

FCC PART 15C TEST REPORT FOR CERTIFICATION On Behalf of

TCL Technoly Electronics (Huizhou) Co., Ltd.

3D Blu-ray Disc Player

Brand Name	Model Number		
VIZIO	VBR337, VBR337-CA VBR337-MX ,VBR338 VBR338-CA,VBR338-MX		

FCC ID: ZVABD00001

Prepared for: TCL Technoly Electronics (Huizhou) Co., Ltd.

Section 19, Zhongkai High-tech development

Zone, Huizhou City, Guangdong, China

Prepared By: Audix Technology (Shenzhen) Co., Ltd.

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Report Number : ACS-F11162

Date of Test Jun.24~Jul.31, 2011

Date of Report Aug.03, 2011



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TEST REPORT CERTIFICATION

Applicant : TCL Technoly Electronics (Huizhou) Co., Ltd.

Manufacturer : TCL Technoly Electronics (Huizhou) Co., Ltd.

EUT Description : 3D Blu-ray Disc Player

FCC ID : ZVABD00001

(A) Model No. & Brand Name

:	Brand Name	Model Number
	VIZIO	VBR337, VBR337-CA VBR337-MX ,VBR338
		VBR338-CA,VBR338-MX

(B)SERIAL NO. : N/A

(C)POWER SUPPLY: AC 100-240V; 50/60Hz

(D)TEST VOLTAGE: AC 120V/60Hz

Tested for comply with:

FCC Rules and Regulations Part 15 Subpart C: 2008

Test procedure used: ANSI C63.10:2009

The device described above is tested by AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. to confirm comply with all the FCC Part 15 Subpart C requirements.

The test results are contained in this test report and AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. is assumed full responsibility for the accuracy and completeness of these tests. This report contains data that are not covered by the NVLAP accreditation. Also, this report shows that the Equipment Under Test (EUT) is to be technically compliant with the FCC and IC requirements.

This Report is made under FCC Part 2.1075. No modifications were required during testing to bring this product into compliance.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Reviewer b

Date of Test: Jun.24[~] Jul.31, 2011 Report of date: Aug.03, 2011

Prepared by:

Corry Ho / Assis

Cerry He / Assistant UDIX

Aug.03, 201

Andix Technology Sunny Lu Senior Assistant EMC 年月報告專用章

Stamp only for EMC Dept. Report

Signature:

en hu 95 y

Approved & Authorized Signer:

Ken Lu / Manager

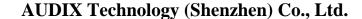


1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION				
Description of Test Item	Standard	Results		
Power Line Conducted Emission Test	FCC Part 15: 15.207	PASS		
Tower Eme Conducted Emission Test	ANSI C63.10: 2009	11100		
Radiated Emission Test	FCC Part 15: 15.209	PASS		
Radiated Emission Test	ANSI C63.10: 2009	17100		
Band Edge Compliance Test	FCC Part 15: 15.247	PASS		
Band Edge Comphance Test	ANSI C63.10: 2009	1 Abb		
Conducted spurious emissions test	FCC Part 15: 15.247	PASS		
Conducted spurious emissions test	ANSI C63.10: 2009	1 ASS		
6dB Bandwidth Test	FCC Part 15: 15.247	PASS		
odb Balldwidth Test	ANSI C63.10: 2009	1 ASS		
Output Power Test	FCC Part 15: 15.247	PASS		
T T				
Power Spectral Density Test	FCC Part 15: 15.247	PASS		
Tower spectral bensity Test	ANSI C63.10: 2009	11100		
Antenna requirement	FCC Part 15: 15.203	PASS		





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2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name : 3D Blu-ray Disc Player

Model Number & Brand Name

Brand Name	Model Number
VIZIO	VBR337, VBR337-CA VBR337-MX ,VBR338 VBR338-CA,VBR338-MX

VBR338, VBR338-CA, VBR338-MX have HDMI Cable, VBR337, VBR337-CA, VBR337-MX have no HDMI Cable, All other characteristic are Same are except the bock label and

Software.

FCC ID : ZVABD00001

Operation Frequency: IEEE 802.11b: 2412MHz—2462MHz

IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 2412MHz—2462MHz IEEE 802.11n HT40: 2422MHz—2452MHz

Channel Number : IEEE 802.11b/g, 802.11n HT20: 11 Channels

IEEE 802.11n HT40: 7 Channels

Modulation Technology : IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK)

IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE 802.11n HT20, HT40: OFDM (64QAM, 16QAM,

QPSK,BPSK)

Output Power : IEEE 802.11b: 23.48dBm

IEEE 802.11g: 25.37dBm IEEE 802.11n HT20: 26.46dBm IEEE 802.11n HT40: 26.47dBm

Antenna Assembly and Gain : Integral PCB antenna, MIMO 2X2; 1.53dBi Gain

Applicant : TCL Technoly Electronics (Huizhou) Co., Ltd.

Section 19, Zhongkai High-tech development

Zone, Huizhou City, Guangdong, China

Manufacturer : TCL Technoly Electronics (Huizhou) Co., Ltd.

Section 19, Zhongkai High-tech development

Zone, Huizhou City, Guangdong, China

USB Cable : Unshielded, Detachable, 1.8m

Date of Test : Jun.24~Jul.31, 2011

Date of Receipt : Jun.24, 2011

Sample Type : Prototype production



2.2.Test information

The test software "arcadyan_fcc_command" was used to control EUT work in Continuous TX mode (100% duty cycle), and select test channel, wireless mode and data rate.

Tested mode, channel, and data rate information					
Mode	data rate	Channel	Frequency		
	(Mpbs)(see Note)		(MHz)		
IEEE 802.11b	11	Low:CH1	2412		
	11	Middle: CH6	2437		
	11	High: CH11	2462		
IEEE 802.11g	6	Low:CH1	2412		
	6	Middle: CH6	2437		
	6	High: CH11	2462		
IEEE 802.11n HT20	6.5	Low:CH1	2412		
	6.5	Middle: CH6	2437		
	6.5	High: CH11	2462		
IEEE 802.11n HT40	13.5	Low:CH1	2422		
	13.5	Middle: CH4	2437		
	13.5	High: CH7	2452		

Note1:According exploratory test, EUT will have maximum output power in those data rate, so those data rate were used for all test.

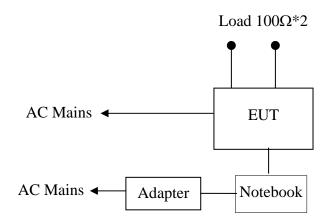
Note2:This device use MIMO 2X2 antennas, for 802.11b/g mode, based exploratory test, when transmit with Chain 2 have worse emissions, so the final radiated emissions test for 802.11b/g mode were tested with chain 2 transmit mode.

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2.3. Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type	
1	NI - 4 - 1 1-	-	DELL	PP09S	1/2/14/14/14	☑FCC DoC ☑BSMI ID:R33002	
1	Notebook	Power Adaptor: Manufacturer: DELL, M/N: LA65NS1-00					
Cable: Unshielded, Detachabled, 4.0m(Bond one ferrite core							

2.4. Block diagram of connection between the EUT and simulators



(EUT: 3D Blu-ray Disc Player)



2.5. Test Facility

Site Description

Name of Firm : Audix Technology (Shenzhen) Co., Ltd.

No. 6, Ke Feng Rd., 52 Block, Shenzhen

Science & Industrial Park, Nantou, Shenzhen, Guangdong, China

3m Anechoic Chamber : Certificated by FCC, USA

Registration Number: 90454 Valid Date: Mar.31, 2012

3m & 10m Anechoic Chamber : Certificated by FCC, USA

Registration Number: 794232 Valid Date: Dec.30, 2012

EMC Lab. : Certificated by Industry Canada

Registration Number: IC 5183A-1

Valid Date: Jul. 02, 2011

: Certificated by DAkkS, Germany

Registration No: D-PL-12151-01-01

Valid Date: Feb.01, 2014

Accredited by NVLAP, USA NVLAP Code: 200372-0 Valid Date: Mar.31, 2012

2.6. Measurement Uncertainty (95% confidence levels, k=2)

Test Item	Uncertainty		
Uncertainty for Conduction emission test in No. 1 Conduction	3.2 dB(150kHz to 30MHz)		
	3.6 dB(30~200MHz, Polarize: H)		
Uncertainty for Radiation Emission test	3.7 dB(30~200MHz, Polarize: V)		
in 3m chamber	4.0 dB(200M~1GHz, Polarize: H)		
	3.7 dB(200M~1GHz, Polarize: V)		
Uncertainty for Radiated Spurious Emission test in RF chamber	3.57dB		
Uncertainty for Conduction Spurious emission test	2.00 dB		
Uncertainty for Output power test	0.73 dB		
Uncertainty for Power density test	2.00 dB		
Uncertainty for Frequency range test	$7x10^{-8}$		
Uncertainty for Bandwidth test	83 kHz		
Uncertainty for DC power test	0.038 %		
Uncertainty for test site temperature and	0.6℃		
humidity	3%		

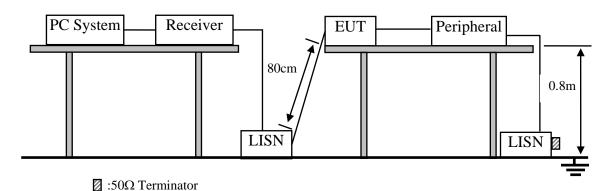


3. POWER LINE CONDUCTED EMISSION TEST

3.1. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Nov.05, 10	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Nov.05, 11	1 Year
3.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 11	1 Year
4.	Terminator	Hubersuhner	50Ω	No. 1	May.08, 11	1 Year
5.	Terminator	Hubersuhner	50Ω	No. 2	May.08, 11	1 Year
6.	RF Cable	Fujikura	3D-2W	LISN Cable 1#	May.08, 11	1Year
7.	Coaxial Switch	Anritsu	MP59B	M55367	May.08, 11	1 Year
8.	Passive Probe	Rohde & Schwarz	ESH2-Z3	299.7810.52	May.08, 11	1 Year
9.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 11	1 Year

3.2.Block Diagram of Test Setup



3.3. Power Line Conducted Emission Test Limits

	Maximum RF Line Voltage			
Frequency	Quasi-Peak Level	Average Level		
	$dB(\mu V)$	$dB(\mu V)$		
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*		
500kHz ~ 5MHz	56	46		
5MHz ~ 30MHz	60	50		

Notes: 1. * Decreasing linearly with logarithm of frequency.

2. The lower limit shall apply at the transition frequencies.

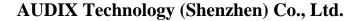
3.4. Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

3.4.1.3D Blu-ray Disc Player (EUT)

Model Number : VBR337 Serial Number : N/A

3.4.2. Support Equipment : As Tested Supporting System Detail, in Section 2.3.





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3.5. Operating Condition of EUT

- 3.5.1. Setup the EUT and simulator as shown as Section 3.2.
- 3.5.2. Turned on the power of all equipment.
- 3.5.3. Notebook run test software to control RF module work in Tx mode.
- 3.5.4. All other input and outputs of host were connected to dummy load.

3.6.Test Procedure

The EUT was placed on a non-metallic table, 80cm above the ground plane. The EUT Power Via Notebook connected to the power mains through a line impedance stabilization network (L.I.S.N. #1). This provides a 50 ohm coupling impedance for the EUT (Please refer the block diagram of the test setup and photographs). The other peripheral devices power cord connected to the power mains through a line impedance stabilization network (L.I.S.N.#3). Both sides of power line are checked to find out the maximum conducted emission. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.10: 2009 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS10) is set at 10kHz.

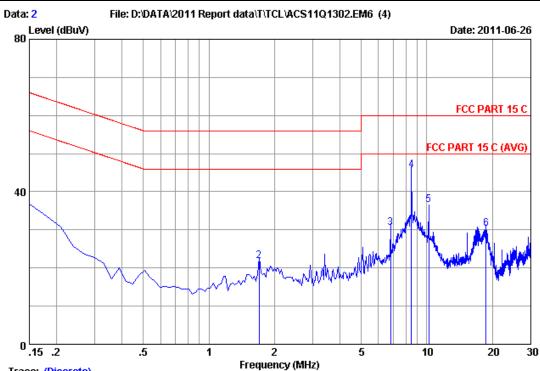
The frequency range from 150kHz to 30MHz is checked.

The test result are reported on Section 3.7.,

3.7. Power Line Conducted Emission Test Results

PASS. (All emissions not reported below are too low against the prescribed limits.)

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Trace: (Discrete)

Site no :1#conduction Data No :2

:** 2011 ESH2-Z5 LINE Dis./Ant.

:FCC PART 15 C Limit

:29.5*C/55% Engineer : Gary Env./Ins.

:3D Blu-ray Disc Player

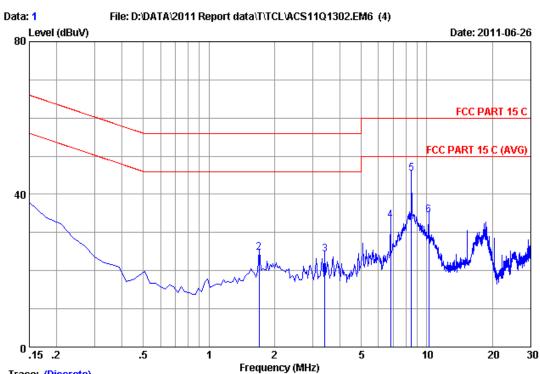
Power Rating :AC 120V/60Hz :Tx Mode Test Mode M/N:VBR337

No 	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emissio Level (dBuV)	n Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.17	9.98	24.54	34.69	66.00	31.31	QP
2	1.702	0.29	9.97	11.58	21.84	56.00	34.16	QP
3	6.807	0.46	9.92	20.24	30.62	60.00	29.38	QP
4	8.508	0.56	9.91	35.11	45.58	60.00	14.42	QP
5	10.209	0.67	9.90	26.04	36.61	60.00	23.39	QP
6	18.687	0.98	9.99	19.37	30.34	60.00	29.66	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.

> 2. If the average limit is met when useing a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.

Page 3-4



Trace: (Discrete)

Site no :1#conduction Data No

Dis./Ant. :** 2011 ESH2-Z5 NEUTRAL

Limit :FCC PART 15 C

Env./Ins. :29.5*C/55% Engineer : Gary

EUT :3D Blu-ray Disc Player

Power Rating :AC 120V/60Hz :Tx Mode Test Mode M/N:VBR337

No 	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emissio Level (dBuV)	n Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.21	9.98	26.68	36.87	66.00	29.13	QP
2	1.702	0.26	9.97	14.45	24.68	56.00	31.32	QP
3	3.404	0.30	9.94	13.96	24.20	56.00	31.80	QP
4	6.807	0.38	9.92	22.90	33.20	60.00	26.80	QP
5	8.508	0.42	9.91	35.09	45.42	60.00	14.58	QP
6	10.209	0.46	9.90	24.23	34.59	60.00	25.41	QP

Remarks: 1.Emission Level=LISN Factor+Cable Loss(Include 10dB pulse limit) +Reading.

> 2. If the average limit is met when useing a quasi-peak detector. the EUT shall be deemed to meet both limits and measurement with average detector is unnecessary.



4. RADIATED EMISSION TEST

4.1.Test Equipment

Frequency range: 30~1000MHz

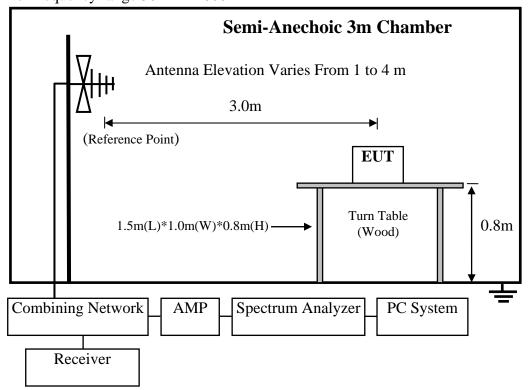
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A N/A		Dec.06,10	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 11	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 11	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 11	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Oct.26, 10	1 Year
6	RF Cable	MIYAZAKI	8D-FB	3# Chamber No.1	May.08, 11	1 Year
7	Coaxial Switch	Anritsu	MP59B	M73989	May.08, 11	1 Year

Frequency range: above 1000MHz

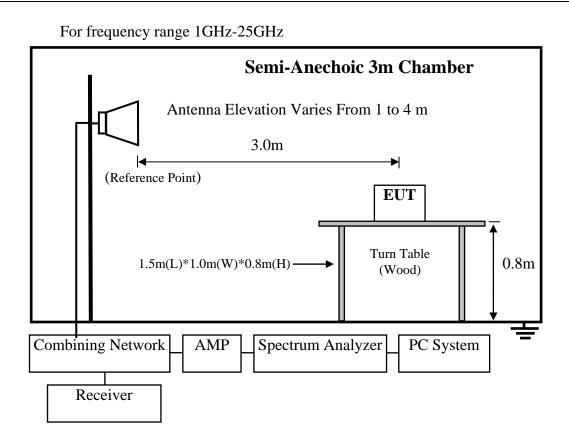
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Spectrum Analyzer	Agilent	E4407B	MY41440292	May.08, 11	1 Year
2	Horn Antenna	EMCO	3115	9607-4877	May.25, 11	1.5 Year
3	Amplifier	Agilent	8449B	3008A00863	May.08, 11	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX102	28622/2	May.08, 11	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX102	29091/2	May.08, 11	1 Year

4.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz







4.3. Radiated Emission Limit

4.3.1.15.209 limits

FREQUENCY	DISTANCE	FIELD STREN	NGTHS LIMIT	
MHz	Meters	μV/m	$dB(\mu V)/m$	
30 ~ 88	3	100	40.0	
88 ~ 216	3	150	43.5	
216 ~ 960	3	200	46.0	
960 ~ 1000	3	500	54.0	
Above 1000	3	74.0 dB(μV	V)/m (Peak)	
		54.0 dB(μV	V)/m (Average)	

Remark : (1) Emission level $dB\mu V = 20 \log Emission level \mu V/m$

- (2) The smaller limit shall apply at the cross point between two frequency bands.
- (3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.



4.3.2. 15.205 Restricted bands of operation

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

4.4.EUT Configuration on Test

The configurations of EUT are listed in Section 3.5.

4.5. Operating Condition of EUT

Same as Conducted Emission test that is listed in Section 3.6. except the test set up replaced by Section 4.2.

4.6.Test Procedure

EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. Power on the EUT and let it working in test mode, then test it. EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna are set on test.

The bandwidth of the EMI test receiver (R&S ESVS10) is set at 120kHz for frequency range from 30MHz to 1000 MHz.

The bandwidth of the Spectrum's VBW is set at 3MHz and RBW is set at 1MHz for peak emissions measurement above 1GHz and 1MHz RBW, 10Hz VBW for average emissions measure above 1GHz

The frequency range from 30MHz to 10th harmonic (25GHz) are checked. and no any emissions were found from 18GHz to 25 GHz, So the radiated emissions from 18GHz to 25GHz were not record.

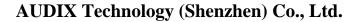


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4.7.Radiated Emission Test Results **PASS.**

For emissions above 1GHz, based exploratory test, there was no significance difference between stand alone test and with host, so for emissions above 1GHz, Stand alone set up was used for final test.

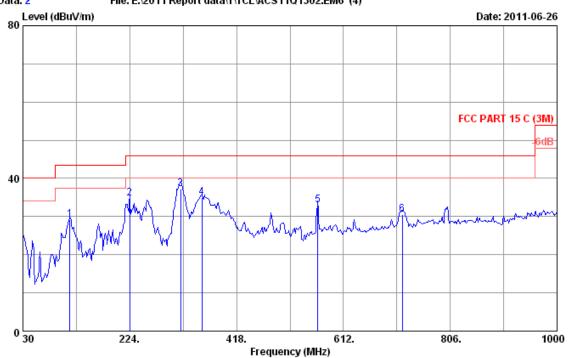
All the emissions from 30MHz to 25 GHz were comply with 15.209 limits.





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Site no. : 3m Chamber Data no. : 2

Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : HORIZONTAL

Engineer : Gary

Limit : FCC PART 15 C (3M)

Env. / Ins. : 24*C/56%

EUT : 3D Blu-ray Disc Player

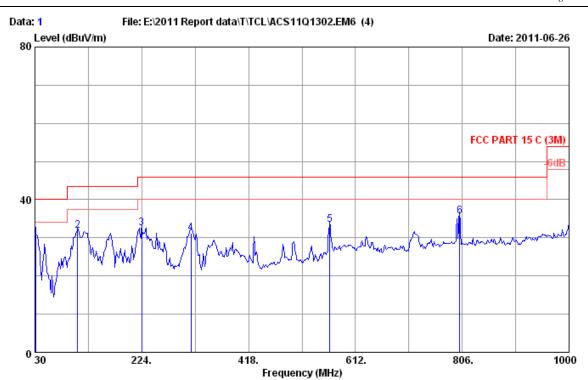
Power rating : AC 120V/60Hz Test Mode : Tx Mode M/N:VBR337

_	No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	_
	1	115.360	11.70	1.27	16.22	29.19	43.50	14.31	QP	
	2	224.000	10.52	2.11	22.05	34.68	46.00	11.32	QP	
	3	316.150	14.12	3.05	20.03	37.20	46.00	8.80	QP	
	4	354.950	15.35	3.18	16.37	34.90	46.00	11.10	QP	
	5	565.440	19.61	4.32	9.16	33.09	46.00	12.91	QP	
	6	718.700	20.79	5.09	4.76	30.64	46.00	15.36	QP	

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 1

Dis. / Ant. : 3m 2010 CBL6111C 2598 Ant. pol. : VERTICAL

Engineer : Gary

Limit : FCC PART 15 C (3M)

Env. / Ins. : 24*C/56%

EUT : 3D Blu-ray Disc Player

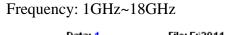
Power rating : AC 120V/60Hz
Test Mode : Tx Mode
M/N:VBR337

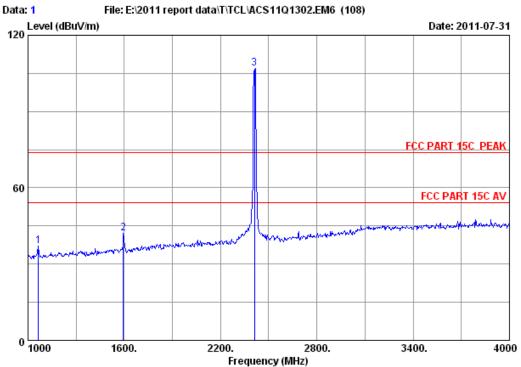
No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	31.940	18.88	0.61	10.58	30.07	40.00	9.93	QP
2	107.600	11.20	1.22	19.41	31.83	43.50	11.67	QP
3	224.000	10.52	2.11	19.80	32.43	46.00	13.57	QP
4	313.240	14.06	3.04	14.09	31.19	46.00	14.81	QP
5	565.440	19.61	4.32	9.49	33.42	46.00	12.58	QP
6	801.150	22.00	5.50	8.21	35.71	46.00	10.29	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading.

2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 1

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH1 2412MHz Tx

M/N : VBR337

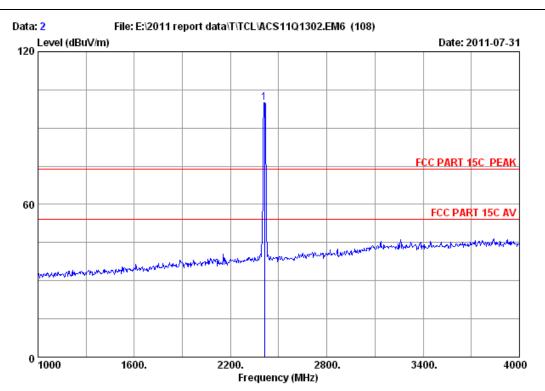
		Ant.	Cable	Amp.		Emission				
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)		
1	1066.000	24.01	4.45	34.86	43.47	37.07	74.00	36.93	Peak	
2	1594.000	25.72	5.35	34.60	45.77	42.24	74.00	31.76	Peak	
3	2412.000	27.98	6.78	34.44	106.53	106.85	74.00	-32.85	Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 2

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

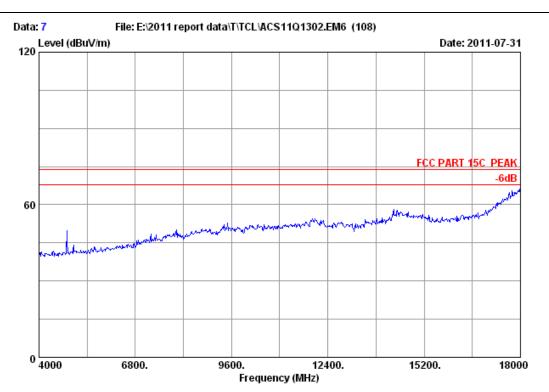
Test mode : IEEE802.11b CH1 2412MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2412.000	 0 27.98	6.78	34.44	99.62	99.94	74.00 -25.94	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no.: 7

Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 4580

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

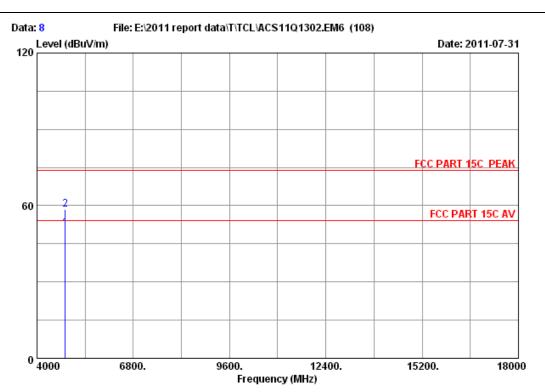
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH1 2412MHz Tx



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: 3m Chamber Site no. Data no.: 8

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

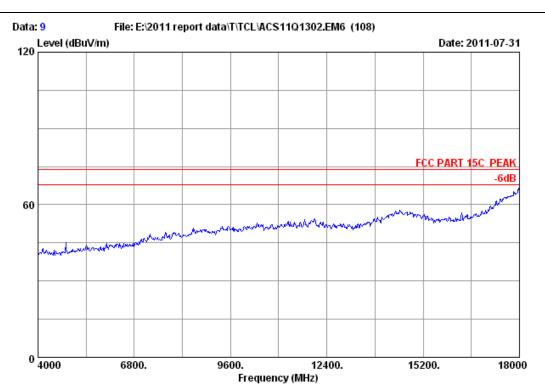
: AC 120V/60Hz Power

Test mode : IEEE802.11b CH1 2412MHz Tx

	Ant. Cable Amp. Freq. Factor loss Factor (MHz) (dB/m) (dB) (dB)		_	Emission Level (dBuV/m)		Remark		
_	4824.000 32 4824.000 32			43.22 50.55	51.08 58.41	54.00 74.00		Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no.: 9

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

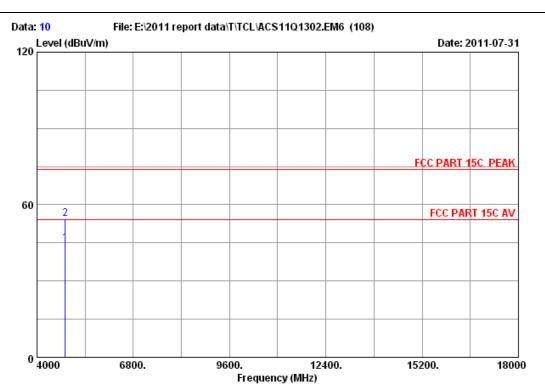
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH1 2412MHz Tx



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Site no. : 3m Chamber Data no.: 10

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

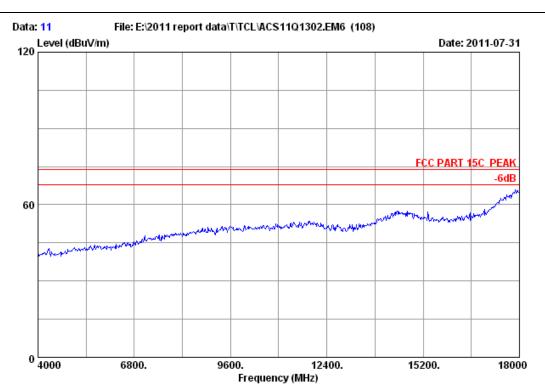
: AC 120V/60Hz Power

Test mode : IEEE802.11b CH1 2412MHz Tx

	-	loss	_	Emission Level (dBuV/m)		_	Remark
_	4824.000 4824.000	 	 36.93 46.57	44.79 54.43	54.00 74.00		Average Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no. : 11

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

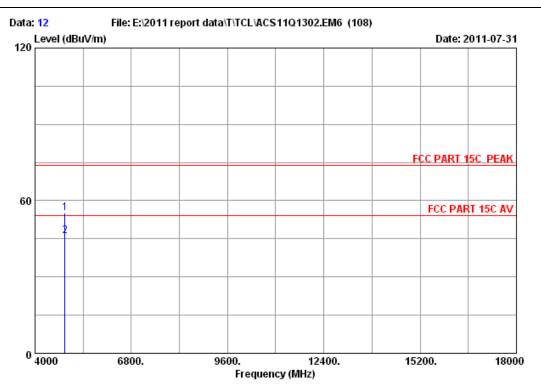
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH6 2437MHz Tx



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: 3m Chamber Site no. Data no.: 12

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

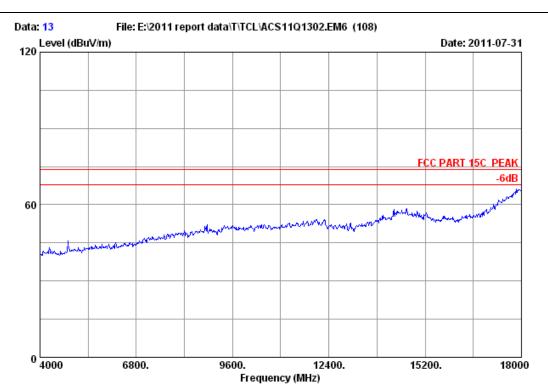
: AC 120V/60Hz Power

Test mode : IEEE802.11b CH6 2437MHz Tx

				Amp.		Emission			
	-				_	Level		_	Remark
	(MHz) (d	dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4874.000 3	32.98	9.62	34.60	47.25	55.25	74.00	18.75	Peak
2	4874.000 3	32.98	9.62	34.60	37.98	45.98	54.00	8.02	Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no.: 13

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

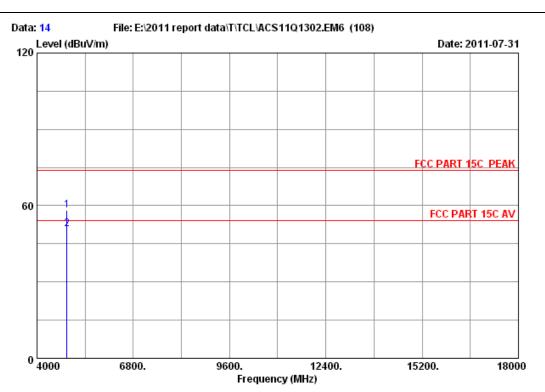
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH6 2437MHz Tx



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: 3m Chamber Site no. Data no.: 14

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

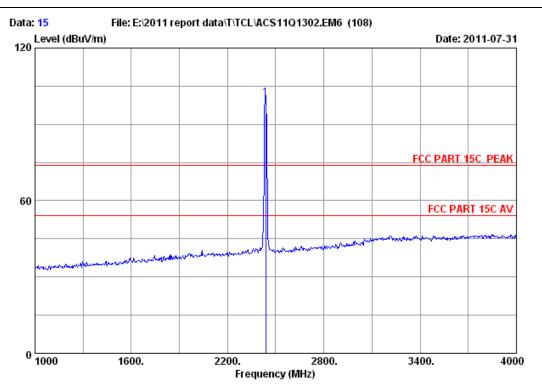
: AC 120V/60Hz Power

Test mode : IEEE802.11b CH6 2437MHz Tx

	Freq. Fact	Factor	_	Emission Level (dBuV/m)		_	Remark
_	4874.000 32 4874.000 32	 	50.05 42.69	58.05 50.69	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Data no. : 15 Site no. : 3m Chamber

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

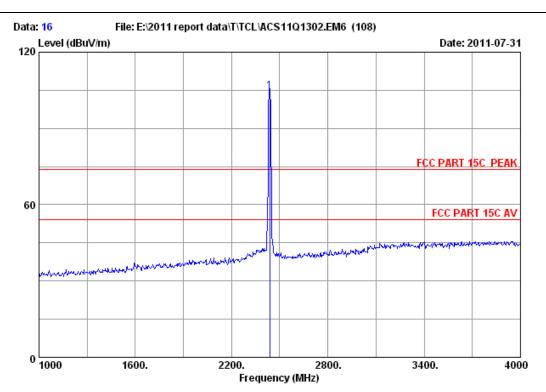
Test mode : IEEE802.11b CH6 2437MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2437.000	28.03	6.81	34.44	99.75	100.15	74.00 -26.15	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 16

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

: AC 120V/60Hz Power

Test mode : IEEE802.11b CH6 2437MHz Tx

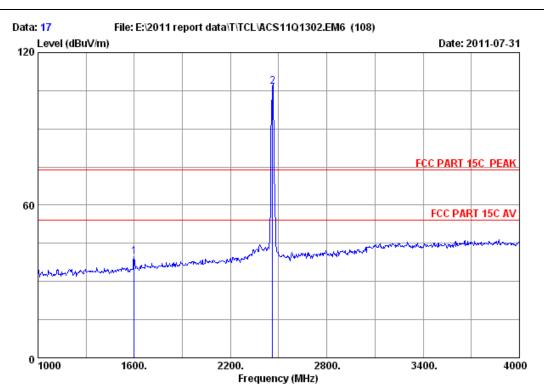
M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2437.000	 0 28.03	6.81	34.44	104.38	104.78	74.00 -30.78	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 17

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH11 2462MHz Tx

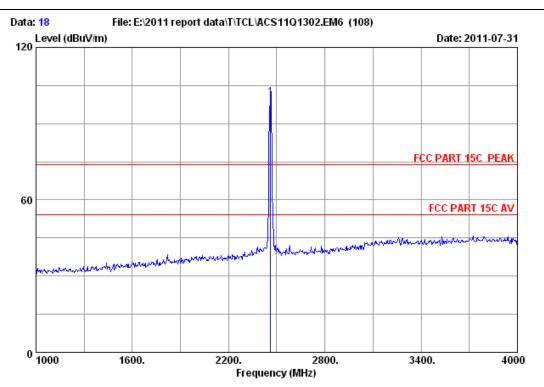
M/N : VBR337

	Freq. Factor	Reading		Limits Margin (dBuV/m) (dB)	Remark
_	1600.000 25.72 2462.000 28.05	 	39.82 106.75	74.00 34.18 74.00 -32.75	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 18

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

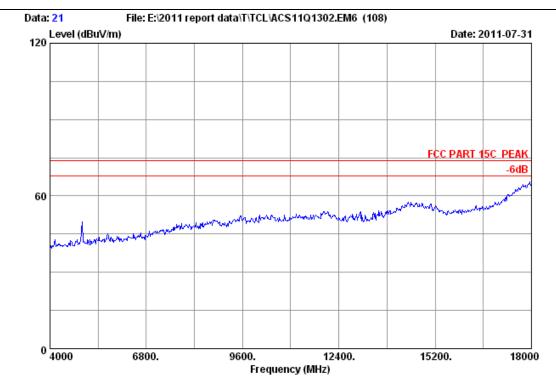
Test mode : IEEE802.11b CH11 2462MHz Tx

M/N : VBR337

	-		loss	Factor	_		Limits Margin (dBuV/m) (dB)	Remark
1	2462.000	28.05	6.84	34.44	99.70	100.15	74.00 -26.15	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 21

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Engineer : Paul Tian

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41%

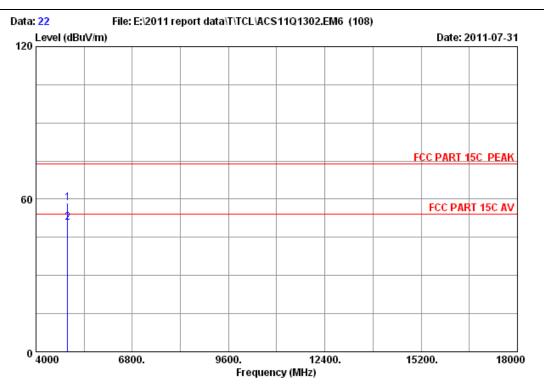
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH11 2462MHz Tx



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Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no.: 22

Ant. pol. : HORIZONTAL

: FCC PART 15C PEAK Limit

Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

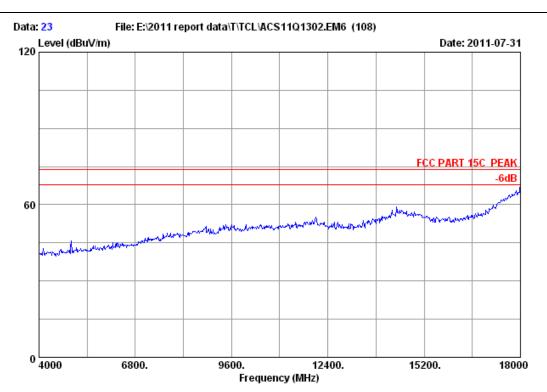
Test mode : IEEE802.11b CH11 2462MHz Tx

: VBR337 M/N

		Ant.		•		Emission			
	-				_	Level		_	Remark
	(MHz) ((dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4924.000	33.08	9.66	34.60	50.34	58.48	74.00	15.52	Peak
2	4924.000	33.08	9.66	34.60	42.78	50.92	54.00	3.08	Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no.: 23

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

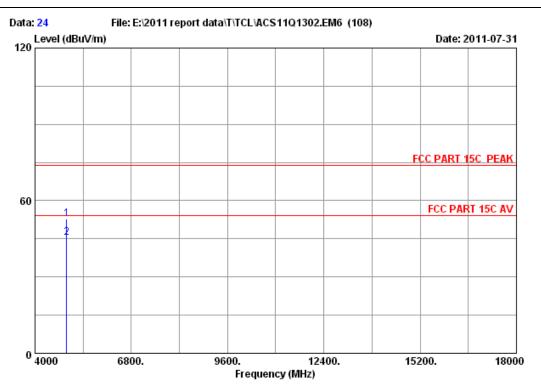
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH11 2462MHz Tx



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: 3m Chamber Site no. Data no.: 24

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

Test mode : IEEE802.11b CH11 2462MHz Tx

Ant. Freq. Factor (MHz) (dB/m)		•		_	Remark
4924.000 33.08 4924.000 33.08		52.81 45.34	74.00 54.00		Peak Average

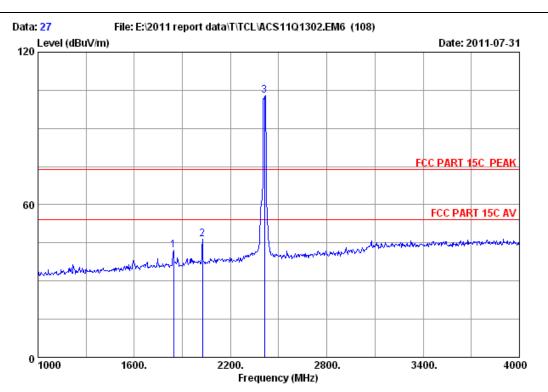
- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no.: 27

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

: AC 120V/60Hz Power

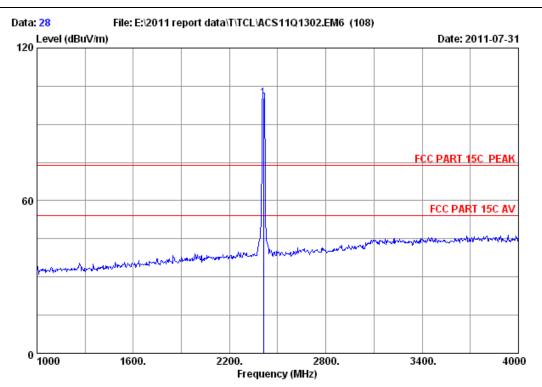
Test mode : IEEE802.11g CH1 2412MHz Tx

M/N : VBR337

	-	Factor	loss		_		Limits Margin (dBuV/m) (dB)	Remark
2	1846.000 2026.000 2412.000	27.42	6.10	34.40	43.93 47.18 102.62	42.01 46.30 102.94	74.00 31.99 74.00 27.70 74.00 -28.94	Peak Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no.: 28

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

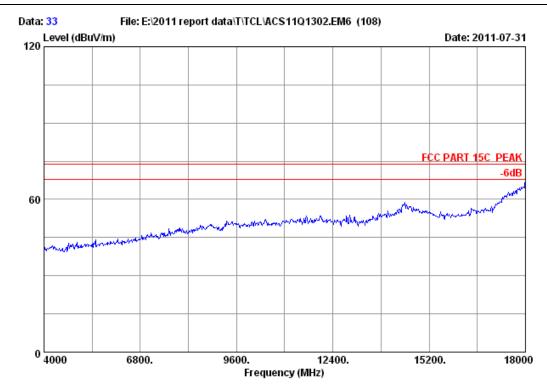
Test mode : IEEE802.11g CH1 2412MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2412.000	27.98	6.78	34.44	100.12	100.44	74.00 -26.44	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 33

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

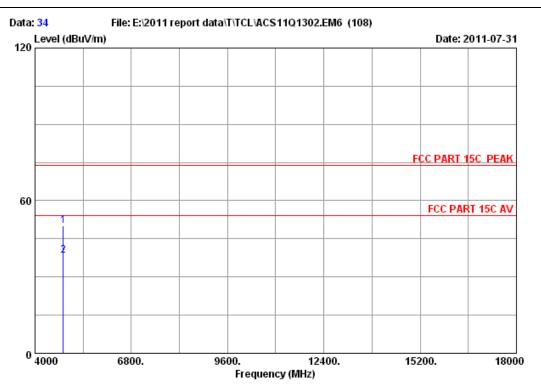
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11g CH1 2412MHz Tx



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: 3m Chamber Site no. Data no.: 34

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

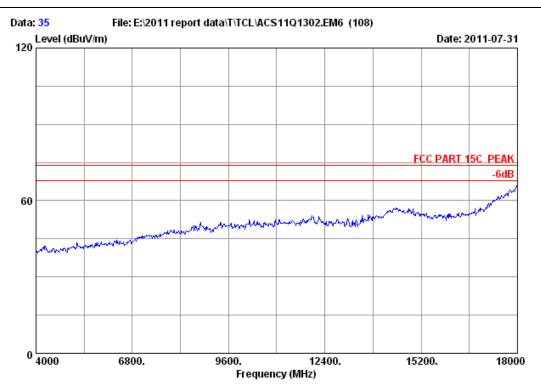
: AC 120V/60Hz Power

Test mode : IEEE802.11g CH1 2412MHz Tx

	Ant. Freq. Factor (MHz) (dB/m)	tor Reading			_	Remark
_	4824.000 32.89 4824.000 32.89	 	50.21 38.40	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Site no. Data no.: 35

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

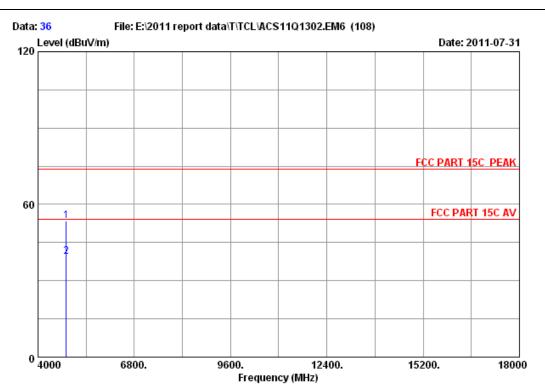
EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

Test mode : IEEE802.11g CH1 2412MHz Tx



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Site no. : 3m Chamber Data no. : 36

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

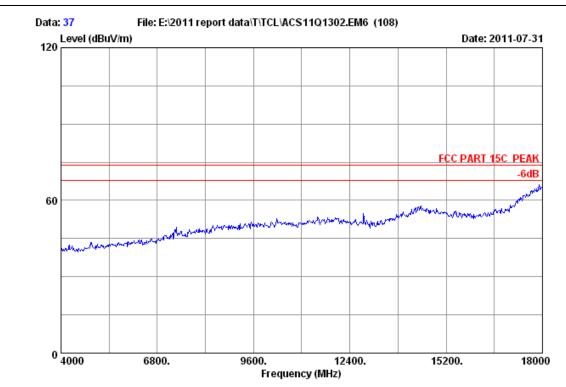
Test mode : IEEE802.11g CH1 2412MHz Tx

M/N : VBR337

	-	loss	Factor	_	Emission Level (dBuV/m)		_	Remark
_	4824.000 4824.000	 		45.62 31.58	53.48 39.44	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 37

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

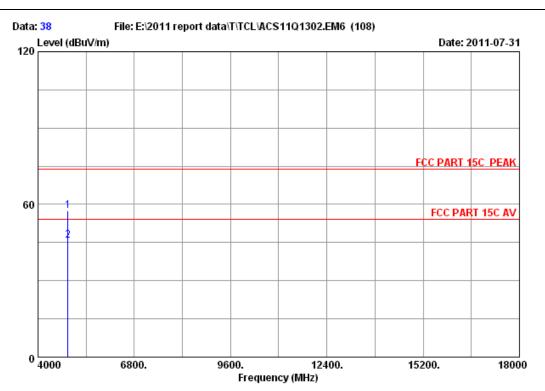
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11g CH6 2437MHz Tx



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Site no. : 3m Chamber Data no. : 38

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

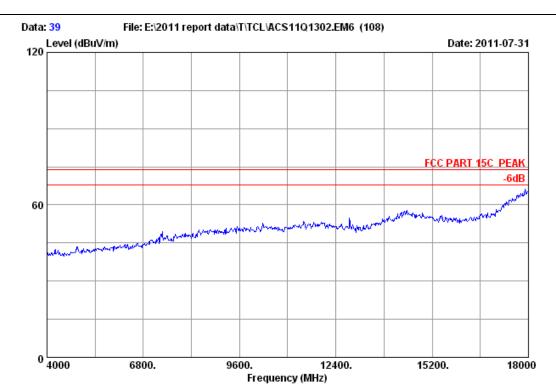
Test mode : IEEE802.11g CH6 2437MHz Tx

M/N : VBR337

	-	Factor	loss	_	Emission Level (dBuV/m)		_	Remark
_	4874.000 4874.000			 49.36 37.65	57.36 45.65	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 39

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

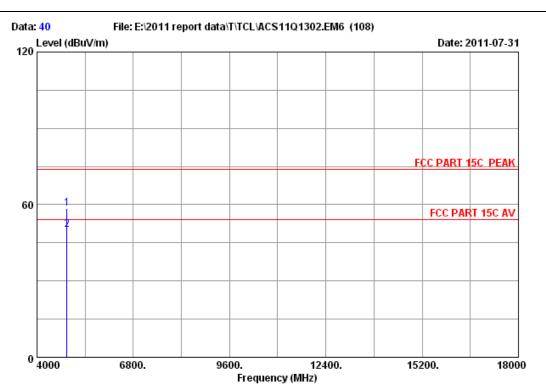
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11g CH6 2437MHz Tx



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: 3m Chamber Site no. Data no.: 40

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

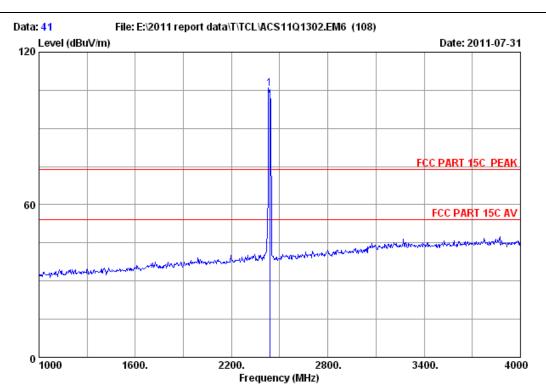
: AC 120V/60Hz Power

Test mode : IEEE802.11g CH6 2437MHz Tx

	-	loss	Factor	_	Emission Level (dBuV/m)		_	Remark
_	4874.000 4874.000	 		50.65 42.08	58.65 50.08	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no.: 41

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

: AC 120V/60Hz Power

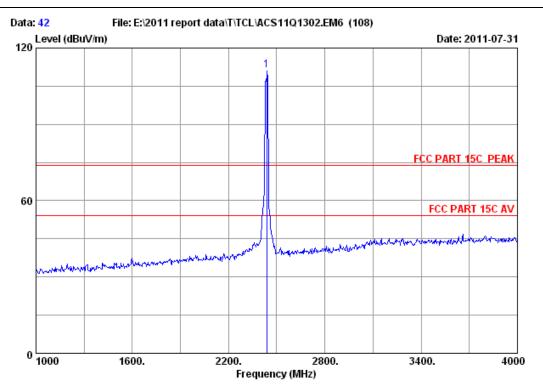
Test mode : IEEE802.11g CH6 2437MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark	
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)		
1	2437.000	 0 28.03	6.81	34.44	105.13	105.53	74.00 -31.53	Peak	-

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no.: 42

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

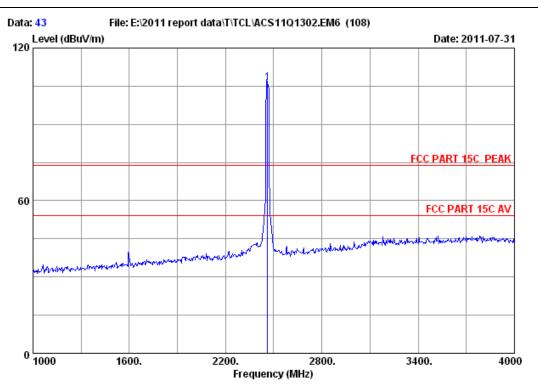
Test mode : IEEE802.11g CH6 2437MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2437.000	28.03	6.81	34.44	110.76	111.16	74.00 -37.16	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no.: 43

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

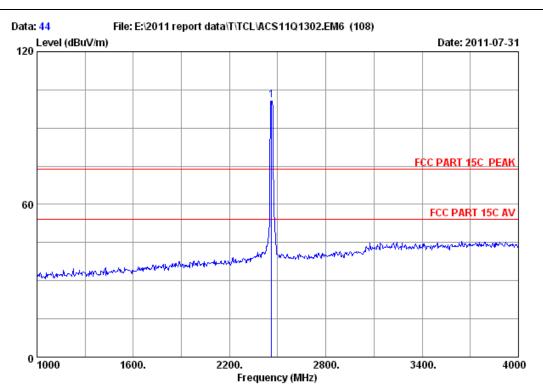
Test mode : IEEE802.11g CH11 2462MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2462.000	28.05	6.84	34.44	105.69	106.14	74.00 -32.14	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 44

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

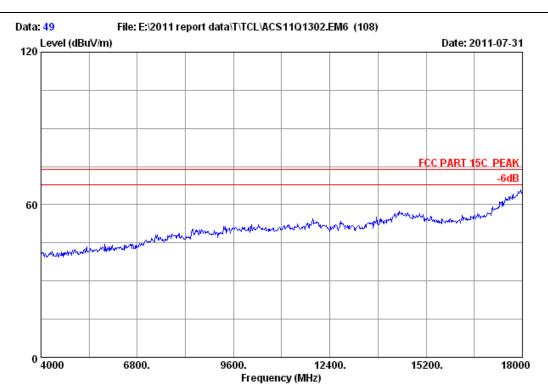
Test mode : IEEE802.11g CH11 2462MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2462.000	28.05	6.84	34.44	100.39	100.84	74.00 -26.84	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no.: 49

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

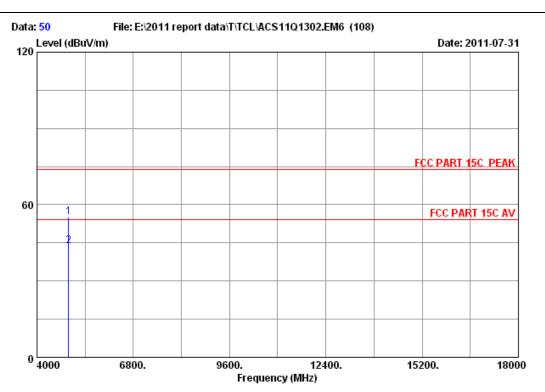
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz Tx



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Site no. : 3m Chamber Data no.: 50

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

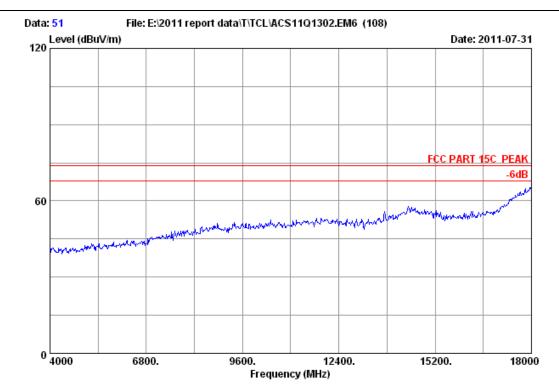
: AC 120V/60Hz Power

Test mode : IEEE802.11g CH11 2462MHz Tx

	-	loss	_	Emission Level (dBuV/m)		_	Remark
_	4924.000 4924.000	 	 46.98 35.60	55.12 43.74	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 51

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

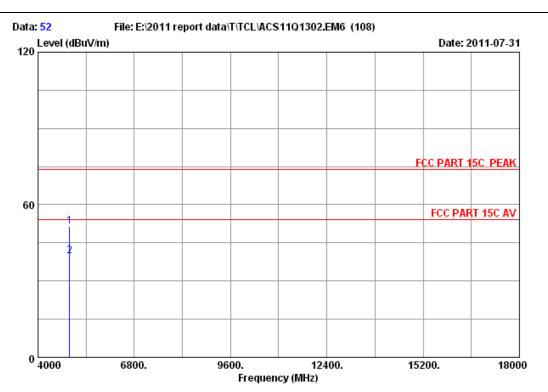
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11g CH11 2462MHz Tx



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Site no. : 3m Chamber Data no.: 52

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

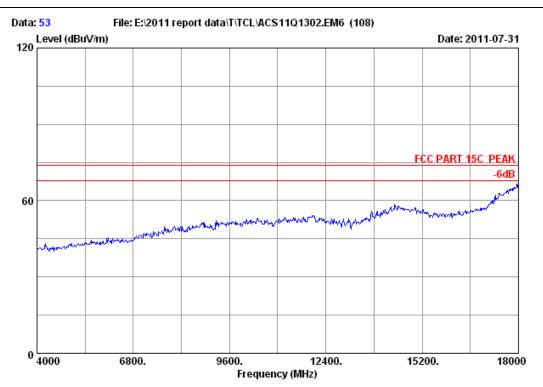
: AC 120V/60Hz Power

Test mode : IEEE802.11g CH11 2462MHz Tx

	-	Factor	loss	_	Emission Level (dBuV/m)		_	Remark	
_	4924.000 4924.000			 43.24 31.53	51.38 39.67	74.00 54.00		Peak Average	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Site no. Data no.: 53

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

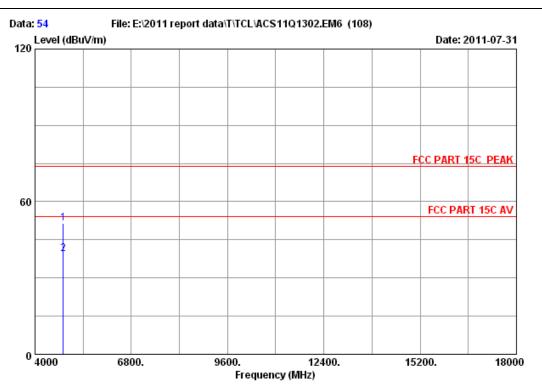
EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

Test mode : IEEE802.11nHT20 CH1 2412MHz Tx



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: 3m Chamber Site no. Data no.: 54

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

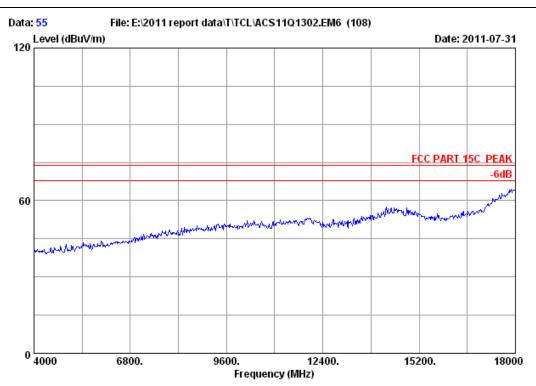
: AC 120V/60Hz Power

Test mode : IEEE802.11nHT20 CH1 2412MHz Tx

	Freq. Fac	nt. Cable stor loss 3/m) (dB)	Factor	_			_	Remark
_	4824.000 32 4824.000 32				51.54 39.29	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Site no. Data no.: 55

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

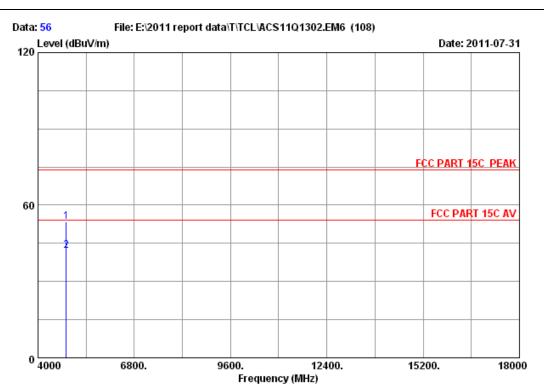
EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

Test mode : IEEE802.11nHT20 CH1 2412MHz Tx



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Site no. : 3m Chamber Data no. : 56

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

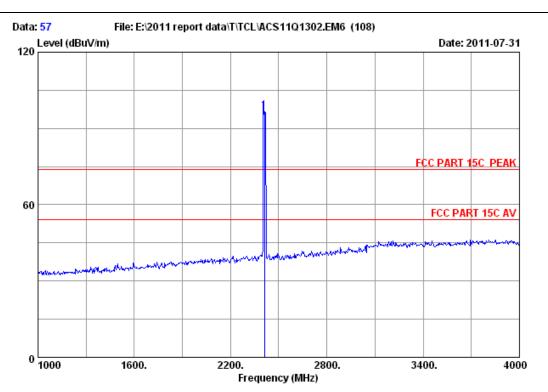
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx

M/N : VBR337

	Ant. Freq. Factor (MHz) (dB/m)	•			_	Remark
_	4824.000 32.89 4824.000 32.89	 	53.42 42.14	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no.: 57

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

: AC 120V/60Hz Power

Test mode : IEEE802.11nHT20 CH1 2412MHz Tx

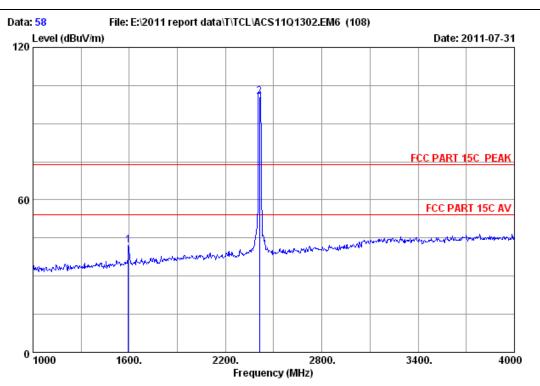
M/N : VBR337

	-	Factor	loss		_		Limits Margin (dBuV/m) (dB)	Remark
1	2412.000	27.98	6.78	34.44	96.78	97.10	74.00 -23.10	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 58

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

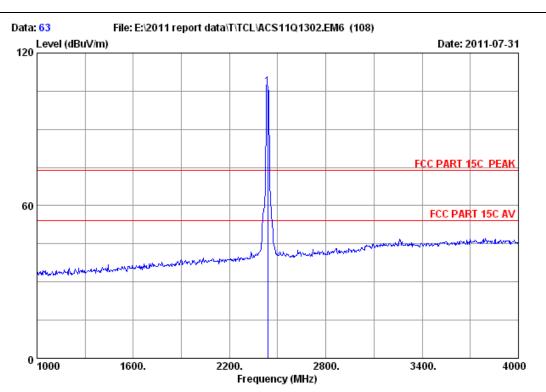
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx

M/N : VBR337

	I	lnt.	Cable	Amp.		Emission			
	Freq. Fa	actor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz) (c	iB/m)	(dB)	(dB)	(dBuV)	(dBuV/m) ((dBuV/m)	(dB)	
1	1594.000 2	25.72	5.35	34.60	45.66	42.13	74.00	31.87	Peak
2	2412.000 2	27.98	6.78	34.44	100.39	100.71	74.00 -	26.71	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no.: 63

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

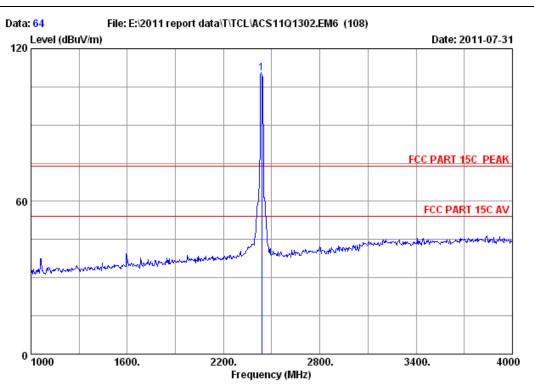
Test mode : IEEE802.11nHT20 CH6 2437MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2437.000	28.03	6.81	34.44	106.33	106.73	74.00 -32.73	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 64

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

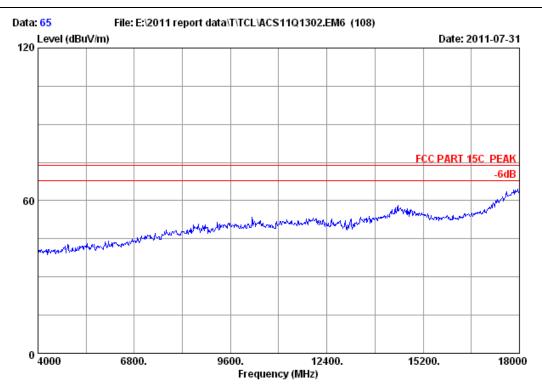
Test mode : IEEE802.11nHT20 CH6 2437MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2437.000	28.03	6.81	34.44	109.99	110.39	74.00 -36.39	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Site no. Data no.: 65

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

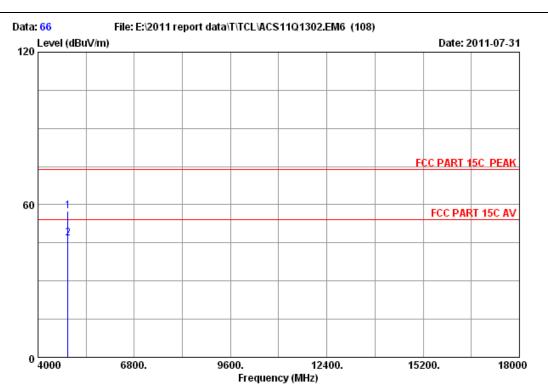
EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

Test mode : IEEE802.11nHT20 CH6 2437MHz Tx



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: 3m Chamber Data no.: 66

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

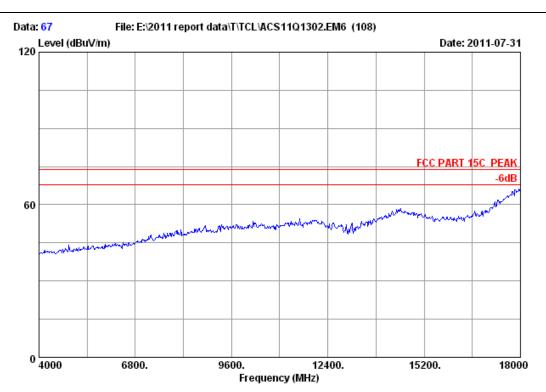
: AC 120V/60Hz Power

Test mode : IEEE802.11nHT20 CH6 2437MHz Tx

	Ant. Freq. Factor (MHz) (dB/m)	loss	_	Emission Level (dBuV/m)		_	Remark
_	4874.000 32.98 4874.000 32.98		 49.35 38.85	57.35 46.85	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no.: 67

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

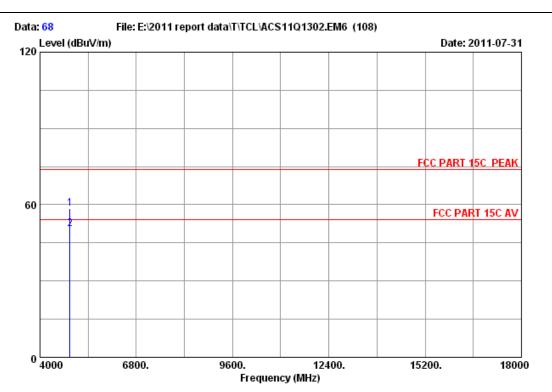
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH6 2437MHz Tx



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: 3m Chamber Data no.: 68

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

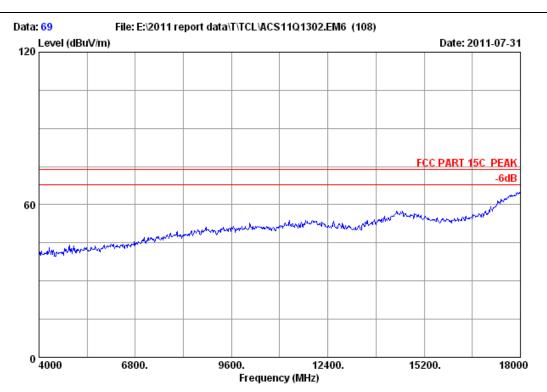
: AC 120V/60Hz Power

Test mode : IEEE802.11nHT20 CH6 2437MHz Tx

	-	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)		_	Remark
_	4874.000 4874.000				50.38 42.38	58.38 50.38	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no.: 69

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

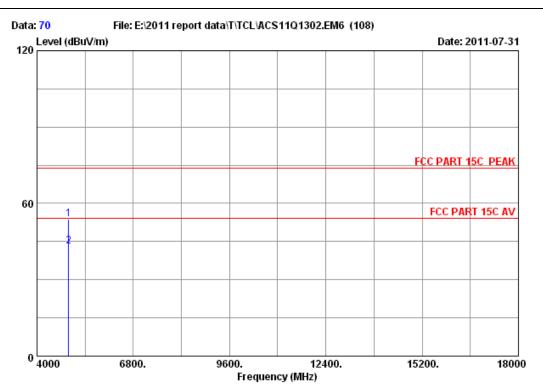
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH11 2462MHz Tx



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Site no. : 3m Chamber Data no. : 70

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

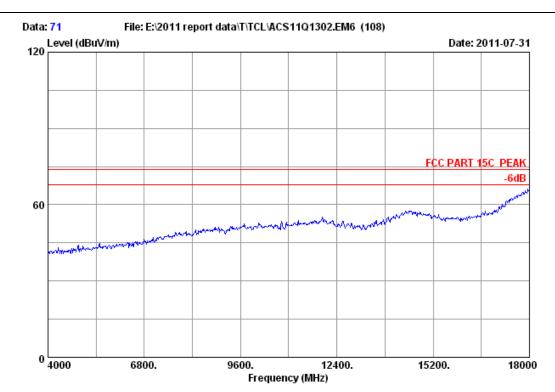
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx

M/N : VBR337

-	Factor	loss	_	Emission Level (dBuV/m)		_	Remark
4924.000			45.74 34.84	53.88 42.98	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no.: 71

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

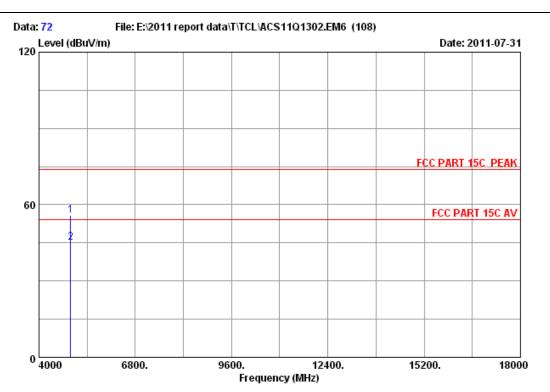
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH11 2462MHz Tx



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: 3m Chamber Data no.: 72

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

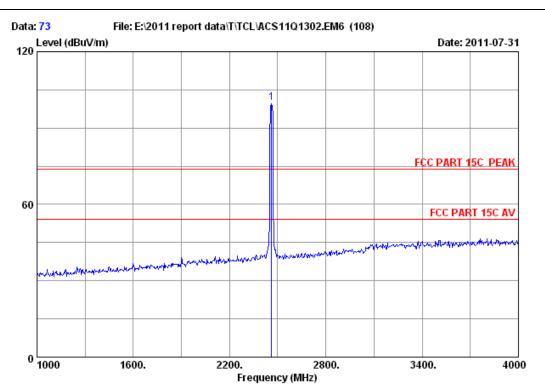
: AC 120V/60Hz Power

Test mode : IEEE802.11nHT20 CH11 2462MHz Tx

	Ant. Freq. Factor (MHz) (dB/m)	Factor	_	Emission Level (dBuV/m)		_	Remark
_	4924.000 33.08 4924.000 33.08	 	47.70 37.13	55.84 45.27	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 73

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

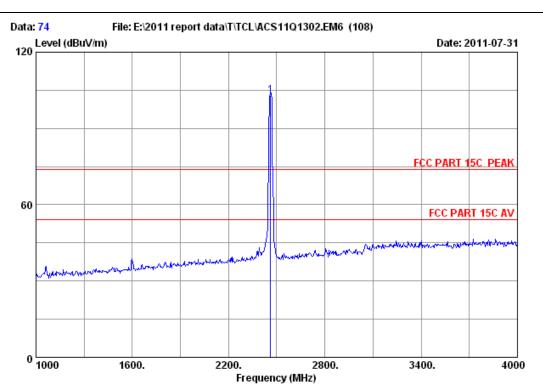
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2462.000	28.05	6.84	34.44	99.38	99.83	74.00 -25.83	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no.: 74

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

: AC 120V/60Hz Power

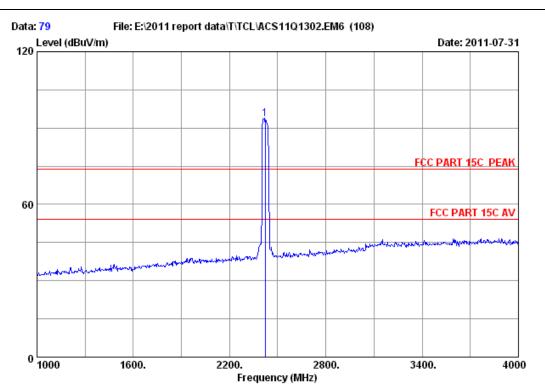
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	-				_		Limits Margin (dBuV/m) (dB)	Remark
1	2462.000	28.05	6.84	34.44	102.47	102.92	74.00 -28.92	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 79

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH1 2422MHz Tx

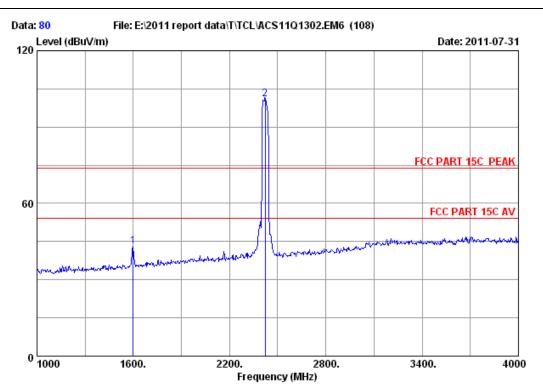
M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2422.000	28.00	6.78	34.44	93.32	93.66	74.00 -19.66	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 80

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

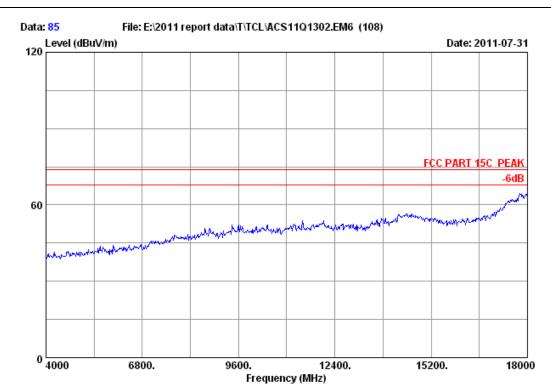
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx

M/N : VBR337

-	Factor	loss	_	Limits Margin (dBuV/m) (dB)	Remark
1600.000			 46.67 100.63	 74.00 30.86 74.00 -26.97	Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 85

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

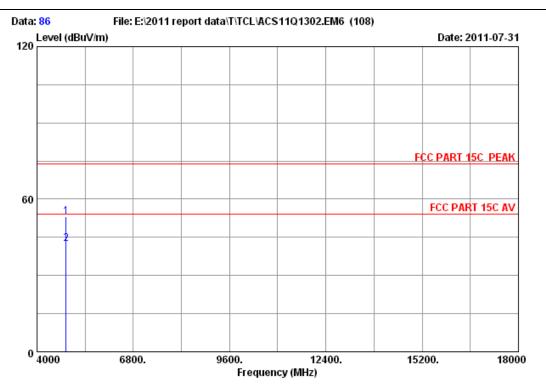
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH1 2422MHz Tx



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Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no.: 86

Ant. pol. : HORIZONTAL

: FCC PART 15C PEAK Limit

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

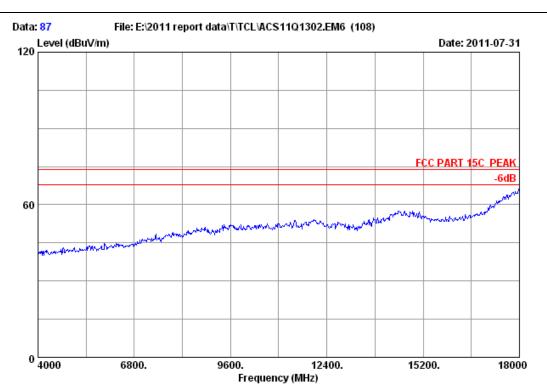
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx

: VBR337 M/N

	Ant.	Cable Amp		Emission				
	Freq. Factor (MHz) (dB/m)		_			_	Remark	
	(MHZ) (GB/M)		(ubuv) 	(GBGV/M)	(abav/m)	, (ub) 		
1	4844.000 32.92	9.59 34.6	45.25	53.16	74.00	20.84	Peak	
2	4844.000 32.92	9.59 34.6	34.46	42.37	54.00	11.63	Average	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no.: 87

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

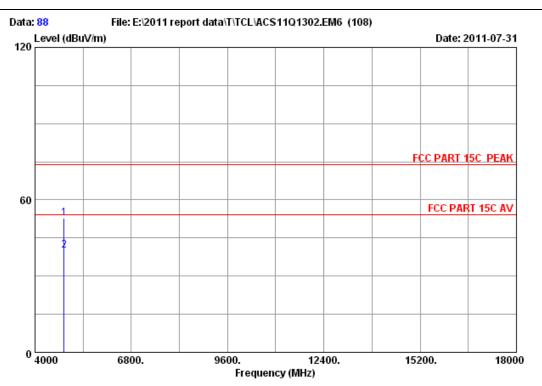
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH1 2422MHz Tx



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Site no. : 3m Chamber Data no. : 88

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

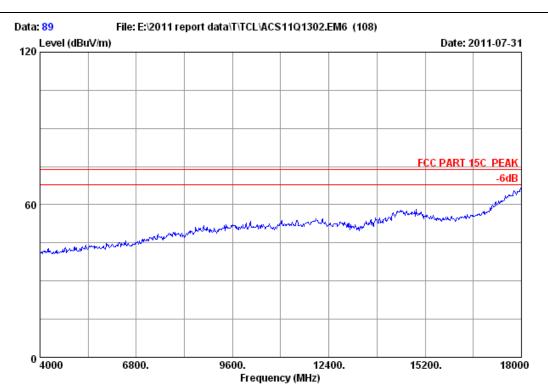
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission			
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	4844.000	32.92	9.59	34.60	44.98	52.89	74.00	21.11	Peak
2	4844.000	32.92	9.59	34.60	32.18	40.09	54.00	13.91	Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Data no.: 89

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

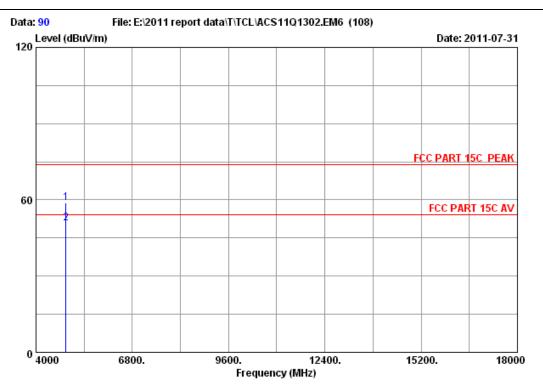
EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH4 2437MHz Tx



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Site no. : 3m Chamber Data no. : 90

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

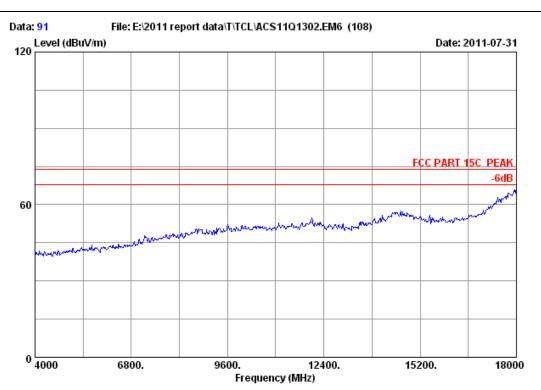
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx

M/N : VBR337

	-	Factor	loss	_	Emission Level (dBuV/m)		_	Remark	
_	4874.000 4874.000			 50.68 42.77	58.68 50.77	74.00 54.00		Peak Average	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Site no. Data no.: 91

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

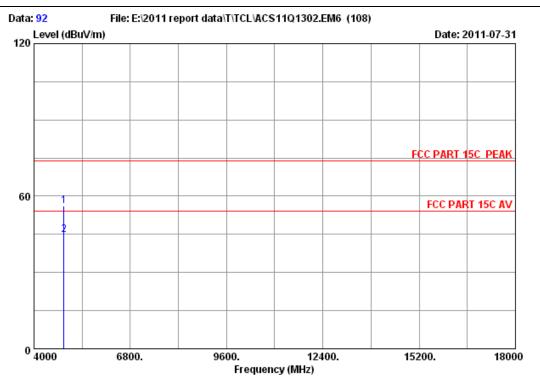
EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

Test mode : IEEE802.11nHT40 CH4 2437MHz Tx



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Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no.: 92

Ant. pol. : VERTICAL

: FCC PART 15C PEAK Limit

Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

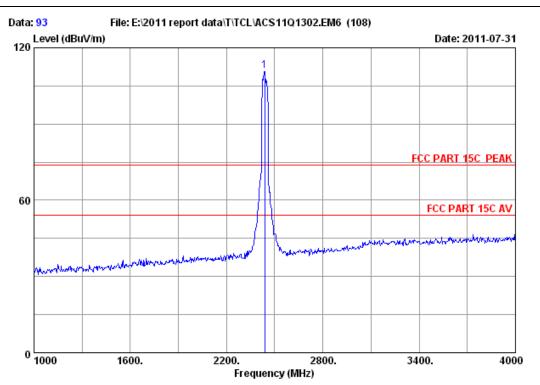
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx

: VBR337 M/N

	Freq. Factor		Amp. actor Reading dB) (dBuV)			_	Remark
1	4874.000 32.98	9.62 3	4.60 48.28	56.28	74.00	17.72	Peak
2	4874.000 32.98	9.62 3	4.60 36.76	44.76	54.00	9.24	Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no.: 93

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

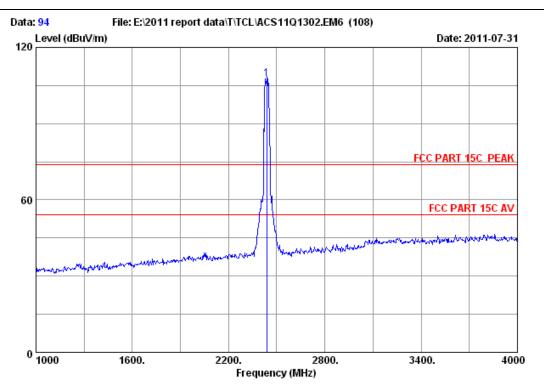
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx

M/N: VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2437.000	28.03	6.81	34.44	110.46	110.86	74.00 -36.86	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no. : 94

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

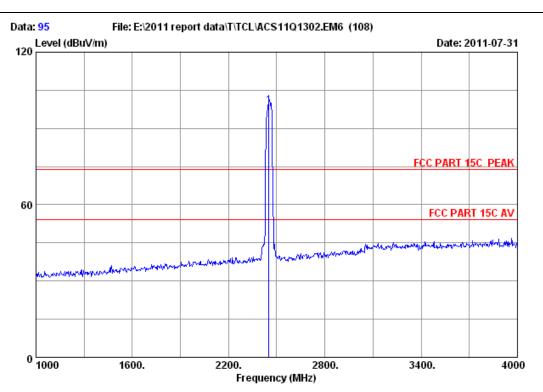
Test mode : IEEE802.11nHT40 CH4 2437MHz Tx

M/N : VBR337

1							(dBuV/m) (dB)	Dook
1	2437.000	28.03	6.81	34.44	107.34	107.74	74.00 -33.74	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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Site no. : 3m Chamber Data no.: 95

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

: AC 120V/60Hz Power

Test mode : IEEE802.11nHT40 CH7 2452MHz Tx

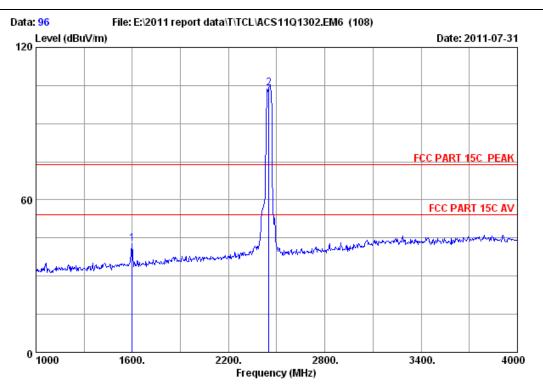
M/N : VBR337

		Ant.	Cable	Amp.		Emission		
	Freq.	Factor	loss	Factor	Reading	Level	Limits Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)	
1	2452.000	28.03	6.84	34.44	98.37	98.80	74.00 -24.80	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.



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Site no. : 3m Chamber Data no. : 96

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

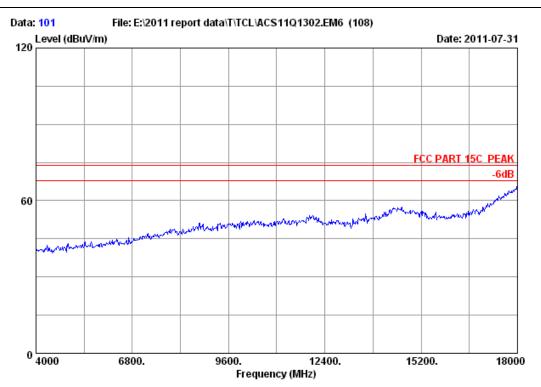
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx

M/N : VBR337

		Ant.	Cable	Amp.		Emission				
	Freq.	Factor	loss	Factor	Reading	Level	Limits	Margin	Remark	
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m) (dB)		
1	1600.000	25.72	5.35	34.60	46.47	42.94	74.00	31.06	Peak	
2	2452.000	28.03	6.84	34.44	103.56	103.99	74.00	-29.99	Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Site no. Data no. : 101

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

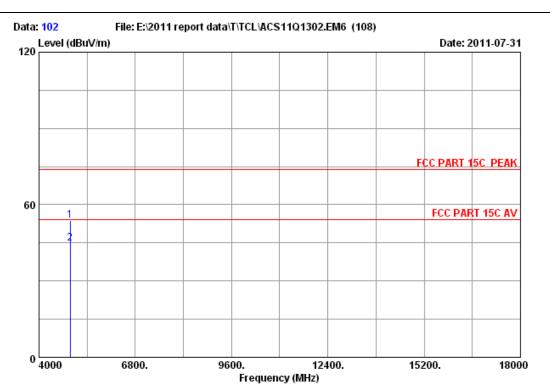
EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

Test mode : IEEE802.11nHT40 CH7 2452MHz Tx



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Site no. : 3m Chamber Data no. : 102

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player EUT

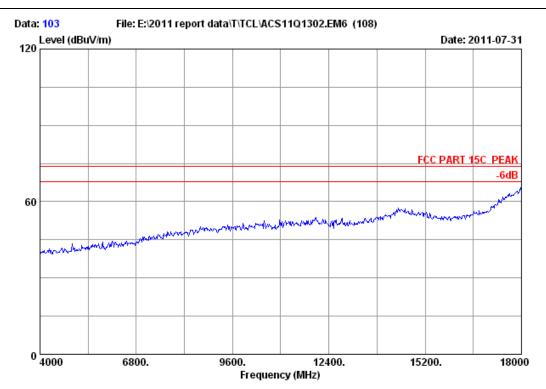
: AC 120V/60Hz Power

Test mode : IEEE802.11nHT40 CH7 2452MHz Tx

	Ant. Freq. Factor (MHz) (dB/m)	loss	_	Emission Level (dBuV/m)		_	Remark
_	4904.000 33.04 4904.000 33.04		 45.77 36.71	53.85 44.79	74.00 54.00		Peak Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

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: 3m Chamber Site no. Data no. : 103 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41%

Engineer : Paul Tian

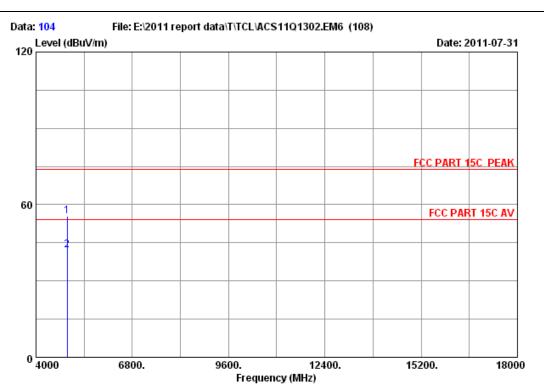
EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

Test mode : IEEE802.11nHT40 CH7 2452MHz Tx



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: 3m Chamber Site no. Data no. : 104 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

: AC 120V/60Hz Power

Test mode : IEEE802.11nHT40 CH7 2452MHz Tx

	Freq. Factor	Cable Amp. loss Factor (dB) (dB)	_			-
_	4904.000 33.04 4904.000 33.04		47.57 34.14	55.65 42.22	74.00 18. 54.00 11.	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

5. CONDUCTED SPURIOUS EMISSIONS

5.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,11	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08,11	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,11	1Year

5.2.Limit

In any 100kHz bandwidth outside the frequency bands in which the spread spectrum intentional radiator in operating, the radio frequency power that is produced by the intentional radiator shall be at least 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, In addition, radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in 15.209(a).

5.3.Test Procedure

The transmitter output was connected to a spectrum analyzer, The resolution bandwidth is set to 100 kHz, The video bandwidth is set to 300 kHz and measure all the emissions detected.

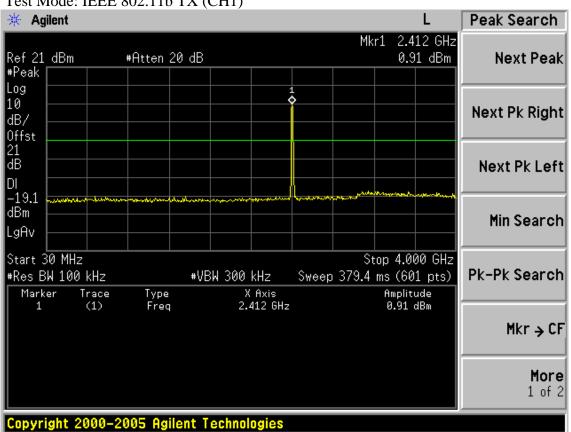
5.4.Test result

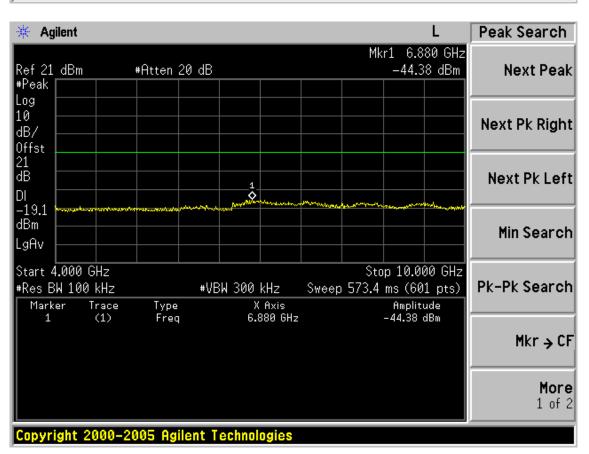
PASS (The testing data was attached in the next pages.)



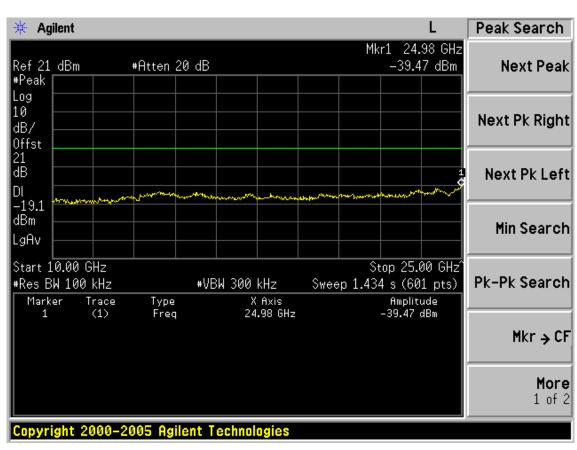
Conducted emission test data: Chain 0:

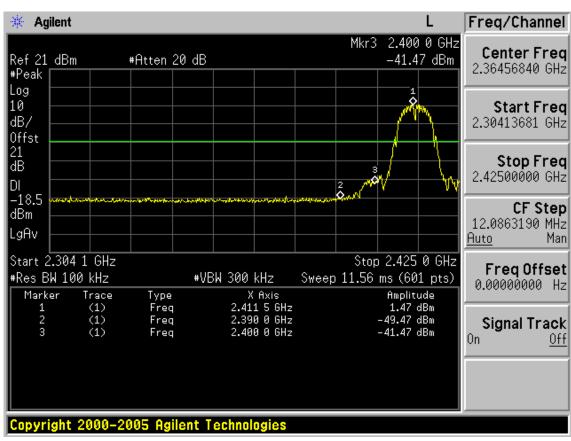
Test Mode: IEEE 802.11b TX (CH1)



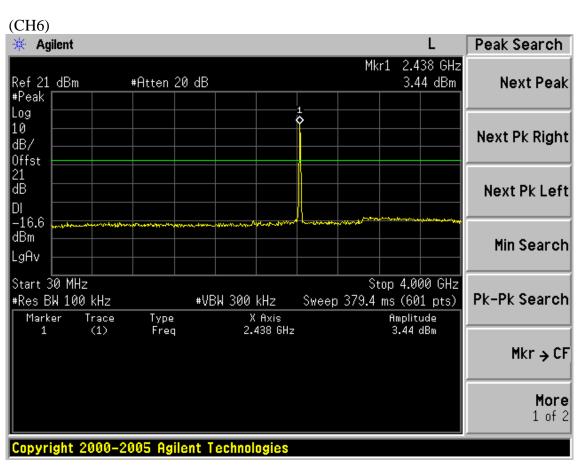


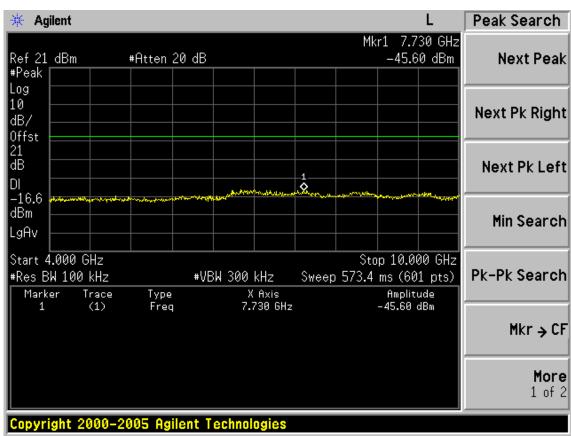




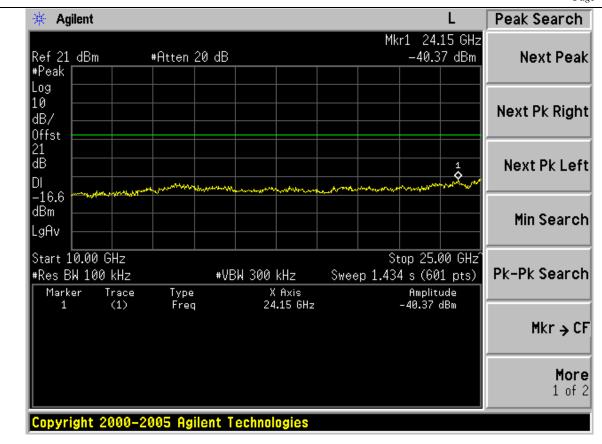




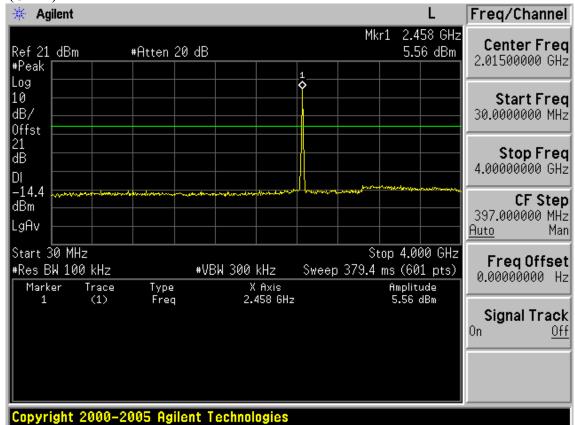




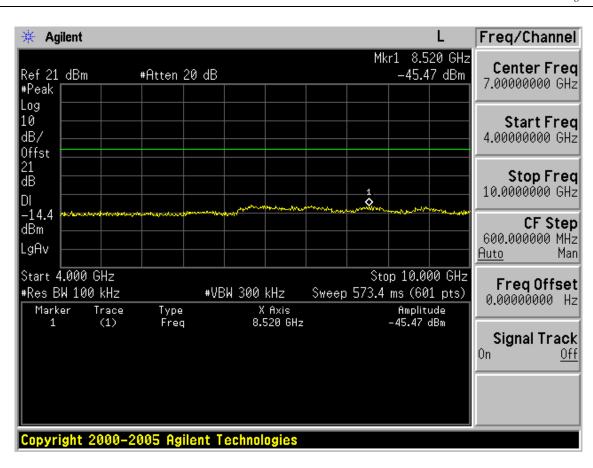


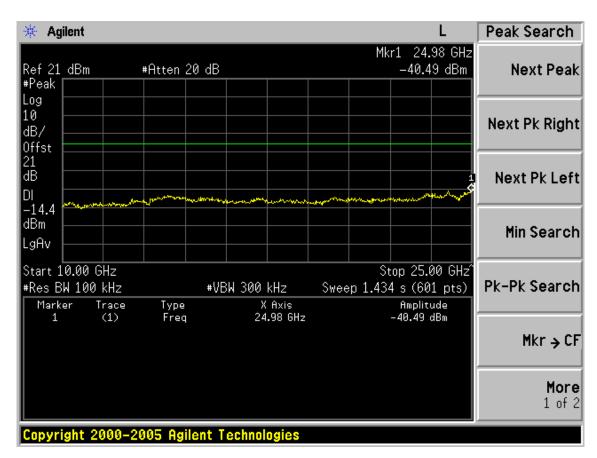




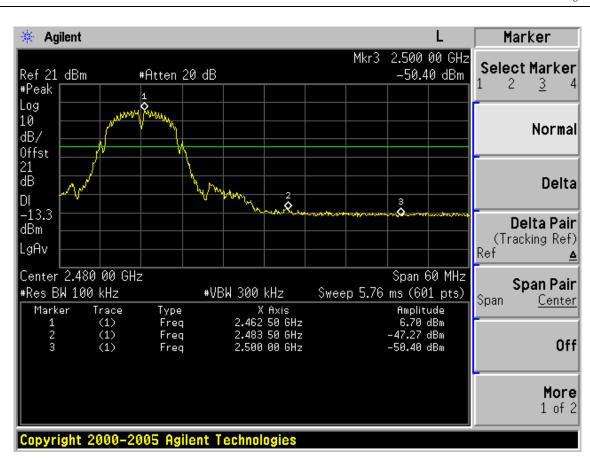


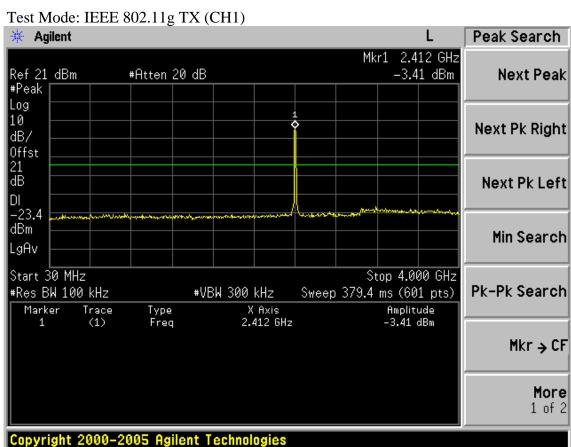




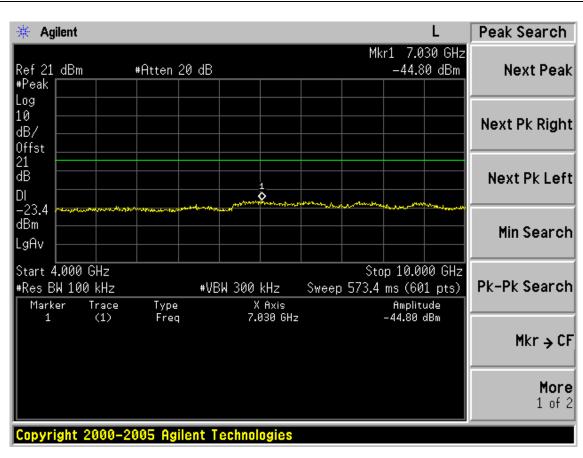


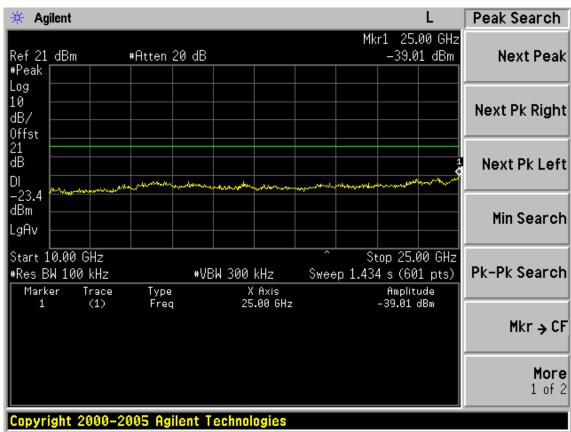




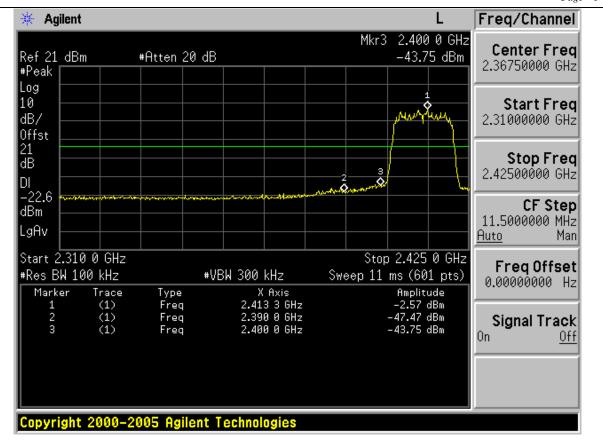




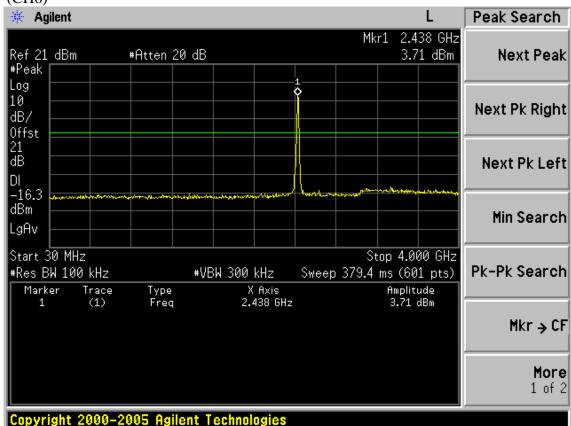


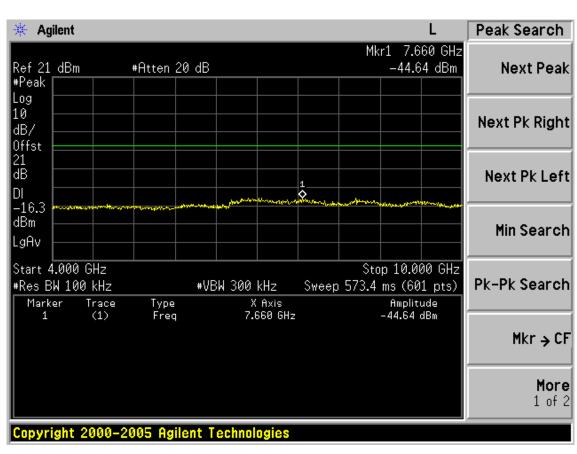


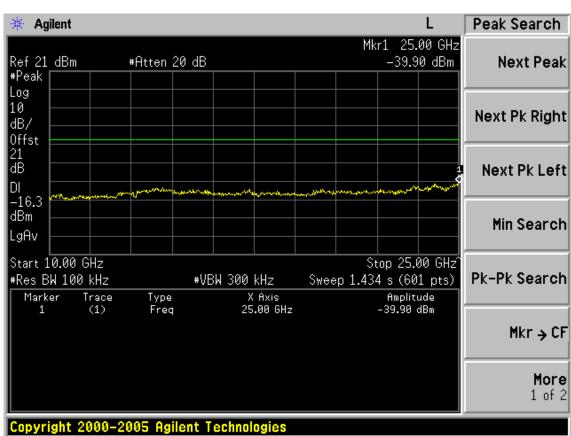




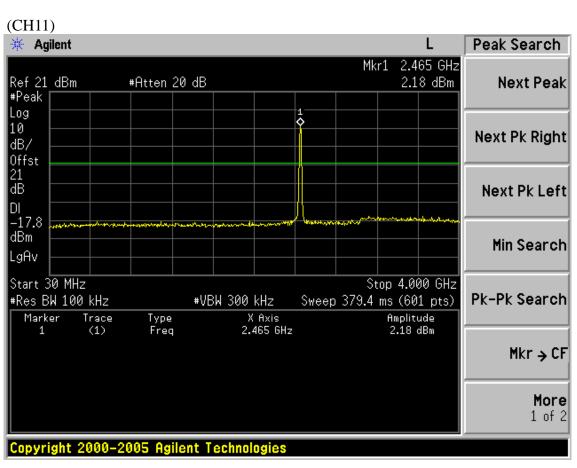


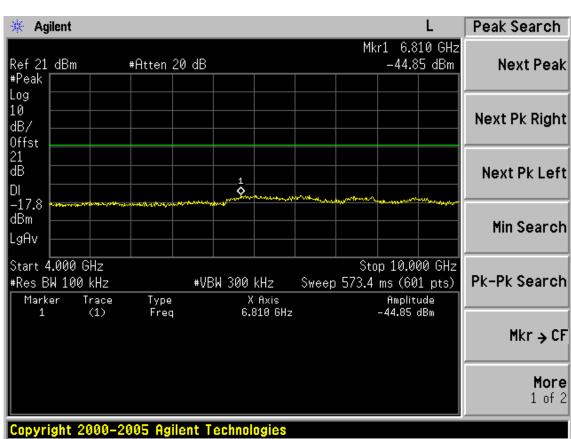




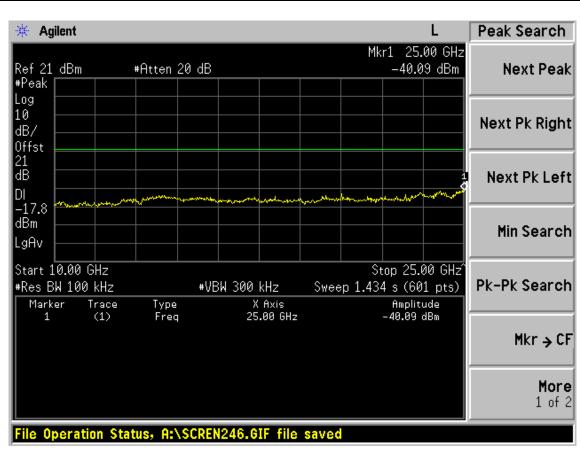


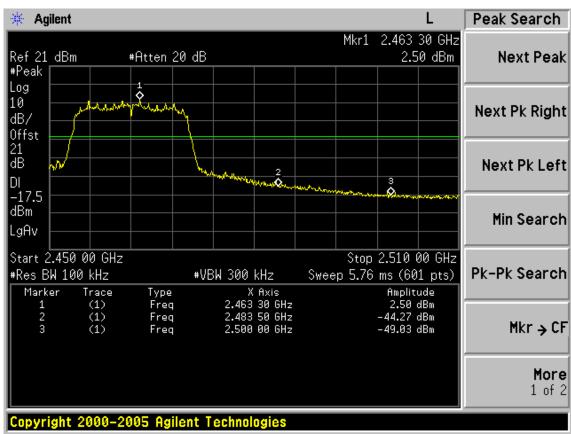




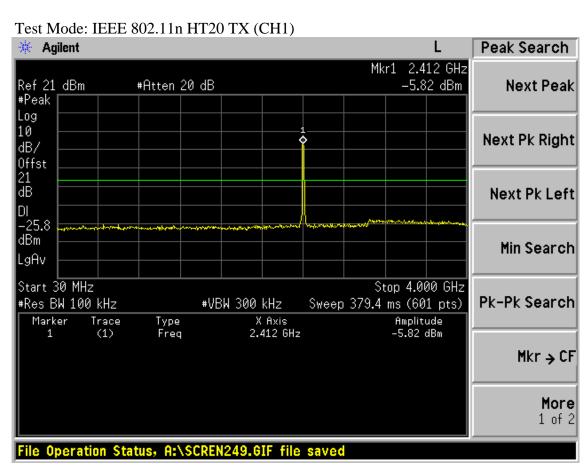


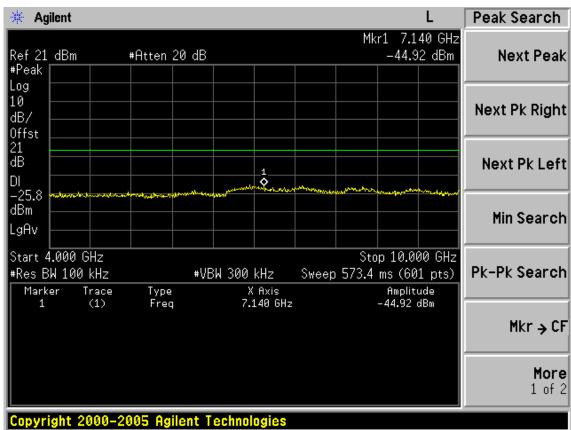




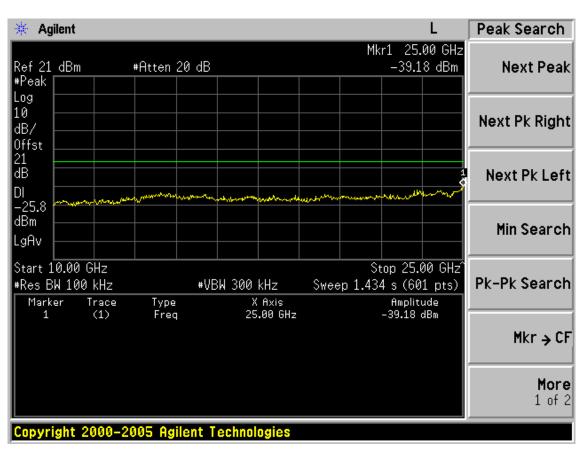


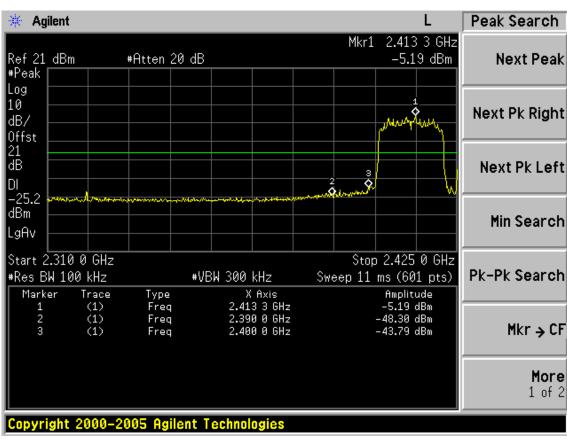




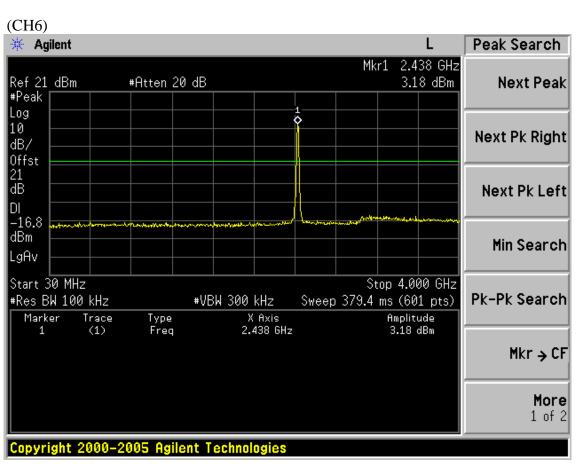


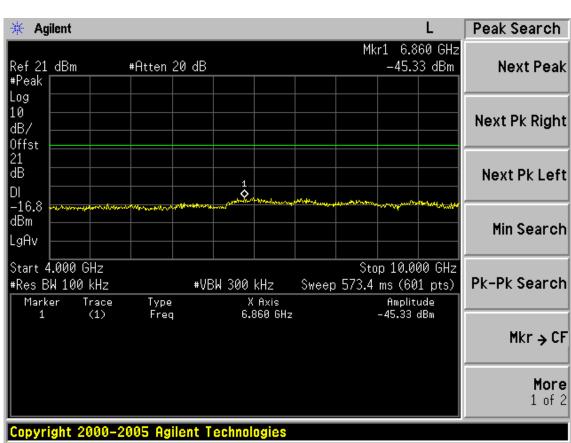




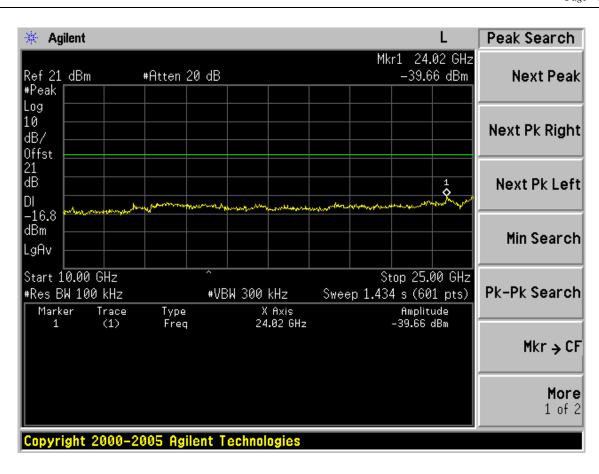


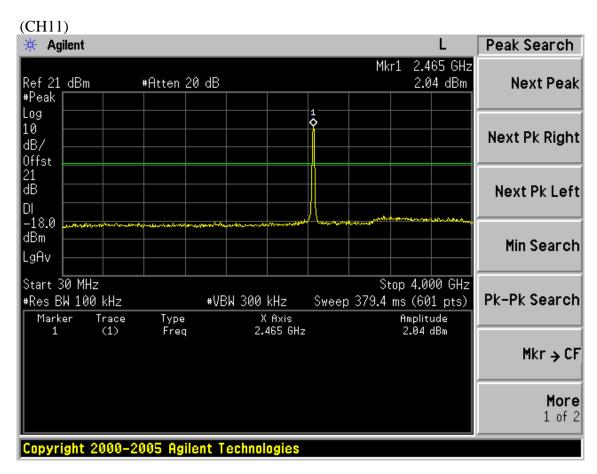




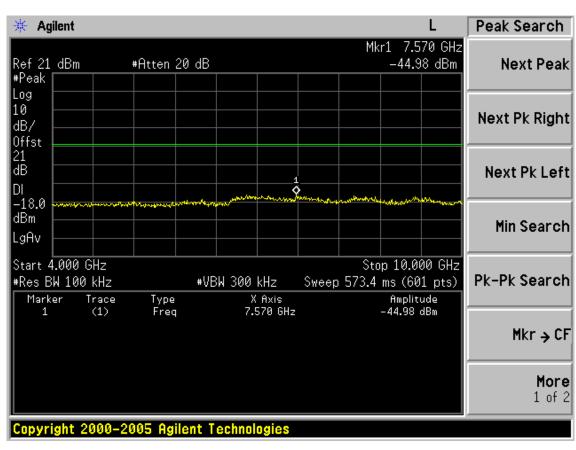


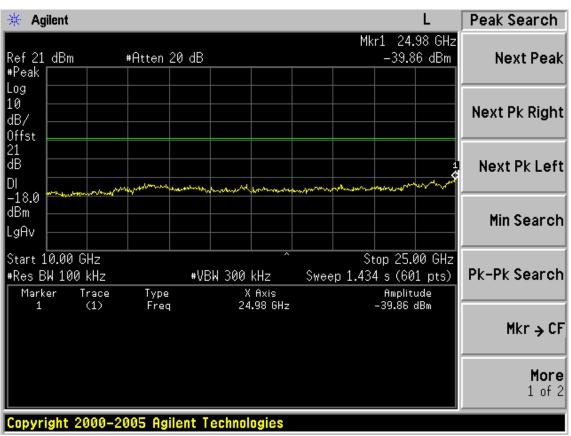


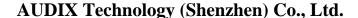




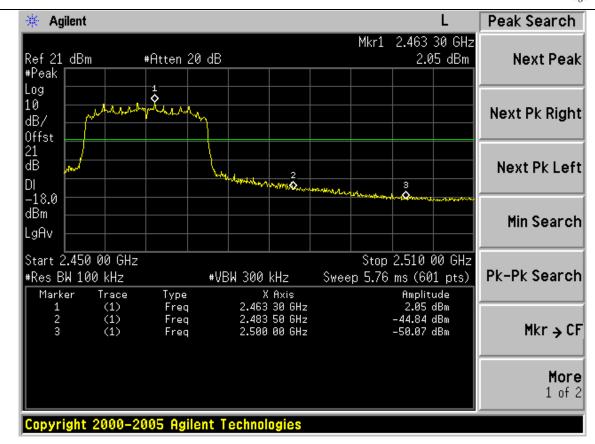




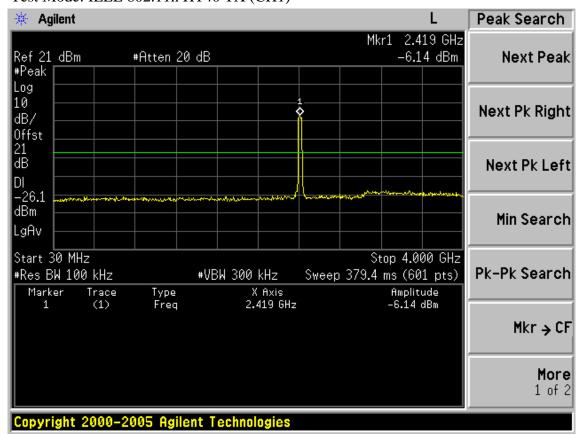




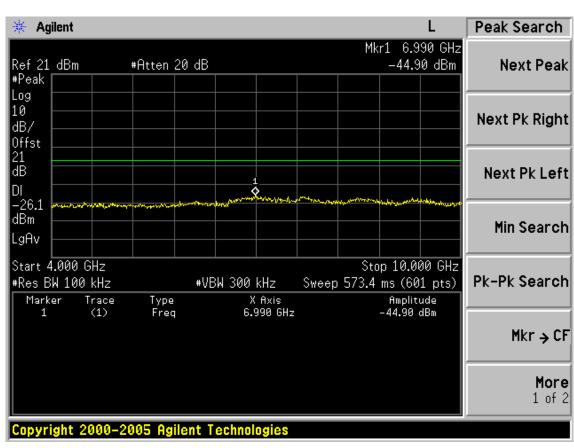


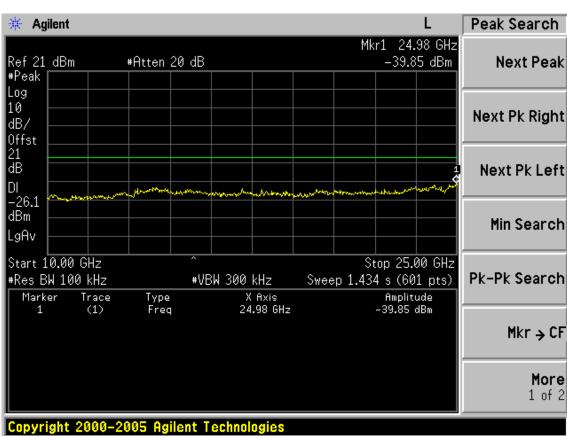


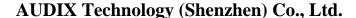
Test Mode: IEEE 802.11n HT40 TX (CH1)



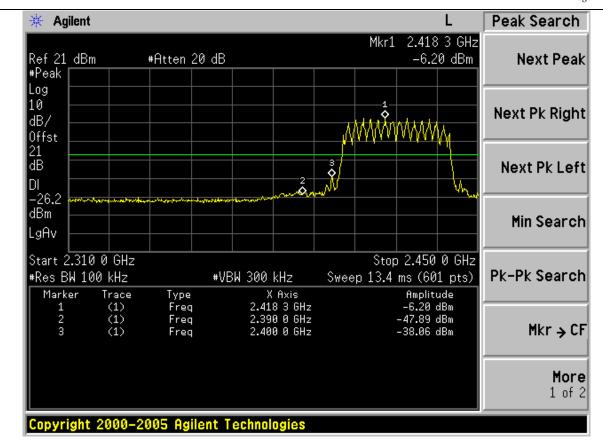




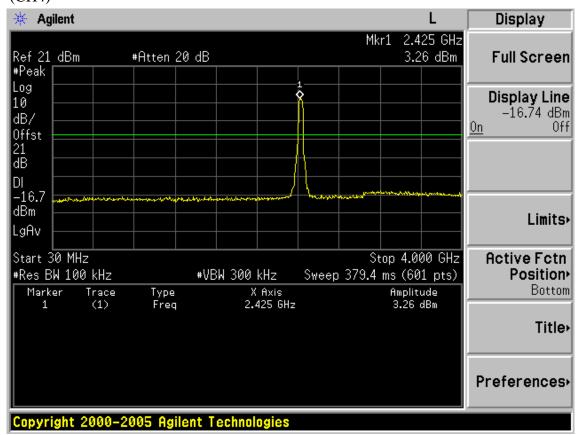




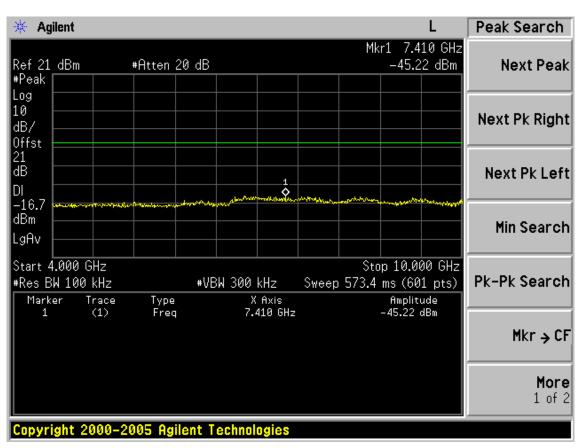


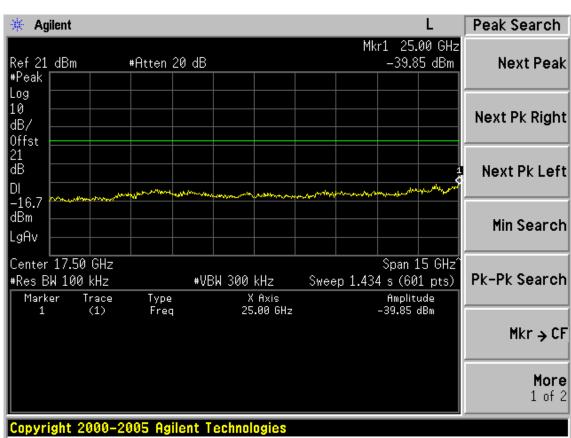


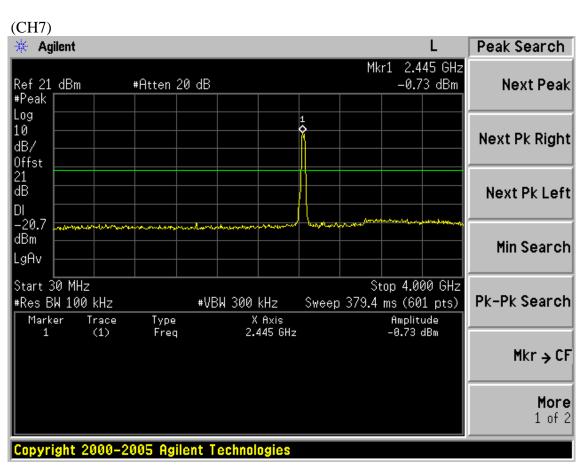
(CH4)

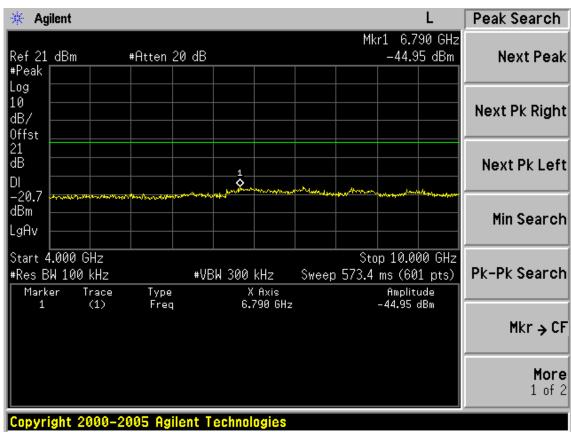


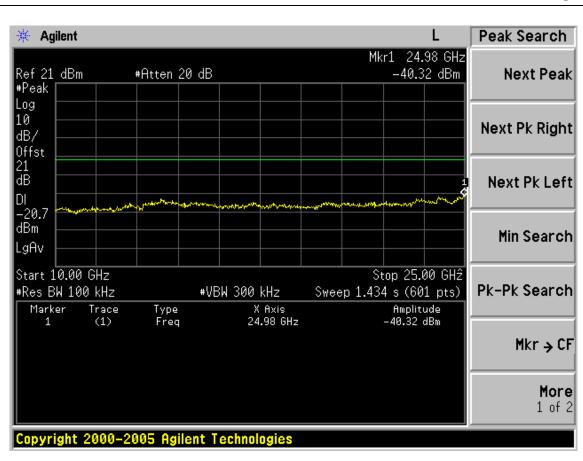


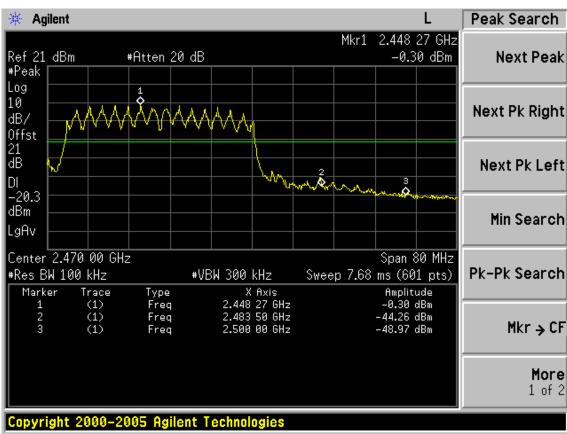






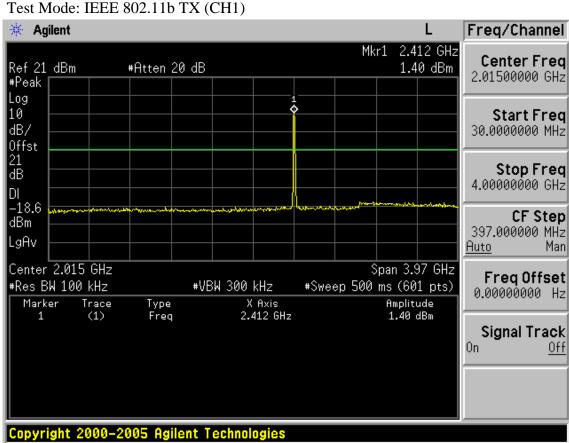


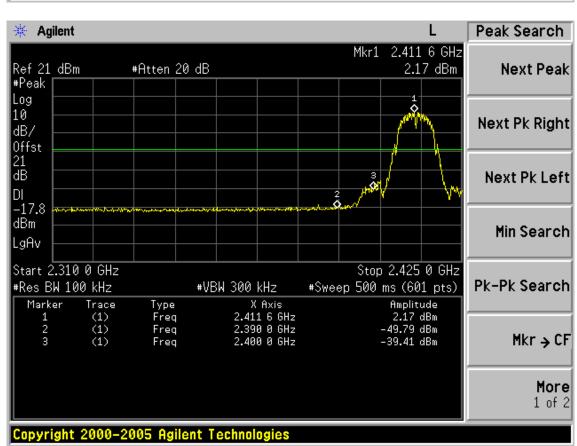


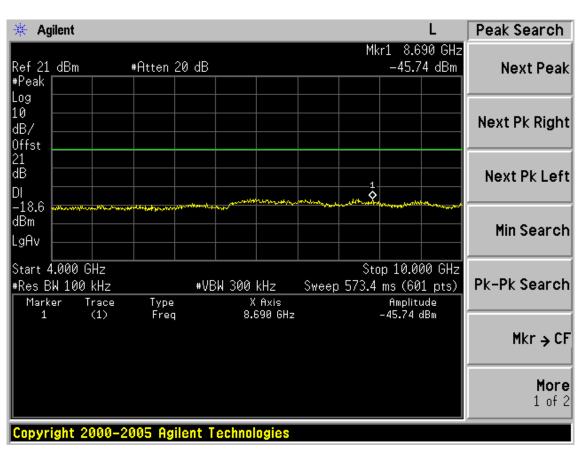


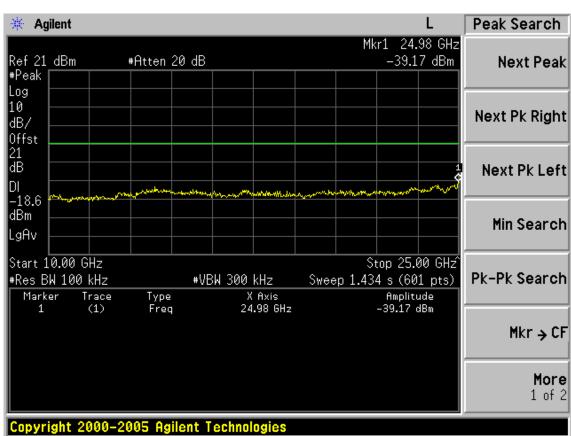




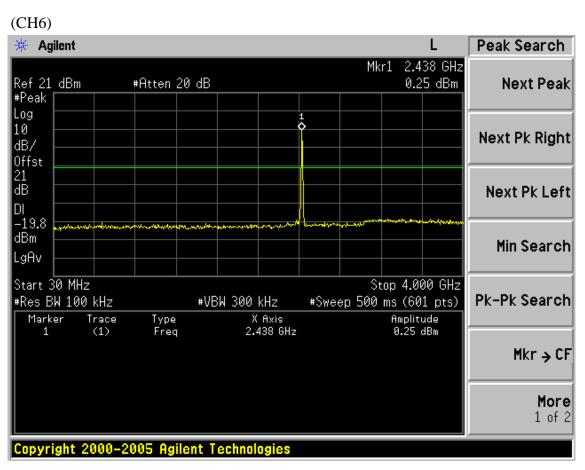


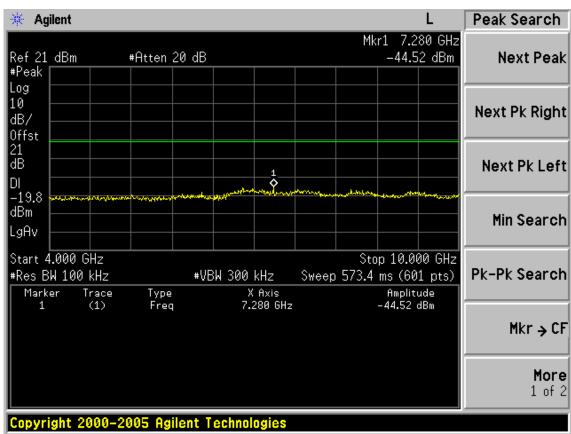


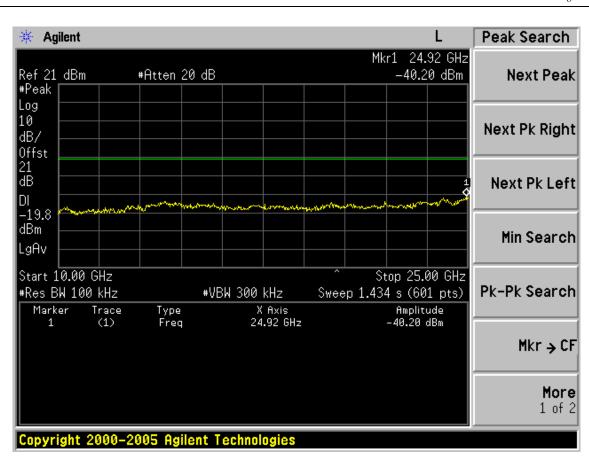




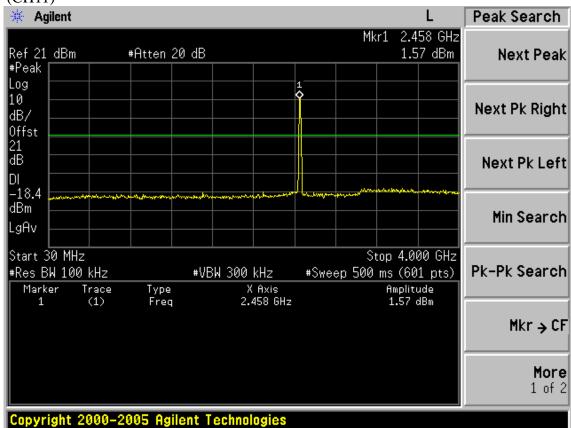




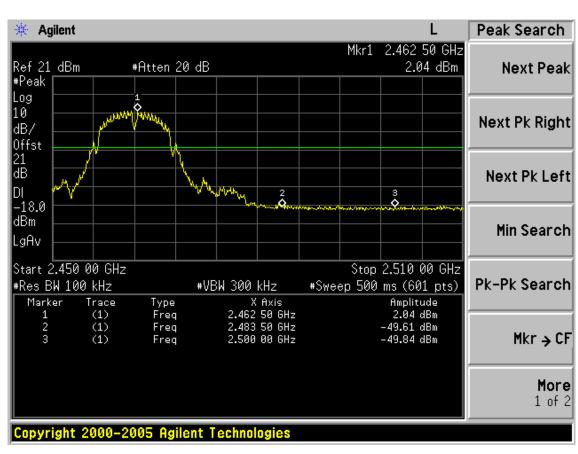


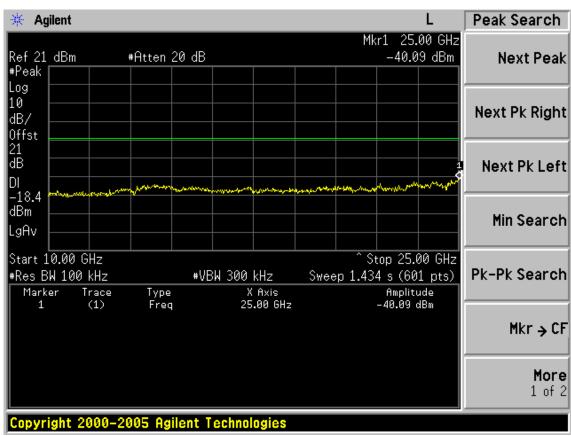




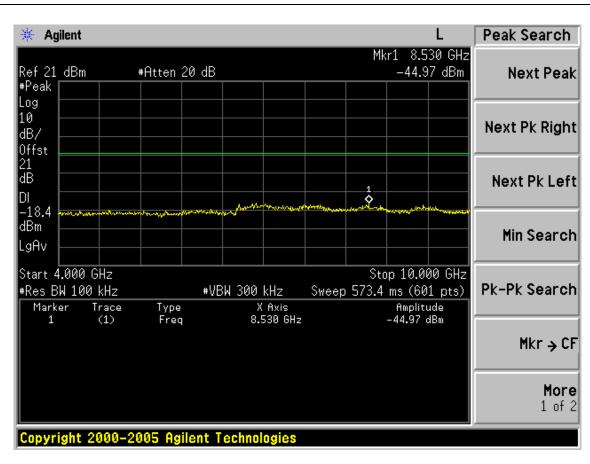




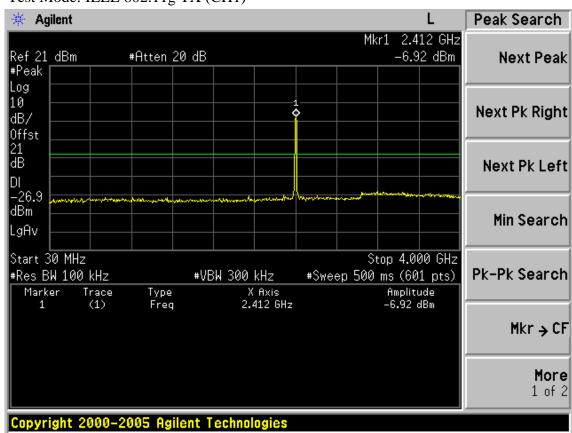


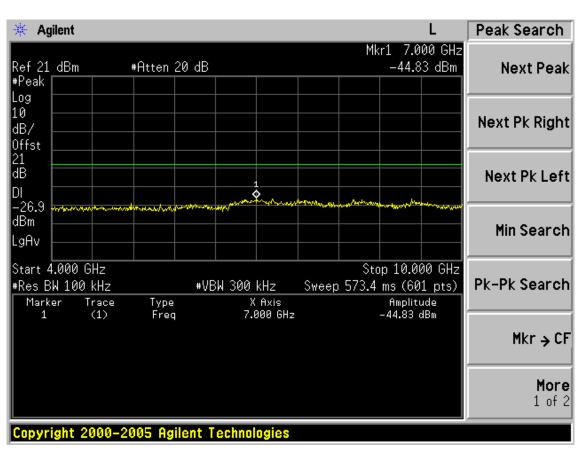


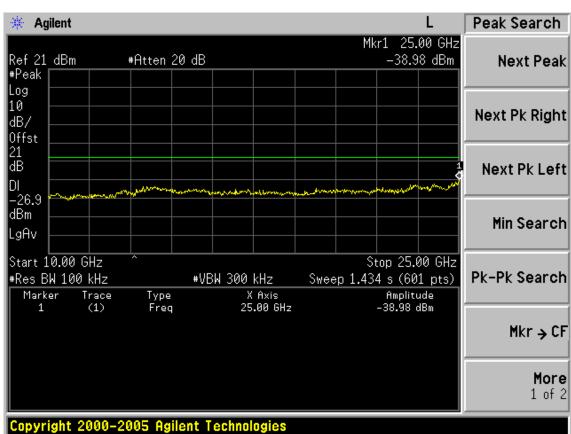


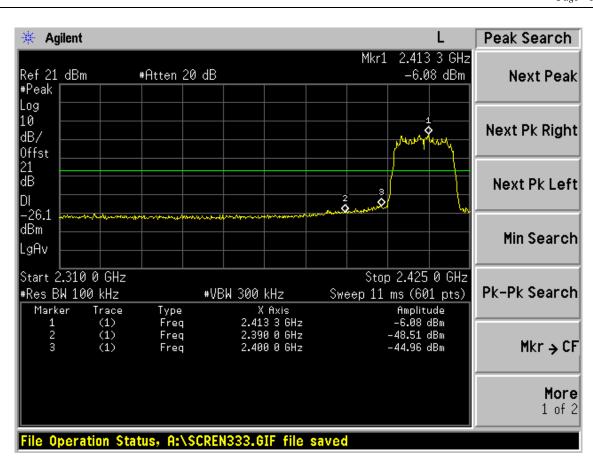


Test Mode: IEEE 802.11g TX (CH1)

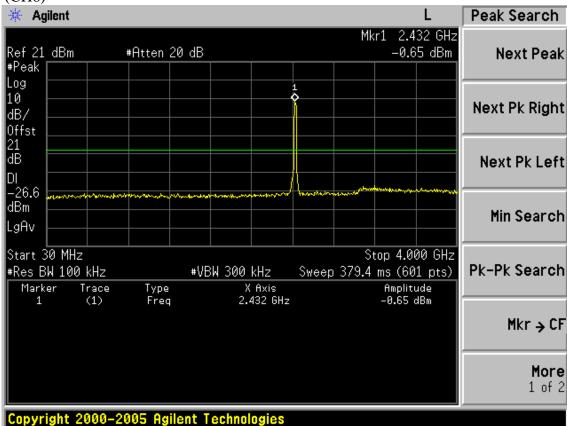


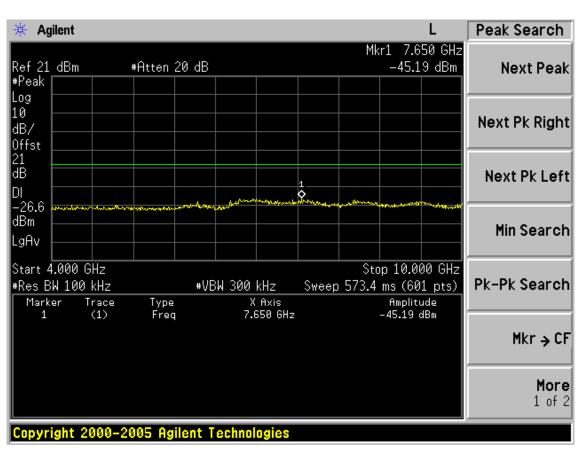


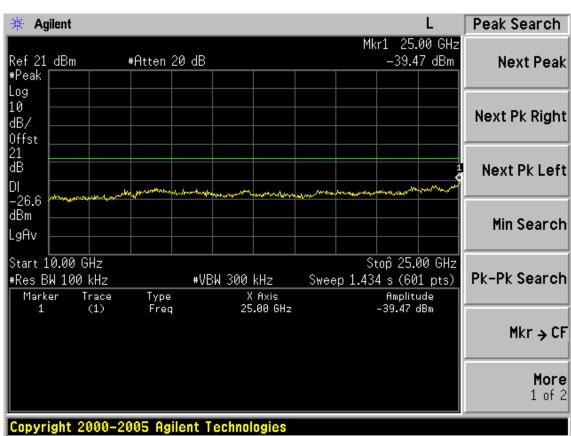


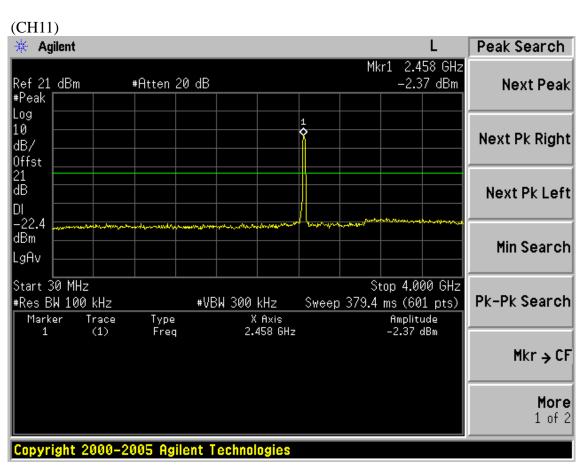


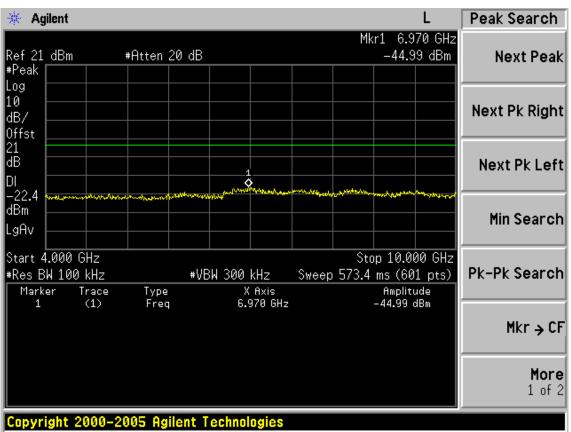


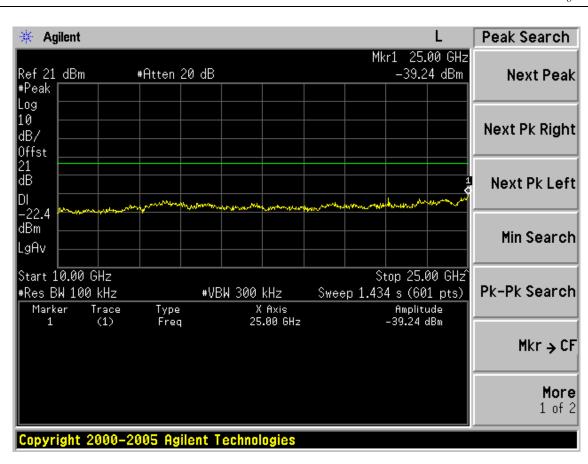


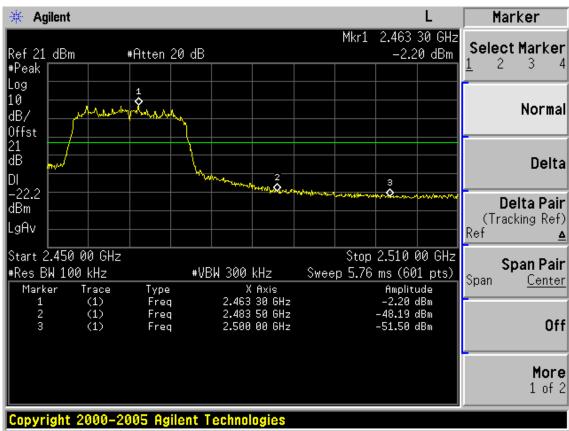


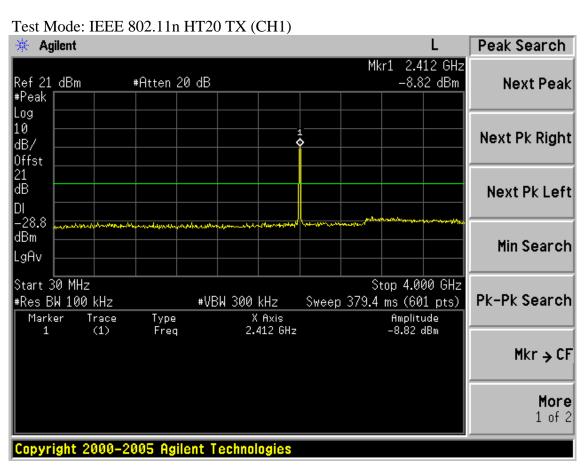


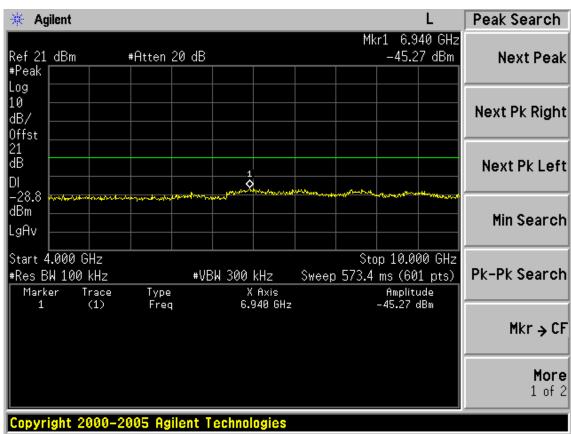


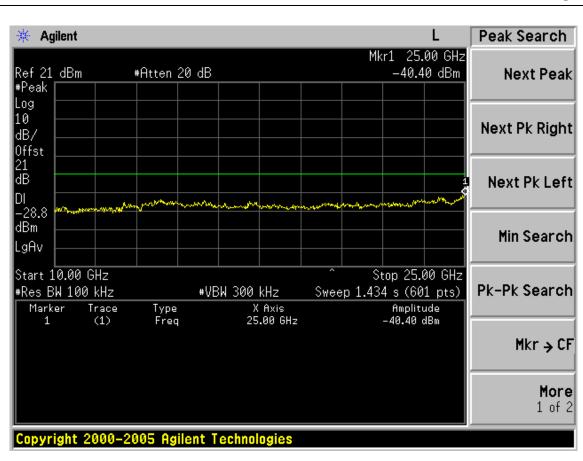


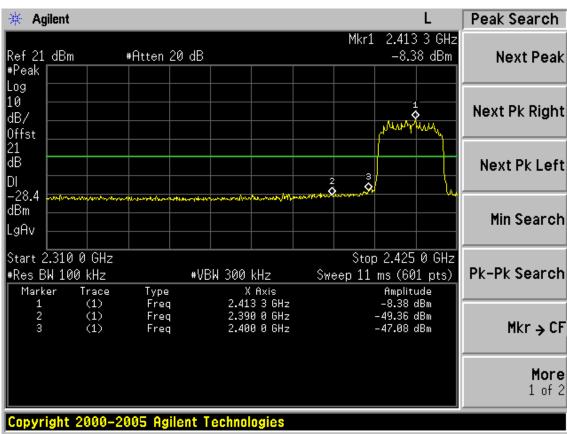


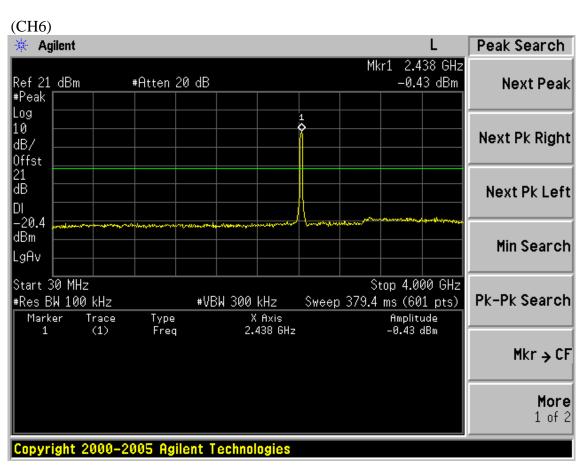


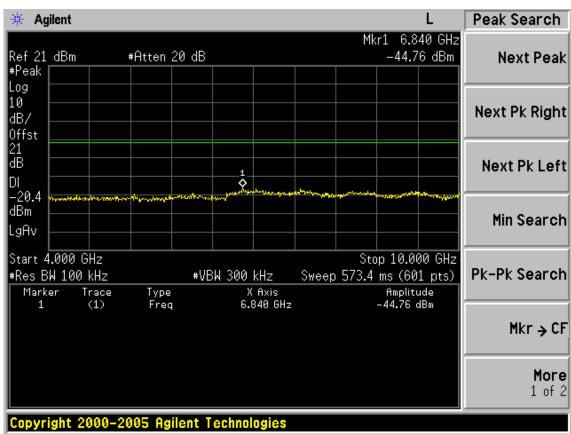


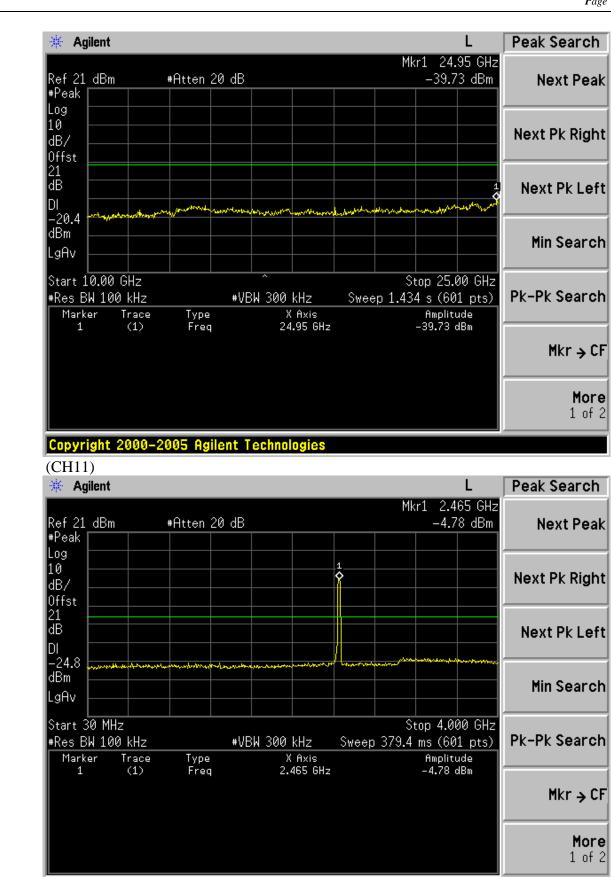




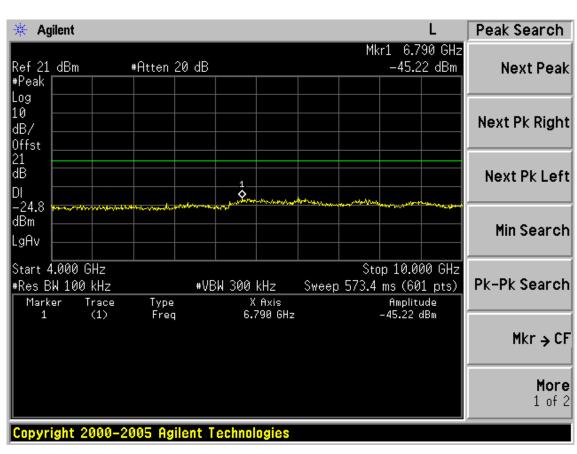


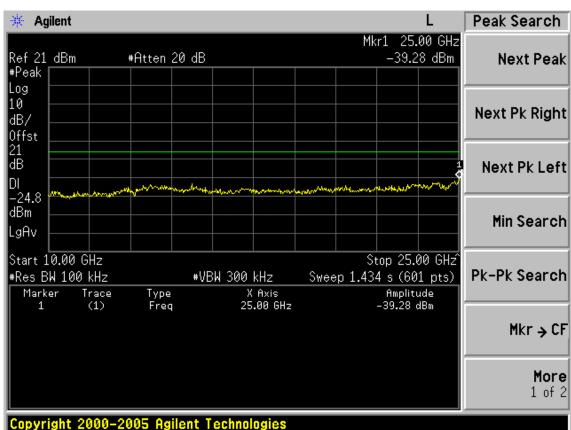




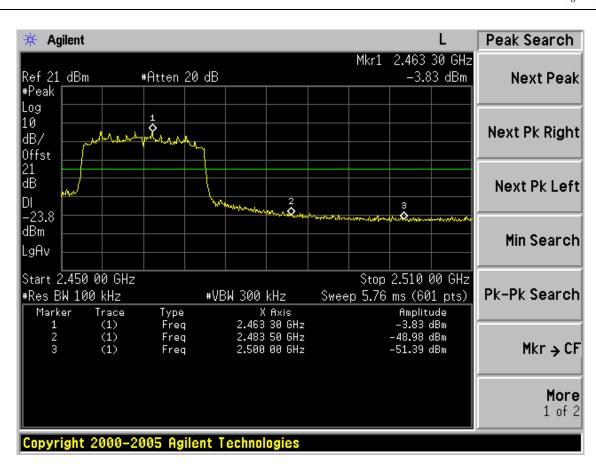


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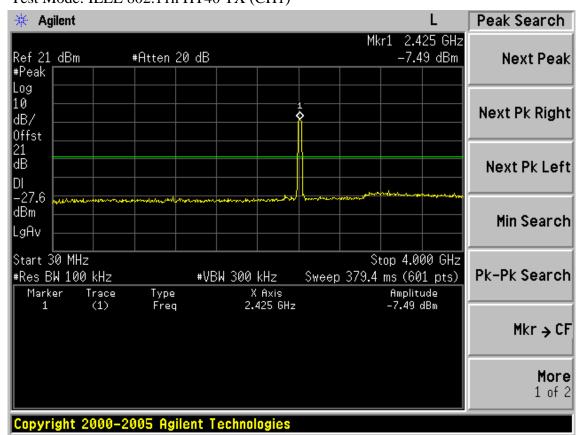


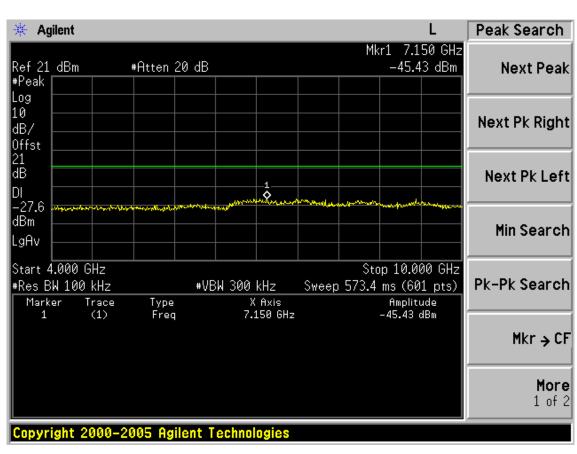


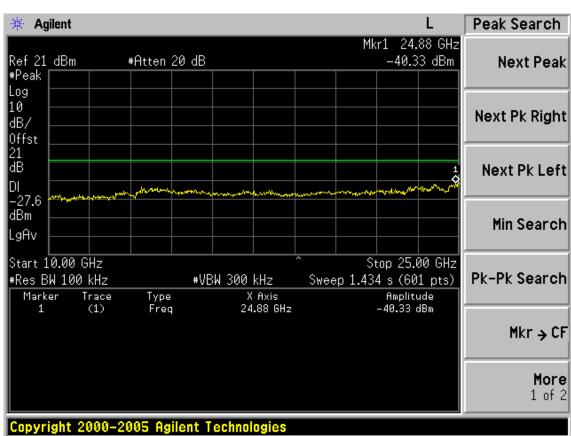


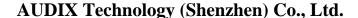


Test Mode: IEEE 802.11n HT40 TX (CH1)

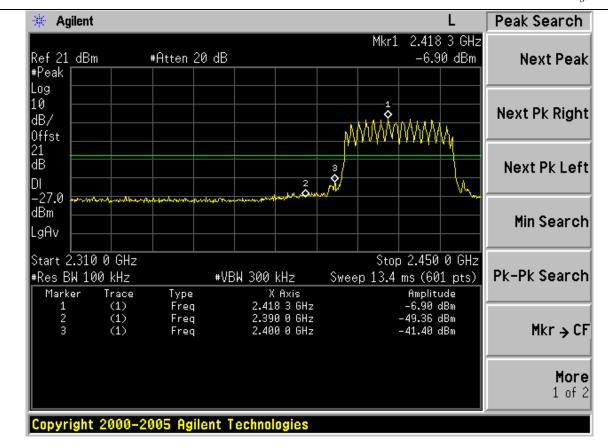




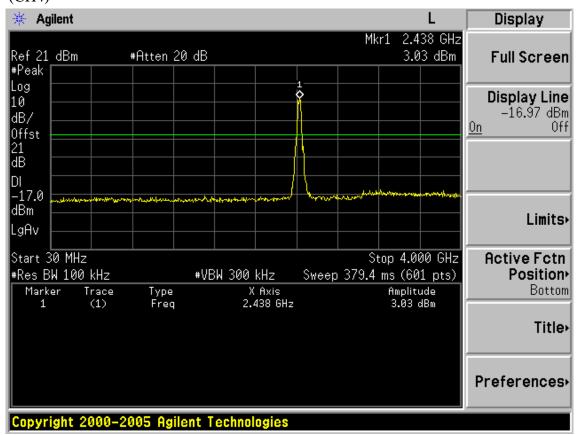


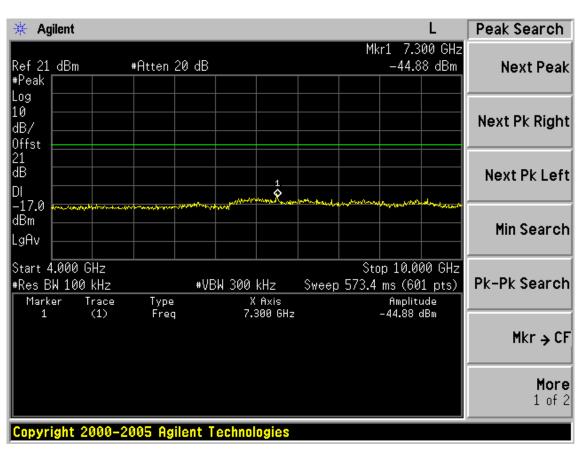


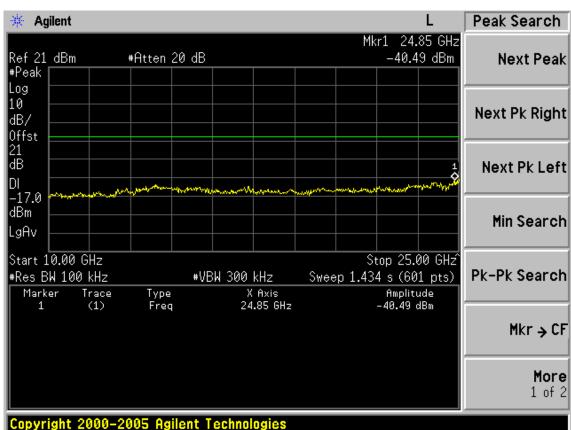


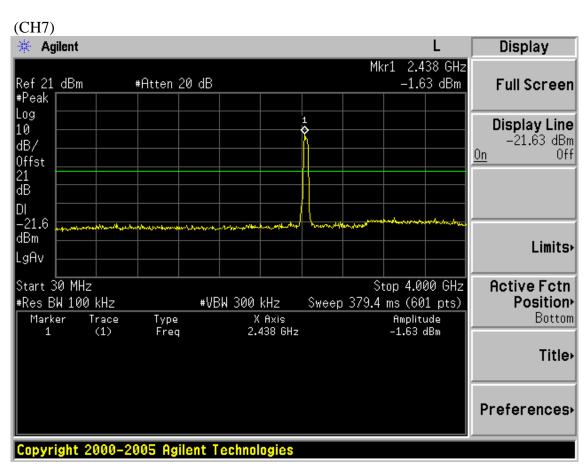


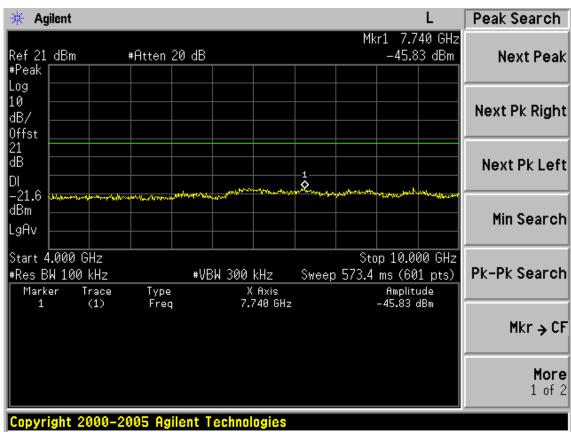
(CH4)





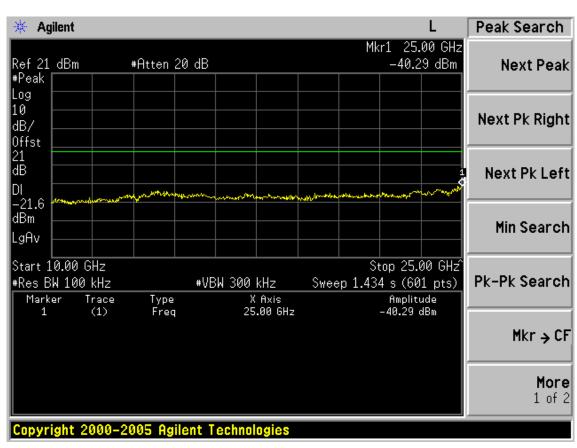


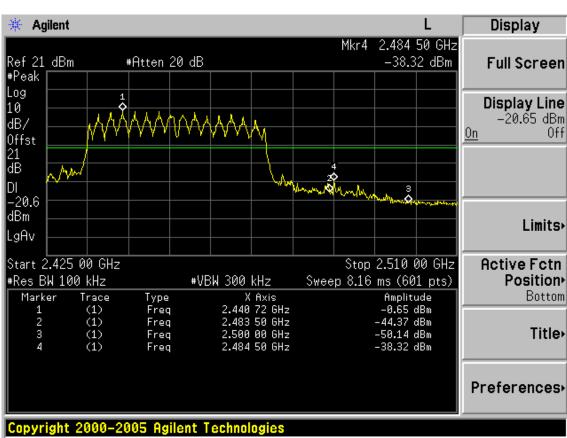












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6. BAND EDGE COMPLIANCE TEST

6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08,11	1 Year
2.	Horn Antenna	EMCO	3115	9607-4877	Nov.25, 10	1.5 Year
3.	Amplifier	Agilent	8449B	3008A02495	May.08, 11	1 Year
4.	RF Cable	Hubersuhner	SUCOFLEX102	28620/2	May.08,11	1 Year
5.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08,11	1 Year
6.	RF Cable	Hubersuhner	SUCOFLEX102	28610/2	May.08,11	1 Year

6.2.Limit

All the lower and upper band-edges emissions appearing within 2310MHz to 2390MHz and 2483.5MHz to 2500MHz restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400MHz to 2483.5MHz shall be at least 20dB below the fundamental emissions, or comply with 15.209 limits.

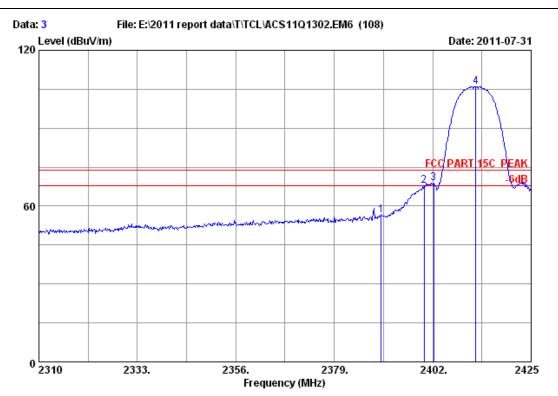
6.3.Test Produce

- 1. The EUT is placed on a turntable, which is 0.8m above the ground plane and worked at highest radiated power.
- 2. The turntable was rotated for 360 degrees to determine the position of maximum emission level.
- 3. EUT is set 3m away from the receiving antenna, which is varied from 1m to 4m to find out the highest emission.
- 4. Set the spectrum analyzer in the following setting in order to capture the lower and upperband-edges of the emission:
 - (a) PEAK: RBW=1MHz; VBW=3MHz; Sweep=AUTO
 - (b) AVERAGE: RBW=1MHz; VBW=10Hz; Sweep=AUTO

6.4. Test Results

Pass (The testing data was attached in the next pages.)





Site no. : 3m Chamber Data no. : 3

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH1 2412MHz Tx

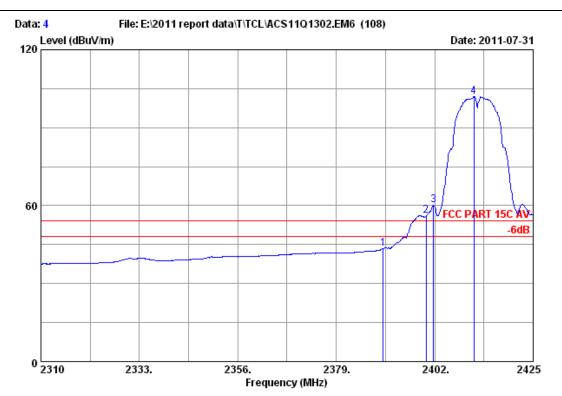
M/N : VBR337

-		loss	Amp. Factor (dB)		Emission Level (dBuV/m)	Limits Marg (dBuV/m) (dB		
1 2390.000 2 2400.000 3 2402.230 4 2412.120	27.96 27.96	6.75 6.75	34.44 34.44	56.21 67.55 68.64 105.75	56.45 67.82 68.91 106.07	74.00 17.5 74.00 6.1 74.00 5.0 74.00 -32.0	8 Peak 9 Peak	

Remarks:

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 4

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C AV Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

Power : AC 120V/60Hz

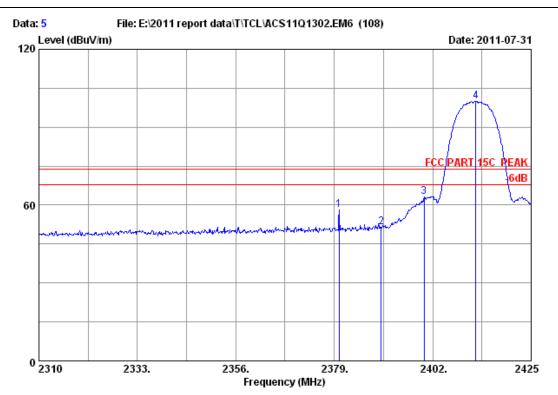
Test mode : IEEE802.11b CH1 2412MHz Tx

: VBR337 M/N

	-		Cable loss (dB)	•	Reading (dBuV)	Emission Level (dBuV/m)	Limits Margin (dBuV/m) (dB)	Remark
1	2390.000	27.96	6.72	34.44	43.14	43.38	54.00 10.62	Average
2	2400.000	27.96	6.75	34.44	55.94	56.21	54.00 -2.21	Average
3	2401.770	27.96	6.75	34.44	59.80	60.07	54.00 -6.07	Average
4	2411.200	27.98	6.78	34.44	101.68	102.00	54.00 -48.00	Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 5

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH1 2412MHz Tx

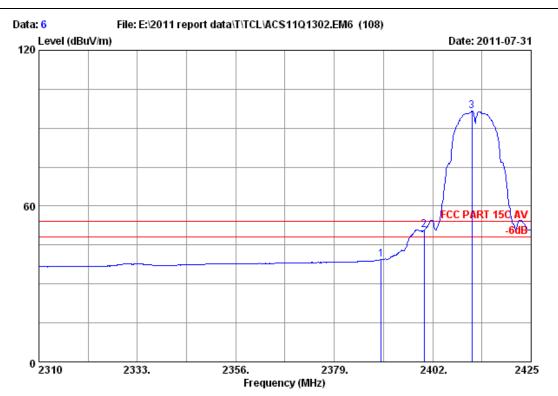
M/N : VBR337

	Ant. . Factor) (dB/m)			Reading (dBuV)	Emission Level (dBuV/m)	Limits Margin (dBuV/m) (dB)	Remark	
1 2380.1 2 2390.0 3 2400.0 4 2412.1	00 27.96 00 27.96	6.72 6.75	34.44 34.44	58.05 51.16 63.00 99.65	58.26 51.40 63.27 99.97	74.00 15.74 74.00 22.60 74.00 10.73 74.00 -25.97	Peak Peak Peak Peak	

Remarks:

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no. : 6

Ant. pol. : HORIZONTAL

: FCC PART 15C AV

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

: AC 120V/60Hz Power

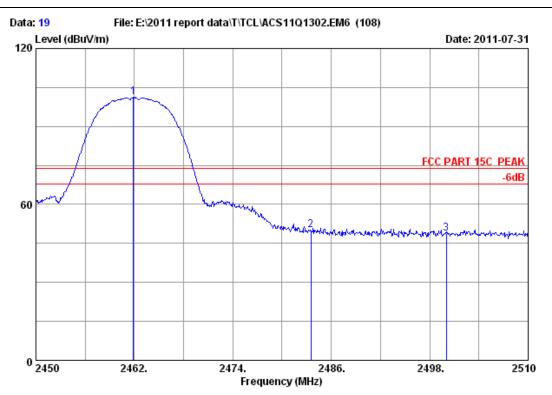
Test mode : IEEE802.11b CH1 2412MHz Tx

M/N : VBR337

	Factor (dB/m)	loss (dB)		Reading (dBuV)		Limits Margin (dBuV/m) (dB)	Remark	
1 2390.00 2 2400.00 3 2411.20	0 27.96	6.75	34.44	39.27 50.51 96.28	39.51 50.78 96.60	54.00 14.49 54.00 3.22 54.00 -42.60	Average Average Average	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 19

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH11 2462MHz Tx

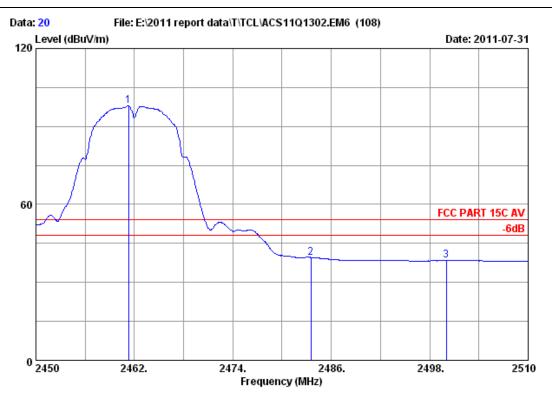
M/N : VBR337

	Freq. F		loss	Factor	_		Limits Margin (dBuV/m) (dB)	Remark
_	2461.880 2483.500					101.14 50.30	74.00 -27.14 74.00 23.70	Peak Peak
3	2500.000	28.10	6.90	34.45	48.12	48.67	74.00 25.33	Peak

Remarks:

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no.: 20

Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

: AC 120V/60Hz Power

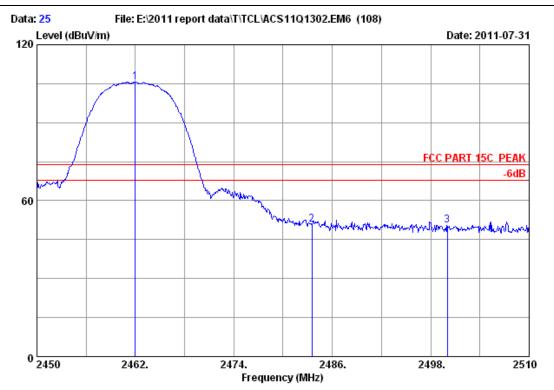
Test mode : IEEE802.11b CH11 2462MHz Tx

: VBR337 M/N

	Freq. Fact (MHz) (dB/		•	Reading (dBuV)		Limits Margin (dBuV/m) (dB)	Remark
2	2461.280 28. 2483.500 28. 2500.000 28.	08 6.90	34.45	39.05	97.90 39.58 38.39	54.00 -43.90 54.00 14.42 54.00 15.61	Average Average Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 25

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

Test mode : IEEE802.11b CH11 2462MHz Tx

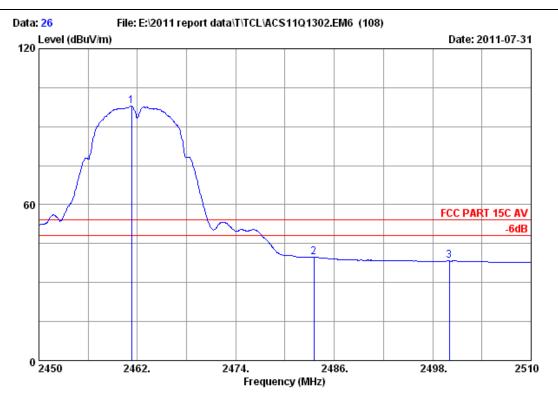
M/N : VBR337

			Reading (dBuV)		Limits Margin (dBuV/m) (dB)	Remark
_	2462.000 28.05 2483.500 28.08 2500.000 28.10	6.90 34.45	50.31	105.60 50.84 50.44	74.00 -31.60 74.00 23.16 74.00 23.56	Peak Peak Peak

Remarks:

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 26

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C AV Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

Power : AC 120V/60Hz

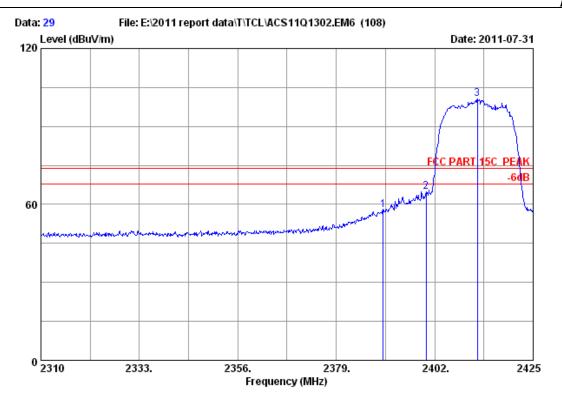
Test mode : IEEE802.11b CH11 2462MHz Tx

: VBR337 M/N

	Ant. Freq. Factor (MHz) (dB/m)	Cable Amp. loss Factor (dB) (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits Margin (dBuV/m) (dB)	Remark
_	2461.280 28.05 2483.500 28.08 2500.000 28.10	6.90 34.45	97.47 39.24 37.74	97.92 39.77 38.29	54.00 -43.92 54.00 14.23 54.00 15.71	Average Average Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 29

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

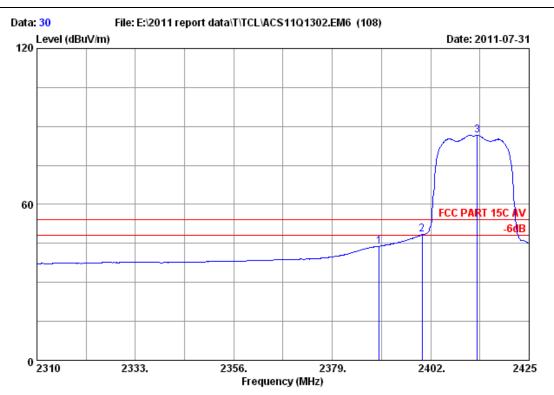
Test mode : IEEE802.11g CH1 2412MHz Tx

M/N : VBR337

	-	Factor	loss		_		Limits Margin (dBuV/m) (dB)	Remark	
2	2390.000 2400.000 2412.005	27.96	6.75	34.44	64.57	57.66 64.84 100.48	74.00 16.34 74.00 9.16 74.00 -26.48	Peak Peak Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no. : 30

Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

: AC 120V/60Hz Power

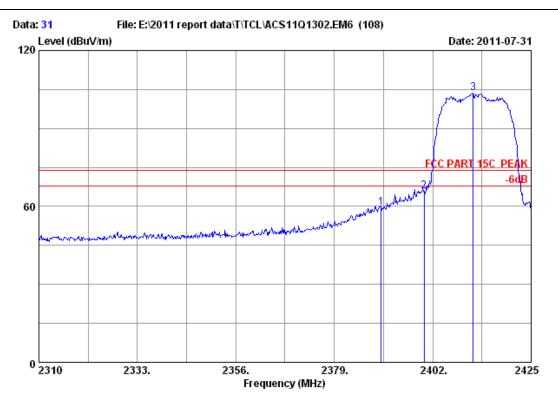
Test mode : IEEE802.11g CH1 2412MHz Tx

: VBR337 M/N

	Freq. Fa		•	Reading (dBuV)	Emission Level (dBuV/m)	Limits Margin (dBuV/m) (dB)	Remark
2	2400.000 2	7.96 6.72 7.96 6.75 7.98 6.78	34.44	43.70 48.20 86.37	43.94 48.47 86.69	54.00 10.06 54.00 5.53 54.00 -32.69	Average Average Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 31

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

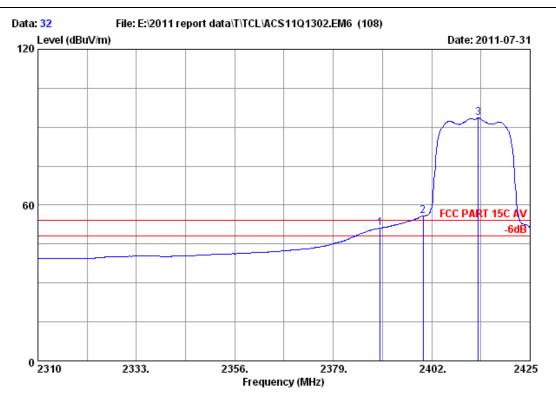
Test mode : IEEE802.11g CH1 2412MHz Tx

M/N : VBR337

	-	Factor	loss		Reading		Limits Margin (dBuV/m) (dB)	Remark
2	2390.000 2400.000 2411.430	27.96	6.75	34.44	65.65	59.34 65.92 103.55	74.00 14.66 74.00 8.08 74.00 -29.55	Peak Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no. : 32

Ant. pol. : VERTICAL

: FCC PART 15C AV Limit

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

: AC 120V/60Hz Power

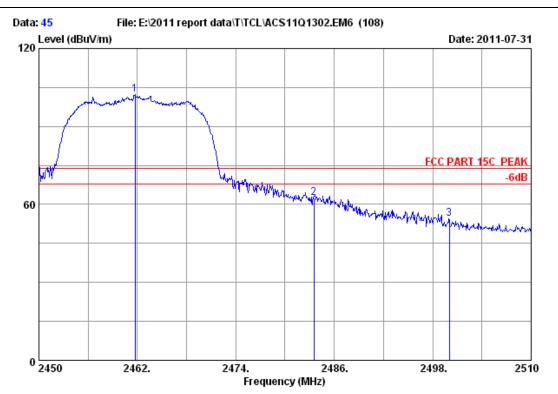
Test mode : IEEE802.11g CH1 2412MHz Tx

M/N : VBR337

	Freq. Fa (MHz) (d		Factor	Reading (dBuV)	Emission Level (dBuV/m)	Limits Margin (dBuV/m) (dB)	Remark
2	2400.000 2	7.96 6.72 7.96 6.75 7.98 6.78	34.44	50.89 55.70 93.17	51.13 55.97 93.49	54.00 2.87 54.00 -1.97 54.00 -39.49	Average Average Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 45

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

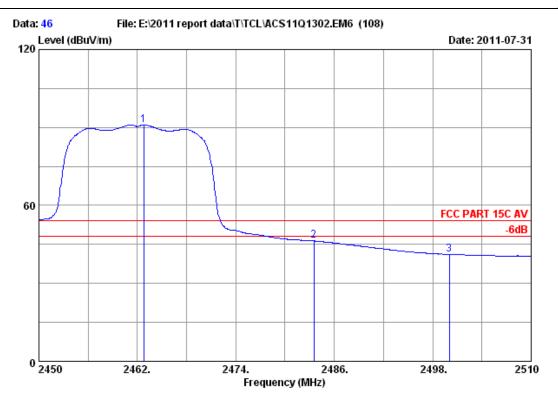
Test mode : IEEE802.11g CH11 2462MHz Tx

M/N : VBR337

			tor Reading		Limits Margin (dBuV/m) (dB)	Remark
2	2461.700 28.05 2483.500 28.08 2500.000 28.10	6.90 34.	45 62.12	102.34 62.65 54.42	74.00 -28.34 74.00 11.35 74.00 19.58	Peak Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no.: 46

Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

: AC 120V/60Hz Power

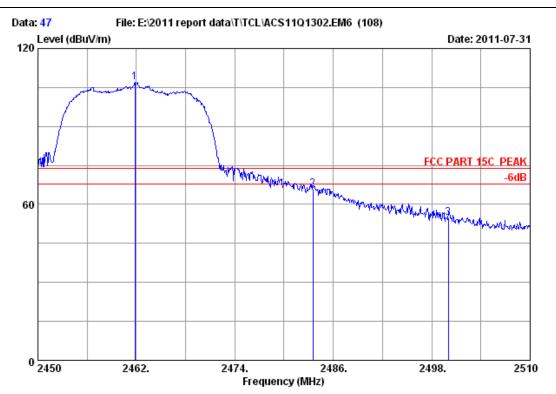
Test mode : IEEE802.11g CH11 2462MHz Tx

: VBR337 M/N

		loss (dB)	•	Reading (dBuV)	Emission Level (dBuV/m)	Limits Margin (dBuV/m) (dB)	Remark
2	2462.780 28.05 2483.500 28.08 2500.000 28.10	6.90	34.45	90.54 45.80 40.60	90.98 46.33 41.15	54.00 -36.98 54.00 7.67 54.00 12.85	Average Average Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Dis. / Ant. : 3m 2011 3115 4580 Data no.: 47

Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

: AC 120V/60Hz Power

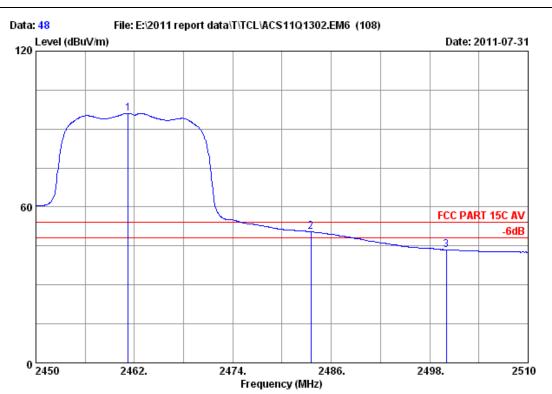
Test mode : IEEE802.11g CH11 2462MHz Tx

: VBR337 M/N

	-		loss	Factor	_		Limits Margin (dBuV/m) (dB)	Remark
_	2461.820					106.99	74.00 -32.99	Peak
Z	2483.500	7 28.08	6.90	34.45	65.34	65.87	74.00 8.13	Peak
3	2500.000	28.10	6.90	34.45	54.25	54.80	74.00 19.20	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





: 3m Chamber Data no.: 48 Site no.

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C AV Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

: AC 120V/60Hz

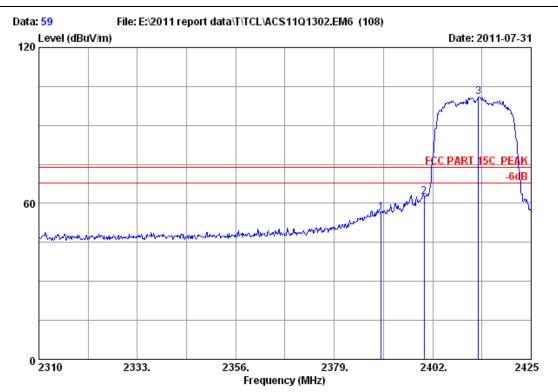
Test mode : IEEE802.11g CH11 2462MHz Tx

M/N : VBR337

-				Reading (dBuV)		Limits Margin (dBuV/m) (dB)	Remark
1 2461.22 2 2483.50 3 2500.00	0 28.08	6.90	34.45	95.60 49.90 42.99	96.05 50.43 43.54	54.00 -42.05 54.00 3.57 54.00 10.46	Average Average Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 59

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

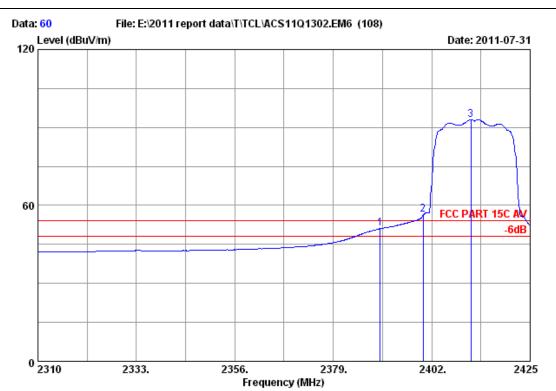
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx

M/N : VBR337

-	Factor	loss		_		Limits Margin (dBuV/m) (dB)	Remark	_
1 2390.00 2 2400.00 3 2412.69	0 27.96	6.75	34.44	62.37	56.52 62.64 100.87	74.00 17.48 74.00 11.36 74.00 -26.87	Peak Peak Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no. : 60

Ant. pol. : VERTICAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

: AC 120V/60Hz Power

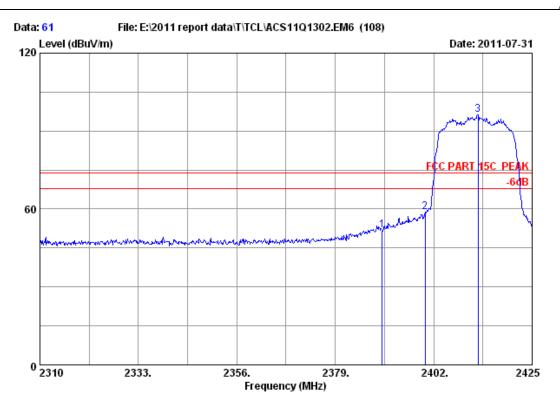
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx

: VBR337 M/N

	-		loss (dB)	•	Reading (dBuV)	Emission Level (dBuV/m)	Limits Margin (dBuV/m) (dB)	Remark
2	2390.000 2400.000 2411.200	27.96	6.75	34.44	50.79 56.06 92.67	51.03 56.33 92.99	54.00 2.97 54.00 -2.33 54.00 -38.99	Average Average Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 61

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

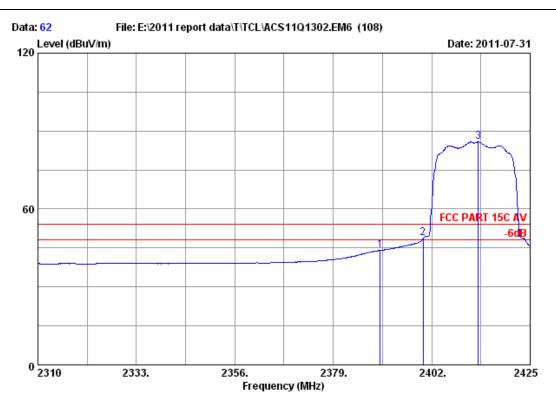
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx

M/N : VBR337

•	Factor	loss		Reading (dBuV)		Limits Margin (dBuV/m) (dB)	Remark
1 2390.00 2 2400.00 3 2412.35	0 27.96	6.75	34.44	51.68 58.63 96.02	51.92 58.90 96.34	74.00 22.08 74.00 15.10 74.00 -22.34	Peak Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 62

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

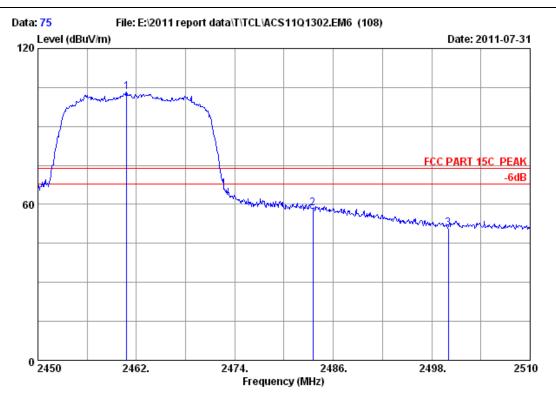
Test mode : IEEE802.11nHT20 CH1 2412MHz Tx

M/N : VBR337

-		Cable loss (dB)	•	Reading (dBuV)	Emission Level (dBuV/m)	Limits Març (dBuV/m) (dE	,
1 2390.00 2 2400.00 3 2412.92	0 27.96	6.75	34.44	43.81 48.51 85.46	44.05 48.78 85.78	54.00 9.9 54.00 5.2 54.00 -31.7	2 Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Dis. / Ant. : 3m 2011 3115 4580 Data no.: 75

Ant. pol. : VERTICAL

: FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

: AC 120V/60Hz Power

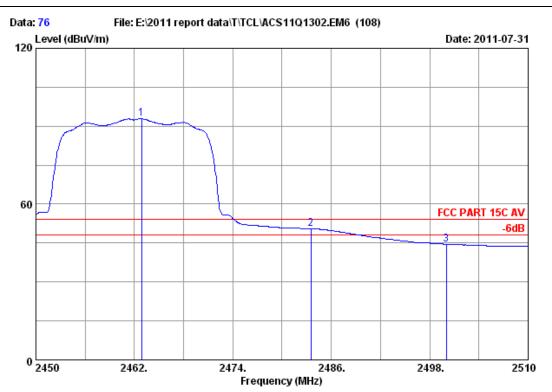
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx

: VBR337 M/N

	-	Factor	loss		Reading (dBuV)		Limits Margin (dBuV/m) (dB)	Remark
_	2460.800 2483.500				102.81 58.00	103.26 58.53	74.00 -29.26 74.00 15.47	Peak Peak
3	2500.000	28.10	6.90	34.45	50.42	50.97	74.00 23.03	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 76

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

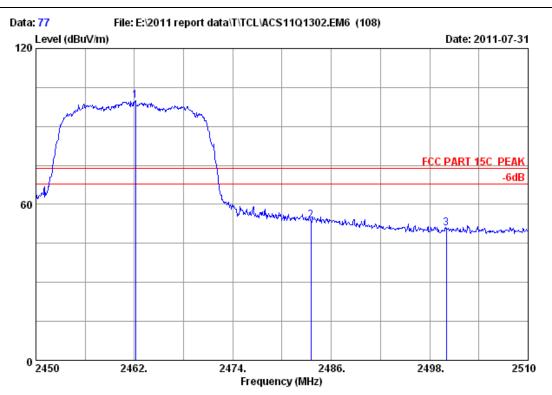
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx

M/N : VBR337

	Ant. Freq. Factor (MHz) (dB/m)	loss		Reading (dBuV)	Emission Level (dBuV/m)	Limits Marg	
2	2462.900 28.00 2483.500 28.00 2500.000 28.10	3 6.90	34.45	92.43 50.01 44.04	92.87 50.54 44.59	54.00 -38.8 54.00 3.4 54.00 9.4	6 Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 77

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

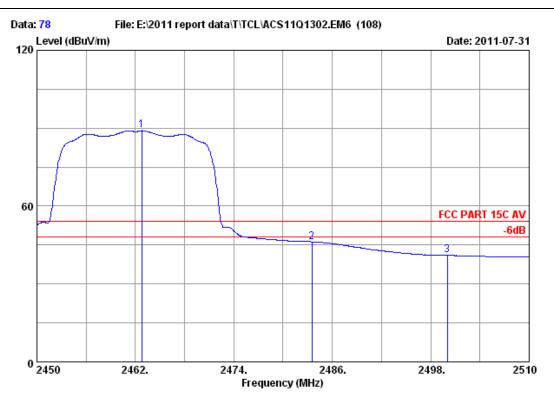
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx

M/N : VBR337

	Freq. Facto		Factor	_		Limits Margin (dBuV/m) (dB)	Remark	
_	2462.120 28.0 2483.500 28.0			99.36 53.34	99.81 53.87	74.00 -25.81 74.00 20.13	Peak Peak	
3	2500.000 28.1	.0 6.90	34.45	50.29	50.84	74.00 23.16	Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 78

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

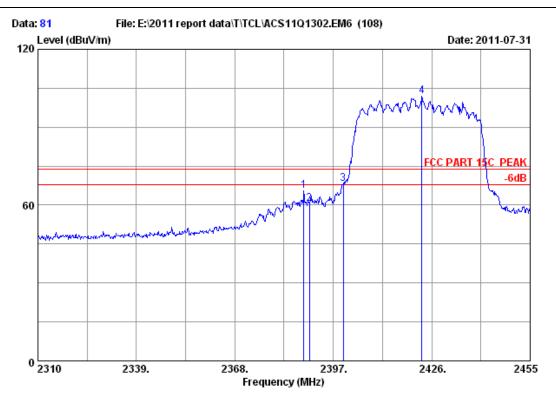
Test mode : IEEE802.11nHT20 CH11 2462MHz Tx

M/N : VBR337

-		loss (dB)	Factor	Reading (dBuV)	Emission Level (dBuV/m)	Limits Margin (dBuV/m) (dB)	Remark	
1 2462.78 2 2483.50 3 2500.00	0 28.08	6.90	34.45	88.65 45.74 40.45	89.09 46.27 41.00	54.00 -35.09 54.00 7.73 54.00 13.00	Average Average Average	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 81

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

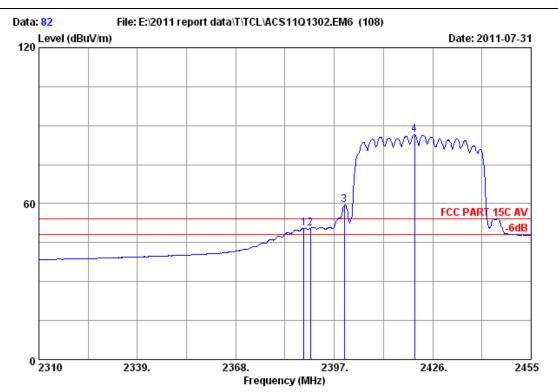
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx

M/N : VBR337

-	Ant. Factor (dB/m)			Reading (dBuV)	Emission Level (dBuV/m)		Margin	Remark	
1 2388.30 2 2390.00 3 2400.00 4 2423.10	0 27.96 0 27.96	6.72 6.75	34.44 34.44	65.22 60.17 68.04	65.46 60.41 68.31	74.00 74.00 74.00	8.54 13.59 5.69 -27.78	Peak Peak Peak Peak	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 82

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

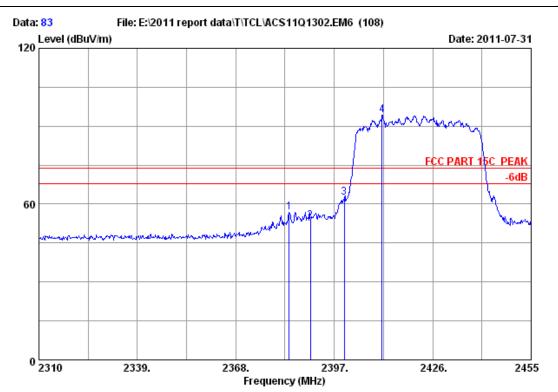
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx

M/N : VBR337

	Freq. (MHz)	Ant. Factor (dB/m)		Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits Margin (dBuV/m) (dB)	Remark
1	2388.010	27.96	6.72	34.44	50.40	50.64	54.00 3.36	Average
2	2390.000	27.96	6.72	34.44	50.35	50.59	54.00 3.41	Average
3	2400.000	27.96	6.75	34.44	59.11	59.38	54.00 -5.38	Average
4	2420.635	5 28.00	6.78	34.44	86.21	86.55	54.00 -32.55	Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 83

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

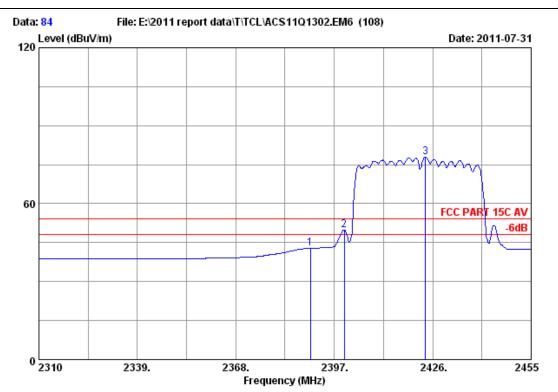
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx

M/N : VBR337

	•				Reading (dBuV)	Emission Level (dBuV/m)			Remark
2 23 3 24	390.000 100.000	27.93 27.96 27.96 27.96	6.72 6.75	34.44 34.44	56.70 53.27 62.36 93.96	56.91 53.51 62.63 94.28	74.00	17.09 20.49 11.37	Peak Peak Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 84

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

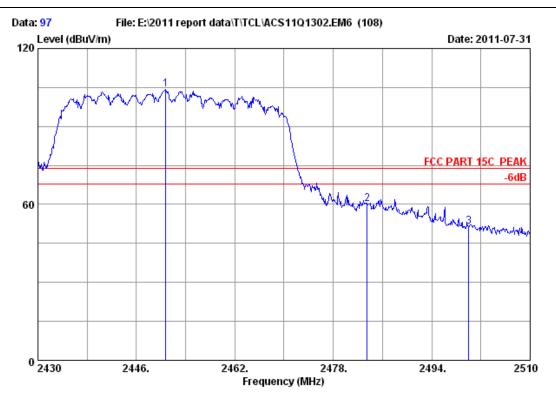
Test mode : IEEE802.11nHT40 CH1 2422MHz Tx

M/N : VBR337

	Freq.				Reading (dBuV)	Emission Level (dBuV/m)	Limits Margin (dBuV/m) (dB)	Remark
2	2390.000 2400.000 2423.825	27.96	6.75	34.44	42.59 49.48 77.64	42.83 49.75 77.98	54.00 11.17 54.00 4.25 54.00 -23.98	Average Average Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 97

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

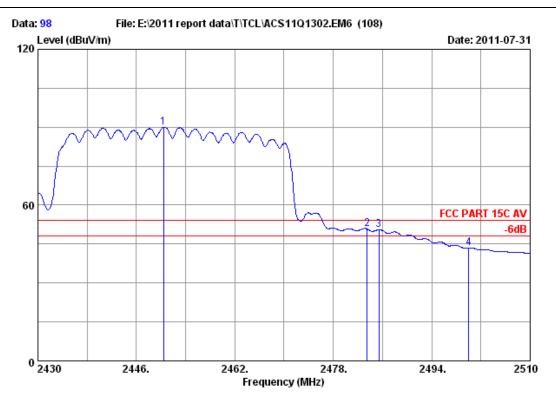
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx

M/N : VBR337

	-		loss	Factor	_		Limits Margin (dBuV/m) (dB)	Remark
2	2450.800 2483.500 2500.000	28.08	6.90	34.45	59.66	104.15 60.19 51.41	74.00 -30.15 74.00 13.81 74.00 22.59	Peak Peak Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 98

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

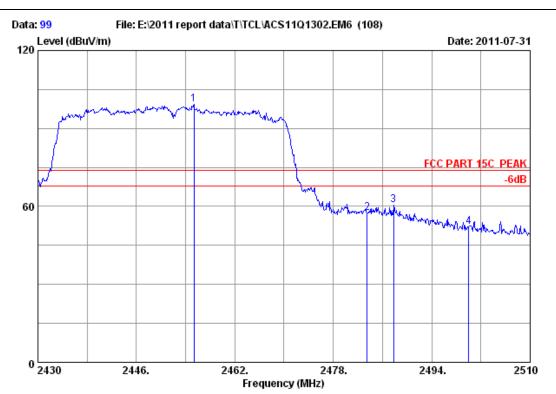
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx

M/N : VBR337

	Freq. Fact (MHz) (dB/	or loss	Factor	Reading (dBuV)	Lmission Level (dBuV/m)	Limits M (dBuV/m)	_	Remark
1	2450.400 28.	03 6.84	34.44	89.61	90.04	54.00 -3	6.04	Average
2	2483.500 28.	08 6.90	34.45	50.24	50.77	54.00	3.23	Average
3	2485.440 28.	08 6.90	34.45	50.04	50.57	54.00	3.43	Average
4	2500.000 28.	10 6.90	34.45	42.95	43.50	54.00 1	0.50	Average

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber Data no. : 99

Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Paul Tian

EUT : 3D Blu-ray Disc Player

Power : AC 120V/60Hz

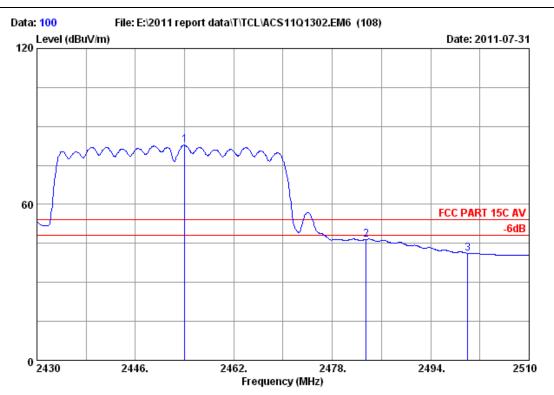
Test mode : IEEE802.11nHT40 CH7 2452MHz Tx

M/N : VBR337

	-		loss	Amp. Factor (dB)	Reading	Emission Level (dBuV/m)	Limits Margin	n Remark
1	2455.360	28.05	6.84	34.44	98.80	99.25	74.00 -25.25	Peak
2	2483.500	28.08	6.90	34.45	56.82	57.35	74.00 16.65	Peak
3	2487.840	28.10	6.90	34.45	59.81	60.36	74.00 13.64	Peak
4	2500.000	28.10	6.90	34.45	51.68	52.23	74.00 21.77	Peak

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.





Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no. : 100

Ant. pol. : HORIZONTAL

Limit : FCC PART 15C AV

Env. / Ins. : 22.4 C/41% Engineer : Paul Tian

: 3D Blu-ray Disc Player

: AC 120V/60Hz Power

Test mode : IEEE802.11nHT40 CH7 2452MHz Tx

: VBR337 M/N

	Freq. Fact (MHz) (dB/:		•	Reading (dBuV)	Level (dBuV/m)		Margin) (dB)	Remark	
2	2454.000 28. 2483.500 28. 2500.000 28.	08 6.90	34.45	82.31 45.99 40.60	82.76 46.52 41.15	54.00 54.00 54.00	7.48	Average Average Average	

- 1. Emission Level= Antenna Factor + Cable Loss -Amp Factor + Reading.
- 2. The emission levels that are 20dB below the official limit are not reported.

7. 6dB Bandwidth Test

7.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 11	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08, 11	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX102	28618/2	May.08, 11	1Year

7.2.Limit

For direct sequence systems, the minimum 6dB bandwidth shall be at least 500kHz

7.3.Test Procedure

The transmitter output was connected to a spectrum analyzer, The bandwidth of the fundamental frequency was measured by spectrum analyzer with 100kHz RBW and 300 kHz VBW. The 6dB bandwidth is defined as the total spectrum the power of which is higher than peak power minus 6dB.

7.4.Test Results

6dB Bandwidth

OUD DUNGWIOWI						
EUT: 3D Blu-ray Disc Player						
M/N:VBR337						
Test date:2011-06-24	Pressure: 101.4 kpa	Humidity: 47%				
Tested by: Leo-Li	Test site: RF Site	Temperature : 26.2 °C				

Cable loss: 1	dB	Attenuator lo	oss: 20 dB	Antenna Gain: 1.53 dBi	
Test Mode	СН	6dB bandwid (MHz)	lth	Limit (KHz)	
		Chain0	Chain1	()	
	CH1	8.118	8.131	>500	
11b	СН6	8.113	8.121	>500	
	CH11	8.577	8.120	>500	
	CH1	15.100	15.119	>500	
11g	СН6	15.133	15.121	>500	
	CH11	15.119	15.108	>500	
1.1	CH1	15.122	15.109	>500	
11n HT20	СН6	16.952	16.066	>500	
П120	CH11	15.109	15.120	>500	
1.1	CH1	33.379	33.301	>500	
11n HT40	CH4	33.392	33.527	>500	
N140	CH7	33.394	33.187	>500	
Conclusion:	PASS	<u> </u>			

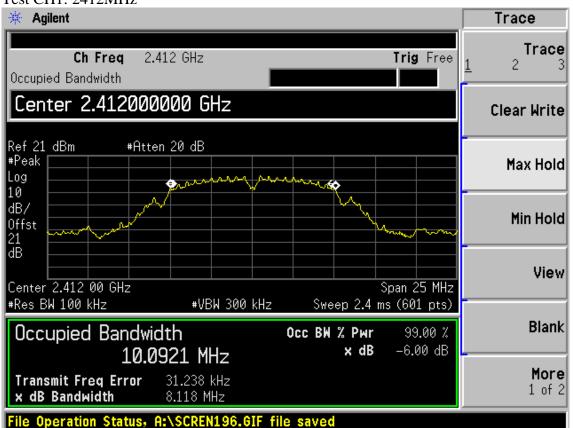


6dB Bandwidth

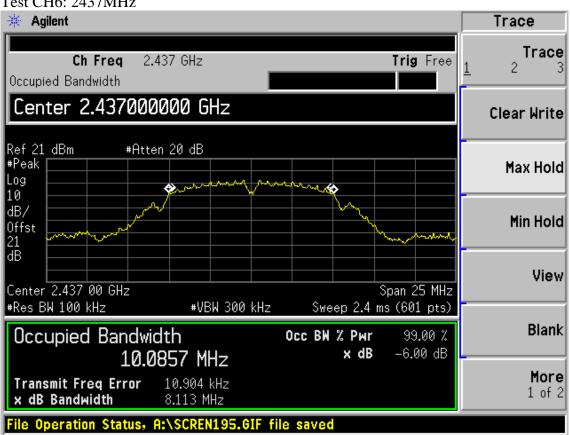
Chain 0:

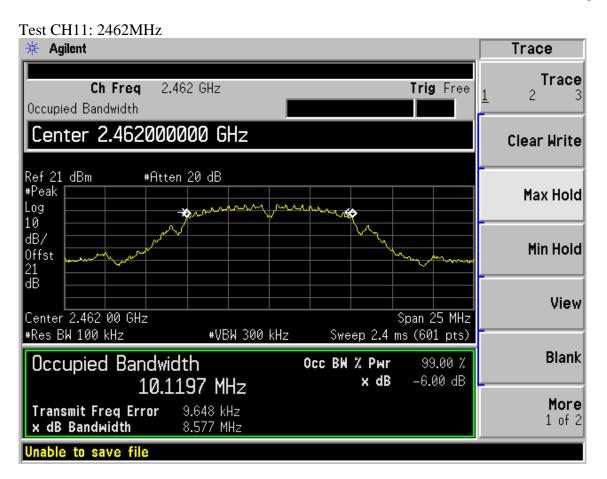
Test Mode: IEEE 802.11b TX

Test CH1: 2412MHz

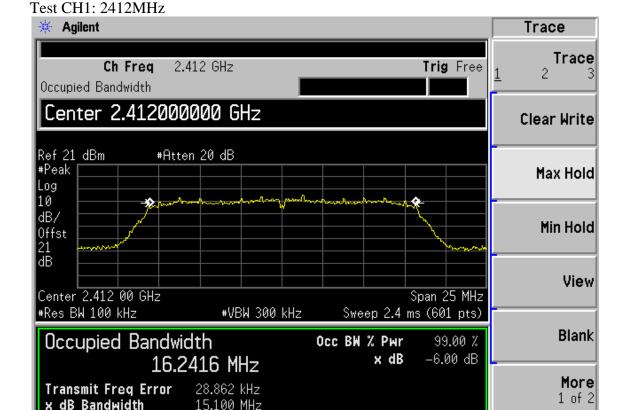


Test CH6: 2437MHz





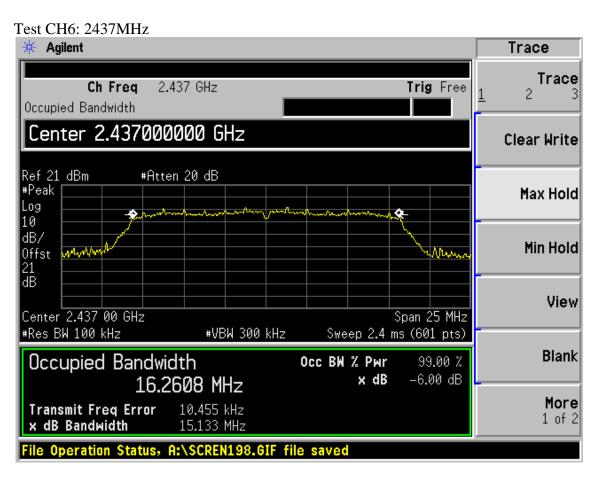
Test Mode: IEEE 802.11g TX



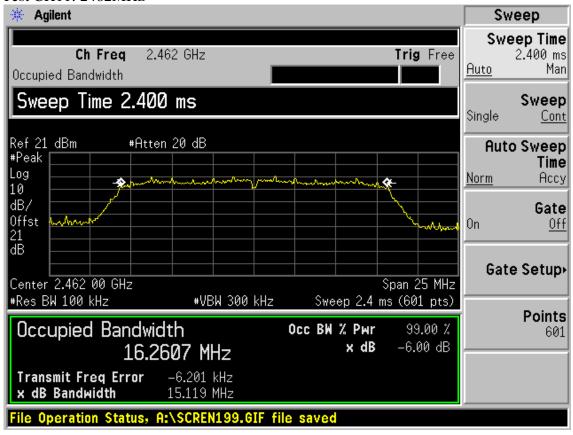
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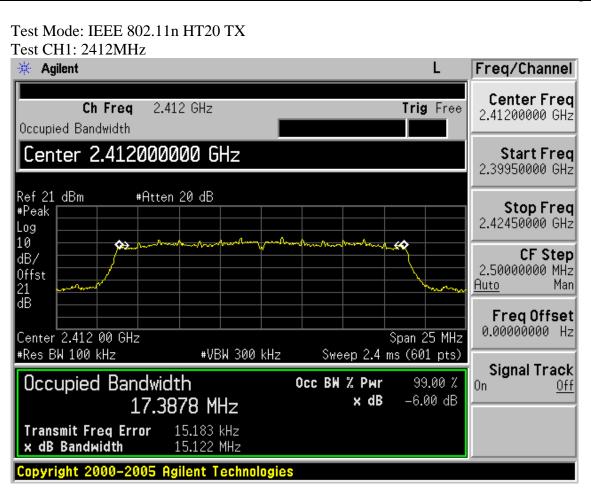


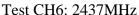


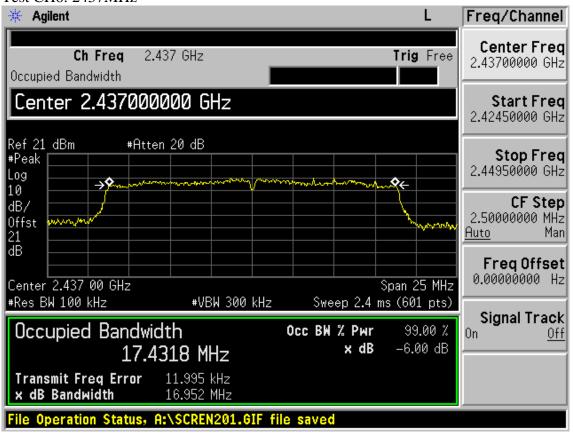


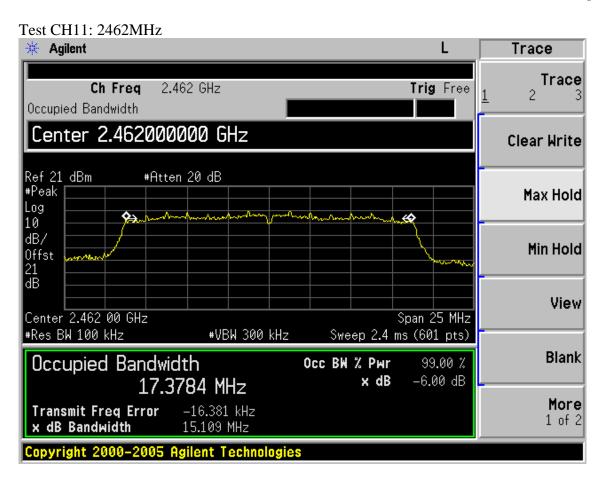
Test CH11: 2462MHz



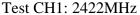


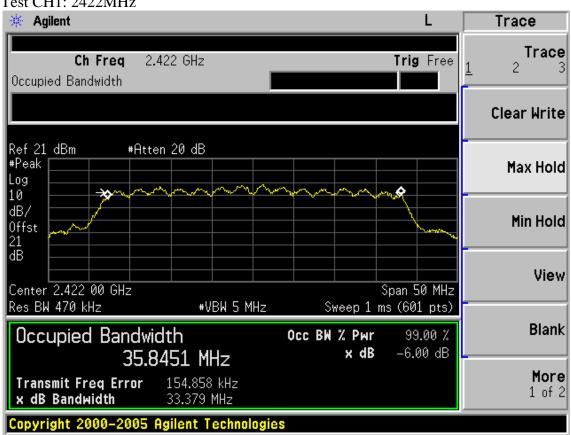






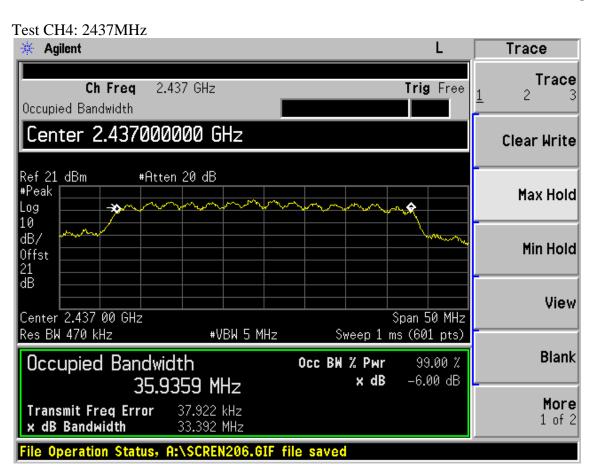
Test Mode: IEEE 802.11n HT40 TX



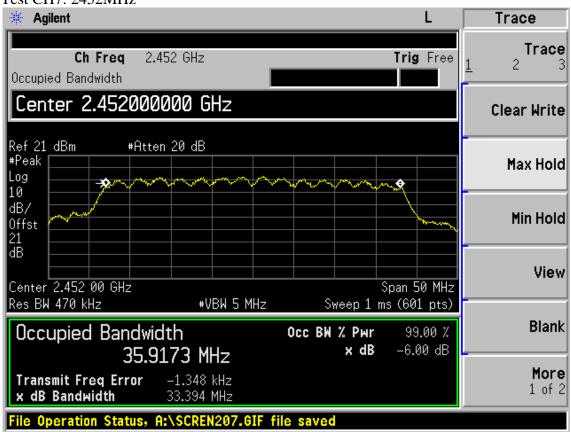




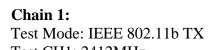


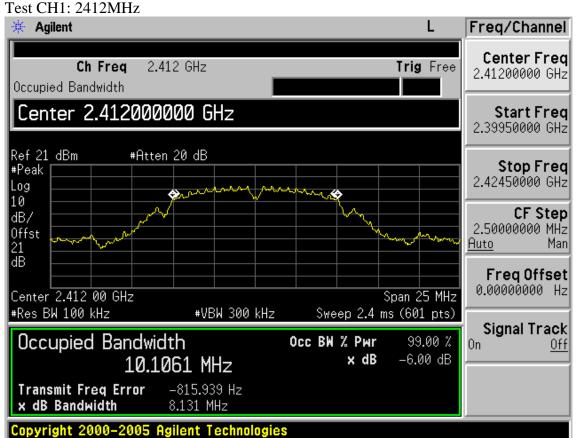


Test CH7: 2452MHz

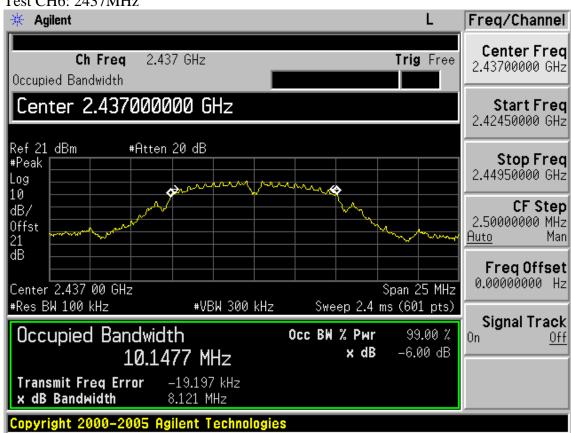


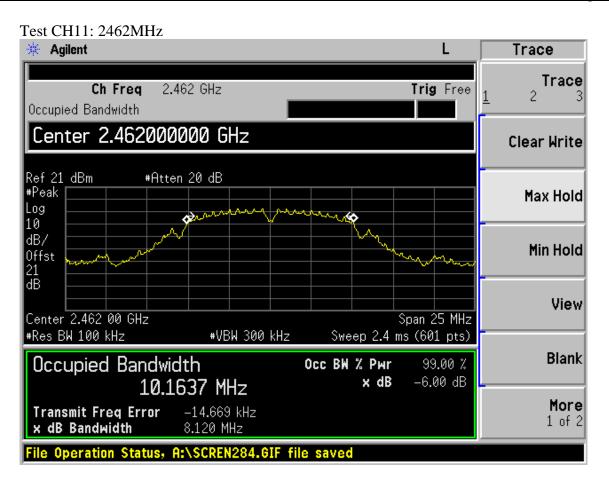




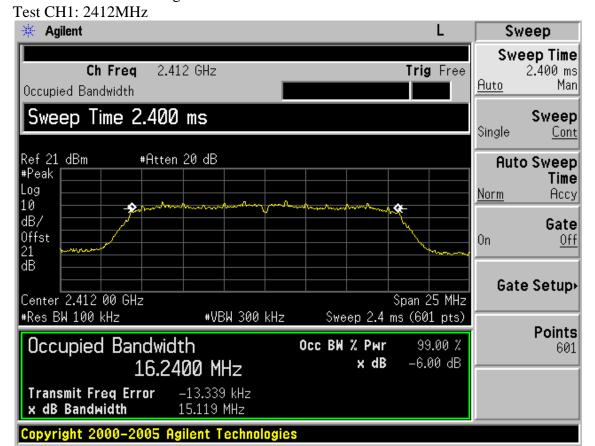


Test CH6: 2437MHz

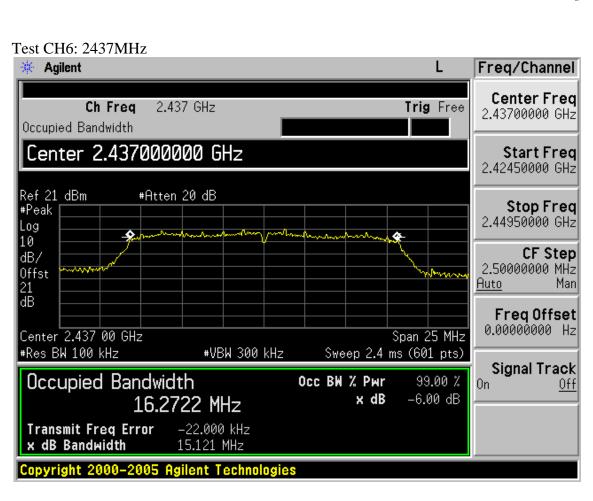




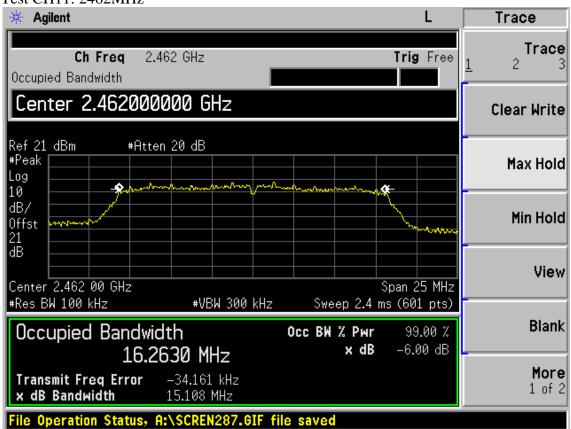
Test Mode: IEEE 802.11g TX



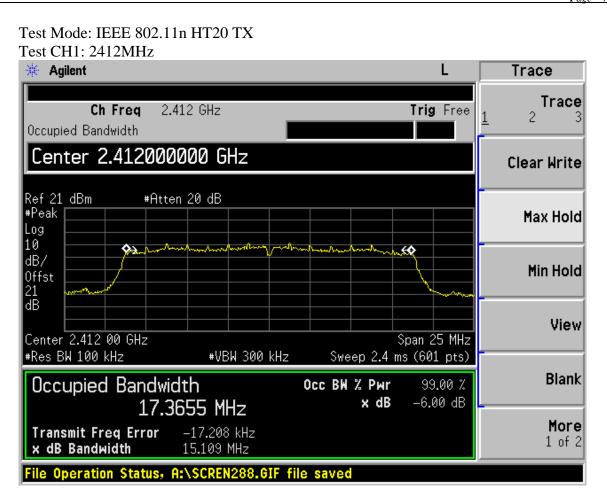


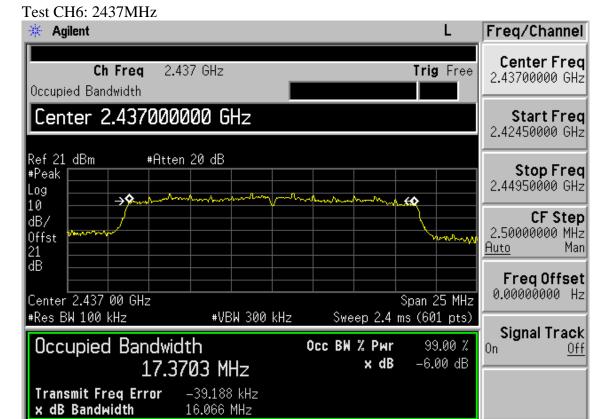


Test CH11: 2462MHz



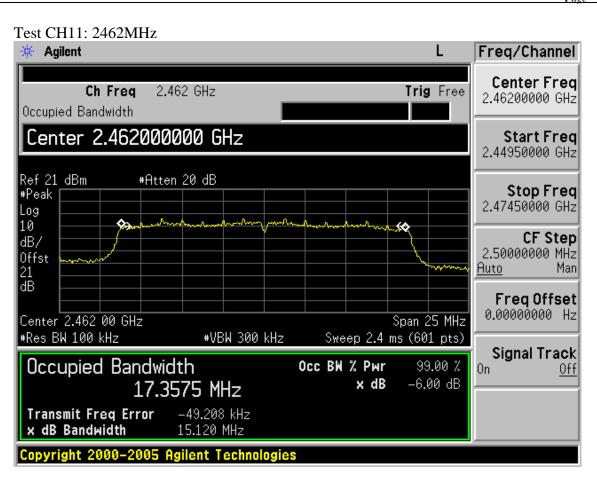






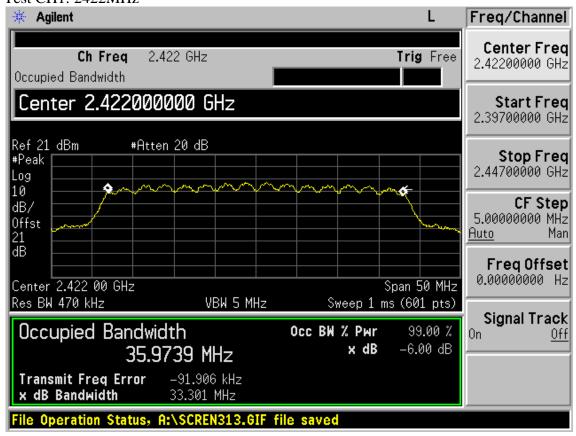
Copyright 2000-2005 Agilent Technologies





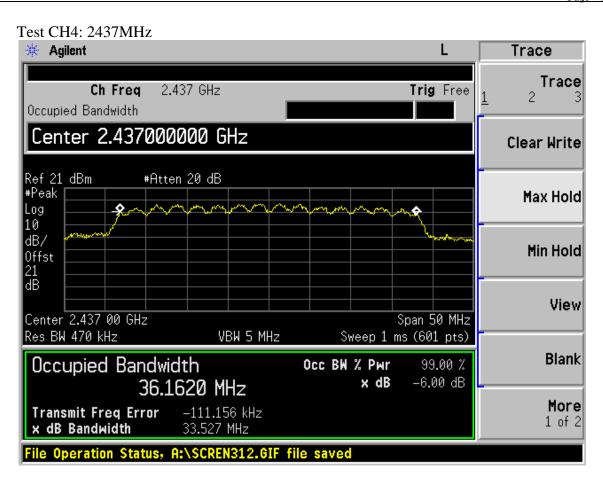
Test Mode: IEEE 802.11n HT40 TX

Test CH1: 2422MHz

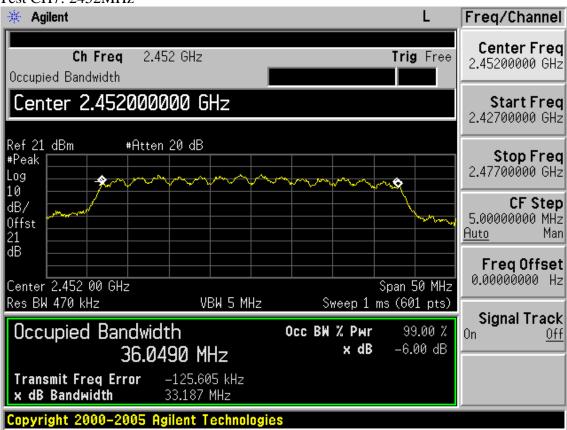




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Test CH7: 2452MHz



8. OUTPUT POWER TEST

8.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	Power meter	Anritsu	ML2487A	6K00002472	May.08,11	1Year
2	Power sensor	Anritsu	MA2491A	0033005	May.08,11	1Year
3	Attenuator	Agilent	8491B	MY39262165	May.08,11	1 Year
4	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 11	1 Year
5	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May.08,11	1Year

8.2.Limit

For systems using digital modulation in the 2400—2483.5MHz, The Peak out put Power shall not exceed 1W(30dBm)

8.3.Test Procedure

- 1, Connected the EUT's antenna port to measure device by 20dB attenuator.
- 2, For IEEE 802.11b/g and IEEE802.11n HT20 mode, use a PK power meter which's bandwidth is above 6dB bandwidth of signal to measure out each test modes and chain's PK output power.
- 3, For IEEE802.11n HT40 mode, because the signal's bandwidth is about 40MHz and above 20MHz bandwidth of power sensor ML2491A. So Bandwidth correction method according to ANSI C63.10 clause 6.10.2.1 part (c) was used:
 - 1) Set the RBW=3MHz and VBW =8MHz
 - 2) Turn averaging off
 - 3) Set sweep to automatic
 - 4) Set the span just large enough to capture the emission
 - 5) Use a peak detector on max hold
 - 6) Record the measured power
 - 7) Calculate Output power of EUT use the formula:

Peak output power = measured power+ 10log[(6dB bandwidth of emission)/(analyzer RBW)]

4, For IEEE802.11n mode, it's MIMO technology, so account total PK output power by add each chain's PK output power.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.



8.4. Test Results

	Blu-ray Disc Playe	r				
M/N:VBR	1337					II
Test date:	2011-07-31	Pressure	e: 101.3	kpa		Humidity: 54 %
Tested by: Leo-Li Test site			e: RF site			Temperature: 25 °C
Cable loss: 1 dB			Attenuato	r loss: 20 dB		Antenna Gain: 1.53 dBi
Test Mode	CH (MHz)	_		ut Power	Limit (dBm)	
	, ,			Chain1	Total	
	CH1		21.15	21.99	N/A	30
11b	CH6	CH6		22.28	N/A	30
	CH11	CH11		22.77	N/A	30
	CH1		22.66	23.22	N/A	30
11g	СН6	CH6		26.75	N/A	30
J	CH11	CH11		24.83	N/A	30
11n	CH1		20.99	21.68	24.36	30
	CH6		24.78	25.73	28.29	30
HT20	CH11		21.35	21.69	24.53	30

			Result					
Test Mode	СН		Measured power(dBm)/3MHz		nt power		(dBm)	
		Chain0	Chain1	Chain0	Chain1	Total		
11n	CH1	8.63	9.86	19.10	20.34	22.77	30	
HT40	CH4	14.45	15.62	24.92	26.10	28.56	30	
	CH7	10.12	11.64	20.59	22.12	24.43	30	

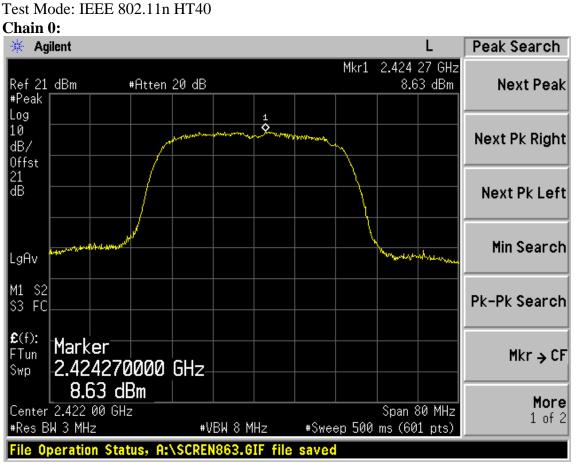
Chain 0 6dB Bandwidth for 11n HT40: 33.4MHz Chain 1 6dB Bandwidth for 11n HT40: 33.5MHz

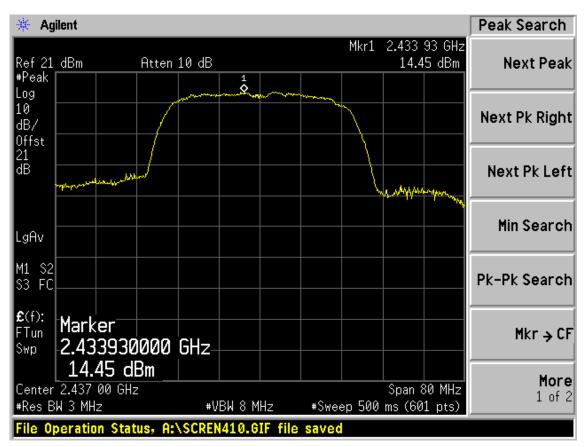
Chain 0 BW correction factor = $10\log[(33.4\text{MHz})/(3\text{MHz})] = 10.47\text{dB}$

Chain 1 BW correction factor = $10\log[(33.5\text{MHz})/(3\text{MHz})] = 10.48\text{dB}$

Conclusion: PASS

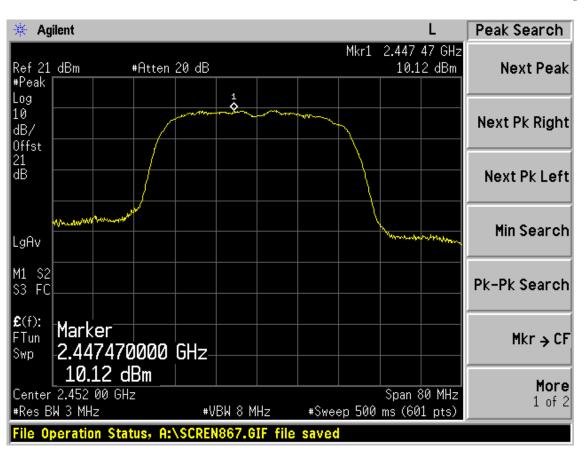




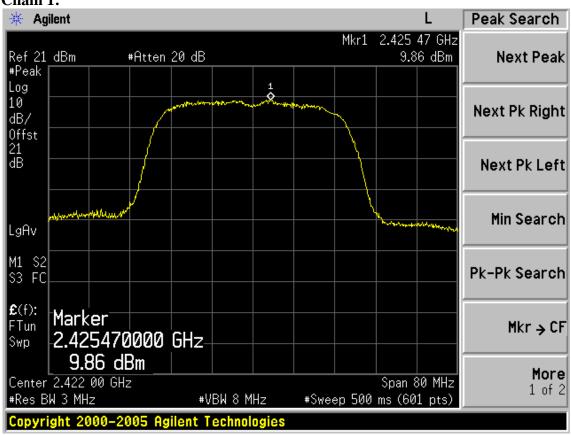




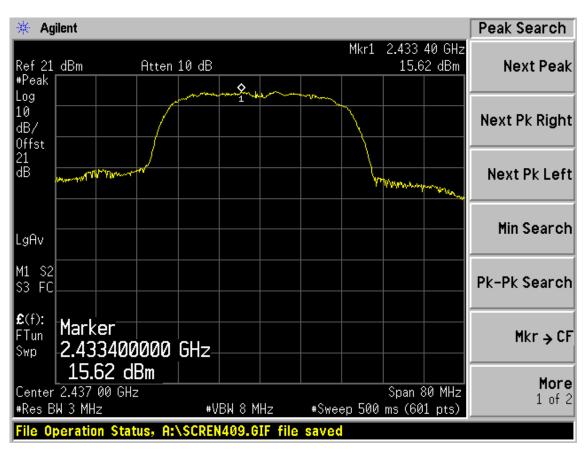


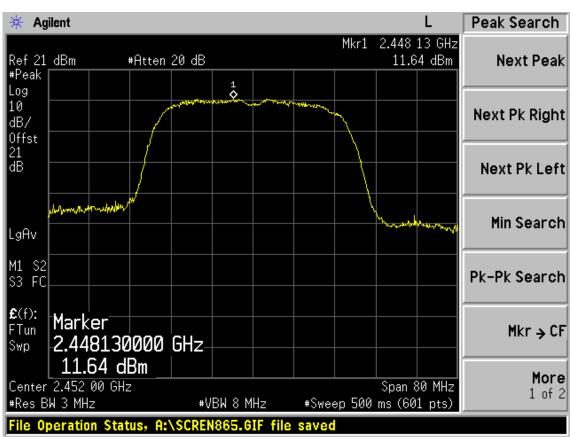


Chain 1:









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9. POWER SPECTRAL DENSITY TEST

9.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300459	May.08, 11	1 Year
2.	Attenuator	Agilent	8491B	MY39262165	May.08, 11	1 Year
3.	RF Cable	Hubersuhner	SUCOFLEX 102	28618/2	May.08, 11	1Year

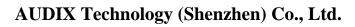
9.2.Limit

For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8dBm in any 3kHz band during any time interval of continuous transmission.

9.3.Test Procedure

- 1, Connected the EUT's antenna port to spectrum analyzer device by 20dB attenuator.
- 2, Follow the test procedure as described in ANSI C.10: 2009 Clause 6.11.2.3 to measure out each test modes and chain's power density with 3KHz.
- 3, For IEEE802.11n mode, it's MIMO technology, so account total power density by add each chain's power density.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.





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9.4.Test Results

EUT: 3D Blu-ray Disc Player			
M/N: VBR337			
Test date:2011-06-24	Pressure:	101.3 kpa	Humidity: 47%
Tested by: Leo-Li	Test site:	RF Site	Temperature : 25.6°C

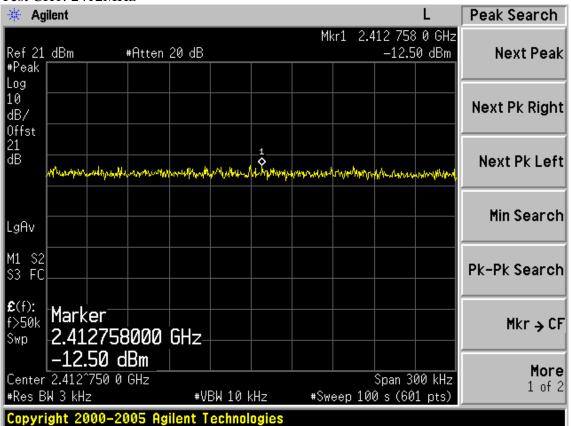
Cable loss: 1 dB		Attenuator loss: 20 dB			Antenna Gain: 1.53 dBi
Test Mode	СН	Power den	sity (dBm/	Limit	
		Chain0	Chain1	Total	(dBm/3KHz)
	CH1	-12.50	-10.20	N/A	8
11b	CH6	-12.46	-12.11	N/A	8
	CH11	-10.90	-11.25	N/A	8
	CH1	-20.96	-20.30	N/A	8
11g	CH6	-14.23	-13.62	N/A	8
	CH11	-15.50	-15.80	N/A	8
1.1	CH1	-22.90	-21.57	-19. 17	8
11n HT20	CH6	-13.48	-13.72	-10.59	8
11120	CH11	-17.02	-17.84	-14. 40	8
11n HT40	CH1	-23.28	-19.70	-18. 12	8
	CH4	-12.85	-10.64	-8.60	8
	CH7	-17.82	-12.55	-11.42	8
Conclusion: P	ASS				



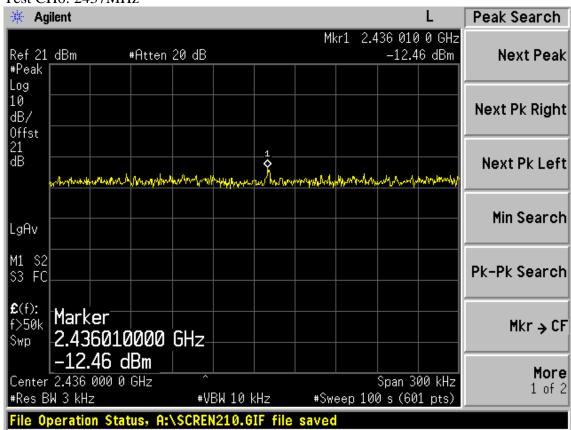


Test Mode: IEEE 802.11b TX

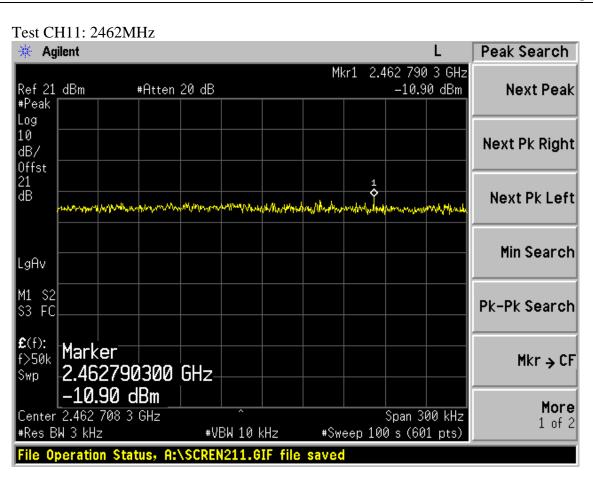
Test CH1: 2412MHz



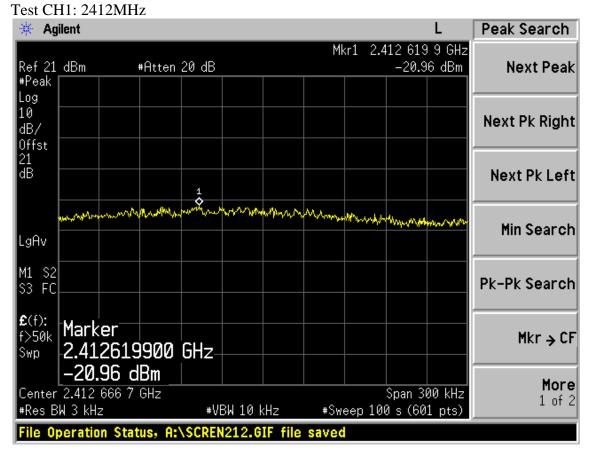
Test CH6: 2437MHz





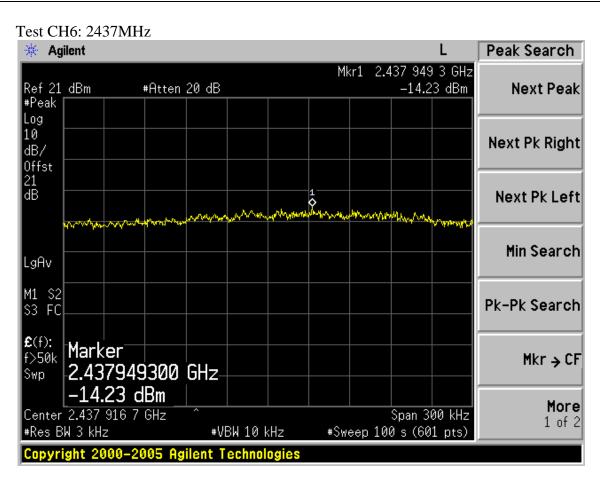


Test Mode: IEEE 802.11g TX

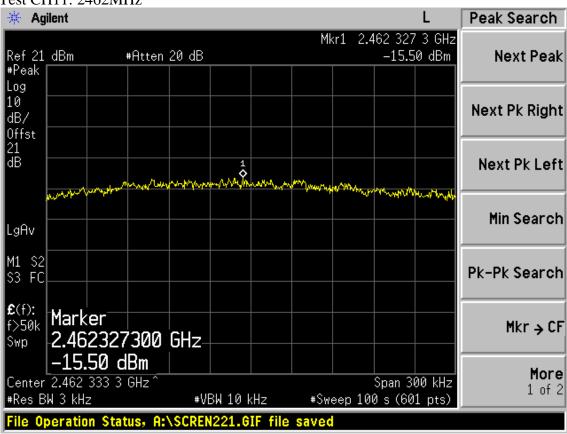




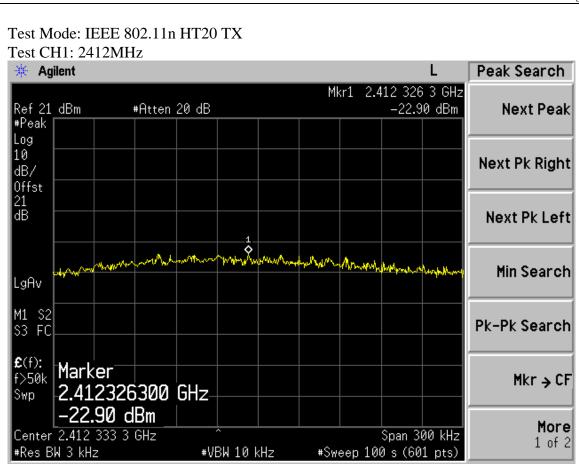


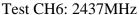




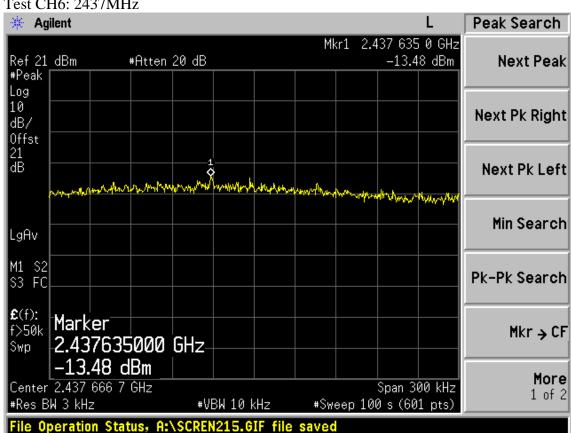




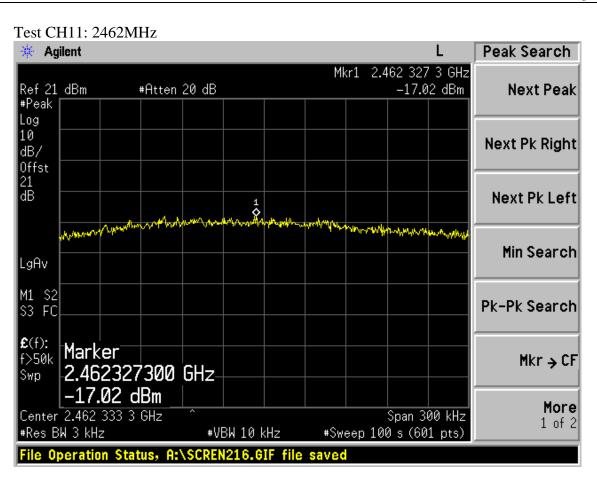




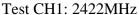
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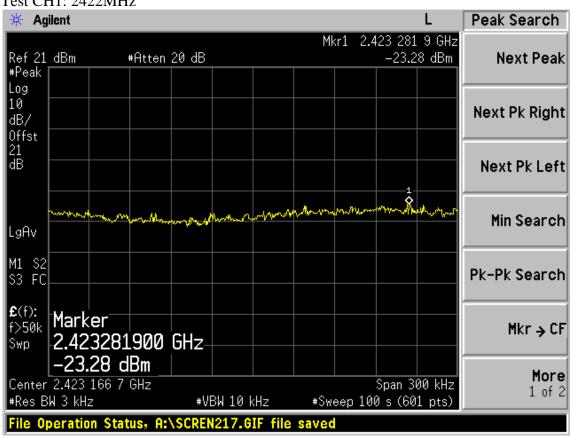




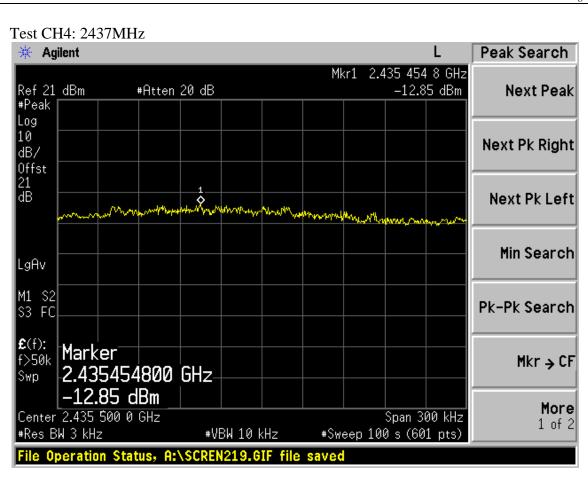


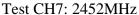
Test Mode: IEEE 802.11n HT40 TX

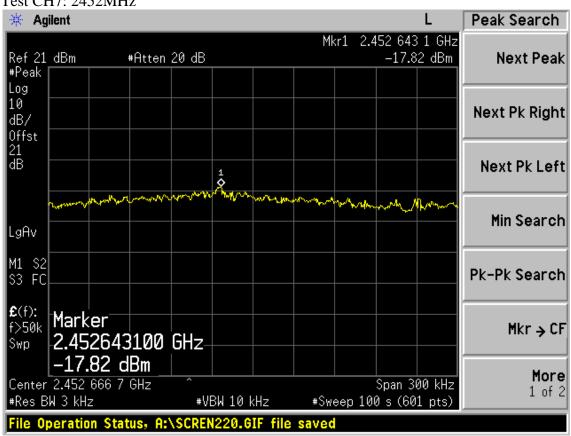










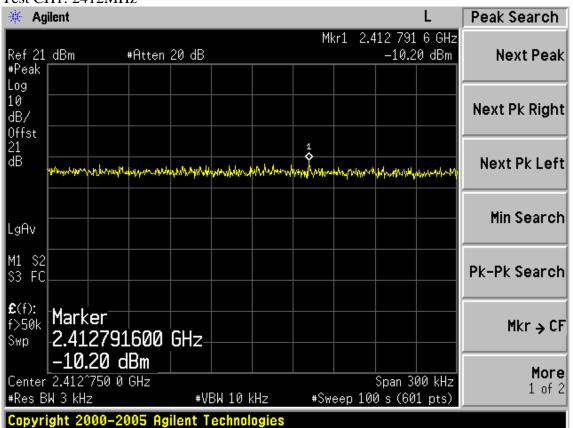




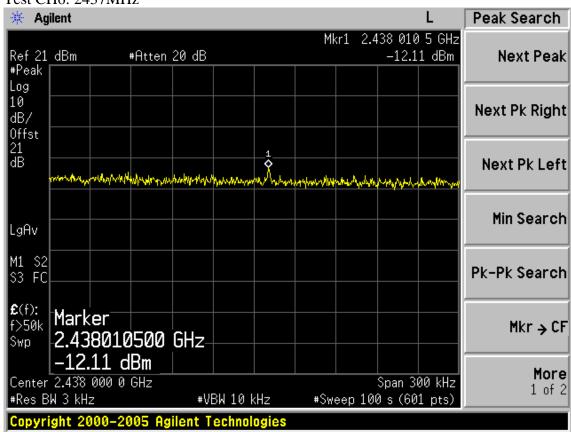


Test Mode: IEEE 802.11b TX

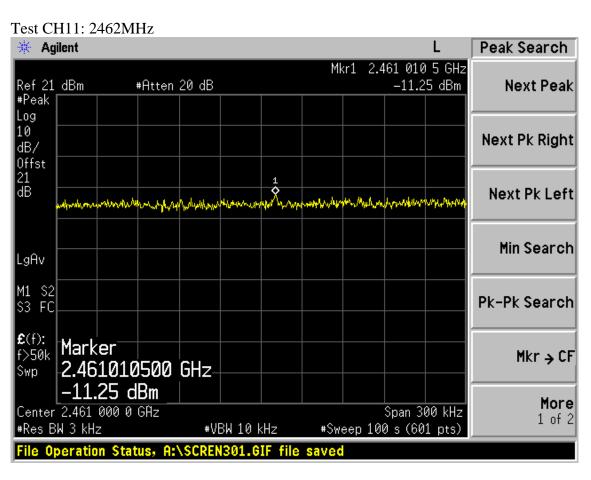
Test CH1: 2412MHz



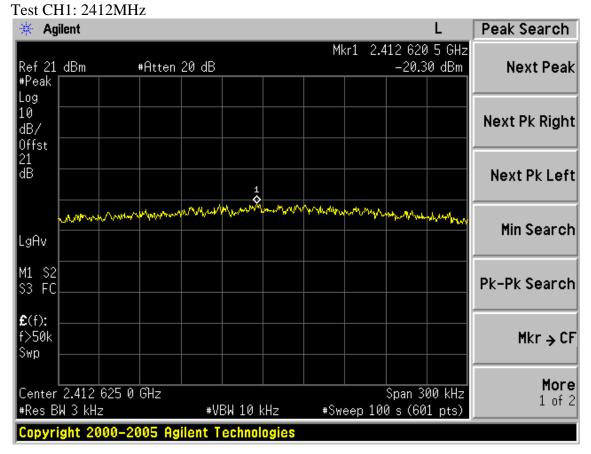
Test CH6: 2437MHz



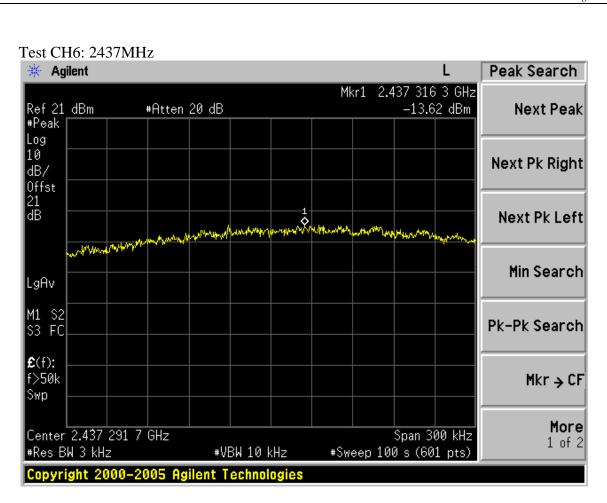


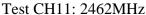


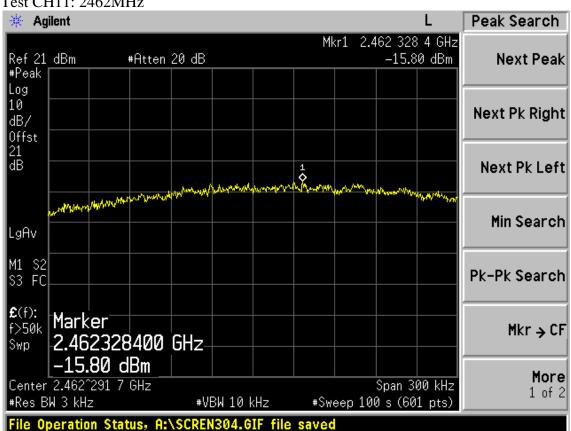
Test Mode: IEEE 802.11g TX



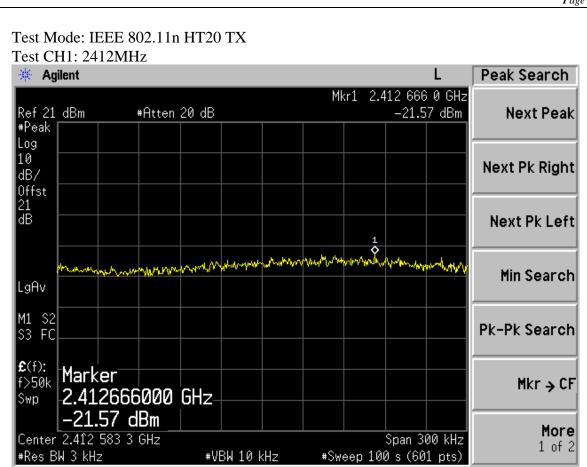
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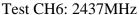




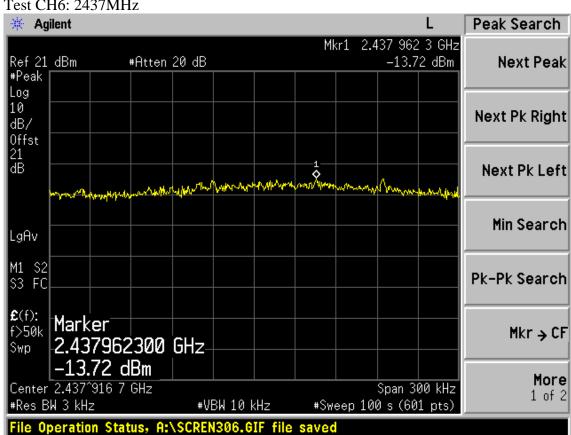




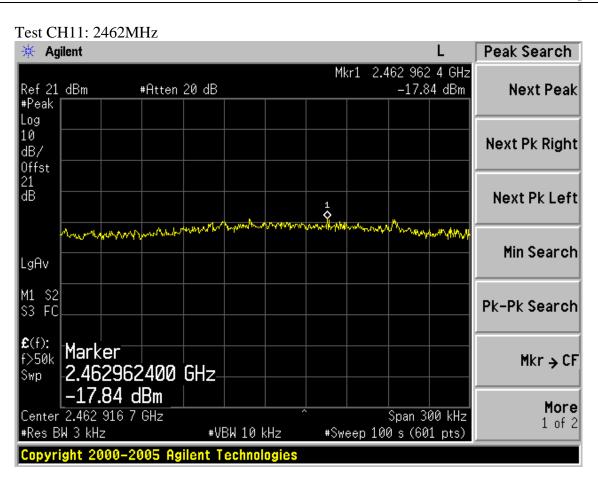




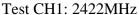
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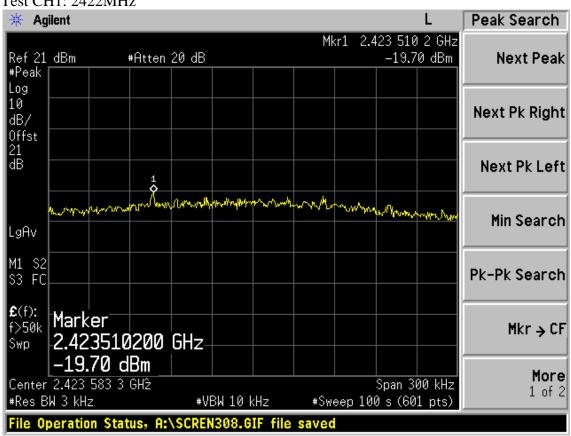






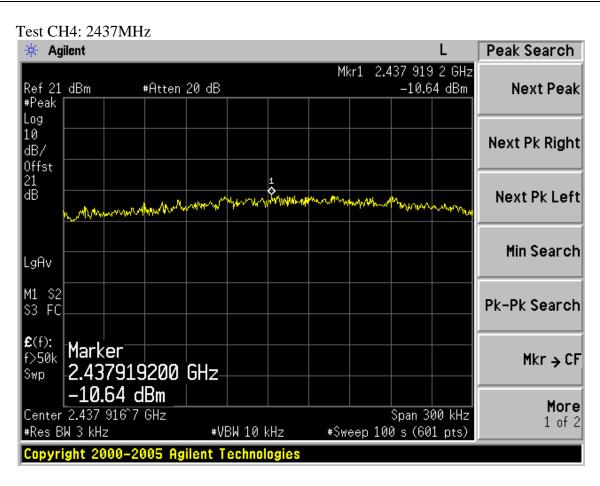
Test Mode: IEEE 802.11n HT40 TX

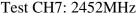


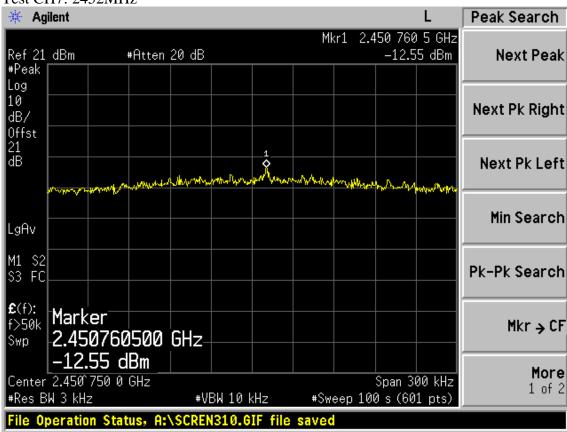














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10. ANTENNA REQUIREMENT

10.1 STANDARD APPLICABLE

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6dBi.

10.2 ANTENNA CONNECTED CONSTRUCTION

The antennas used for this product are integrated MIMO 2X2 PCB antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is only 1.53dBi.



11.MPE ESTIMATION

11.1.Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/cm ²)	Averaging time(minutes)		
300MHz1.5GHz	F/1500	30		
1.5GHz100GHz	1.0	30		

Frequency(MHz)	Power density (mW/cm ²)	Averaging time(minutes)
2412	1	30
2437	1	30
2462	1	30

Note: F= Frequency in MHz

11.2.Estimation Result

EUT: 3D Blu-ray Disc Player			
M/N:VBR337			
Test date:2011-07-31	Pressure:	101.4 kpa	Humidity: 52 %
Tested by: Leo-Li	Test site:	RF Site	Temperature : 25°℃

Cable loss: 1 dB			Attenuator	Antenna Gain: 1.53 dBi			
Test Mode	СН	Frequency (MHz)	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	МРЕ
	CH1	2412	21.99	158.12	1.53	1.42	0.0448
11b	CH6	2437	22.28	169.04	1.53	1.42	0.0479
	CH11	2462	22.77	189.23	1.53	1.42	0.0536
	CH1	2412	23.22	209.89	1.53	1.42	0.0594
11g	CH6	2437	26.75	473.15	1.53	1.42	0.1340
	CH11	2462	24.83	304.09	1.53	1.42	0.0861
11	CH1	2412	24.36	272.90	1.53	1.42	0.0773
11n HT20	CH6	2437	28.29	674.53	1.53	1.42	0.1910
П120	CH11	2462	24.53	283.79	1.53	1.42	0.0803
11n HT40	CH1	2422	22.77	189.23	1.53	1.42	0.0536
	CH4	2437	28.56	717.79	1.53	1.42	0.2032
11140	CH7	2452	24.43	277.33	1.53	1.42	0.0785

Note: The estimate distance is 20cm



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12.DEVIATION TO TEST SPECIFICATIONS	
[NONE]	