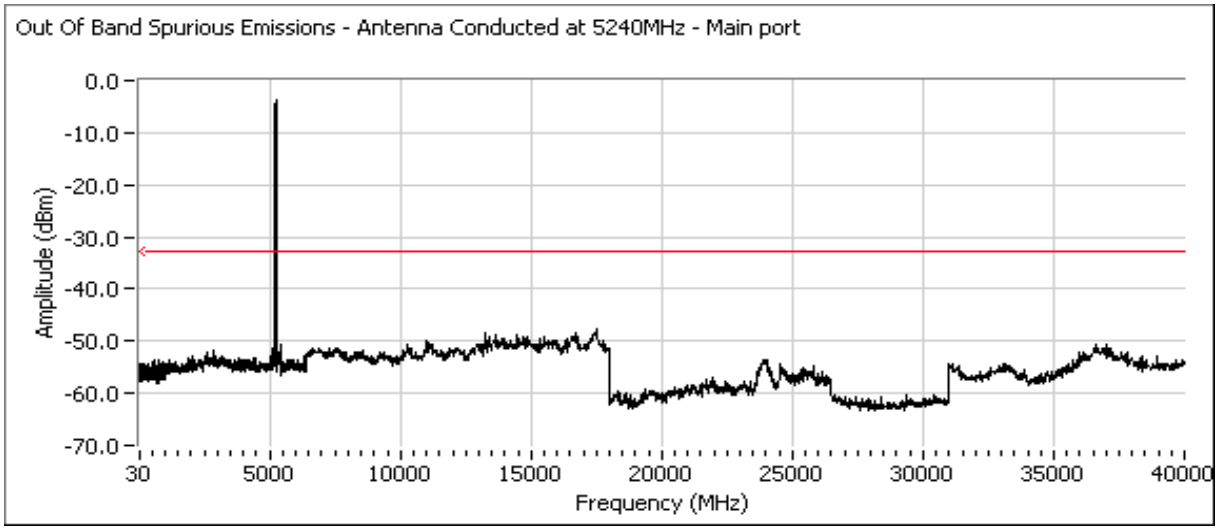
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

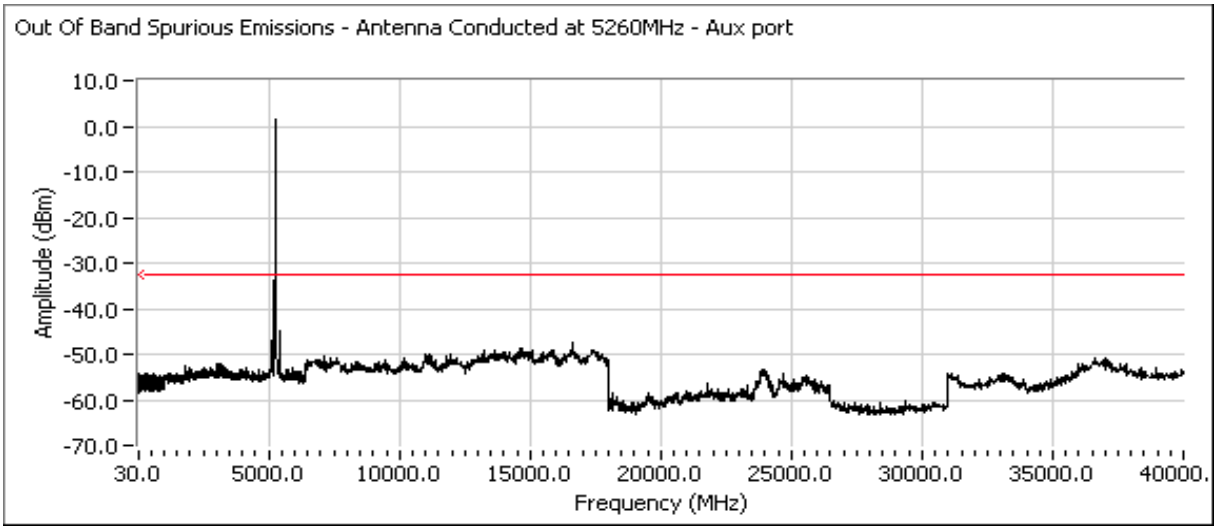
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

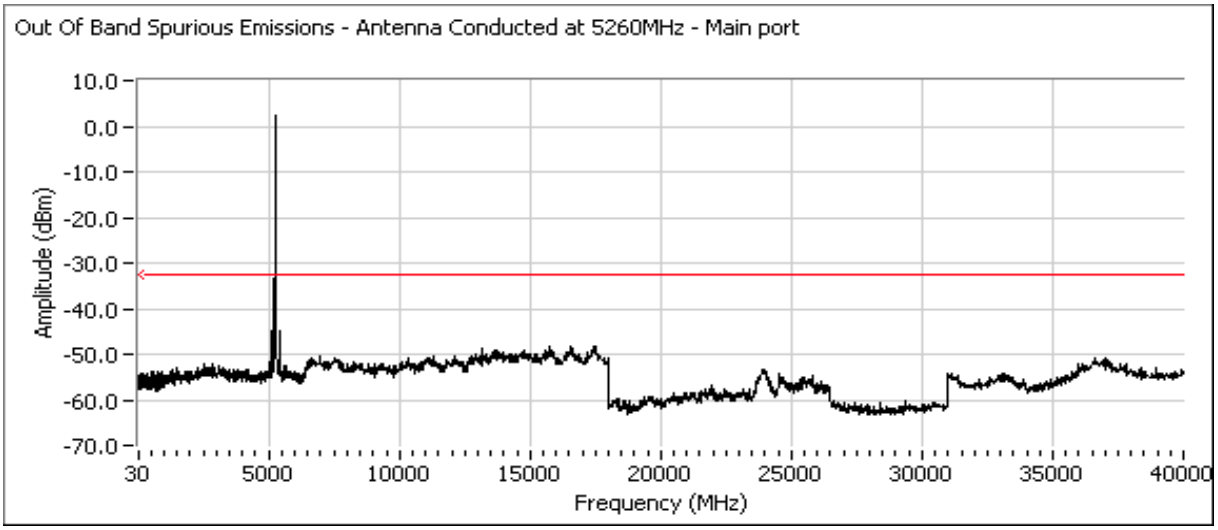
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

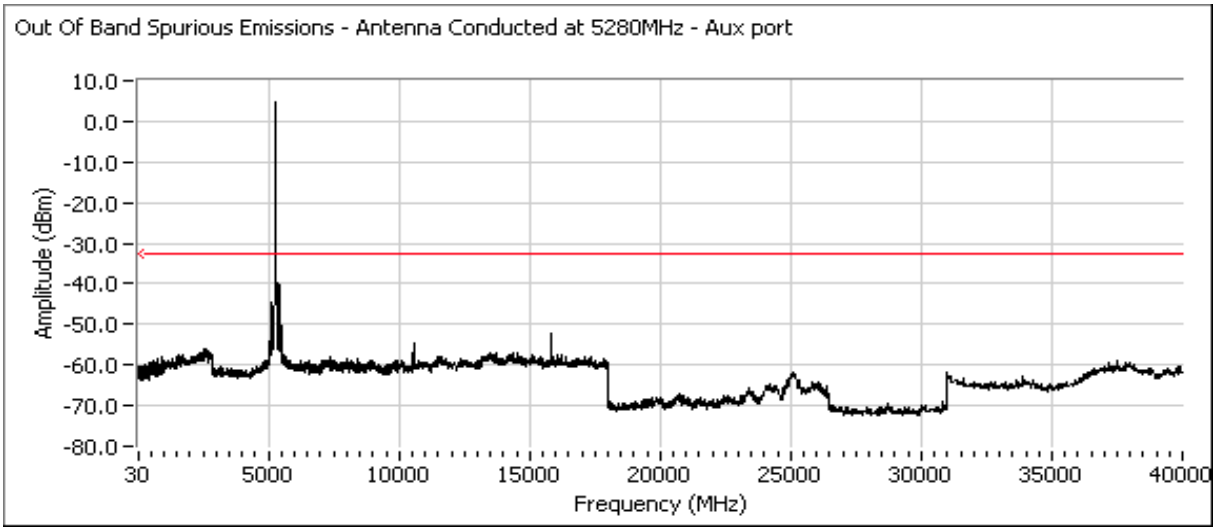
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



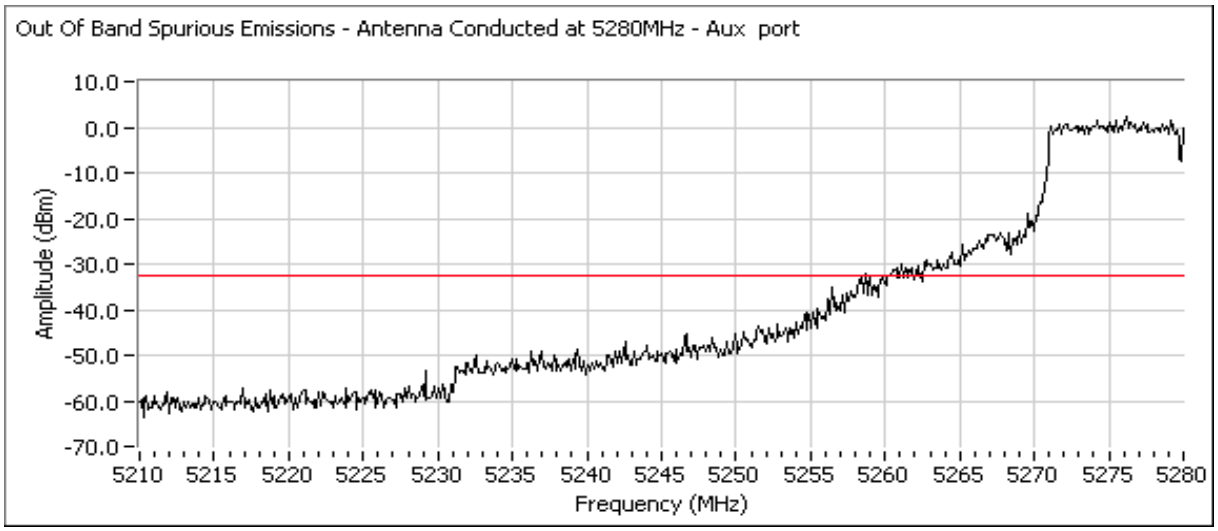
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



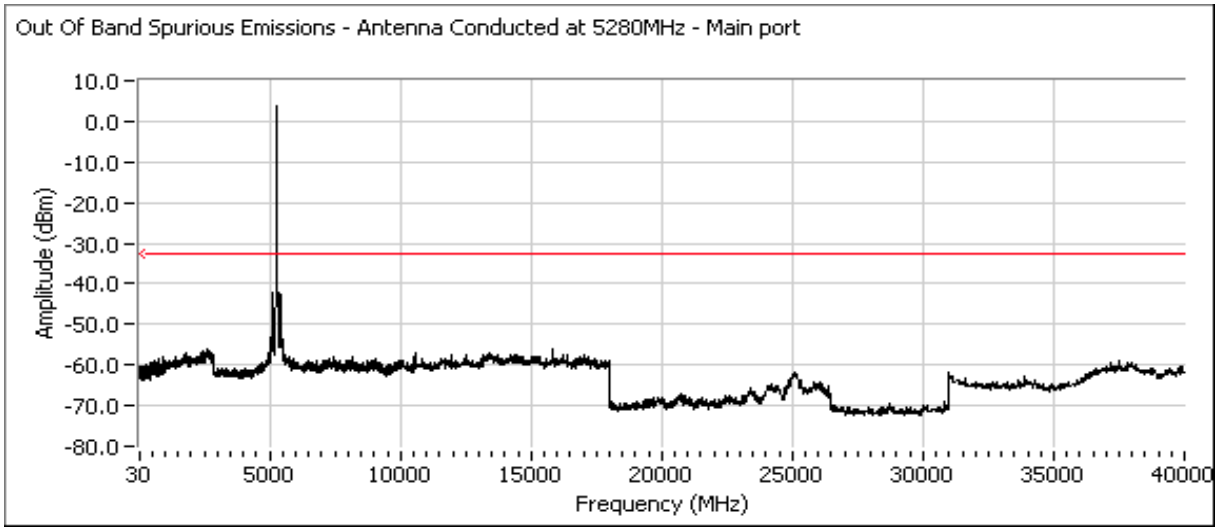
Plots Showing Out-Of-Band Emissions (RBW=VBW=100kHz)



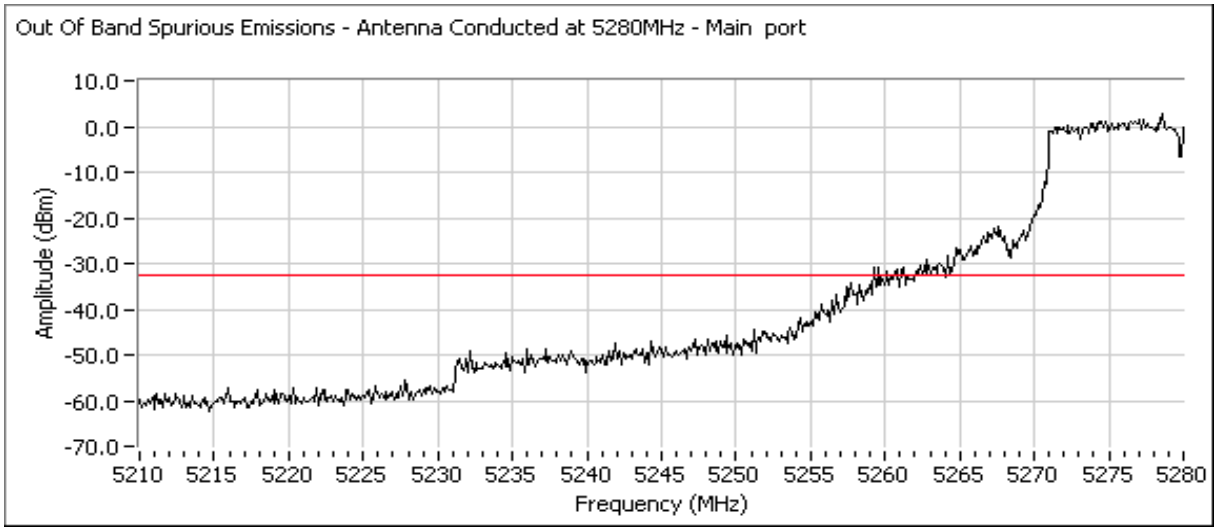
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



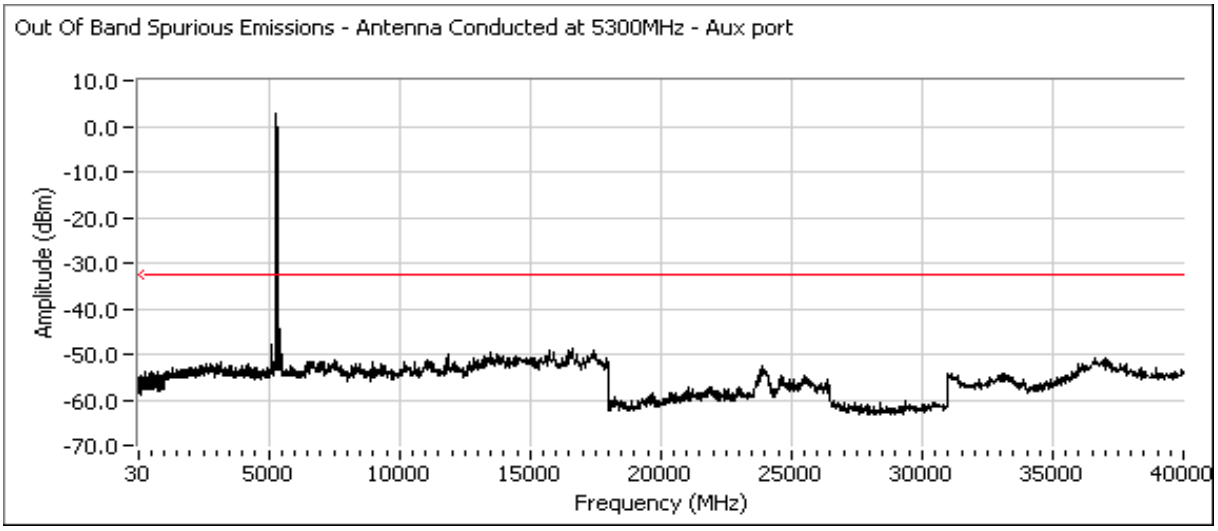
Plots Showing Out-Of-Band Emissions (RBW=VBW=100kHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

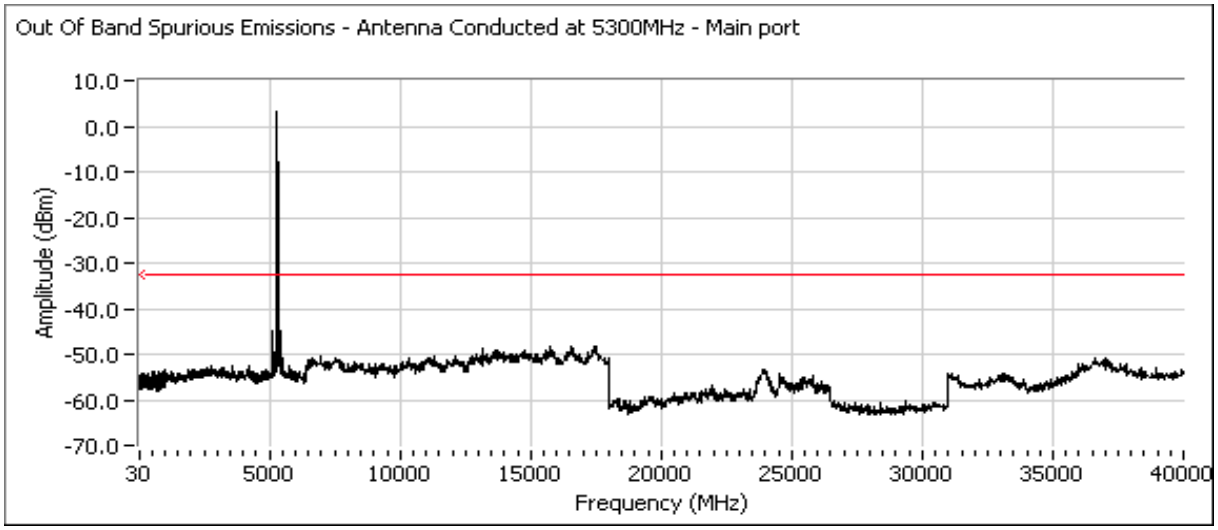
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

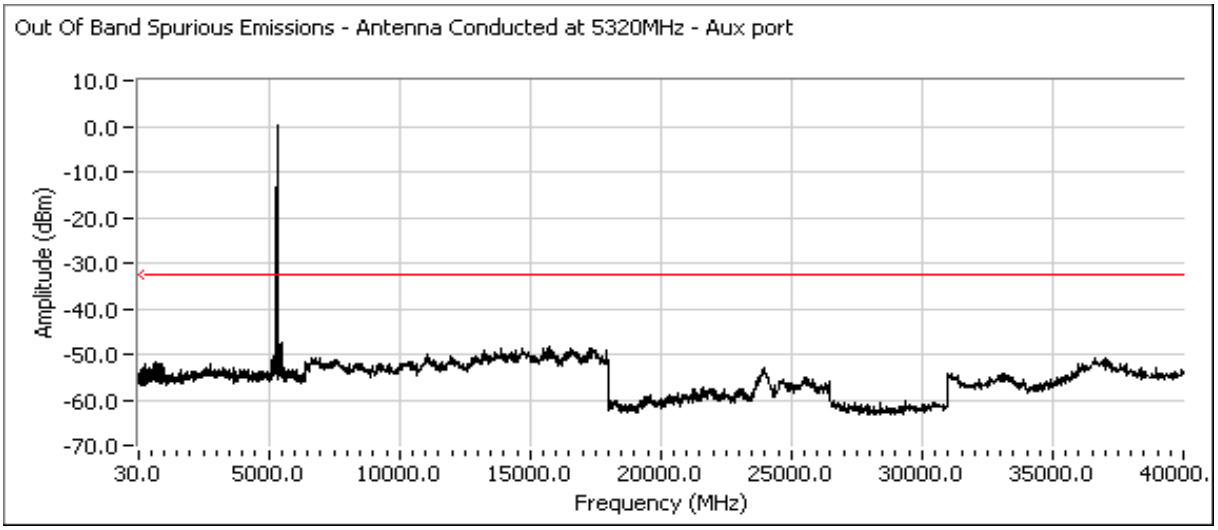
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



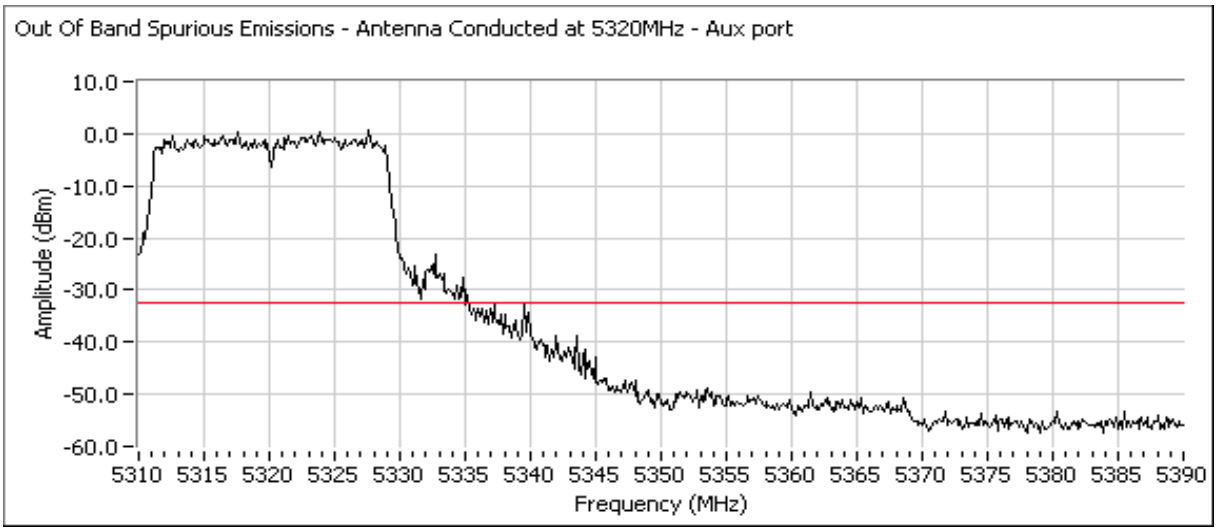
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



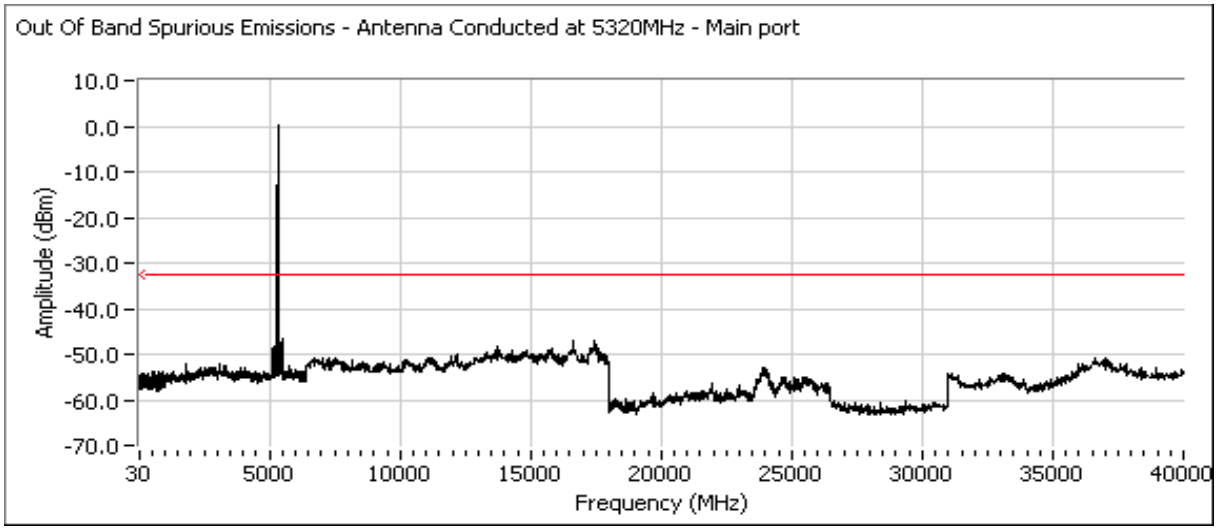
Plots Showing Out-Of-Band Emissions (RBW=VBW=100kHz)



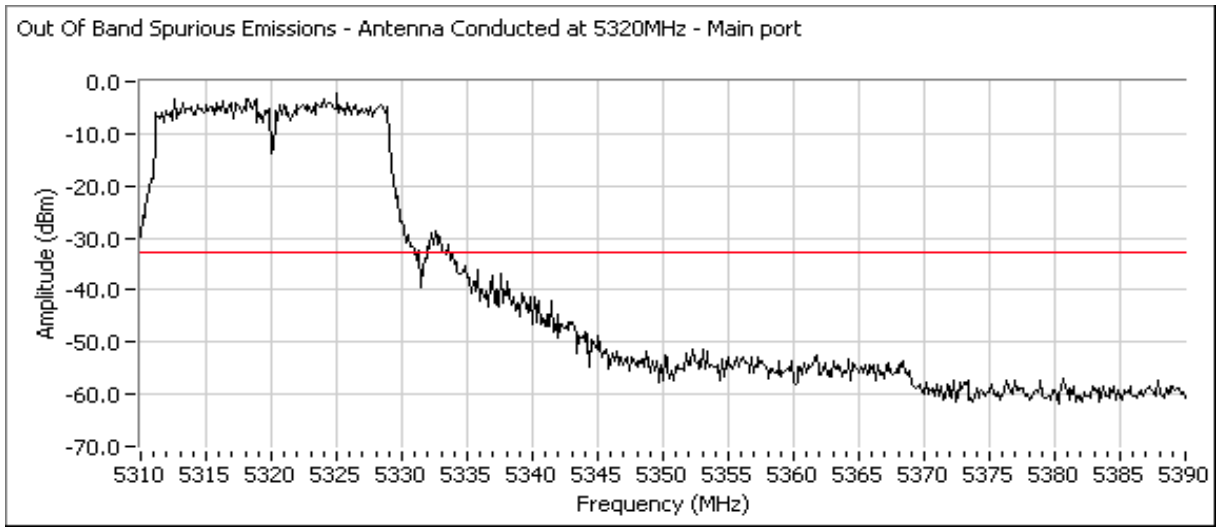
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



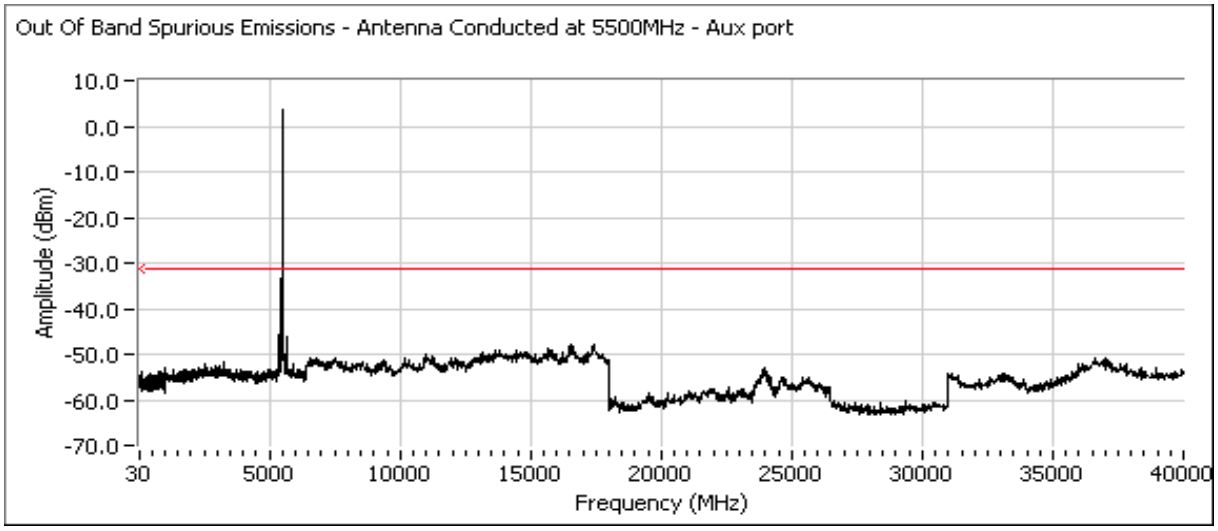
Plots Showing Out-Of-Band Emissions (RBW=VBW=100kHz)



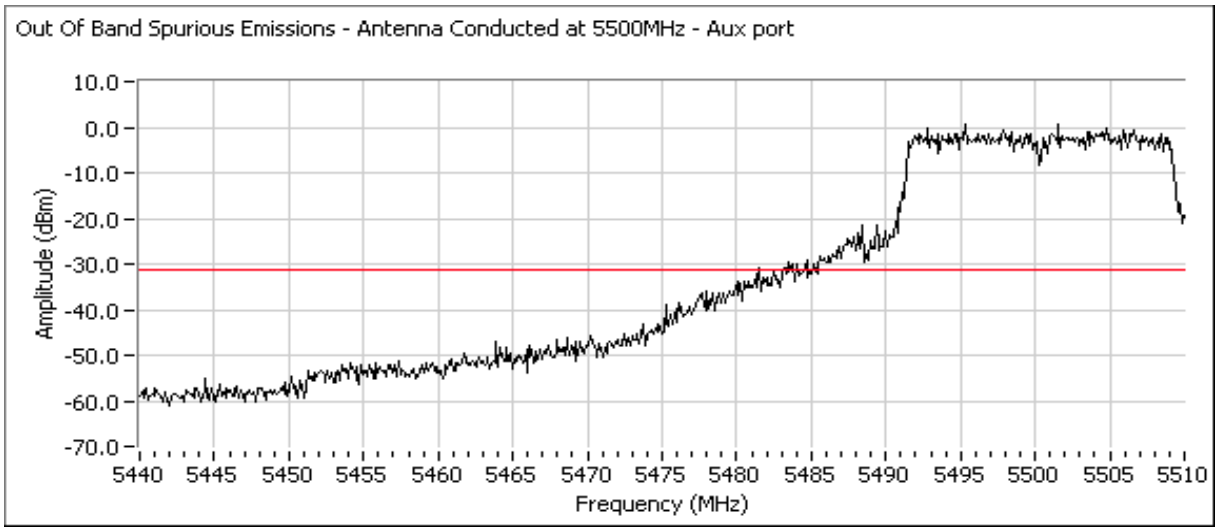
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



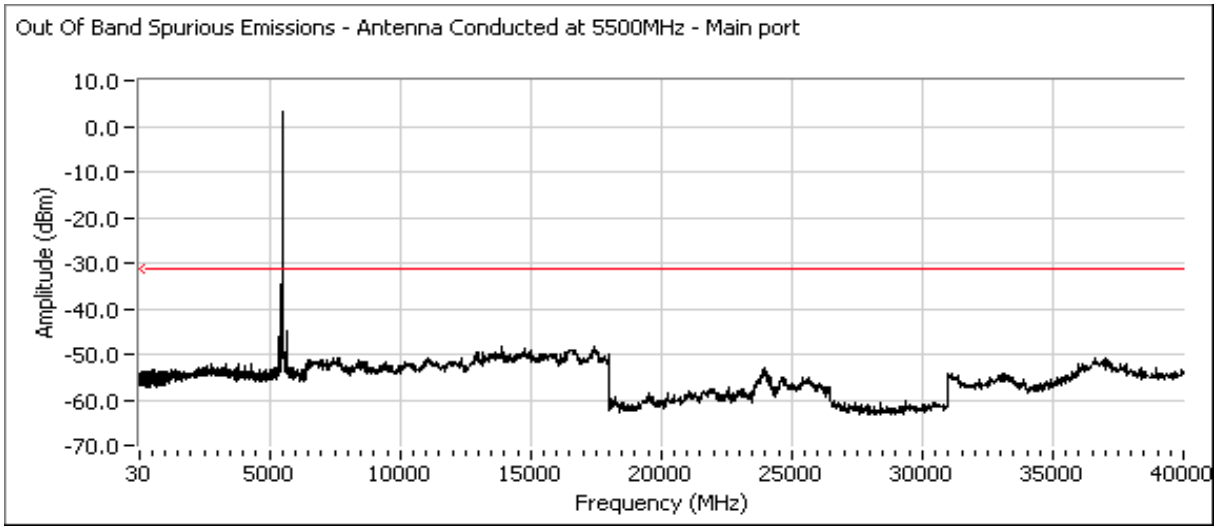
Plots Showing Out-Of-Band Emissions (RBW=VBW=100kHz)



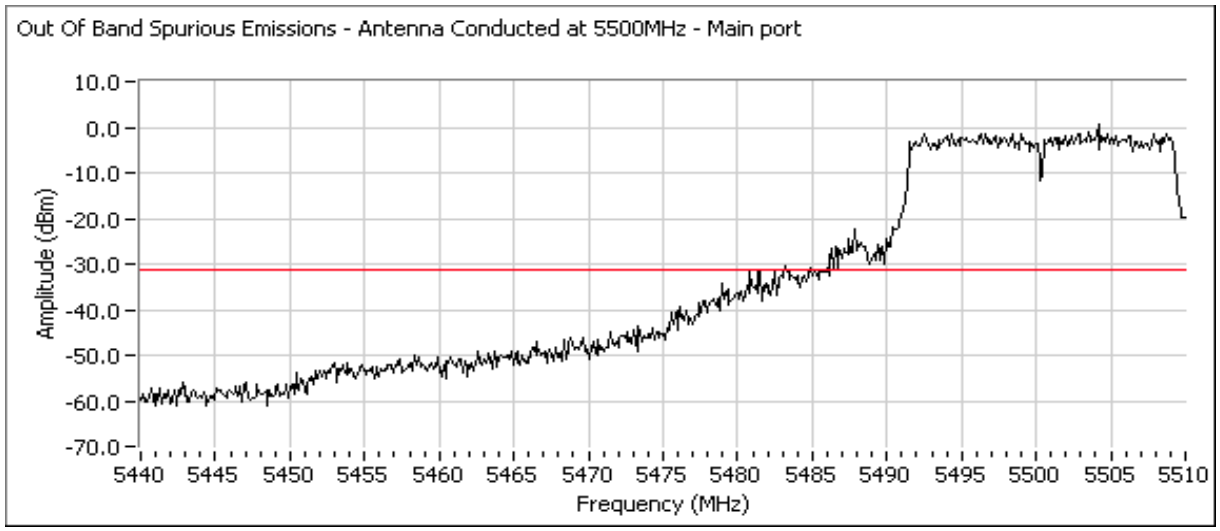
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



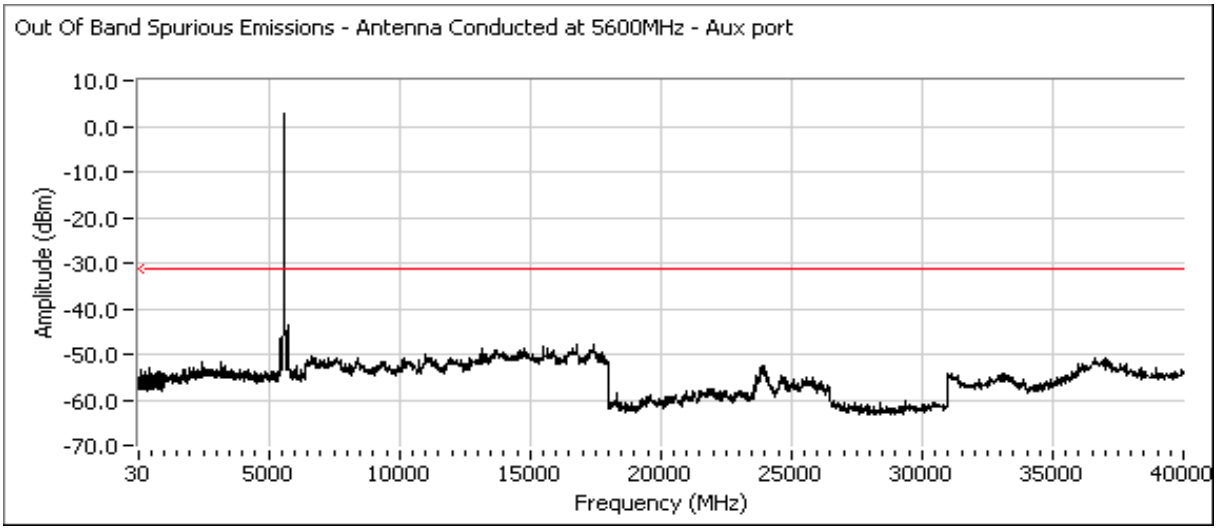
Plots Showing Out-Of-Band Emissions (RBW=VBW=100kHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

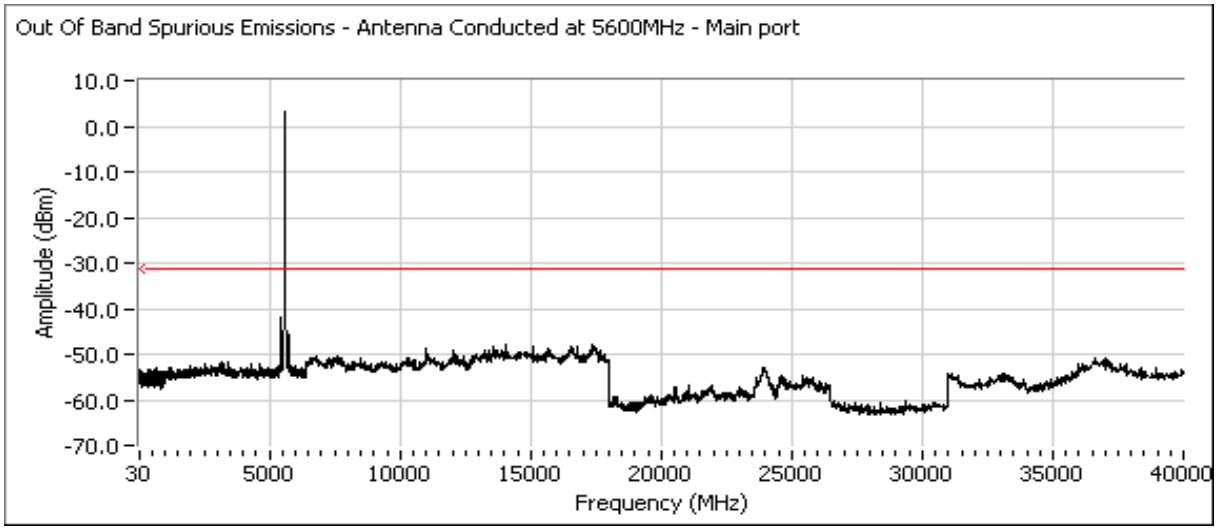
Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

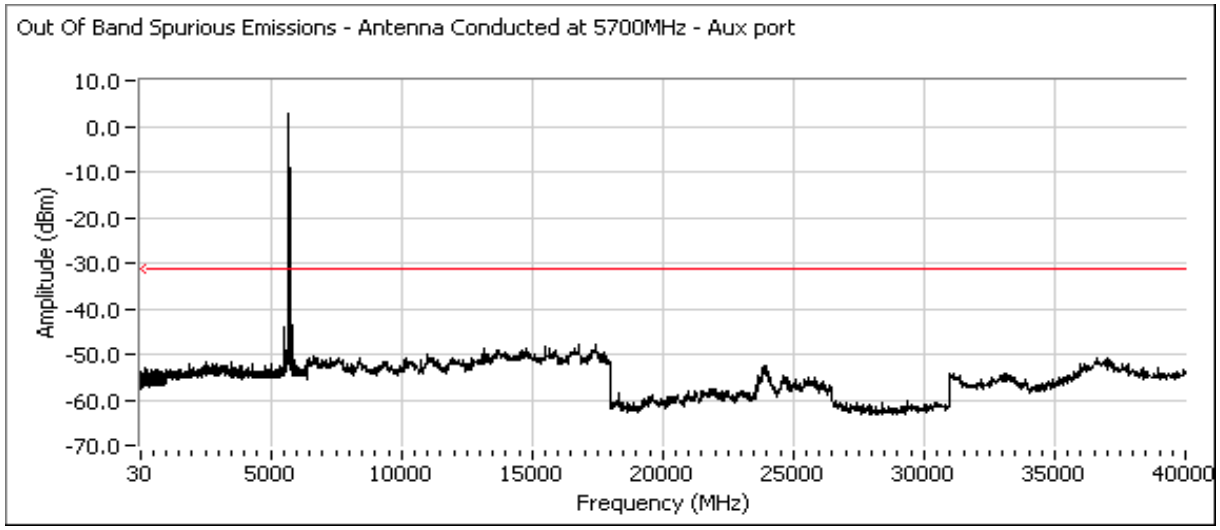
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



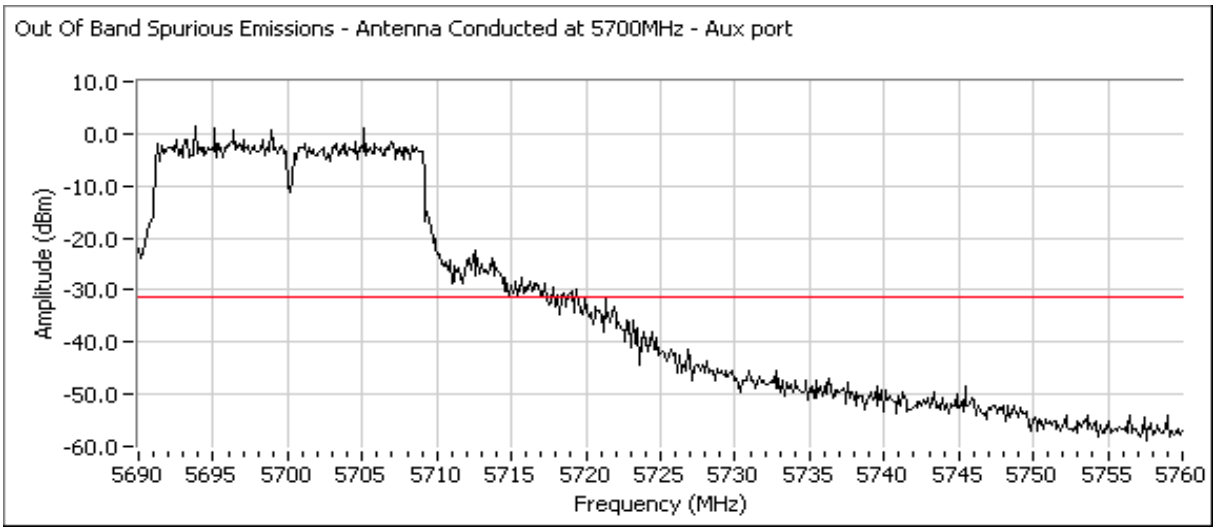
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



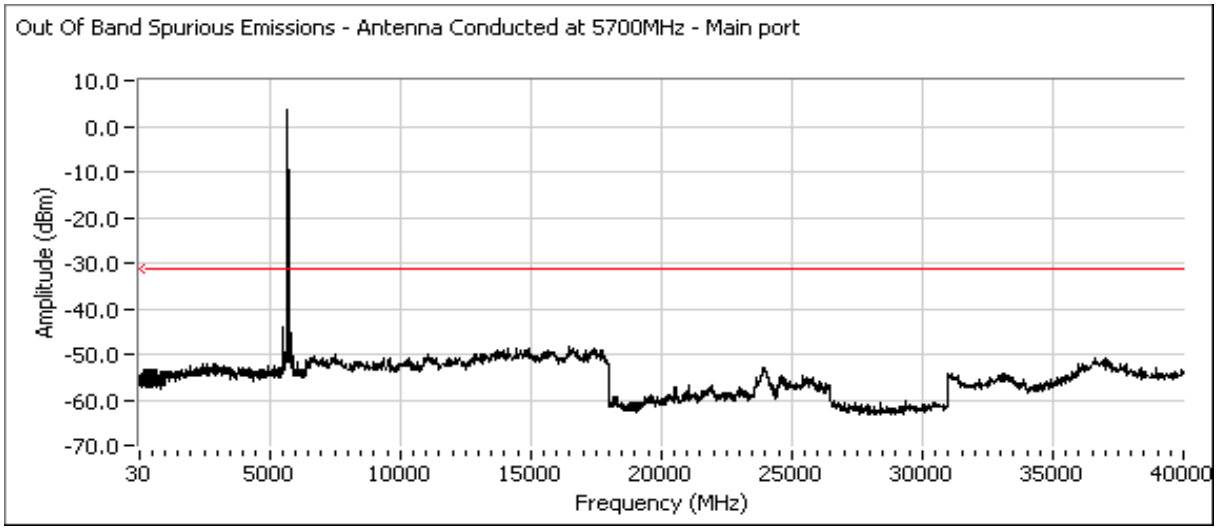
Plots Showing Out-Of-Band Emissions (RBW=VBW=100kHz)



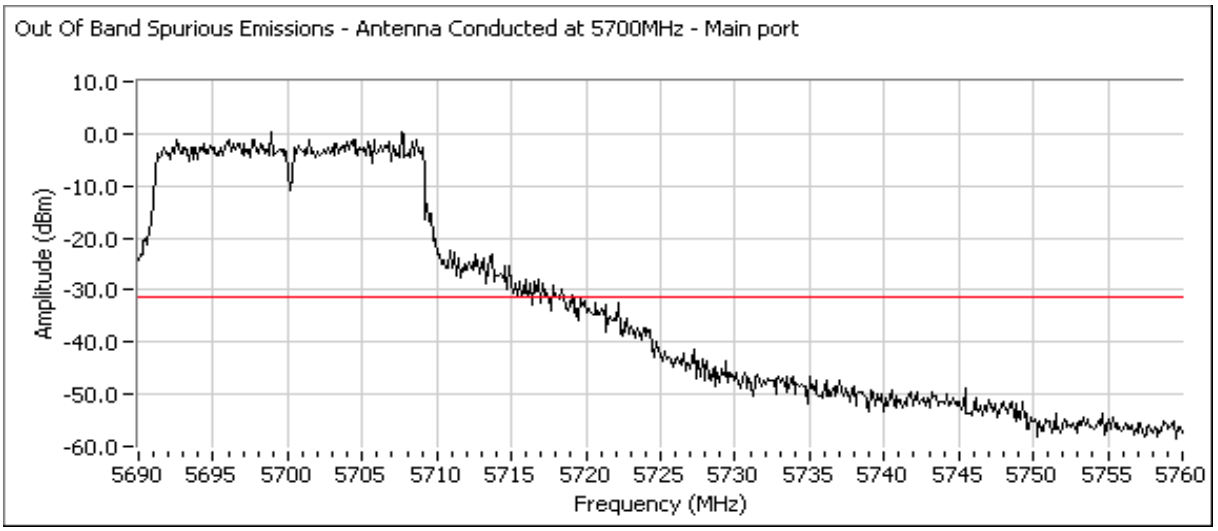
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



Plots Showing Out-Of-Band Emissions (RBW=VBW=100kHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

FCC Part 15 Subpart E Tests

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: 1/4/2008
Test Engineer: Mehran Birgani
Test Location: FT 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: 12 °C
Rel. Humidity: 68 %

Summary of Results

Run #	Test Performed	Limit	Pass / Fail	Result / Margin
1	Power, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	14.4dBm (27.5mW)
1	Power, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	24.0dBm (74mW)
1	Power, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	20.3dBm (107mW)
1	PSD, 5150 - 5250MHz	15.407(a) (1), (2)	Pass	2.0dBm/MHz (1.6mW/MHz)
1	PSD, 5250 - 5350MHz	15.407(a) (1), (2)	Pass	5.2dBm/MHz (3.3mW/MHz)
1	PSD, 5470 - 5725MHz	15.407(a) (1), (2)	Pass	7.0dBm/MHz (5.0mW/MHz)
1	26dB Bandwidth	15.407	-	77.0MHz
1	99% Bandwidth	RSS 210	-	51.2MHz
2	Peak Excursion Envelope	15.407(a) (6)	Pass	12.6dBm
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 Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

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

Run #1a: Bandwidth, Output Power and Power spectral Density (5150-5250 MHz and 5250-5350 MHz)

	Chain 1	Chain 2	Chain 3	Coherent	Effective[5]
Antenna Gain (dBi):	5.6	5.6		Yes	8.6

Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power[1] dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
5190	-	41.2	10.7	11.2		24.9	14.0	17.0	0.028	PASS
5230	-	39.0	10.8	11.9		27.5	14.4	17.0		PASS
5270	-	70.8	16.7	14.3		73.5	18.7	24.0	0.074	PASS
5310	-	41.7	12.7	13.7		41.9	16.2	24.0		PASS

Frequency (MHz)	99%[4] BW	Total Power	PSD[2] dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210[3]	
5190	36.9	17.0	-2.4	-2.0		1.2	0.8	1.4	10.0	PASS
5230	36.9	17.0	-2.3	-1.2		1.3	1.3	1.4	10.0	PASS
5270	37.8	24.0	3.1	1.1		3.3	5.2	11.0	11.0	PASS
5310	36.8	24.0	-0.8	0.2		1.9	2.7	11.0	11.0	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 75MHz (reference method 1 of FCC DA 02-2138, August 30, 2002)
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum eirp allowed is 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSD exceeds the average PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB by the amount that the measured value exceeds the average by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB >=3xRB
Note 5:	For MIMO systems the total output power and total PSD are calculated form the sum of the powers of the individual chains (in linear terms). The antenna gain used to determine the EIRP and limits for PSD/Output power depends on the operating mode of the MIMO device. If the signals on the non-coherent between the transmit chains then the gain used to determine the limits is the highest gain of the individual chains and the EIRP is the sum of the products of gain and power on each chain. If the signals are coherent then the effective antenna gain is the sum (in linear terms) of the gains for each chain and the EIRP is the product of the effective gain and total power.

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Data to support the use of two antennas with lower gain, such that the effective gain is 6dBi or less, at an increased power level.

	Chain 1	Chain 2	Chain 3	Coherent	Effective[5]
Antenna Gain (dBi):	2.95	2.95		Yes	6.0

Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power[1] dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
5190	12.0	41.2	11.6	12.2		30.9	14.9	17.0	0.034	PASS
5230	12.0	39.0	11.9	12.5		33.5	15.3	17.0		PASS

Frequency (MHz)	99%[4] BW	Total Power	PSD[2] dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210[3]	
5190	36.9	17.0	-1.8	-1.1		1.4	1.6	4.0	10.0	PASS
5230	36.9	17.0	-1.6	-0.5		1.6	2.0	4.0	10.0	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 75MHz (reference method 1 of FCC DA 02-2138, August 30, 2002)
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum eirp allowed is 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSD exceeds the average PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB by the amount that the measured value exceeds the average by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB >=3xRB
Note 5:	For MIMO systems the total output power and total PSD are calculated form the sum of the powers of the individual chains (in linear terms). The antenna gain used to determine the EIRP and limits for PSD/Output power depends on the operating mode of the MIMO device. If the signals on the non-coherent between the transmit chains then the gain used to determine the limits is the highest gain of the individual chains and the EIRP is the sum of the products of gain and power on each chain. If the signals are coherent then the effective antenna gain is the sum (in linear terms) of the gains for each chain and the EIRP is the product of the effective gain and total power.

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #1b: Bandwidth, Output Power and Power spectral Density (5470-5725MHz)

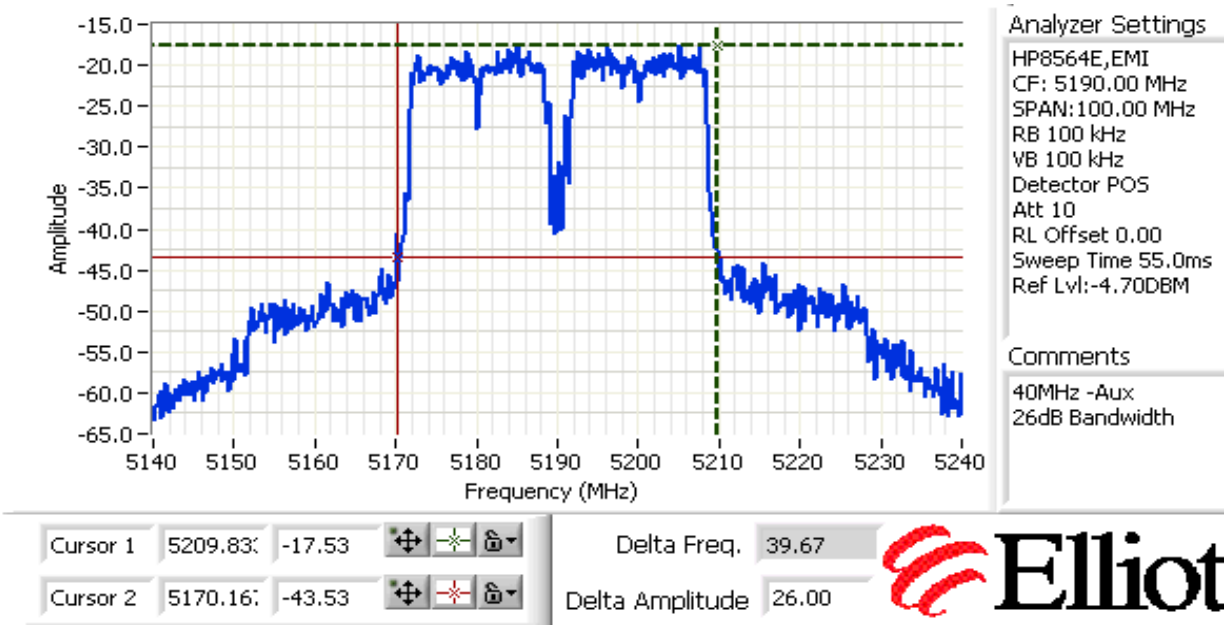
	Chain 1	Chain 2	Chain 3	Coherent	Effective[5]
Antenna Gain (dBi):	4.2	4.2		Yes	7.2

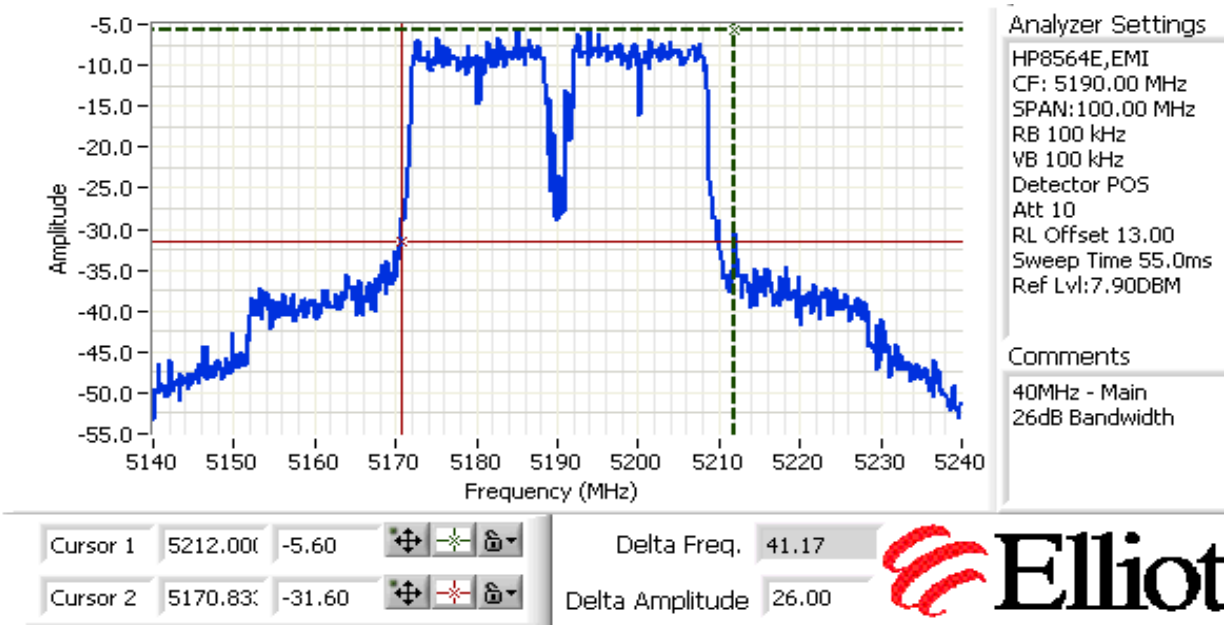
Frequency (MHz)	Software Setting	26dB BW (MHz)	Measured Output Power[1] dBm			Total		Limit (dBm)	Max Power (W)	Pass or Fail
			Chain 1	Chain 2	Chain 3	mW	dBm			
5510	-	76.5	16.1	17.7		99.5	20.0	24.0	0.107	PASS
5590	-	76.3	17.7	16.8		107.0	20.3	24.0		PASS
5670	-	77.0	16.5	17.2		96.8	19.9	24.0		PASS

Frequency (MHz)	99%[4] BW	Total Power	PSD[2] dBm/MHz			Total PSD		Limit		Pass or Fail
			Chain 1	Chain 2	Chain 3	mW/MHz	dBm/MHz	FCC	RSS 210[3]	
5510	44.0	24.0	2.8	4.6		4.8	6.8	11.0	11.0	PASS
5590	43.8	24.0	4.2	3.7		5.0	7.0	11.0	11.0	PASS
5670	51.2	24.0	3.1	3.9		4.5	6.5	11.0	11.0	PASS

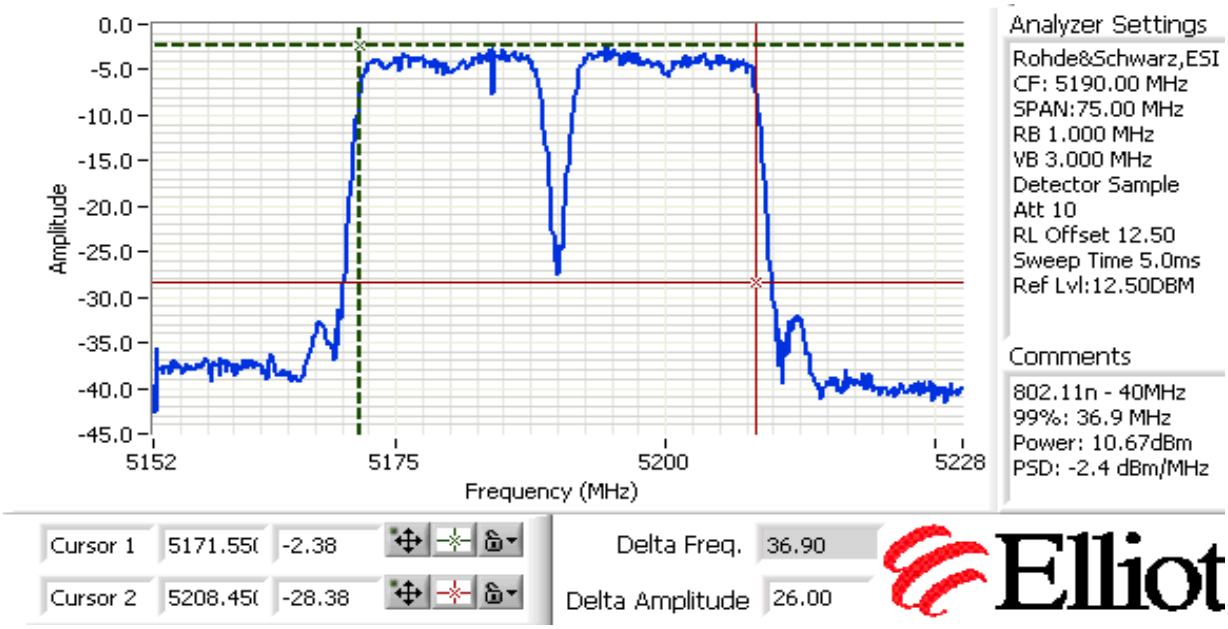
Note 1:	RBW=1MHz, VB=3 MHz, sample detector, power averaging on (transmitted signal was not continuous but the ESI analyzer was configured with a gated sweep such that the analyzer was only sweeping when the device was transmitting) and power integration over 75MHz (reference method 1 of FCC DA 02-2138, August 30, 2002)
Note 2:	Measured using the same analyzer settings used for output power.
Note 3:	For RSS-210 the limit for the 5150 - 5250 MHz band accounts for the antenna gain as the maximum eirp allowed is 10dBm/MHz. The limits are also corrected for instances where the highest measured value of the PSD exceeds the average PSD (calculated from the measured power divided by the measured 99% bandwidth) by more than 3dB by the amount that the measured value exceeds the average by more than 3dB.
Note 4:	99% Bandwidth measured in accordance with RSS GEN - RB > 1% of span and VB >=3xRB
Note 5:	For MIMO systems the total output power and total PSD are calculated form the sum of the powers of the individual chains (in linear terms). The antenna gain used to determine the EIRP and limits for PSD/Output power depends on the operating mode of the MIMO device. If the signals on the non-coherent between the transmit chains then the gain used to determine the limits is the highest gain of the individual chains and the EIRP is the sum of the products of gain and power on each chain. If the signals are coherent then the effective antenna gain is the sum (in linear terms) of the gains for each chain and the EIRP is the product of the effective gain and total power.

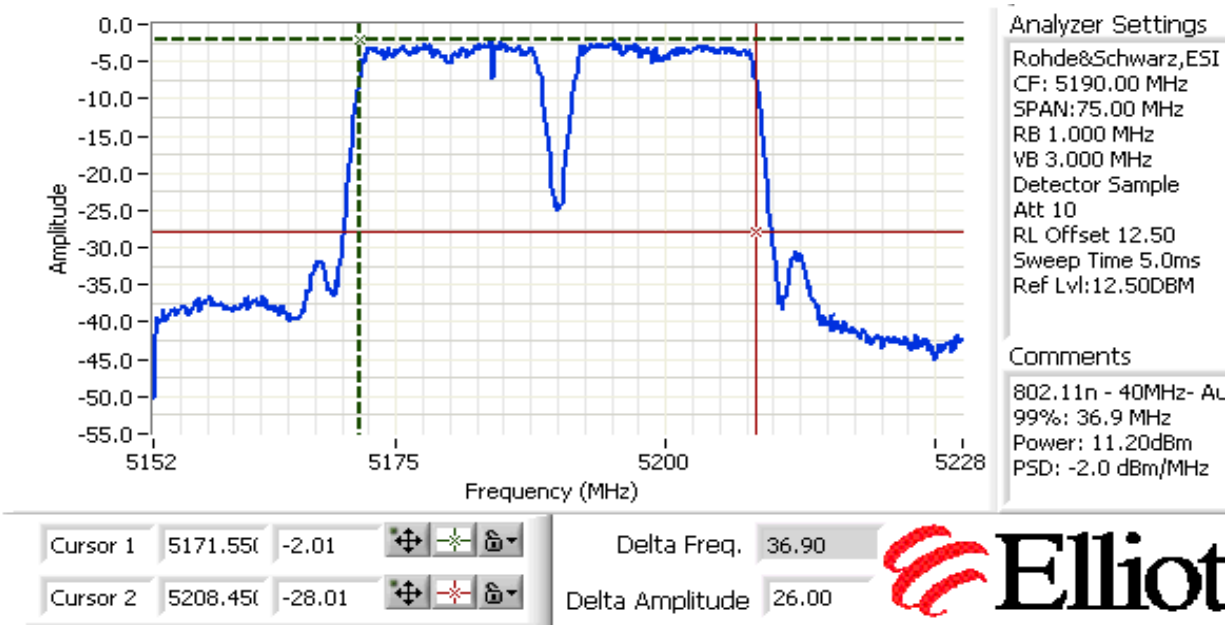
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



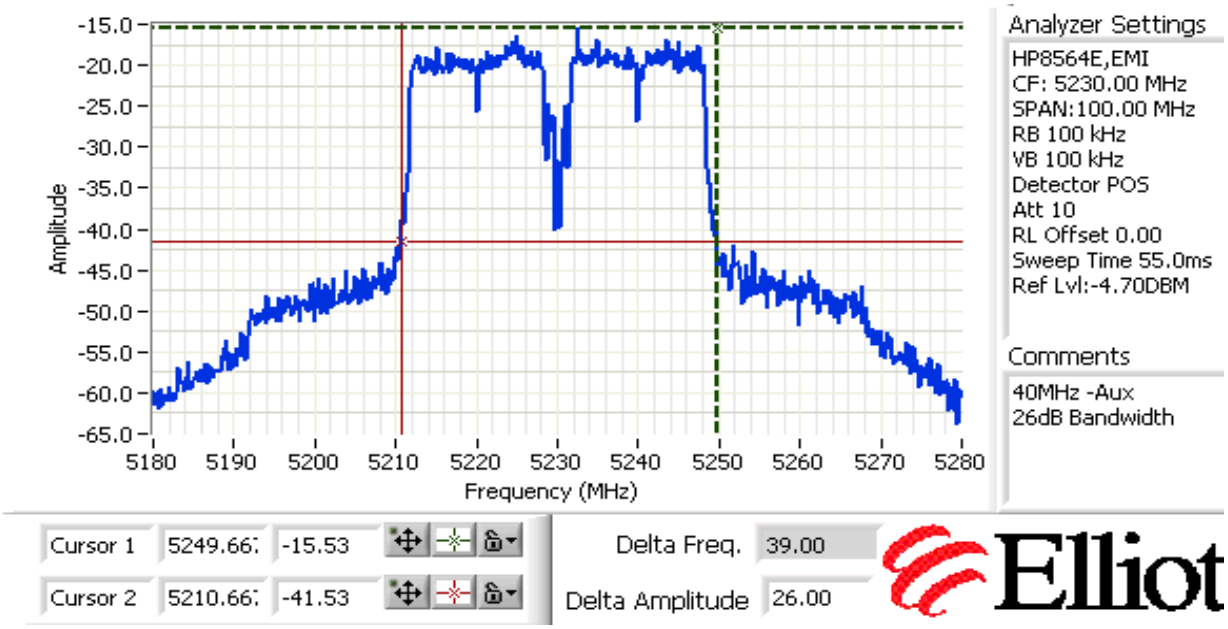


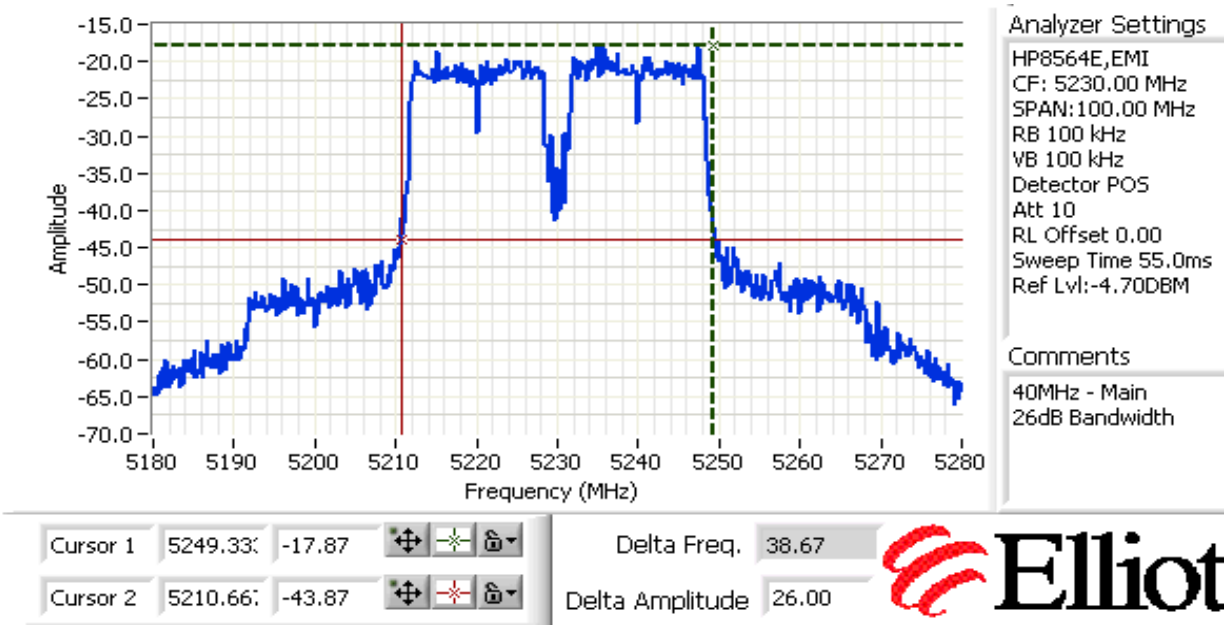
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



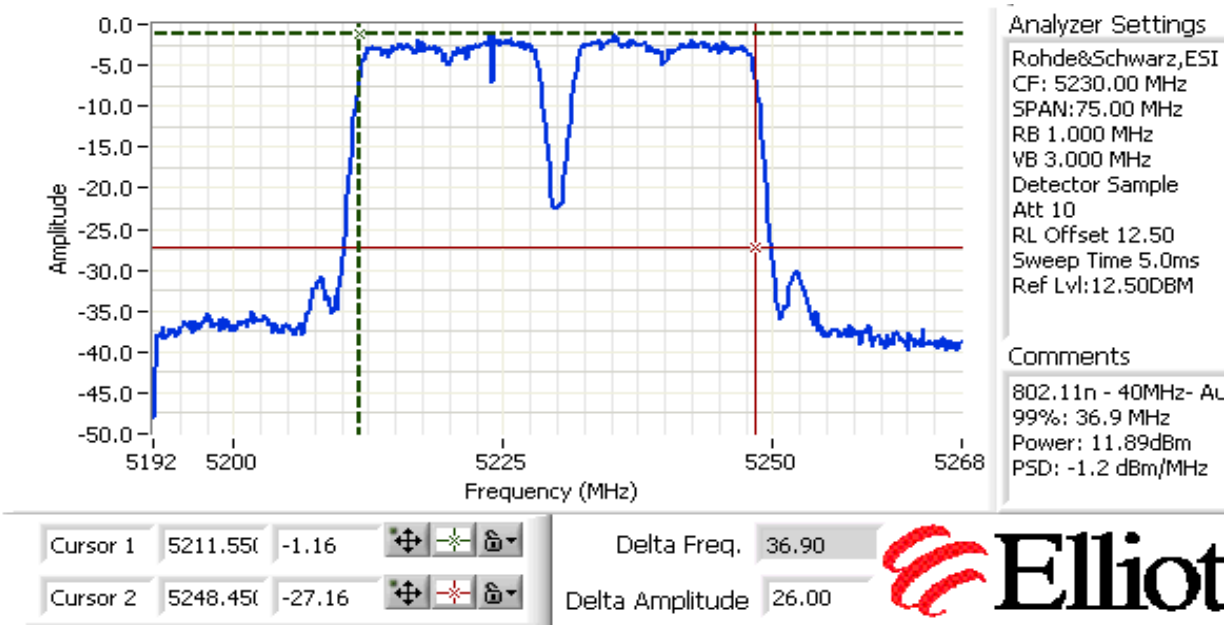


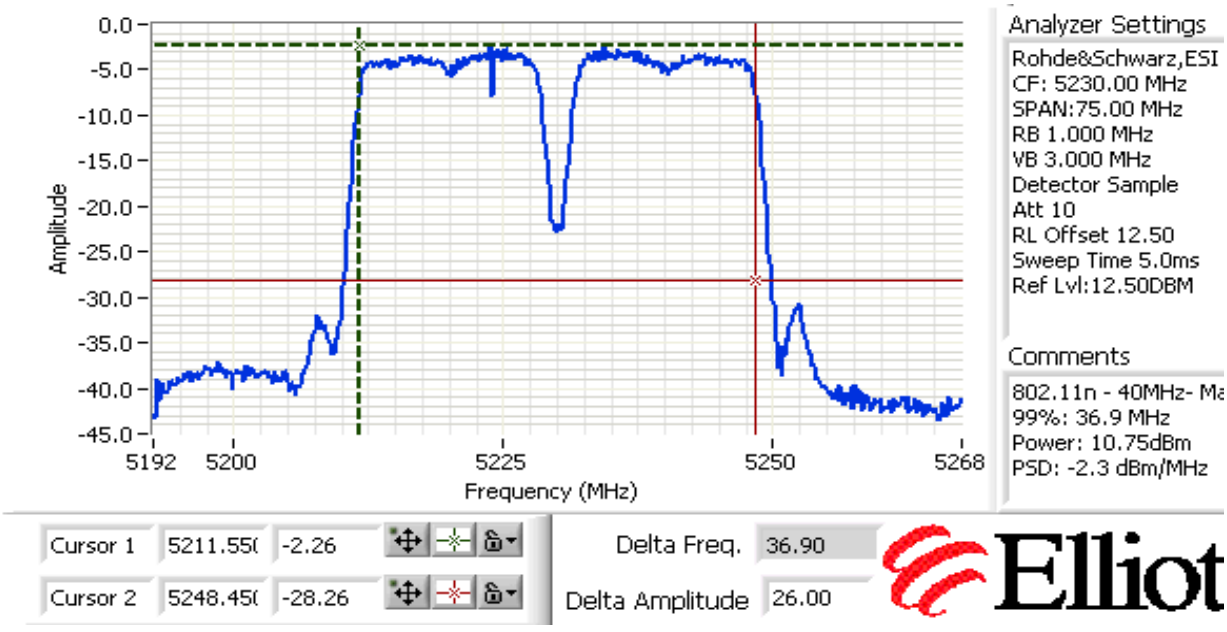
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



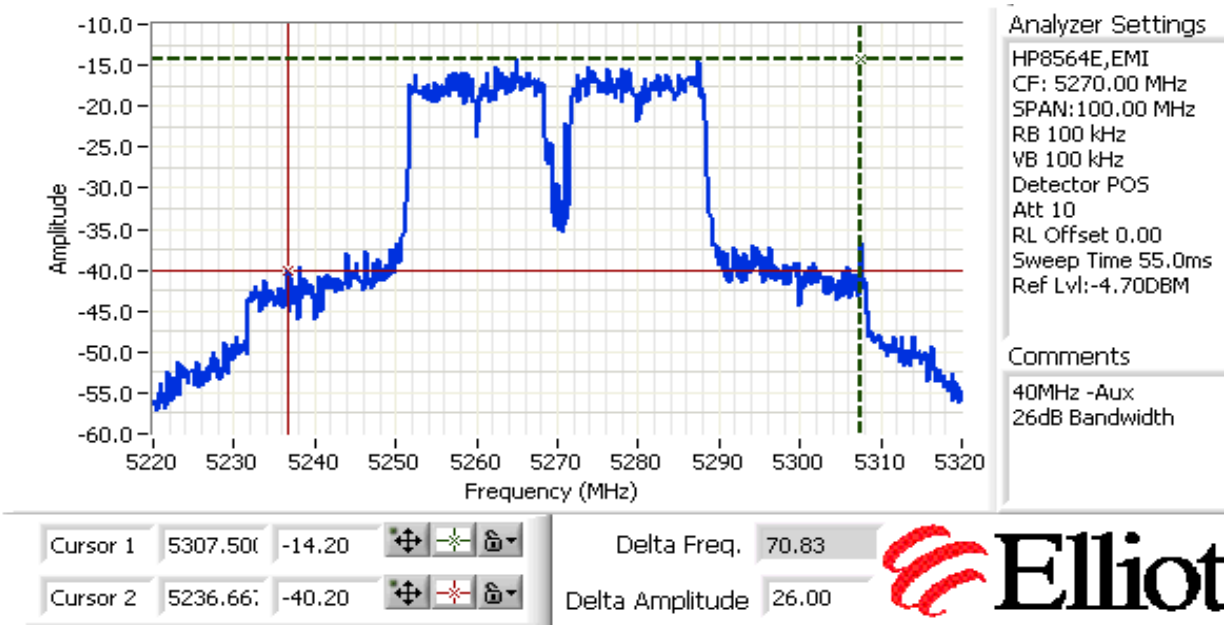


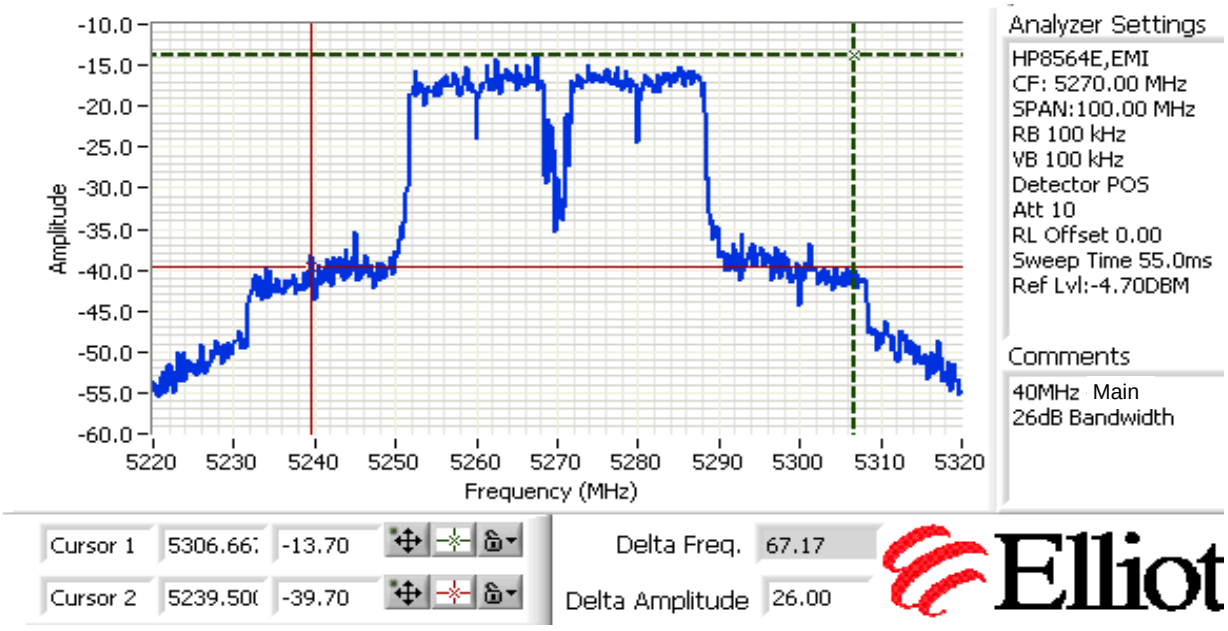
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



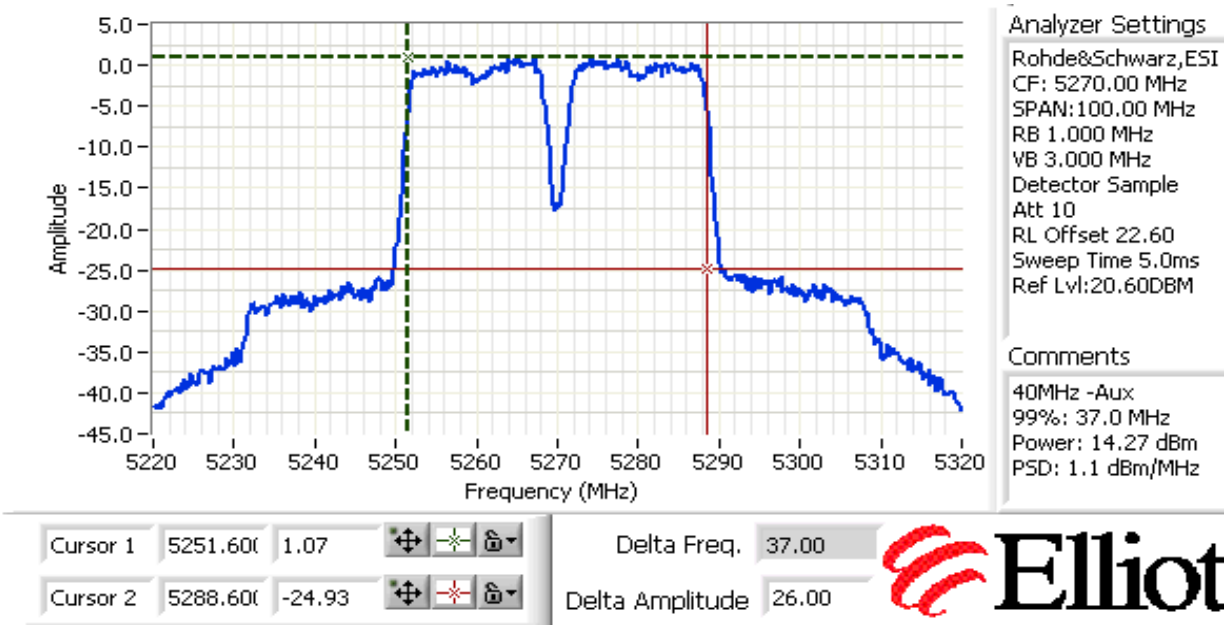


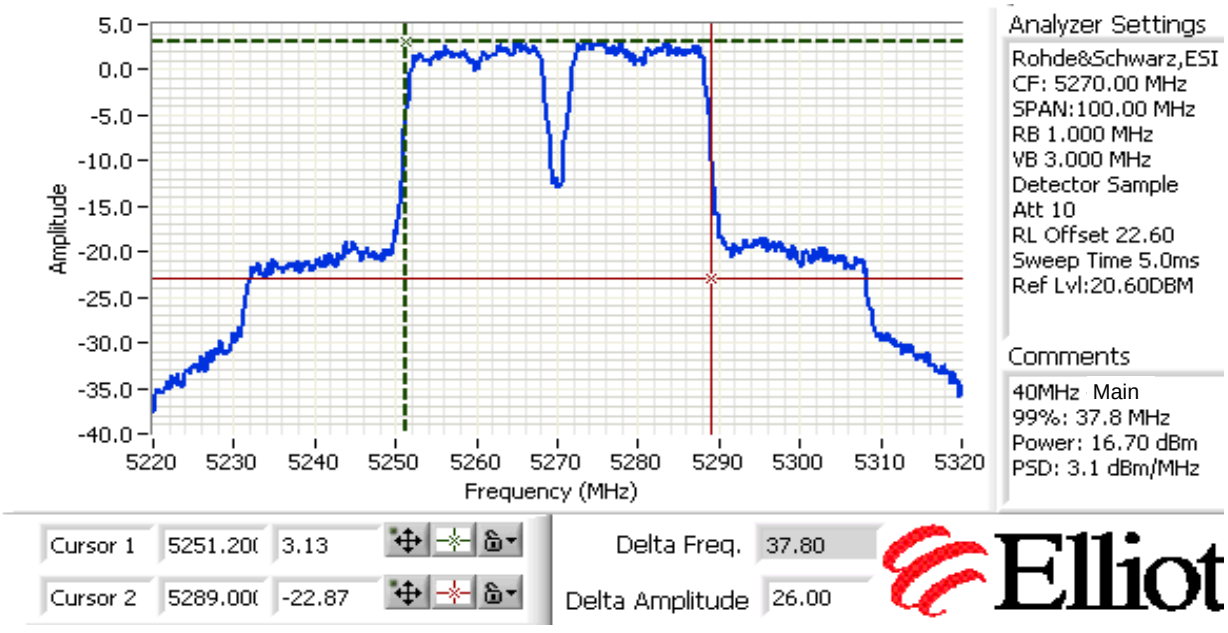
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



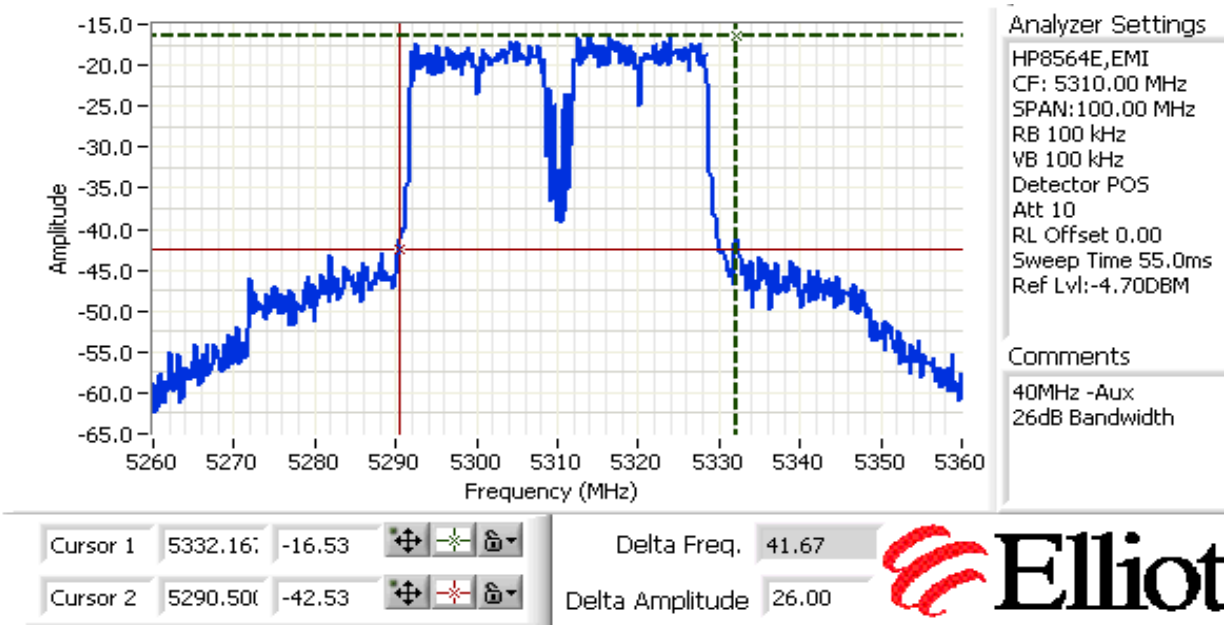


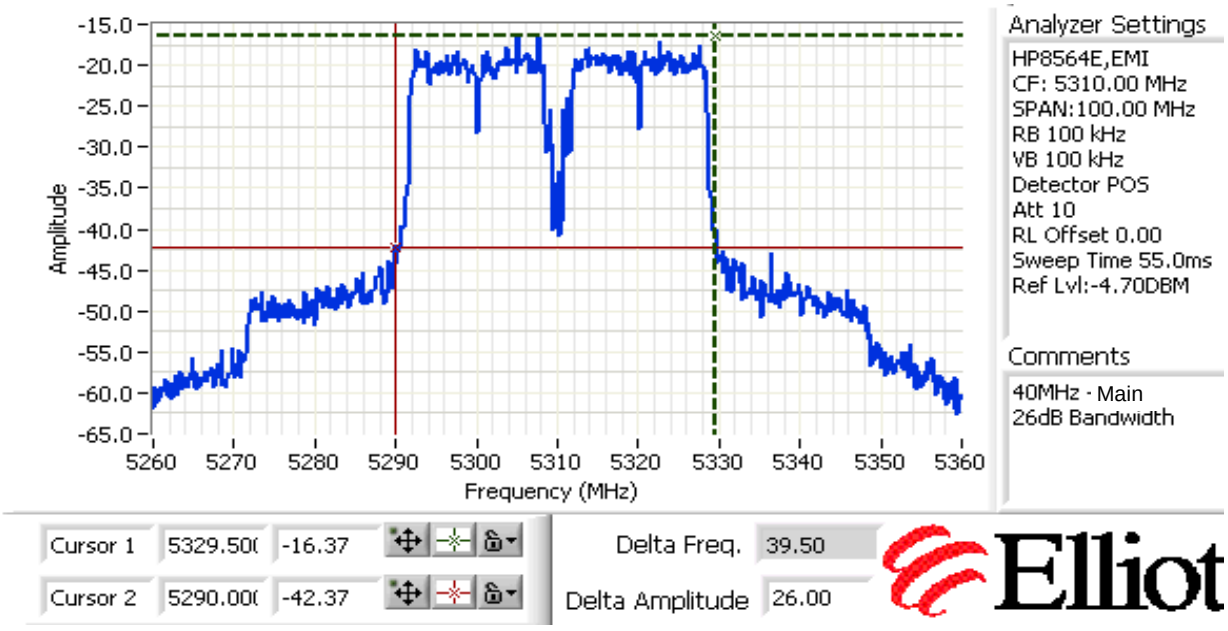
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



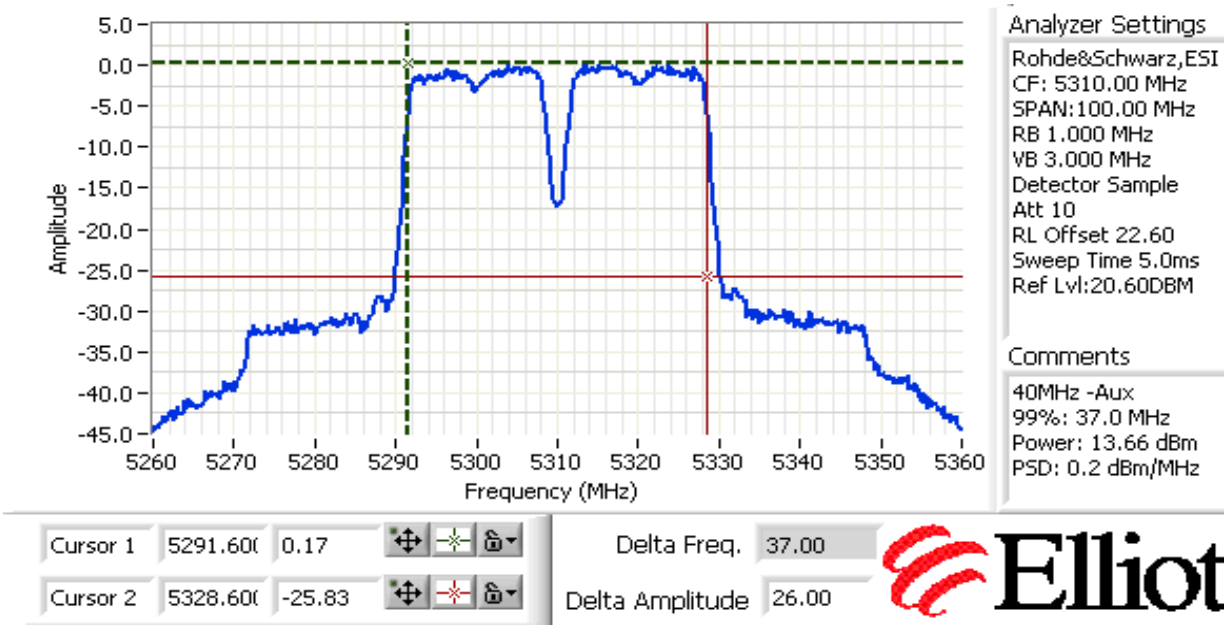


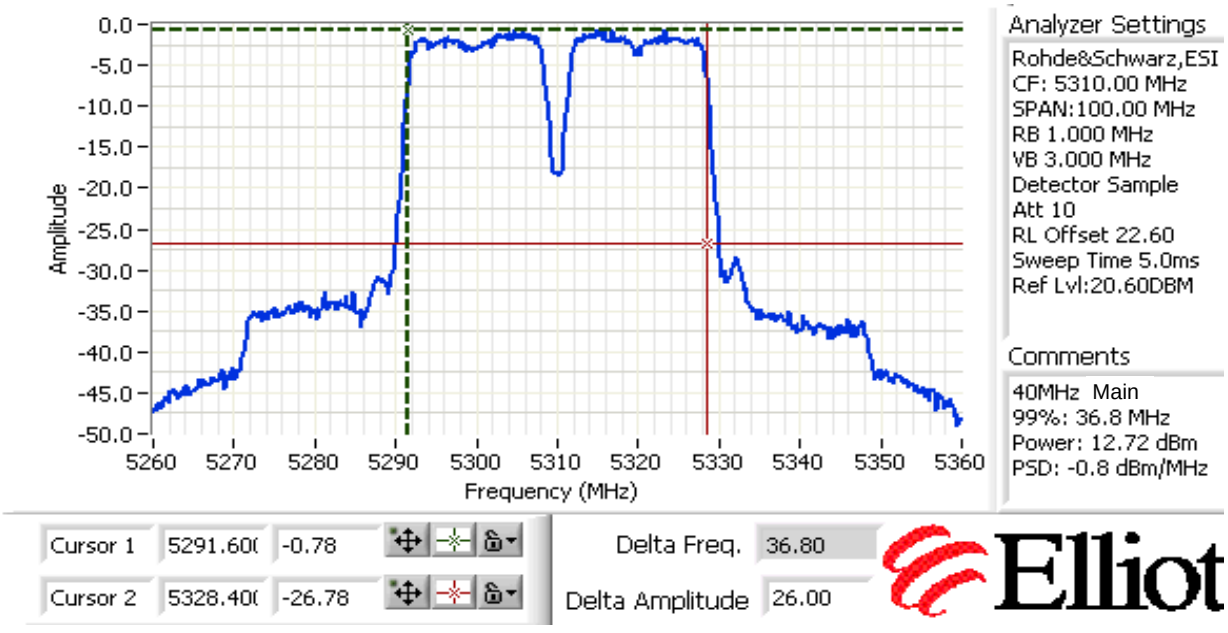
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



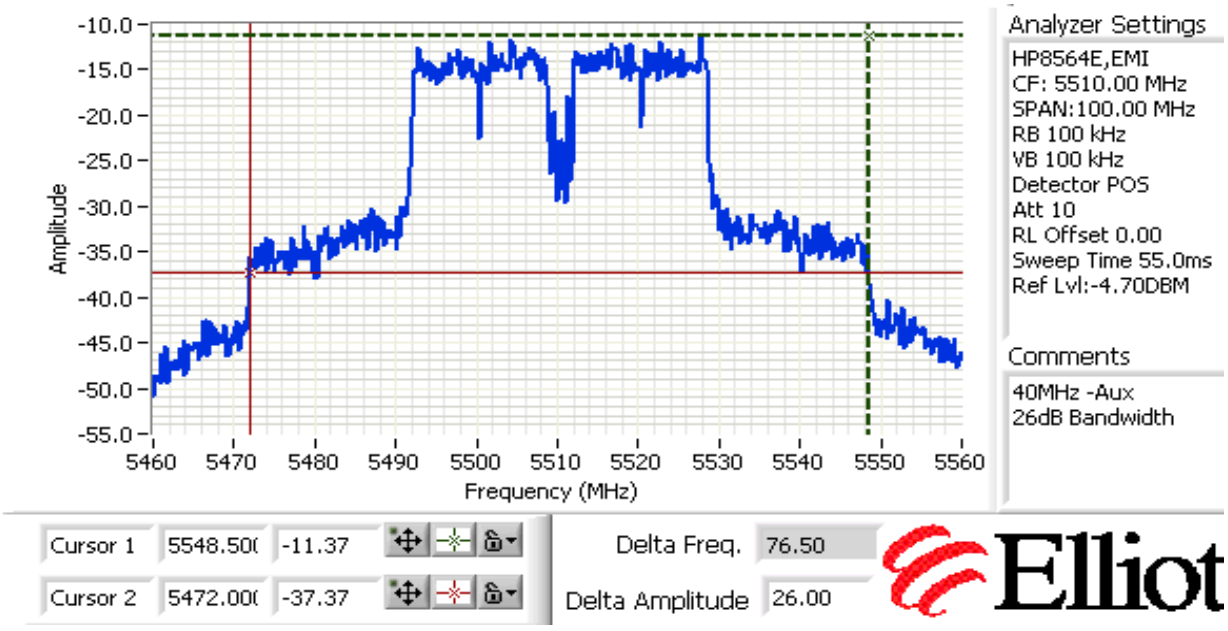


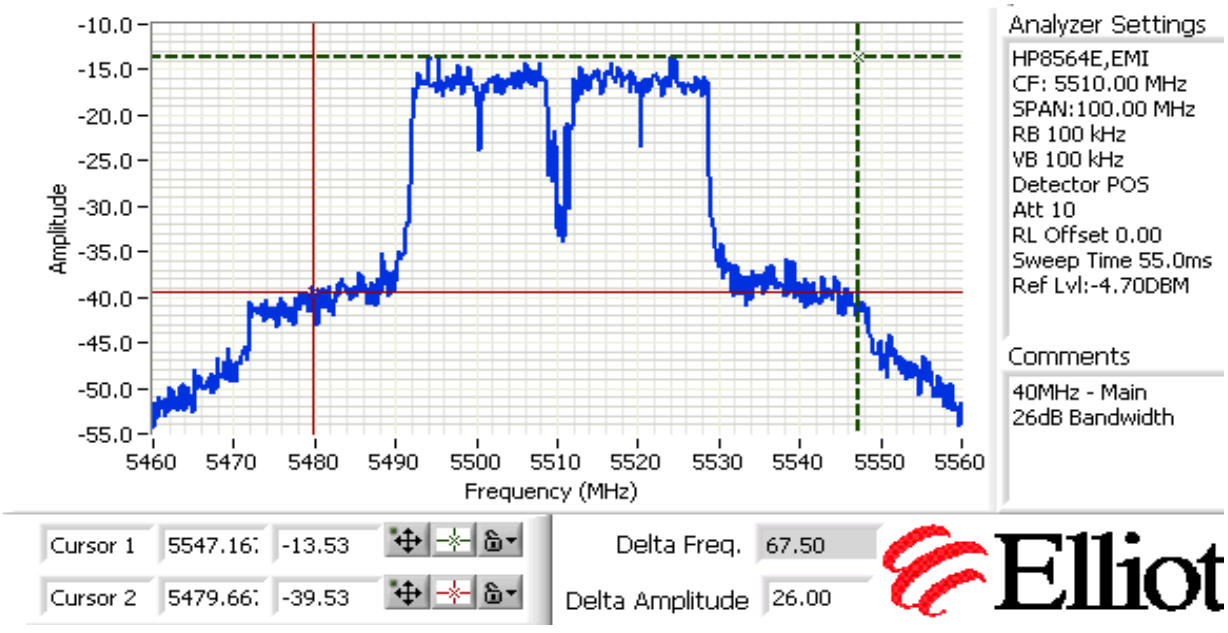
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



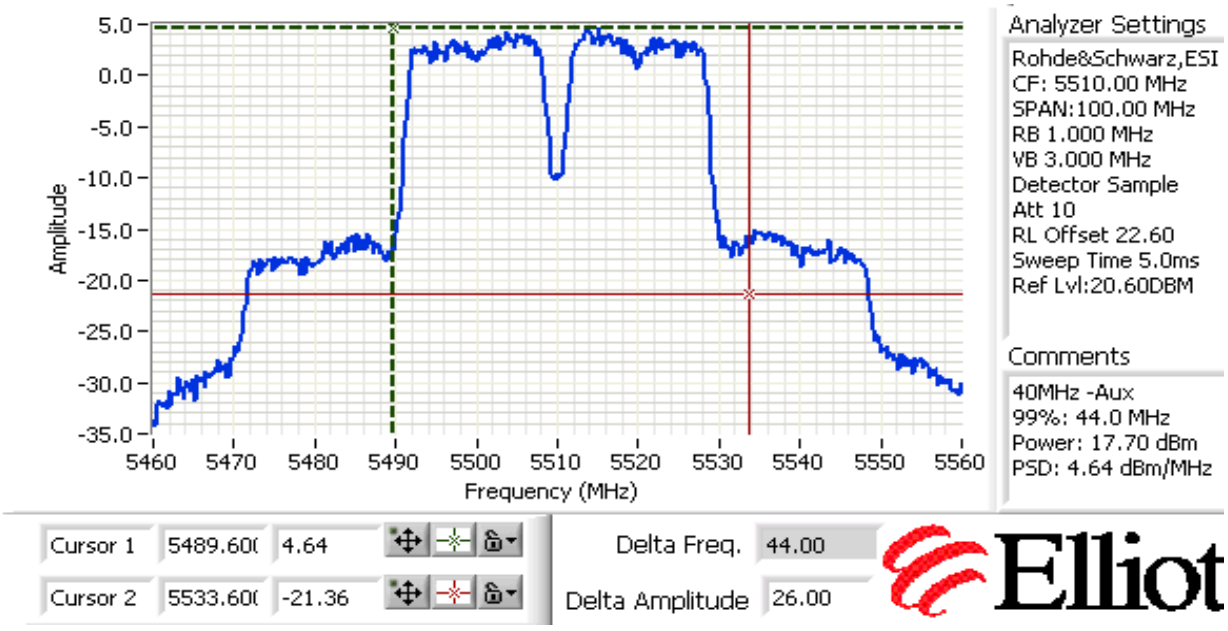


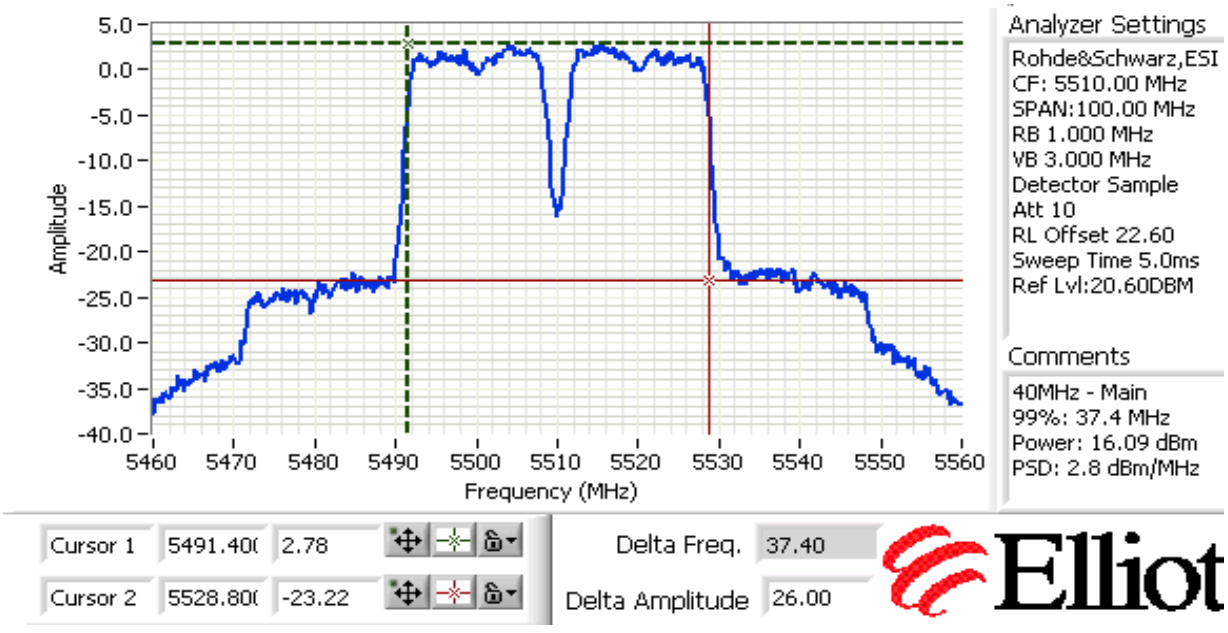
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



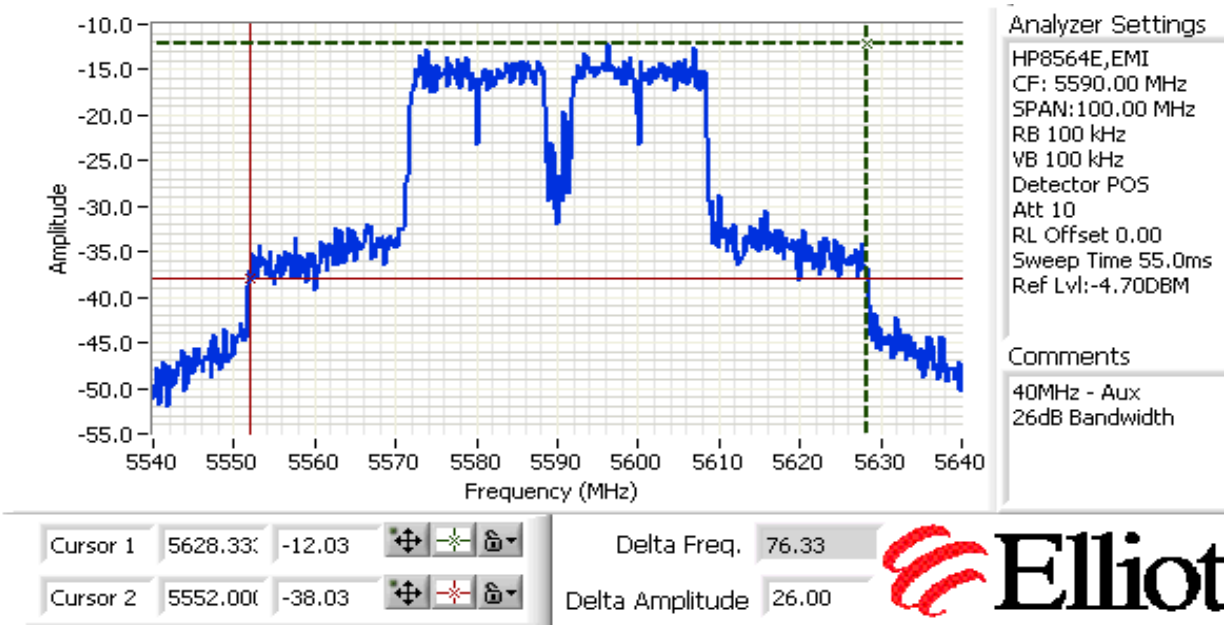


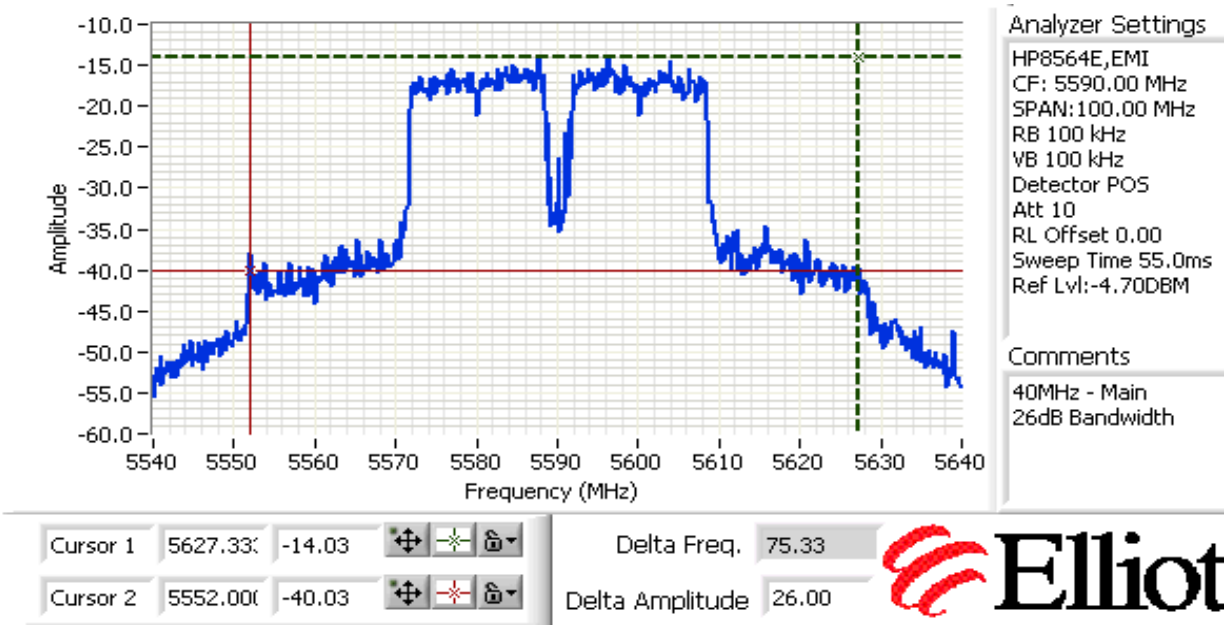
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



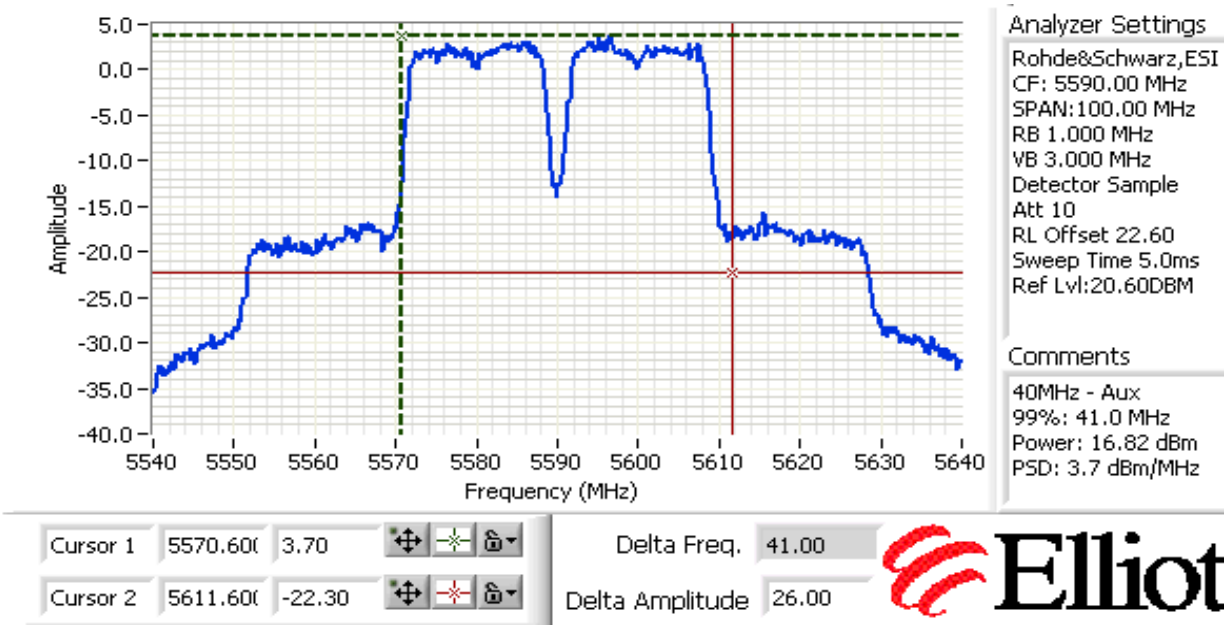


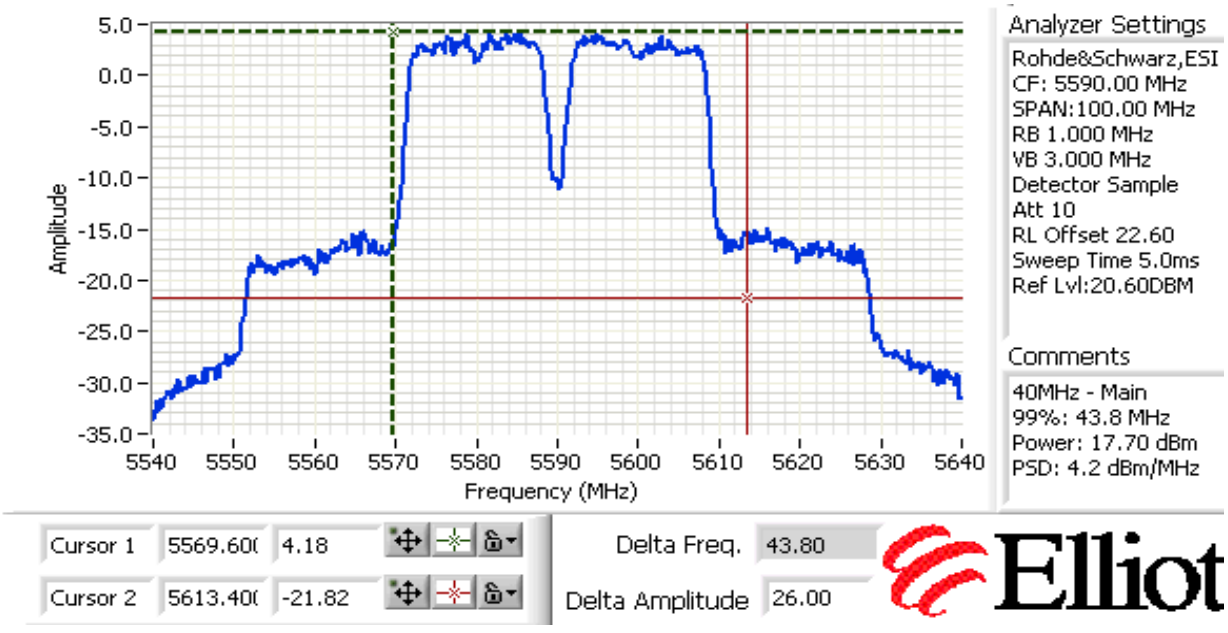
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



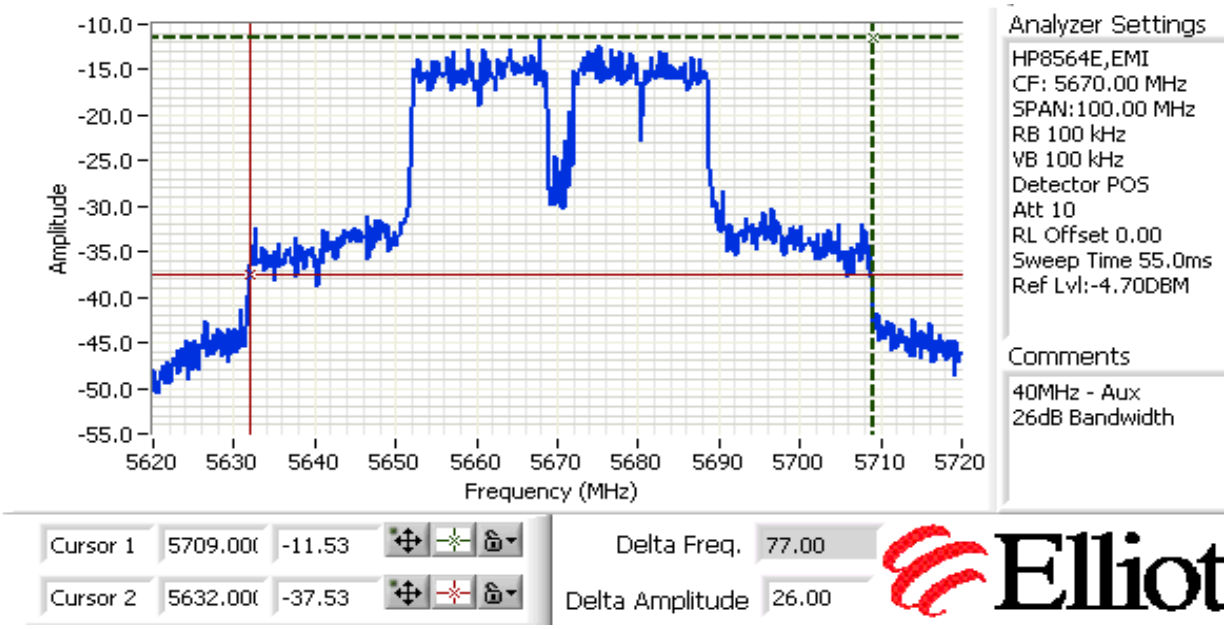


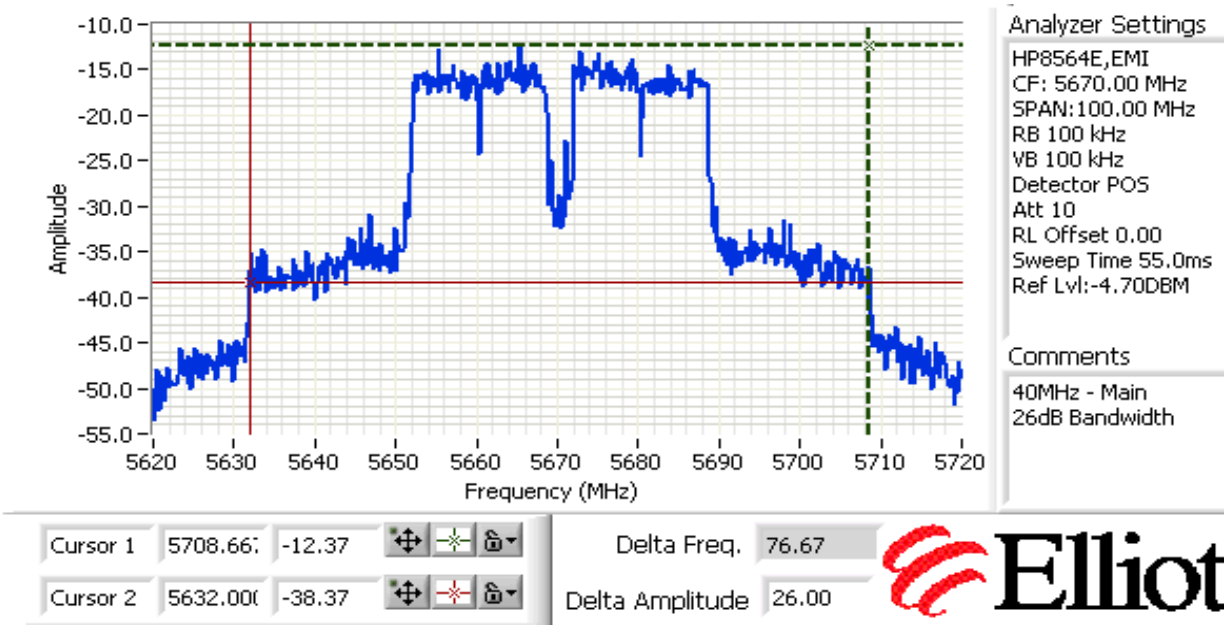
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



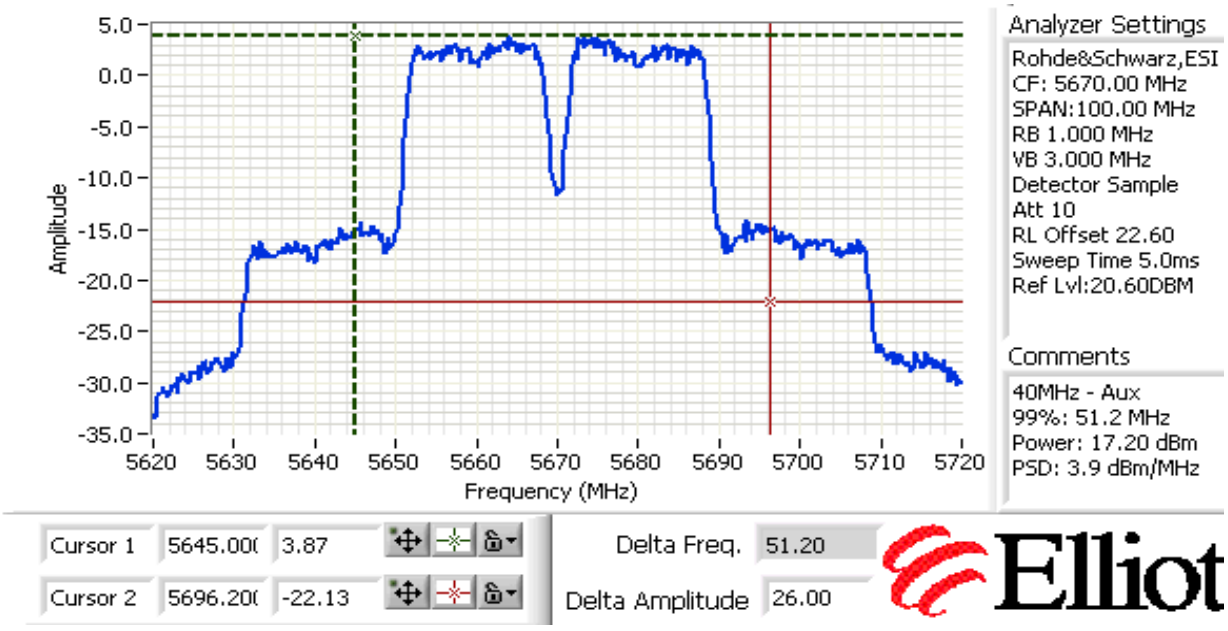


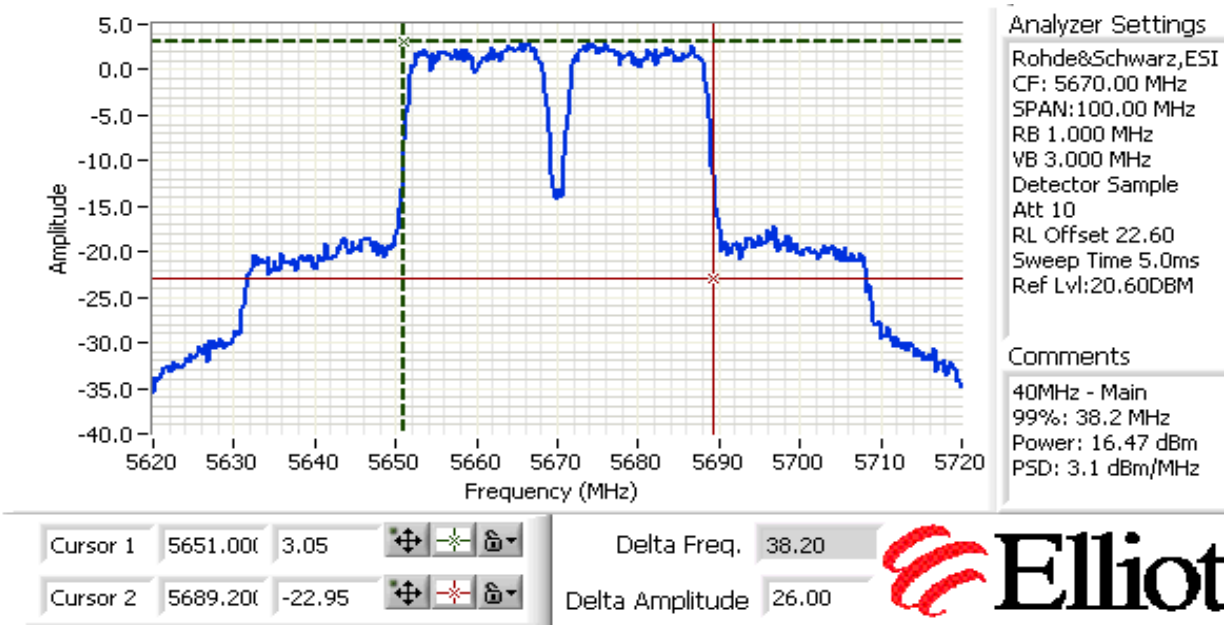
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A





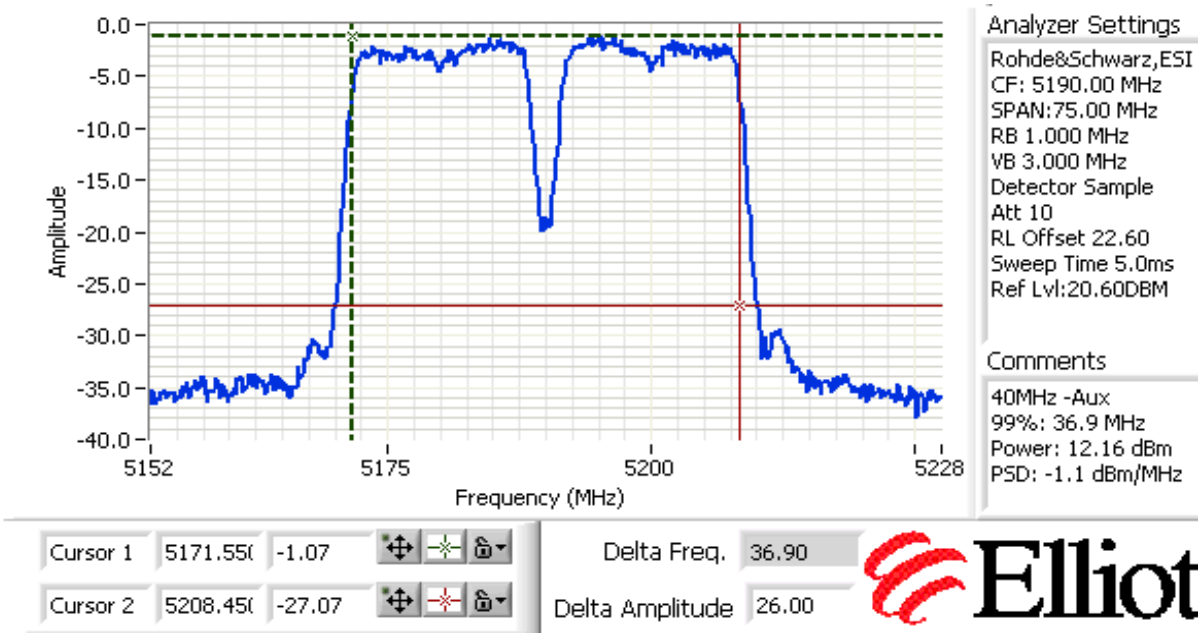
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

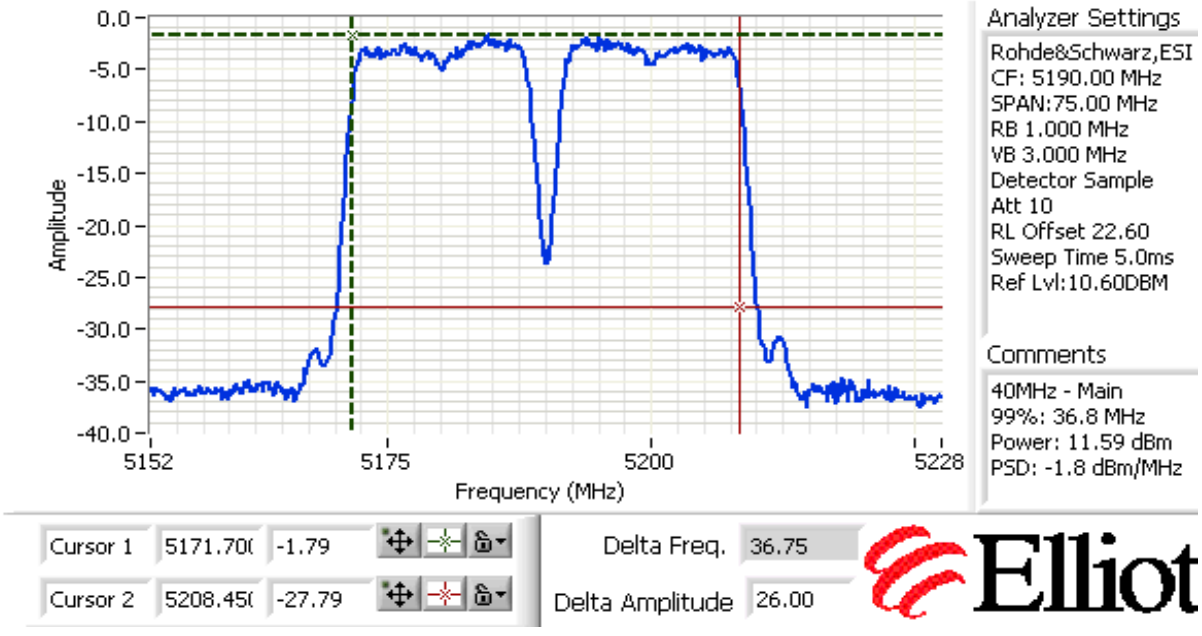




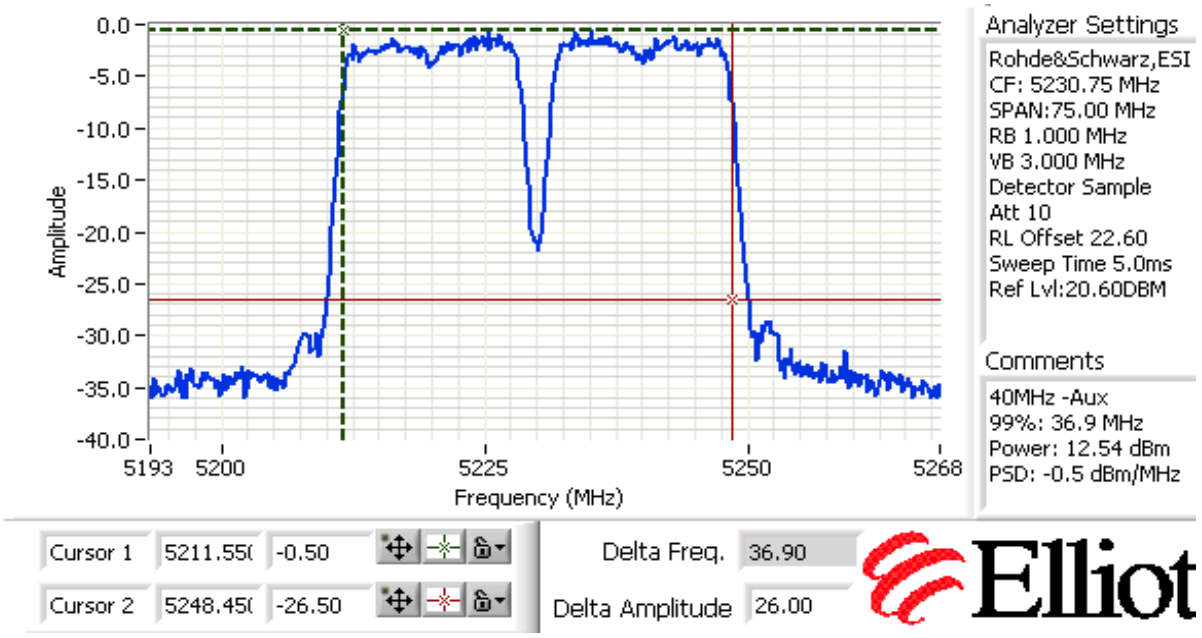
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

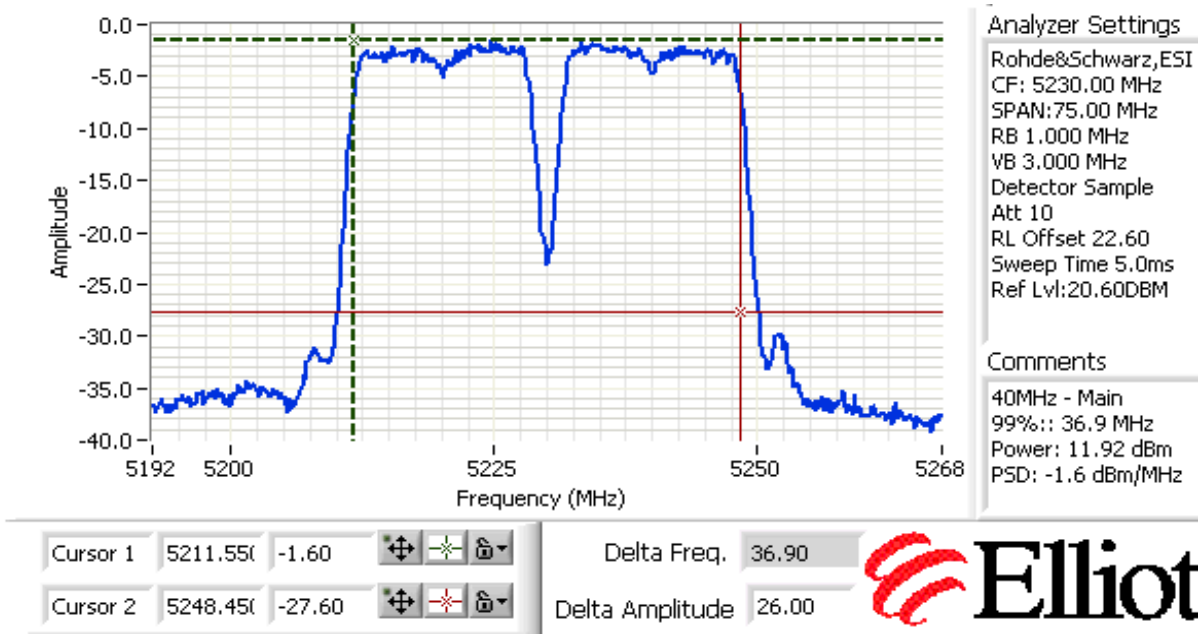
Plots for Power and PSD for 5150-5250 with power set for an effective gain of 6dBi





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A





Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #2: Peak Excursion Measurement

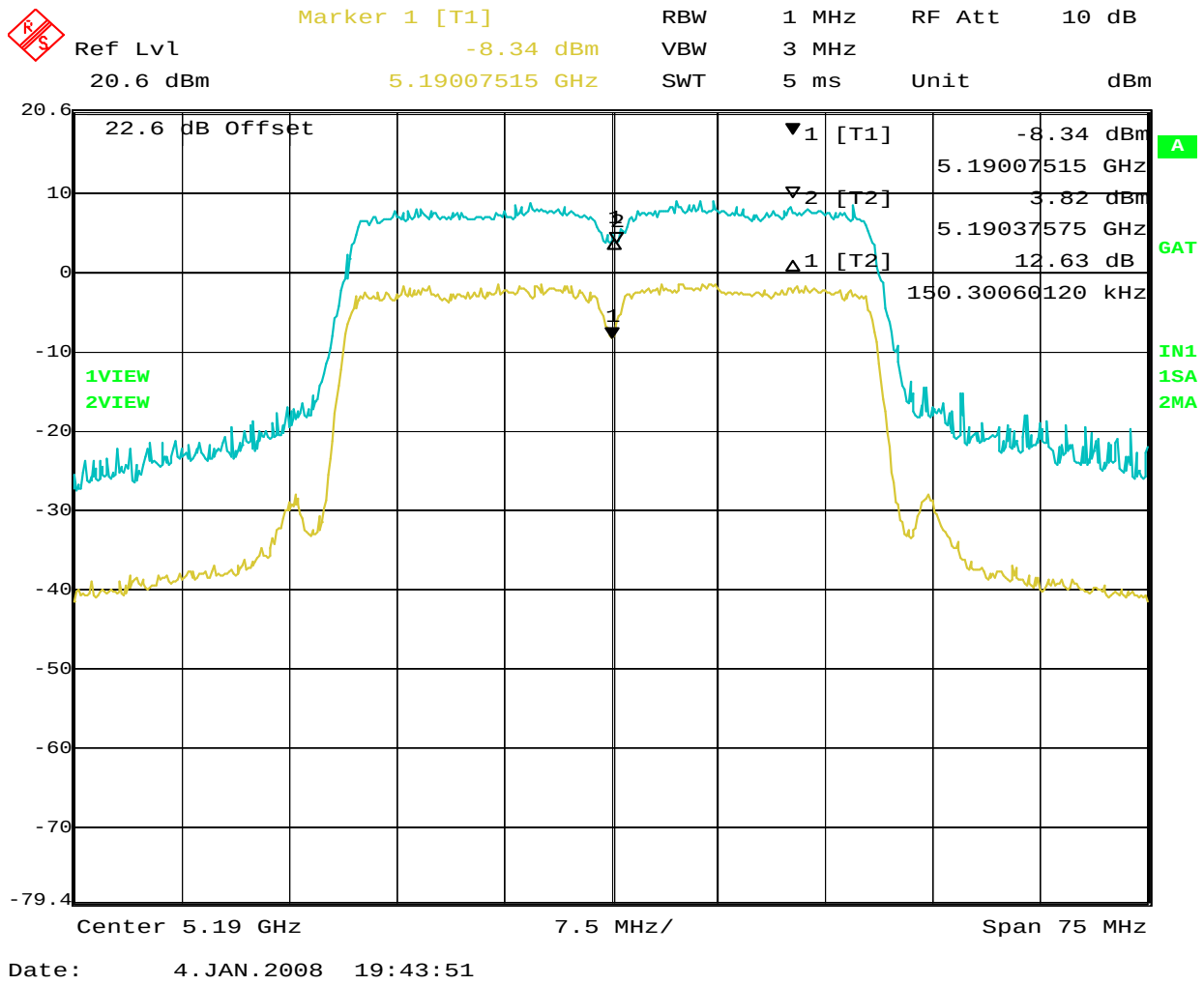
Device meets the requirement for the peak excursion

Freq	Peak Excursion(dB)		Freq	Peak Excursion(dB)		Freq	Peak Excursion(dB)	
(MHz)	Value	Limit	(MHz)	Value	Limit	(MHz)	Value	Limit
5190	12.6	13.0	5270	11.0	13.0	5510	12.1	13.0
5230	12.4	13.0	5310	10.3	13.0	5590	11.2	13.0
						5670	12.6	13.0

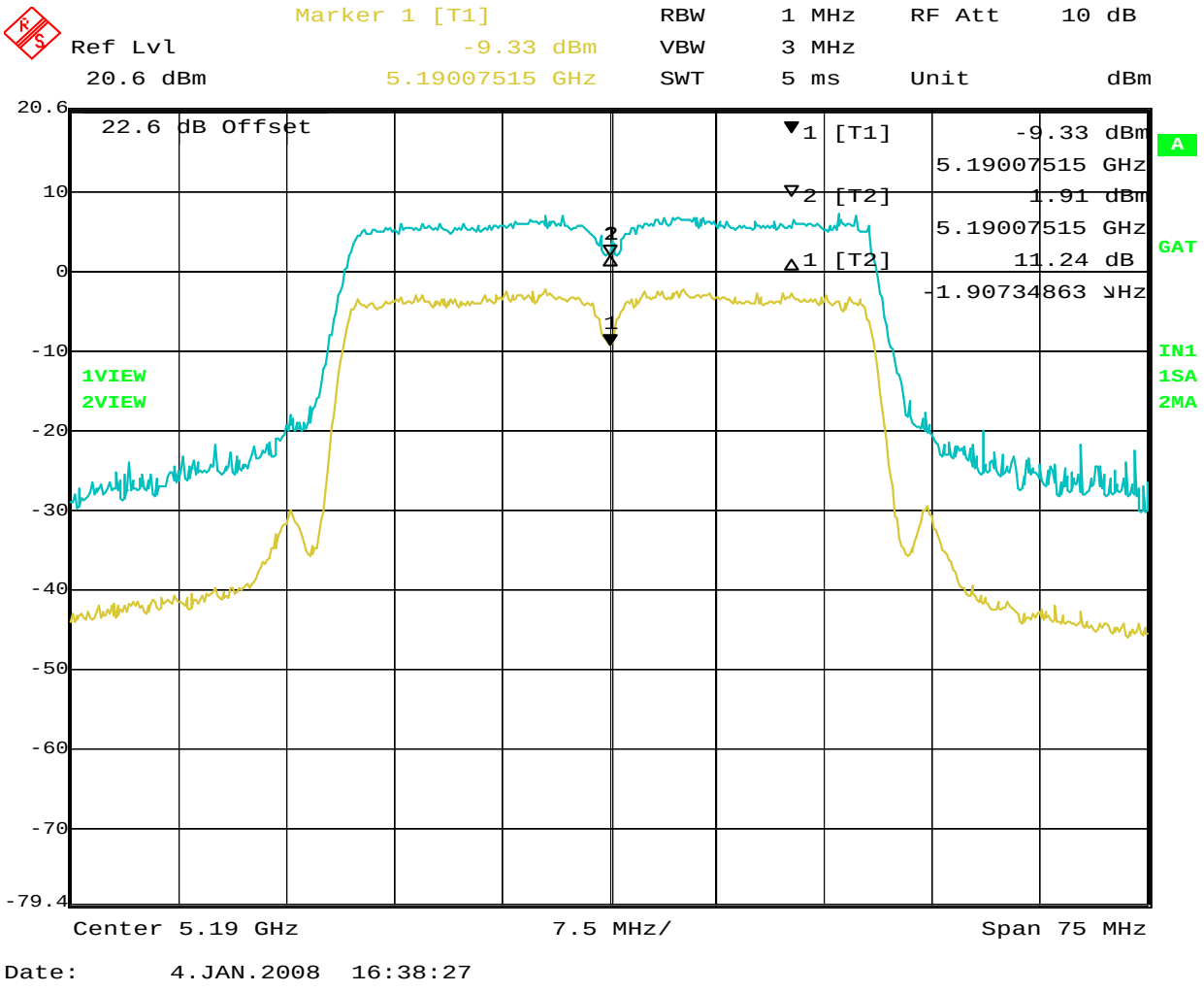
Plots Showing Peak Excursion

Trace A: RBW = VBW = 1MHz

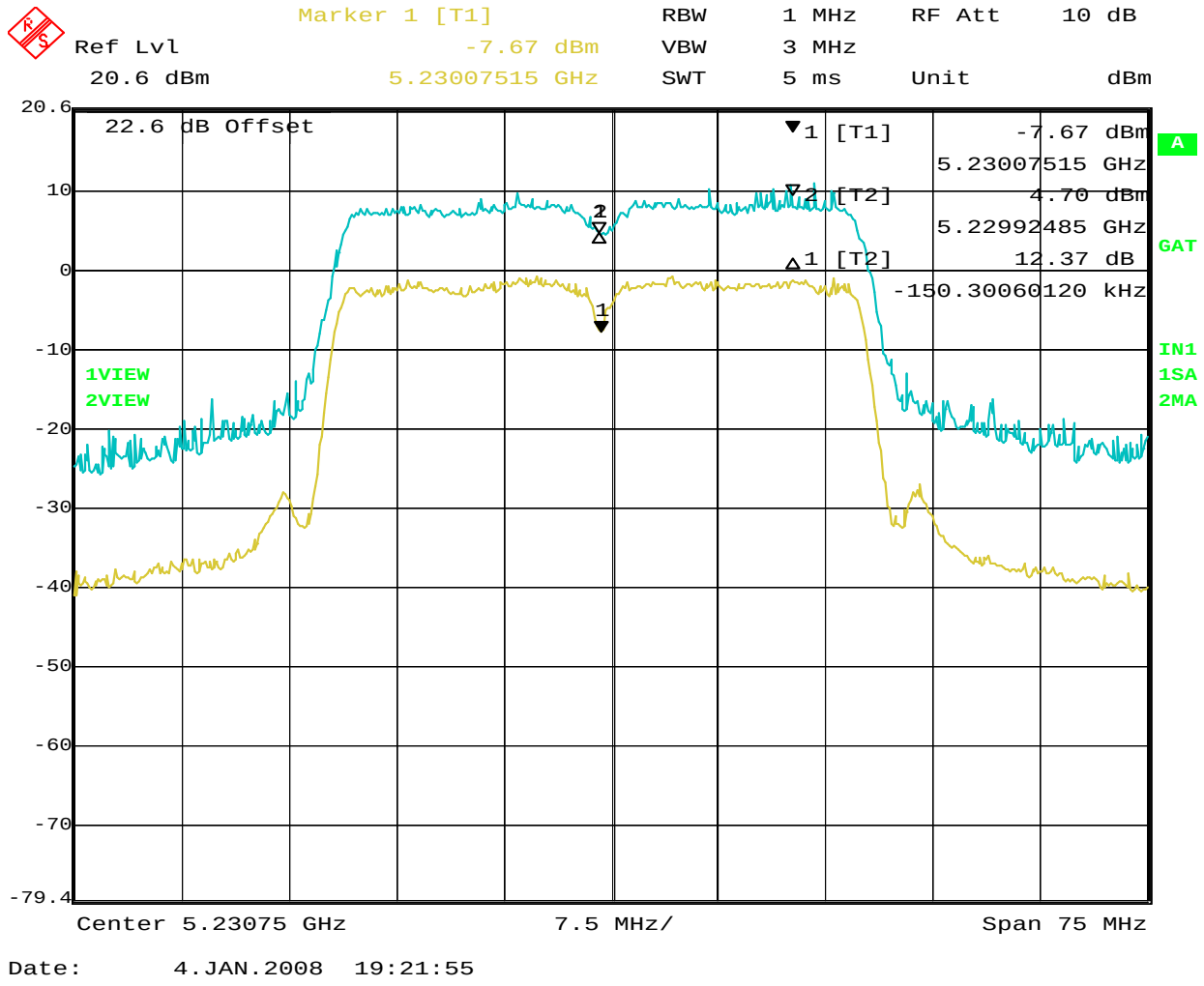
Trace B: RBW = 1 MHz, VBW = 30kHz



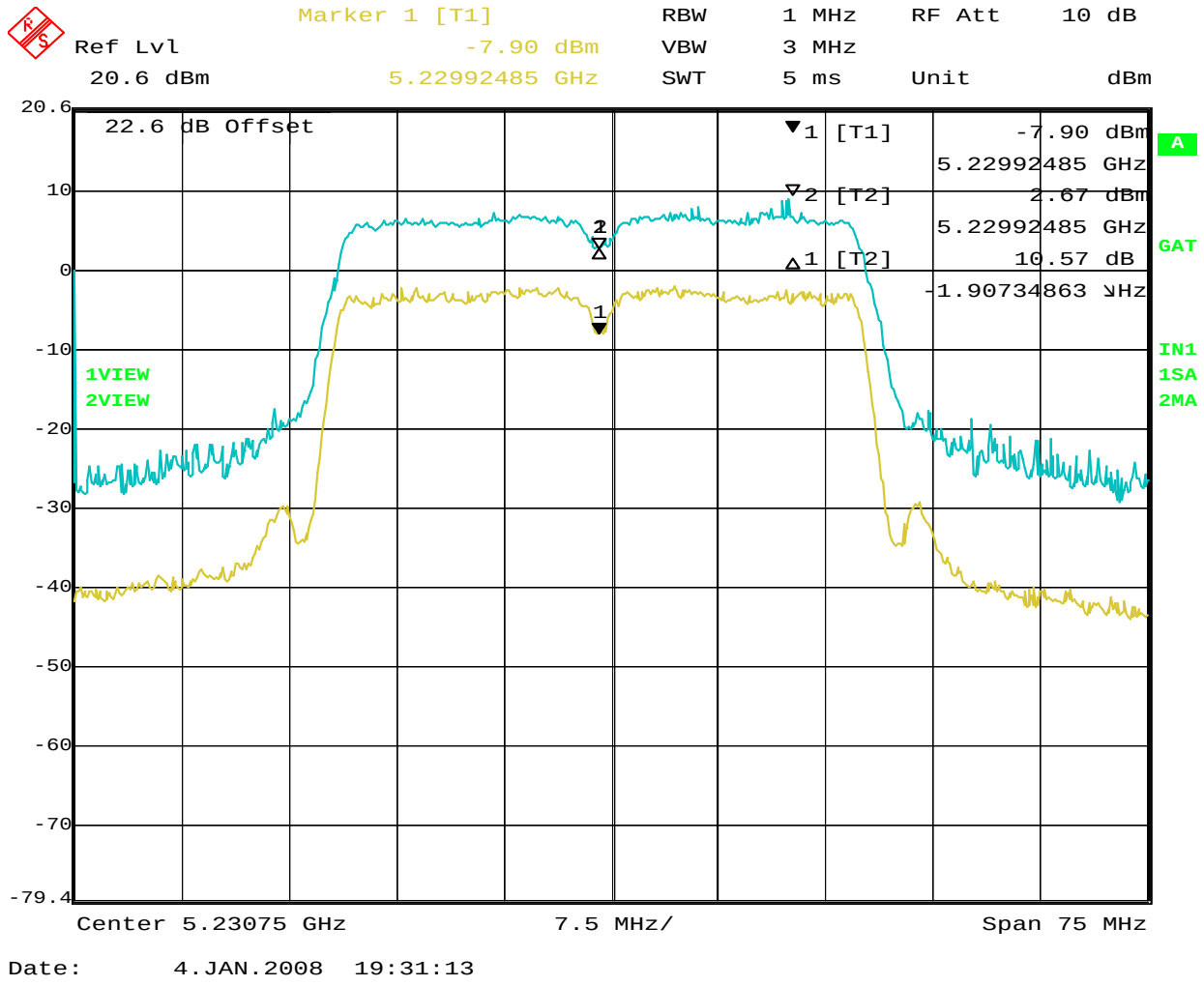
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



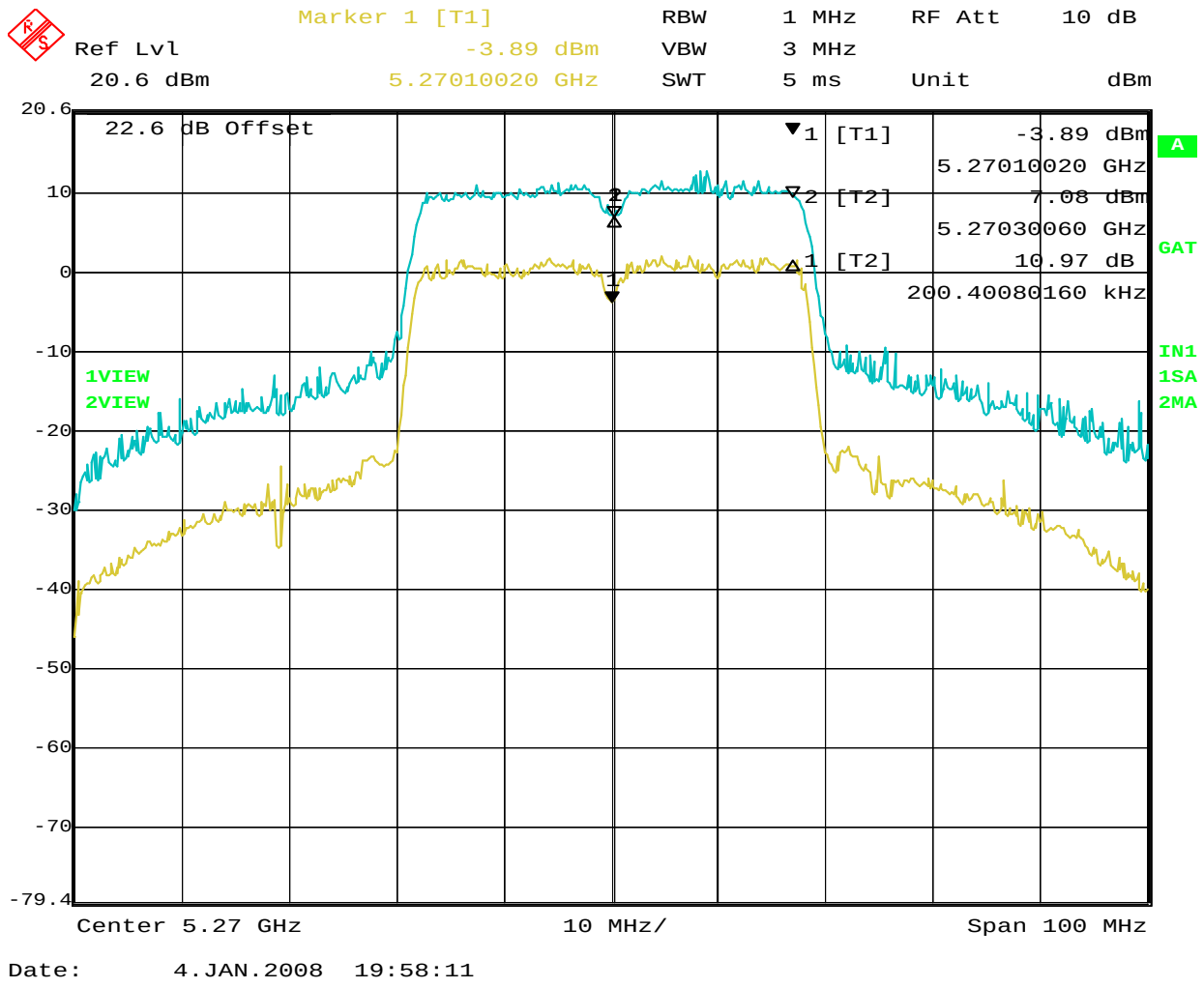
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



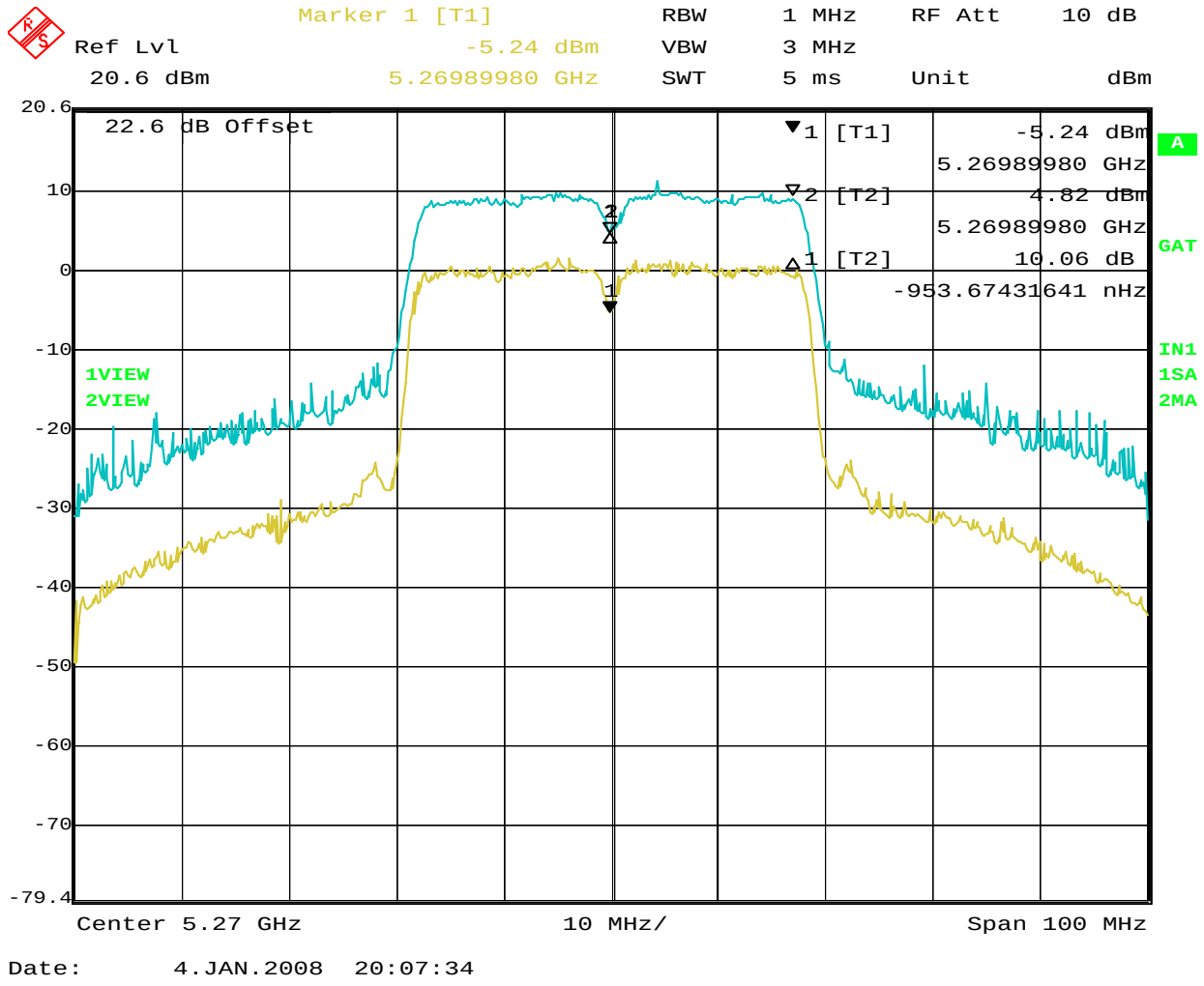
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



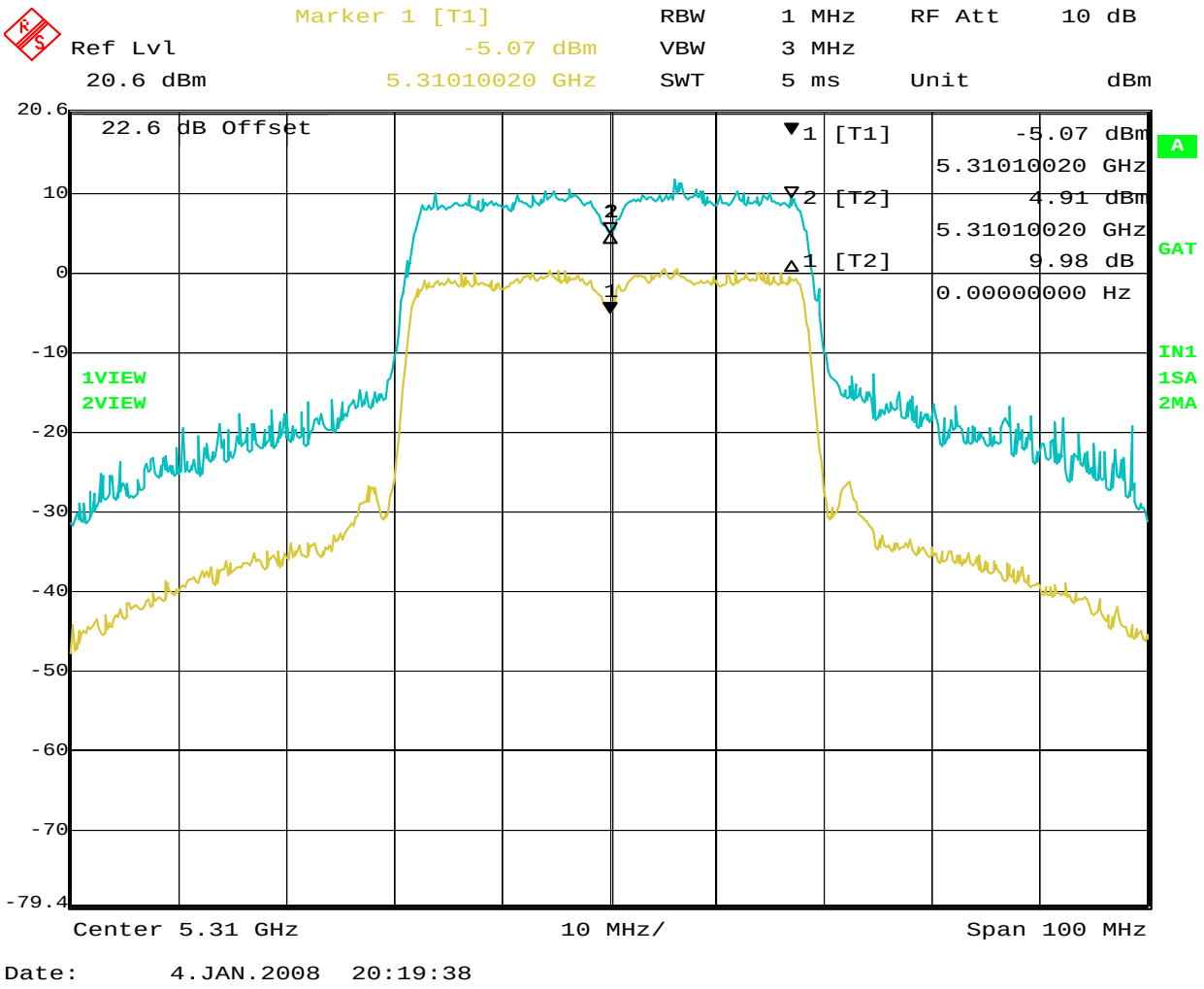
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



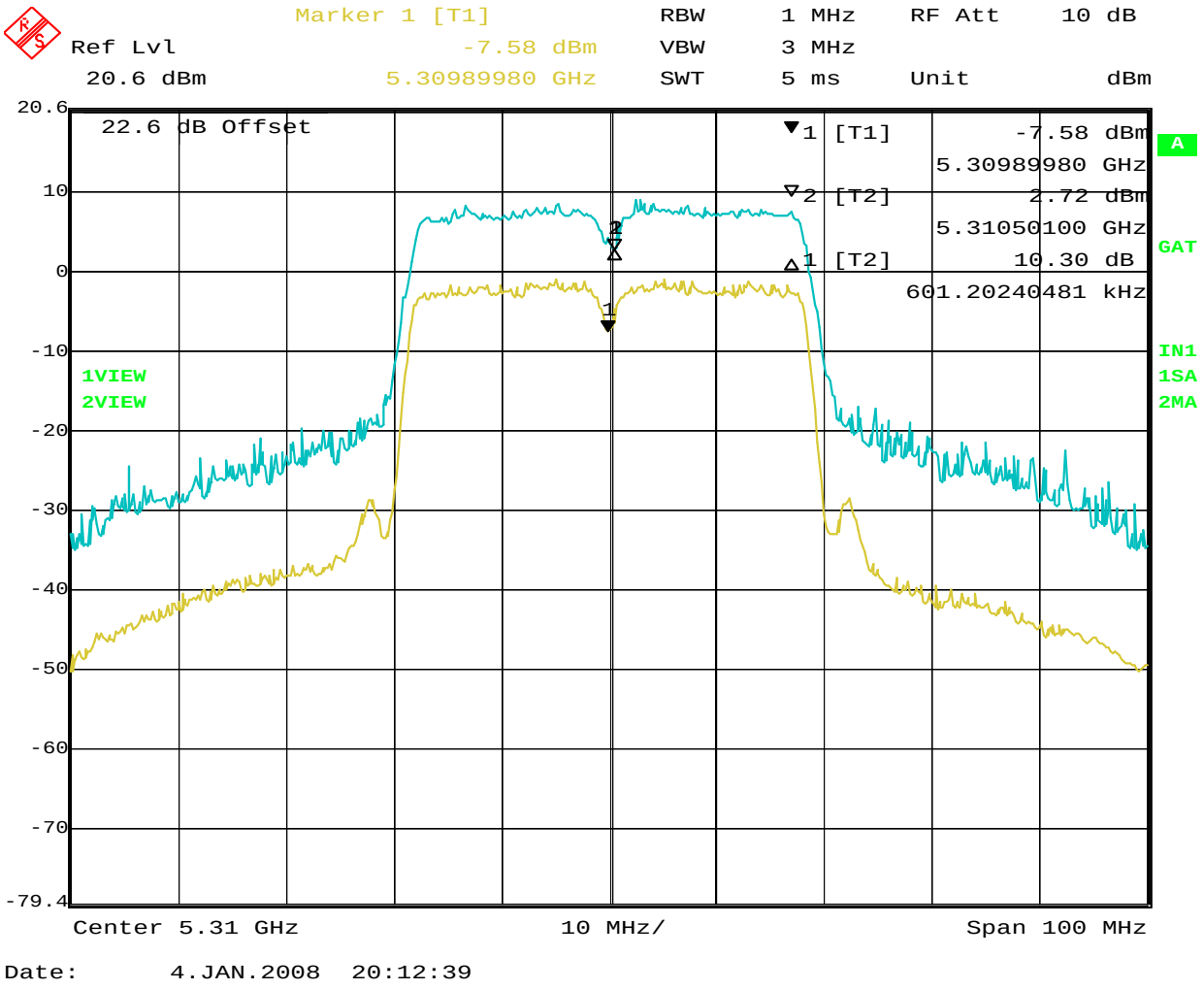
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



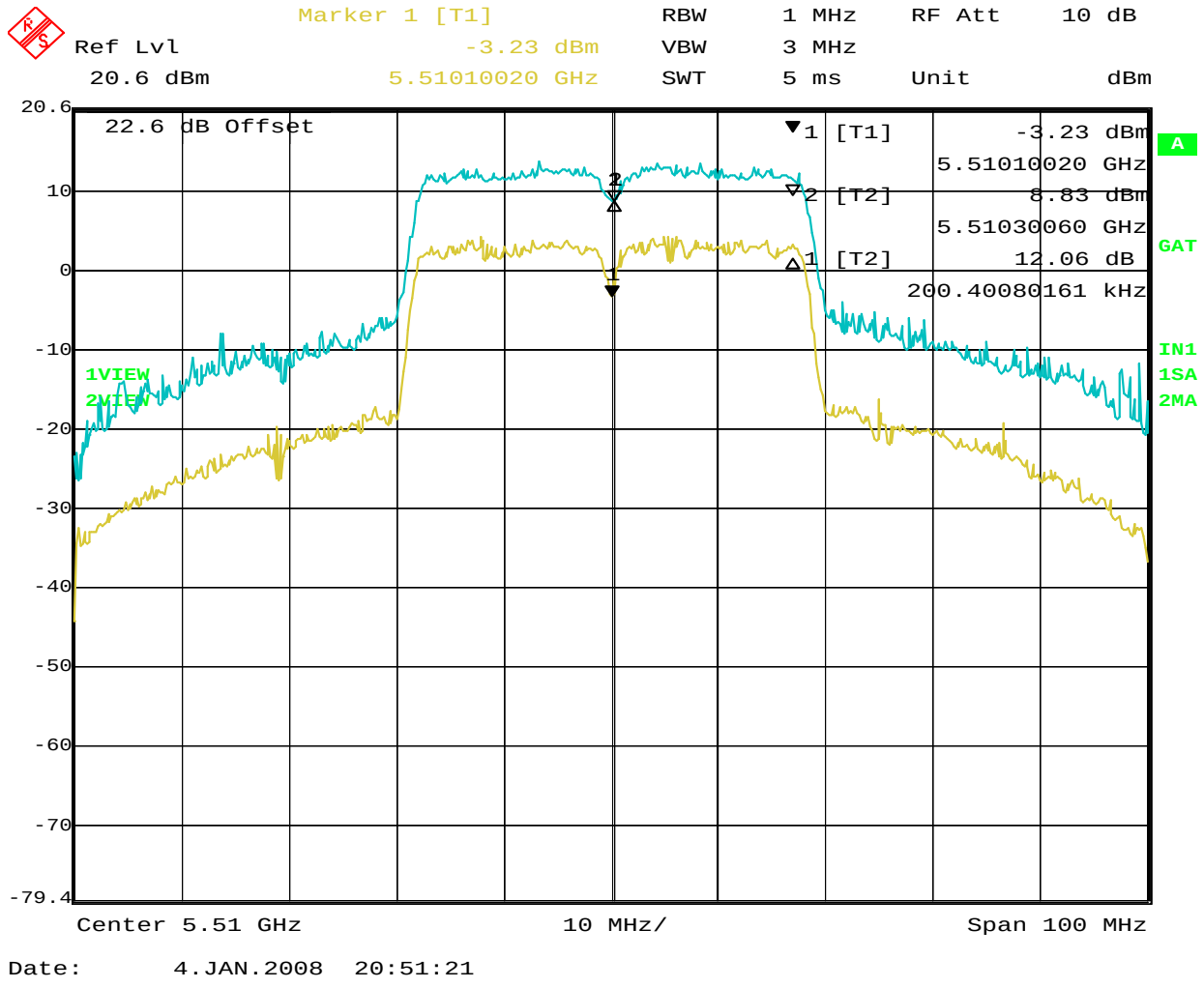
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



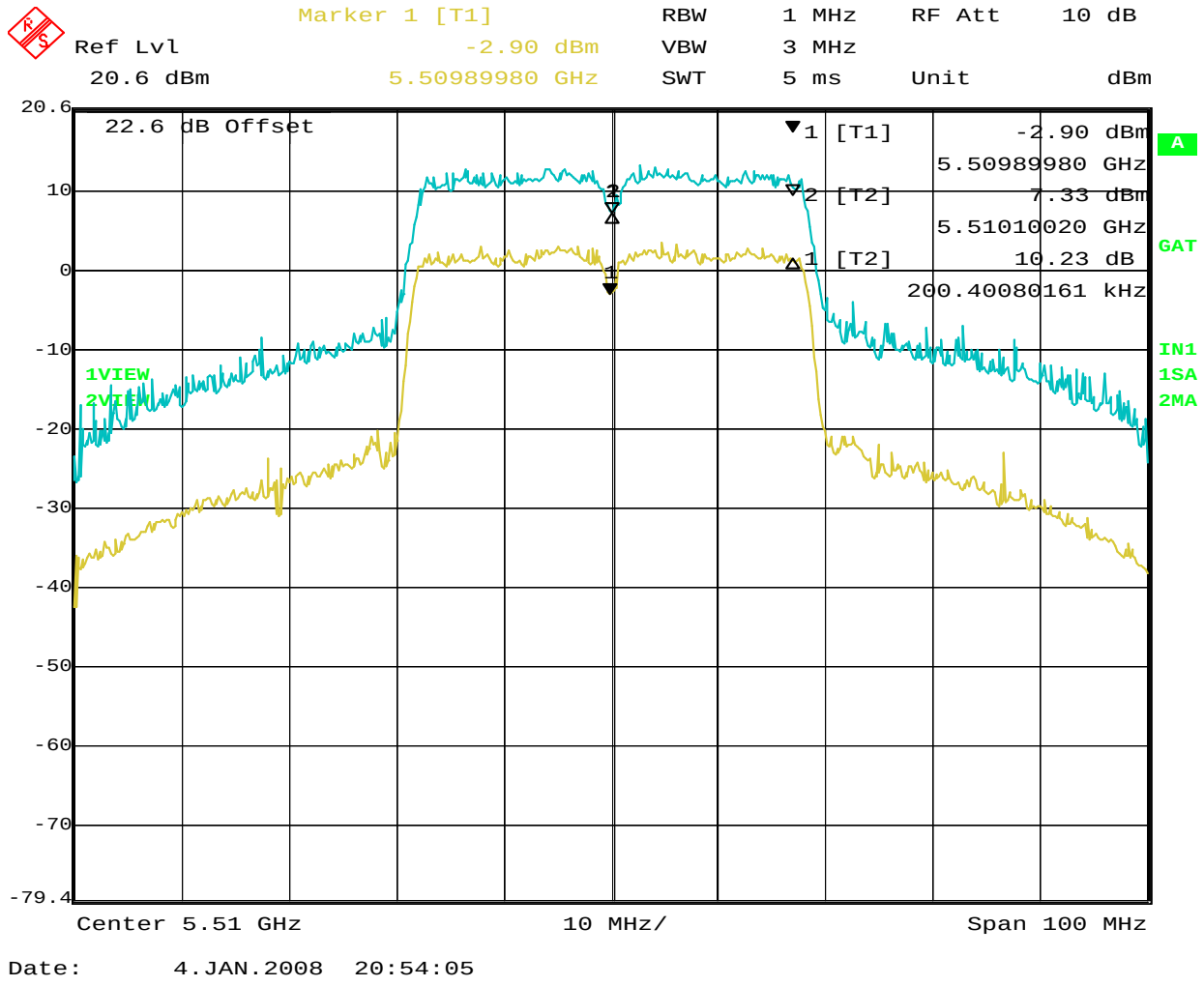
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



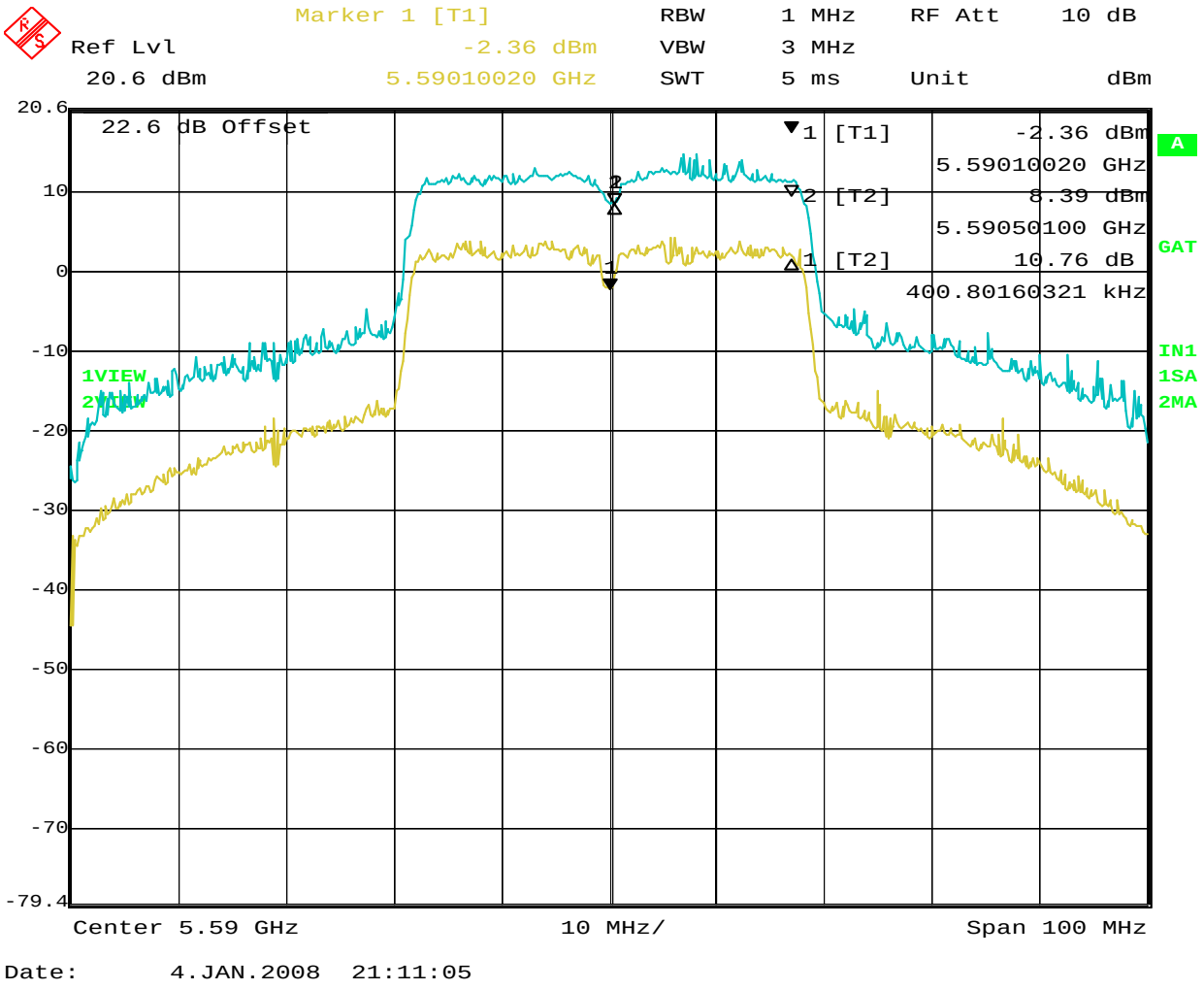
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



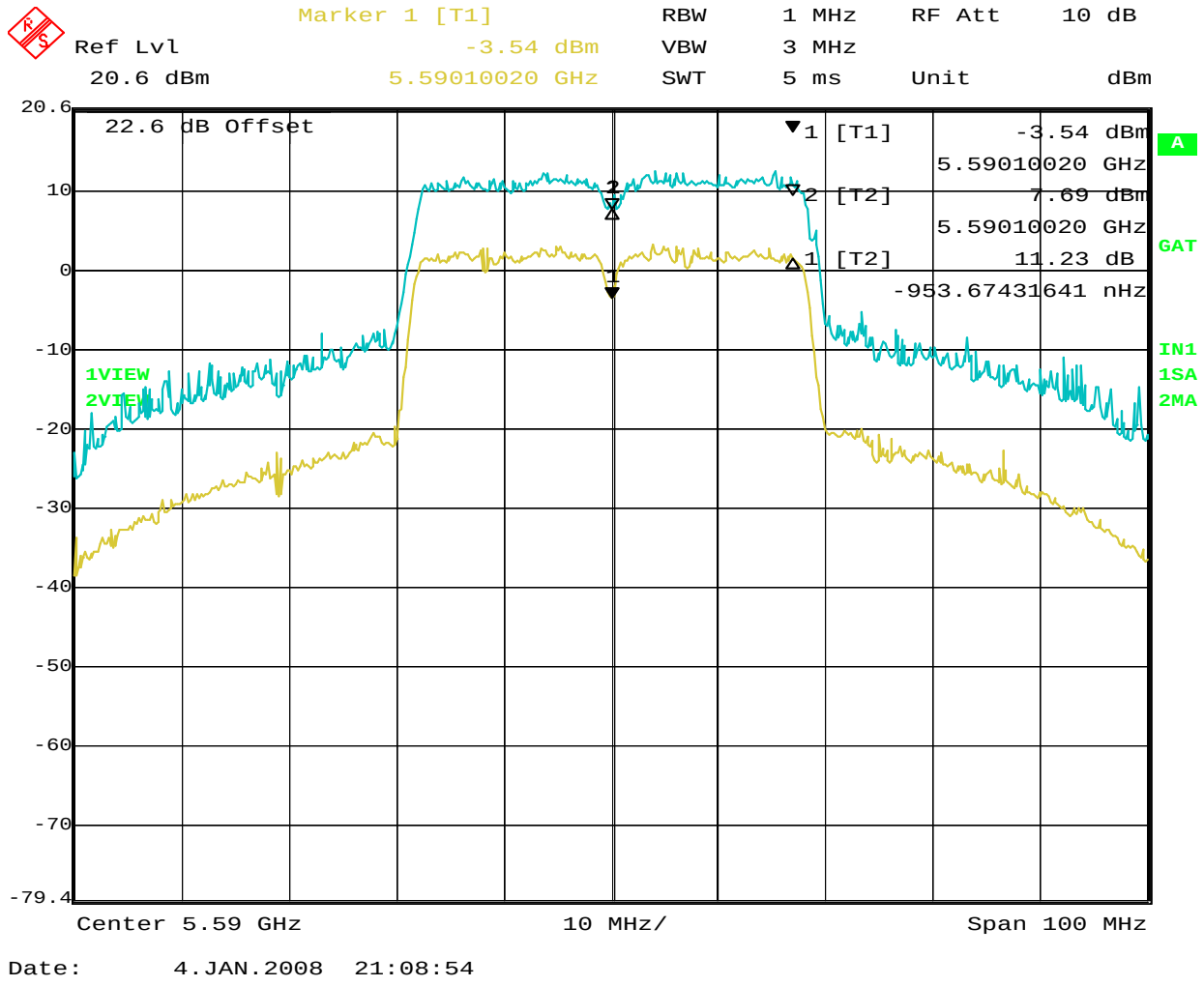
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



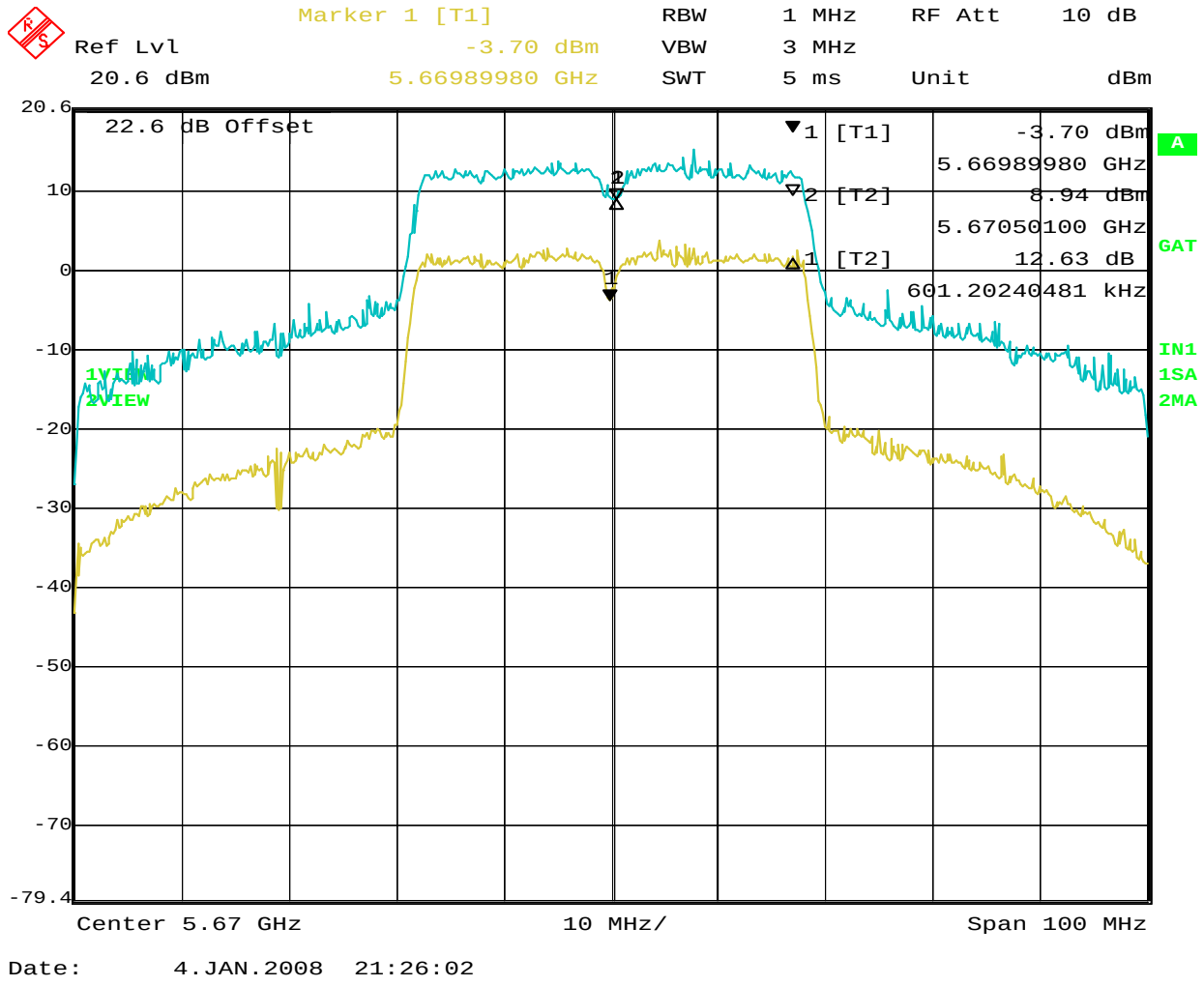
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



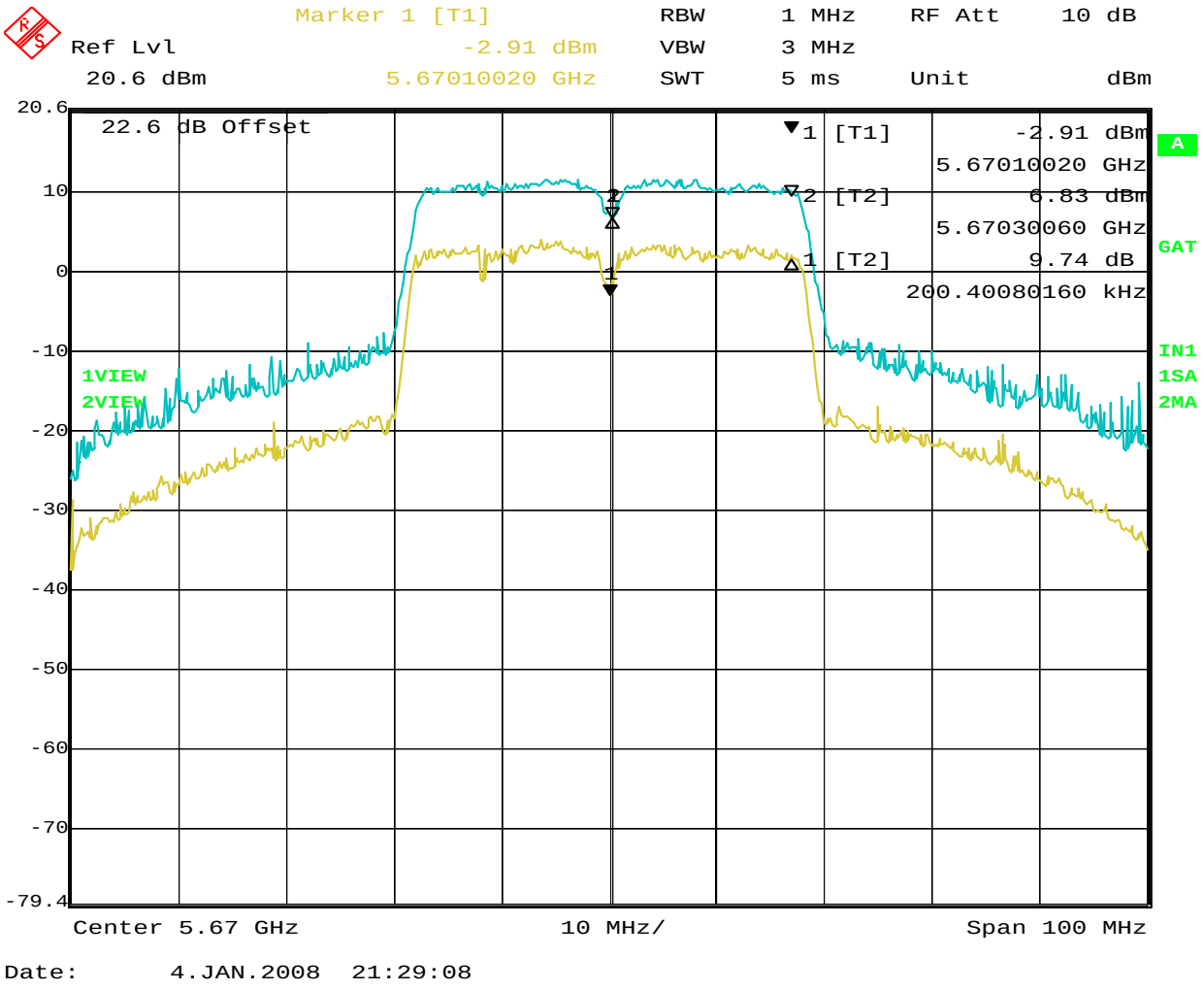
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

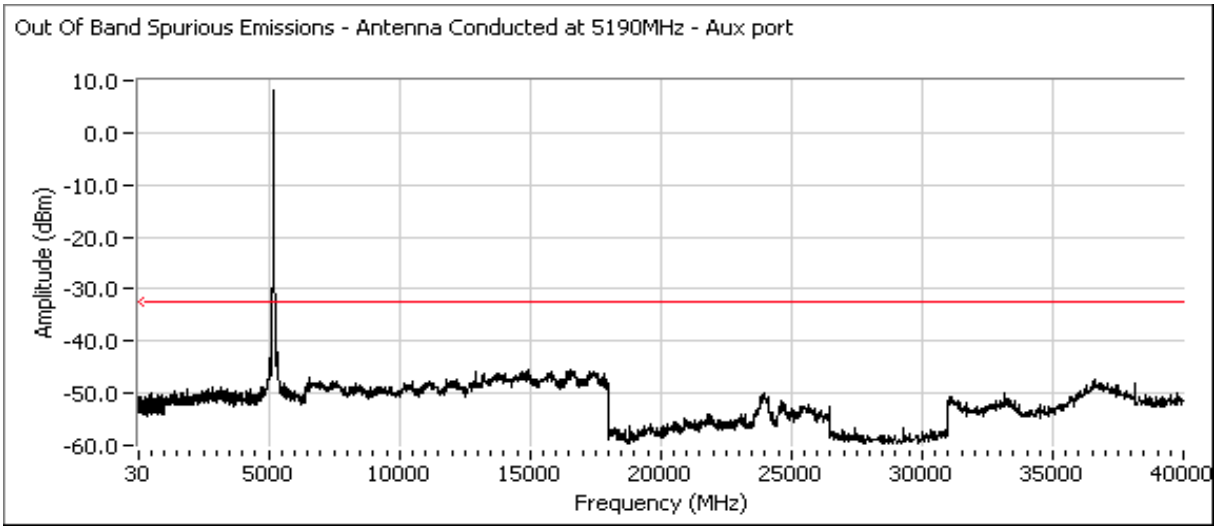
Run #3: Out Of Band Spurious Emissions - Antenna Conducted

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:	Signals that fall in the restricted bands of 15.205 are subject to the limit of 15.209.
Note 3:	20dB attenuator pad was added in front of analyzer for all ranges. From 30-18000MHz, 10dB attenuation was added to software. 10dB attenuation was not added from 18-40GHz.

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

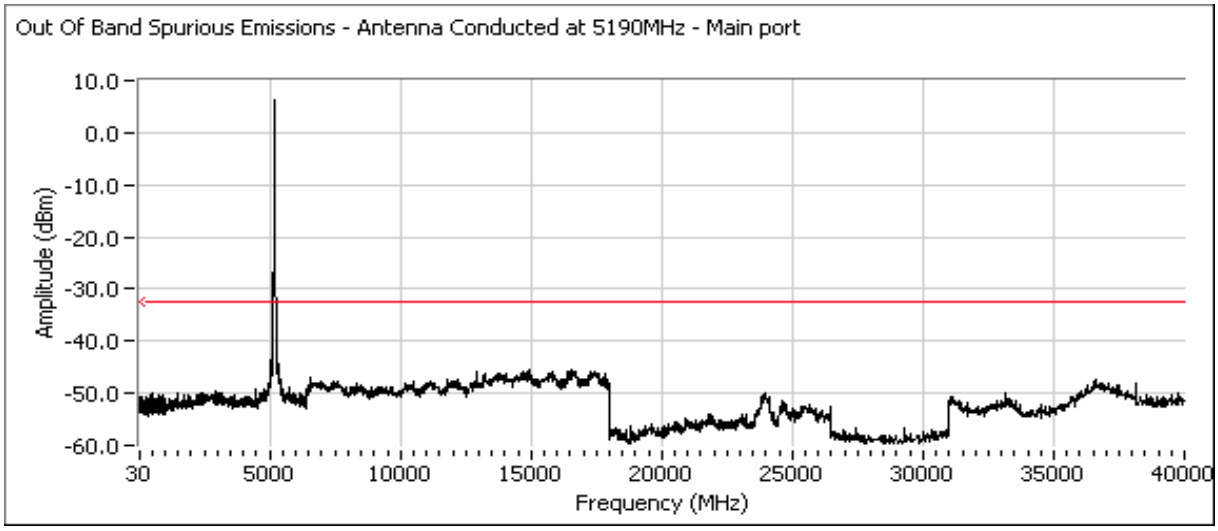
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

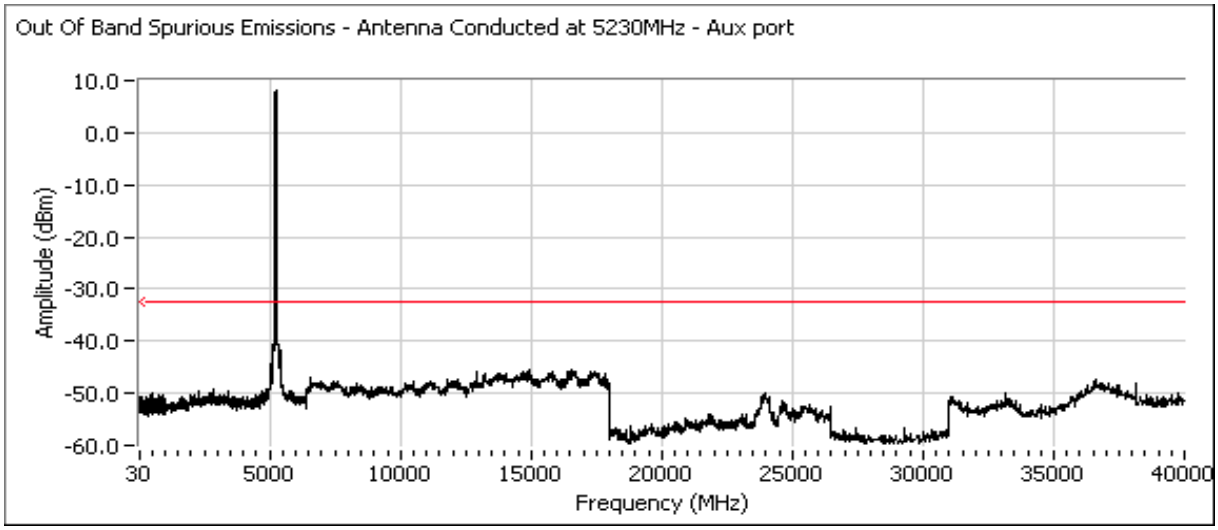
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

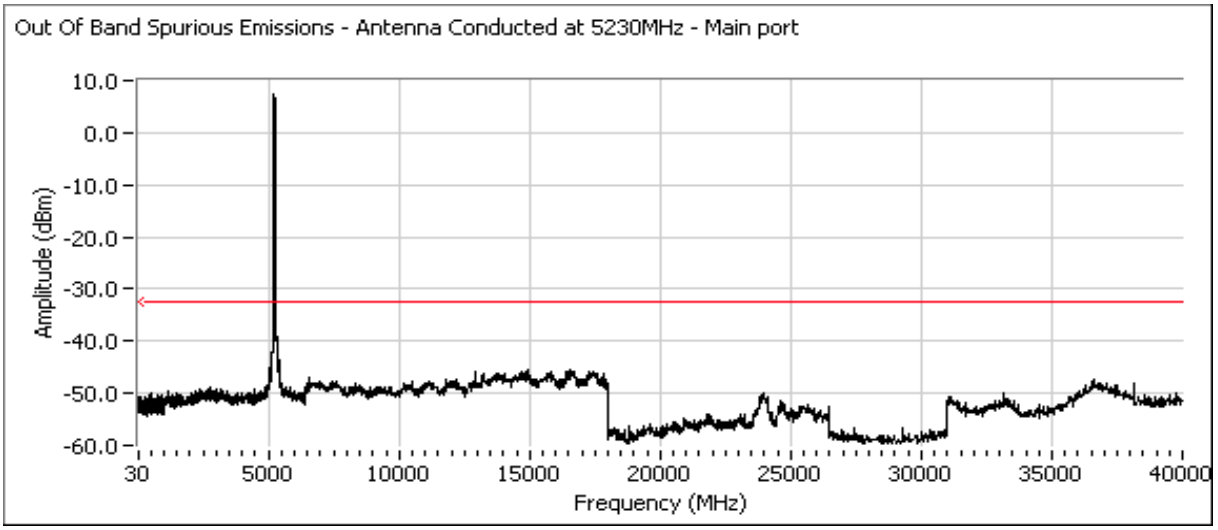
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

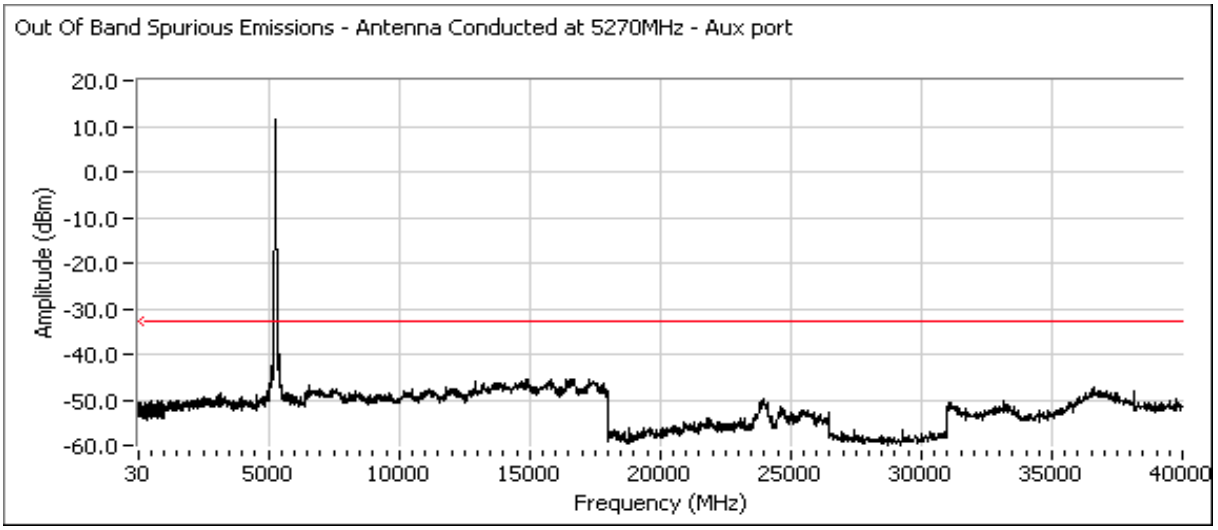
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

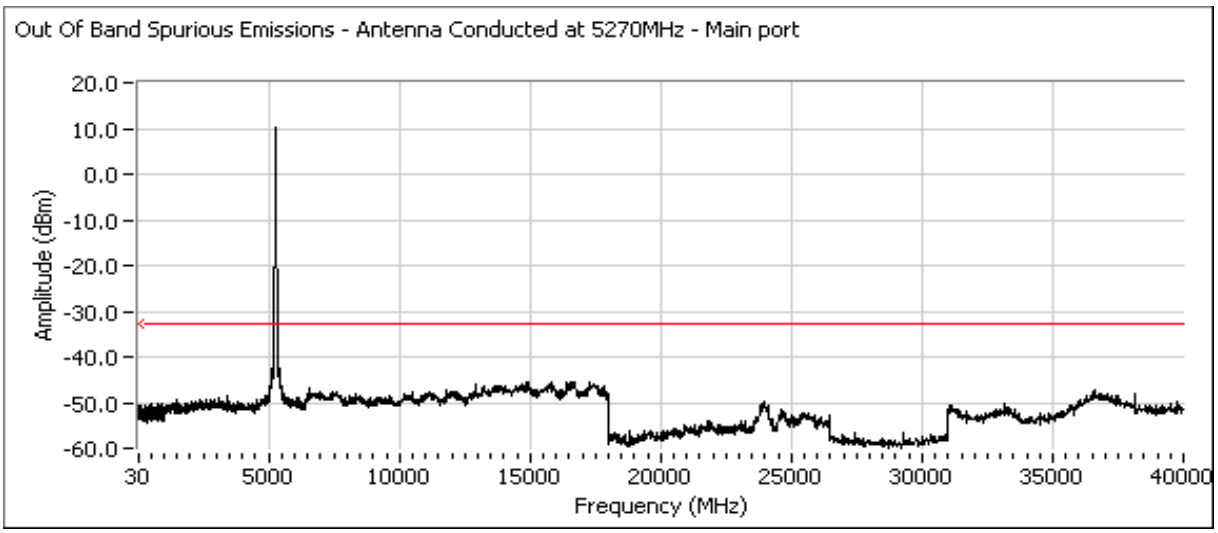
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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



Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

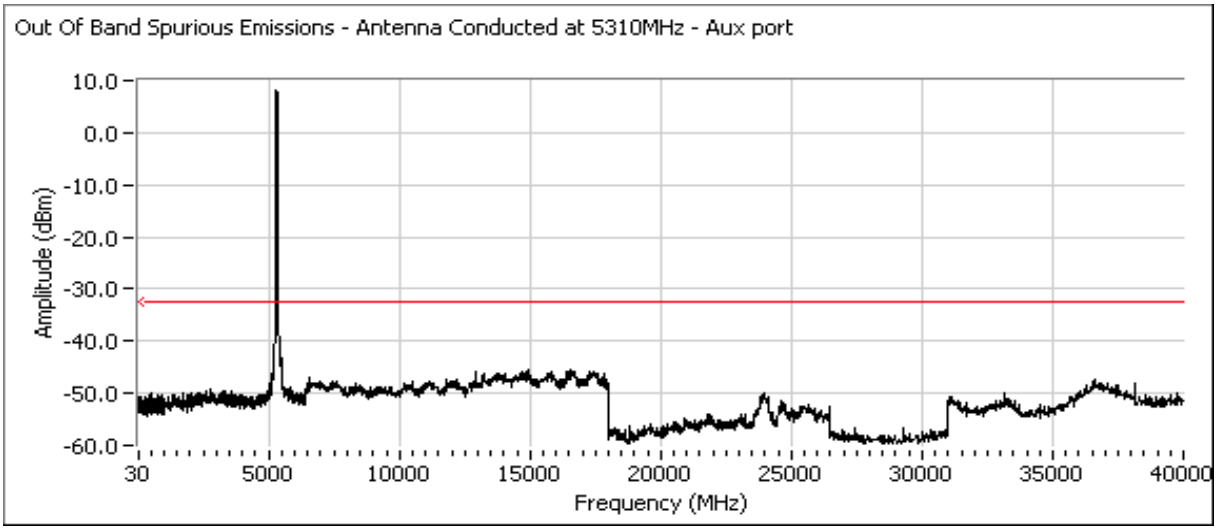
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

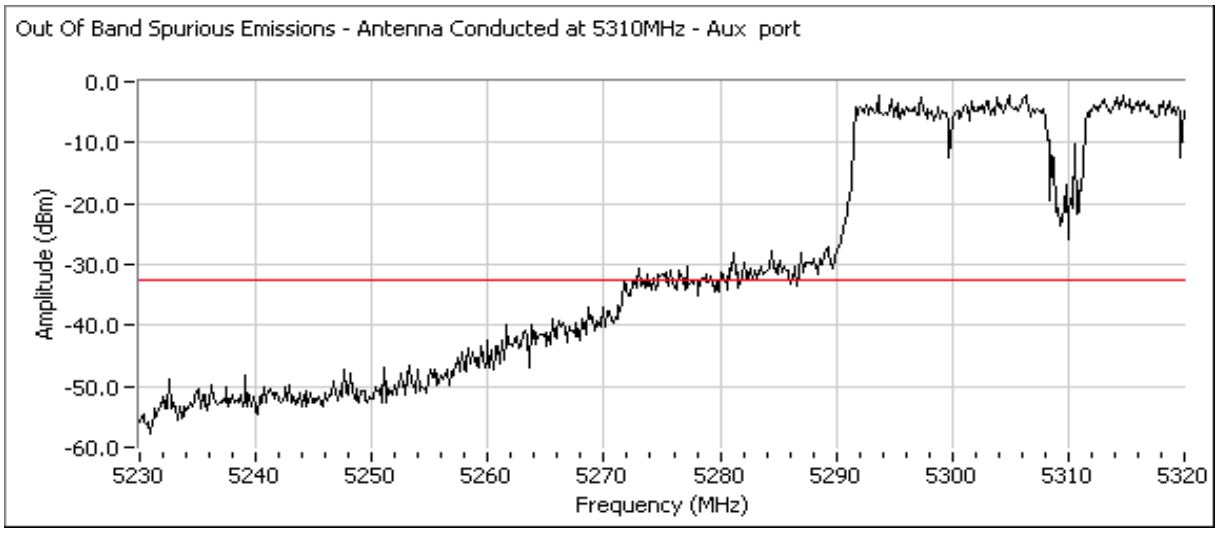
Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

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

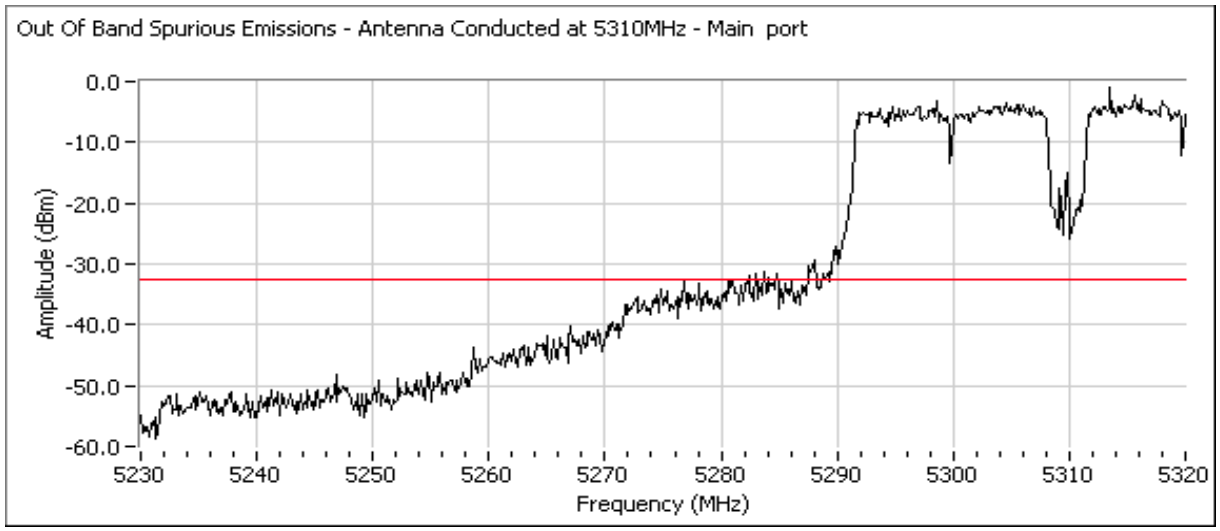


Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz) at 5250MHz



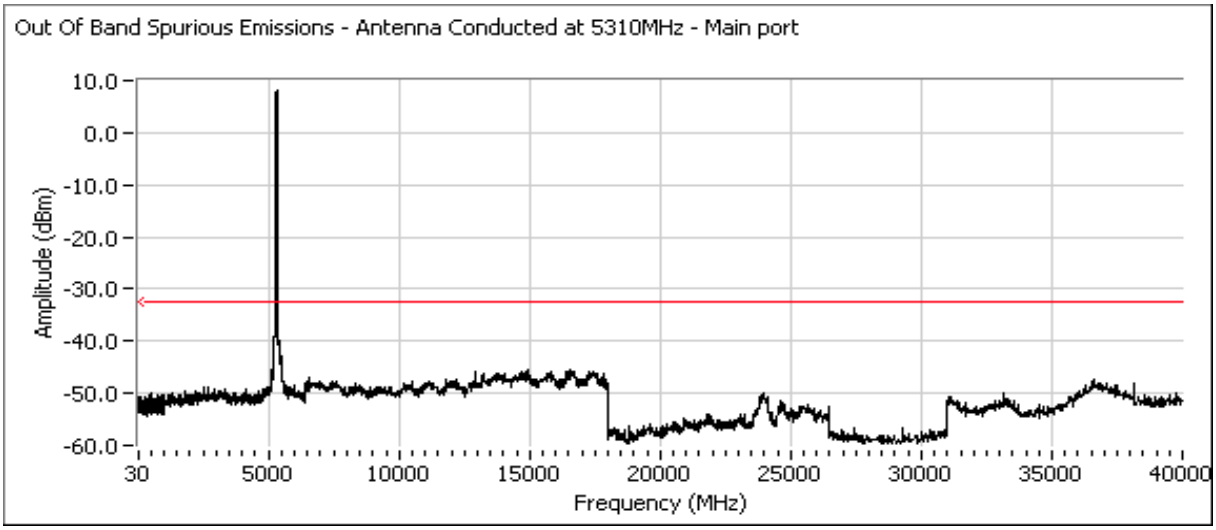
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz) at 5250MHz



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 5.6 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -32.6 dBm/MHz

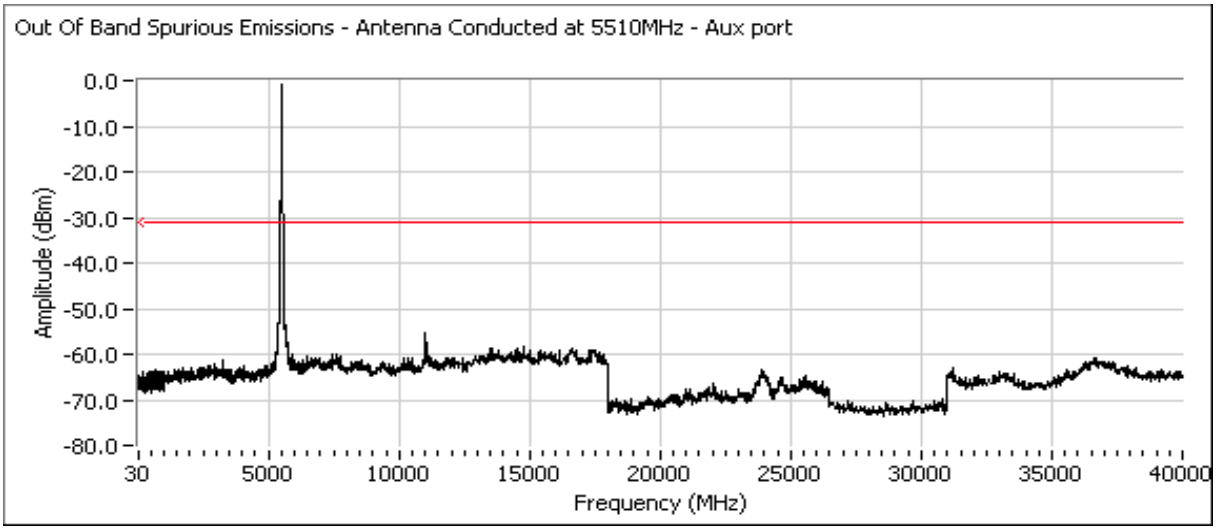
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



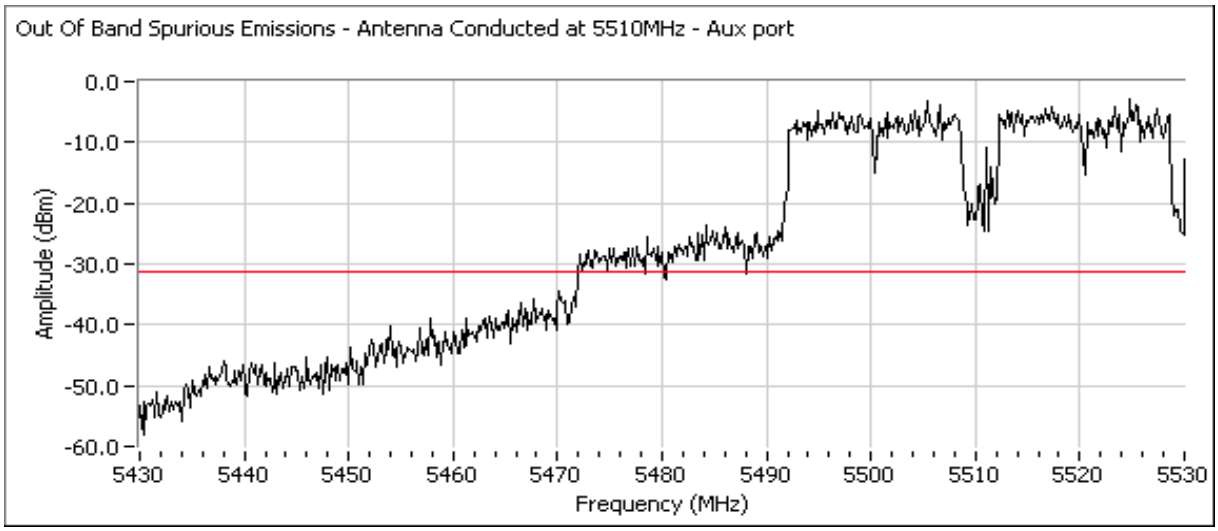
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



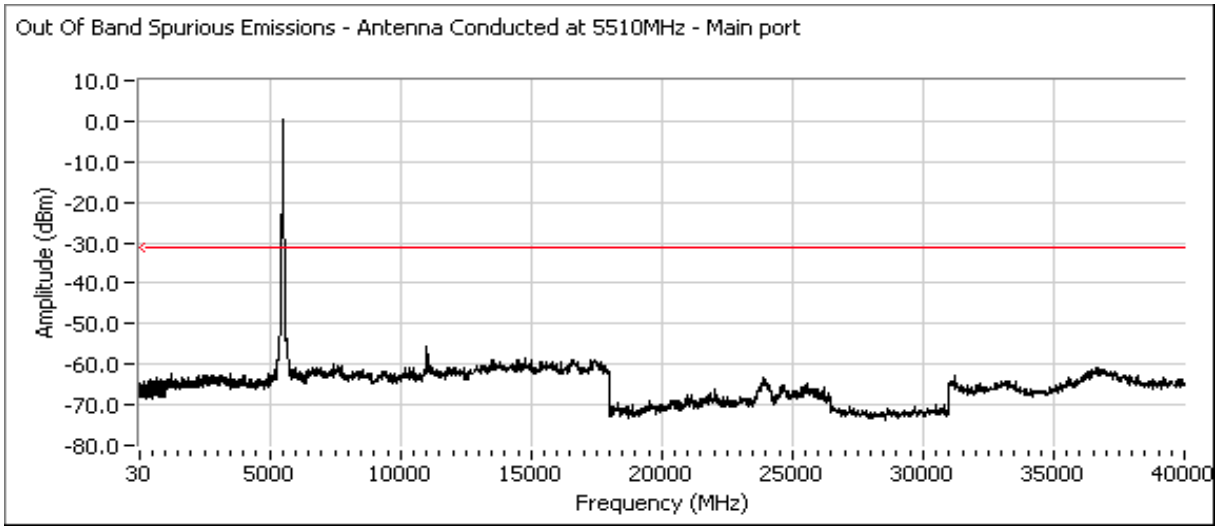
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



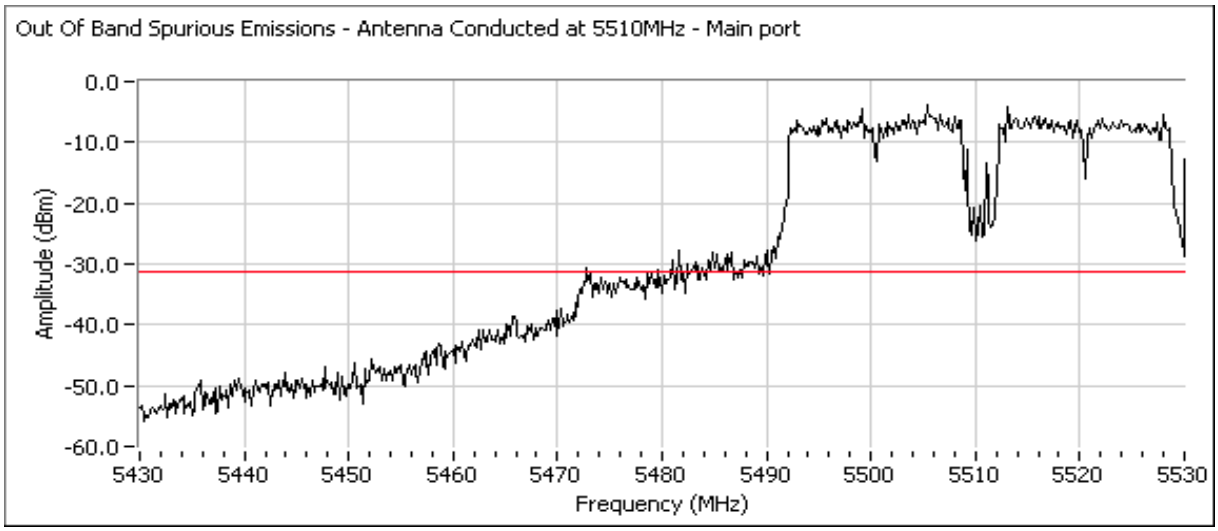
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



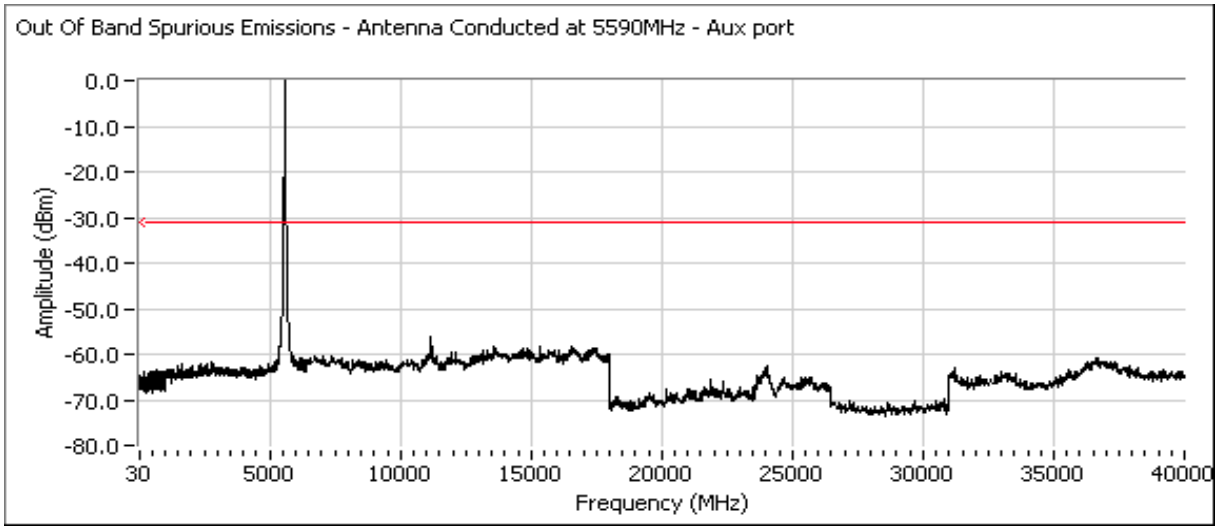
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

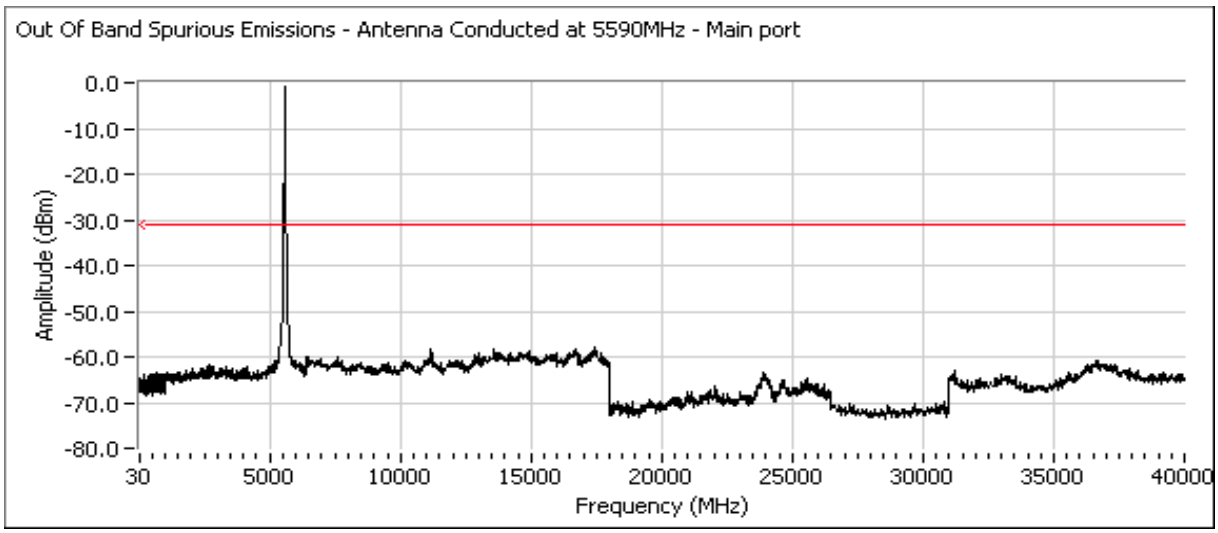
Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

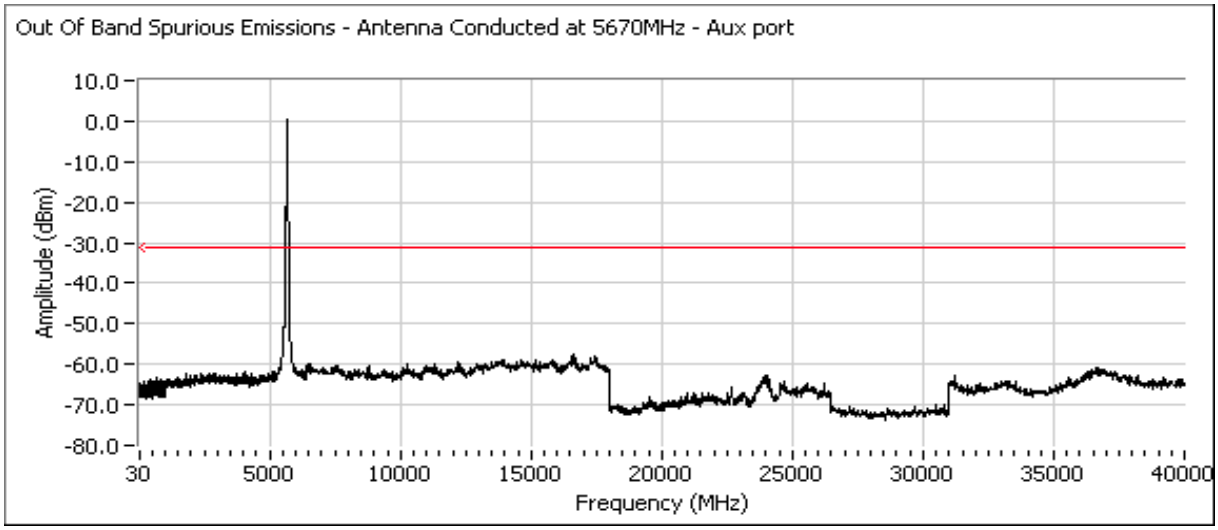
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



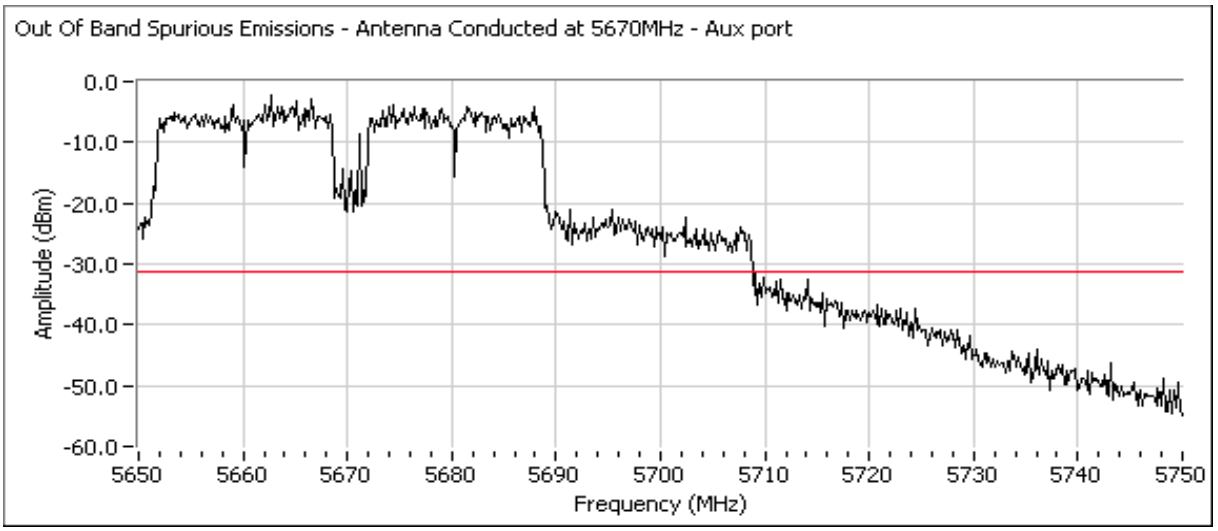
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



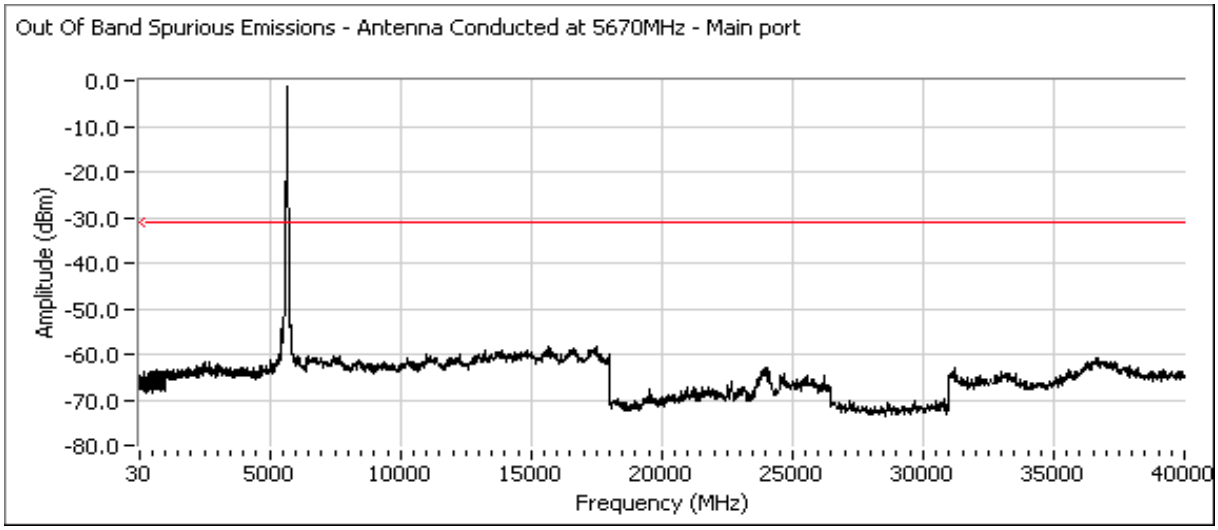
Plots Showing Out-Of-Band Emissions (RBW=VBW=1MHz)



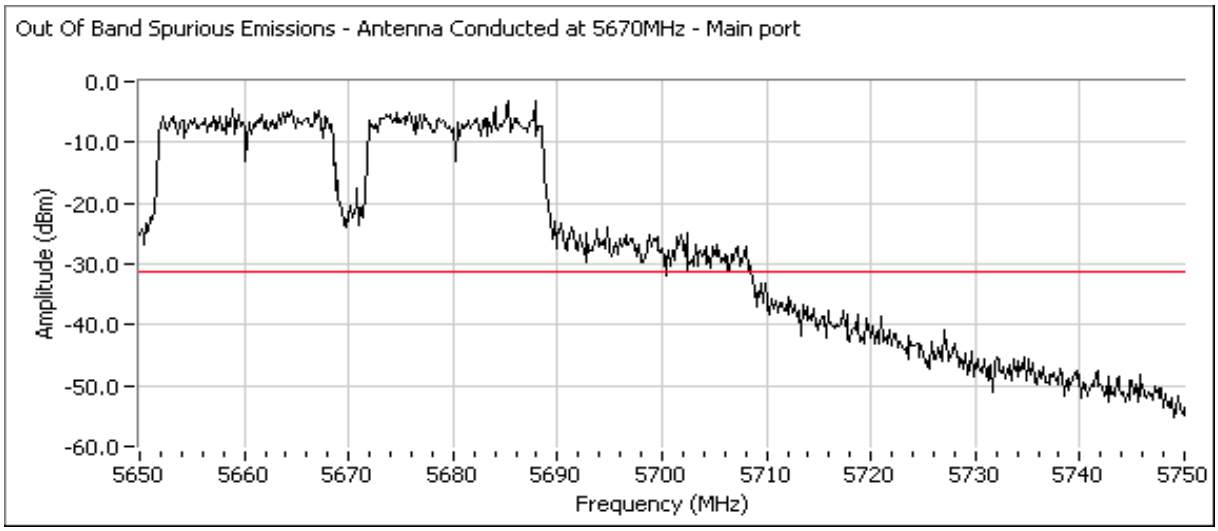
Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Antenna Gain: 4.2 dBi
Spurious Limit: -27 dBm/MHz eirp
Limit Used On Plots [Note 1]: -31.2 dBm/MHz

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



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



Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Radiated Spurious Emissions
Receive Mode

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: 1/4/2008
Test Engineer: Ben Jing
Test Location: Fremont Chamber # 5
Config. Used: 1
Config Change: None
EUT Host Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. Unless otherwise stated, all peak measurements were taken with RBW=VBW=1 MHz and for average with RBW=1 MHz, VBW=10 Hz.

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

Ambient Conditions:

Temperature: 18 °C
Rel. Humidity: 56 %

Summary of Results

Run #	RX Mode	Channel	Power Setting	Pass / Fail	Result / Margin
1	11a Legacy	40	-	Pass	58.8dBµV/m (871.0µV/m) @ 2498.3MHz (-15.2dB)
2	11a Legacy	60	-	Pass	59.9dBµV/m (988.6µV/m) @ 2499.2MHz (-14.1dB)
3	11a Legacy	120	-	Pass	61.0dBµV/m (1122.0µV/m) @ 2499.6MHz (-13.0dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

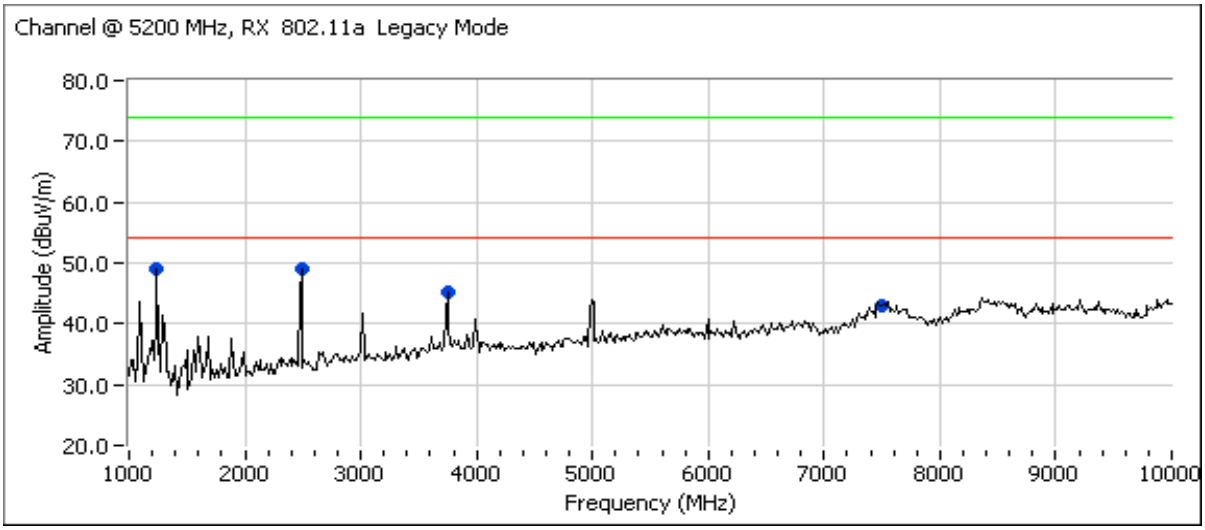
Deviations From The Standard

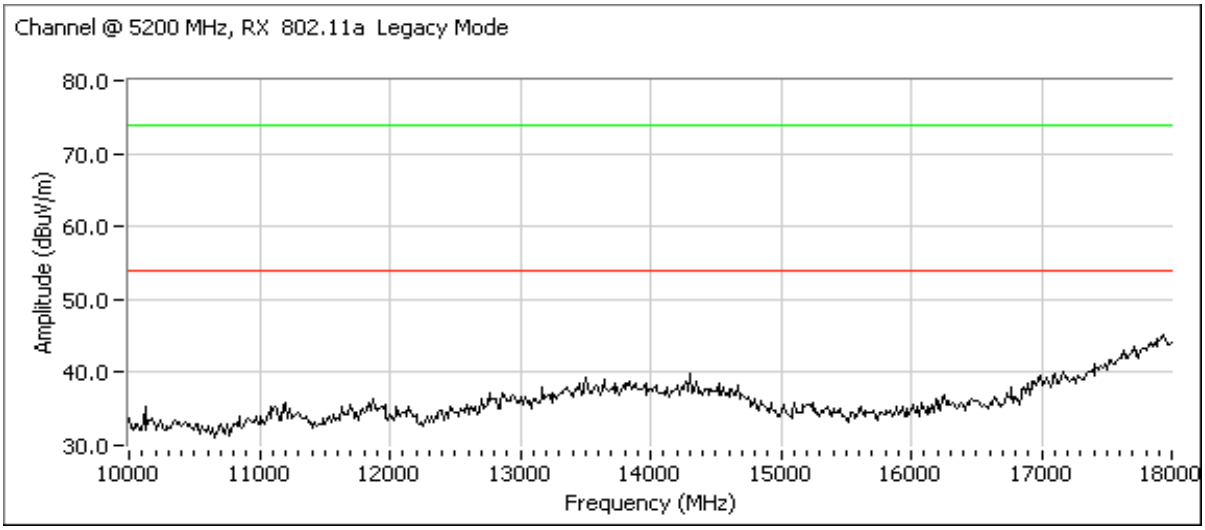
No deviations were made from the requirements of the standard.

Note: Preliminary testing showed that no receive mode radiated emissions below 1 GHz.

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Run # 1: Radiated Spurious Emissions, 30 - 18000 MHz. Operation Mode : 802.11a Legacy at 5200MHz

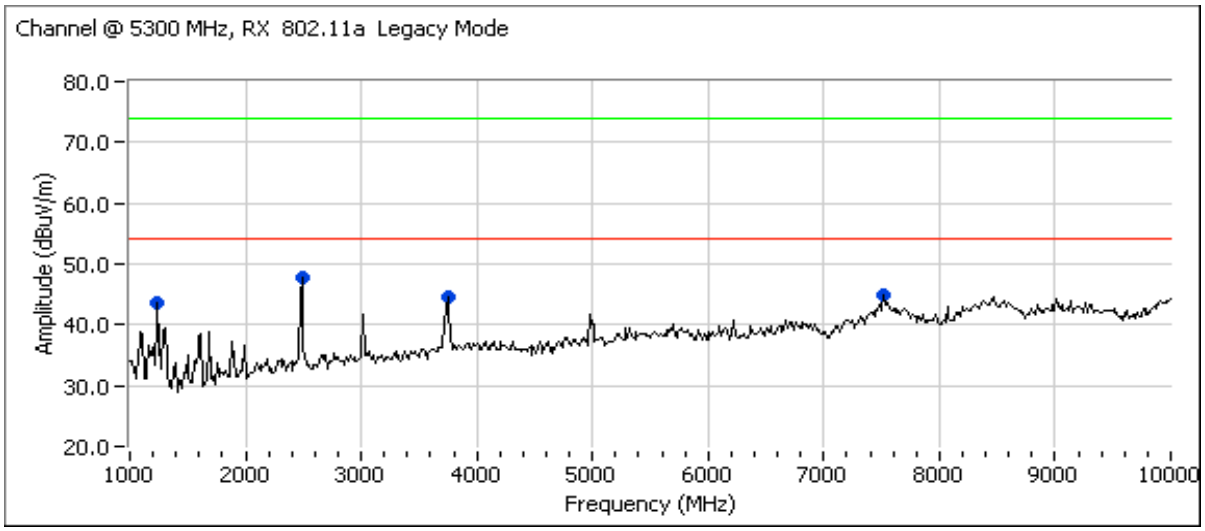


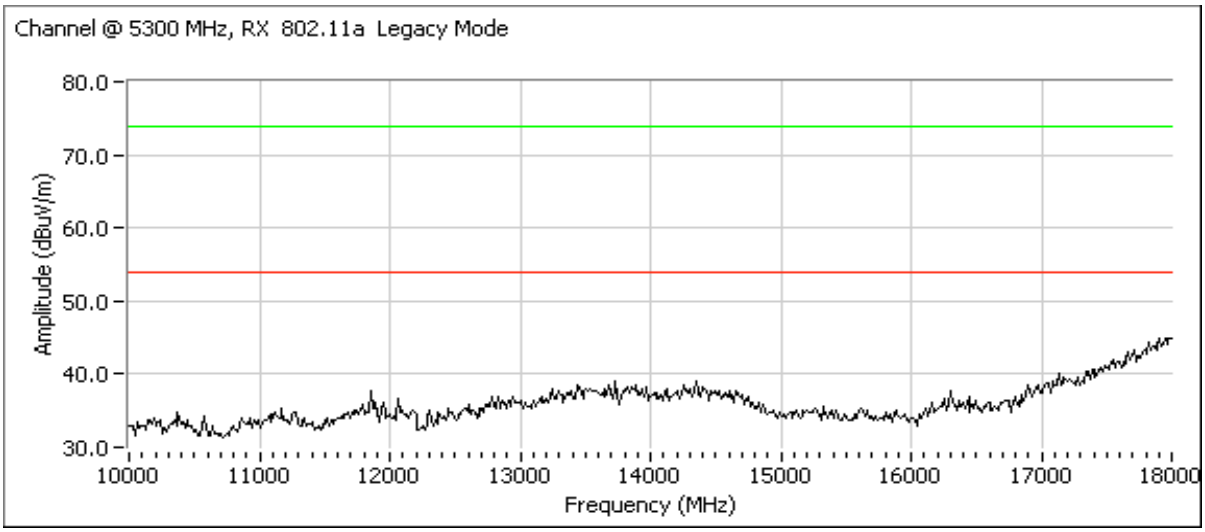


Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
2498.270	58.8	V	74.0	-15.2	PK	293	1.6	
7476.670	38.6	H	54.0	-15.4	AVG	117	2.5	
3765.800	53.1	V	74.0	-20.9	PK	261	1.3	
3765.800	32.7	V	54.0	-21.3	AVG	261	1.3	
2498.270	31.1	V	54.0	-22.9	AVG	293	1.6	
7476.670	49.7	H	74.0	-24.3	PK	117	2.5	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Run # 2: Radiated Spurious Emissions, 30 - 25000 MHz. Operation Mode : 802.11a Legacy at 5300MHz

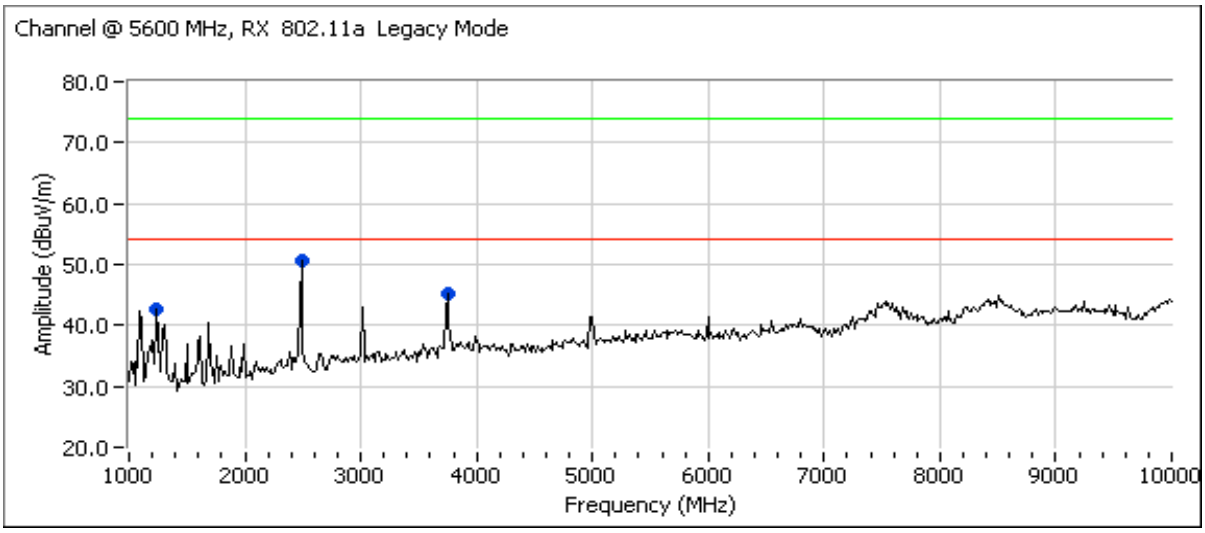


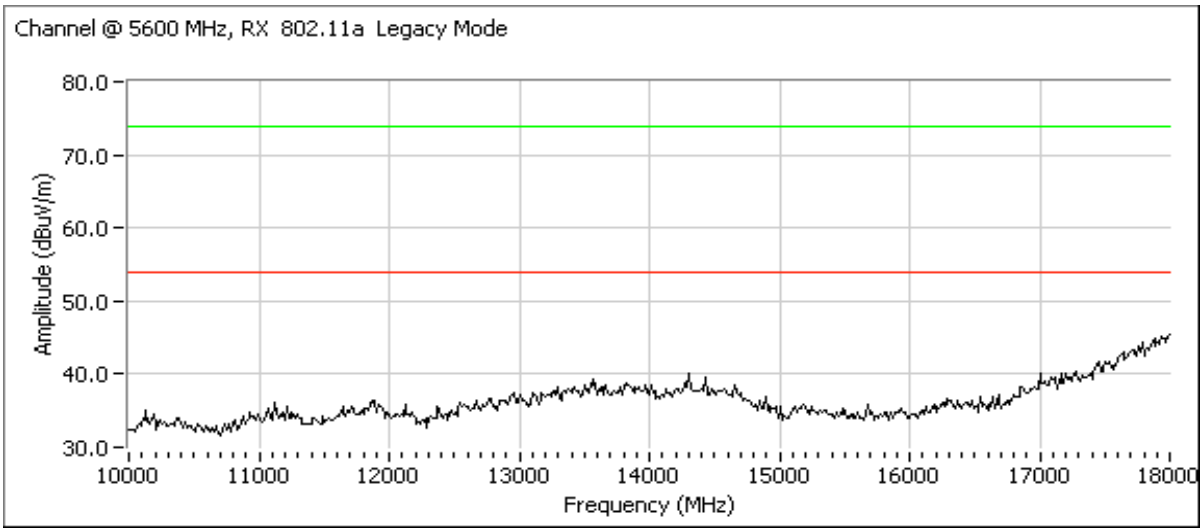


Frequency	Level	Pol	15.209 / 15 E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
2499.200	59.9	V	74.0	-14.1	PK	40	1.9	
3751.030	57.1	V	74.0	-16.9	PK	272	1.6	
1245.040	55.6	V	74.0	-18.4	PK	118	1.0	
3751.030	32.0	V	54.0	-22.0	AVG	272	1.6	
1245.040	30.6	V	54.0	-23.4	AVG	118	1.0	
2499.200	30.3	V	54.0	-23.7	AVG	40	1.9	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Run # 3: Radiated Spurious Emissions, 30 - 25000 MHz. Operation Mode : 802.11a Legacy at 5600MHz





Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	v/h	Limit	Margin	Pk/QP/Avg	degrees	meters	
2499.580	61.0	V	74.0	-13.0	PK	277	1.6	
3740.400	60.0	V	74.0	-14.0	PK	260	1.6	
1249.410	52.7	V	74.0	-21.3	PK	347	2.5	
3740.400	31.9	V	54.0	-22.1	AVG	260	1.6	
2499.580	30.0	V	54.0	-24.0	AVG	277	1.6	
1249.410	27.7	V	54.0	-26.3	AVG	347	2.5	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Radiated Spurious Emissions
Receive Mode

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: 1/4/2008
Test Engineer: Ben Jing
Test Location: Fremont Chamber # 5
Config. Used: 1
Config Change: None
EUT Host Voltage: 120V/60Hz

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. Unless otherwise stated, all peak measurements were taken with RBW=VBW=1 MHz and for average with RBW=1 MHz, VBW=10 Hz.

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

Ambient Conditions:

Temperature: 18 °C
Rel. Humidity: 56 %

Summary of Results

Run #	RX Mode	Channel	Power Setting	Pass / Fail	Result / Margin
1	20MHz	40	-	Pass	60.2dBµV/m (1023.3µV/m) @ 2499.1MHz (-13.8dB)
2	20MHz	60	-	Pass	39.3dBµV/m (92.3µV/m) @ 7531.1MHz (-14.7dB)
3	20MHz	120	-	Pass	39.2dBµV/m (91.2µV/m) @ 8435.6MHz (-14.8dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

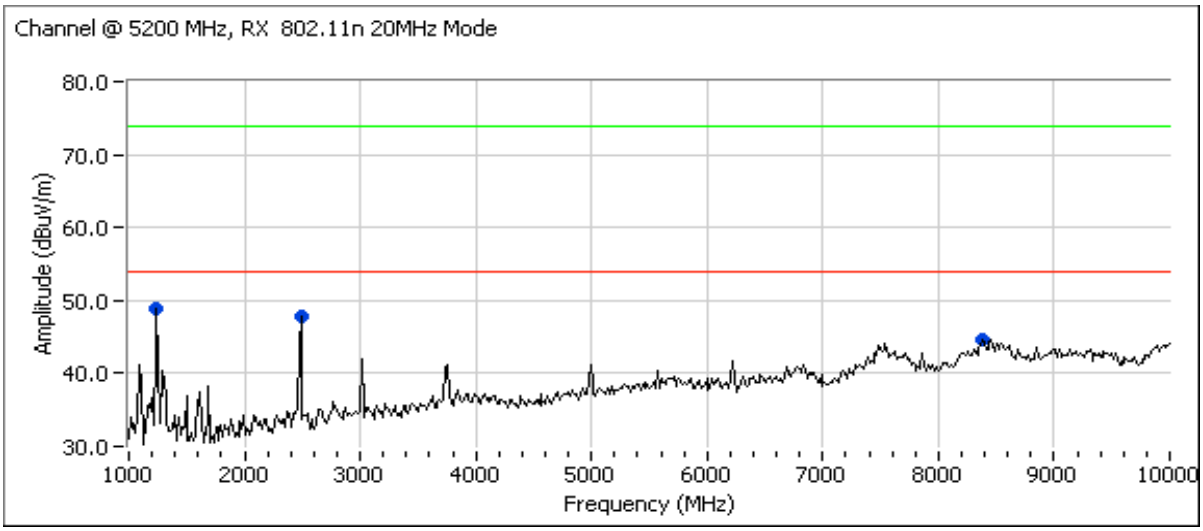
Deviations From The Standard

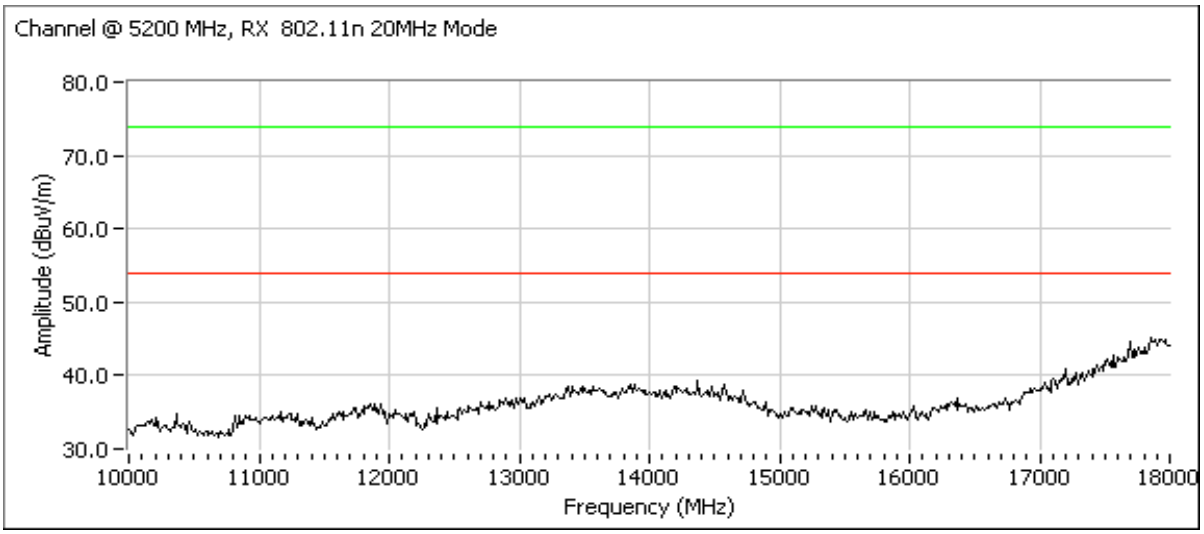
No deviations were made from the requirements of the standard.

Note: Preliminary testing showed that no receive mode radiated emissions below 1 GHz.

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Run # 1: Radiated Spurious Emissions, 30 - 25000 MHz. Operation Mode : 802.11n 20MHz CDD at 5200MHz

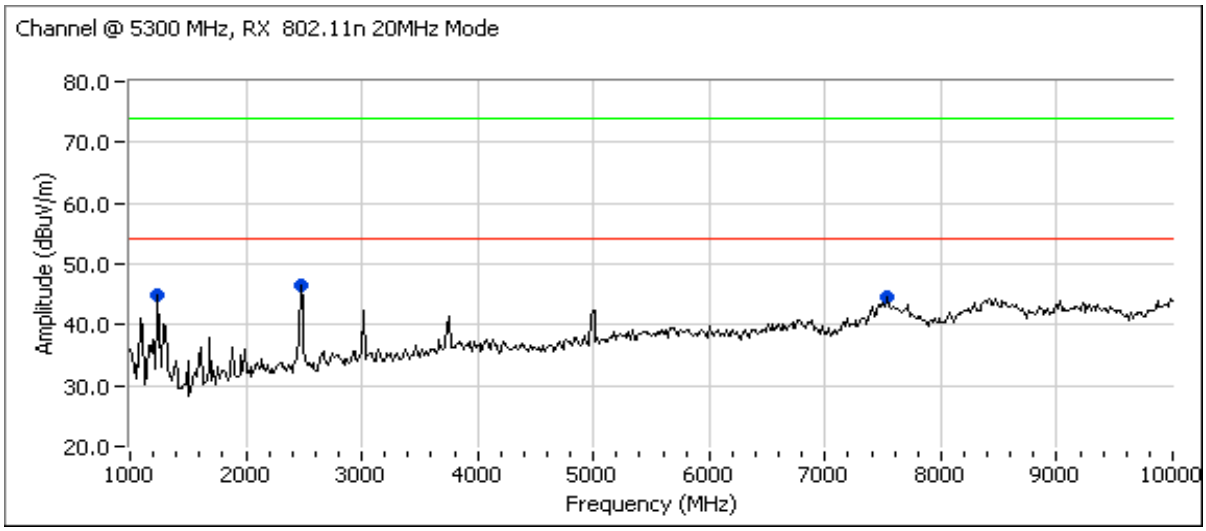


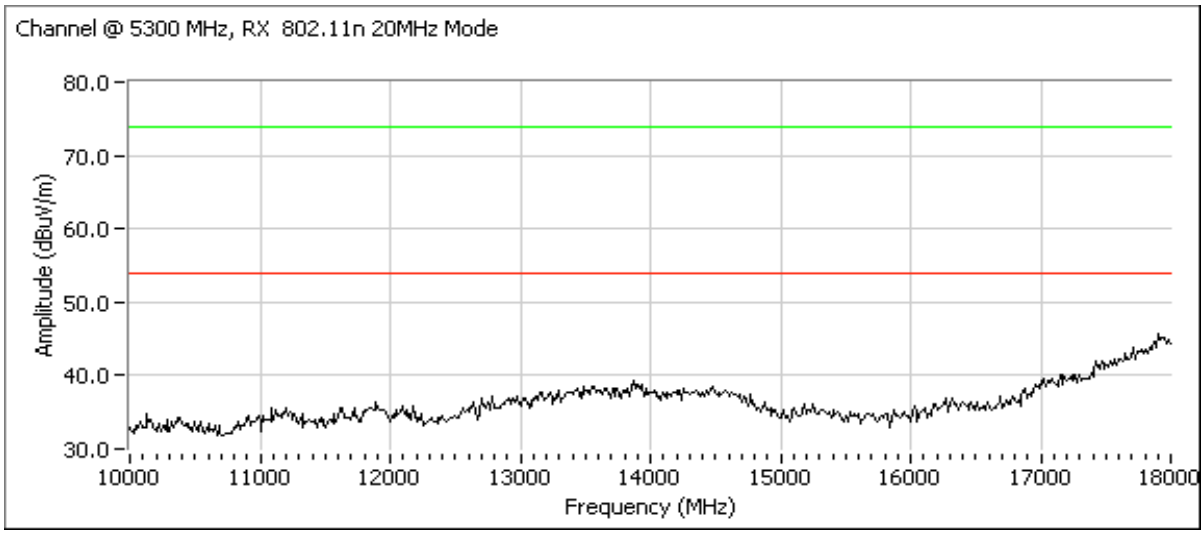


Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
2499.080	60.2	V	74.0	-13.8	PK	261	1.6	
8385.260	39.5	H	54.0	-14.5	AVG	163	2.2	
1245.140	55.6	V	74.0	-18.4	PK	330	1.3	
8385.260	50.5	H	74.0	-23.5	PK	163	2.2	
1245.140	30.1	V	54.0	-23.9	AVG	330	1.3	
2499.080	29.9	V	54.0	-24.1	AVG	261	1.6	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Run # 2: Radiated Spurious Emissions, 30 - 25000 MHz. Operation Mode : 802.11n 20MHz CDD at 5300MHz

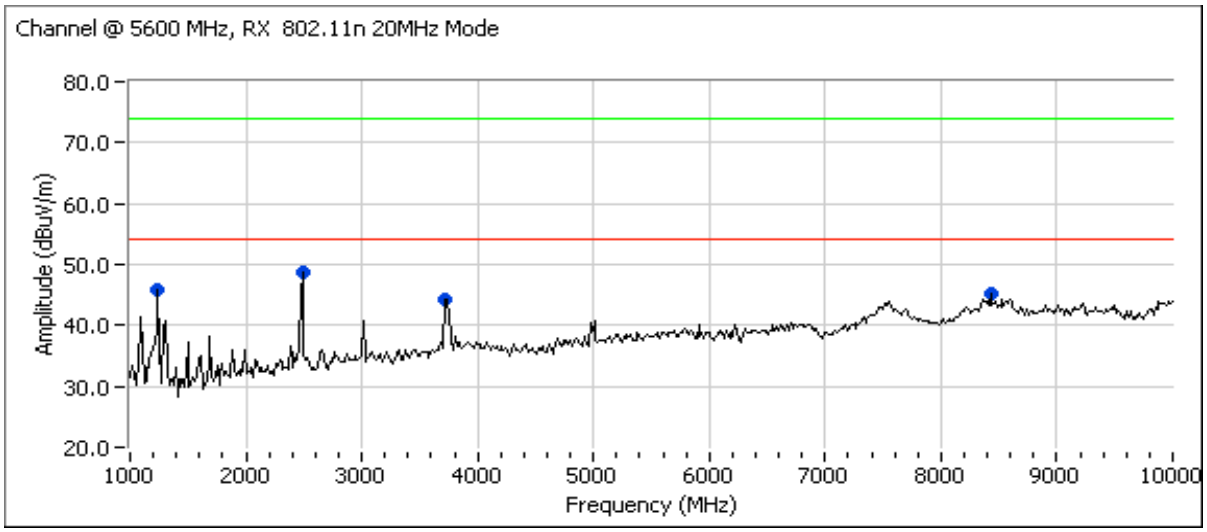


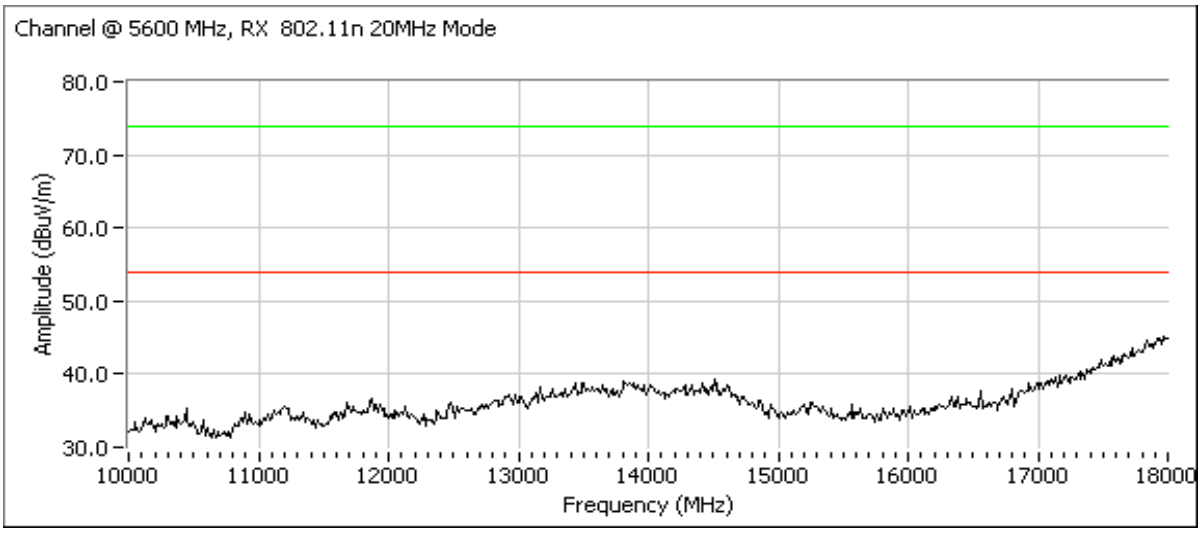


Frequency	Level	Pol	15.209 / 15 E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
7531.070	39.3	V	54.0	-14.7	AVG	328	1.9	
7531.070	50.2	V	74.0	-23.8	PK	328	1.9	
1245.130	50.1	V	74.0	-23.9	PK	121	2.5	
2459.190	29.1	V	54.0	-24.9	AVG	104	1.9	
1245.130	27.4	V	54.0	-26.6	AVG	121	2.5	
2459.190	41.2	V	74.0	-32.8	PK	104	1.9	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Run # 3: Radiated Spurious Emissions, 30 - 25000 MHz. Operation Mode : 802.11n 20MHz CDD at 5300MHz





Other Spurious Radiated Emissions:

Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
8435.640	39.2	H	54.0	-14.8	AVG	276	2.2	
2496.060	56.5	V	74.0	-17.5	PK	82	2.2	
1245.190	55.7	V	74.0	-18.3	PK	336	1.3	
8435.640	50.8	H	74.0	-23.2	PK	276	2.2	
2496.060	30.6	V	54.0	-23.4	AVG	82	2.2	
1245.190	27.2	V	54.0	-26.8	AVG	336	1.3	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Radiated 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: 1/4/2008
Test Engineer: Ben Jing
Test Location: Fremont Chamber # 5
Config. Used: 1..
Config Change: None
EUT Voltage: Powered from host system

General Test Configuration

The EUT and all local support equipment were located on the turntable for radiated spurious emissions testing. Unless otherwise stated, all peak measurements were taken with RBW=VBW=1 MHz and for average with RBW=1 MHz, VBW=10 Hz.

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

Ambient Conditions:

Temperature: 18 °C
Rel. Humidity: 56 %

Summary of Results

Run #	RX Mode	Channel	Power Setting	Pass / Fail	Result / Margin
1	40MHz	46	-	Pass	39.1dBµV/m (90.2µV/m) @ 7538.1MHz (-14.9dB)
2	40MHz	118	-	Pass	39.1dBµV/m (90.2µV/m) @ 8515.5MHz (-14.9dB)
3	40MHz	151	-	Pass	56.0dBµV/m (631.0µV/m) @ 1248.9MHz (-18.0dB)

Modifications Made During Testing

No modifications were made to the EUT during testing

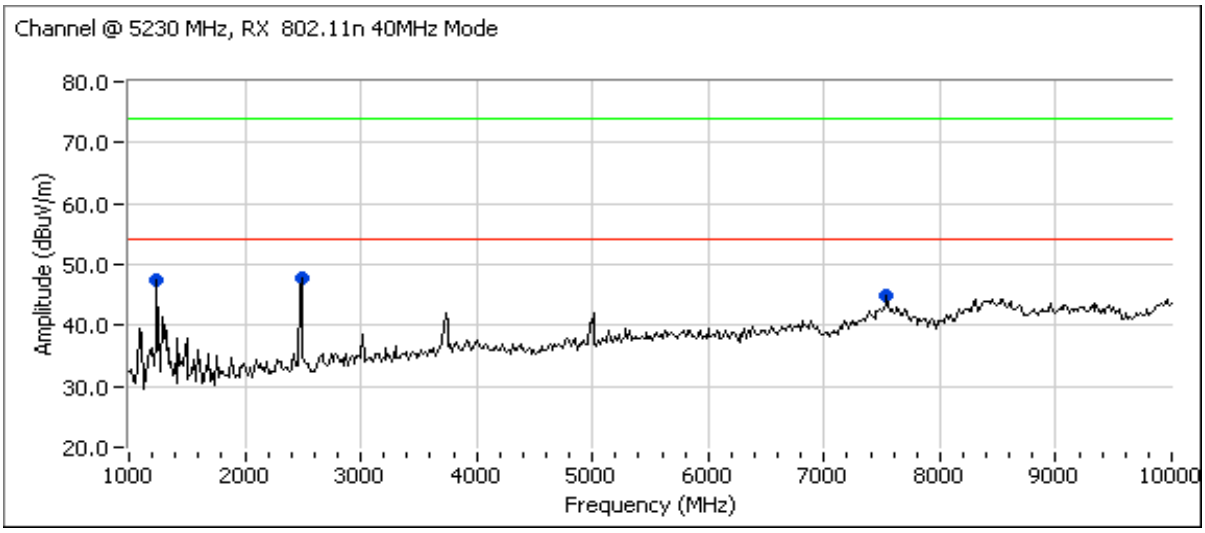
Deviations From The Standard

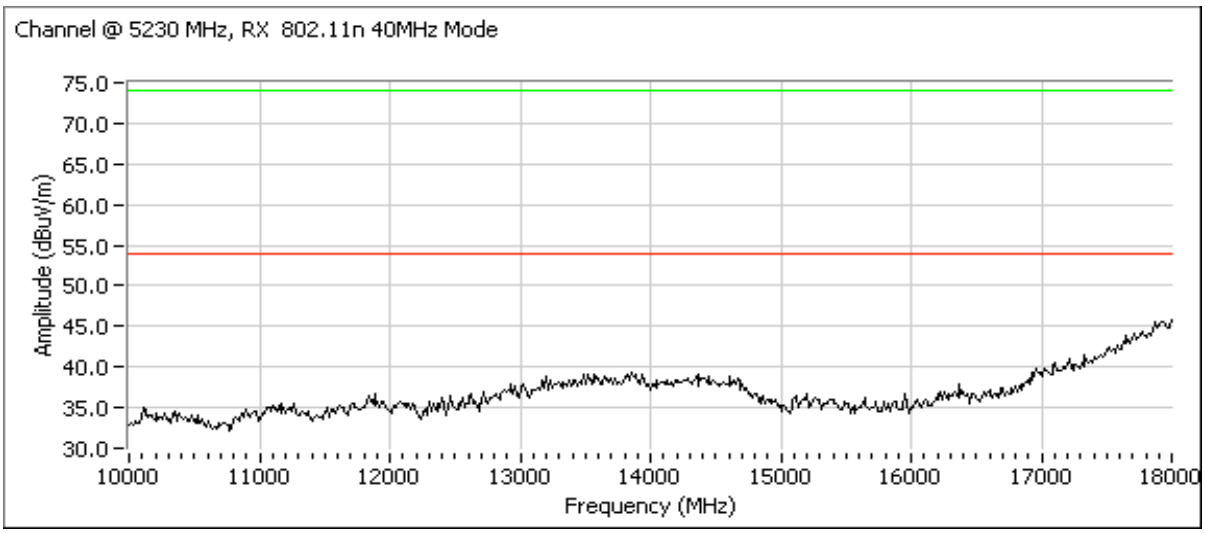
No deviations were made from the requirements of the standard.

Note: Preliminary testing showed that no receive mode radiated emissions below 1 GHz.

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Run # 1: Radiated Spurious Emissions, 30 - 25000 MHz. Operation Mode : 802.11n 40MHz CDD at 5230MHz

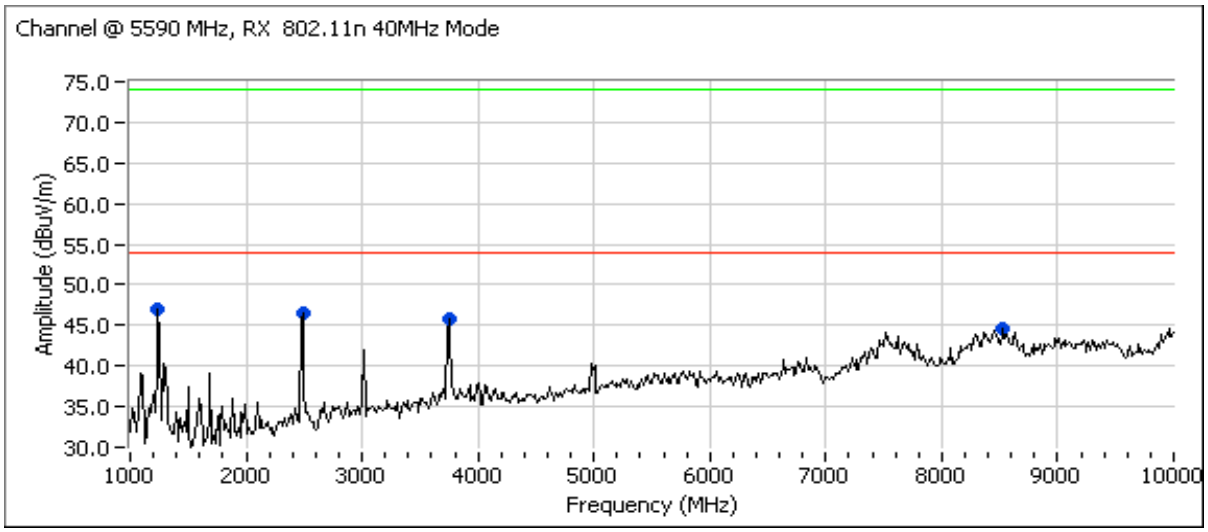


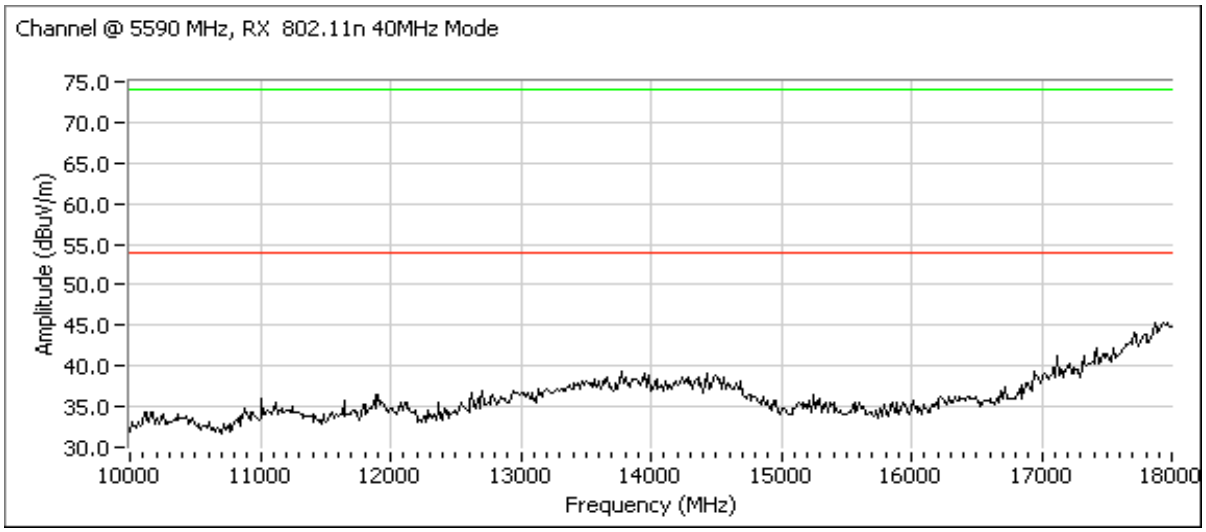


Frequency	Level	Pol	15.209 / 15E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
7538.060	39.1	V	54.0	-14.9	AVG	334	1.0	
2499.790	58.9	V	74.0	-15.1	PK	57	1.9	
1245.630	54.4	V	74.0	-19.6	PK	132	1.0	
2499.790	30.5	V	54.0	-23.5	AVG	57	1.9	
7538.060	50.2	V	74.0	-23.8	PK	334	1.0	
1245.630	29.6	V	54.0	-24.4	AVG	132	1.0	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Run # 2: Radiated Spurious Emissions, 30 - 25000 MHz. Operation Mode : 802.11n 40MHz CDD at 5590MHz

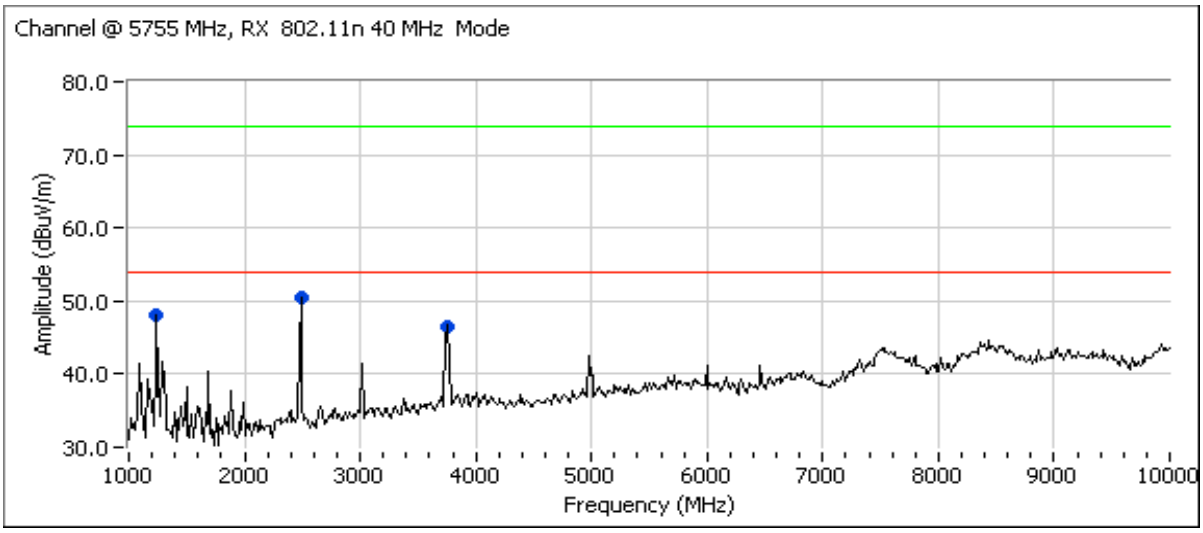


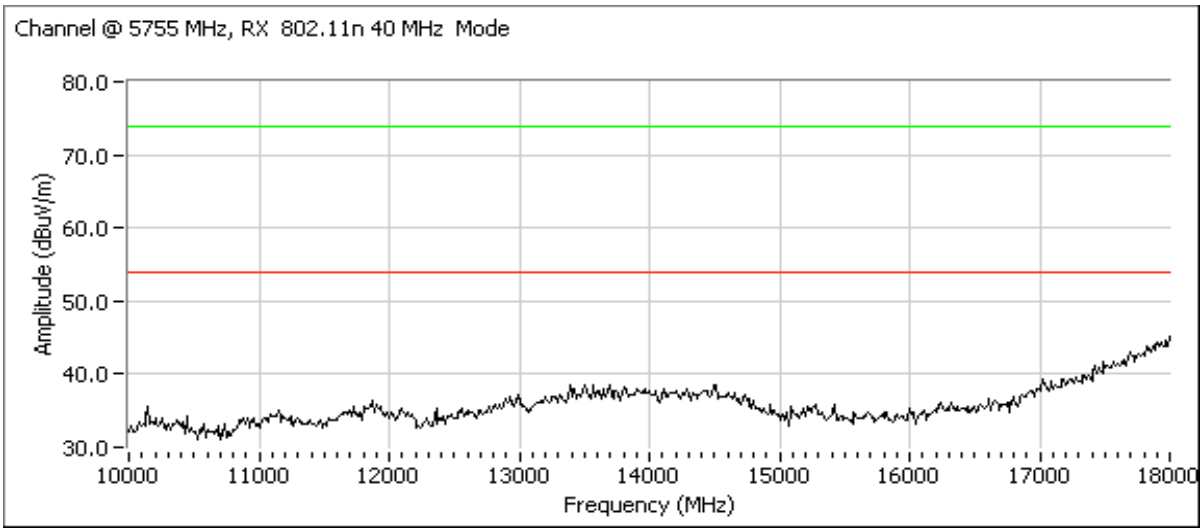


Frequency	Level	Pol	15.209 / 15 E		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
8515.450	39.1	V	54.0	-14.9	AVG	186	1.9	
2499.980	58.2	V	74.0	-15.8	PK	60	1.3	
3748.390	57.4	V	74.0	-16.6	PK	267	1.6	
3748.390	31.9	V	54.0	-22.1	AVG	267	1.6	
8515.450	50.4	V	74.0	-23.6	PK	186	1.9	
2499.980	30.2	V	54.0	-23.8	AVG	60	1.3	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Run # 3: Radiated Spurious Emissions, 30 - 25000 MHz. Operation Mode : 802.11n 40MHz CDD at 5755MHz





Frequency	Level	Pol	15.209 / 15.247		Detector	Azimuth	Height	Comments
MHz	dBµV/m	V/H	Limit	Margin	Pk/QP/Avg	degrees	meters	
1248.870	56.0	V	74.0	-18.0	PK	32	2.2	
3747.270	55.2	V	74.0	-18.8	PK	263	1.3	
3747.270	31.8	V	54.0	-22.2	AVG	263	1.3	
2477.610	28.7	V	54.0	-25.3	AVG	17	1.9	
1248.870	27.8	V	54.0	-26.2	AVG	32	2.2	
2477.610	45.7	V	74.0	-28.3	PK	17	1.9	

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Maximum Permissible Exposure

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: 1/17/2008
Test Engineer: Mark Hill

General Test Configuration

Calculation uses the free space transmission formula:

$$S = (PG)/(4 \pi d^2)$$

Where: S is power density (W/m^2), P is output power (W), G is antenna gain relative to isotropic, d is separation distance from the transmitting antenna (m).

Summary of Results

Device complies with Power Density requirements at 20cm separation:	Yes
Maximum Power Density (mW/cm^2)	0.112

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 Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #1: MPE for 5150-5250 MHz - 802.11a Legacy

Use: General
Antenna: 5.6 dBi

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
5180	14.5	28.2	0	5.6	14.5	102.33	0.020	1.000
5200	14.7	29.5	0	5.6	14.7	107.15	0.021	1.000
5240	14.3	26.9	0	5.6	14.3	97.72	0.019	1.000

Run #2: MPE for 5250-5350 MHz - 802.11a Legacy

Use: General
Antenna: 5.6 dBi

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
5260	17.7	58.9	0	5.6	17.7	213.80	0.043	1.000
5300	18.0	63.1	0	5.6	18.0	229.09	0.046	1.000
5320	16.2	41.7	0	5.6	16.2	151.36	0.030	1.000

Run #3: MPE for 5470-5725 MHz - 802.11a Legacy

Use: General
Antenna: 4.2 dBi

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
5500	17.4	55.0	0	4.2	17.4	144.54	0.029	1.000
5600	18.1	64.6	0	4.2	18.1	169.82	0.034	1.000
5700	18.2	66.1	0	4.2	18.2	173.78	0.035	1.000

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #4: MPE for 5150-5250 MHz - 802.11n 20MHz CDD

Use: General
Antenna: Effective Gain 8.6 dBi

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
5180	12.8	19.1	0	8.6	12.8	138.04	0.027	1.000
5200	12.8	19.1	0	8.6	12.8	138.04	0.027	1.000
5240	12.9	19.5	0	8.6	12.9	141.25	0.028	1.000

Run #5: MPE for 5250-5350 MHz - 802.11n 20MHz CDD

Use: General
Antenna: Effective Gain 8.6 dBi

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
5260	18.6	72.4	0	8.6	18.6	524.81	0.104	1.000
5300	18.7	74.1	0	8.6	18.7	537.03	0.107	1.000
5320	16.8	47.9	0	8.6	16.8	346.74	0.069	1.000

Run #6: MPE for 5470-5725 MHz - 802.11n 20MHz CDD

Use: General
Antenna: Effective Gain 7.2 dBi

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
5500	18.8	75.9	0	7.2	18.8	398.11	0.079	1.000
5600	19.6	91.2	0	7.2	19.6	478.63	0.095	1.000
5700	19.5	89.1	0	7.2	19.5	467.74	0.093	1.000

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	N/A

Run #7: MPE for 5150-5250 MHz - 802.11n 40MHz CDD

Use: General
Antenna: Effective Gain 8.6 dBi

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
5190	14.9	30.9	0	8.6	14.9	223.87	0.045	1.000
5230	15.3	33.9	0	8.6	15.3	245.47	0.049	1.000

Run #8: MPE for 5250-5350 MHz - 802.11n 40MHz CDD

Use: General
Antenna: Effective Gain 8.6 dBi

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
5270	18.7	74.1	0	8.6	18.7	537.03	0.107	1.000
5310	16.2	41.7	0	8.6	16.2	302.00	0.060	1.000

Run #9: MPE for 5470-5725 MHz - 802.11n 40MHz CDD

Use: General
Antenna: Effective Gain 7.2 dBi

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
5510	20.0	100.0	0	7.2	20.0	524.81	0.104	1.000
5590	20.3	107.2	0	7.2	20.3	562.34	0.112	1.000
5670	19.9	97.7	0	7.2	19.9	512.86	0.102	1.000

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

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: 1/10/2008
Test Engineer: Ben Jing
Test Location: Fremont Chamber #4

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

General Test Configuration

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

Ambient Conditions:

Temperature: 19 °C
Rel. Humidity: 36 %

Summary of Results

Run #	Test Performed	Limit	Result	Margin
1	CE, AC Power,120V/60Hz	FCC Class B	Pass	31.4dBµV (37.2µV) @ 2.174MHz (-14.6dB)

Modifications Made During Testing

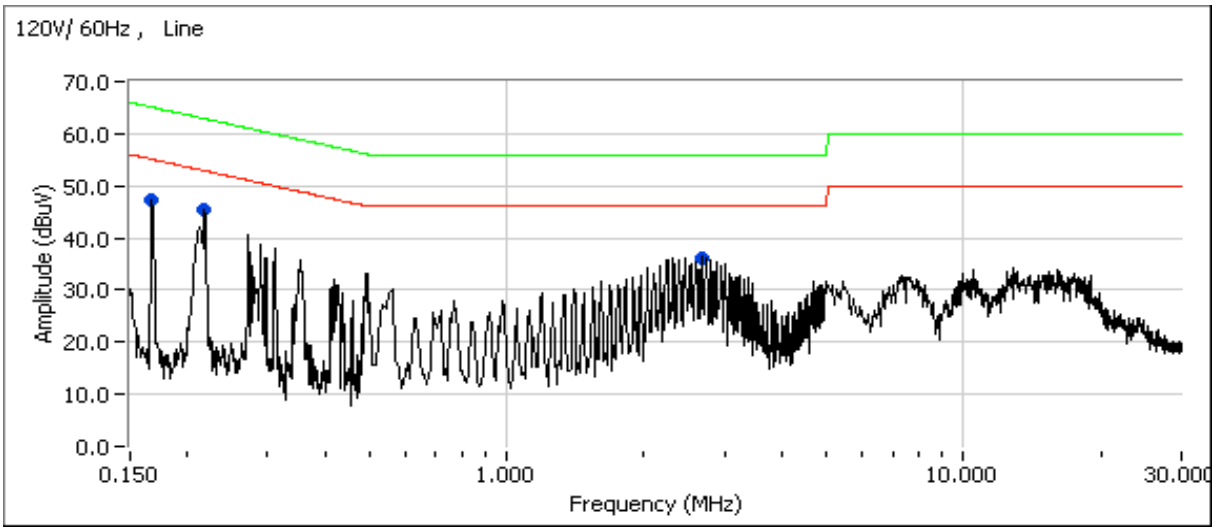
No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

Client:	Broadcom Corporation	Job Number:	J70300
Model:	BCM94322HM8L	T-Log Number:	T70323
		Account Manager:	Dean Eriksen
Contact:	David Boldy		
Standard:	FCC Part 15.E/RSS-210	Class:	-

Run #1: AC Power Port Conducted Emissions, 0.15 - 30MHz, 120V/60Hz



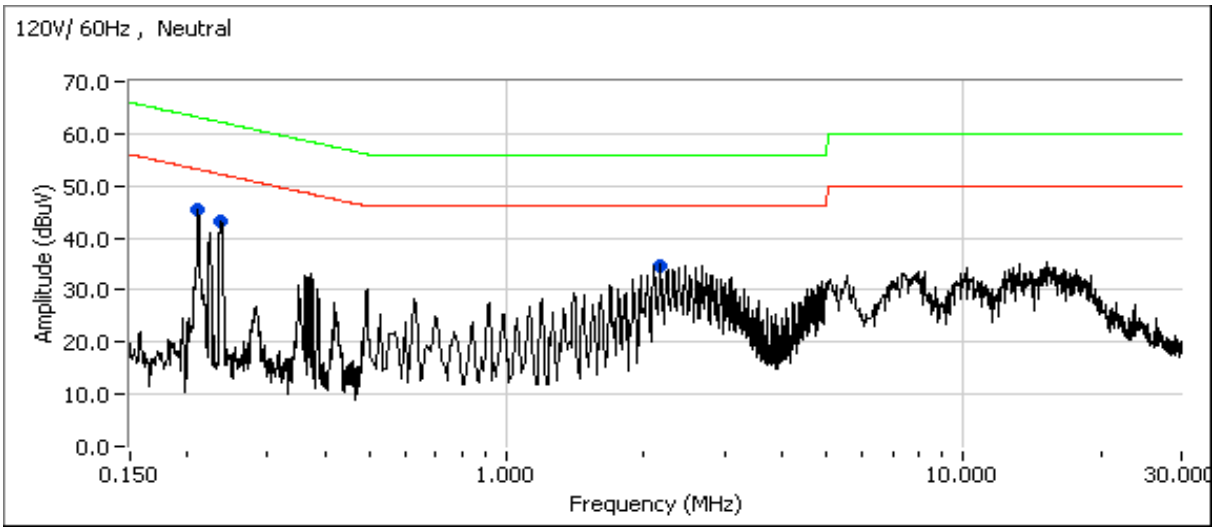


EXHIBIT 3: Photographs of Test Configurations

2 Pages

EXHIBIT 4: Proposed FCC ID Label & Label Location

EXHIBIT 5: Detailed Photographs of Broadcom Corporation Model BCM94322HM8LConstruction

4 Pages

EXHIBIT 6: Operator's Manual for Broadcom Corporation Model BCM94322HM8L

18 Pages

EXHIBIT 7: Block Diagram of Broadcom Corporation Model BCM94322HM8L

1 Page

EXHIBIT 8: Schematic Diagrams for Broadcom Corporation Model BCM94322HM8L

4 Pages

EXHIBIT 9: Theory of Operation for Broadcom Corporation Model BCM94322HM8L

4 Pages

EXHIBIT 10: RF Exposure Information

2 Pages