

# FCC PART 15C TEST REPORT FOR CERTIFICATION On Behalf of

TCL Technoly Electronics (Huizhou) Co., Ltd.

#### **BLU-RAY DISC PLAYER**

Brand Name	Model Number
Panasonic	DMP-BD87

FCC ID: ZVABDDMPBD87

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

Section 19, Zhongkai High-tech Development

Zone, Huizhou City, Guangdong Province, China 516006

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

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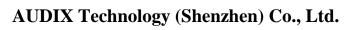
Report Number : ACS-F12008 Date of Test : Jan.11~12, 2012

Date of Report : Jan.19, 2012



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### TEST REPORT CERTIFICATION

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

Manufacturer : Panasonic Corporation

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

EUT Description : BLU-RAY DISC PLAYER

FCC ID : ZVABDDMPBD87

(A) Model No. &

Brand Name

Brand Name Model Number
Panasonic DMP-BD87

(B)SERIAL NO. : N/A

(C)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.

Date of Test:	Jan.11~12, 2012	Report of date:	Jan. 19, 20	12
Prepared by :	comy He	Reviewed by:	4	fin
	Cerry He/ Assistant	· 《 信奉科技 (深圳)	Sunny Lu / Sup	ervisor
		Audiz Technolo EMC 非門根	ay (Shenzhen) Co., Ltd. 告專用章	
		Stamp only for EMC	Dept Report	
	thorized Signer:	Signature: L	en lu this	
		Ken Lu / Ma	nager	



### 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			
Fower Line Conducted Emission Test	ANSI C63.10: 2009	1 ASS			
Radiated Emission Test	FCC Part 15: 15.209	PASS			
Radiated Emission Test	ANSI C63.10: 2009	TASS			
Dand Edge Compliance Test	FCC Part 15: 15.247	PASS			
Band Edge Compliance Test	ANSI C63.10: 2009	TASS			
Conducted enurious emissions test	FCC Part 15: 15.247	PASS			
Conducted spurious emissions test	ANSI C63.10: 2009	TASS			
6dB Bandwidth Test	FCC Part 15: 15.247				
odb Balldwidth Test	ANSI C63.10: 2009	PASS			
Output Power Test	FCC Part 15: 15.247	PASS			
-	FGG P + 15 15 245				
Power Spectral Density Test	FCC Part 15: 15.247	PASS			
	ANSI C63.10: 2009				
Antenna requirement	FCC Part 15: 15.203	PASS			

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#### 2. GENERAL INFORMATION

2.1.Description of Device (EUT)

Product Name : BLU-RAY DISC PLAYER

Model Number & Brand Name

Brand Name Model Number

Panasonic DMP-BD87

FCC ID : ZVABDDMPBD87

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

IEEE 802.11g: 2412MHz—2462MHz IEEE 802.11n HT20: 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)

Antenna Assembly and Gain : Integral PCB antenna; 1.5dBi Gain

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

Section 19, Zhongkai High-tech development Zone, Huizhou City, Guangdong, China

Manufacturer : Panasonic Corporation

Consumer Products Business Group 1-15 Matsuo-cho

Kadoma-shi, Osaka 571-8504 Japan

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

Section 19, Zhongkai High-tech development

Zone, Huizhou City, Guangdong, China

Date of Test : Jan.11~12, 2012

Date of Receipt : Jan.11, 2012

Sample Type : Prototype production

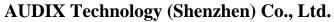


#### 2.2.Test information

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				
	2452						

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



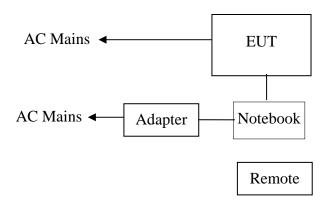


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## 2.3. Tested Supporting System Details

No.	Description	ACS No.	Manufacturer	Model	Serial Number	Approved type	
		-	DELL	PP09S	12/1XK2X	☑FCC DoC ☑BSMI ID:R33002	
1	Notebook	USB Cable: Unshielded, Detachable, 1.8m					
		Power Adaptor: Ma	anufacturer: D	DELL, M/N: I	LA65NS1-00		
		Cal	ble: Unshield	ed, Detachab	led, 4.0m(Bond or	ne ferrite core)	

## 2.4. Block diagram of connection between the EUT and simulators



(EUT: 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: Jun.13, 2014

: 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	3.8 dB(30~200MHz, Polarize: V)
in 3m chamber	4.2 dB(200M~1GHz, Polarize: H)
	3.8 dB(200M~1GHz, Polarize: V)
Uncertainty for Radiated Spurious	3.57dB
Emission test in RF chamber	3.3/UD
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 test site temperature and	0.6℃
humidity	3%

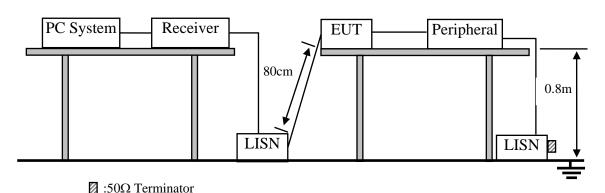


#### 3. POWER LINE CONDUCTED EMISSION TEST

#### 3.1. Test Equipments

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS10	838693/001	Oct.31, 11	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	834066/011	Oct.31, 11	1 Year
3.	L.I.S.N.#3	Kyoritsu	KNW-242C	8-1920-1	May.08, 11	1 Year
4.	Terminator	Hubersuhner	$50\Omega$	No. 1	May.08, 11	1 Year
5.	Terminator	Hubersuhner	50Ω	No. 2	May.08, 11	1 Year
6.	RF Cable	Fujikura	3D-2W	No.1	May.08, 11	1Year
7.	Coaxial Switch	Anritsu	MP59B	M50564	May.08, 11	1 Year
8.	Pulse Limiter	Rohde & Schwarz	ESH3-Z2	100341	May.08, 11	1 Year
9.	Oscilloscope	Tektronix	TDS3052B	B026036	June.09, 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

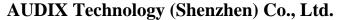
The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

#### 3.4.1. BLU-RAY DISC PLAYER (EUT)

Model Number : DMP-BD87

Serial Number : N/A

3.4.2. Support Equipment : As Tested Supporting System Detail, in Section 2.2.







#### 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.

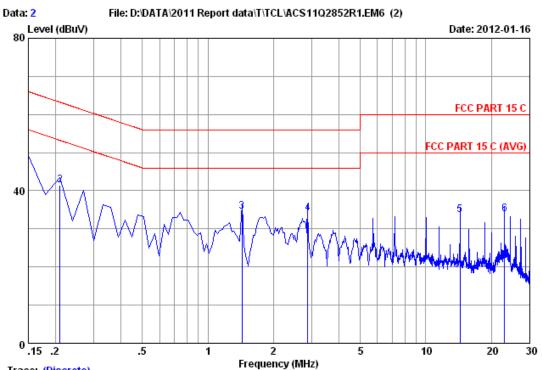
The frequency range from 150kHz to 30MHz is checked.

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.)

**P**age 3-3



Trace: (Discrete)

Site no :1#conduction Data No :2

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

:FCC PART 15 C Limit

:23.5\*C/45% Engineer :Leo\_Li Env./Ins.

:BLU-RAY DISC PLAYER

Power Rating : AC 120/60Hz Test Mode :Tx Mode M/N:DMP-BD87

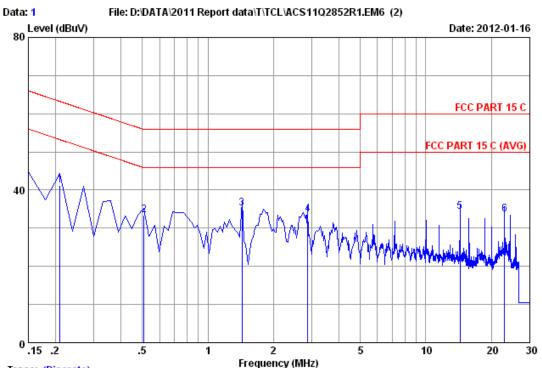
No 	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.15000	0.16	9.86	37.33	47.35	66.00	18.65	QP
2	0.20970	0.15	9.86	31.50	41.51	63.22	21.71	QP
3	1.434	0.18	9.90	24.56	34.64	56.00	21.36	QP
4	2.866	0.21	9.95	23.92	34.08	56.00	21.92	QP
5	14.359	0.31	10.09	23.30	33.70	60.00	26.30	QP
6	22.955	0.37	10.16	23.29	33.82	60.00	26.18	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.

:1

**P**age 3-4



Trace: (Discrete)

Site no :1#conduction Data No

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

Limit :FCC PART 15 C

Env./Ins. :23.5\*C/45% Engineer :Leo\_Li

EUT :BLU-RAY DISC PLAYER

Power Rating :AC 120/60Hz Test Mode :Tx Mode M/N :DMP-BD87

No 	Freq (MHz)	LISN Factor (dB)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV)	Limits (dBuV)	Margin (dB)	Remark
1	0.20970	0.14	9.86	31.28	41.28	63.22	21.94	QP
2	0.50820	0.15	9.87	23.30	33.32	56.00	22.68	QP
3	1.434	0.18	9.90	25.18	35.26	56.00	20.74	QP
4	2.866	0.21	9.95	23.41	33.57	56.00	22.43	QP
5	14.359	0.31	10.09	23.84	34.24	60.00	25.76	QP
6	22.985	0.37	10.16	23.13	33.66	60.00	26.34	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

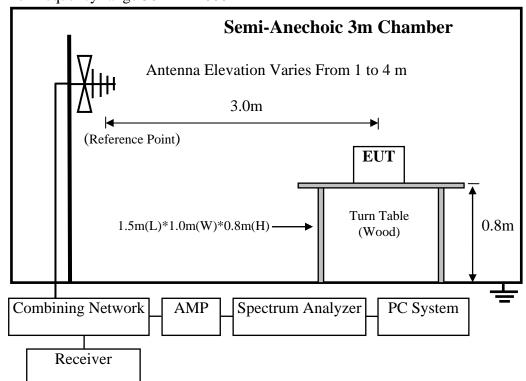
Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1	3#Chamber	AUDIX	N/A		Nov.28,11	1 Year
2	EMI Spectrum	Agilent	E4407B	MY41440292	May.08, 11	1 Year
3	Test Receiver	Rohde & Schwarz	ESVS10	834468/011	May.08, 11	1 Year
4	Amplifier	HP	8447D	2648A04738	May.08, 11	1 Year
5	Bilog Antenna	Schaffner	CBL6111C	2598	Oct.26, 10	1.5 Year
6	RF Cable	MIYAZAKI	CFD400-NL	3# Chamber No.1	Dec.06, 11	1/2Year
7	Coaxial Switch	Anritsu	MP59B	M74389	May.08, 11	1 Year

Frequency range: 1GHz-25GHz

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	July.01, 11	1 Year
3	Amplifier	Agilent	8449B	3008A00863	May.08, 11	1 Year
4	RF Cable	Hubersuhner	SUCOFLEX106	77980/6	Dec.06, 11	0.5Year
5	RF Cable	Hubersuhner	SUCOFLEX106	77977/6	Dec.06, 11	0.5Year

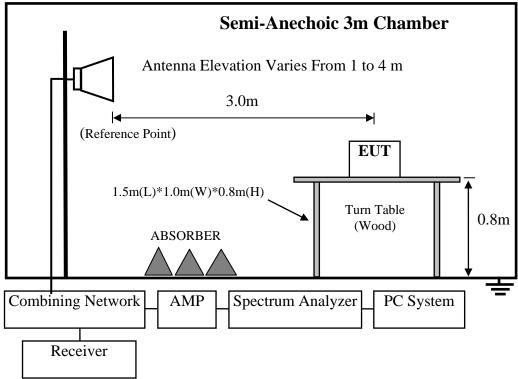
## 4.2.Block Diagram of Test Setup

For frequency range 30MHz-1000MHz





## For frequency range 1GHz-25GHz



#### 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)/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
<sup>1</sup> 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	( <sup>2</sup> )

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 resolution bandwidth of the Agilent Spectrum Analyzer E4407B was set at 1MHz. (For above 1GHz)

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  $10^{th}$  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.

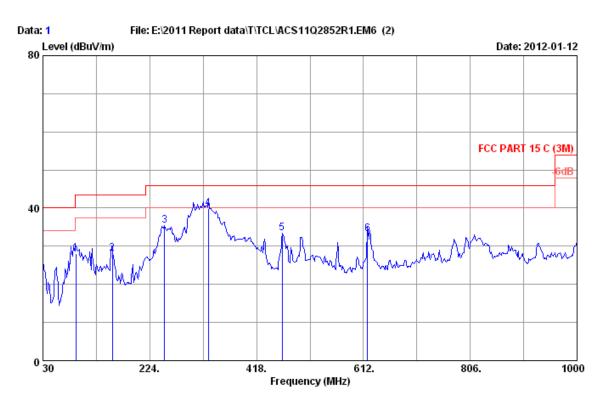


**P**age 4-4

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4.7.Radiated Emission Test Results PASS.	
All the emissions from 30MHz to 25 GHz were comply with 15.209 lim	its.

**P**age 4-5

#### Frequency: 30MHz~1GHz



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

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

Limit : FCC PART 15 C (3M)

Env. / Ins. : 24\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power rating : AC 120V/60Hz

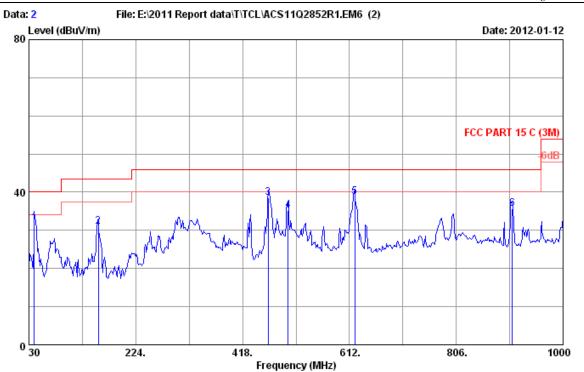
Test Mode : Tx Mode

DMP-BD87

No.	Freq.	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
1	90.140	9.10	0.55	45.46	27.99	43.50	15.51	QP
2	156.100	11.26	0.80	43.12	28.00	43.50	15.50	QP
3	251.160	12.90	1.16	48.36	35.49	46.00	10.51	QP
4	330.700	14.44	1.30	51.14	39.92	46.00	6.08	QP
5	464.560	17.33	1.50	41.74	33.48	46.00	12.52	QP
6	619.760	20.00	1.70	38.36	33.24	46.00	12.76	QP

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

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



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

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

: FCC PART 15 C (3M) Limit

Env. / Ins. : 24\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power rating : AC 120V/60Hz Test Mode

: Tx Mode DMP-BD87

M/N:DMP-BD87

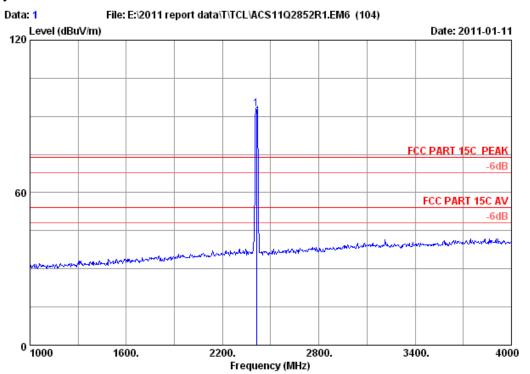
No.	Freq. (MHz)	Ant. Factor (dB/m)	Cable Loss (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	39.700	14.50	0.30	44.37	31.88	40.00	8.12	QP
2	156.100	11.26	0.80	46.02	30.90	43.50	12.60	QP
3	464.560	17.33	1.50	46.84	38.58	46.00	7.42	QP
4	500.450	18.30	1.50	42.42	35.10	46.00	10.90	QP
5	621.700	20.04	1.72	43.92	38.84	46.00	7.16	QP
6	907.850	23.04	2.20	37.73	35.65	46.00	10.35	QP

Remarks: 1. Emission Level= Antenna Factor + Cable Loss + Reading. 2. The emission levels that are 20dB below the official

limit are not reported.

**P**age 4-7





Data no. : 1

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 : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

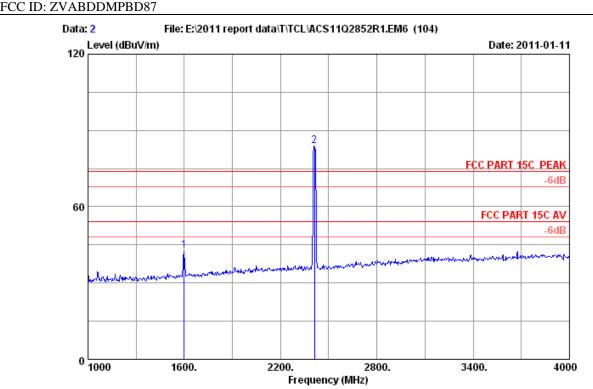
Test mode : IEEE802.11b CH 1 2412MHz Tx

M/N: DMP-BD87

	Freq. (MHz)		loss	Factor	Reading	Level (dBuV/m)	Limits	_	Remark
1	2412.000	27.98	6.03	34.44	93.48	93.05	74.00	-19.05	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.

**P**age 4-8



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

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

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

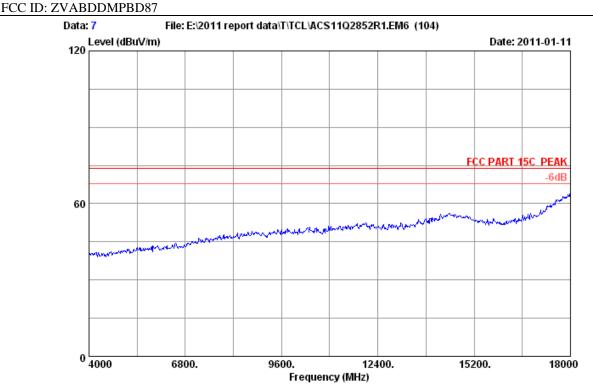
Test mode : IEEE802.11b CH 1 2412MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Factor (dB/m)	loss	Factor	_	Level (dBuV/m)		Margin (dB)	Remark	
_	1600.000 2412.000			34.60 34.44	46.78 84.20		74.00 74.00	31.34 -9.77	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.

**P**age 4-9



Site no. : 3m Chamber

Data no. : 7 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2011 3115 4580

: FCC PART 15C PEAK Limit

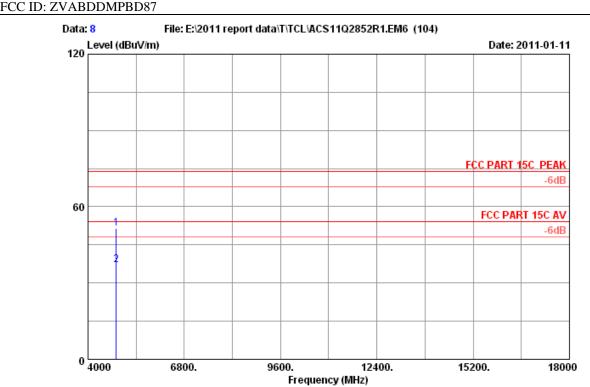
Env. / Ins. : 22.4 C/41% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 1 2412MHz Tx

M/N : DMP-BD87

Page 4-10



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

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

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

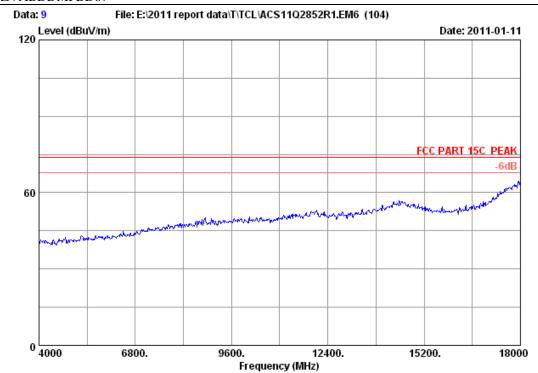
Test mode : IEEE802.11b CH 1 2412MHz Tx

M/N : DMP-BD87

Freq. (MHz)	Factor (dB/m)	Factor	_	Level (dBuV/m)	Limits		Remark
4824.000 4824.000		 34.60 34.60	44.51 30.45		74.00 54.00	22.67 16.73	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.

**P**age 4-11



Site no. : 3m Chamber

Data no. : 9 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 4580

: FCC PART 15C PEAK Limit

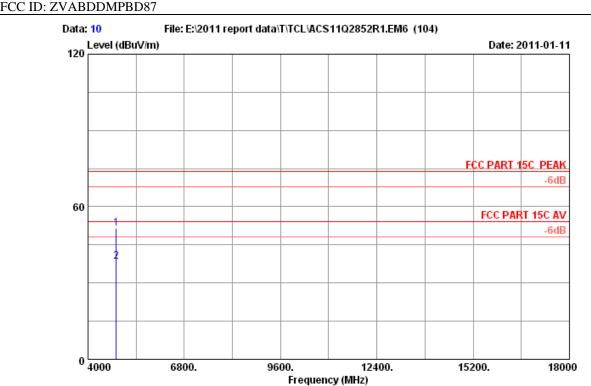
Env. / Ins. : 22.4 C/41% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 1 2412MHz Tx

M/N: DMP-BD87

**P**age 4-12



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

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

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

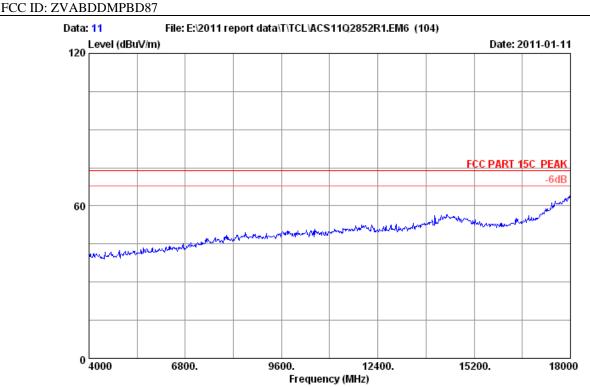
Test mode : IEEE802.11b CH 1 2412MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits		Remark
_	4824.000 4824.000			34.60 34.60	44.76 31.67	51.58 38.49	74.00 54.00	22.42 15.51	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.

**P**age 4-13



Site no. : 3m Chamber Data no. : 11

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

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4 C/41% Engineer : Leo-Li

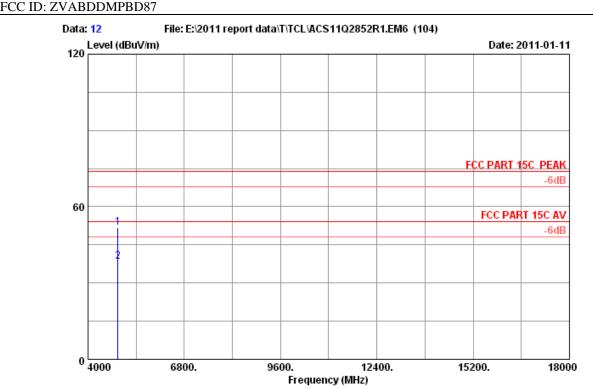
EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 6 2437MHz Tx

M/N : DMP-BD87

**P**age 4-14



Site no. : 3m Chamber Data no. : 12 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

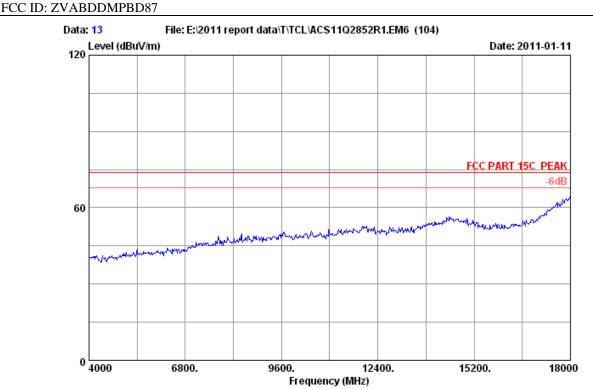
Test mode : IEEE802.11b CH 6 2437MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits		Remark
_	4874.000 4874.000	 	34.60 34.60	44.89 31.54	51.85 38.50	74.00 54.00	22.15 15.50	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.

**P**age 4-15



Site no. : 3m Chamber Data no. : 13 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2011 3115 4580

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

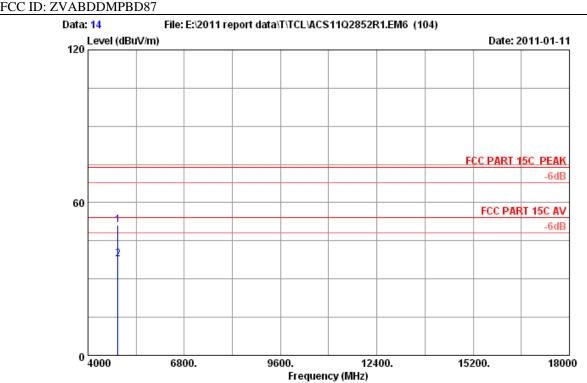
: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 6 2437MHz Tx

M/N : DMP-BD87

**P**age 4-16



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

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

Limit : FCC PART 15C PEAK

EUT : BLU-RAY DISC PLAYER Power supply : AC 120V/60Hz

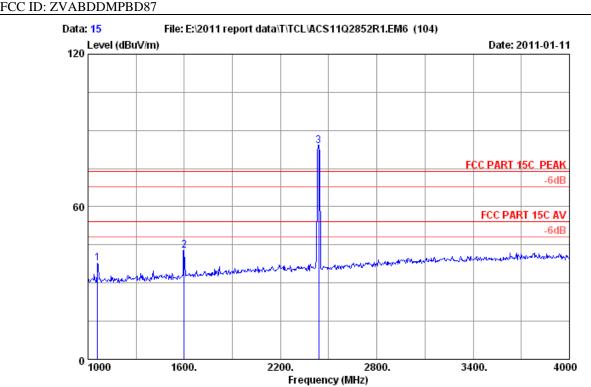
Test mode : IEEE802.11b CH 6 2437MHz Tx

M/N : DMP-BD87

	Freq.	Factor	loss	Factor	_	Level (dBuV/m)	Limits	_	Remark
_	4874.000 4874.000		8.58 8.58	34.60 34.60	44.33 30.68		74.00 54.00	22.71 16.36	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.

**P**age 4-17



Site no. : 3m Chamber Data no. : 15 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4 C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

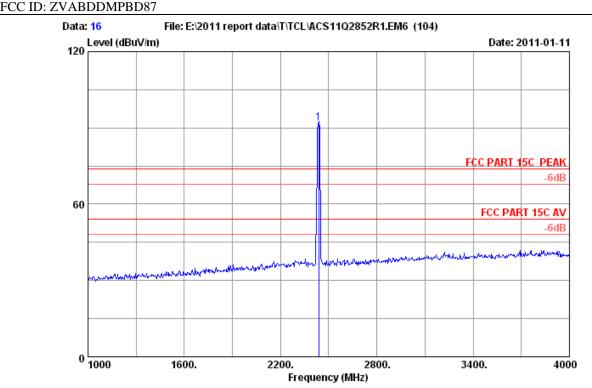
Test mode : IEEE802.11b CH 6 2437MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	Reading (dBuV)	Emission Level (dBuV/m)		5	Remark
2	1060.000 1600.000 2437.000	25.72	4.76	34.88 34.60 34.44	44.76 46.92 84.12	37.80 42.80 83.77	74.00 74.00 74.00	36.20 31.20 -9.77	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.

**P**age 4-18



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

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

Limit : FCC PART 15C PEAK

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

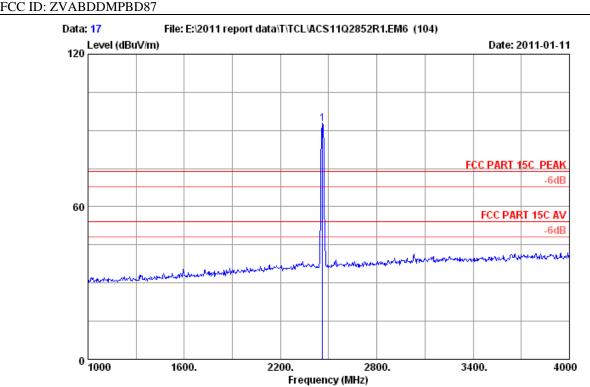
Test mode : IEEE802.11b CH 6 2437MHz Tx

M/N : DMP-BD87

		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	6.06	34.44	92.15	91.80	74.00	-17.80	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. : 17

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

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

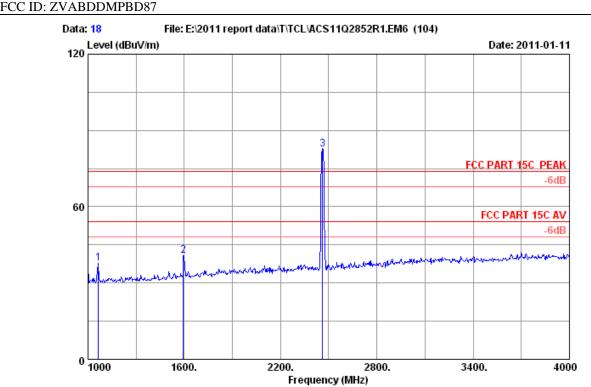
Test mode : IEEE802.11b CH 11 2462MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1	2462.000	28.05	6.12	34.44	92.78	92.51	74.00	-18.51	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.

Page 4-20



Site no. : 3m Chamber Data no. : 18 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

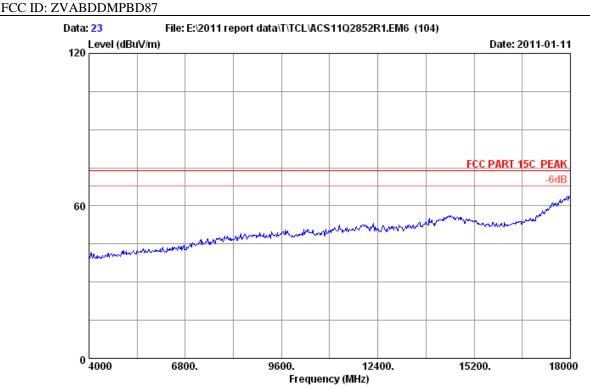
Test mode : IEEE802.11b CH 11 2462MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
2	1066.000 1594.000 2462.000	25.72	4.76	34.86 34.60 34.44	44.56 45.03 82.99	37.62 40.91 82.72	74.00 74.00 74.00	36.38 33.09 -8.72	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.

**P**age 4-21



Site no. : 3m Chamber Data no. : 23

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

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4 C/41% Engineer : Leo-Li

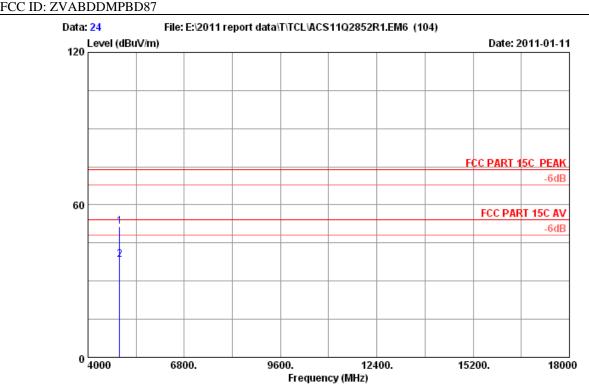
EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 11 2462MHz Tx

M/N : DMP-BD87

**P**age 4-22



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

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

Limit : FCC PART 15C PEAK

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

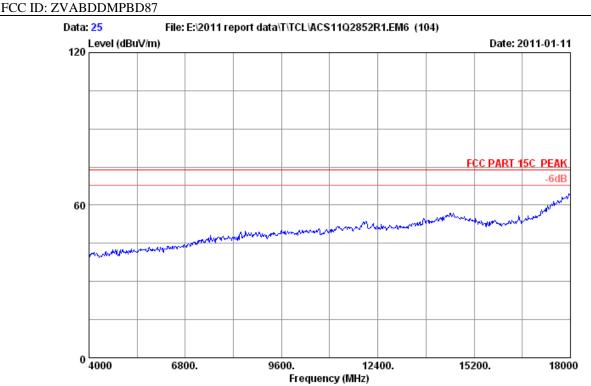
Test mode : IEEE802.11b CH 11 2462MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Margin (dB)	Remark
_	4924.000 4924.000			34.60 34.60	44.42 31.24		 22.48 15.66	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 Dis. / Ant. : 3m 2011 3115 4580 Data no. : 25

Ant. pol. : VERTICAL

: FCC PART 15C PEAK Limit

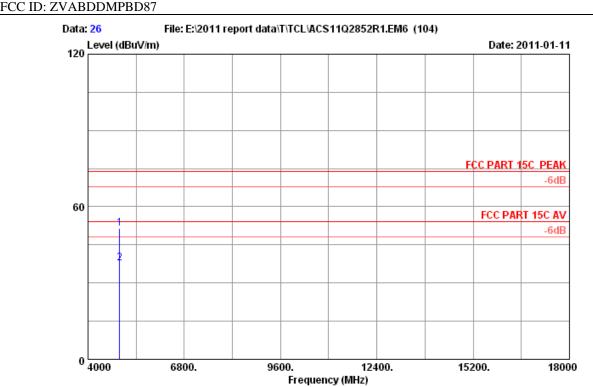
Env. / Ins. : 22.4 C/41% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 11 2462MHz Tx

M/N: DMP-BD87

**P**age 4-24



Site no. : 3m Chamber Data no. : 26 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

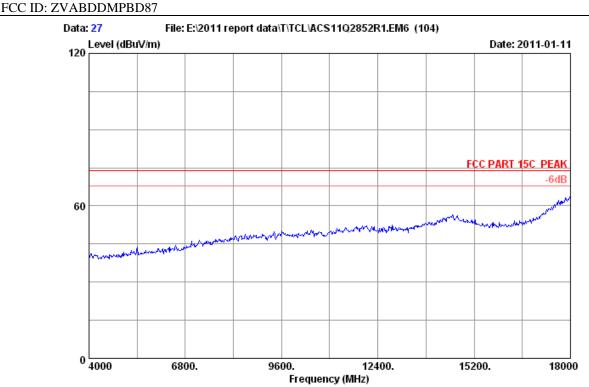
Test mode : IEEE802.11b CH 11 2462MHz Tx

M/N : DMP-BD87

	Freq.	Ant. Factor	Cable loss	-	Reading	Emission Level		Margin	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
_	4924.000 4924.000			34.60 34.60	44.35 30.82	51.45 37.92	74.00 54.00	22.55 16.08	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.

**P**age 4-25



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

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

Limit : FCC PART 15C PEAK

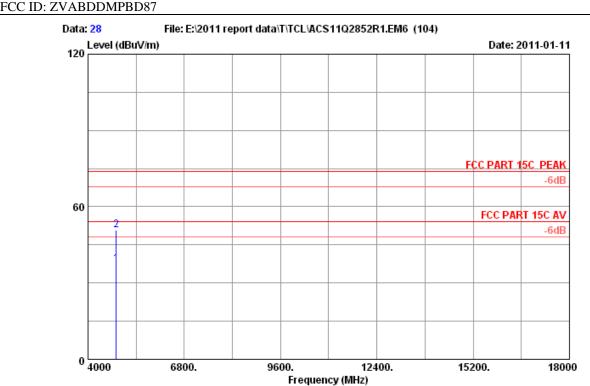
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 1 2412MHz Tx

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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. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

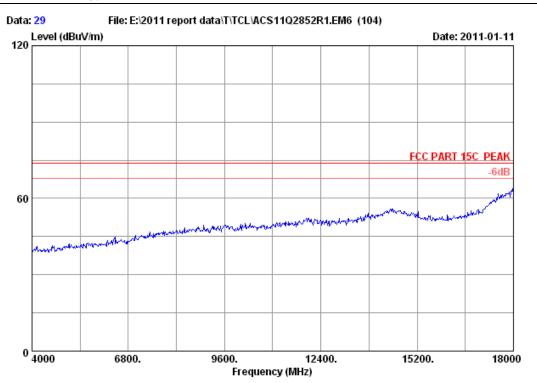
Test mode : IEEE802.11g CH 1 2412MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)		Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
_	4824.000 4824.000			34.60 34.60	30.57 43.88	37.39 50.70	54.00 74.00	16.61 23.30	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.

**P**age 4-27



Site no. : 3m Chamber Dis. / Ant. : 3m 2011 3115 4580 Data no. : 29 Ant. pol. : VERTICAL

: FCC PART 15C PEAK

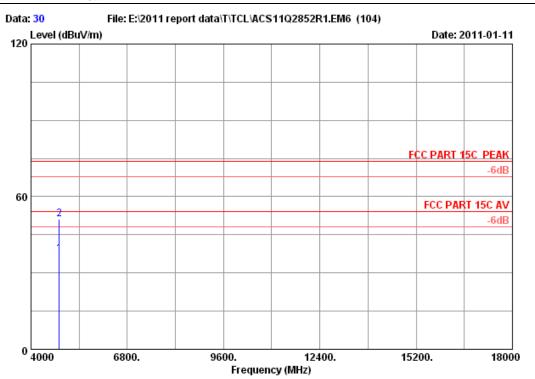
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 1 M/N : DMP-BD87 2412MHz Tx

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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

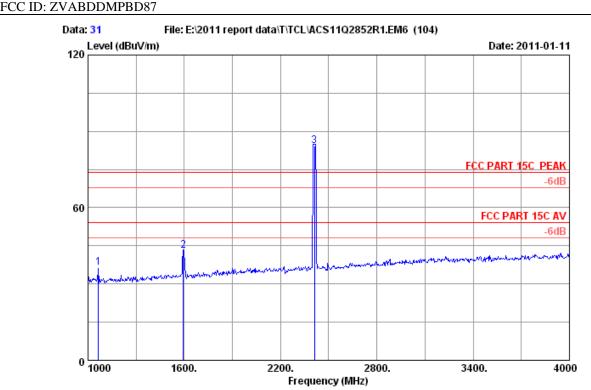
Test mode : IEEE802.11g CH 1 2412MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	-	Reading (dBuV)		Limits	Margin (dB)	Remark
1	4824.000	32.89		34.60	30.74	37.56	54.00	16.44	Average
2	4824.000	32.89		34.60	44.39	51.21	74.00	22.79	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. : 31 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

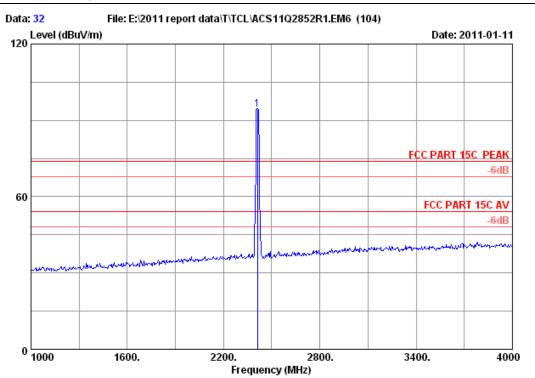
Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 1 2412MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)		Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark	
2	1066.000 1594.000 2412.000	25.72	4.76	34.86 34.60 34.44	43.21 47.40 84.79	36.27 43.28 84.36	74.00 74.00 74.00	37.73 30.72 -10.36	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.

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Site no. : 3m Chamber Data no. : 32

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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

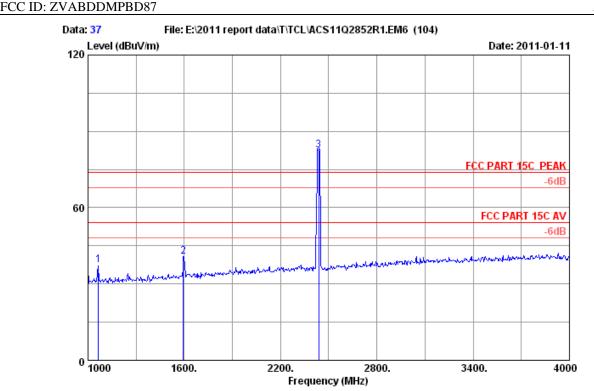
Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 1 2412MHz Tx

	Freq. (MHz)		loss	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark	
1	2412.000	27.98	6.03	34.44	94.68	94.25	74.00	-20.25	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.

**P**age 4-31



: 3m Chamber Site no. Data no. : 37 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

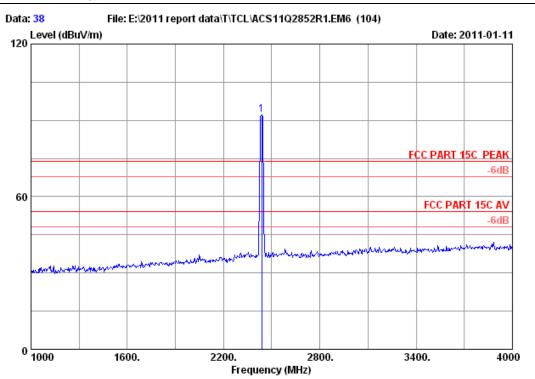
Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 6 2437MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)		Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
2	1066.000 1594.000 2437.000		4.76	34.86 34.60 34.44	44.25 44.78 83.02	37.31 40.66 82.67	74.00 74.00 74.00	36.69 33.34 -8.67	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.

**P**age 4-32



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

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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

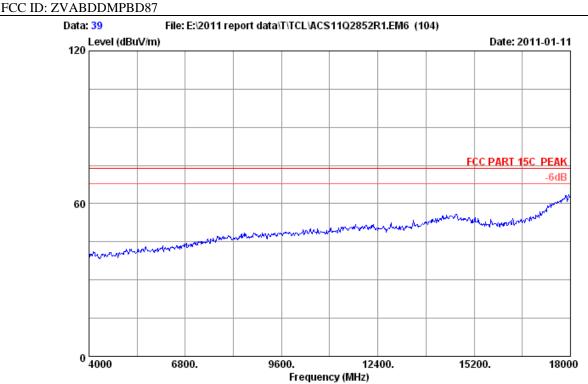
Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 6 2437MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq.				_	Level		_	Remark
	(MHz)	(dB/m)	(dB)	(dB)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)	
1	2437.000	28.03	6.06	34.44	92.56	92.21	74.00	-18.21	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.

**P**age 4-33



Site no. : 3m Chamber

Data no. : 39 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2011 3115 4580

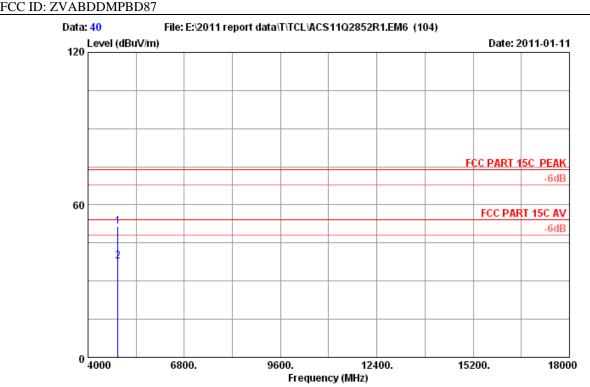
: FCC PART 15C PEAK Limit

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 6 2437MHz Tx

**P**age 4-34



Site no. : 3m Chamber Data no. : 40
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

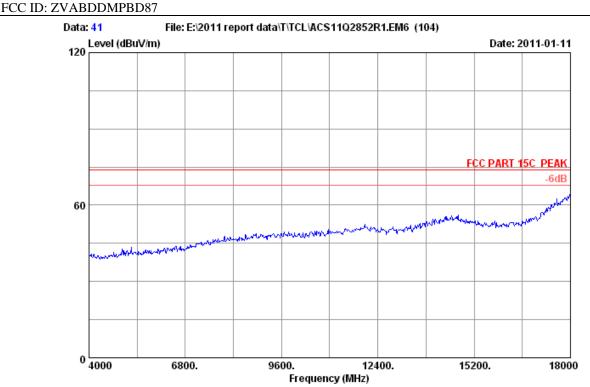
Test mode : IEEE802.11g CH 6 2437MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	4874.000 4874.000			34.60 34.60	44.48 30.78			22.56 16.26	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.

**P**age 4-35



Site no. : 3m Chamber Dis. / Ant. : 3m 2011 3115 4580 Data no. : 41

Ant. pol. : HORIZONTAL

: FCC PART 15C PEAK Limit

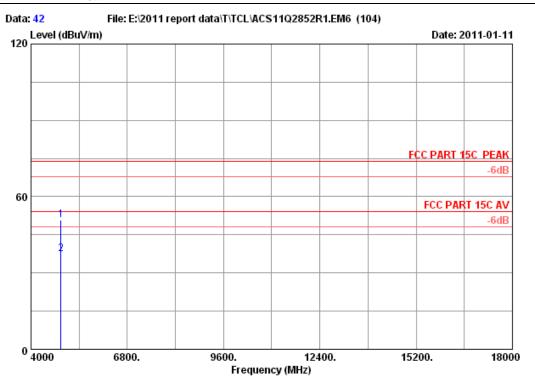
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 6 2437MHz Tx

Page 4-36



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

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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

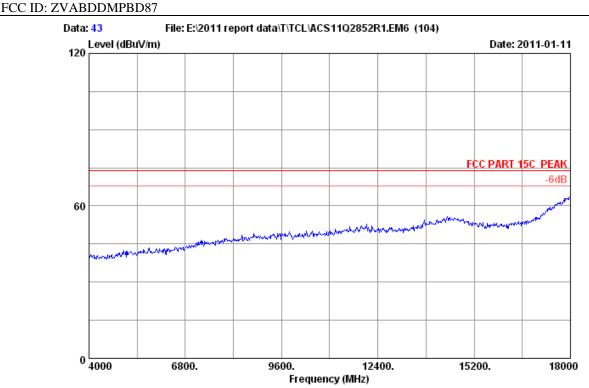
Test mode : IEEE802.11g CH 6 2437MHz Tx

M/N : DMP-BD87

	Freq.	Ant. Factor (dB/m)	Cable loss (dB)		Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
_	4874.000 4874.000	32.98 32.98		34.60 34.60	43.95 30.52	50.91 37.48	74.00 54.00	23.09 16.52	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.

**P**age 4-37



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

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

Limit : FCC PART 15C PEAK

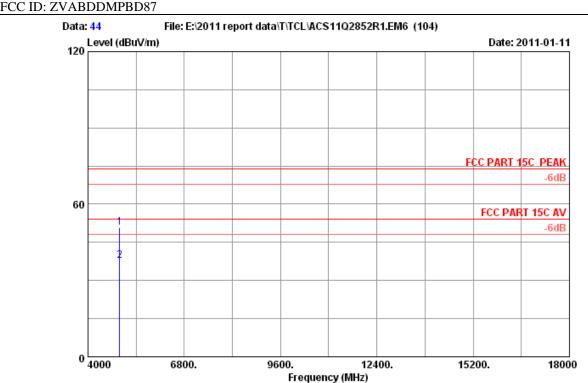
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 11 2462MHz Tx

**P**age 4-38



Data no. : 44

Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : HORIZONTAL

: FCC PART 15C PEAK Limit

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

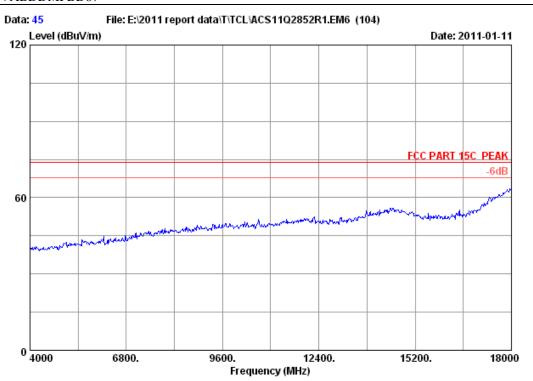
Test mode : IEEE802.11g CH 11 2462MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits		Remark
_	4924.000 4924.000			34.60 34.60	43.77 30.79	50.87 37.89	74.00 54.00	23.13 16.11	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.

**P**age 4-39



Site no. : 3m Chamber Data no. : 45 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56%

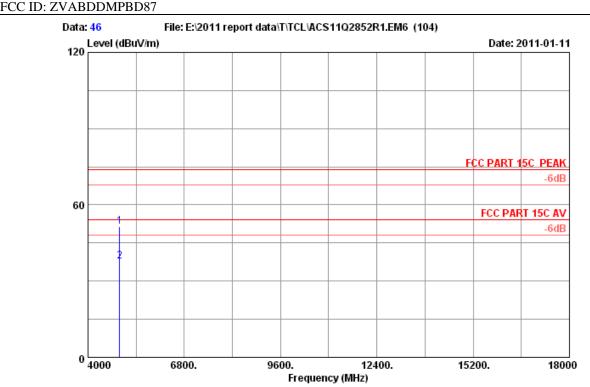
Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 11 2462MHz Tx

**P**age 4-40



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

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2 \* C/56 % Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

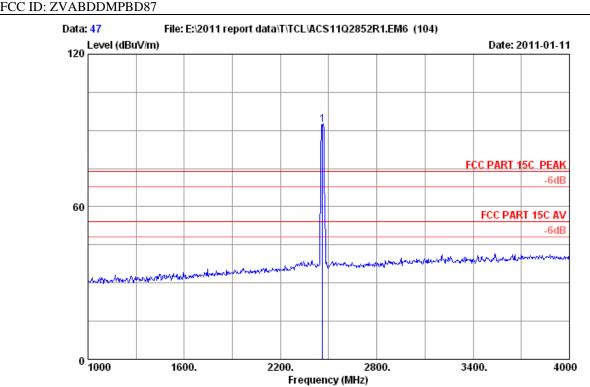
Test mode : IEEE802.11g CH 11 2462MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
_	4924.000 4924.000			34.60 34.60	44.31 30.68			22.59 16.22	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.

**P**age 4-41



Site no. : 3m Chamber Data no. : 47

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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

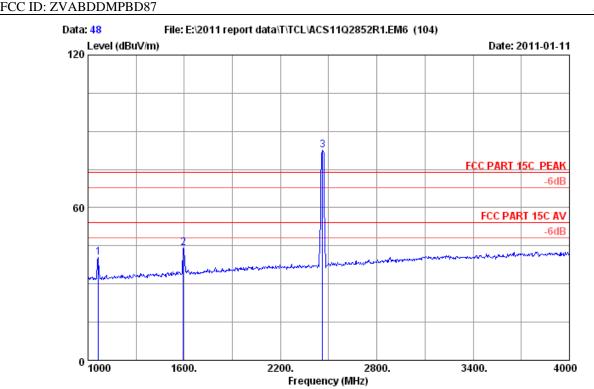
Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 11 2462MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits		Remark
1	2462.000	28.05	6.12	34.44	92.58	92.31	74.00	-18.31	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.

**P**age 4-42



: 3m Chamber Site no. Data no. : 48 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

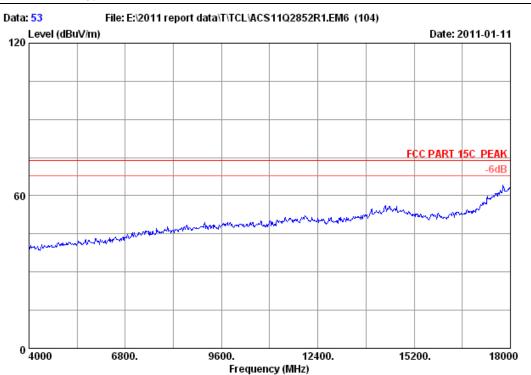
Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 11 2462MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	Reading (dBuV)	Emission Level (dBuV/m)		5	Remark
2	1066.000 1594.000 2462.000	25.72		34.86 34.60 34.44	47.37 48.39 82.94	40.43 44.27 82.67	74.00 74.00 74.00	33.57 29.73 -8.67	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.

**P**age 4-43



Site no. : 3m Chamber Data no. : 53 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

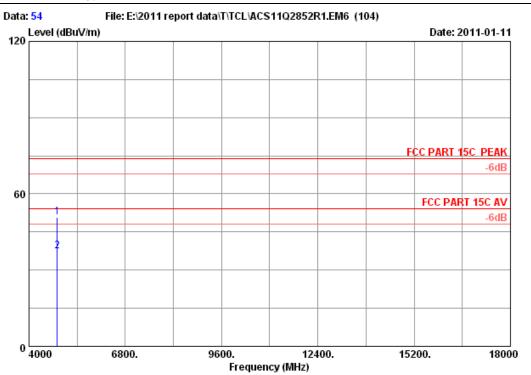
Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

**P**age 4-44



Site no. : 3m Chamber Data no. : 54
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

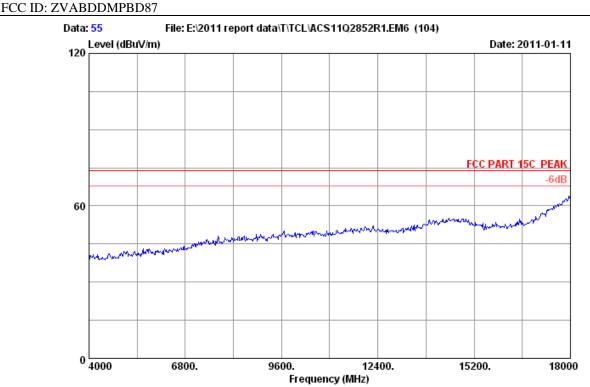
Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

M/N : DMP-BD87

	Freq.		loss	Factor	_	Level	Limits	Margin	Remark
	(MHz)	(dB/m)	(ab)	(as) 	(abuv)	(dBuV/m)	(авиv/m) 	(ab) 	
1	4824.000	32.89	8.53	34.60	43.87	50.69	74.00	23.31	Peak
2	4824.000	32.89	8.53	34.60	30.51	37.33	54.00	16.67	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.

**P**age 4-45



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

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

Limit : FCC PART 15C PEAK

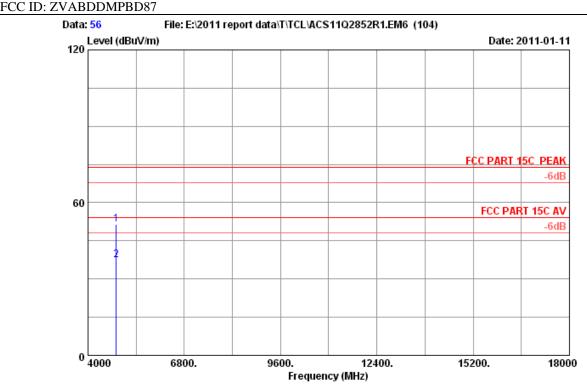
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

**P**age 4-46



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

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

Limit : FCC PART 15C PEAK

EUT : BLU-RAY DISC PLAYER Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

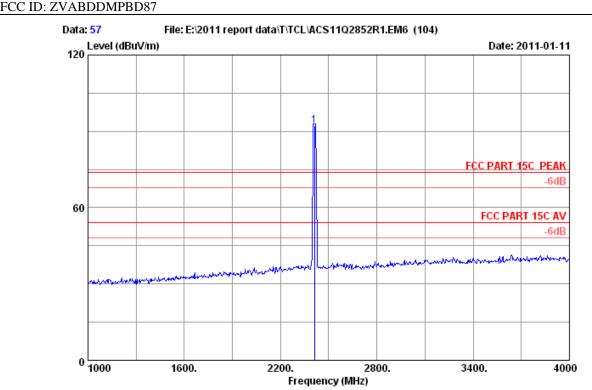
M/N : DMP-BD87

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		Margin (dB)	Remark
1	4824.000	32.89	8.53	34.60	44.65	51.47	74.00	22.53	Peak
2	4824.000	32.89	8.53	34.60	30.64	37.46	54.00	16.54	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. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

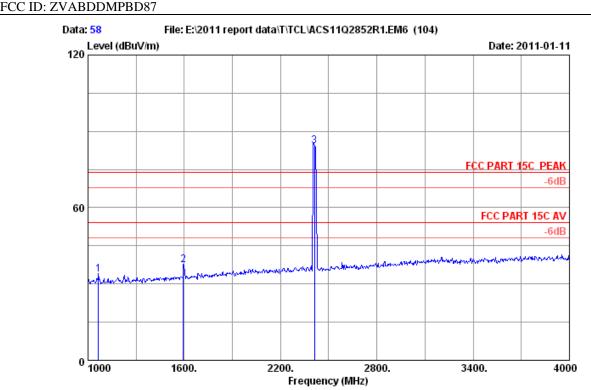
Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

		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	6.03	34.44	92.59	92.16	74.00	-18.16	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.

**P**age 4-48



: 3m Chamber Site no. Data no. : 58 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

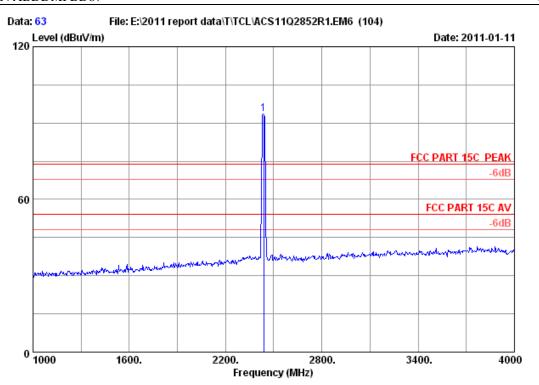
Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)		Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark	
2	1066.000 1594.000 2412.000	25.72	4.76	34.86 34.60 34.44	40.84 41.58 84.77	33.90 37.46 84.34	74.00 74.00 74.00	40.10 36.54 -10.34	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.

**P**age 4-49



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

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

Limit : FCC PART 15C PEAK

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

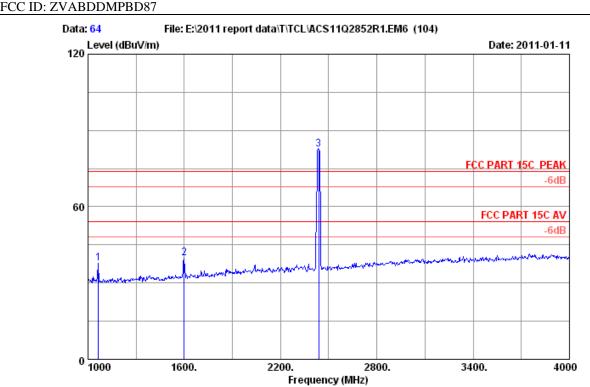
Test mode : IEEE802.11nHT20 CH 6 2437MHz Tx

M/N : DMP-BD87

	-		loss	Factor	_	Emission Level (dBuV/m)	Limits	_	Remark
1	2437.000	28.03	6.06	34.44	93.85	93.50	74.00	-19.50	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. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

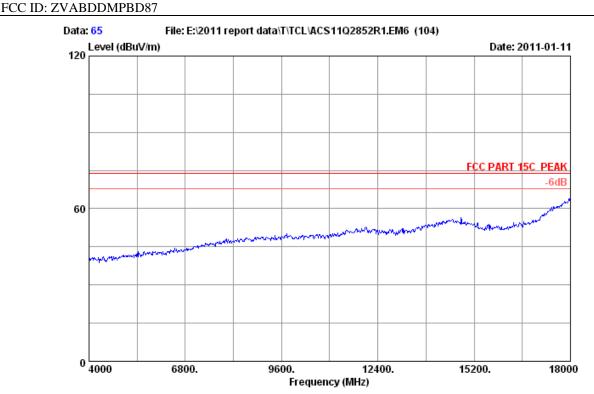
Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 6 2437MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
2	1066.000 1600.000 2437.000	25.72	4.76	34.86 34.60 34.44	44.58 43.87 82.79	37.64 39.75 82.44	74.00 74.00 74.00	36.36 34.25 -8.44	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.

**P**age 4-51



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

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

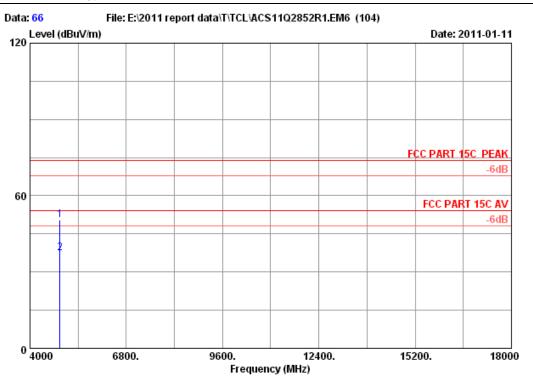
Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 6 2437MHz Tx

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Site no. : 3m Chamber Data no. : 66

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

Limit : FCC PART 15C PEAK
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

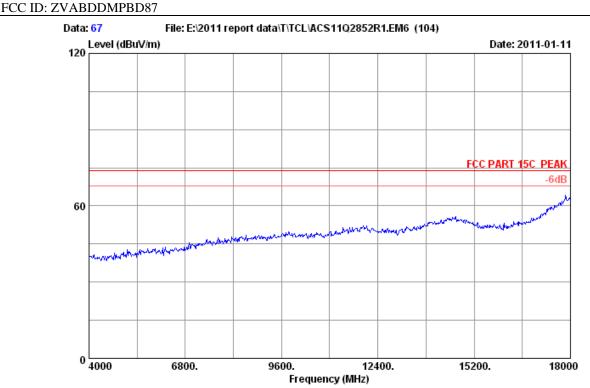
Test mode : IEEE802.11nHT20 CH 6 2437MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)		Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
1	4874.000	32.98		34.60	43.55	50.51	74.00	23.49	Peak
2	4874.000	32.98		34.60	30.38	37.34	54.00	16.66	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.

**P**age 4-53



Site no. : 3m Chamber Data no. : 67
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

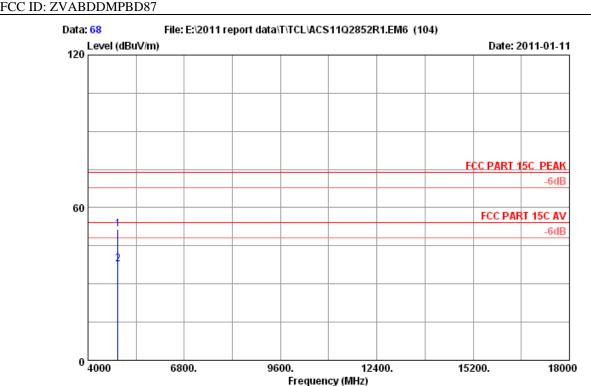
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 6 2437MHz Tx

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: 3m Chamber Site no. Data no. : 68 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

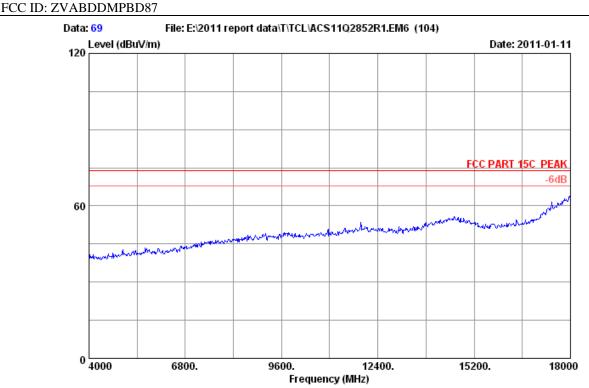
Test mode : IEEE802.11nHT20 CH 6 2437MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)		Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	_	Remark
1 2	4874.000 4874.000			34.60 34.60	44.41 30.65	51.37 37.61	74.00 54.00	22.63 16.39	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.

**P**age 4-55



Site no. : 3m Chamber Data no. : 69

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

Limit : FCC PART 15C PEAK

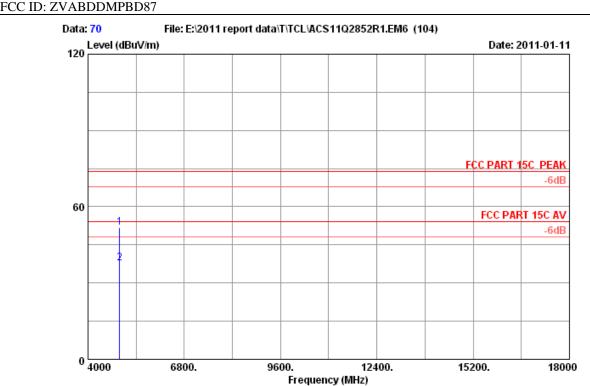
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 11 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. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

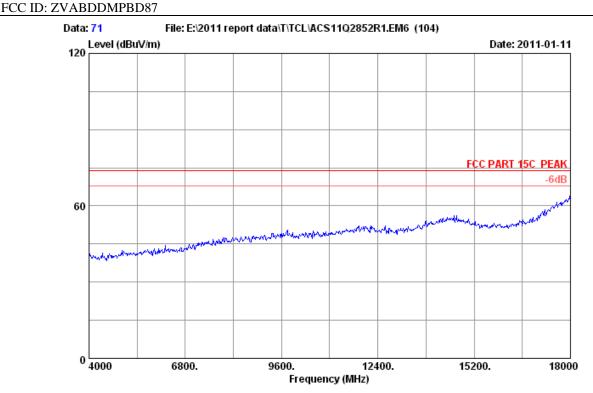
Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

M/N : DMP-BD87

	Freq.	Ant. Factor (dB/m)	Factor	_	Emission Level (dBuV/m)	Limits		Remark
_	4924.000 4924.000		 34.60 34.60	44.72 30.75	51.82 37.85	74.00 54.00	22.18 16.15	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.

**P**age 4-57



Site no. : 3m Chamber Data no. : 71

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

Limit : FCC PART 15C PEAK

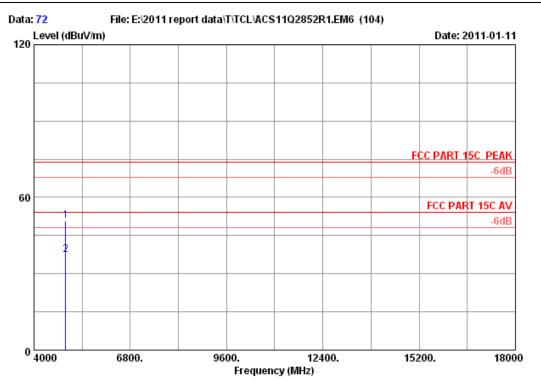
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

**P**age 4-58



Site no. : 3m Chamber Data no. : 72

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

Limit : FCC PART 15C PEAK

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

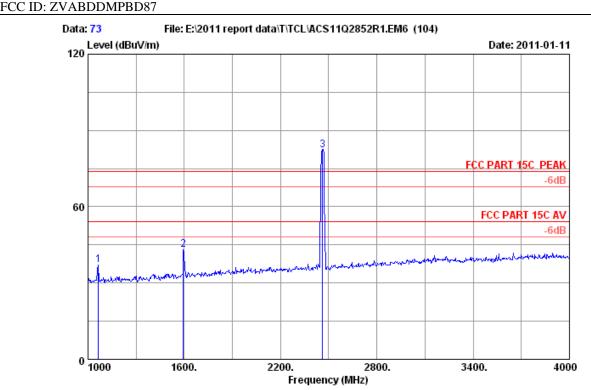
Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Factor	Reading (dBuV)	Emission Level (dBuV/m)		Margin (dB)	Remark
1 2	4924.000 4924.000	33.08 33.08		34.60 34.60	43.81 30.41	50.91 37.51	74.00 54.00	23.09 16.49	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. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

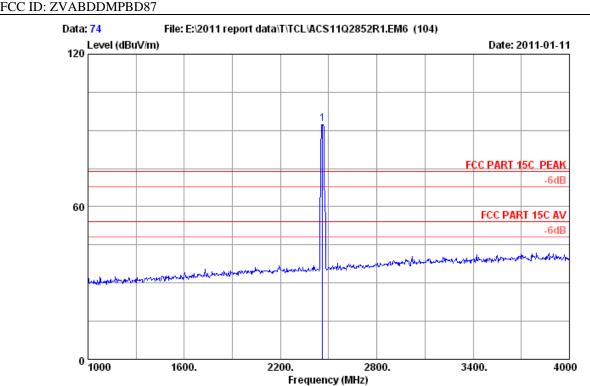
Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	1066.000	24.01	4.76	34.86	44.11	37.17	74.00	36.83	Peak
2	1594.000	25.72		34.60	47.36	43.24	74.00	30.76	Peak
3	2462.000	28.05		34.44	82.58	82.31	74.00	-8.31	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. : HORIZONTAL

Limit : FCC PART 15C PEAK
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

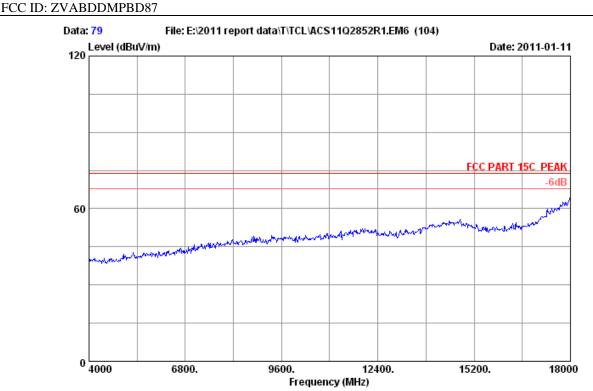
Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)			Remark
1	2462.000	28.05	6.12	34.44	92.96	92.69	74.00	-18.69	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.

**P**age 4-61



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

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

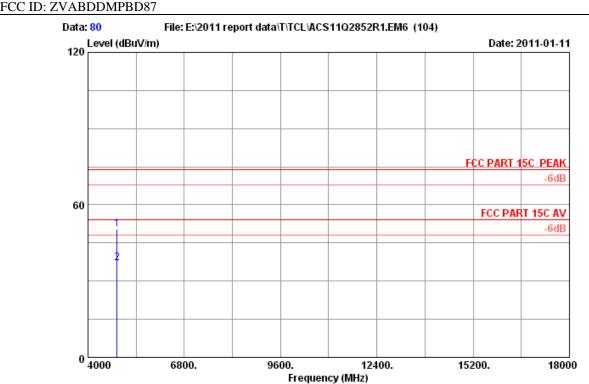
Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

**P**age 4-62



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

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

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

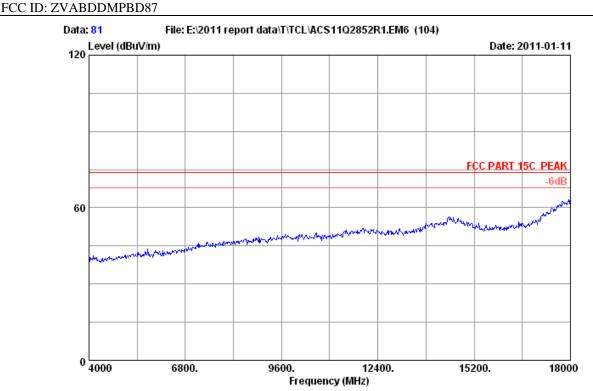
Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits		Remark
_	4844.000 4844.000		8.55 8.55	34.60 34.60	43.51 30.35		74.00 54.00	23.62 16.78	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.

**P**age 4-63



Site no. : 3m Chamber Data no. : 81 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

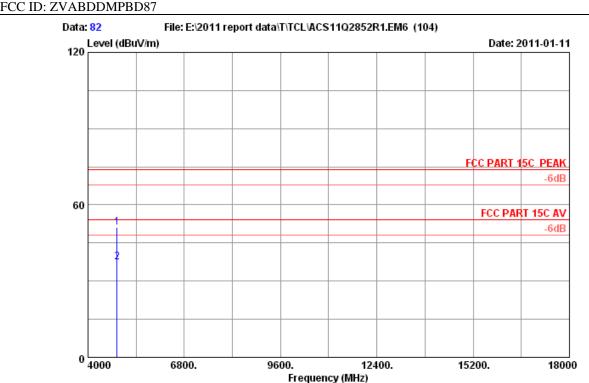
Limit : FCC PART 15C PEAK
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

**P**age 4-64



Site no. : 3m Chamber Data no. : 82
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

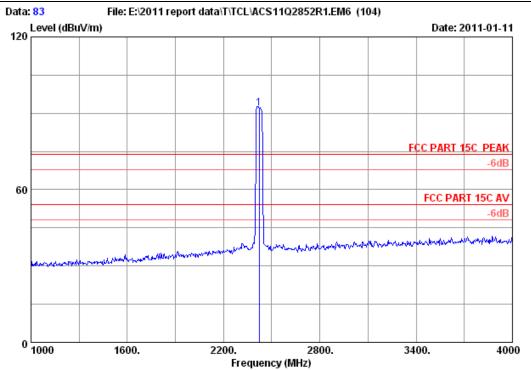
Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
_	4844.000 4844.000			34.60 34.60	44.26 30.49			22.87 16.64	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.

EID: ZVABDDMPBD87 Page 4-65



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

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

Limit : FCC PART 15C PEAK

EUT : BLU-RAY DISC PLAYER Power supply : AC 120V/60Hz

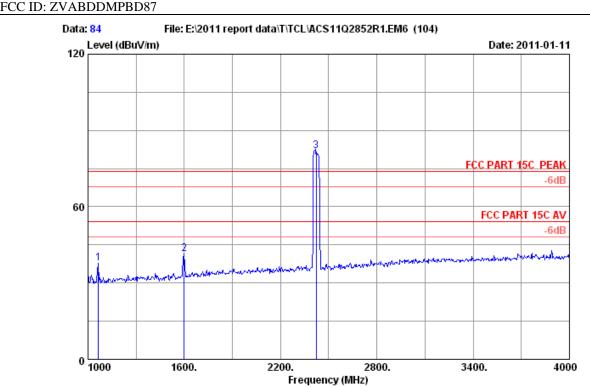
Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

M/N : DMP-BD87

	-		loss	Factor	_	Level (dBuV/m)		_	Remark
1	2422.000	28.00	6.06	34.44	92.36	91.98	74.00	-17.98	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.

**P**age 4-66



Site no. : 3m Chamber Data no. : 84 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

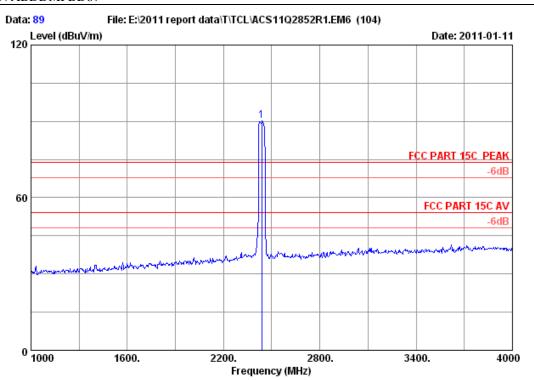
Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

	Freq. (MHz)		Cable loss (dB)	Factor	_	Emission Level (dBuV/m)	Limits		Remark
2	1066.000 1600.000 2422.000	25.72	4.76	34.86 34.60 34.44	44.70 45.61 82.11	37.76 41.49 81.73	74.00 74.00 74.00	36.24 32.51 -7.73	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.

**P**age 4-67



Site no. : 3m Chamber Data no. : 89

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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

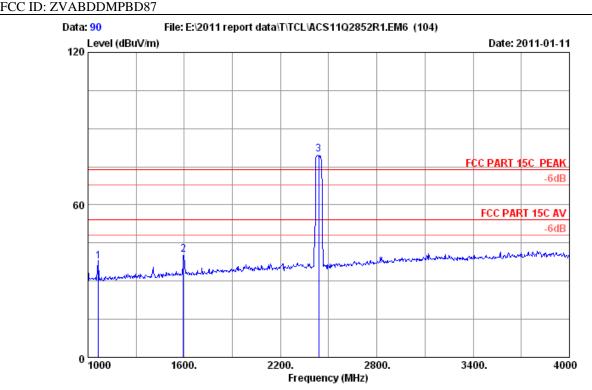
Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 4 2437MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)		_	Remark
1	2437.000	28.03	6.06	34.44	90.48	90.13	74.00	-16.13	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.

**P**age 4-68



Site no. : 3m Chamber Data no. : 90
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

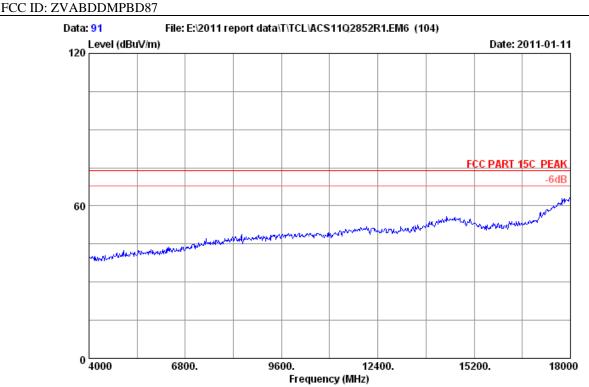
Test mode : IEEE802.11nHT40 CH 4 2437MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1 2 3	1066.000 1594.000 2437.000	24.01 25.72 28.03	4.76	34.86 34.60 34.44	44.81 44.45 80.26	37.87 40.33 79.91	74.00 74.00 74.00	36.13 33.67 -5.91	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.

**P**age 4-69



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

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

Limit : FCC PART 15C PEAK

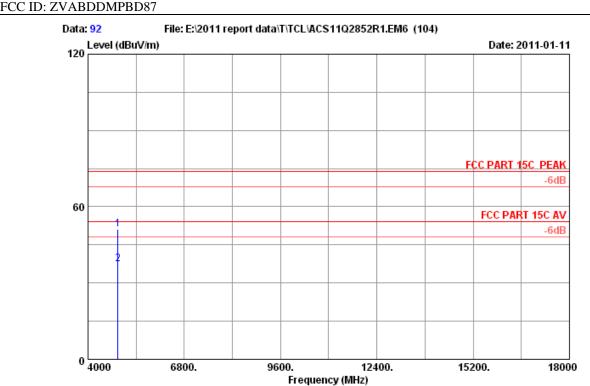
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 4 2437MHz Tx

Page 4-70



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

Limit : FCC PART 15C PEAK
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

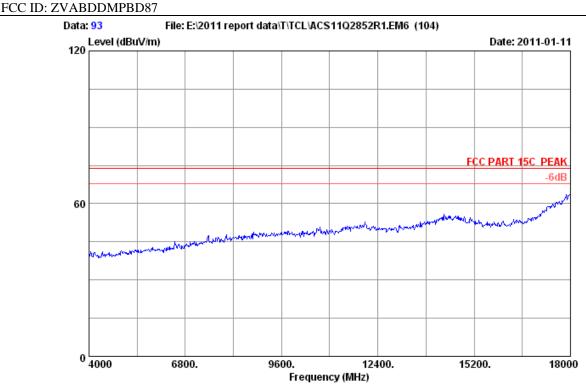
Test mode : IEEE802.11nHT40 CH 4 2437MHz Tx

M/N : DMP-BD87

	Freq.	Ant. Factor	Cable loss	-	Reading	Emission Level		Margin	Remark
	(MHz)	(dB/m)	(dB) 	(dB) 	(dBuV) 	(dBuV/m)	(dBuV/m)	(dB)	
_	4874.000 4874.000			34.60 34.60		51.28 37.50	74.00 54.00	22.72 16.50	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.

**P**age 4-71



Site no. : 3m Chamber

Data no. : 93 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 4580

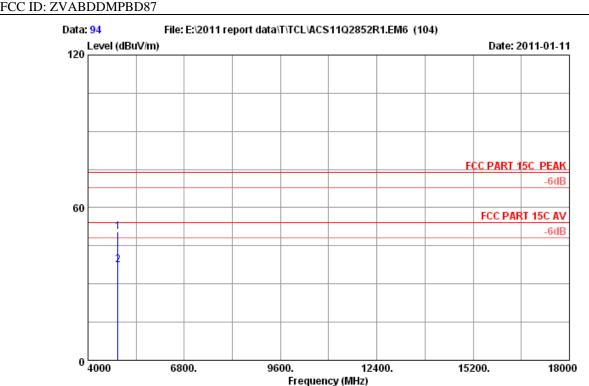
: FCC PART 15C PEAK Limit

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 4 2437MHz Tx

Page 4-72



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

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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

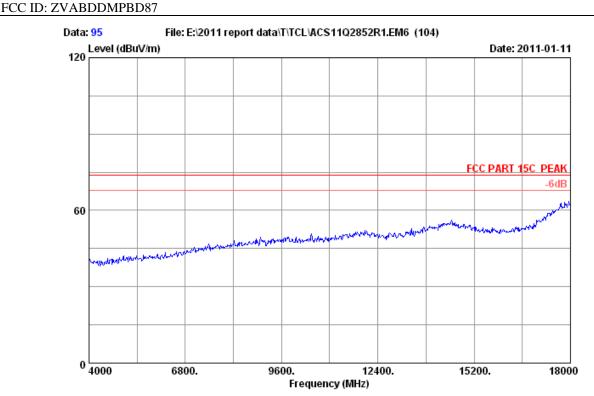
Test mode : IEEE802.11nHT40 CH 4 2437MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)		Reading (dBuV)		Limits	Margin (dB)	Remark
1	4874.000	32.98		34.60	43.68	50.64	74.00	23.36	Peak
2	4874.000	32.98		34.60	30.33	37.29	54.00	16.71	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.

**P**age 4-73



Site no. : 3m Chamber
Dis. / Ant. : 3m 2011 3115 4580 Data no. : 95

Ant. pol. : HORIZONTAL

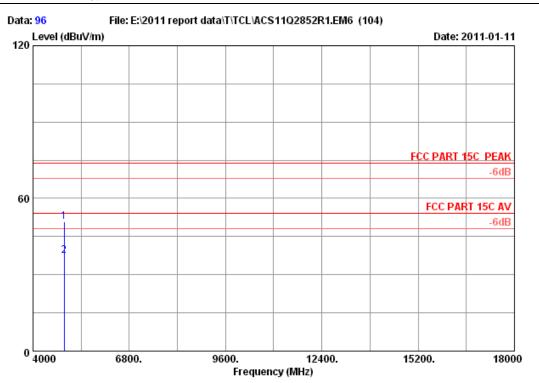
Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 7 M/N : DMP-BD87 2452MHz Tx

**P**age 4-74



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

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

Limit : FCC PART 15C PEAK

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

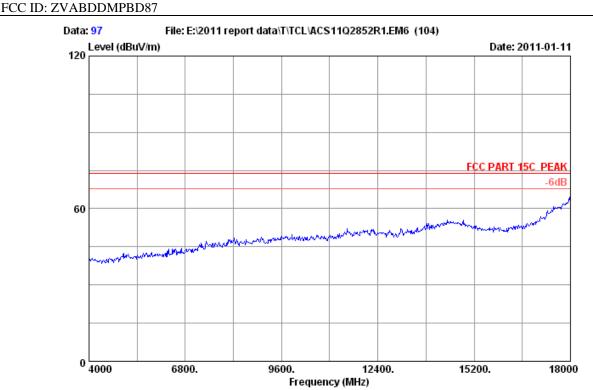
Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	loss	Factor	_	Emission Level (dBuV/m)	Limits		Remark
_	4904.000 4904.000				43.64 30.51		74.00 54.00	23.31 16.44	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.

**P**age 4-75



Site no. : 3m Chamber Data no. : 97 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

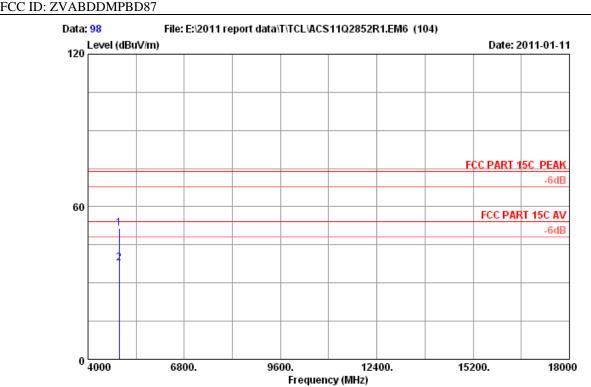
Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

**P**age 4-76



Site no. : 3m Chamber Data no. : 98 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

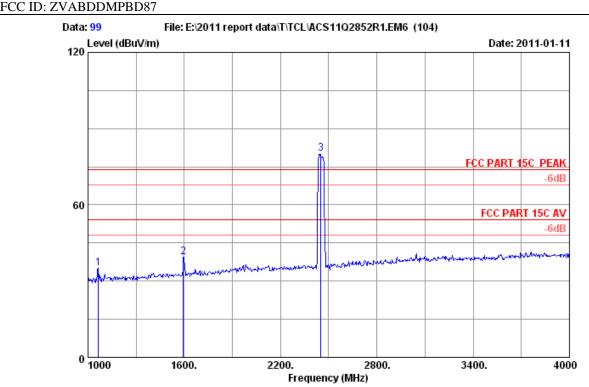
Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

M/N : DMP-BD87

	Freq.		Factor	_	Emission Level (dBuV/m)	Limits		Remark
1	4904.000 4904.000	 	34.60 34.60	44.26 30.75	51.31 37.80	74.00 54.00	22.69 16.20	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.

**P**age 4-77



Site no. : 3m Chamber Data no. : 99
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

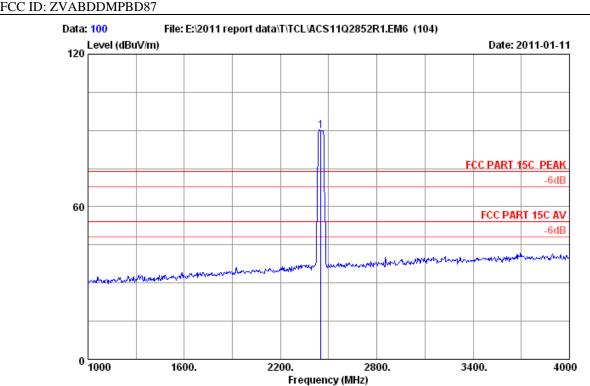
Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2 15	66.000 94.000 52.000	24.01 25.72 28.03	4.76	34.86 34.60 34.44	42.12 43.73 80.45	35.18 39.61 80.13	74.00 74.00 74.00	38.82 34.39 -6.13	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. : 100

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

Limit : FCC PART 15C PEAK
Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

		Ant.	Cable	Amp.		Emission			
	Freq. (MHz)	Factor (dB/m)			_	Level (dBuV/m)			Remark
1	2452.000	28.03	6.09	34.44	90.26	89.94	74.00	-15.94	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.



### 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.

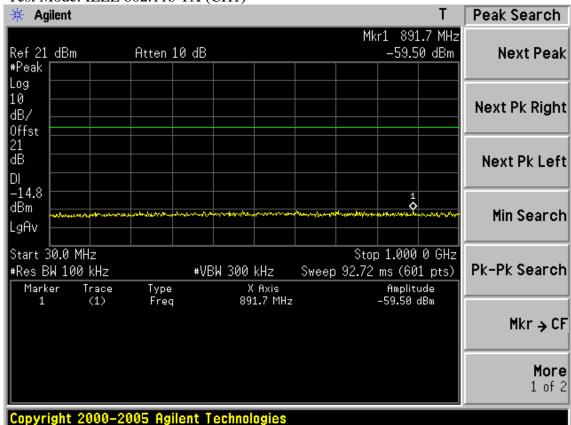
#### 5.4.Test result

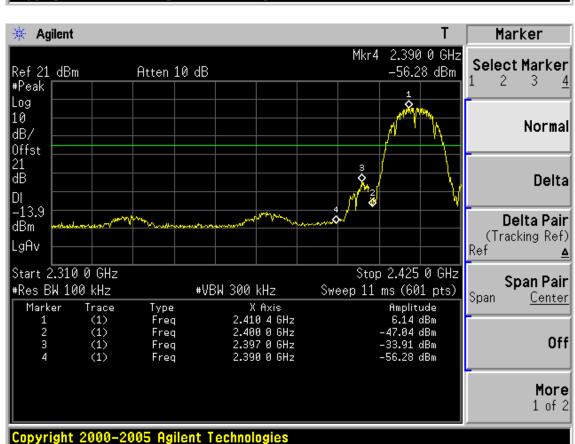
**PASS** (The testing data was attached in the next pages.)



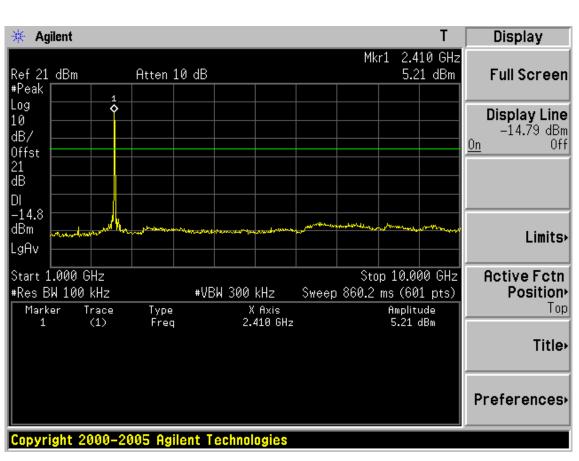
#### **Conducted emission test data:**

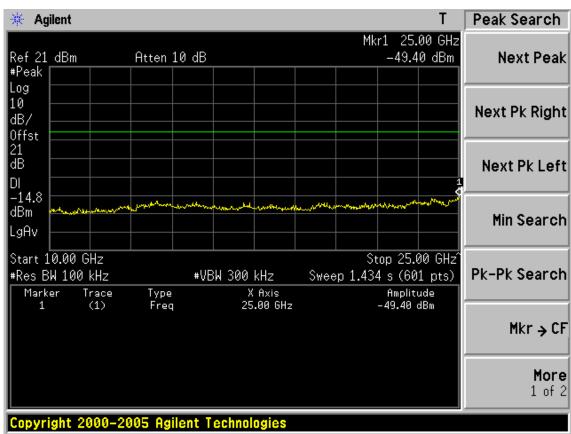
Test Mode: IEEE 802.11b TX (CH1)



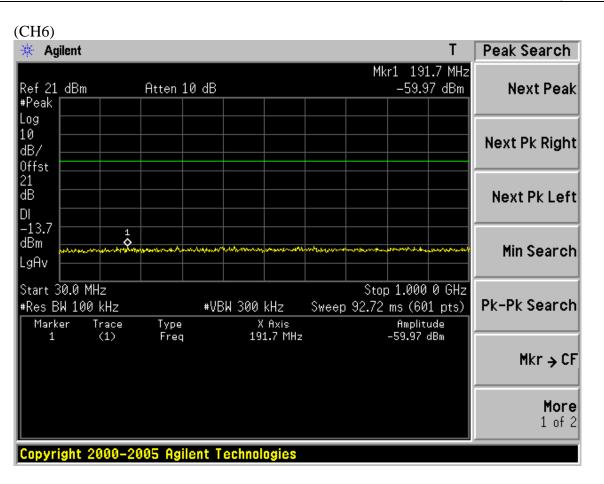


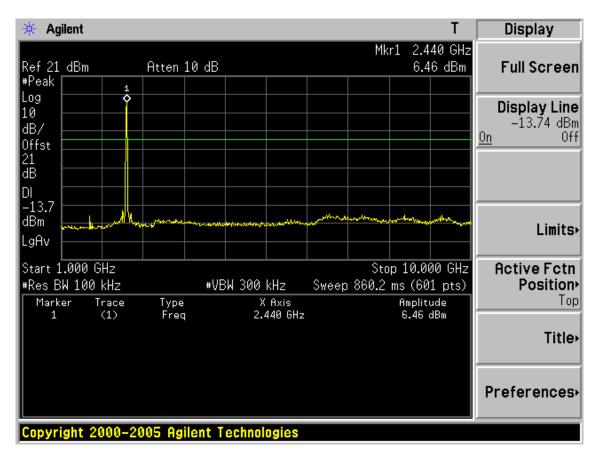




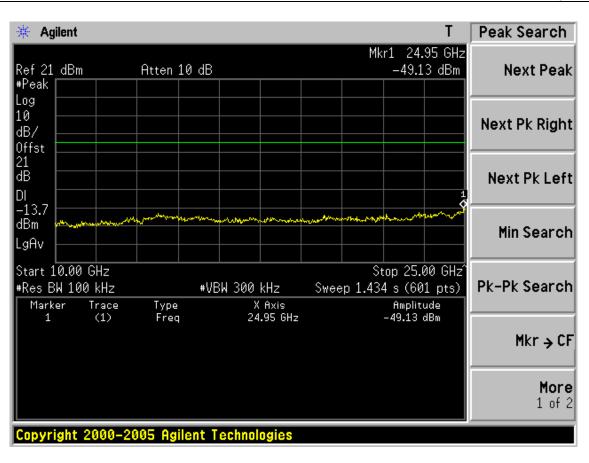


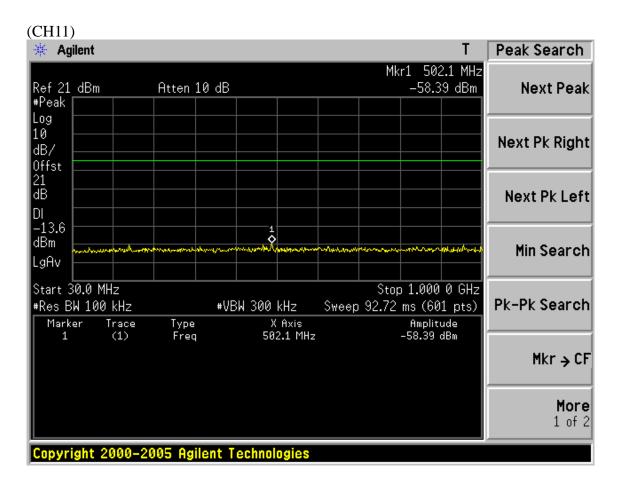




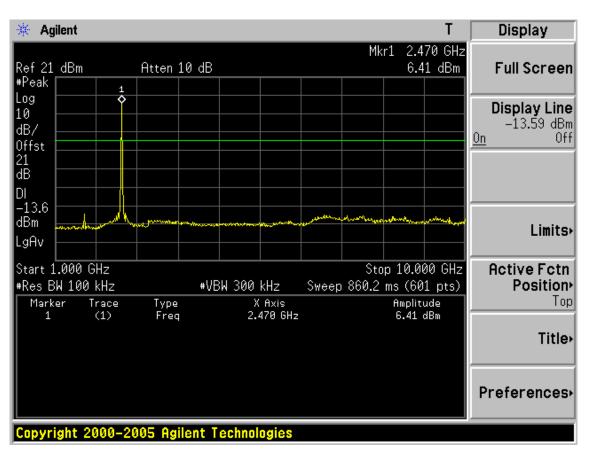


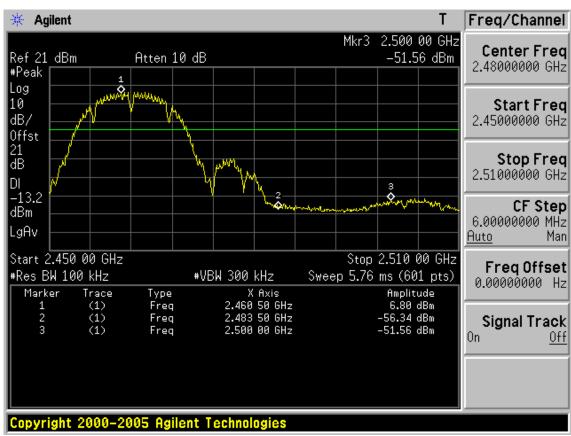




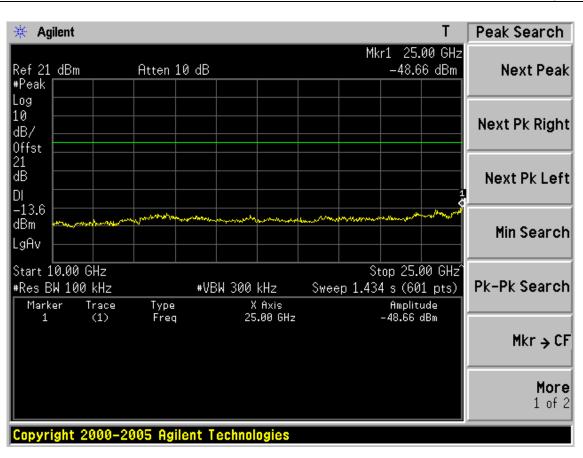


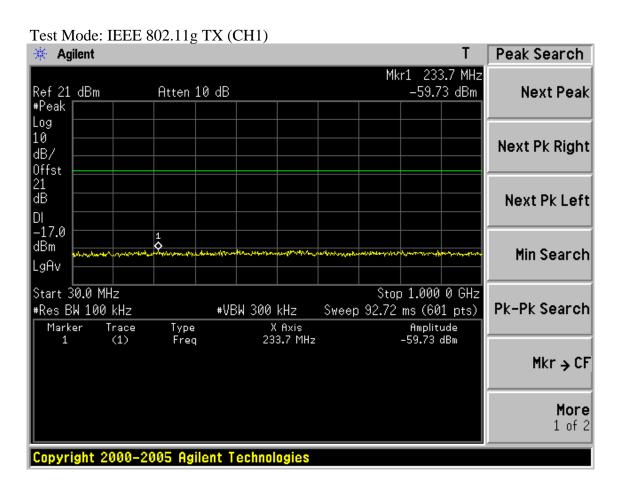




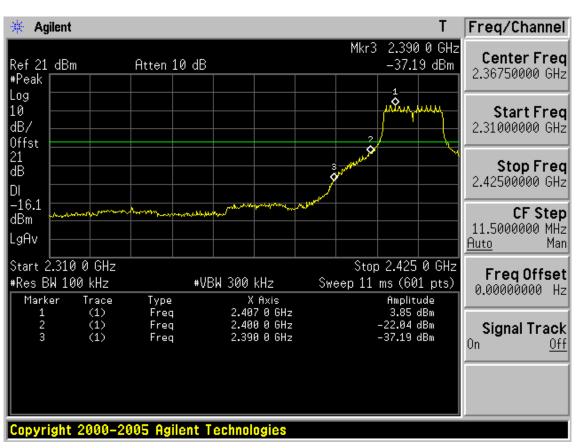


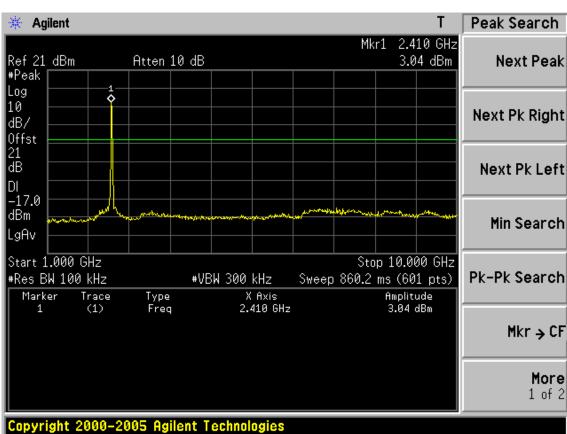




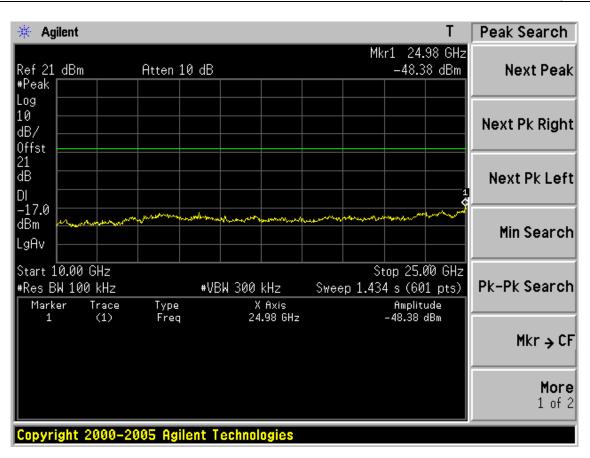




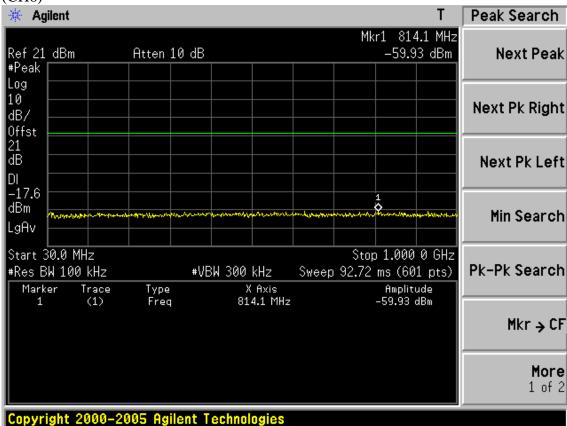




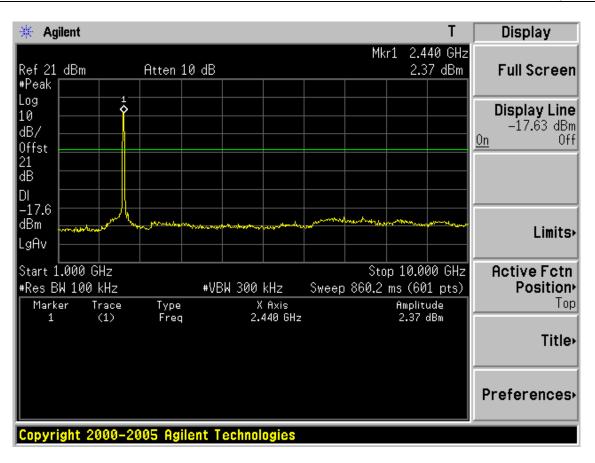


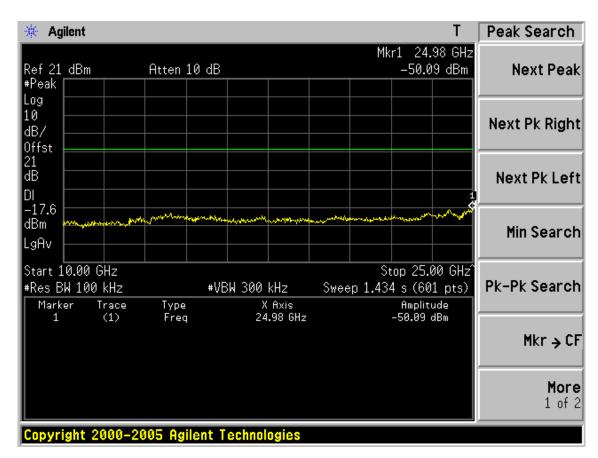




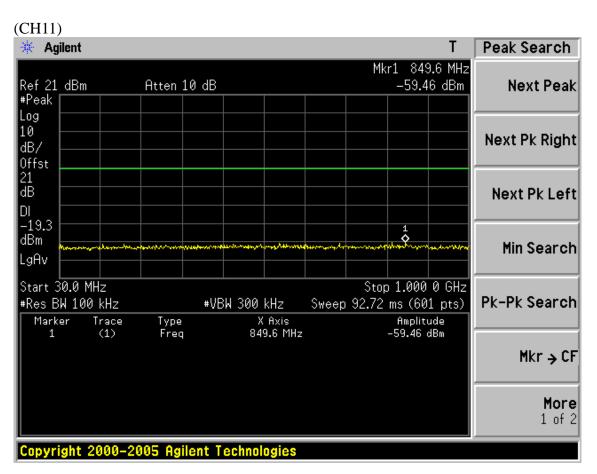


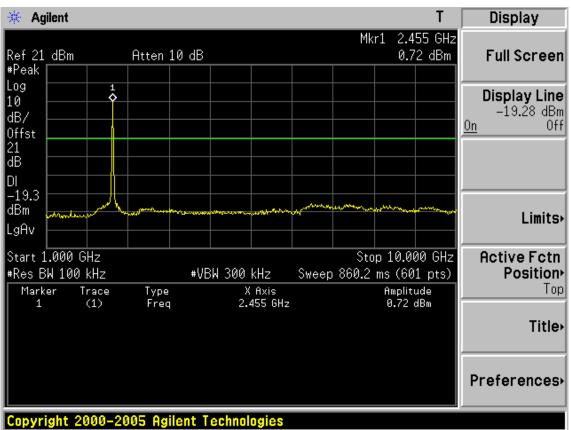




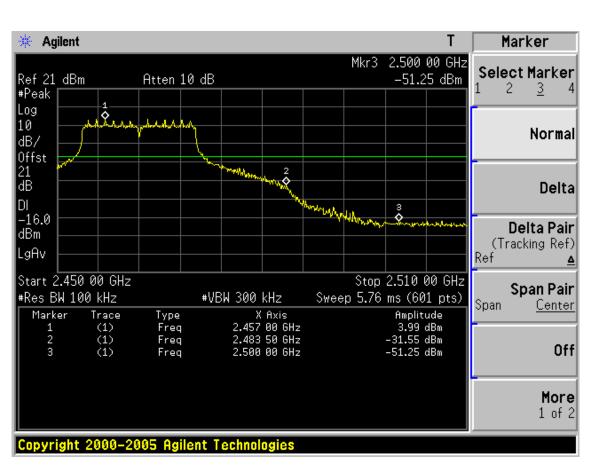


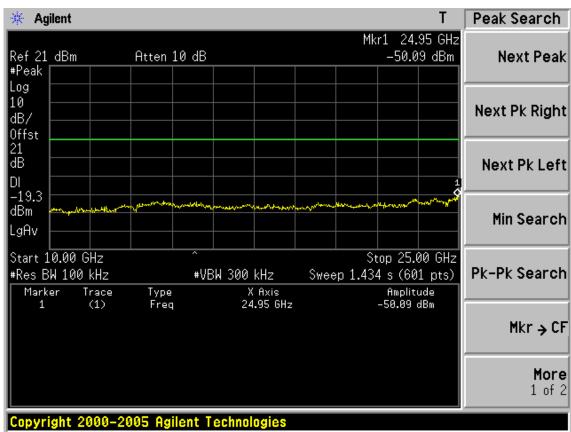




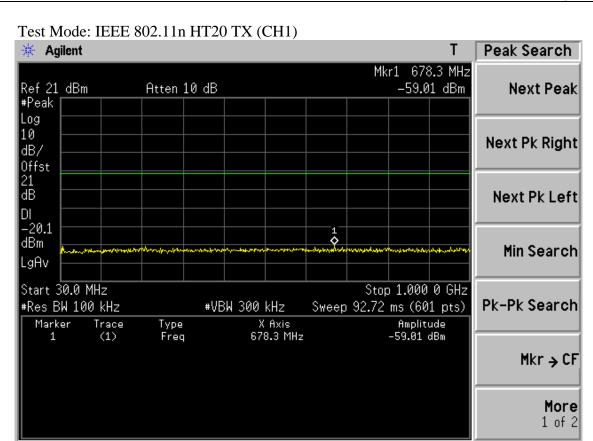


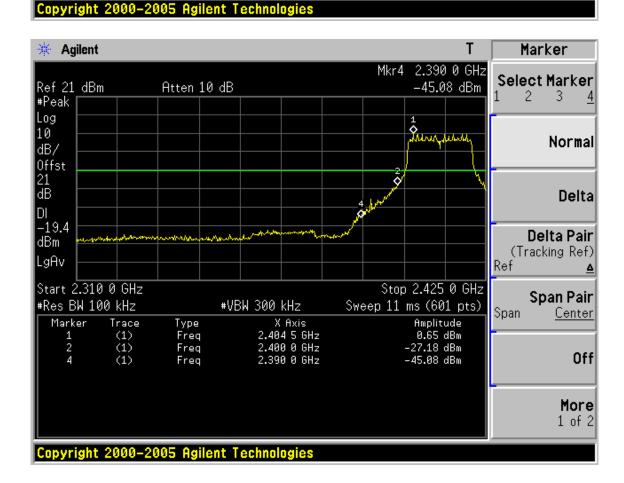




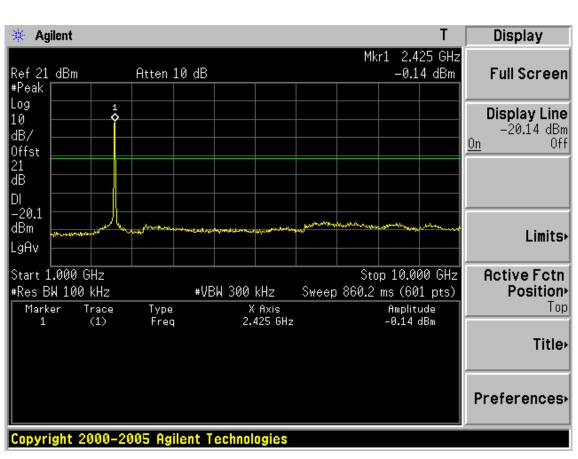


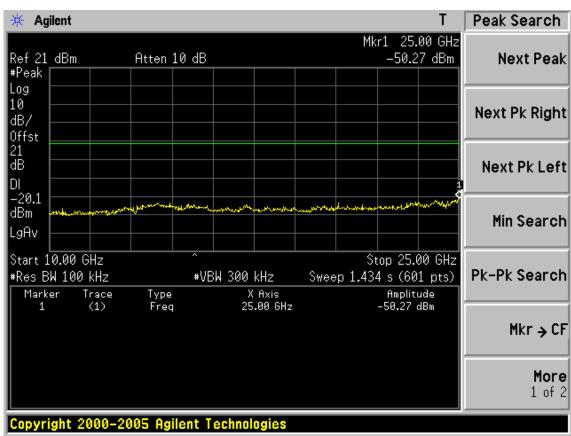




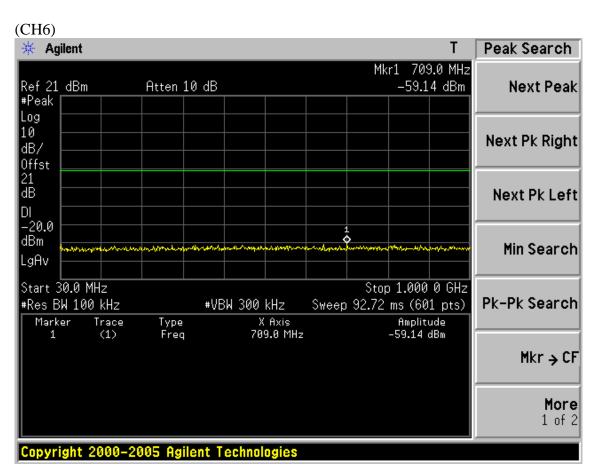


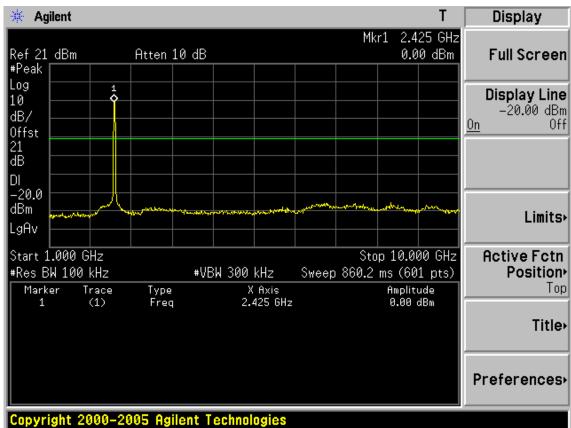




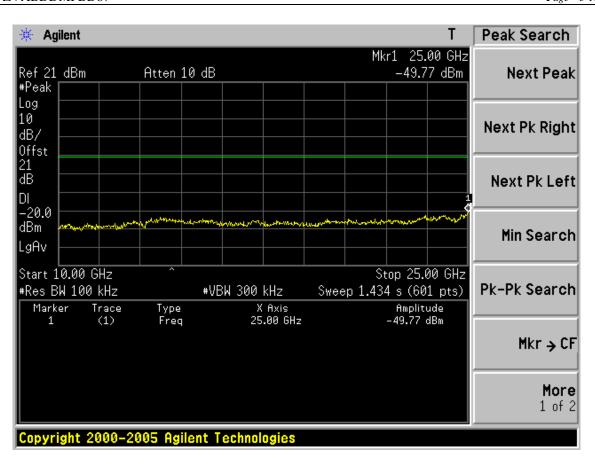




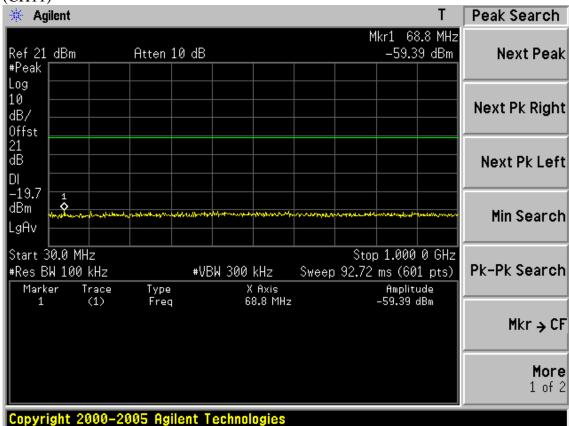




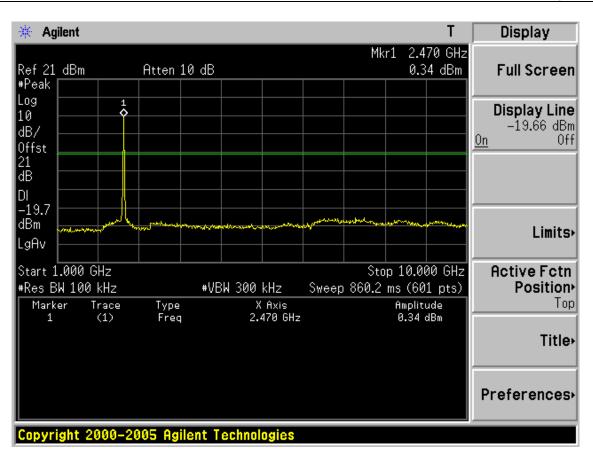


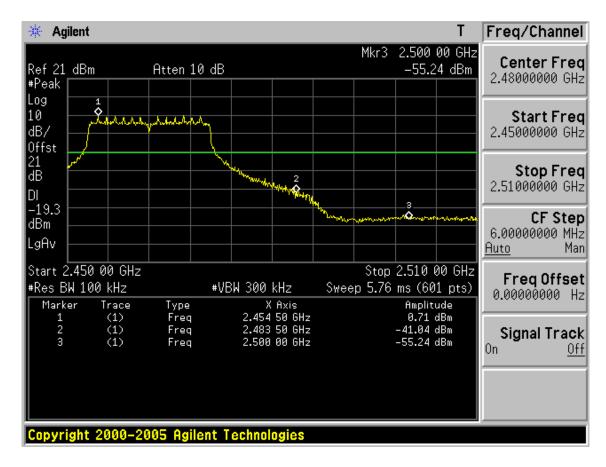




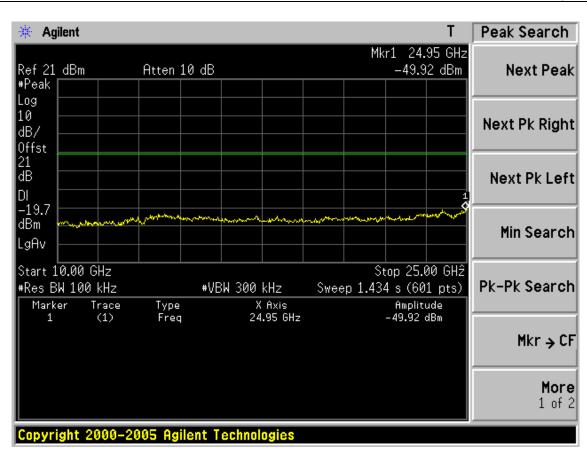




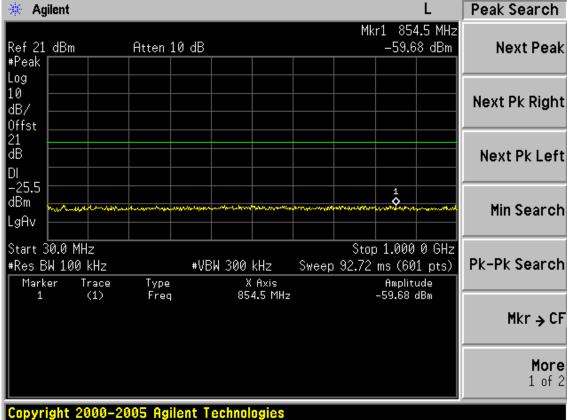




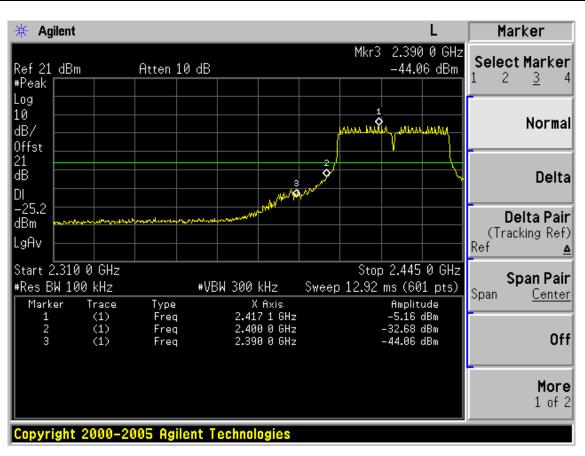


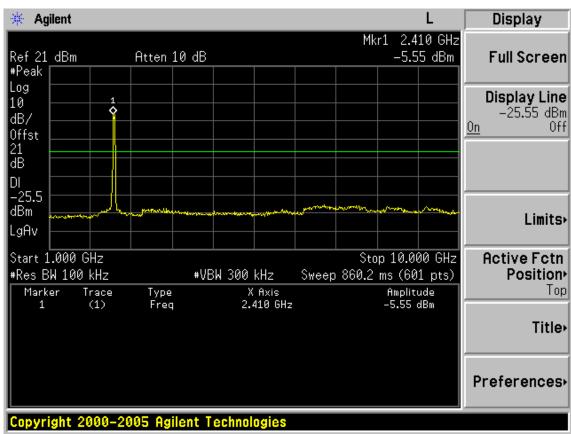




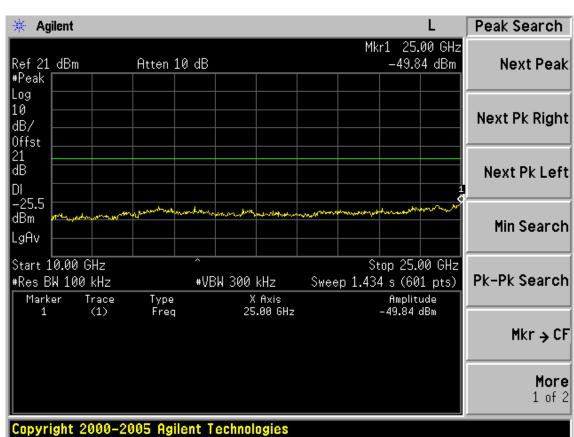




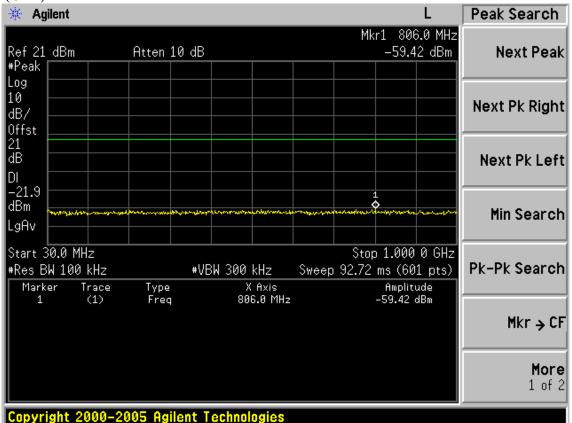




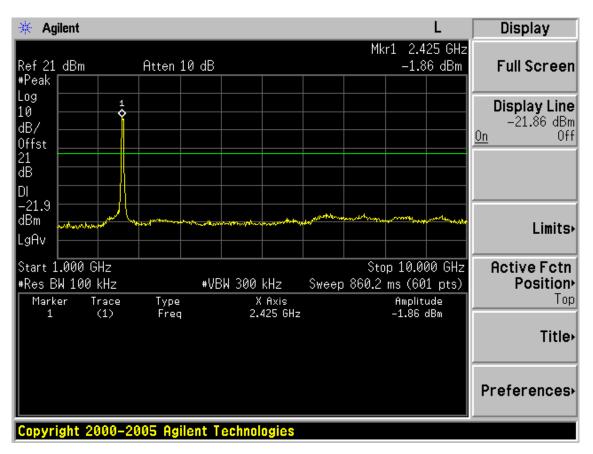
Page 5-20

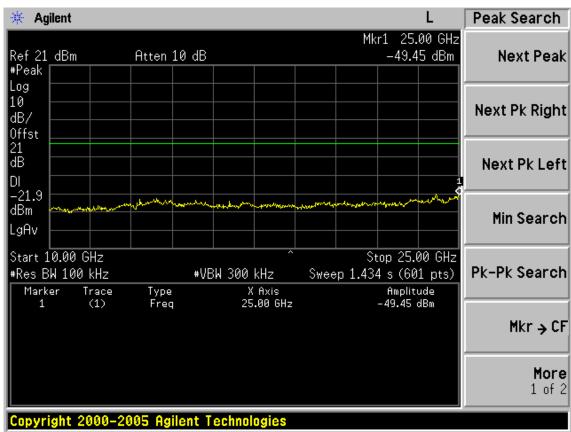




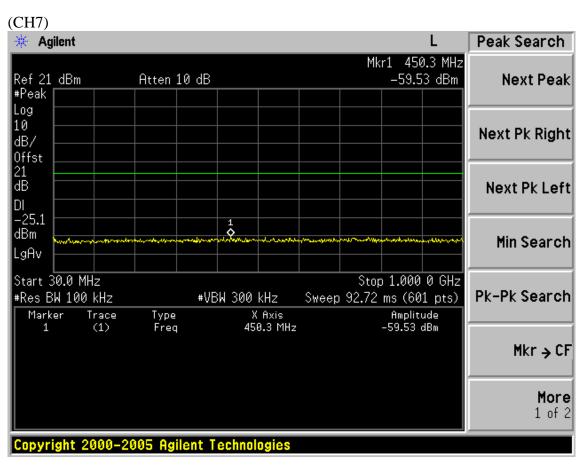


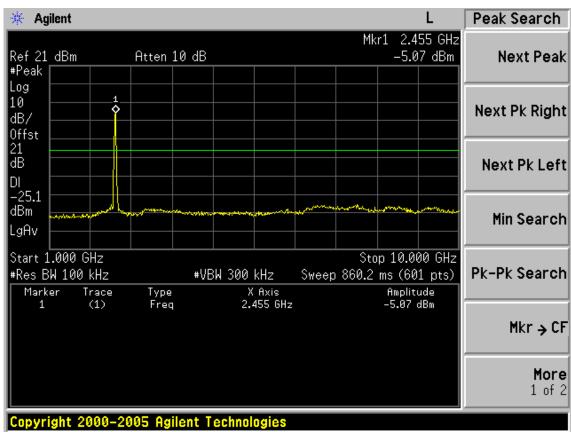




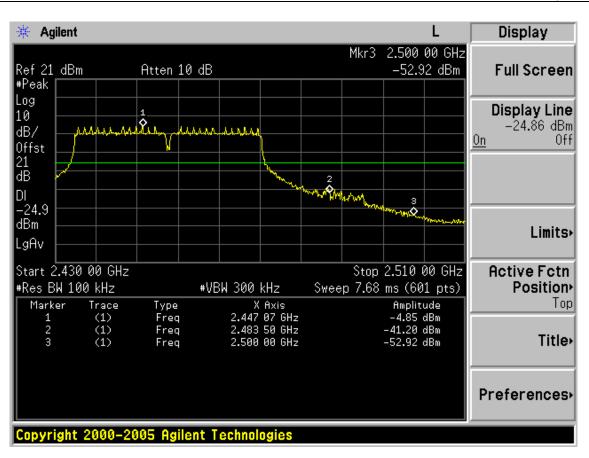


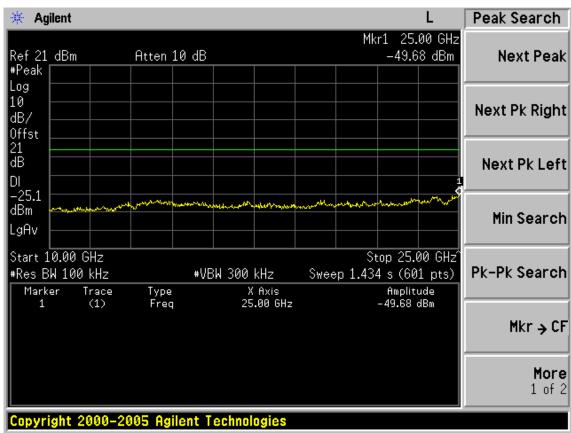














### 6. BAND EDGE COMPLIANCE TEST

### 6.1.Test Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Spectrum	Agilent	E4446A	US44300459	May.08, 11	1 Year
2.	Amp	HP	8449B	3008A08495	May.08, 11	1 Year
3.	Antenna	EMCO	3115	9510-4580	May.31, 11	1Year
4.	HF Cable	Hubersuhne	Sucoflex104	-	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.

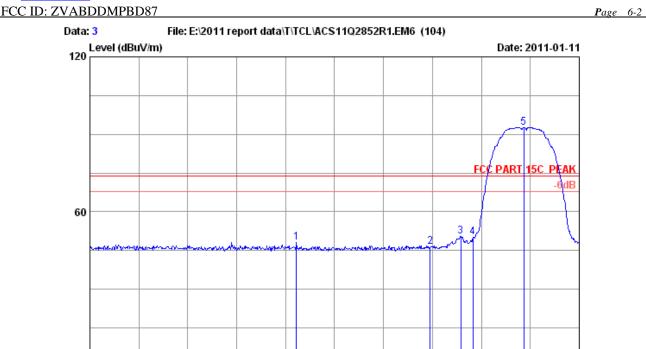
### 6.3. Test Produce

- 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.)

2425



Site no. : 3m Chamber

2356.

Data no. : 3 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 4580

Frequency (MHz)

2379.

: FCC PART 15C PEAK Limit

Env. / Ins. : 22.4 C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 1 2412MHz Tx

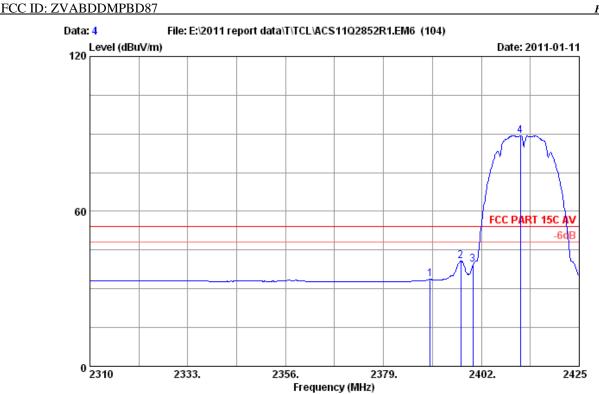
M/N: DMP-BD87

2333.

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2358.530	27.91	5.95	34.44	48.76	48.18	74.00	25.82	Peak
2	2390.000	27.96	6.01	34.44	46.79	46.32	74.00	27.68	Peak
3	2397.170	27.96	6.01	34.44	50.99	50.52	74.00	23.48	Peak
4	2400.000	27.96	6.01	34.44	50.48	50.01	74.00	23.99	Peak
5	2412.005	27.98	6.03	34.44	93.15	92.72	74.00	-18.72	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.

**P**age 6-3



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

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

Limit : FCC PART 15C AV Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

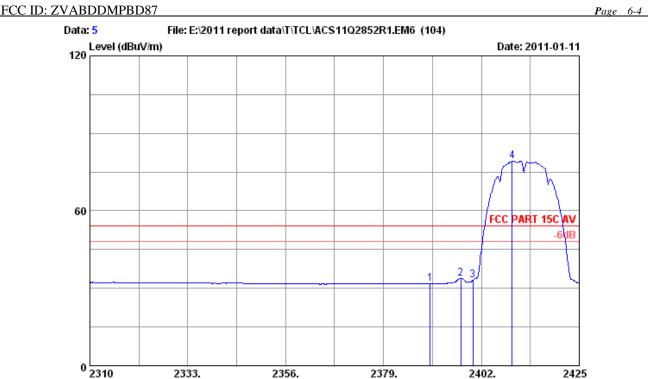
: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 1 2412MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	34.12	33.65	54.00	20.35	Average
2	2397.170	27.96	6.01	34.44	41.25	40.78	54.00	13.22	Average
3	2400.000	27.96	6.01	34.44	39.81	39.34	54.00	14.66	Average
4	2411.200	27.98	6.03	34.44	89.83	89.40	54.00	-35.40	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 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2011 3115 4580

Frequency (MHz)

Engineer : Leo-Li

: FCC PART 15C AV Limit

Env. / Ins. : 22.4 C/41%

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 1 2412MHz Tx

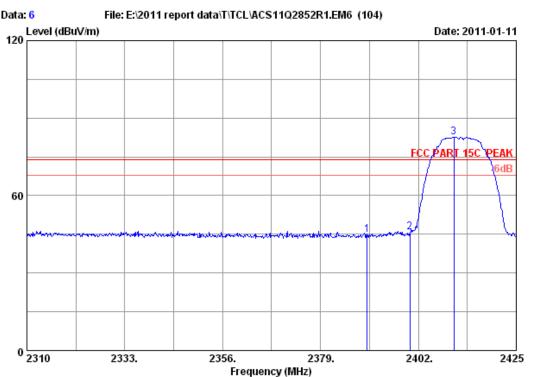
M/N: DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	32.35	31.88	54.00	22.12	Average
2	2397.170	27.96	6.01	34.44	34.36	33.89	54.00	20.11	Average
3	2400.000	27.96	6.01	34.44	33.69	33.22	54.00	20.78	Average
4	2409.245	27.98	6.03	34.44	79.63	79.20	54.00	-25.20	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.

# AUDIX Technology (Shenzhen) Co., Ltd.





Site no. : 3m Chamber Data no. : 6

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

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

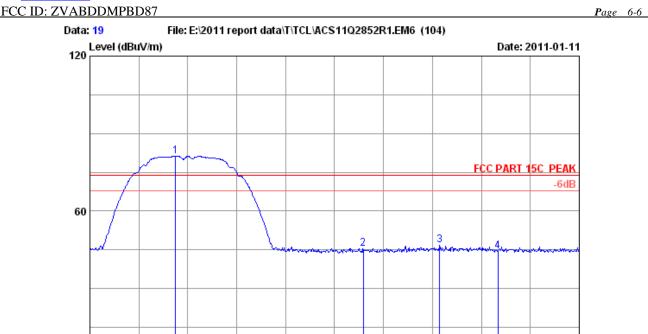
Test mode : IEEE802.11b CH 1 2412MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	•	Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	45.27	44.80	74.00	 29.20	 Peak
2	2400.000	27.96	6.01	34.44	46.12	45.65	74.00	28.35	Peak
3	2410.395	27.98	6.03	34.44	83.09	82.66	74.00	-8.66	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.

2510



Site no. : 3m Chamber Data no. : 19
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Frequency (MHz)

2486.

Engineer : Leo-Li

Limit : FCC PART 15C PEAK

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

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 11 2462MHz Tx

M/N : DMP-BD87

2462.

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1	2460.500	28.05		34.44	81.52	81.25	74.00	-7.25	Peak
2	2483.500	28.08		34.45	45.68	45.46	74.00	28.54	Peak
3	2492.900	28.10		34.45	47.13	46.96	74.00	27.04	Peak
4	2500.000	28.10		34.45	44.68	44.51	74.00	29.49	Peak

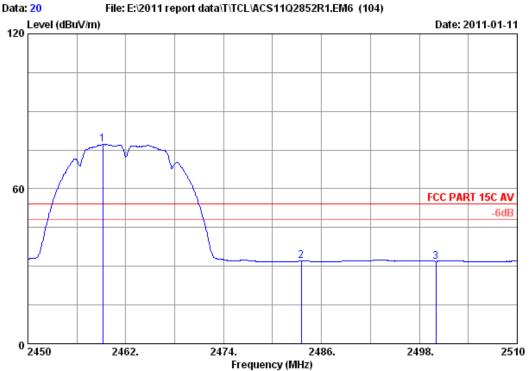
### Remarks:

0 2450

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

### AUDIX Technology (Shenzhen) Co., Ltd.





Site no. : 3m Chamber

Data no. : 20 Ant. pol. : VERTICAL Dis. / Ant. : 3m 2011 3115 4580

: FCC PART 15C AV Limit

Env. / Ins. : 22.4 C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11b CH 11 2462MHz Tx

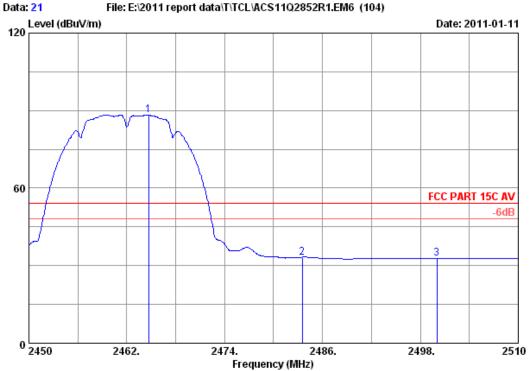
M/N: DMP-BD87

Freq. (MHz)	Ant. Factor (dB/m)	loss (dB)		Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
1 2459.180	28.05	6.15	34.44	77.48	77.21	54.00	-23.21	Average
2 2483.500	28.08		34.45	32.15	31.93	54.00	22.07	Average
3 2500.000	28.10		34.45	32.08	31.91	54.00	22.09	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.

### AUDIX Technology (Shenzhen) Co., Ltd.





Site no. : 3m Chamber

Data no. : 21 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 4580

: FCC PART 15C AV Limit

Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

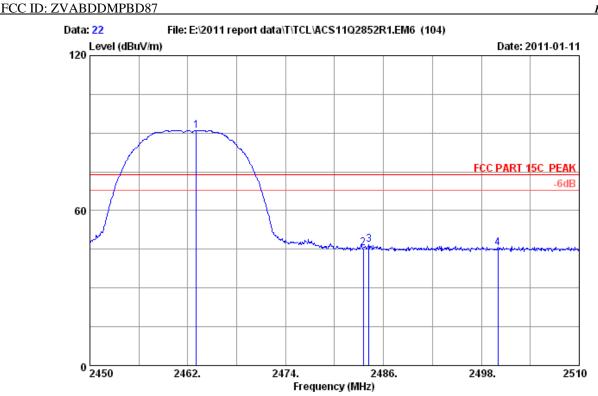
Test mode : IEEE802.11b CH 11 2462MHz Tx

M/N: DMP-BD87

1 2464.700								
2 2483.500 3 2500.000	28.08	6.15	34.45 34.45 34.45	88.60 33.47 32.86	88.32 33.25 32.69	54.00 54.00 54.00	-34.32 20.75 21.31	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. : 22

Ant. pol. : HORIZONTAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 22.4'C/41% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

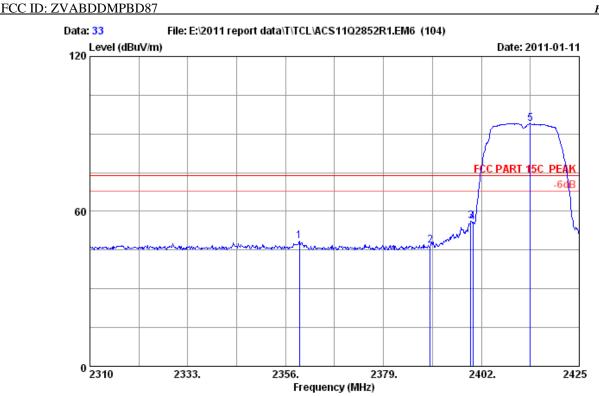
Test mode : IEEE802.11b CH 11 2462MHz Tx

: DMP-BD87 M/N

	Freq.	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1	2463.020	28.05	6.12	34.45	91.33	91.05	74.00	-17.05	Peak	
2	2483.500	28.08	6.15	34.45	45.84	45.62	74.00	28.38	Peak	
3	2484.200	28.08	6.15	34.45	46.98	46.76	74.00	27.24	Peak	
4	2500.000	28.10	6.18	34.45	45.73	45.56	74.00	28.44	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.

**P**age 6-10



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

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

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

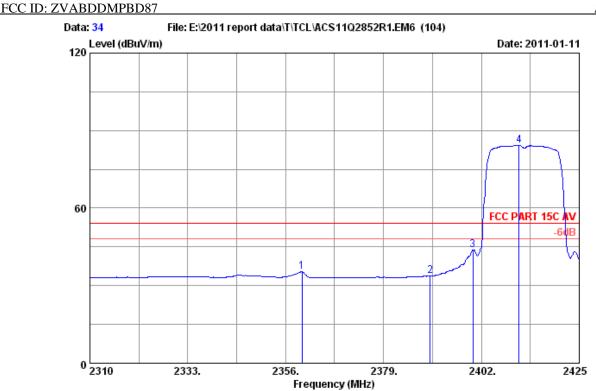
Test mode : IEEE802.11g CH 1 2412MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2359.220	27.91	5.95	34.44	48.89	48.31	74.00	25.69	Peak
2	2390.000	27.96	6.01	34.44	47.15	46.68	74.00	27.32	Peak
3	2399.470	27.96	6.01	34.44	56.62	56.15	74.00	17.85	Peak
4	2400.000	27.96	6.01	34.44	56.15	55.68	74.00	18.32	Peak
5	2413.500	27.98	6.03	34.44	94.39	93.96	74.00	-19.96	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. : 34 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 4580

: FCC PART 15C AV Limit

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

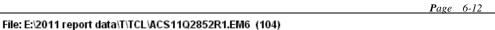
Power supply : AC 120V/60Hz

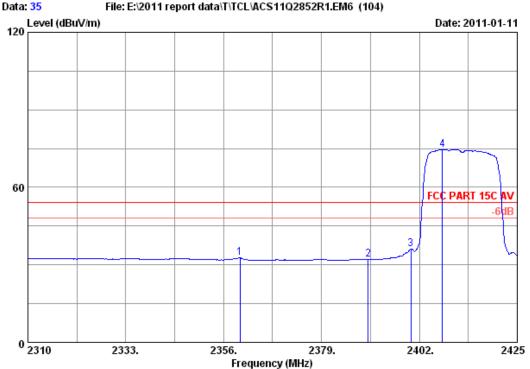
Test mode : IEEE802.11g CH 1 2412MHz Tx

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2359.795	27.91	5.95	34.44	35.88	35.30	54.00	18.70	Average
2 2390.000	27.96	6.01	34.44	34.12	33.65	54.00	20.35	Average
3 2400.000	27.96	6.01	34.44	44.39	43.92	54.00	10.08	Average
4 2410.855	27.98	6.03	34.44	84.60	84.17	54.00	-30.17	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.

# AUDIX Technology (Shenzhen) Co., Ltd.





Site no. : 3m Chamber Data no. : 35
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Dis. / Ant. : 3m 2011 3115 4580 Ant. p Limit : FCC PART 15C AV

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

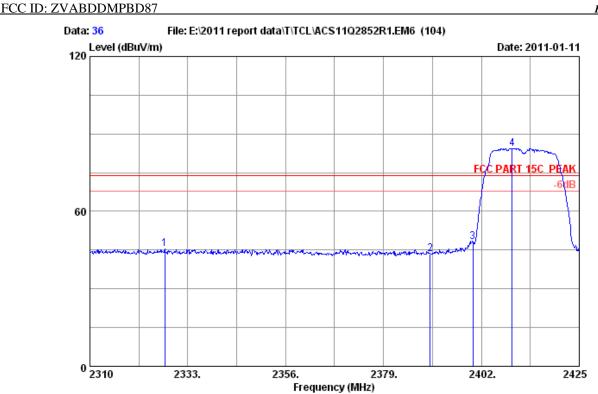
Test mode : IEEE802.11g CH 1 2412MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2359.795	27.91	5.95	34.44	33.22	32.64	54.00	21.36	Average
2	2390.000	27.96	6.01	34.44	32.45	31.98	54.00	22.02	Average
3	2400.000	27.96	6.01	34.44	36.65	36.18	54.00	17.82	Average
4	2407.405	27.98	6.03	34.44	75.02	74.59	54.00	-20.59	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.

**P**age 6-13



Site no. : 3m Chamber Data no. : 36 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

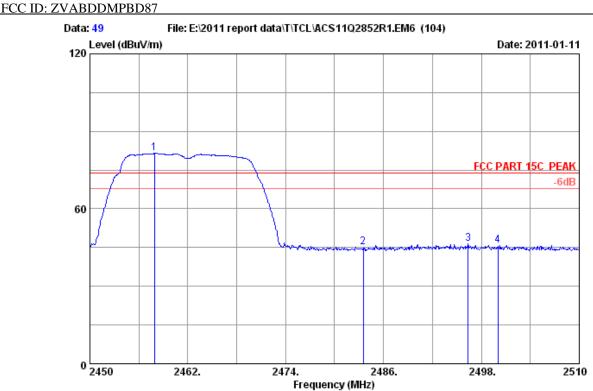
Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 1 2412MHz Tx

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2327.595	27.86	5.89	34.43	46.05	45.37	74.00	28.63	Peak
2 2390.000	27.96	6.01	34.44	44.06	43.59	74.00	30.41	Peak
3 2400.000	27.96	6.01	34.44	48.71	48.24	74.00	25.76	Peak
4 2409.245	27.98	6.03	34.44	84.81	84.38	74.00	-10.38	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. : 49
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Engineer : Leo-Li

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56%

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

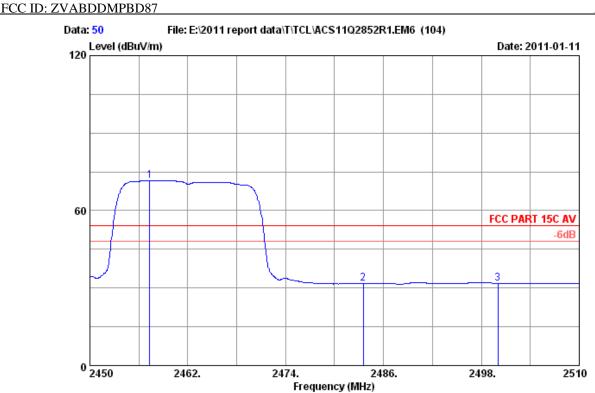
Test mode : IEEE802.11g CH 11 2462MHz Tx

M/N : DMP-BD87

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
1 2457.920 2 2483.500 3 2496.380 4 2500.000	28.05 28.08 28.10 28.10	6.15 6.18	34.44 34.45 34.45 34.45	81.71 45.27 46.47 45.93	81.44 45.05 46.30 45.76	74.00 74.00 74.00 74.00	-7.44 28.95 27.70 28.24	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. : 50
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C AV

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

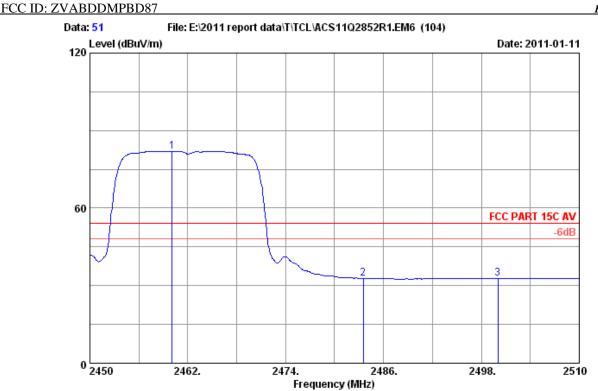
Test mode : IEEE802.11g CH 11 2462MHz Tx

M/N : DMP-BD87

	Freq.	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1	2457.320	28.05	6.15	34.44	71.96	71.69	54.00	-17.69	Average
2	2483.500	28.08		34.45	32.03	31.81	54.00	22.19	Average
3	2500.000	28.10		34.45	32.02	31.85	54.00	22.15	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. : 51 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 4580

: FCC PART 15C AV Limit

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 11 2462MHz Tx

M/N: DMP-BD87

	Freq.	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2460.080	28.05		34.44	82.29	82.02	54.00	-28.02	Average
2	2483.500	28.08		34.45	33.12	32.90	54.00	21.10	Average
3	2500.000	28.10		34.45	32.96	32.79	54.00	21.21	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.

# AUDIX Technology (Shenzhen) Co., Ltd.





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

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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

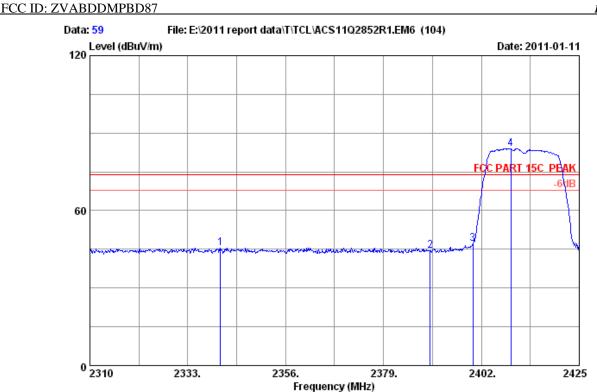
Power supply : AC 120V/60Hz

Test mode : IEEE802.11g CH 11 2462MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1 2 3	2498.780	28.05 28.08 28.10	6.15 6.18	34.45 34.45 34.45	92.17 44.84 46.65	91.89 44.62 46.48	74.00 74.00	-17.89 29.38 27.52	Peak Peak Peak
4	2500.000	28.10	6.18	34.45	45.91	45.74	74.00	28.26	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. : 59

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

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

M/N : DMP-BD87

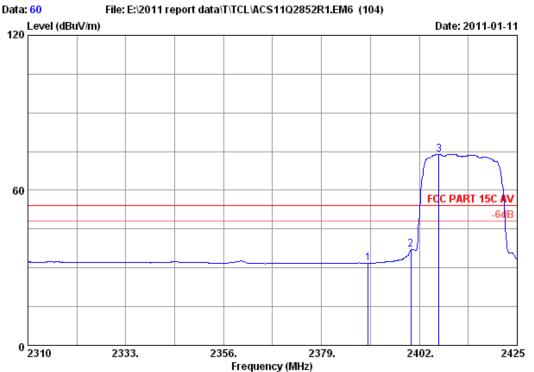
	Freq.	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1 2 3	2340.705 2390.000 2400.000	27.88 27.96 27.96	5.92 6.01 6.01	34.44 34.44 34.44	46.18 44.93 47.64	45.54 44.46 47.17	74.00 74.00 74.00	28.46 29.54 26.83	Peak Peak Peak	
4	2408.900	27.98	6.03	34.44	84.31	83.88	74.00	-9.88	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.

# AUDIX Technology (Shenzhen) Co., Ltd.



Engineer : Leo-Li



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

Limit : FCC PART 15C AV Env. / Ins. : 24.2\*C/56%

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

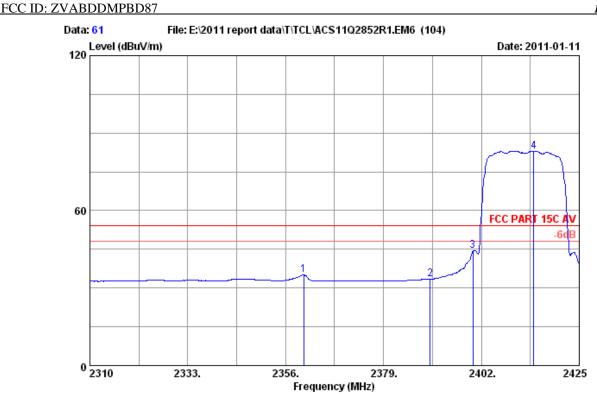
Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2390.000	27.96	6.01	34.44	32.31	31.84	54.00	22.16	Average
2	2400.000	27.96		34.44	37.58	37.11	54.00	16.89	Average
3	2406.600	27.98		34.44	74.37	73.94	54.00	-19.94	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.

**P**age 6-20



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

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

Limit : FCC PART 15C AV

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

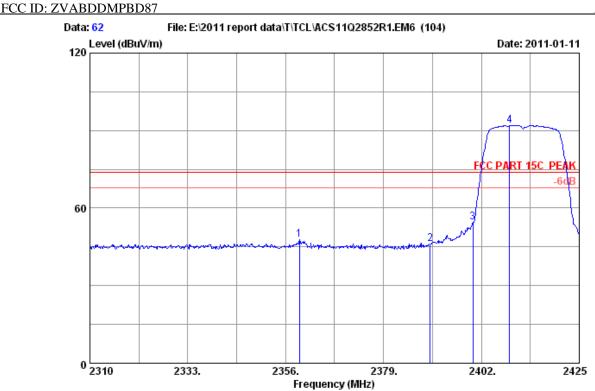
Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

M/N : DMP-BD87

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2360.255	27.91	5.95	34.44	35.67	35.09	54.00	18.91	Average
2	2390.000	27.96	6.01	34.44	33.92	33.45	54.00	20.55	Average
3	2400.000	27.96	6.01	34.44	44.88	44.41	54.00	9.59	Average
4	2414.305	27.98	6.03	34.44	83.40	82.97	54.00	-28.97	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. : 62 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 4580

: FCC PART 15C PEAK Limit

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

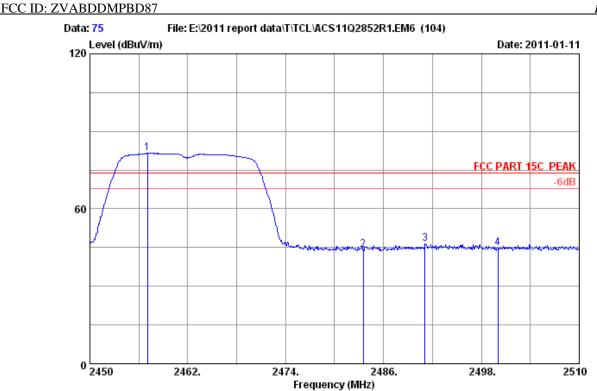
Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 1 2412MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1 2 3 4	2359.220 2390.000 2400.000 2408.670	27.91 27.96 27.96 27.98		34.44 34.44 34.44	48.22 46.45 54.80 92.42	47.64 45.98 54.33 91.99	74.00 74.00 74.00 74.00	26.36 28.02 19.67 -17.99	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. : 75
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

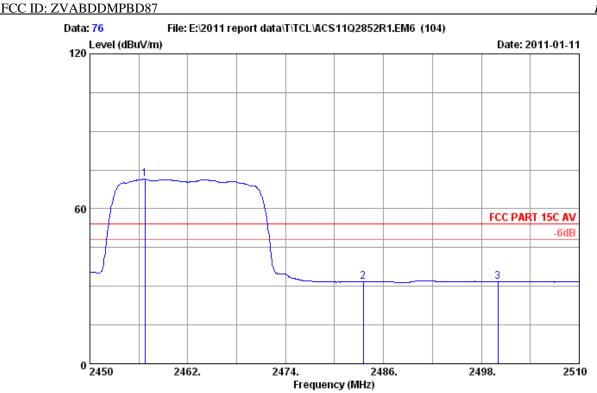
Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

M/N : DMP-BD87

Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1 2457.08 2 2483.50 3 2491.10 4 2500.00	0 28.08 0 28.10	6.15	34.44 34.45 34.45 34.45	81.72 44.39 46.76 45.08	81.45 44.17 46.56 44.91	74.00 74.00 74.00 74.00	-7.45 29.83 27.44 29.09	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. : 76
Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C AV

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

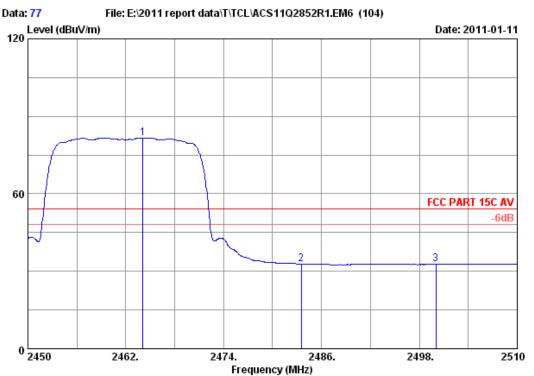
M/N : DMP-BD87

Freq. (MHz)	Factor (dB/m)	loss (dB)		Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
1 2456.720 2 2483.500 3 2500.000	28.08	6.15	34.44 34.45 34.45	71.69 31.99 31.94	71.42 31.77 31.77	54.00 54.00 54.00	-17.42 22.23 22.23	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.

# AUDIX Technology (Shenzhen) Co., Ltd.





Site no. : 3m Chamber

Data no. : 77 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 4580

: FCC PART 15C AV Limit

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

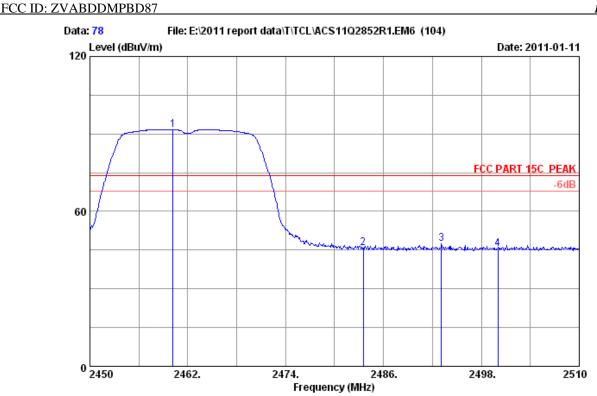
Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

M/N: DMP-BD87

Freq. (MHz)	Ant. Factor (dB/m)	loss (dB)	Amp. Factor (dB)	Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
1 2464.100	28.05	6.15	34.45	81.96	81.68	54.00	-27.68	Average
2 2483.500	28.08		34.45	33.07	32.85	54.00	21.15	Average
3 2500.000	28.10		34.45	32.85	32.68	54.00	21.32	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.

**P**age 6-25



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

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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56%

Engineer : Leo-Li

: BLU-RAY DISC PLAYER

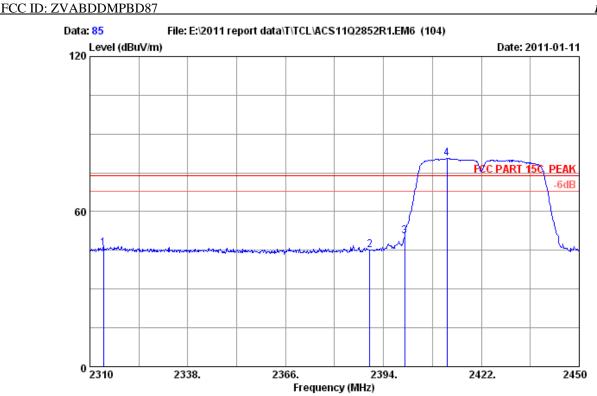
Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT20 CH 11 2462MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark	
1 2 3	2460.200 2483.500 2493.080	28.05 28.08 28.10		34.44 34.45 34.45	91.87 46.03 47.71	91.60 45.81 47.54	74.00 74.00 74.00	-17.60 28.19 26.46	Peak Peak Peak	
4	2500.000	28.10	6.18	34.45	45.68	45.51	74.00	28.49	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.

**P**age 6-26



Site no. : 3m Chamber Data no. : 85 Dis. / Ant. : 3m 2011 3115 4580 Ant. pol. : VERTICAL

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56%

Engineer : Leo-Li

: BLU-RAY DISC PLAYER EUT

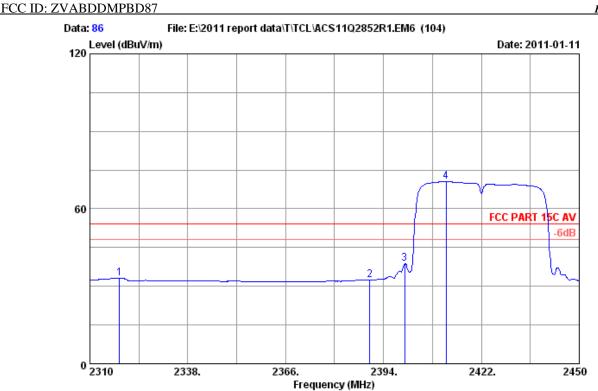
Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

	Freq.	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2	2313.920 2390.000 2400.000 2412.200	27.83 27.96 27.96 27.98		34.43 34.44 34.44 34.44	46.56 45.47 50.99 81.15	45.85 45.00 50.52 80.72	74.00 74.00 74.00 74.00	28.15 29.00 23.48 -6.72	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.





Data no. : 86 Ant. pol. : VERTICAL Site no. : 3m Chamber

Dis. / Ant. : 3m 2011 3115 4580

: FCC PART 15C AV Limit

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

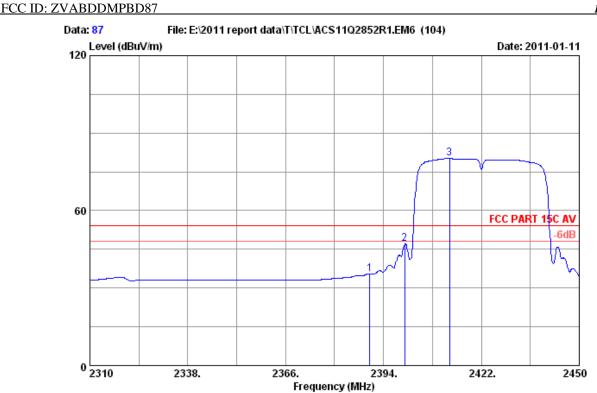
Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
2	2318.400	27.86	5.89	34.43	33.88	33.20	54.00	20.80	Average
	2390.000	27.96	6.01	34.44	32.93	32.46	54.00	21.54	Average
	2400.000	27.96	6.01	34.44	39.09	38.62	54.00	15.38	Average
	2411.920	27.98	6.03	34.44	71.00	70.57	54.00	-16.57	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. : 87

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

Limit : FCC PART 15C AV

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

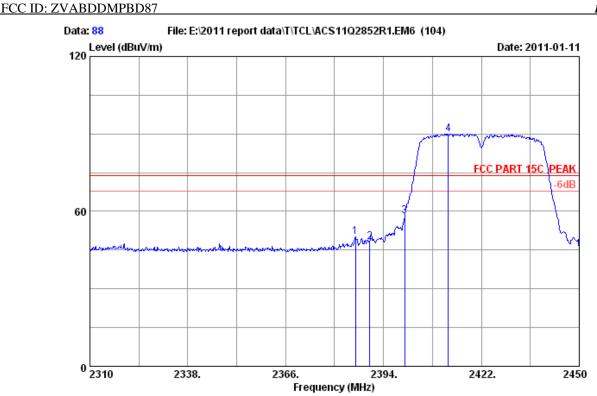
Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

M/N : DMP-BD87

	Freq.	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits	Margin (dB)	Remark
1	2390.000	27.96	6.01		35.97	35.50	54.00	18.50	Average
2	2400.000	27.96	6.01		47.46	46.99	54.00	7.01	Average
3	2412.900	27.98	6.03		80.58	80.15	54.00	-26.15	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.

**P**age 6-29



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

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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56%

Engineer : Leo-Li

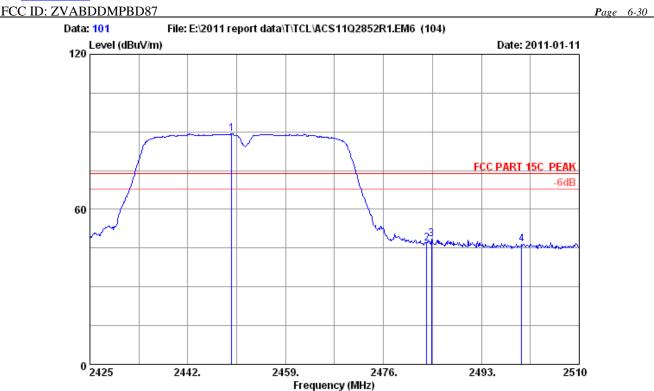
: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 1 2422MHz Tx

	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
1	2386.020	27.96	6.01	34.44	50.71	50.24	74.00	23.76	Peak
2	2390.000	27.96	6.01	34.44	48.77	48.30	74.00	25.70	Peak
3	2400.000	27.96	6.01	34.44	58.71	58.24	74.00	15.76	Peak
4	2412.480	27.98	6.03	34.44	90.49	90.06	74.00	-16.06	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. : 101

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

Engineer : Leo-Li

Limit : FCC PART 15C PEAK

Env. / Ins. : 24.2\*C/56%

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

M/N : DMP-BD87

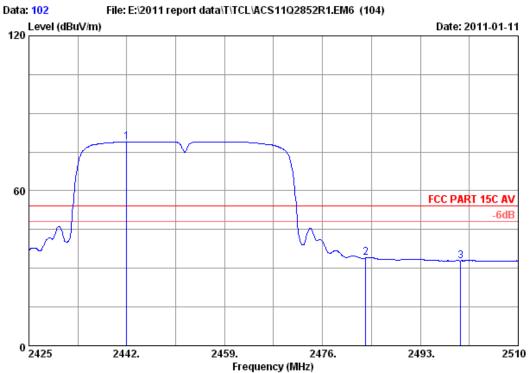
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2449.650	28.03	6.09	34.44	89.46	89.14	74.00	-15.14	Peak
2	2483.500	28.08	6.15	34.45	46.90	46.68	74.00	27.32	Peak
3	2484.330	28.08	6.15	34.45	48.77	48.55	74.00	25.45	Peak
4	2500.000	28.10	6.18	34.45	46.62	46.45	74.00	27.55	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.

FCC ID: ZVABDDMPBD87

# AUDIX Technology (Shenzhen) Co., Ltd.





Site no. : 3m Chamber

Data no. : 102 Ant. pol. : HORIZONTAL Dis. / Ant. : 3m 2011 3115 4580

: FCC PART 15C AV Limit

Env. / Ins. : 24.2\*C/56% Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

M/N: DMP-BD87

Freq. (MHz)	Ant. Factor (dB/m)	loss (dB)	Amp. Factor (dB)	Reading (dBuV)		Limits (dBuV/m)	Margin (dB)	Remark
1 2442.000	28.03	6.15	34.44	79.30	78.98	54.00	-24.98	Average
2 2483.500	28.08		34.45	34.18	33.96	54.00	20.04	Average
3 2500.000	28.10		34.45	33.07	32.90	54.00	21.10	Average

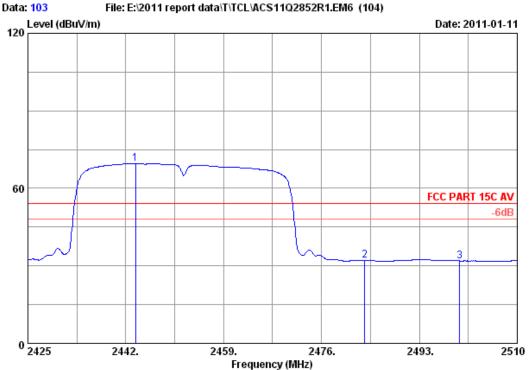
### Remarks:

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

# AUDIX Technology (Shenzhen) Co., Ltd.



Engineer : Leo-Li



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

Limit : FCC PART 15C AV Env. / Ins. : 24.2\*C/56%

EUT : BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

M/N : DMP-BD87

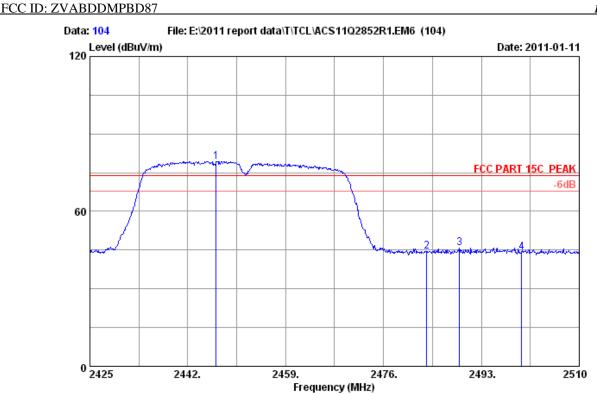
	Freq. (MHz)	Ant. Factor (dB/m)	Cable loss (dB)	Amp. Factor (dB)	Reading (dBuV)	Emission Level (dBuV/m)	Limits (dBuV/m)	Margin (dB)	Remark
1	2443.700	28.03	6.15	34.44	69.78	69.46	54.00	-15.46	Average
2	2483.500	28.08		34.45	32.21	31.99	54.00	22.01	Average
3	2500.000	28.10		34.45	32.09	31.92	54.00	22.08	Average

### 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.

# AUDIX Technology (Shenzhen) Co., Ltd.

**P**age 6-33



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

Limit : FCC PART 15C PEAK Env. / Ins. : 24.2\*C/56%

Engineer : Leo-Li

: BLU-RAY DISC PLAYER

Power supply : AC 120V/60Hz

Test mode : IEEE802.11nHT40 CH 7 2452MHz Tx

M/N: DMP-BD87

2 2483.500 28 3 2489.175 28	.08 6.15 .10 6.15	34.44 34.45 34.45 34.45	79.61 44.63 46.15 44.21	79.29 44.41 45.95 44.04	74.00	-5.29 29.59 28.05 29.96	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.



# 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

EUT: BLU-RAY DISC PLAYER					
M/N: DMP-BD87					
Test date: 2012-01-12	Pressure: 100.9 kpa	Humidity: 52.2%			
Tested by: Leo-Li	Test site: RF Site	Temperature : 23.5 °C			

Cable loss: 1 dB		Attenuator loss: 20 dB		
Test Mode	СН	6dB bandwidth (MHz)	Limit (KHz)	
	CH1	12.186	>500	
11b	СН6	12.177	>500	
	CH11	12.185	>500	
	CH1	16.319	>500	
11g	CH6	16.340	>500	
	CH11	16.289	>500	
11	CH1	17.474	>500	
11n HT20	CH6	17.461	>500	
11120	CH11	17.443	>500	
11	CH1	35.453	>500	
11n HT40	CH4	35.462	>500	
11140	CH7	35.402	>500	
Conclusion: PA	ASS			



FCC ID: ZVABDDMPBD87 Page 7-2

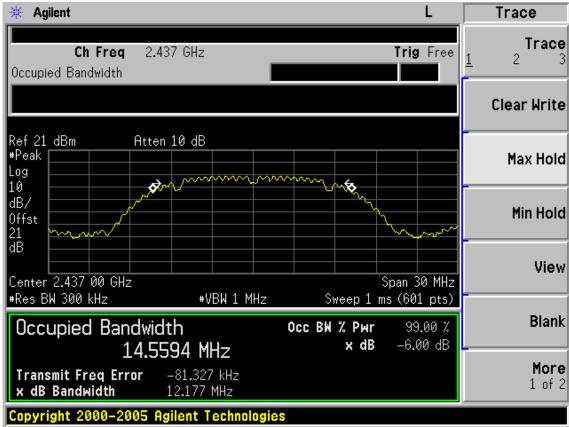
6dB Bandwidth

Test Mode: IEEE 802.11b TX

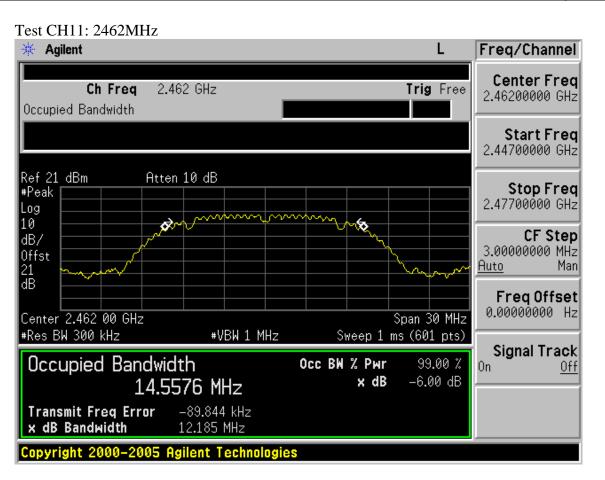
Test CH1: 2412MHz



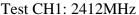
Test CH6: 2437MHz

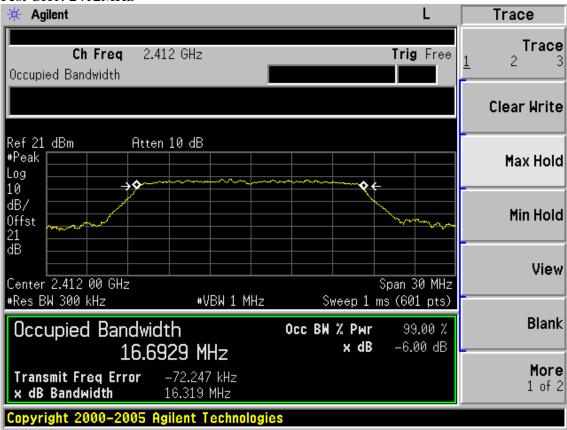




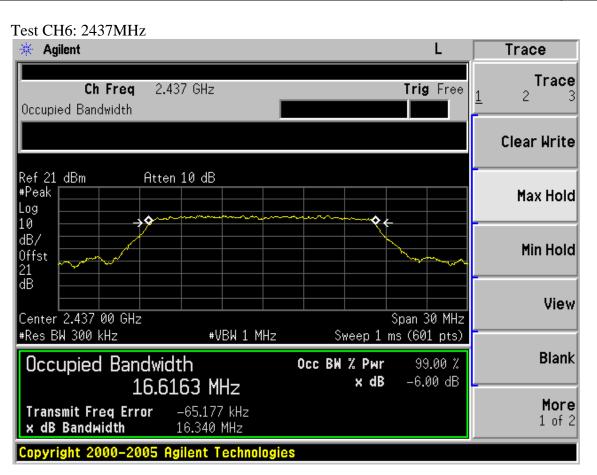


Test Mode: IEEE 802.11g TX

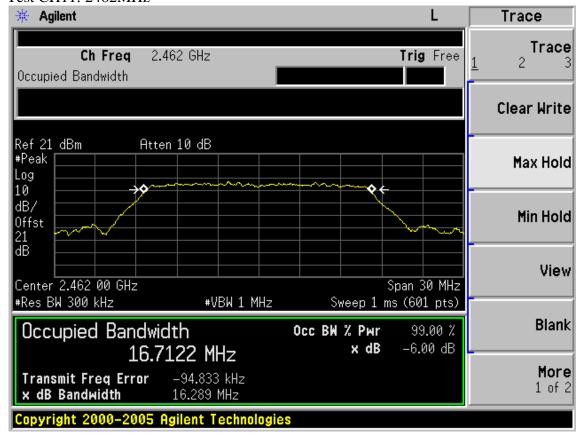




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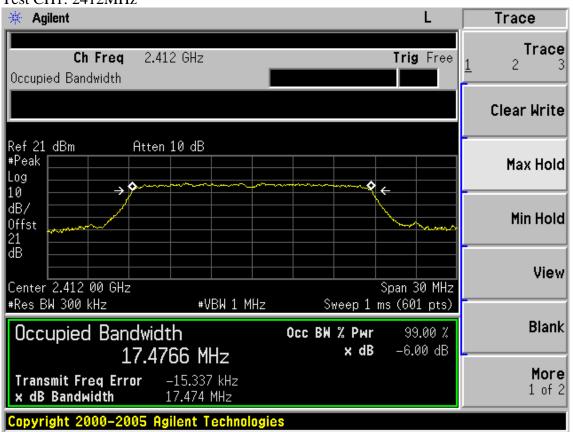
### Test CH11: 2462MHz



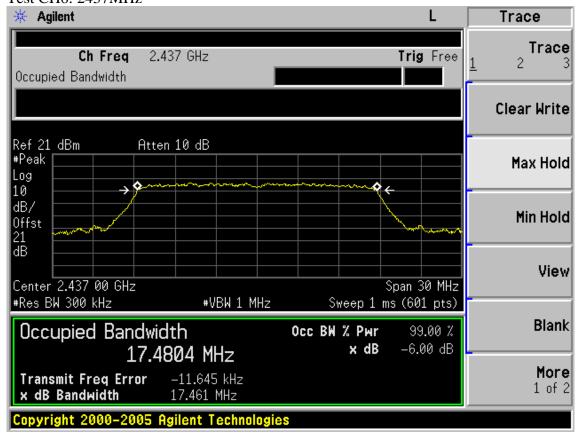


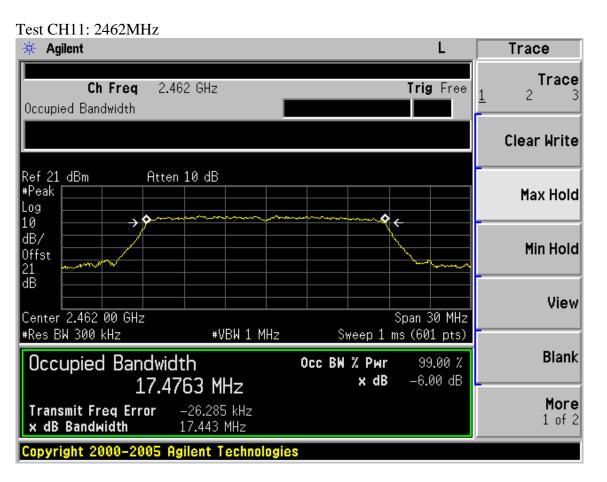
Test Mode: IEEE 802.11n HT20 TX

Test CH1: 2412MHz



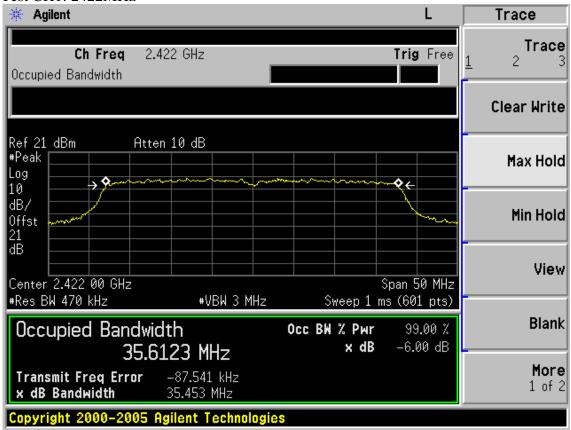
Test CH6: 2437MHz



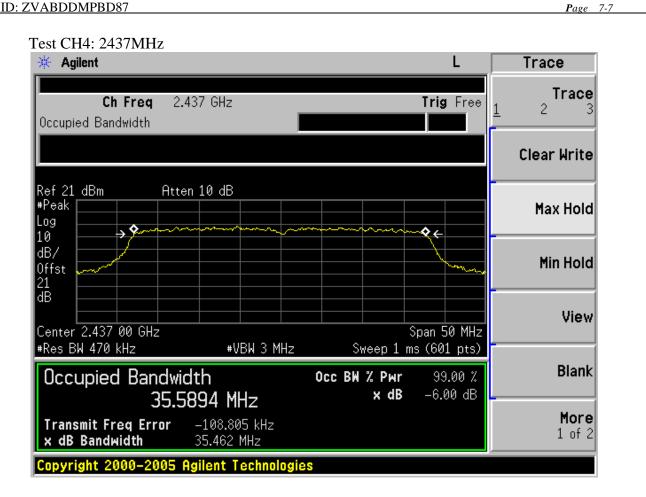


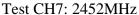
Test Mode: IEEE 802.11n HT40 TX

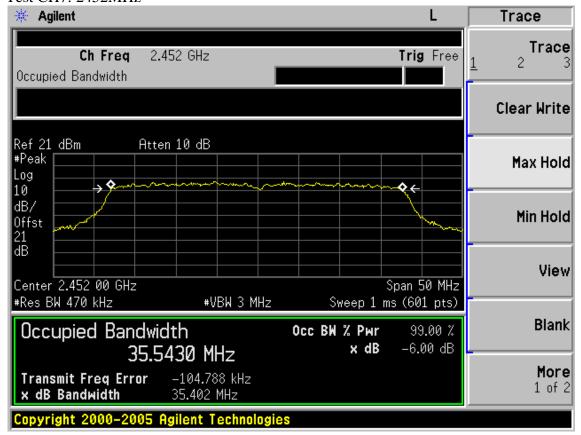
Test CH1: 2422MHz













# 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 26dB 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[(26dB bandwidth of emission)/(analyzer RBW)]

4, For IEEE802.11n mode,If it's MIMO technology, 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.



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# 8.4.Test Results

EUT: BLU-RAY DISC PLAYER					
M/N: DMP-BD87					
Test date: 2012-01-12	Pressure: 101.1 kpa	Humidity: 51.8 %			
Tested by: Leo-Li	Test site: RF site	Temperature: 23.3 °C			

	Cable loss: 1 dB	Attenuator loss: 20	dB
Test Mode	CH (MHz)	Peak output Power (dBm)	Limit (dBm)
	CH1	17.66	30
11b	CH6	16.52	30
	CH11	16.38	30
	CH1	19.62	30
11g	CH6	19.31	30
	CH11	18.45	30
11.0	CH1	19.95	30
11n HT20	CH6	19.57	30
11120	CH11	18.36	30

		Re	Limit	
Test Mode	СН	Measured power(dBm)/3MHz	PK Output power (dBm)	(dBm)
11n	CH1	5.77	16. 97	30
HT40	CH4	5.23	16. 43	30
	CH7	4.99	16. 19	30

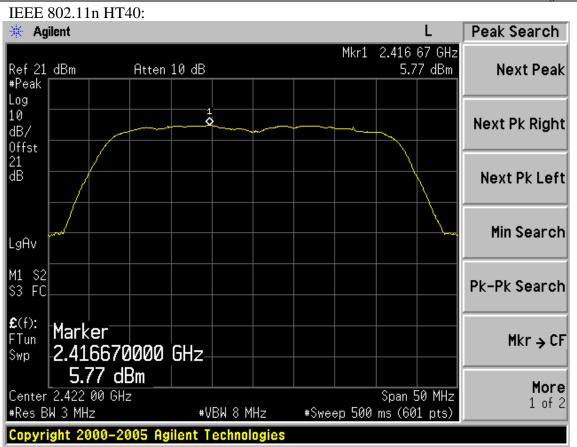
26dB Bandwidth for 11n HT40: 39.516MHz

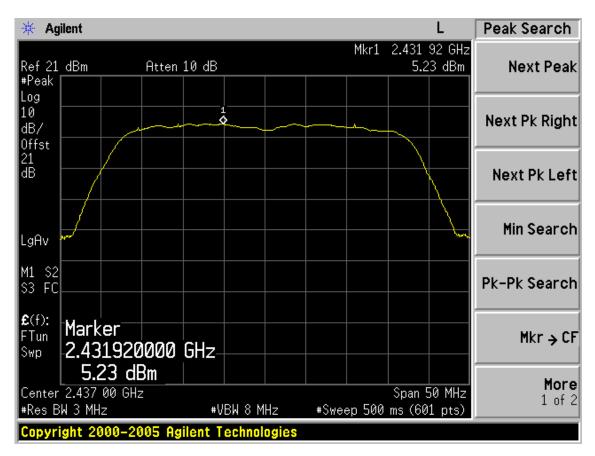
BW correction factor =  $10\log[(39.516\text{MHz})/(3\text{MHz})] = 11.20\text{dB}$ 

Conclusion: PASS

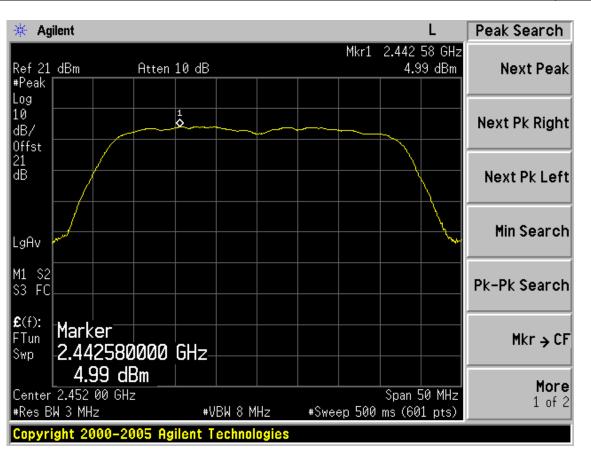


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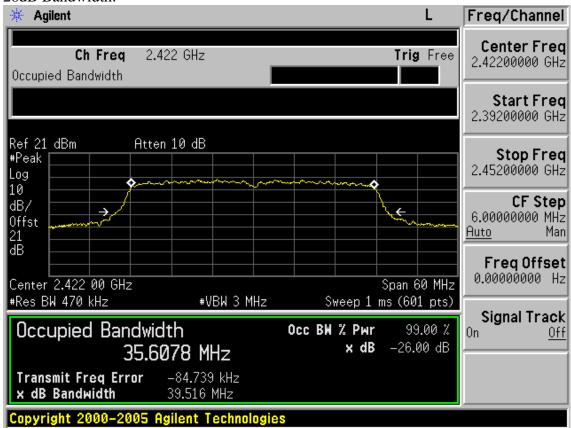




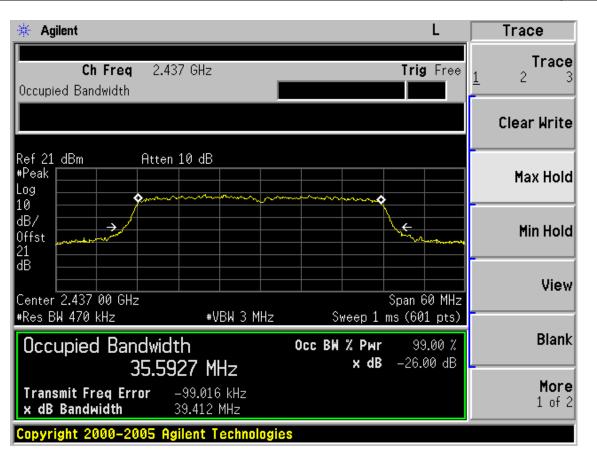
FCC ID: ZVABDDMPBD87 Page 8-4

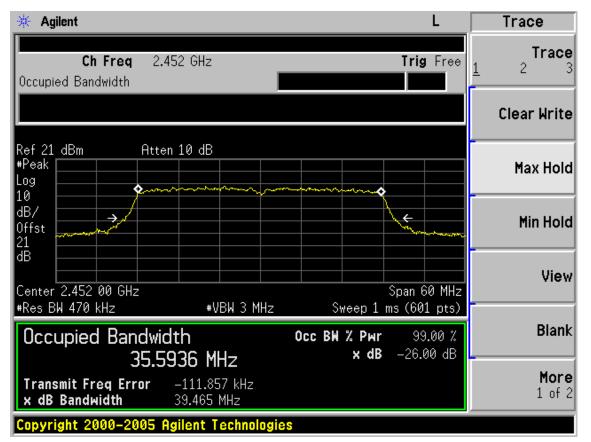


### 26dB Bandwidth:



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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, if it's MIMO technology, 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.



# 9.4.Test Results

EUT: BLU-RAY DISC PLAYER

M/N: DMP-BD87

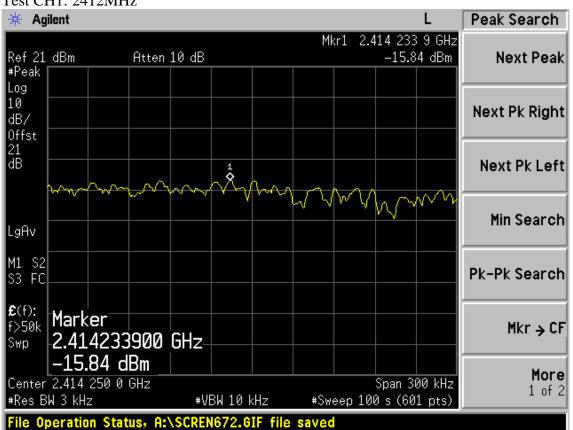
Test date: 2012-01-12 Pressure: 100.4 kpa Humidity: 49.5 %

Tested by: Leo-Li Test site: RF Site Temperature: 23.9°C

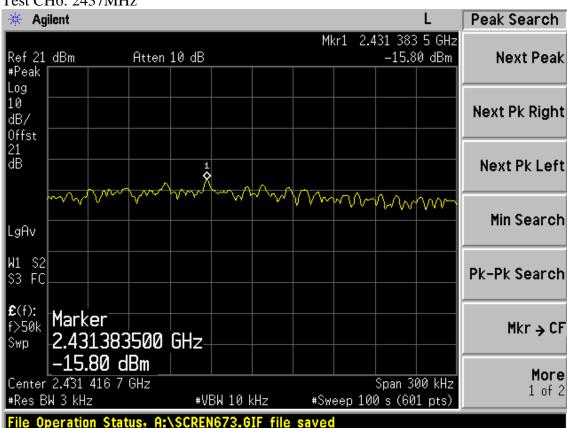
Cable loss: 1 dB		Attenuator loss: 20 dB		
Test Mode	СН	Power density (dBm/3KHz)	Limit (dBm/3KHz)	
	CH1	-15.84	8	
11b	CH6	-15.80	8	
	CH11	-16.83	8	
	CH1	-15.72	8	
11g	CH6	-16.74	8	
	CH11	-17.47	8	
11	CH1	-16.16	8	
11n HT20	CH6	-15.04	8	
11120	CH11	-16.07	8	
11	CH1	-19.98	8	
11n HT40	CH4	-19.57	8	
11140	CH7	-20.97	8	
Conclusion: PA	ASS			



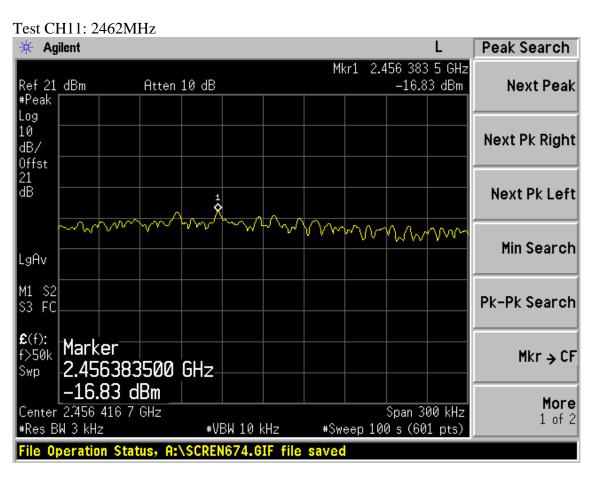




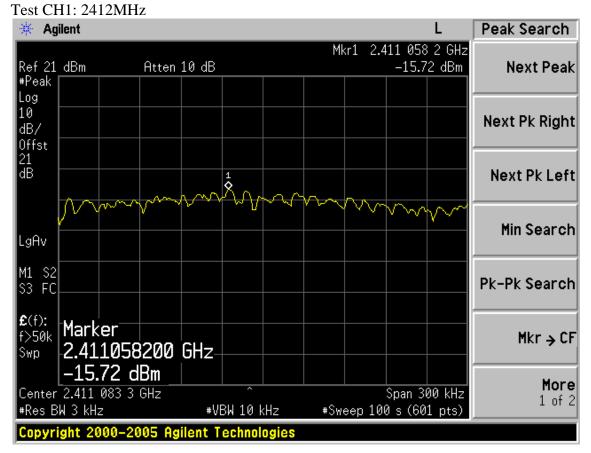
### Test CH6: 2437MHz



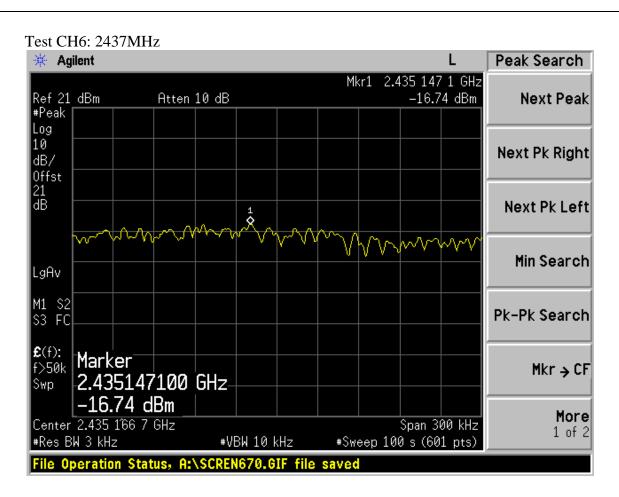




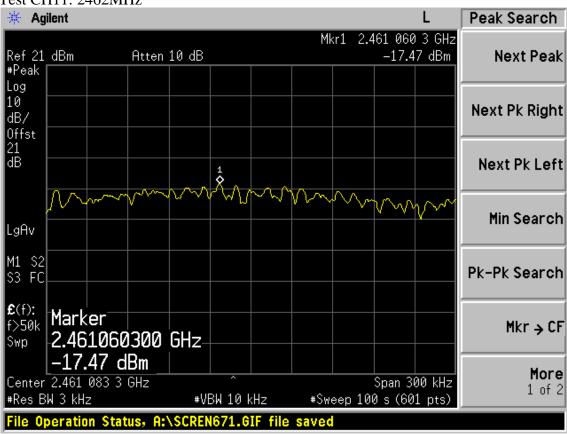
Test Mode: IEEE 802.11g TX



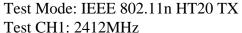


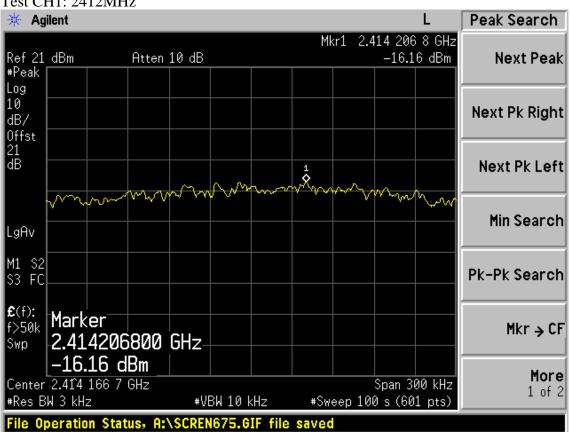




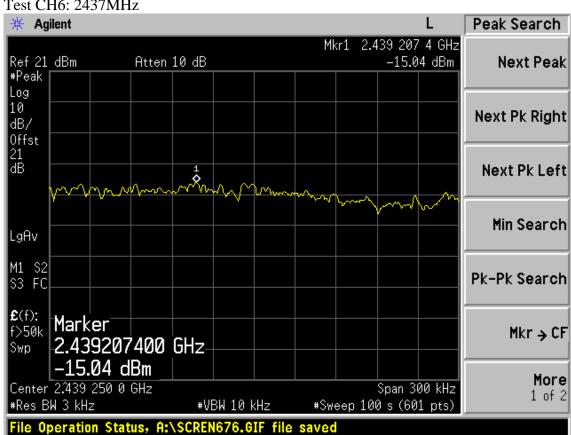




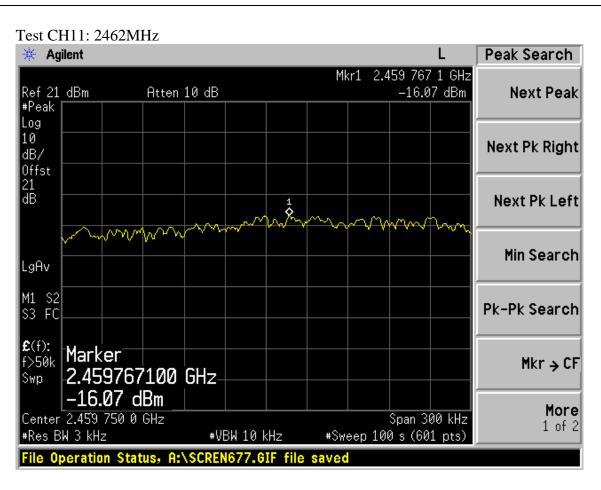




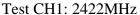
### Test CH6: 2437MHz

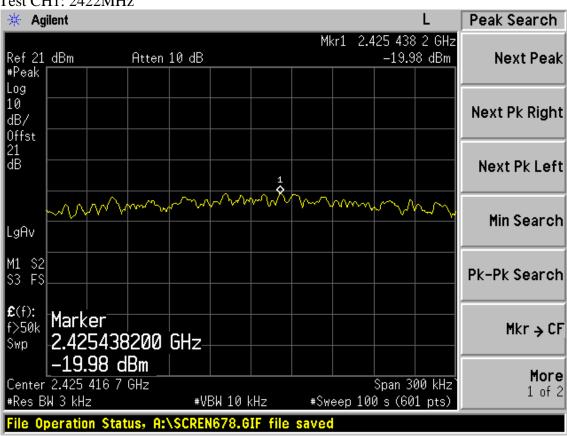




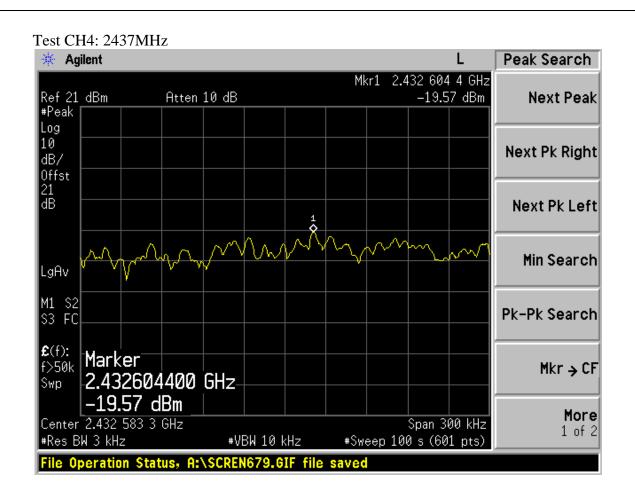


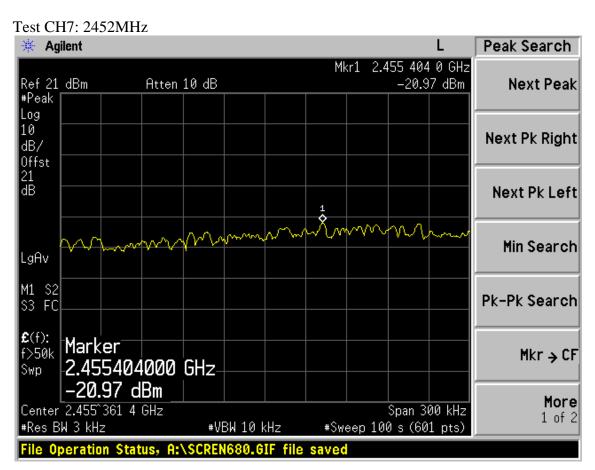
Test Mode: IEEE 802.11n HT40 TX













# 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 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 1.5dBi.



# 11.MPE ESTIMATION

# 11.1.Limit for General Population/ Uncontrolled Exposures

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

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

Note: F= Frequency in MHz

# 11.2.Estimation Result

EUT: BLU-RAY DISC PLAYER						
M/N: DMP-BD87						
Test date: 2012-01-12	Pressure:	100.5 kpa	Humidity: 49.5%			
Tested by: Leo-Li	Test site:	RF Site	Temperature : 23.8°C			

Cable loss:	1 dB		Attenuator loss: 20 dB		3	Antenna Gain: 1.5 dBi	
Test Mode	СН	Frequency (MHz)	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	МРЕ
11b	CH1	2412	17.66	58.34	1.5	1.41	0.0164
	CH6	2437	16.52	44.87	1.5	1.41	0.0126
	CH11	2462	16.38	43.45	1.5	1.41	0.0122
11g	CH1	2412	19.62	91.62	1.5	1.41	0.0258
	CH6	2437	19.31	85.31	1.5	1.41	0.0240
	CH11	2462	18.45	69.98	1.5	1.41	0.0197
11n HT20	CH1	2412	19.95	98.86	1.5	1.41	0.0278
	CH6	2437	19.57	90.57	1.5	1.41	0.0255
	CH11	2462	18.36	68.55	1.5	1.41	0.0193
11n HT40	CH1	2422	16. 97	49.77	1.5	1.41	0.0140
	CH4	2437	16. 43	43.95	1.5	1.41	0.0124
	CH7	2452	16. 19	41.59	1.5	1.41	0.0117

Note: The estimate distance is 20cm

# FCC ID: ZVABDDMPBD87 Page 12-1 12.DEVIATION TO TEST SPECIFICATIONS [NONE]