FCC CFR47 PART 15 SUBPART C
INDUSTRY CANADA RSS-210 ISSUE 8

CERTIFICATION TEST REPORT

FOR

802.11a/b/g/n WLAN + Bluetooth PCI-E Custom Combination Card

MODEL NUMBER: BCM94331PCIEBT3B

FCC ID: QDS-BRCM1066
IC: 4324A-BRCM1066

REPORT NUMBER: 12U14373-5

ISSUE DATE: JUNE 27, 2012

Prepared for

BROADCOM CORPORATION
190 MATHILDA PLACE
SUNNYVALE, CA 94086, U.S.A.

Prepared by

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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
--	06/27/12	Initial Issue	F. Ibrahim

TABLE OF CONTENTS

1. ATTESTATION OF TEST RESULTS

COMPANY NAME: BROADCOM CORPORATION
190 MATHILDA PLACE
SUNNYVALE, CA 94086, U.S.A.

EUT DESCRIPTION: 802.11a/g/n WLAN + Bluetooth PCI-E Custom Combination Card

MODEL: BCM94331PCIEBT3B

SERIAL NUMBER: 01 (P100)

DATE TESTED: MAY 16 - 18, 2012

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

Compliance Certification Services (UL CCS) tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL CCS By:

FRANK IBRAHIM
EMC SUPERVISOR
UL CCS

Tested By:

VIEN TRAN
EMC ENGINEER
UL CCS

2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.4-2003, FCC CFR 47 Part 2, FCC CFR 47 Part 15, RSS-GEN Issue 3, and RSS-210 Issue 8.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)
36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	3.52 dB
Radiated Disturbance, 30 to 1000 MHz	4.94 dB

Uncertainty figures are valid to a confidence level of 95%.

5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is an 802.11a/b/g/n WLAN + Bluetooth PCI-E Custom Combination Card.

The radio module is manufactured by Broadcom.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum peak conducted output power as follows:

Frequency Range (MHz)	Mode	Output Power (dBm)	Output Power (mW)
2402 - 2480	Low Energy BLE	7.23	5.28

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an 802.11a/g/n WLAN + Bluetooth antenna with a maximum gain of 1.11 dBi.

5.4. SOFTWARE AND FIRMWARE

The EUT driver software installed during testing was Broadcom Bluetooth Version 5.1.0.1400

The test utility software used during testing was Blue Tool, ver. 1.6.0.4.

5.5. WORST-CASE CONFIGURATION AND MODE

The EUT was tested as an external module installed in a test jig board connected to a host Laptop PC. The EUT was oriented in a flat orientation, similar to the orientation it would have in real installations; see setup photos for details.

Worst-case mode and channel used for 30-1000 MHz radiated and power line conducted emissions was the mode and channel with the highest output power.

5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List				
Description	Manufacturer	Model	Serial Number	FCC ID
Laptop	Dell	E6400	BDRBKK1	Doc
AC Adapter	Dell	FA90PE1-00	CN-0CM889-73245-966-3810-A01	N/A
Converter Board	Broadcom	BCM94331PCIEBT3HAD	95	N/A
USB Cable	N/A	N/A	N/A	N/A

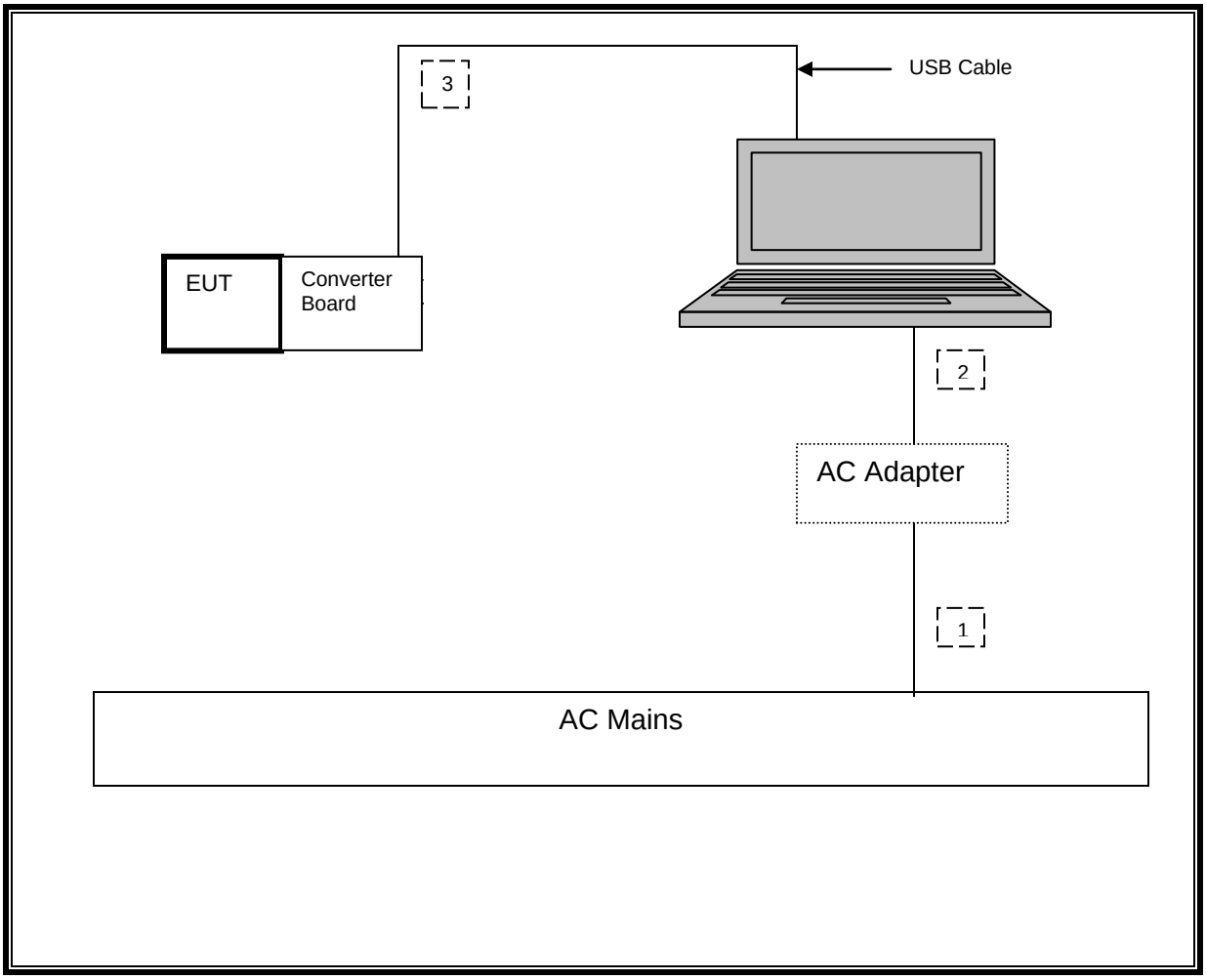
I/O CABLES

I/O CABLE LIST						
Cable No.	Port	# of Identical Ports	Connector Type	Cable Type	Cable Length	Remarks
1	AC	1	US 115V	Shielded	1.5m	NA
2	DC	1	DC	Un-shielded	1.5m	Ferrite at laptop's end
3	USB	1	USB	Un-shielded	1.0m	NA

TEST SETUP

The EUT was tested as an external module that installed on a converter board connected to a host Laptop PC via USB cable.

SETUP DIAGRAM FOR TESTS



6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	**Manufacturer**	**Model**	**Asset**	**Cal Due**
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C00996	03/22/13
Antenna, Bilog, 2 GHz	Sunol Sciences	JB1	C01171	07/16/12
Antenna, Horn, 18 GHz	EMCO	3115	C00872	09/20/12
Antenna, Horn, 26.5 GHz	ARA	MWH-1826/B	C00980	07/28/12
Preamplifier, 1300 MHz	Agilent / HP	8447D	C00778	11/11/12
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C00749	07/18/12
Peak Power Meter	Agilent / HP	E9327A	C00964	12/13/13
Peak Power Sensor	Agilent / HP	E4416A	C00963	12/13/13
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRM50702	N02685	CNR
LISN, 30 MHz	FCC	LISN-50/250-25-2	N02625	12/13/12
EMI Test Receiver, 30 MHz	R & S	ESHS 20	N02396	08/19/13

7. ANTENNA PORT TEST RESULTS

7.1. 6 dB BANDWIDTH

LIMITS

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

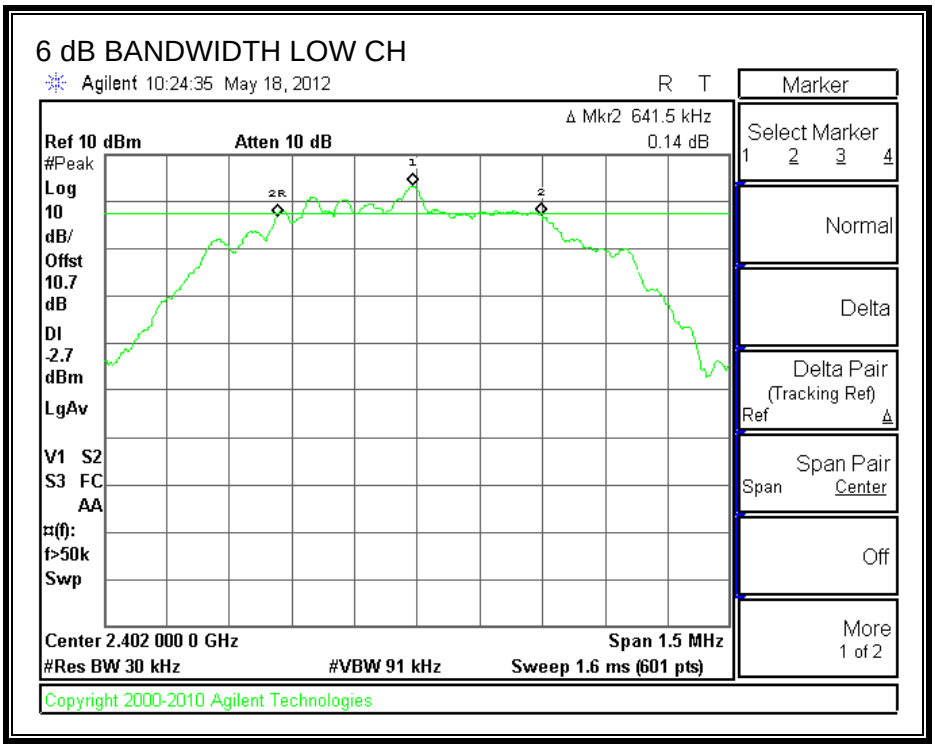
TEST PROCEDURE

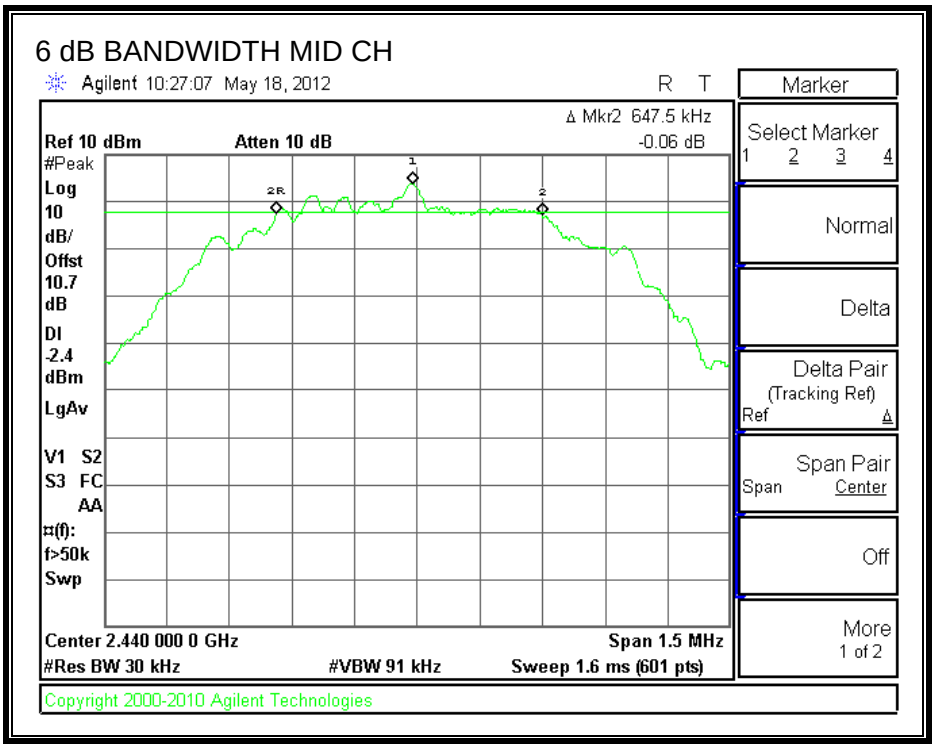
KDB 558074 D01 DTS Measurement Guidance V01 dated 01-18-12.

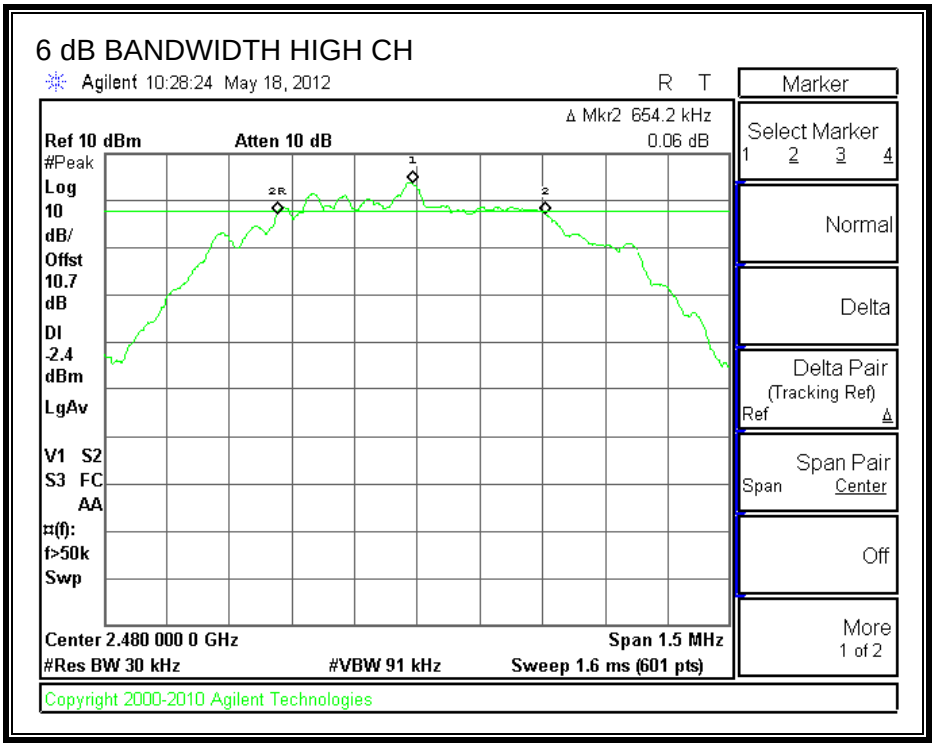
RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2402	0.6415	0.5
Middle	2440	0.6475	0.5
High	2480	0.6542	0.5

6 dB BANDWIDTH






6 dB BANDWIDTH HIGH CH
Agilent 10:28:24 May 18, 2012
R T
Marker
Δ Mkr2 654.2 kHz
0.06 dB
Ref 10 dBm
Atten 10 dB
#Peak
Log
10
dB/
Offst
10.7
dB
Dl
-2.4
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
f>50k
Swp
Select Marker
1 2 3 4
Normal
Delta
Delta Pair
(Tracking Ref)
Ref Δ
Span Pair
Span Center
Off
More
1 of 2
Center 2.480 000 0 GHz
Span 1.5 MHz
#Res BW 30 kHz
#VBW 91 kHz
Sweep 1.6 ms (601 pts)
Copyright 2000-2010 Agilent Technologies

7.2. 99% BANDWIDTH

LIMITS

None; for reporting purposes only.

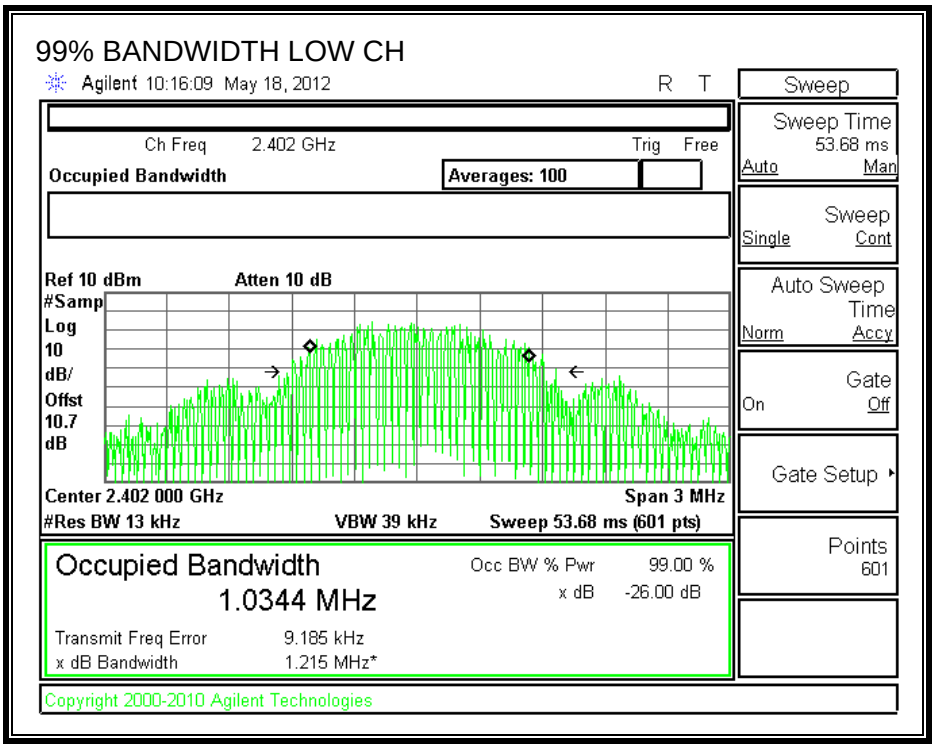
TEST PROCEDURE

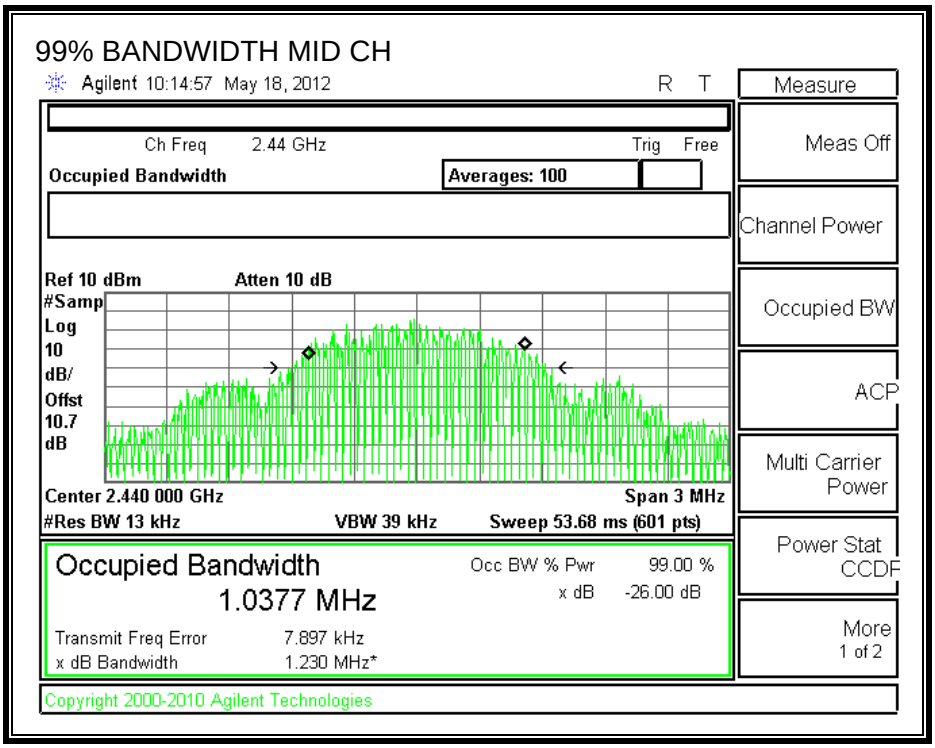
The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the 99 % bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal 99% bandwidth function is utilized.

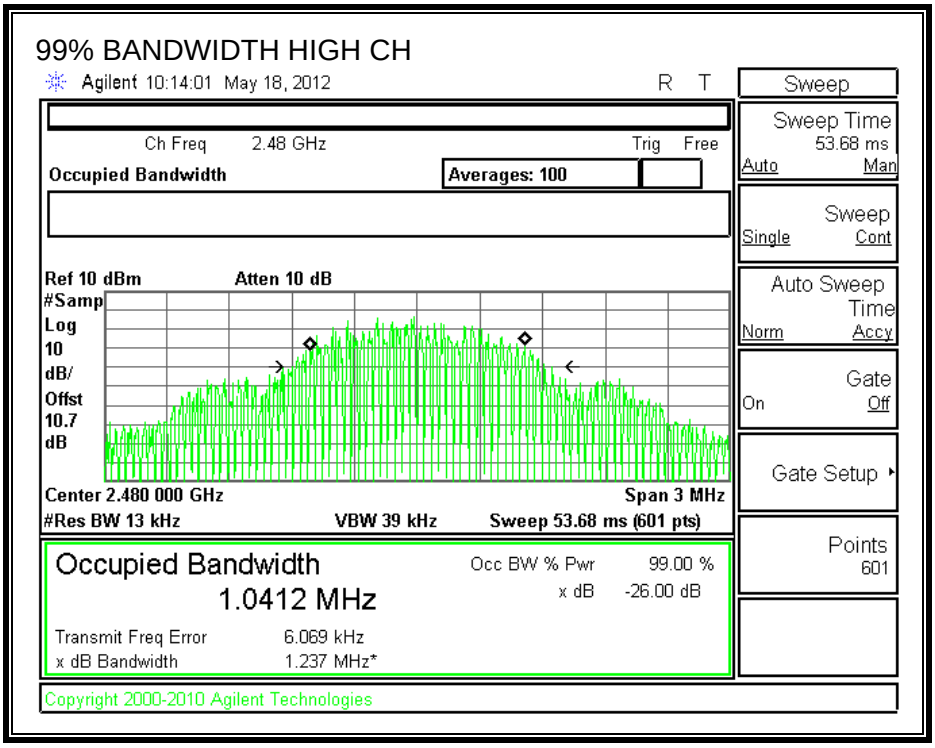
RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2402	1.0344
Middle	2440	1.0377
High	2480	1.0412

99% BANDWIDTH






99% BANDWIDTH HIGH CH
Agilent 10:14:01 May 18, 2012
R T
Sweep
Sweep Time
53.68 ms
Auto Man
Ch Freq 2.48 GHz
Trig Free
Occupied Bandwidth
Averages: 100
Sweep
Single Cont
Ref 10 dBm
Atten 10 dB
#Samp
Log
10
dB/
Offst
10.7
dB
Auto Sweep Time
Norm Accy
Gate
On Off
Gate Setup
Center 2.480 000 GHz
Span 3 MHz
#Res BW 13 kHz
VBW 39 kHz
Sweep 53.68 ms (601 pts)
Points
601
Occupied Bandwidth
1.0412 MHz
Occ BW % Pwr 99.00 %
x dB -26.00 dB
Transmit Freq Error 6.069 kHz
x dB Bandwidth 1.237 MHz*
Copyright 2000-2010 Agilent Technologies

7.3. OUTPUT POWER

LIMITS

FCC §15.247 (b)

IC RSS-210 A8.4

The maximum antenna gain is less than or equal to 6 dBi, therefore the limit is 30 dBm.

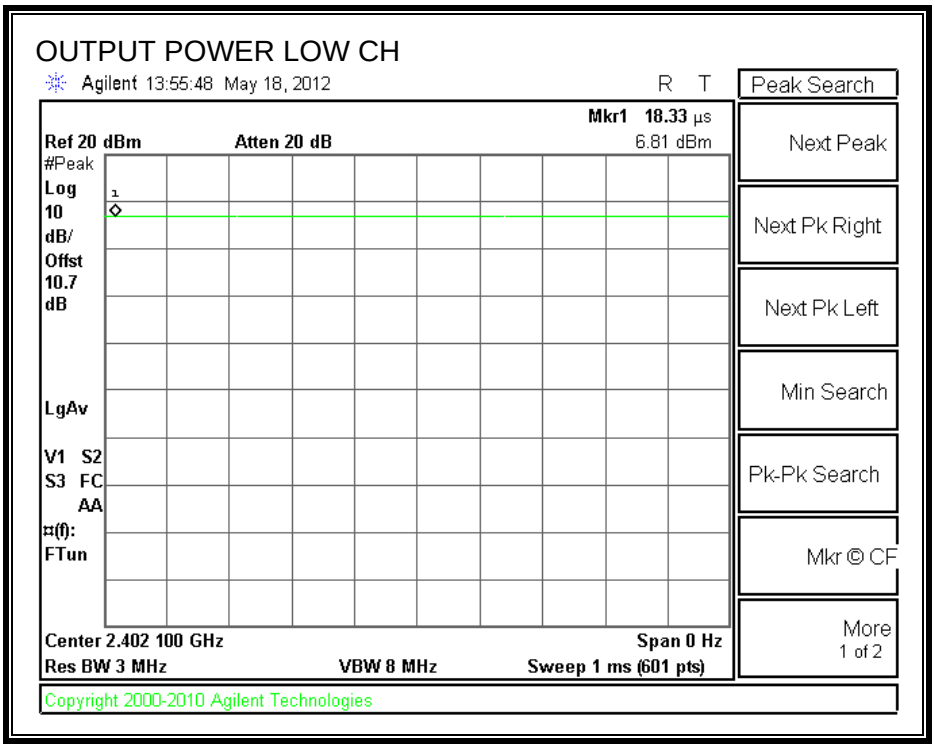
TEST PROCEDURE

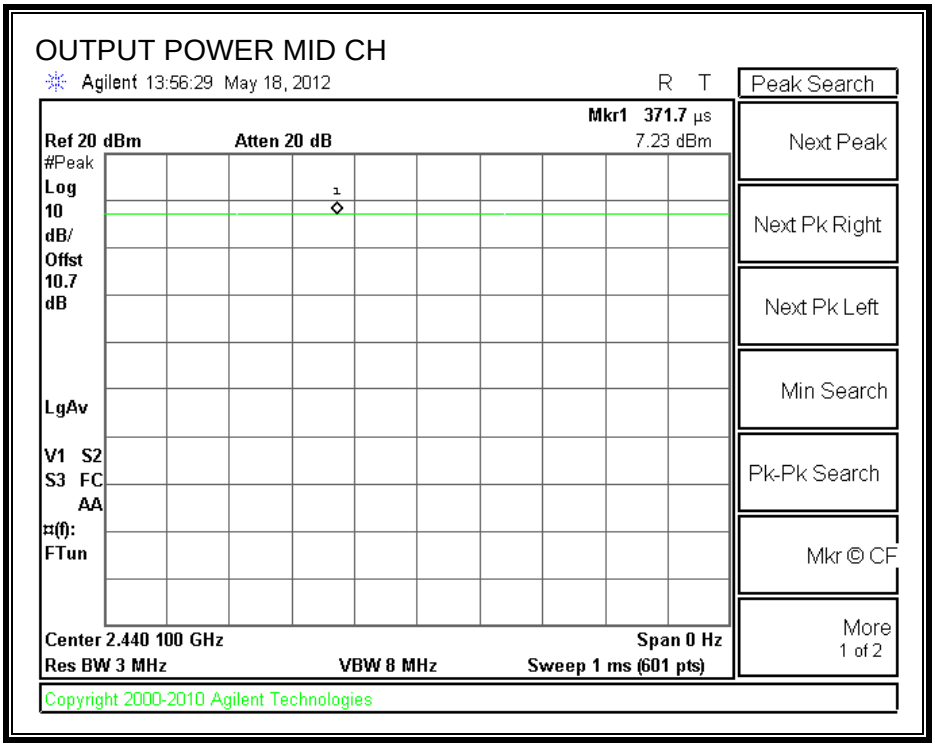
KDB 558074 D01 DTS Measurement Guidance V01 dated 01-18-12.

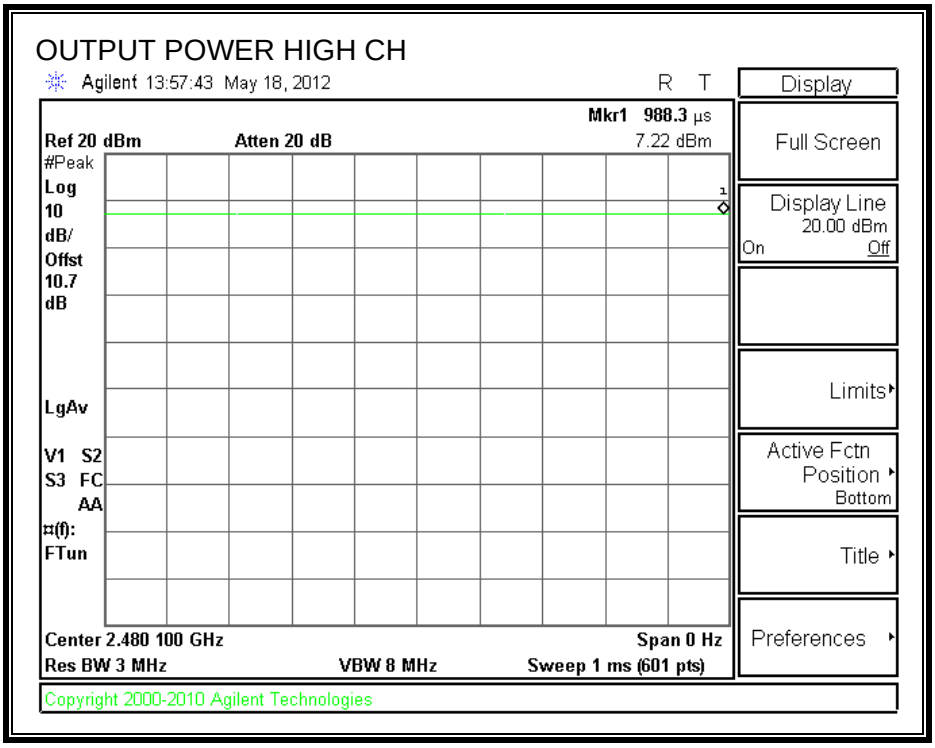
RESULTS

Channel	Frequency (MHz)	Peak Power Reading (dBm)	Limit (dBm)	Margin (dB)
Low	2402	6.81	30	-23.19
Middle	2440	7.23	30	-22.77
High	2480	7.22	30	-22.78

OUTPUT POWER






OUTPUT POWER HIGH CH
Agilent 13:57:43 May 18, 2012
R T
Mkr1 988.3 µs
7.22 dBm
Ref 20 dBm
Atten 20 dB
#Peak
Log
10
dB/
Offst
10.7
dB
LgAv
V1 S2
S3 FC
AA
¤(f):
FTun
Center 2.480 100 GHz
Span 0 Hz
Res BW 3 MHz
VBW 8 MHz
Sweep 1 ms (601 pts)
Copyright 2000-2010 Agilent Technologies
Display
Full Screen
Display Line
20.00 dBm
On Off
Limits
Active Fctn
Position
Bottom
Title
Preferences

7.4. AVERAGE POWER

LIMITS

None; for reporting purposes only.

TEST PROCEDURE

The transmitter output is connected to a power meter.

RESULTS

The cable assembly insertion loss of 10.68 dB (including 10 dB pad and 0.68 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

Channel	Frequency (MHz)	Power (dBm)
Low	2402	6.05
Middle	2440	6.67
High	2480	6.38

7.5. POWER SPECTRAL DENSITY

LIMITS

FCC §15.247 (e)

IC RSS-210 A8.2 (b)

TEST PROCEDURE

KDB 558074 D01 DTS Measurement Guidance V01 dated 01-18-12.

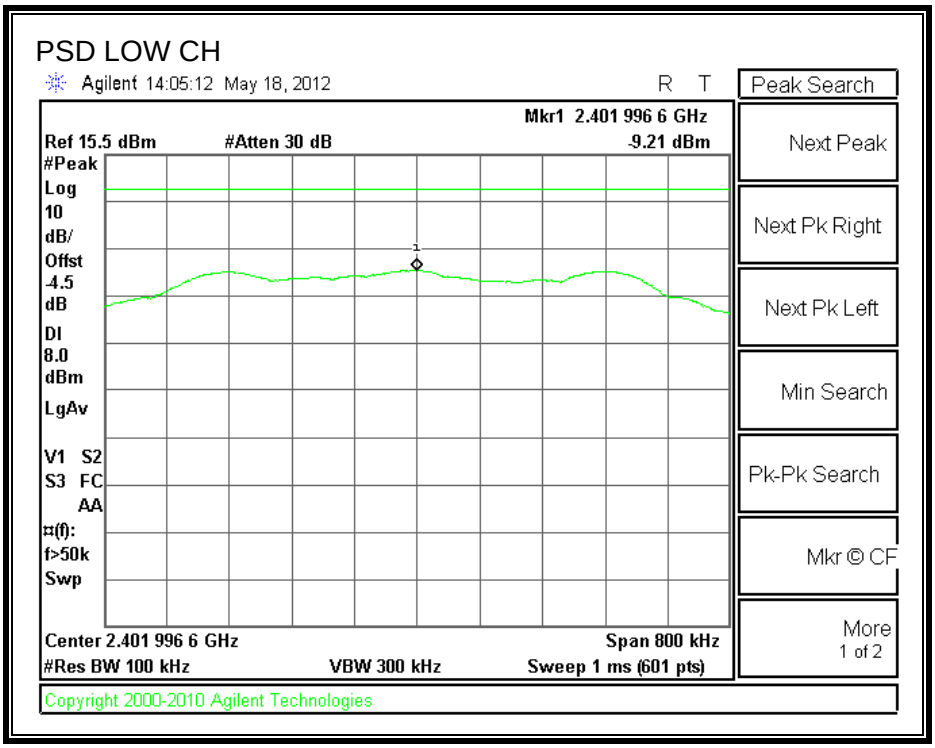
RESULTS

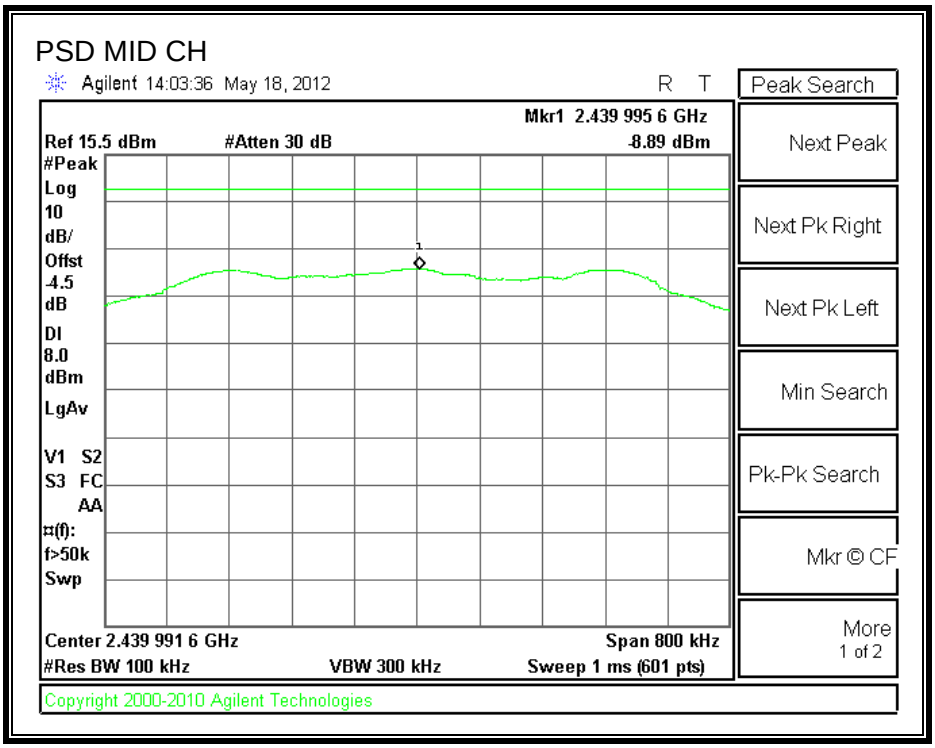
Channel	Frequency (MHz)	PPSD (dBm)	Limit (dBm)	Margin (dB)
Low	2402	-9.21	8	-17.21
Middle	2440	-8.89	8	-16.89
High	2480	-9.01	8	-17.01

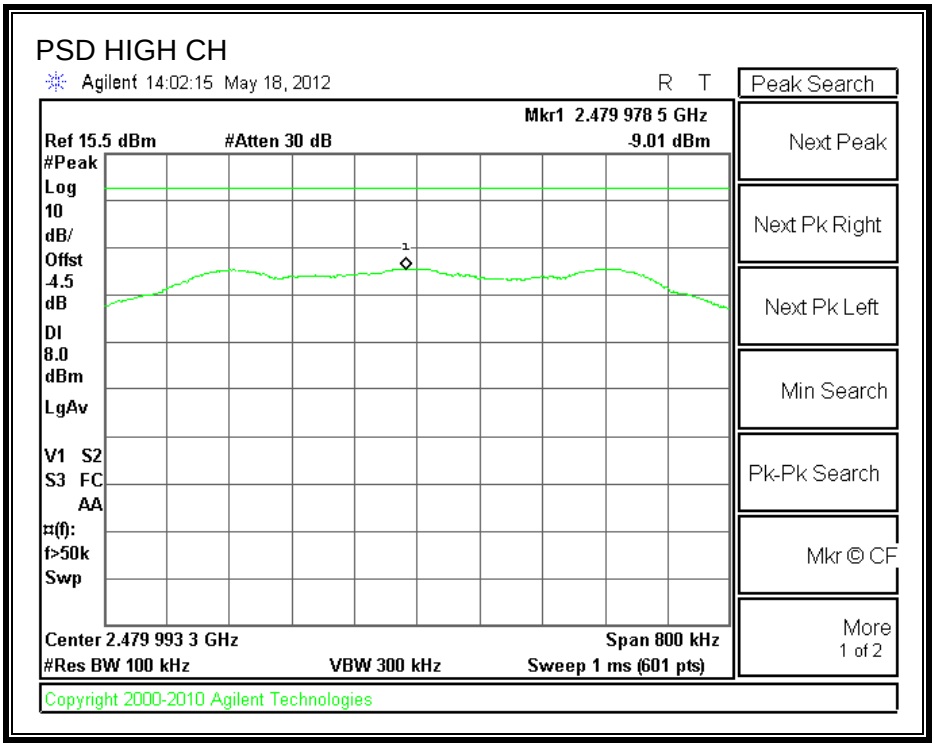
Note:

The spectrum analyzer offset = attenuator loss + cable loss + 10 log (3/100 kHz) = -4.53dB.

POWER SPECTRAL DENSITY






PSD HIGH CH
Agilent 14:02:15 May 18, 2012
R T
Peak Search
Mkr1 2.479 978 5 GHz
Ref 15.5 dBm
#Atten 30 dB
-9.01 dBm
#Peak
Log
10
dB/
Offst
-4.5
dB
Dl
8.0
dBm
LgAv
V1 S2
S3 FC
AA
¤(f):
f>50k
Swp
Next Peak
Next Pk Right
Next Pk Left
Min Search
Pk-Pk Search
Mkr © CF
More
1 of 2
Center 2.479 993 3 GHz
Span 800 kHz
#Res BW 100 kHz
VBW 300 kHz
Sweep 1 ms (601 pts)
Copyright 2000-2010 Agilent Technologies

7.6. CONDUCTED SPURIOUS EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

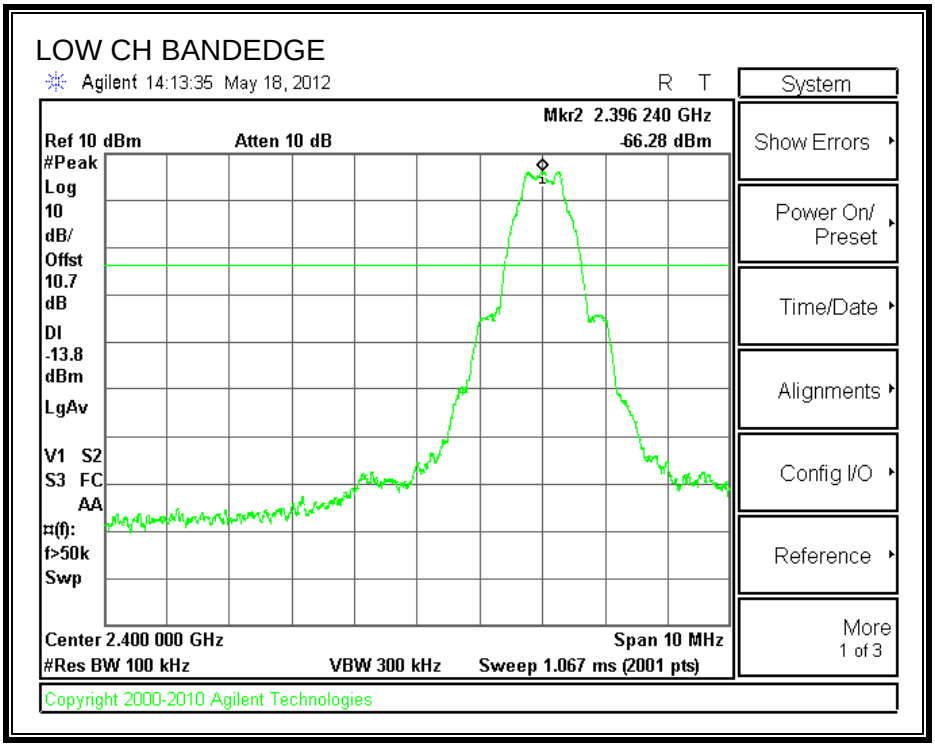
Output power was measured based on the use of a peak measurement, therefore the required attenuation is 20 dB.

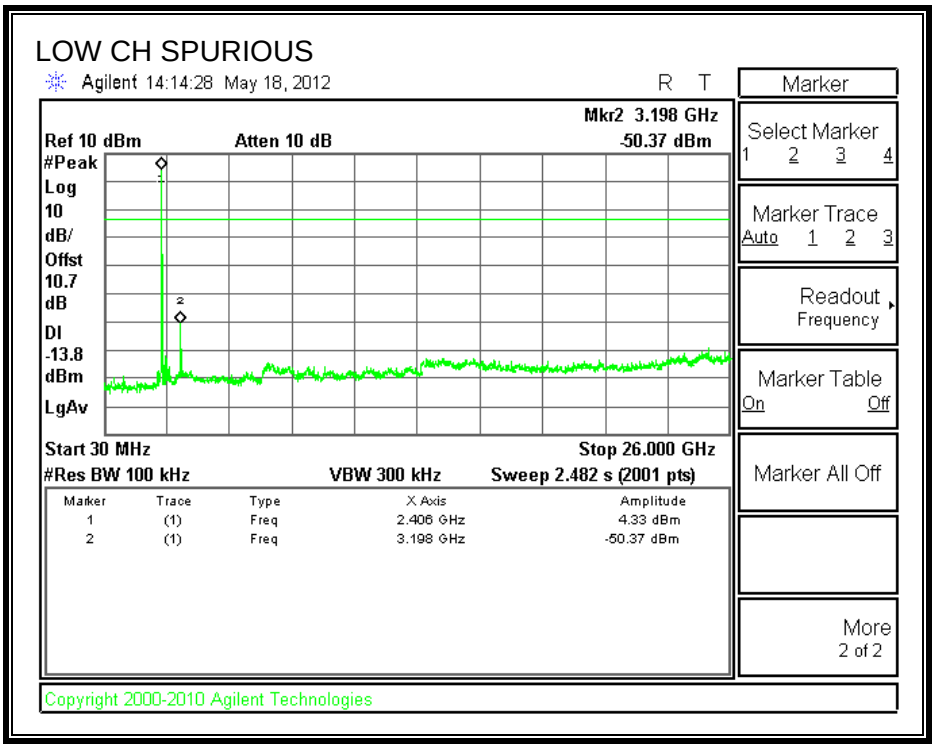
TEST PROCEDURE

KDB 558074 D01 DTS Measurement Guidance V01 dated 01-18-12.

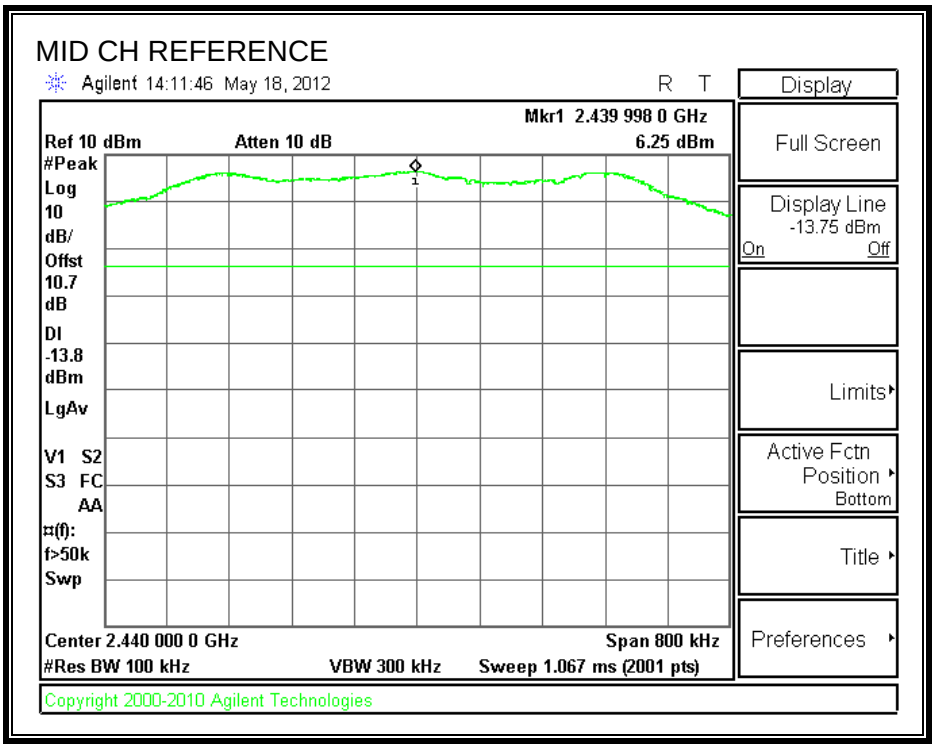
RESULTS

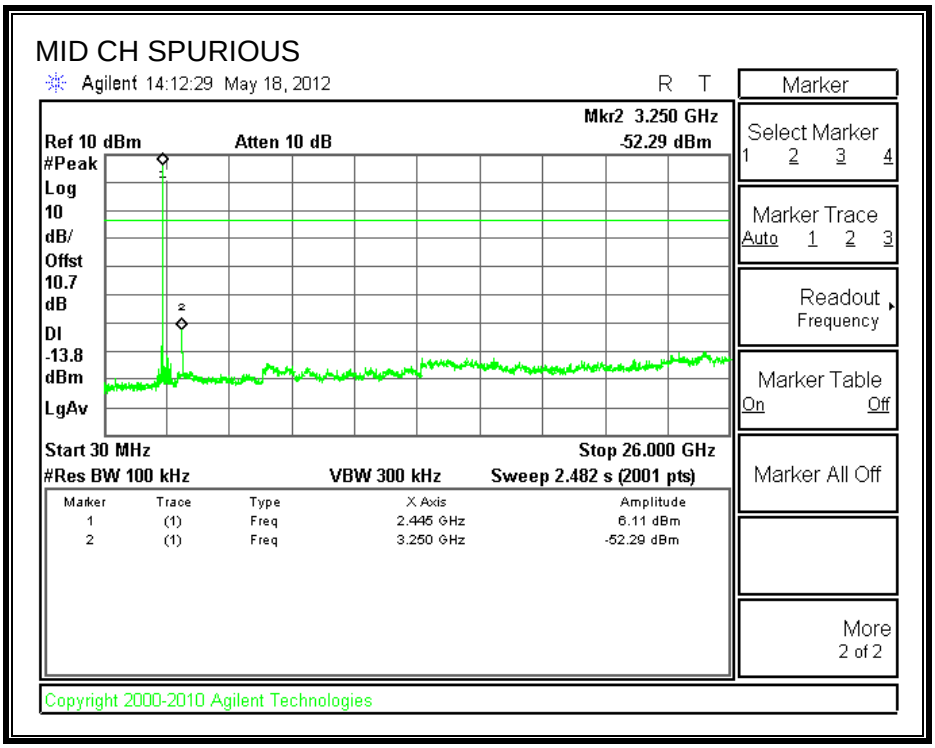
SPURIOUS EMISSIONS, LOW CHANNEL



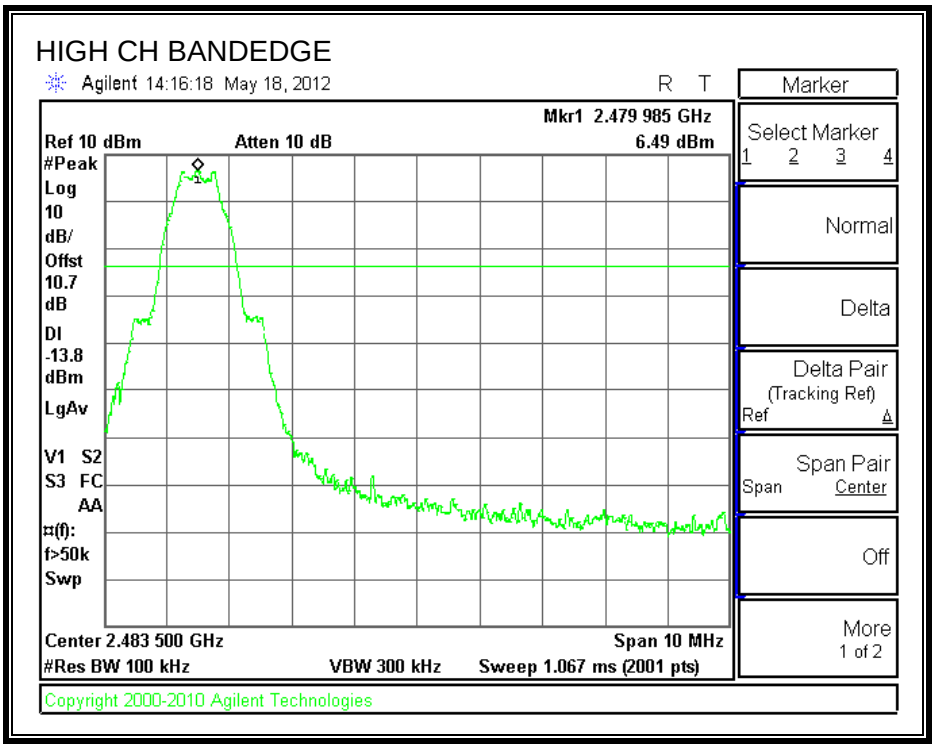


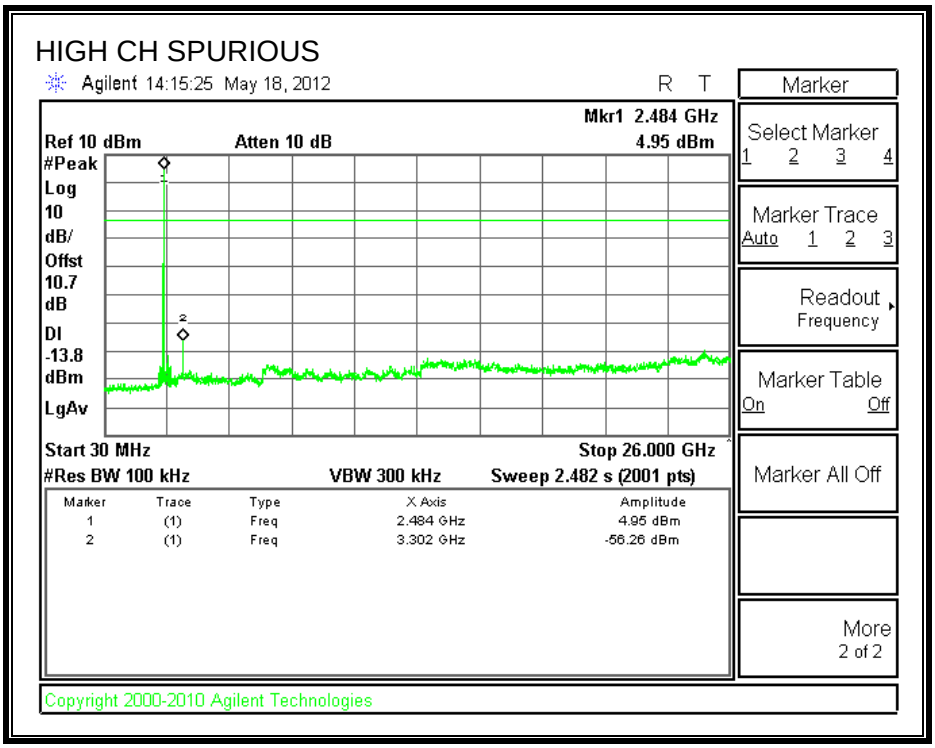
SPURIOUS EMISSIONS, MID CHANNEL





SPURIOUS EMISSIONS, HIGH CHANNEL





8. RADIATED TEST RESULTS

8.1. LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

Frequency Range (MHz)	Field Strength Limit (uV/m) at 3 m	Field Strength Limit (dBuV/m) at 3 m
30 - 88	100	40
88 - 216	150	43.5
216 - 960	200	46
Above 960	500	54

TEST PROCEDURE

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters. The EUT is configured in accordance with ANSI C63.4. The EUT is set to transmit in a continuous mode.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz, then the video bandwidth is set to 1 MHz for peak measurements and 10 Hz for average measurements.

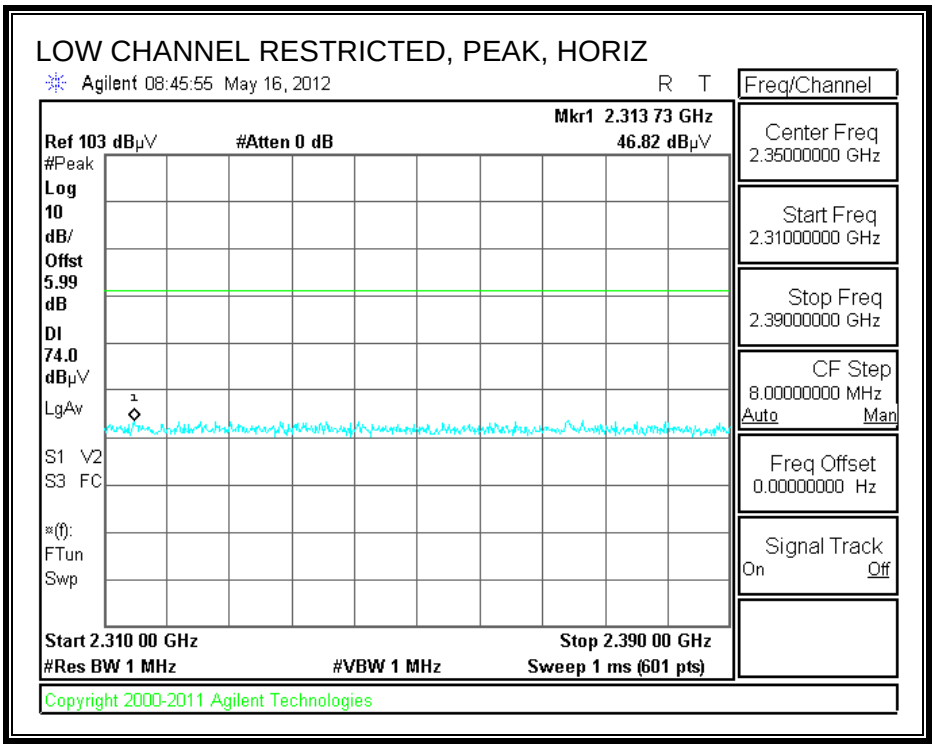
The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in the 2.4 GHz band.

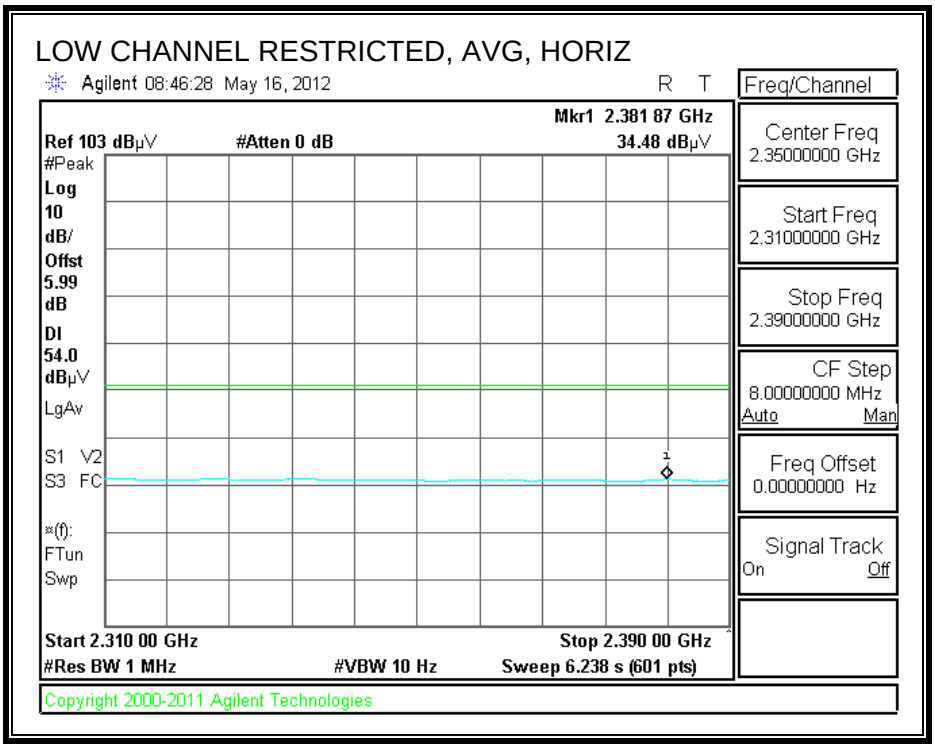
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

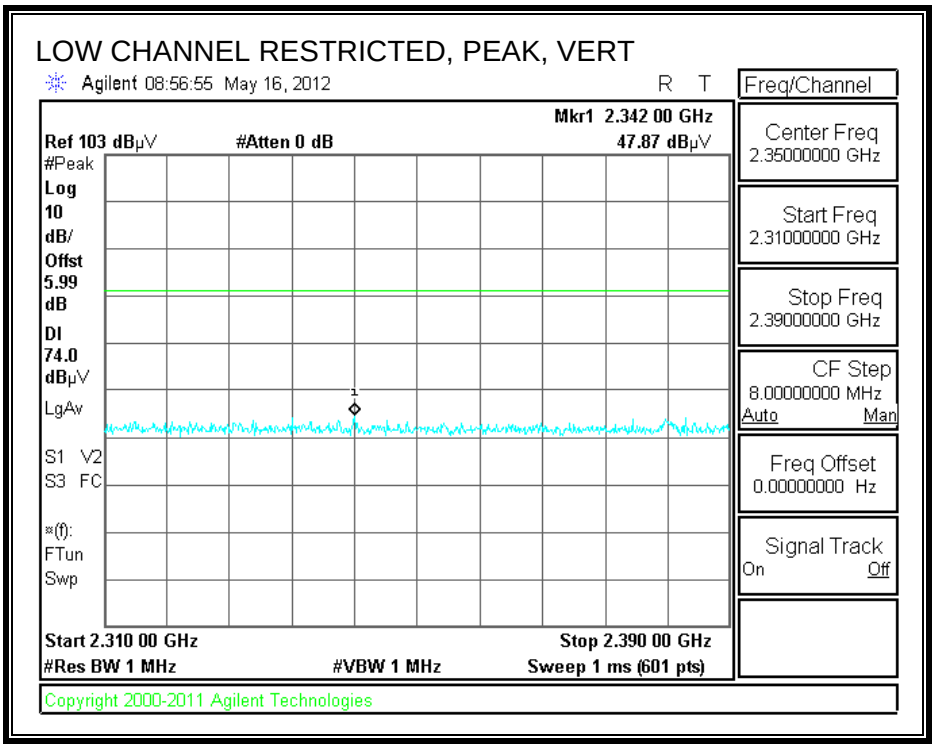
8.2. TRANSMITTER ABOVE 1 GHz

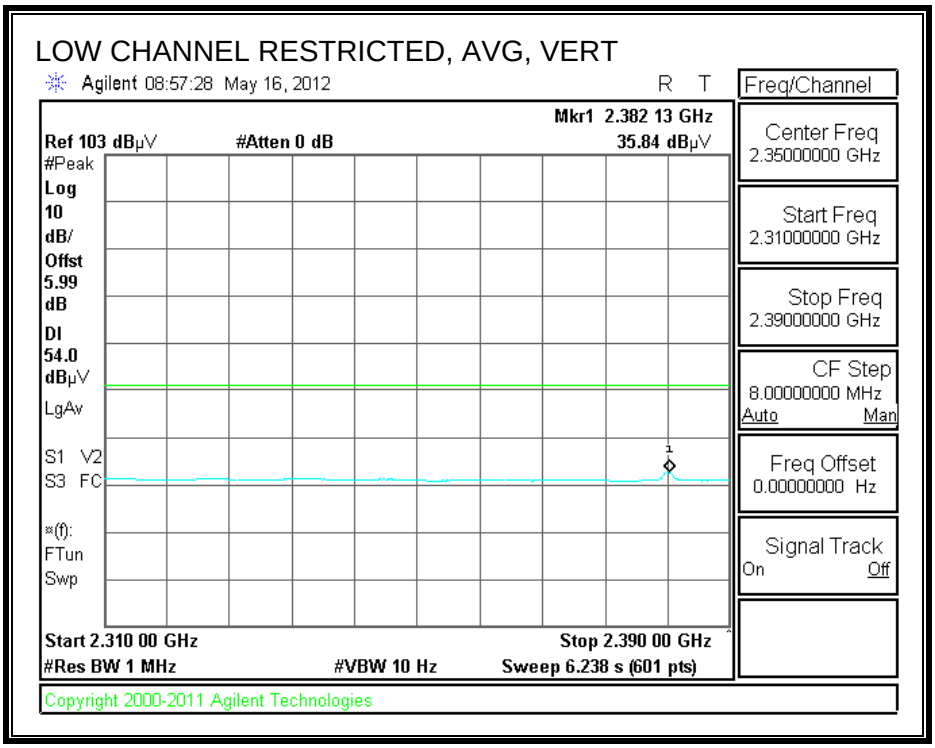
RESTRICTED BANDEDGE (LOW CHANNEL, HORIZONTAL)



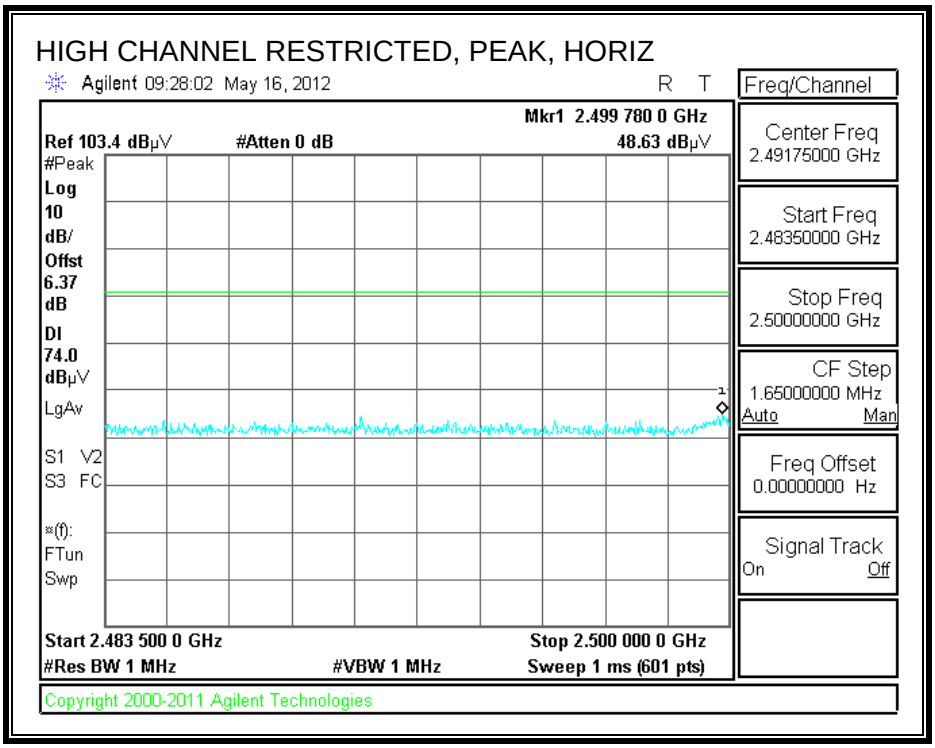


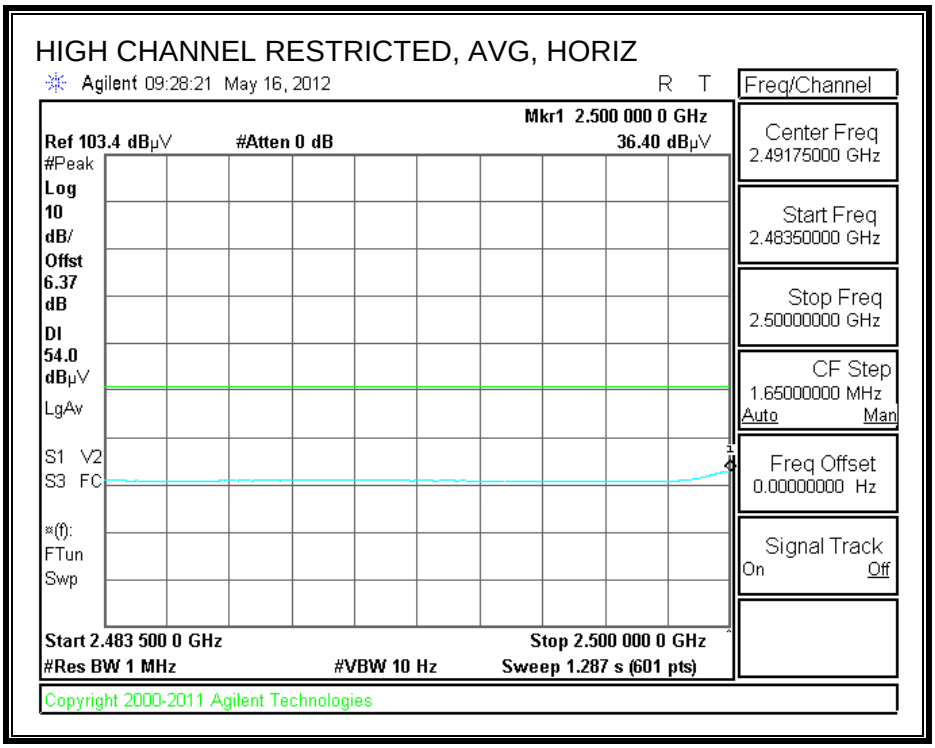
RESTRICTED BANDEDGE (LOW CHANNEL, VERTICAL)



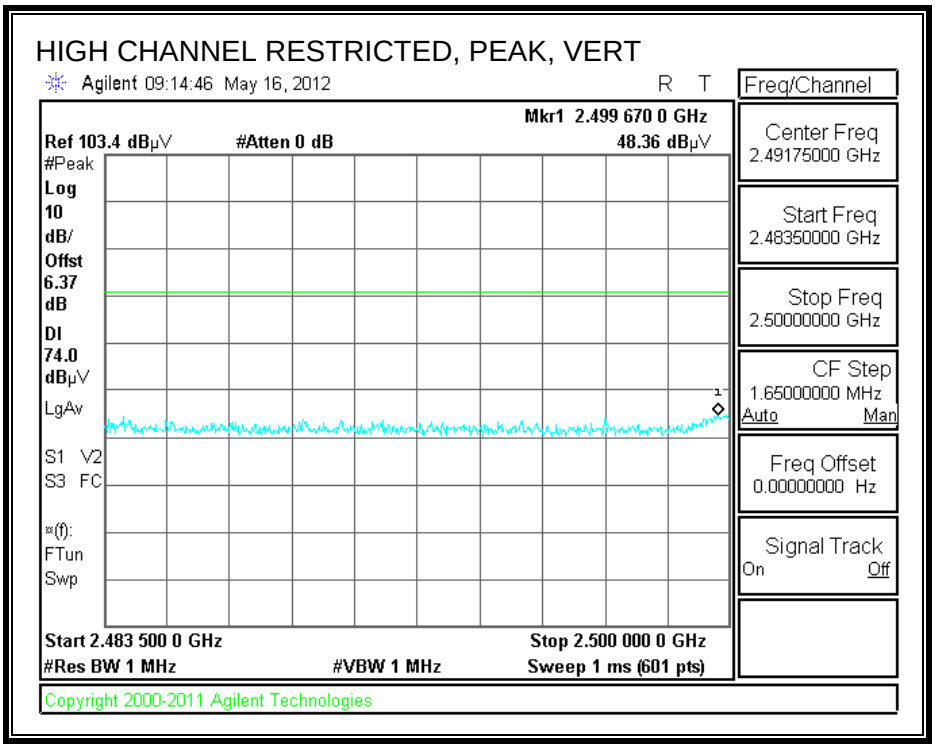


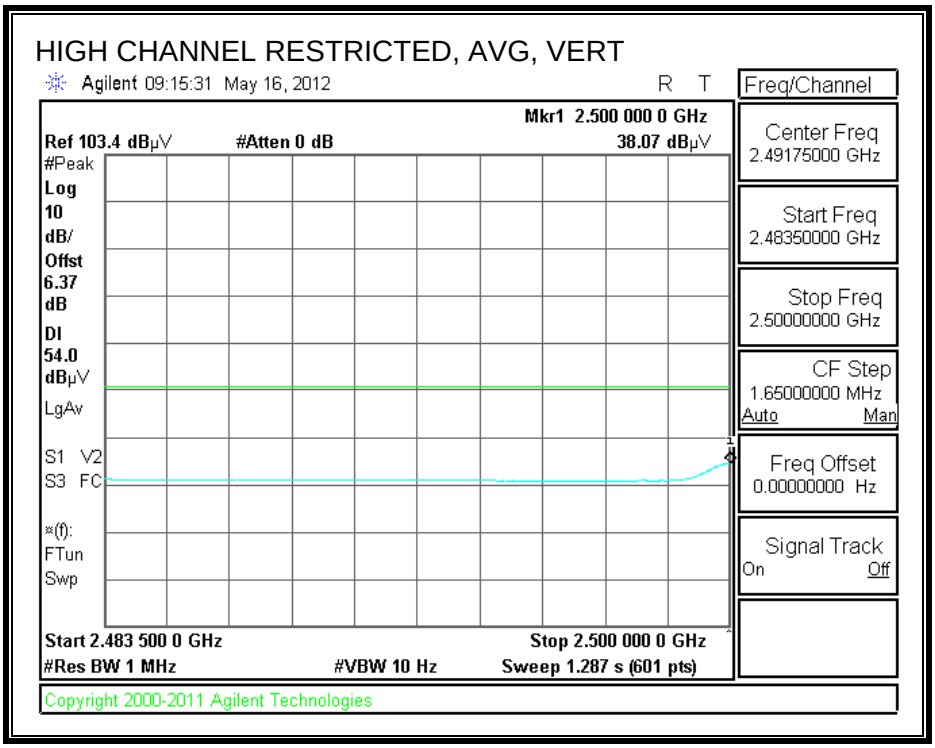
RESTRICTED BANDEDGE (HIGH CHANNEL, HORIZONTAL)





RESTRICTED BANDEDGE (HIGH CHANNEL, VERTICAL)





HARMONICS AND SPURIOUS EMISSIONS

High Frequency Measurement
Compliance Certification Services, Fremont 5m Chamber

Test Engr: Vien Tran
Date: 05/16/12
Project #: 12U14373
Company: Broadcom
Test Target: FCC15.247
Mode Oper: Tx LE Mode

f	Measurement Frequency	Amp	Preamp Gain		Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters		Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m		Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength		Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

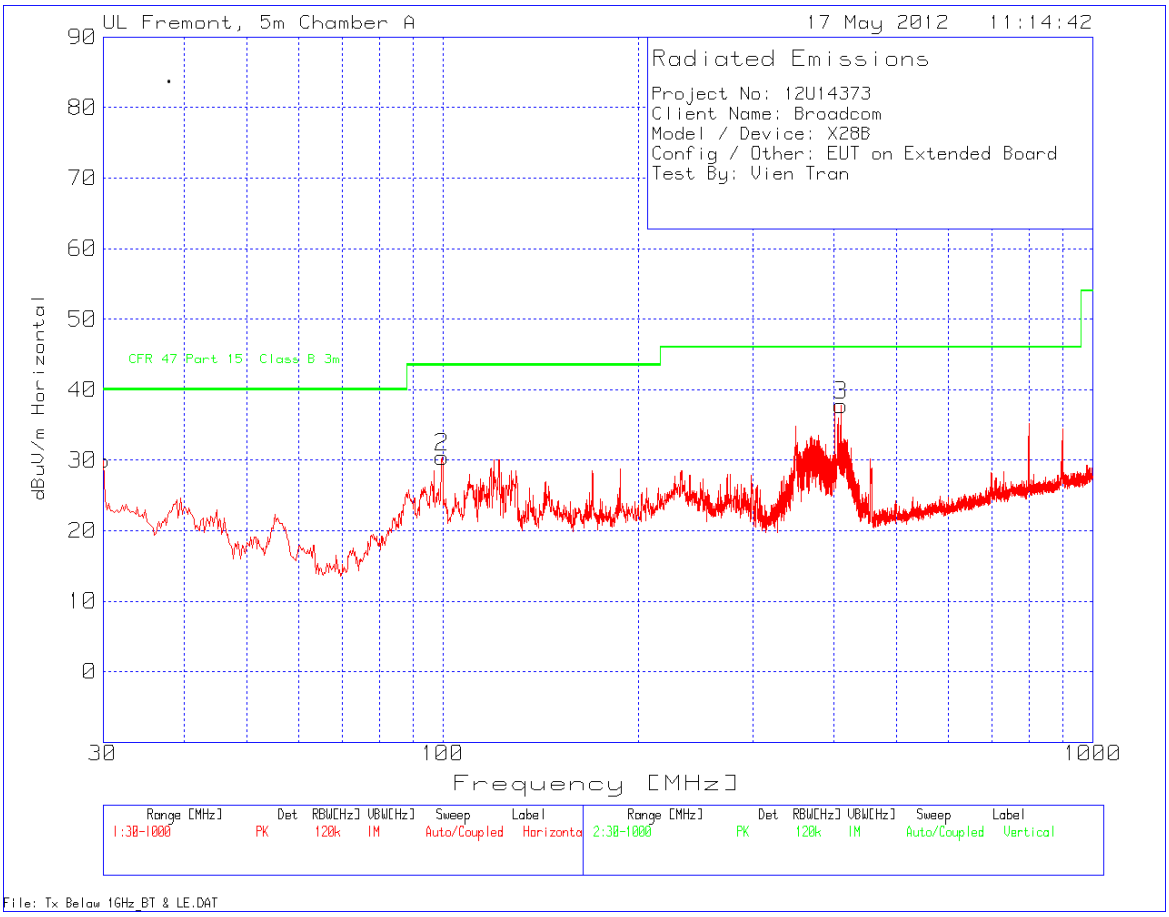
f GHz	Dist (m)	Read dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	Fltr dB	Corr. dBuV/m	Limit dBuV/m	Margin dB	Ant. Pol. V/H	Det. P/A/QP	Ant.High cm	Table Angle Degree	Notes
LOW CHANNEL, 2402MHz															
4.804	3.0	40.9	33.4	6.2	-35.5	0.0	0.0	45.1	74.0	-28.9	V	P	100.1	96.4	
4.804	3.0	30.6	33.4	6.2	-35.5	0.0	0.0	34.7	54.0	-19.3	V	A	100.1	96.4	
4.804	3.0	38.4	33.4	6.2	-35.5	0.0	0.0	42.5	74.0	-31.5	H	P	100.0	185.4	
4.804	3.0	27.6	33.4	6.2	-35.5	0.0	0.0	31.7	54.0	-22.3	H	A	100.0	185.4	
MID CHANNEL, 2440MHz															
4.880	3.0	42.6	33.5	6.2	-35.5	0.0	0.0	46.8	74.0	-27.2	V	P	103.1	121.8	
4.880	3.0	32.3	33.5	6.2	-35.5	0.0	0.0	36.6	54.0	-17.4	V	A	103.1	121.8	
7.320	3.0	35.6	35.7	8.4	-35.4	0.0	0.0	44.3	74.0	-29.7	V	P	101.0	70.9	
7.320	3.0	23.4	35.7	8.4	-35.4	0.0	0.0	32.0	54.0	-22.0	V	A	101.0	70.9	
4.880	3.0	37.5	33.5	6.2	-35.5	0.0	0.0	41.7	74.0	-32.3	H	P	133.3	157.4	
4.880	3.0	26.5	33.5	6.2	-35.5	0.0	0.0	30.7	54.0	-23.3	H	A	133.3	157.4	
7.320	3.0	35.0	35.7	8.4	-35.4	0.0	0.0	43.7	74.0	-30.3	H	P	133.3	157.4	
7.320	3.0	23.3	35.7	8.4	-35.4	0.0	0.0	31.9	54.0	-22.1	H	A	133.3	157.4	
HGH CHANNEL, 2480MHz															
4.960	3.0	41.2	33.6	6.3	-35.5	0.0	0.0	45.6	74.0	-28.4	V	P	103.3	123.1	
4.960	3.0	30.9	33.6	6.3	-35.5	0.0	0.0	35.3	54.0	-18.7	V	A	103.3	123.1	
7.440	3.0	35.9	35.9	8.4	-35.5	0.0	0.0	44.8	74.0	-29.2	V	P	146.5	161.8	
7.440	3.0	23.5	35.9	8.4	-35.5	0.0	0.0	32.4	54.0	-21.6	V	A	146.5	161.8	
4.960	3.0	37.2	33.6	6.3	-35.5	0.0	0.0	41.6	74.0	-32.4	H	P	100.0	170.4	
4.960	3.0	25.7	33.6	6.3	-35.5	0.0	0.0	30.1	54.0	-23.9	H	A	100.0	170.4	
7.440	3.0	36.2	35.9	8.4	-35.5	0.0	0.0	45.1	74.0	-28.9	H	P	100.0	170.4	
7.440	3.0	23.7	35.9	8.4	-35.5	0.0	0.0	32.6	54.0	-21.4	H	A	100.0	170.4	

Rev. 4.1.2.7
Note: No other emissions were detected above the system noise floor.

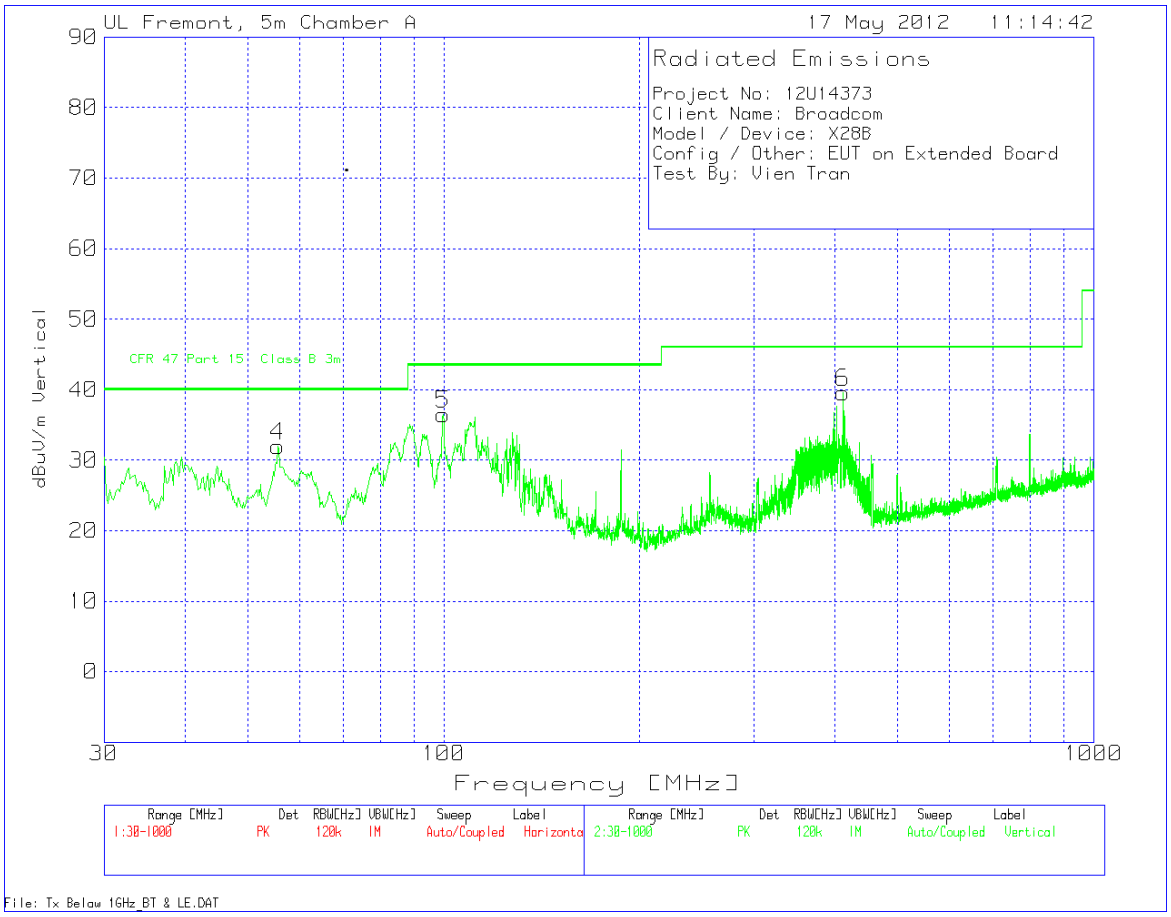
8.3. WORST-CASE BELOW 1 GHz

SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL & VERTICAL)

HORIZONTAL GRAPH



VERTICAL GRAPH



Project No: 12U14373
Client Name: Broadcom
Model / Device: X28B
Config / Other: EUT on Extended Board
Test By: Vien Tran

Horizontal 30 - 1000MHz

Test Frequency	Meter Reading	Detector	25MHz-1GHz ChmbrA Amplified.TX [dB]	T243 Sunol Bilog.TXT [dB]	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
30	36.18	PK	-27.5	21.3	29.98	40	-10.02	100	Horz
99.7842	47.18	PK	-26.9	10.1	30.38	43.5	-13.12	200	Horz
410.7114	47.08	PK	-25.2	15.9	37.78	46	-8.22	100	Horz

Vertical 30 - 1000MHz

Test Frequency	Meter Reading	Detector	25MHz-1GHz ChmbrA Amplified.TX [dB]	T243 Sunol Bilog.TXT [dB]	dBuV/m	CFR 47 Part 15 Class B 3m	Margin	Height [cm]	Polarity
55.5875	52.19	PK	-27.3	7.1	31.99	40	-8.01	200	Vert
99.7842	53.25	PK	-26.9	10.1	36.45	43.5	-7.05	100	Vert
411.6807	48.84	PK	-25.2	16	39.64	46	-6.36	100	Vert

PK - Peak detector
QP - Quasi-Peak detector
LnAv - Linear Average detector
LgAv - Log Average detector
Av - Average detector
CAV - CISPR Average detector
RMS - RMS detection
CRMS - CISPR RMS detection
Text File: Tx Below 1GHz_BT & LE.TXT
File: Tx Below 1GHz_BT & LE.DAT

9. AC POWER LINE CONDUCTED EMISSIONS

LIMITS

FCC §15.207 (a)

RSS-Gen 7.2.2

Frequency of Emission (MHz)	Conducted Limit (dBuV)	
	Quasi-peak	Average
0.15-0.5	66 to 56 *	56 to 46 *
0.5-5	56	46
5-30	60	50

* Decreases with the logarithm of the frequency.

TEST PROCEDURE

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

Project No: 12U14373
Client Name: Broadcom
Model/Device: X28B
Test Volt/Freq: 120VAC / 60Hz
Test By: Vien Tran

Line-L1 .15 - 30MHz

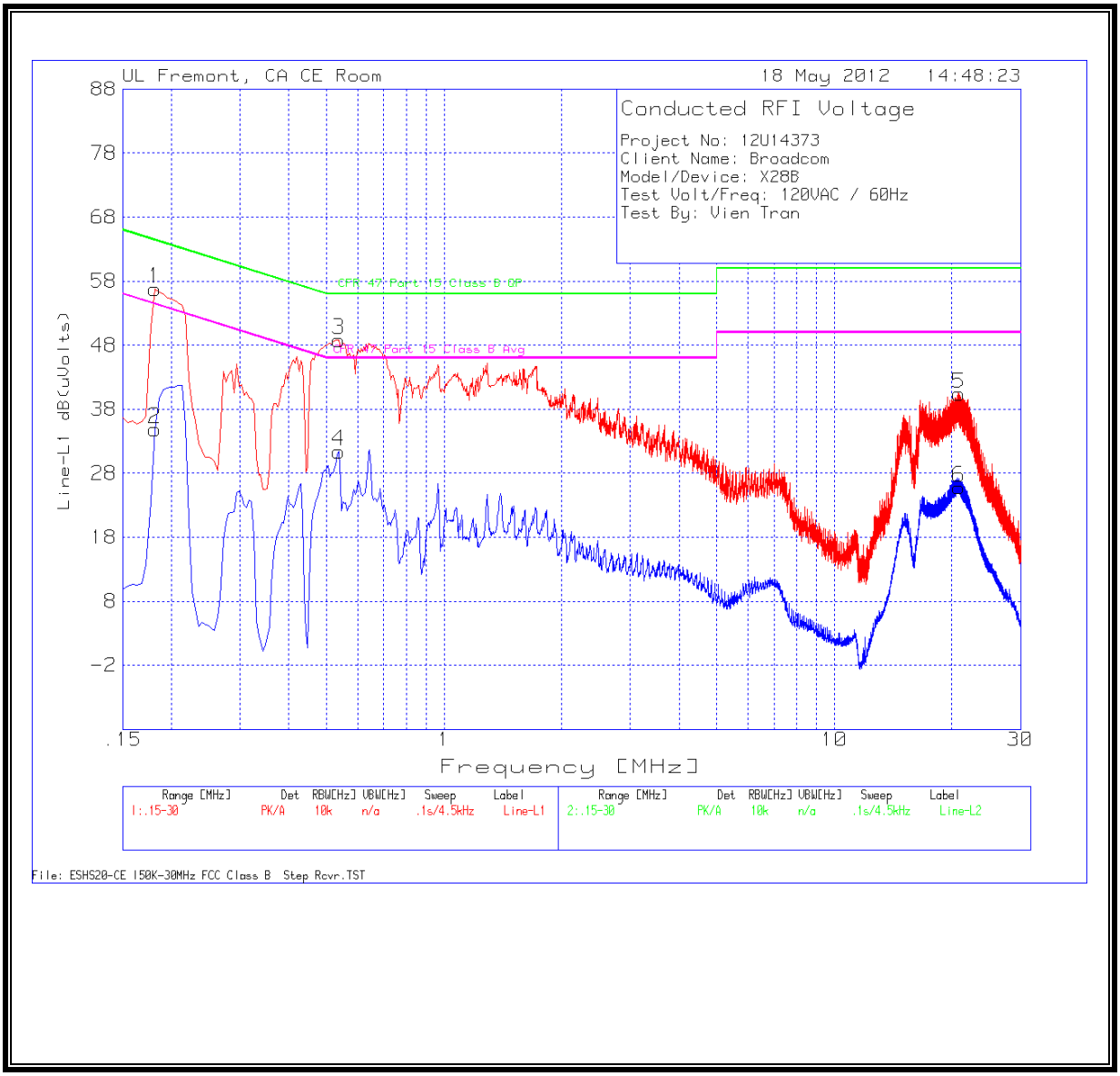
Test Frequency	Meter Reading	Detector	T24 IL L1.TXT (dB)	LC Cables 1&3.TXT (dB)	dB(uVolts)	CFR 47 Part 15 Class B QP	Margin	CFR 47 Part 15 Class B Avg	Margin
0.1815	56.69	PK	0.1	0	56.79	64.4	-7.61	-	-
0.1815	34.74	Av	0.1	0	34.84	-	-	54.4	-19.56
0.537	48.75	PK	0.1	0	48.85	56	-7.15	-	-
0.537	31.25	Av	0.1	0	31.35	-	-	46	-14.65
20.8365	39.86	PK	0.3	0.2	40.36	60	-19.64	-	-
20.8365	25.29	Av	0.3	0.2	25.79	-	-	50	-24.21

Line-L2 .15 - 30MHz

Test Frequency	Meter Reading	Detector	T24 IL L1.TXT (dB)	LC Cables 1&3.TXT (dB)	dB(uVolts)	CFR 47 Part 15 Class B QP	Margin	CFR 47 Part 15 Class B Avg	Margin
0.1815	56.12	PK	0.1	0	56.22	64.4	-8.18	-	-
0.1815	34.18	Av	0.1	0	34.28	-	-	54.4	-20.12
0.537	47.69	PK	0.1	0	47.79	56	-8.21	-	-
0.537	29.64	Av	0.1	0	29.74	-	-	46	-16.26
16.8315	41.15	PK	0.2	0.2	41.55	60	-18.45	-	-
16.8315	25.48	Av	0.2	0.2	25.88	-	-	50	-24.12

PK - Peak detector
QP - Quasi-Peak detector
LnAv - Linear Average detector
LgAv - Log Average detector
Av - Average detector
CAV - CISPR Average detector
RMS - RMS detection
CRMS - CISPR RMS detection
Text File: LC_BT & LE.TXT
File: ESHS20-CE 150K-30MHz FCC Class B Step Rcvr.TST

LINE 1 RESULTS



LINE 2 RESULTS