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Report No.: 1706TW0113-U1 Report Version: Issue Date: 10-29-2017

# **MEASUREMENT REPORT**

FCC PART 15 Subpart C / RSS-247 WLAN 802.11b/g/n Radiated Spurious Emission

FCC ID: N6C-SDMAN

IC: 4908B-SDMAN

APPLICANT: Silex Technology, Inc.

Application Type: Class II Permissive Change

**Product:** SDIO Wireless Module

Model No.: SX-SDMAN

**Brand Name:** 

FCC Classification: Digital Transmission System (DTS)

FCC Rule Part(s): Part 15 Subpart C (Section 15.247)

RSS-247 Issue 2, RSS-Gen Issue 4 IC Rule(s):

Test Procedure(s): ANSI C63.10-2013, KDB 558074 D01v04

Test Date: July 12 ~ 25, 2017

Reviewed By

Approved By





3261

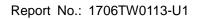
The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 558074 D01v04. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

FCC ID: N6C-SDMAN IC: 4908B-SDMAN

Page Number: 1 of 158



Page Number: 2 of 158



# **Revision History**

Report No.	Version	Description	Issue Date	Note
1706TW0113-U1	Rev. 01	Initial report	08-10-2017	Invalid
1706TW0113-U1	Rev. 02	Add the conducted power	10-29-2017	Valid

Page Number: 3 of 158



## **CONTENTS**

De	scriptic	on	Page
§2.	1033 G	General Information	5
1.	INTR	ODUCTION	6
	1.1.	Scope	6
	1.2.	MRT Test Location	6
2.	PROI	DUCT INFORMATION	7
	2.1.	Equipment Description	7
	2.2.	Host Description	7
	2.3.	Product Specification Subjective to this Report	7
	2.4.	Description of Available Antennas	7
	2.5.	Operating Frequency and Channel List	8
	2.6.	Test Mode	8
	2.7.	Test Configuration	8
	2.8.	EMI Suppression Device(s)/Modifications	8
3.	DESC	CRIPTION of TEST	9
4.	TEST	Γ EQUIPMENT CALIBRATION DATE	10
5.	MEAS	SUREMENT UNCERTAINTY	11
6.	TEST	Γ RESULT	12
	6.1.	Summary	12
	6.2.	Output Power Measurement	13
	6.2.1.	Test Limit	13
	6.2.2.	Test Procedure Used	13
	6.2.3.	Test Setting	13
	6.2.4.	Test Setup	13
	6.2.5.	Test Result of Output Power	14
	6.3.	Radiated Spurious Emission Measurement	16
	6.3.1.	Test Limit	16
	6.3.2.	Test Procedure Used	16
	6.3.3.	Test Setting	16
	6.3.4.	Test Setup	18
	6.3.5.	Test Result	20
	6.4.	Radiated Restricted Band Edge Measurement	60
	6.4.1.	Test Limit	60
	6.4.2.	Test Procedure Used	61



Page Number: 4 of 158

7.	CONCLU	JSION	158
	6.4.4.	Test Result	. 62
	6.4.3.	Test Setup	. 61



## §2.1033 General Information

Applicant:	Silex Technology, Inc.		
Applicant Address:	2-3-1 Hikaridai, Seika-cho Sourakugun, Kyoto 619-0237, Japan		
Manufacturer:	Silex Technology, Inc.		
Manufacturer Address:	2-3-1 Hikaridai, Seika-cho Sourakugun, Kyoto 619-0237, Japan		
Test Site:	MRT Technology (Taiwan) Co., Ltd		
Test Site Address:	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333,		
	Taiwan (R.O.C)		
FCC MRT Registration No.: 153292			
IC MRT Registration No.:	21723-1		
FCC Rule Part(s):	Part 15.247		
IC Rule(s):	RSS-247 Issue 2, RSS-Gen Issue 4		
Model No.:	SX-SDMAN		
Test Device Serial No.:	☐ Production ☐ Pre-Production ☐ Engineering		
FCC Classification:	Digital Transmission System (DTS)		

#### **Test Facility / Accreditations**

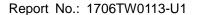
Measurements were performed at MRT Laboratory located in Fuxing Rd., Taoyuan, Taiwan (R.O.C)

- MRT facility is a FCC registered (MRT Reg. No. 153292) test facility with the site description report on file and is designated by the FCC as an Accredited Test Film.
- MRT facility is an IC registered (MRT Reg. No. 21723-1) test laboratory with the site description on file at Industry Canada.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (TAF) under the American Association for Laboratory Accreditation Program (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC,

Industry Canada, Taiwan, EU and TELEC Rules.

TAF certificate here







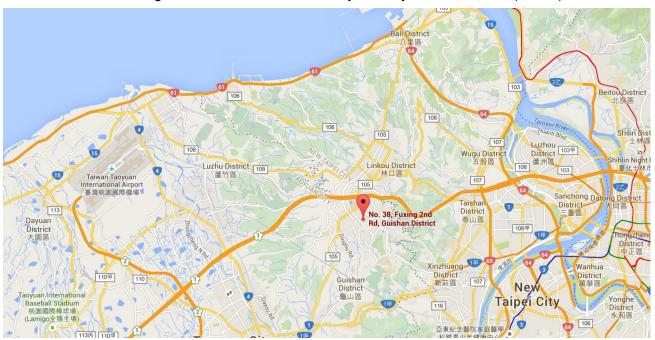
## 1. INTRODUCTION

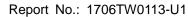
#### 1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

#### 1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).







## 2. PRODUCT INFORMATION

## 2.1. Equipment Description

Product Name:	SDIO Wireless Module
Model No.:	SX-SDMAN
Brand Name:	Silex
Wi-Fi Specification:	802.11a/b/g/n
Bluetooth Specification:	v4.0 dual mode

## 2.2. Host Description

Applicant:	Honeywell International Inc
	Honeywell Sensing & Productivity Solutions
Applicant Address: 9680 Old Bailes Rd. Fort Mill, SC 29707 United States	
Product Name:	Thermal Printer
Model No.:	RP2D, RP4D
Brand Name:	Honeywell

Note: The difference between two models is different product shell dimensions, any others are same as before.

## 2.3. Product Specification Subjective to this Report

Frequency Range:	802.11b/g/n-HT20: 2412 ~ 2462MHz	
Channel Number:	802.11b/g/n-HT20: 11	
Type of Modulation:	02.11b: DSSS	
	802.11g/n: OFDM	
Data Rate:	802.11b: 1/2/5.5/11Mbps	
	802.11g: 6/9/12/18/24/36/48/54Mbps	
	802.11n: up to 135Mbps	

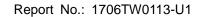
Note: For other features of this EUT, test report will be issued separately.

## 2.4. Description of Available Antennas

Antenna Type	Manufacturer	Part No.	Max Peak Gain (dBi)
PCB Embedded	Ethertronics, Inc.	1004075	2.4GHz: 3.3, 5GHz: 5.1
Antenna		1004078	2.4GHz: 3.4, 5GHz: 4.2

FCC ID: N6C-SDMAN Page Number: 7 of 158

IC: 4908B-SDMAN





## 2.5. Operating Frequency and Channel List

Channel	Frequency	Channel	Frequency	Channel	Frequency
01	2412 MHz	02	2417 MHz	03	2422 MHz
04	2427 MHz	05	2432 MHz	06	2437 MHz
07	2442 MHz	08	2447 MHz	09	2452 MHz
10	2457 MHz	11	2462 MHz		

#### 2.6. Test Mode

Test Mode	Mode 1: Transmit by 802.11b
	Mode 2: Transmit by 802.11g
	Mode 3: Transmit by 802.11n-HT20

## 2.7. Test Configuration

The **SDIO Wireless Module** was tested per the guidance of KDB 558074 D01v04. ANSI C63.10-2013 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.

## 2.8. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.



#### 3. DESCRIPTION of TEST

#### Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GHz absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. A MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable. For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. For frequencies below 30MHz, a calibrated loop antenna was used. When exploratory measurements were necessary, they were performed at 1 meter test distance inside the semi-anechoic chamber using broadband antennas, broadband amplifiers, and spectrum analyzers to determine the frequencies and modes producing the maximum emissions. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up for frequencies below 1GHz was placed on top of the 0.8 meter high, 1 x 1.5 meter table; and test set-up for frequencies 1-40GHz was placed on top of the 1.5 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, which produced the worst-case emissions. According to 3dB Beam-Width of horn antenna, the horn antenna should be always directed to the EUT when rising height.



## 4. TEST EQUIPMENT CALIBRATION DATE

Conducted Test Equipment - SR1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Due Date
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	2018/07/11
X-Series USB Peak and Average Power Sensor	KEYSIGHT	U2021XA	MRTTWA00014	2018/03/18
Programmable Temperature & Humidity Chamber	TEN BILLION	TTH-B3UP	MRTTWA00036	2018/05/11
Temperature/Humidity Meter	TFA	35.1078.10.IT	MRTTWA00033	2018/06/09

Radiated Spurious Emission and Radiated Restricted Band Edge - AC1

Instrument	Manufacturer	Type No.	Asset No.	Cali. Due Date
Acitve Loop Antenna	SCHWARZBECK	FMZB 1519B	MRTTWA00002	2018.04.06
Broadband TRILOG Antenna	SCHWARZBECK	VULB 9162	MRTTWA00001	2018.04.06
Broadband Hornantenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	2018.04.06
Breitband Hornantenna	SCHWARZBECK	BBHA 9170	MRTTWA00004	2018.04.06
Broadband Preamplifier	SCHWARZBECK	BBV 9718	MRTTWA00005	2018.04.06
Broadband Amplifier	SCHWARZBECK	BBV 9721	MRTTWA00006	2018.04.06
Signal Analyzer	R&S	FSV40	MRTTWA00007	2018.03.02
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	2018.07.11
Antenna Cable	HUBERSUHNER	SF106	MRTTWE00010	2018.05.20

Software	Version	Function	
e3	V 8.3.5	EMI Test Software	



#### **MEASUREMENT UNCERTAINTY** 5.

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

#### Radiated Emission Measurement - AC1

Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):

9kHz ~ 1GHz: 4.18dB 1GHz ~ 40GHz: 4.76dB

#### Output Power - SR1

Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):

1.13dB

FCC ID: N6C-SDMAN Page Number: 11 of 158



## 6. TEST RESULT

## 6.1. Summary

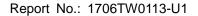
Product Name: SDIO Wireless Module

FCC Classification: Digital Transmission System (DTS)

Data Rate / MCS 1Mbps for 802.11b;
Tested: 6Mbps for 802.11g;

MCS0 for 802.11n-HT20;

Rule(s)	Test Description	Test Limit	Test Condition	Test Result	Reference
15.247(b) (3)	Output Power	Conducted Output Power ≤ 30dBm	Conducted	Pass	Section
RSS-247[5.4(d)]	Output Fower	E.I.R.P ≤ 36dBm	Conducted		6.2
FCC 15.205,	General Field	Emissions in			
FCC 15.209	Strength Limits	restricted bands		Pass	Section
	(Restricted Bands	must meet the	Radiated		6.3 & 6.4
RSS-247[5.5]	and Radiated	radiated limits			
	Emission Limits)	detailed in 15.209			





## **6.2. Output Power Measurement**

#### 6.2.1.Test Limit

The maximum conducted output power shall be exceed 1 Watt (30dBm) and the E.I.R.P shall not exceed 4 Watt (36dBm)

#### 6.2.2.Test Procedure Used

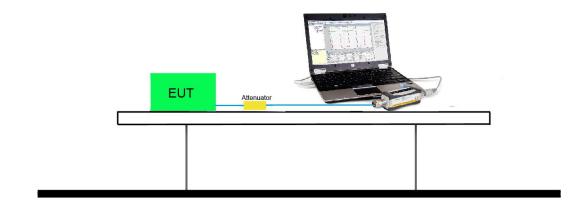
ANSI C63.10 Section 11.9.2.3

## 6.2.3.Test Setting

#### Average Power Measurement

Average power measurements were perform only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter. The trace was averaged over 100 traces to obtain the final measured average power.

#### 6.2.4.Test Setup





## 6.2.5.Test Result of Output Power

Product	SDIO Wireless Module	Temperature	25°C
Test Engineer	est Engineer Kevin Ker		52%
Test Site	SR1	Test Date	2017/07/19

## Peak Power \_ Ant 0 Port

Test Mode	Channel	Freq.	Conducted Power	Limit	E.I.R.P.	E.I.R.P. Limit	Result
	No.	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	
11b	01	2412	15.41	≤ 30.00	18.71	≤ 36.00	Pass
11b	06	2437	16.29	≤ 30.00	19.59	≤ 36.00	Pass
11b	11	2462	16.75	≤ 30.00	20.05	≤ 36.00	Pass
11g	01	2412	18.31	≤ 30.00	21.61	≤ 36.00	Pass
11g	06	2437	20.24	≤ 30.00	23.54	≤ 36.00	Pass
11g	11	2462	18.76	≤ 30.00	22.06	≤ 36.00	Pass
11n-HT20	01	2412	17.84	≤ 30.00	21.14	≤ 36.00	Pass
11n-HT20	06	2437	20.73	≤ 30.00	24.03	≤ 36.00	Pass
11n-HT20	11	2462	18.14	≤ 30.00	21.44	≤ 36.00	Pass

Note: E.I.R.P. (dBm) = Conducted Power (dBm) + Antenna Gain (dBi), Antenna Gain = 3.3 dBi.

## **Average Power \_ Ant 0 Port**

Test Mode	Channel No.	Freq. (MHz)	Conducted Power (dBm)	Limit (dBm)	E.I.R.P. (dBm)	E.I.R.P. Limit (dBm)	Result
11b	01	2412	14.05	≤ 30.00	17.35	≤ 36.00	Pass
11b	06	2437	14.96	≤ 30.00	18.26	≤ 36.00	Pass
11b	11	2462	15.44	≤ 30.00	18.74	≤ 36.00	Pass
11g	01	2412	8.65	≤ 30.00	11.95	≤ 36.00	Pass
11g	06	2437	10.37	≤ 30.00	13.67	≤ 36.00	Pass
11g	11	2462	8.95	≤ 30.00	12.25	≤ 36.00	Pass
11n-HT20	01	2412	7.26	≤ 30.00	10.56	≤ 36.00	Pass
11n-HT20	06	2437	10.46	≤ 30.00	13.76	≤ 36.00	Pass
11n-HT20	11	2462	7.37	≤ 30.00	10.67	≤ 36.00	Pass

Note: E.I.R.P. (dBm) = Conducted Power (dBm) + Antenna Gain (dBi), Antenna Gain = 3.3 dBi.

Page Number: 14 of 158



## Peak Power \_ Ant 1 Port

Test Mode	Channel	Freq.	Conducted Power	Limit	E.I.R.P.	E.I.R.P. Limit	Result
	No.	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	
11b	01	2412	15.47	≤ 30.00	18.87	≤ 36.00	Pass
11b	06	2437	16.27	≤ 30.00	19.67	≤ 36.00	Pass
11b	11	2462	16.49	≤ 30.00	19.89	≤ 36.00	Pass
11g	01	2412	18.16	≤ 30.00	21.56	≤ 36.00	Pass
11g	06	2437	21.79	≤ 30.00	25.19	≤ 36.00	Pass
11g	11	2462	18.43	≤ 30.00	21.83	≤ 36.00	Pass
11n-HT20	01	2412	17.82	≤ 30.00	21.22	≤ 36.00	Pass
11n-HT20	06	2437	20.57	≤ 30.00	23.97	≤ 36.00	Pass
11n-HT20	11	2462	18.92	≤ 30.00	22.32	≤ 36.00	Pass

Note: E.I.R.P. (dBm) = Conducted Power (dBm) + Antenna Gain (dBi), Antenna Gain = 3.4 dBi.

## **Average Power \_ Ant 1 Port**

Test Mode	Channel	Freq.	Conducted Power	Limit	E.I.R.P.	E.I.R.P. Limit	Result
	No.	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	
11b	01	2412	14.02	≤ 30.00	17.42	≤ 36.00	Pass
11b	06	2437	14.86	≤ 30.00	18.26	≤ 36.00	Pass
11b	11	2462	15.07	≤ 30.00	18.47	≤ 36.00	Pass
11g	01	2412	8.28	≤ 30.00	11.68	≤ 36.00	Pass
11g	06	2437	10.66	≤ 30.00	14.06	≤ 36.00	Pass
11g	11	2462	8.53	≤ 30.00	11.93	≤ 36.00	Pass
11n-HT20	01	2412	7.35	≤ 30.00	10.75	≤ 36.00	Pass
11n-HT20	06	2437	10.43	≤ 30.00	13.83	≤ 36.00	Pass
11n-HT20	11	2462	7.29	≤ 30.00	10.69	≤ 36.00	Pass

Note: E.I.R.P. (dBm) = Conducted Power (dBm) + Antenna Gain (dBi), Antenna Gain = 3.4 dBi.



## 6.3. Radiated Spurious Emission Measurement

#### 6.3.1. Test Limit

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209								
Frequency [MHz]	Field Strength [uV/m]	Measured Distance [Meters]						
0.009 - 0.490	2400/F (kHz)	300						
0.490 - 1.705	24000/F (kHz)	30						
1.705 - 30	30	30						
30 - 88	100	3						
88 - 216	150	3						
216 - 960	200	3						
Above 960	500	3						

#### 6.3.2. Test Procedure Used

KDB 558074 D01v04 - Section 12.2.3 (quasi-peak measurements)

KDB 558074 D01v04 - Section 12.2.4 (peak power measurements)

KDB 558074 D01v04 - Section 12.2.5 (average power measurements)

## 6.3.3. Test Setting

#### **Peak Field Strength Measurements**

- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2. RBW = as specified in Table 1
- 3.VBW = 3MHz
- 4. Detector = peak
- 5. Sweep time = auto couple



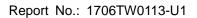
- 6. Trace mode = max hold
- 7. Trace was allowed to stabilize

Table 1 - RBW as a function of frequency

Frequency	RBW
9 ~ 150 kHz	200 ~ 300 Hz
0.15 ~ 30 MHz	9 ~ 10 kHz
30 ~ 1000 MHz	100 ~ 120 kHz
> 1000 MHz	1 MHz

## **Average Field Strength Measurements**

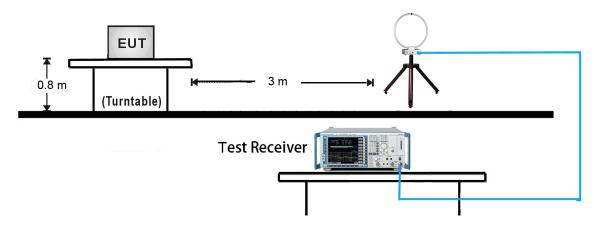
- 1. Analyzer center frequency was set to the frequency of the radiated spurious emission of interest
- 2.RBW = 1MHz
- 3. VBW ≥ 1/T
- 4. De As an alternative, the instrument may be set to linear detector mode. Ensure that video filtering is applied in linear voltage domain (rather than in a log or dB domain). Some instruments require linear display mode in order to accomplish this. Others have a setting for Average-VBW Type, which can be set to "Voltage" regardless of the display mode
- 5. Detector = Peak
- 6. Sweep time = auto
- 7. Trace mode = max hold
- 8. Allow max hold to run for at least 50 times (1/duty cycle) traces



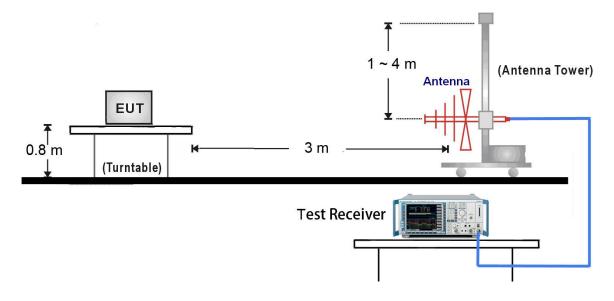


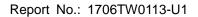
## 6.3.4. Test Setup

## 9kHz ~ 30MHz Test Setup:



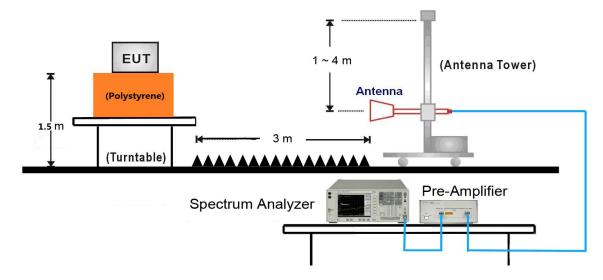
## 30MHz ~ 1GHz Test Setup:



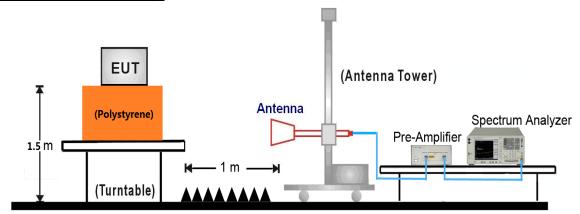




## 1GHz ~ 18GHz Test Setup:



## 18GHz ~25GHz Test Setup:





#### 6.3.5. Test Result

## For Model: RP2D

Test Mode:	802.11b - Ant 0	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Kevin					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4825.0	35.5	3.7	39.2	74.0	-34.8	Peak	Horizontal
	5360.5	32.3	3.9	36.2	74.0	-37.8	Peak	Horizontal
*	7239.0	32.1	12.2	44.3	74.2	-29.9	Peak	Horizontal
*	10282.0	29.8	16.5	46.3	74.2	-27.9	Peak	Horizontal
	4825.0	36.3	3.7	40.0	74.0	-34.0	Peak	Vertical
	5400.2	31.7	4.0	35.7	74.0	-38.3	Peak	Vertical
*	7239.0	31.9	12.2	44.1	74.2	-30.1	Peak	Vertical
*	10392.5	30.4	16.9	47.3	74.2	-26.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (94.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Test Mode:	802.11b - Ant 0	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Kevin					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4876.0	35.7	3.7	39.4	74.0	-34.6	Peak	Horizontal
	5432.1	32.2	4.1	36.3	74.0	-37.7	Peak	Horizontal
*	7307.0	32.6	12.3	44.9	76.3	-31.4	Peak	Horizontal
*	10375.5	30.6	16.9	47.5	76.3	-28.8	Peak	Horizontal
	4876.0	36.2	3.7	39.9	74.0	-34.1	Peak	Vertical
	5394.5	33.2	4.0	37.2	74.0	-36.8	Peak	Vertical
*	7315.5	33.5	12.3	45.8	76.3	-30.5	Peak	Vertical
*	9746.5	33.4	14.8	48.2	76.3	-28.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (96.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



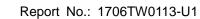


Test Mode:	802.11b - Ant 0	Test Site:	AC1						
Test Channel:	11	Test Engineer:	Kevin						
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average							
	limit.								
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show								
	in the report.								

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4927.0	38.9	3.7	42.6	74.0	-31.4	Peak	Horizontal
	11038.5	30.5	18.5	49.0	74.0	-25.0	Peak	Horizontal
*	14532.0	28.4	23.0	51.4	74.0	-22.6	Peak	Horizontal
*	16572.0	26.9	22.3	49.2	74.0	-24.8	Peak	Horizontal
	4927.0	38.6	3.7	42.3	74.0	-31.7	Peak	Vertical
	11336.0	28.8	19.0	47.8	74.0	-26.2	Peak	Vertical
*	14149.5	27.5	23.0	50.5	74.0	-23.5	Peak	Vertical
*	16342.5	27.9	21.2	49.1	74.0	-24.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.5dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)





Test Mode:	802.11g - Ant 0	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Kevin					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7519.5	30.6	12.8	43.4	74.0	-30.6	Peak	Horizontal
	11565.5	28.6	19.5	48.1	74.0	-25.9	Peak	Horizontal
*	14141.0	26.3	23.0	49.3	74.0	-24.7	Peak	Horizontal
*	16504.0	26.9	21.9	48.8	74.0	-25.2	Peak	Horizontal
	7264.5	30.6	12.3	42.9	74.0	-31.1	Peak	Vertical
	11242.5	28.6	18.8	47.4	74.0	-26.6	Peak	Vertical
*	13792.5	28.2	22.1	50.3	74.0	-23.7	Peak	Vertical
*	16274.5	27.7	21.0	48.7	74.0	-25.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (92.9dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11g - Ant 0	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Kevin					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7315.5	33.1	12.3	45.4	74.0	-28.6	Peak	Horizontal
*	11081.0	29.8	18.6	48.4	74.0	-25.6	Peak	Horizontal
	13741.5	27.0	22.0	49.0	75.4	-26.4	Peak	Horizontal
	16631.5	27.3	22.6	49.9	75.4	-25.5	Peak	Horizontal
*	4867.5	34.7	3.7	38.4	74.0	-35.6	Peak	Vertical
*	11574.0	28.2	19.5	47.7	74.0	-26.3	Peak	Vertical
	14073.0	26.3	22.8	49.1	75.4	-26.3	Peak	Vertical
	16334.0	28.2	21.2	49.4	75.4	-26.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (95.4dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11g - Ant 0	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Kevin					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4927.0	34.6	3.7	38.3	74.0	-35.7	Peak	Horizontal
	11030.0	29.6	18.5	48.1	74.0	-25.9	Peak	Horizontal
*	13792.5	27.9	22.1	50.0	74.0	-24.0	Peak	Horizontal
*	16648.5	28.8	22.8	51.6	74.0	-22.4	Peak	Horizontal
	4927.0	34.1	3.7	37.8	74.0	-36.2	Peak	Vertical
	11055.5	29.1	18.5	47.6	74.0	-26.4	Peak	Vertical
*	14098.5	27.0	22.9	49.9	74.0	-24.1	Peak	Vertical
*	16512.5	27.1	21.9	49.0	74.0	-25.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (92.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Kevin					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4723.0	34.0	3.6	37.6	74.0	-36.4	Peak	Horizontal
	11064.0	29.4	18.5	47.9	74.0	-26.1	Peak	Horizontal
*	14234.5	27.9	23.1	51.0	74.0	-23.0	Peak	Horizontal
*	16512.5	29.0	21.9	50.9	74.0	-23.1	Peak	Horizontal
	4825.0	34.0	3.7	37.7	74.0	-36.3	Peak	Vertical
	10690.0	30.2	17.4	47.6	74.0	-26.4	Peak	Vertical
*	14141.0	27.6	23.0	50.6	74.0	-23.4	Peak	Vertical
*	16563.5	27.8	22.2	50.0	74.0	-24.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (92.5dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



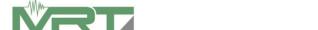
Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Kevin					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4867.5	34.6	3.7	38.3	74.0	-35.7	Peak	Horizontal
	11030.0	29.3	18.5	47.8	74.0	-26.2	Peak	Horizontal
*	13801.0	27.4	22.1	49.5	75.6	-26.1	Peak	Horizontal
*	16359.5	28.5	21.3	49.8	75.6	-25.8	Peak	Horizontal
	4876.0	35.7	3.7	39.4	74.0	-34.6	Peak	Vertical
	11132.0	29.3	18.6	47.9	74.0	-26.1	Peak	Vertical
*	13733.0	28.1	22.0	50.1	75.6	-25.5	Peak	Vertical
*	16631.5	27.6	22.6	50.2	75.6	-25.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (95.6dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Page Number: 28 of 158

Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1						
Test Channel:	11	Test Engineer:	Kevin						
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average							
	limit.								
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.								

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8131.5	30.9	12.2	43.1	74.0	-30.9	Peak	Horizontal
	11548.5	28.5	19.4	47.9	74.0	-26.1	Peak	Horizontal
*	14183.5	27.1	23.1	50.2	74.0	-23.8	Peak	Horizontal
*	16351.0	28.2	21.3	49.5	74.0	-24.5	Peak	Horizontal
	4927.0	35.3	3.7	39.0	74.0	-35.0	Peak	Vertical
	10987.5	29.1	18.5	47.6	74.0	-26.4	Peak	Vertical
*	13869.0	26.0	22.3	48.3	74.0	-25.7	Peak	Vertical
*	16589.0	26.2	22.4	48.6	74.0	-25.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (92.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11b - Ant 1	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Kevin					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4825.0	34.5	3.7	38.2	74.0	-35.8	Peak	Horizontal
	5437.0	33.6	4.1	37.7	74.0	-36.3	Peak	Horizontal
*	7239.0	32.4	12.2	44.6	74.0	-29.4	Peak	Horizontal
*	13597.0	27.0	21.8	48.8	74.0	-25.2	Peak	Horizontal
	4825.0	35.8	3.7	39.5	74.0	-34.5	Peak	Vertical
	5428.5	32.7	4.1	36.8	74.0	-37.2	Peak	Vertical
*	7239.0	31.9	12.2	44.1	74.0	-29.9	Peak	Vertical
*	13614.0	27.3	21.8	49.1	74.0	-24.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.4dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11b - Ant 1	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Kevin					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4876.0	35.9	3.7	39.6	74.0	-34.4	Peak	Horizontal
	7315.5	32.4	12.3	44.7	74.0	-29.3	Peak	Horizontal
*	13699.0	26.7	22.0	48.7	77.3	-28.6	Peak	Horizontal
*	16487.0	27.6	21.8	49.4	77.3	-27.9	Peak	Horizontal
	4876.0	36.9	3.7	40.6	74.0	-33.4	Peak	Vertical
	7307.0	33.2	12.3	45.5	74.0	-28.5	Peak	Vertical
*	13784.0	27.7	22.1	49.8	77.3	-27.5	Peak	Vertical
*	16410.5	28.7	21.5	50.2	77.3	-27.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (97.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Test Mode:	802.11b - Ant 1	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Kevin					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4927.0	38.8	3.7	42.5	74.0	-31.5	Peak	Horizontal
	11055.5	29.1	18.5	47.6	74.0	-26.4	Peak	Horizontal
*	13563.0	28.4	21.8	50.2	74.0	-23.8	Peak	Horizontal
*	16512.5	28.2	21.9	50.1	74.0	-23.9	Peak	Horizontal
	4927.0	38.6	3.7	42.3	74.0	-31.7	Peak	Vertical
	11259.5	28.9	18.8	47.7	74.0	-26.3	Peak	Vertical
*	13563.0	27.5	21.8	49.3	74.0	-24.7	Peak	Vertical
*	16504.0	27.6	21.9	49.5	74.0	-24.5	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.5dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11g - Ant 1	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Kevin					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4825.0	33.9	3.7	37.6	74.0	-36.4	Peak	Horizontal
	11353.0	28.5	19.0	47.5	74.0	-26.5	Peak	Horizontal
*	13716.0	26.8	22.0	48.8	74.0	-25.2	Peak	Horizontal
*	16436.0	28.9	21.6	50.5	74.0	-23.5	Peak	Horizontal
	8148.5	31.5	12.1	43.6	74.0	-30.4	Peak	Vertical
	11812.0	28.5	18.7	47.2	74.0	-26.8	Peak	Vertical
*	14090.0	27.2	22.8	50.0	74.0	-24.0	Peak	Vertical
*	16393.5	28.6	21.5	50.1	74.0	-23.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (92.4dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11g - Ant 1	Test Site:	AC1				
Test Channel:	06	Test Engineer:	Kevin				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4884.5	34.8	3.7	38.5	74.0	-35.5	Peak	Horizontal
	11302.0	28.5	18.9	47.4	74.0	-26.6	Peak	Horizontal
*	14124.0	27.6	23.0	50.6	75.4	-24.8	Peak	Horizontal
*	16563.5	27.6	22.2	49.8	75.4	-25.6	Peak	Horizontal
	8199.5	32.0	12.0	44.0	74.0	-30.0	Peak	Vertical
	11523.0	27.6	19.4	47.0	74.0	-27.0	Peak	Vertical
*	13741.5	26.9	22.0	48.9	75.4	-26.5	Peak	Vertical
*	16334.0	27.7	21.2	48.9	75.4	-26.5	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (95.4dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11g - Ant 1	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Kevin					
Remark:	1. Average measurement was not performed if peak level lower than average							
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8072.0	31.1	12.4	43.5	74.0	-30.5	Peak	Horizontal
	11336.0	29.9	19.0	48.9	74.0	-25.1	Peak	Horizontal
*	13724.5	27.5	22.0	49.5	74.0	-24.5	Peak	Horizontal
*	16640.0	28.5	22.7	51.2	74.0	-22.8	Peak	Horizontal
	4927.0	34.6	3.7	38.3	74.0	-35.7	Peak	Vertical
	9491.5	32.4	14.4	46.8	74.0	-27.2	Peak	Vertical
*	13809.5	29.3	22.1	51.4	74.0	-22.6	Peak	Vertical
*	16580.5	29.1	22.3	51.4	74.0	-22.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (91.9dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Kevin					
Remark:	1. Average measurement was not performed if peak level lower than average							
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8055.0	31.5	12.5	44.0	74.0	-30.0	Peak	Horizontal
	11072.5	29.6	18.6	48.2	74.0	-25.8	Peak	Horizontal
*	14090.0	27.5	22.8	50.3	74.0	-23.7	Peak	Horizontal
*	16631.5	29.4	22.6	52.0	74.0	-22.0	Peak	Horizontal
	8072.0	31.0	12.4	43.4	74.0	-30.6	Peak	Vertical
	11157.5	29.1	18.7	47.8	74.0	-26.2	Peak	Vertical
*	13801.0	27.7	22.1	49.8	74.0	-24.2	Peak	Vertical
*	16623.0	28.2	22.6	50.8	74.0	-23.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (92.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)





Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1				
Test Channel:	06	Test Engineer:	Kevin				
Remark:	1. Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4876.0	34.2	3.7	37.9	74.0	-36.1	Peak	Horizontal
	11030.0	29.5	18.5	48.0	74.0	-26.0	Peak	Horizontal
*	14175.0	27.0	23.1	50.1	75.2	-25.1	Peak	Horizontal
*	16648.5	28.0	22.8	50.8	75.2	-24.4	Peak	Horizontal
	4876.0	35.5	3.7	39.2	74.0	-34.8	Peak	Vertical
	7307.0	32.0	12.3	44.3	74.0	-29.7	Peak	Vertical
*	13741.5	28.3	22.0	50.3	75.2	-24.9	Peak	Vertical
*	16716.5	28.9	23.1	52.0	75.2	-23.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (95.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1						
Test Channel:	11	Test Engineer: Kevin							
Remark:	1. Average measurement was no	t performed if peak	level lower than average						
	limit.								
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.								

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4927.0	35.3	3.7	39.0	74.0	-35.0	Peak	Horizontal
	11047.0	28.9	18.5	47.4	74.0	-26.6	Peak	Horizontal
*	14166.5	27.4	23.1	50.5	74.0	-23.5	Peak	Horizontal
*	16759.0	28.3	23.4	51.7	74.0	-22.3	Peak	Horizontal
	4918.5	35.3	3.7	39.0	74.0	-35.0	Peak	Vertical
	10987.5	30.3	18.5	48.8	74.0	-25.2	Peak	Vertical
*	13716.0	28.6	22.0	50.6	74.0	-23.4	Peak	Vertical
*	16640.0	28.3	22.7	51.0	74.0	-23.0	Peak	Vertical

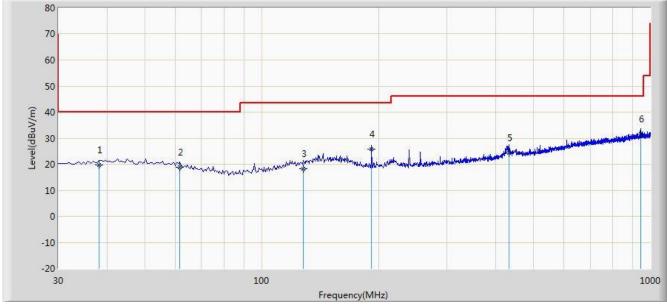
Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (91.5dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



### The worst case of Radiated Emission below 1GHz:

Worst Mode: Transmit by 802.11b at Channel 2412Ml	Hz
EUT: Thermal Printer	Power: AC 120V/60Hz
Probe: VULB9162_0.03GHz_8GHz	Polarity: Horizontal
Limit: NCC LP0002_30MHz-1GHz	Engineer: Kevin
Site: AC1	Time: 2017/07/19 - 23:44



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			38.245	19.594	6.056	-20.406	40.000	13.537	QP
2			61.525	18.829	5.160	-21.171	40.000	13.670	QP
3			127.970	18.191	7.846	-25.309	43.500	10.345	QP
4			191.990	25.674	13.640	-17.826	43.500	12.034	QP
5			432.065	24.452	7.064	-21.548	46.000	17.388	QP
6		*	944.225	31.610	6.856	-14.390	46.000	24.754	QP

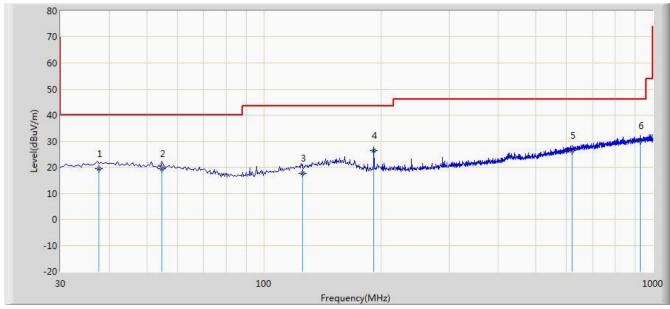
Note 1: Measure Level  $(dB\mu V/m)$  = Reading Level  $(dB\mu V)$  + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range:  $9kHz \sim 30MHz$ ,  $18GHz \sim 25GHz$ ), therefore no data appear in the report.



Site: AC1	Time: 2017/07/19 - 23:56
Limit: NCC LP0002_30MHz-1GHz	Engineer: Kevin
Probe: VULB9162_0.03GHz_8GHz	Polarity: Vertical
EUT: Thermal Printer	Power: AC 120V/60Hz
Worst Mode: Transmit by 802.11b at Channel 2412MF	<del>.</del> <del>I</del> z



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			37.760	19.478	6.031	-20.522	40.000	13.447	QP
2			54.735	19.333	4.566	-20.667	40.000	14.767	QP
3			126.030	17.637	7.130	-25.863	43.500	10.507	QP
4			191.990	26.263	14.229	-17.237	43.500	12.034	QP
5			620.730	26.414	5.833	-19.586	46.000	20.581	QP
6		*	927.250	30.259	5.640	-15.741	46.000	24.619	QP

Note 1: Measure Level  $(dB\mu V/m)$  = Reading Level  $(dB\mu V)$  + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 25GHz), therefore no data appear in the report.



### For Model: RP4D

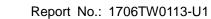
Test Mode:	802.11b - Ant 0	Test Site:	AC1						
Test Channel:	01	1 Test Engineer: Kevin Ker							
Remark:	Average measurement was no limit.	t performed if peak	level lower than average						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4825.0	39.8	3.7	36.1	74.0	-34.2	Peak	Horizontal
	8114.5	42.6	12.2	30.4	74.0	-31.4	Peak	Horizontal
*	8777.5	44.9	13.9	31.0	74.0	-29.1	Peak	Horizontal
*	9908.0	46.6	15.3	31.3	74.0	-27.4	Peak	Horizontal
	4825.0	39.0	3.7	35.3	74.0	-35.0	Peak	Vertical
	7494.0	43.8	12.8	31.0	74.0	-30.2	Peak	Vertical
*	8905.0	44.7	14.0	30.7	74.0	-29.3	Peak	Vertical
*	9806.0	47.0	15.2	31.8	74.0	-27.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.5dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



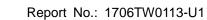


Test Mode:	802.11b - Ant 0	Test Site:	AC1					
Test Channel:	06	Test Engineer: Kevin Ker						
Remark:	1. Average measurement was no	t performed if peak	level lower than average					
	limit.							
	2. Other frequency was 20dB bel	ow limit line within 1	-18GHz, there is not show					
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4876.0	40.9	3.7	37.2	74.0	-33.1	Peak	Horizontal
	7502.5	43.3	12.8	30.5	74.0	-30.7	Peak	Horizontal
*	8854.0	42.9	14.0	28.9	75.1	-32.2	Peak	Horizontal
*	9814.5	46.8	15.4	31.4	75.1	-28.3	Peak	Horizontal
	4876.0	40.2	3.7	36.5	74.0	-33.8	Peak	Vertical
	7426.0	43.6	12.7	30.9	74.0	-30.4	Peak	Vertical
*	8854.0	43.5	14.0	29.5	75.1	-31.6	Peak	Vertical
*	9806.0	46.5	15.2	31.3	75.1	-28.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (95.1dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)





Test Mode:	802.11b - Ant 0	Test Site:	AC1					
Test Channel:	11	Test Engineer: Kevin Ker						
Remark:	1. Average measurement was no	t performed if peak	evel lower than average					
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4927.0	42.8	3.7	39.1	74.0	-31.2	Peak	Horizontal
	7562.0	44.3	12.8	31.5	74.0	-29.7	Peak	Horizontal
*	8743.5	44.2	13.9	30.3	76.6	-32.4	Peak	Horizontal
*	9882.5	46.5	15.6	30.9	76.6	-30.1	Peak	Horizontal
	4927.0	39.5	3.7	35.8	74.0	-34.5	Peak	Vertical
	7528.0	44.5	12.8	31.7	74.0	-29.5	Peak	Vertical
*	8650.0	45.6	13.6	32.0	76.6	-31.0	Peak	Vertical
*	9823.0	46.2	15.6	30.6	76.6	-30.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (96.6dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



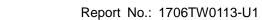


Test Mode:	802.11g - Ant 0	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4757.0	38.1	3.7	34.4	74.0	-35.9	Peak	Horizontal
	7494.0	44.2	12.8	31.4	74.0	-29.8	Peak	Horizontal
*	8811.5	44.7	14.0	30.7	74.2	-29.5	Peak	Horizontal
*	9738.0	46.1	14.8	31.3	74.2	-28.1	Peak	Horizontal
	4757.0	37.8	3.7	34.1	74.0	-36.2	Peak	Vertical
	8174.0	43.4	12.0	31.4	74.0	-30.6	Peak	Vertical
*	8769.0	43.9	13.9	30.0	74.2	-30.3	Peak	Vertical
*	9916.5	46.2	15.3	30.9	74.2	-28.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (94.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)





Test Mode:	802.11g - Ant 0	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4867.5	40.2	3.7	36.5	74.0	-33.8	Peak	Horizontal
	8242.0	44.7	11.9	32.8	74.0	-29.3	Peak	Horizontal
*	8913.5	44.2	14.0	30.2	74.0	-29.8	Peak	Horizontal
*	9814.5	46.4	15.4	31.0	74.0	-27.6	Peak	Horizontal
	4876.0	37.7	3.7	34.0	74.0	-36.3	Peak	Vertical
	8225.0	43.1	11.9	31.2	74.0	-30.9	Peak	Vertical
*	8692.5	44.2	13.7	30.5	74.0	-29.8	Peak	Vertical
*	9814.5	45.8	15.4	30.4	74.0	-28.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.6dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Page Number: 45 of 158

Test Mode:	802.11g - Ant 0	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4927.0	38.6	3.7	34.9	74.0	-35.4	Peak	Horizontal
	7477.0	44.2	12.8	31.4	74.0	-29.8	Peak	Horizontal
*	8811.5	44.0	14.0	30.0	74.2	-30.2	Peak	Horizontal
*	9755.0	46.8	14.8	32.0	74.2	-27.4	Peak	Horizontal
	4757.0	38.5	3.7	34.8	74.0	-35.5	Peak	Vertical
	7468.5	44.5	12.8	31.7	74.0	-29.5	Peak	Vertical
*	8701.0	43.1	13.8	29.3	74.2	-31.1	Peak	Vertical
*	9806.0	45.8	15.2	30.6	74.2	-28.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (94.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



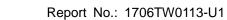


Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1						
Test Channel:	01	Test Engineer:	Kevin Ker						
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average							
	limit.								
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show								
	in the report.								

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4706.0	38.0	3.6	34.4	74.0	-36.0	Peak	Horizontal
	7477.0	43.6	12.8	30.8	74.0	-30.4	Peak	Horizontal
*	8743.5	44.4	13.9	30.5	74.1	-29.7	Peak	Horizontal
*	9823.0	46.7	15.6	31.1	74.1	-27.4	Peak	Horizontal
	4757.0	38.6	3.7	34.9	74.0	-35.4	Peak	Vertical
	8165.5	44.0	12.1	31.9	74.0	-30.0	Peak	Vertical
*	8684.0	44.6	13.7	30.9	74.1	-29.5	Peak	Vertical
*	9806.0	46.5	15.2	31.3	74.1	-27.4	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (94.1dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)





Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4876.0	40.1	3.7	36.4	74.0	-33.9	Peak	Horizontal
	8412.0	44.2	12.3	31.9	74.0	-29.8	Peak	Horizontal
*	8794.5	43.3	13.9	29.4	74.0	-30.7	Peak	Horizontal
*	9797.5	46.7	15.1	31.6	74.0	-27.3	Peak	Horizontal
	4876.0	38.4	3.7	34.7	74.0	-35.6	Peak	Vertical
	8174.0	43.9	12.0	31.9	74.0	-30.1	Peak	Vertical
*	8845.5	43.6	14.0	29.6	74.0	-30.4	Peak	Vertical
*	9797.5	47.1	15.1	32.0	74.0	-26.9	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)





Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4765.5	38.6	3.7	34.9	74.0	-35.4	Peak	Horizontal
	7494.0	44.5	12.8	31.7	74.0	-29.5	Peak	Horizontal
*	8845.5	44.5	14.0	30.5	74.3	-29.8	Peak	Horizontal
*	9789.0	46.1	15.0	31.1	74.3	-28.2	Peak	Horizontal
	4927.0	38.4	3.7	34.7	74.0	-35.6	Peak	Vertical
	8157.0	43.9	12.1	31.8	74.0	-30.1	Peak	Vertical
*	8828.5	44.4	14.0	30.4	74.3	-29.9	Peak	Vertical
*	9789.0	46.3	15.0	31.3	74.3	-28.0	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (94.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)





Test Mode:	802.11b - Ant 1	Test Site:	AC1					
Test Channel:	01	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4825.0	39.0	3.7	35.3	74.0	-35.0	Peak	Horizontal
	8208.0	43.9	11.9	32.0	74.0	-30.1	Peak	Horizontal
*	8845.5	44.8	14.0	30.8	74.2	-29.4	Peak	Horizontal
*	9797.5	46.5	15.1	31.4	74.2	-27.7	Peak	Horizontal
	4825.0	39.8	3.7	36.1	74.0	-34.2	Peak	Vertical
	8276.0	43.5	11.9	31.6	74.0	-30.5	Peak	Vertical
*	8803.0	44.8	14.0	30.8	74.2	-29.4	Peak	Vertical
*	9806.0	47.0	15.2	31.8	74.2	-27.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (94.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Test Mode:	802.11b - Ant 1	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4876.0	41.6	3.7	37.9	74.0	-32.4	Peak	Horizontal
	8259.0	44.0	11.9	32.1	74.0	-30.0	Peak	Horizontal
*	8913.5	45.1	14.0	31.1	74.0	-28.9	Peak	Horizontal
*	9797.5	45.8	15.1	30.7	74.0	-28.2	Peak	Horizontal
	4876.0	40.1	3.7	36.4	74.0	-33.9	Peak	Vertical
	8199.5	43.9	12.0	31.9	74.0	-30.1	Peak	Vertical
*	8845.5	44.5	14.0	30.5	74.0	-29.5	Peak	Vertical
*	9797.5	46.7	15.1	31.6	74.0	-27.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.3dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Page Number: 51 of 158

Test Mode:	802.11b - Ant 1	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4927.0	42.8	3.7	39.1	74.0	-31.2	Peak	Horizontal
	8276.0	44.5	11.9	32.6	74.0	-29.5	Peak	Horizontal
*	8837.0	45.1	14.0	31.1	76.5	-31.4	Peak	Horizontal
*	9789.0	47.0	15.0	32.0	76.5	-29.5	Peak	Horizontal
	4927.0	40.1	3.7	36.4	74.0	-33.9	Peak	Vertical
	8089.0	43.5	12.3	31.2	74.0	-30.5	Peak	Vertical
*	8794.5	44.1	13.9	30.2	76.5	-32.4	Peak	Vertical
*	9806.0	46.2	15.2	31.0	76.5	-30.3	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (96.5dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)





Test Mode:	802.11g - Ant 1	Test Site:	AC1						
Test Channel:	01	Test Engineer:	Kevin Ker						
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average							
	limit.								
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show								
	in the report.								

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4757.0	39.2	3.7	35.5	74.0	-34.8	Peak	Horizontal
	8352.5	45.2	12.0	33.2	74.0	-28.8	Peak	Horizontal
*	8718.0	44.5	13.8	30.7	74.0	-29.5	Peak	Horizontal
*	9763.5	46.6	14.9	31.7	74.0	-27.4	Peak	Horizontal
	4638.0	38.5	3.3	35.2	74.0	-35.5	Peak	Vertical
	8276.0	43.8	11.9	31.9	74.0	-30.2	Peak	Vertical
*	8820.0	44.5	14.0	30.5	74.0	-29.5	Peak	Vertical
*	9755.0	46.4	14.8	31.6	74.0	-27.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (92.7dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)





Test Mode:	802.11g - Ant 1	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4876.0	38.9	3.7	35.2	74.0	-35.1	Peak	Horizontal
	8165.5	42.5	12.1	30.4	74.0	-31.5	Peak	Horizontal
*	8786.0	44.2	13.9	30.3	74.0	-29.8	Peak	Horizontal
*	9738.0	46.4	14.8	31.6	74.0	-27.6	Peak	Horizontal
	4748.5	38.5	3.7	34.8	74.0	-35.5	Peak	Vertical
	7842.5	44.4	12.4	32.0	74.0	-29.6	Peak	Vertical
*	8726.5	44.5	13.8	30.7	74.0	-29.5	Peak	Vertical
*	9814.5	46.4	15.4	31.0	74.0	-27.6	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.1dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre\_Amplifier Gain (dB)



Test Mode:	802.11g - Ant 1	Test Site:	AC1					
Test Channel:	11	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4757.0	38.5	3.7	34.8	74.0	-35.5	Peak	Horizontal
	8165.5	44.0	12.1	31.9	74.0	-30.0	Peak	Horizontal
*	8820.0	44.3	14.0	30.3	75.8	-31.5	Peak	Horizontal
*	9738.0	45.9	14.8	31.1	75.8	-29.9	Peak	Horizontal
	4757.0	37.9	3.7	34.2	74.0	-36.1	Peak	Vertical
	8123.0	44.2	12.2	32.0	74.0	-29.8	Peak	Vertical
*	8735.0	44.6	13.9	30.7	75.8	-31.2	Peak	Vertical
*	9823.0	46.7	15.6	31.1	75.8	-29.1	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (95.8dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1				
Test Channel:	01	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4748.5	38.5	3.7	34.8	74.0	-35.5	Peak	Horizontal
	8242.0	44.1	11.9	32.2	74.0	-29.9	Peak	Horizontal
*	8760.5	44.1	13.9	30.2	74.0	-29.9	Peak	Horizontal
*	9772.0	46.9	14.9	32.0	74.0	-27.1	Peak	Horizontal
	4748.5	38.2	3.7	34.5	74.0	-35.8	Peak	Vertical
	8233.5	43.7	11.9	31.8	74.0	-30.3	Peak	Vertical
*	8837.0	45.2	14.0	31.2	74.0	-28.8	Peak	Vertical
*	9823.0	46.2	15.6	30.6	74.0	-27.8	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.0dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1					
Test Channel:	06	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4876.0	39.7	3.7	36.0	74.0	-34.3	Peak	Horizontal
	8157.0	43.9	12.1	31.8	74.0	-30.1	Peak	Horizontal
*	8922.0	44.9	14.0	30.9	74.0	-29.1	Peak	Horizontal
*	9823.0	46.9	15.6	31.3	74.0	-27.1	Peak	Horizontal
	4876.0	39.5	3.7	35.8	74.0	-34.5	Peak	Vertical
	8165.5	43.5	12.1	31.4	74.0	-30.5	Peak	Vertical
*	8879.5	44.6	14.0	30.6	74.0	-29.4	Peak	Vertical
*	9755.0	45.8	14.8	31.0	74.0	-28.2	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (93.2dBµV/m) or FCC 15.209 which is higher.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)



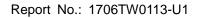
Page Number: 57 of 158

Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1				
Test Channel:	11	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	4927.0	39.2	3.7	35.5	74.0	-34.8	Peak	Horizontal
	8259.0	43.6	11.9	31.7	74.0	-30.4	Peak	Horizontal
*	8692.5	45.3	13.7	31.6	75.5	-30.2	Peak	Horizontal
*	9797.5	46.7	15.1	31.6	75.5	-28.8	Peak	Horizontal
	4723.0	38.1	3.6	34.5	74.0	-35.9	Peak	Vertical
	7511.0	44.0	12.8	31.2	74.0	-30.0	Peak	Vertical
*	8743.5	44.3	13.9	30.4	75.5	-31.2	Peak	Vertical
*	9797.5	46.8	15.1	31.7	75.5	-28.7	Peak	Vertical

Note 1: "\*" is not in restricted band, its limit is 20dBc of the fundamental emission level (95.5dBµV/m) or FCC 15.209 which is higher.

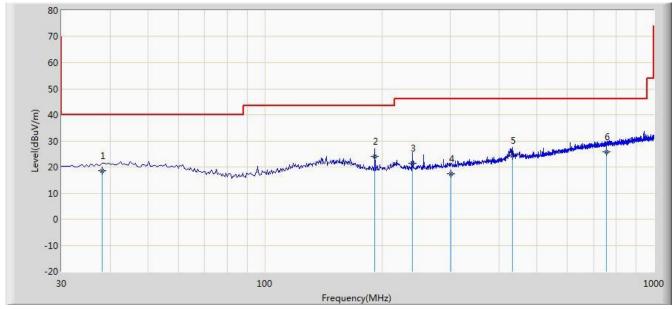
Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)





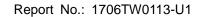
# The worst case of Radiated Emission below 1GHz:

Site: AC1	Time: 2017/07/28 - 11:40			
Limit: NCC LP0002_30MHz-1GHz	Engineer: Kevin Ker			
Probe: VULB9162_0.03GHz_8GHz	Polarity: Horizontal			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Worst Mode: Transmit by 802.11b at Channel 2412MHz				



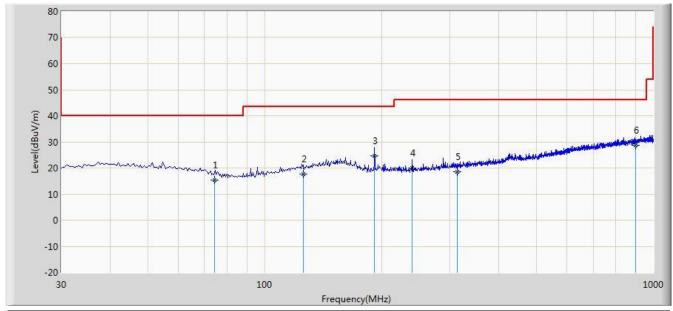
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			38.245	18.603	5.065	-21.397	40.000	13.537	QP
2		*	191.990	23.978	11.944	-19.522	43.500	12.034	QP
3			239.520	21.478	7.926	-24.522	46.000	13.553	QP
4			300.250	17.361	2.595	-28.639	46.000	14.766	QP
5			432.065	24.400	7.012	-21.600	46.000	17.388	QP
6			756.560	25.856	3.250	-20.144	46.000	22.606	QP

Note: Measure Level (dB $\mu$ V/m) = Reading Level (dB $\mu$ V) + Factor (dB)





Site: AC1	Time: 2017/07/28 - 11:40			
Limit: NCC LP0002_30MHz-1GHz	Engineer: Kevin Ker			
Probe: VULB9162_0.03GHz_8GHz	Polarity: Vertical			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Worst Mode: Transmit by 802.11b at Channel 2412MHz				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			74.260	15.220	5.260	-24.780	40.000	9.960	QP
2			125.650	17.789	7.250	-25.711	43.500	10.539	QP
3			191.990	24.759	12.725	-18.741	43.500	12.034	QP
4			240.005	19.929	6.362	-26.071	46.000	13.567	QP
5			312.650	18.411	3.333	-27.589	46.000	15.078	QP
6		*	902.030	28.664	4.221	-17.336	46.000	24.443	QP



# 6.4. Radiated Restricted Band Edge Measurement

### 6.4.1. Test Limit

## For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

, , , ,	The radiated emission	<u> </u>	(-)
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (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	8.25 - 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 - 156.525	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> )
13.36 - 13.41		-	

All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47 CFR must not exceed the limits per Section FCC 15.209.



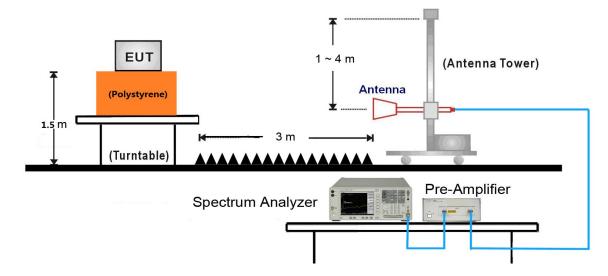


### 6.4.2. Test Procedure Used

KDB 558074 D01v04 - Section 12.2.4 (peak power measurements)

KDB 558074 D01v04 - Section 12.2.5 (average power measurements)

# 6.4.3. Test Setup

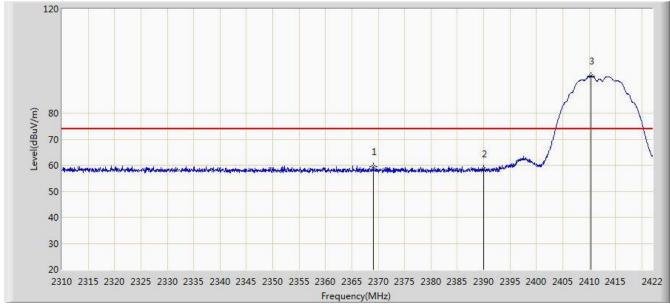




### 6.4.4. Test Result

## For Model: RP2D

Site: AC1	Time: 2017/07/19 - 01:46		
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker		
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal		
EUT: Thermal Printer	Power: AC 120V/60Hz		
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 0			



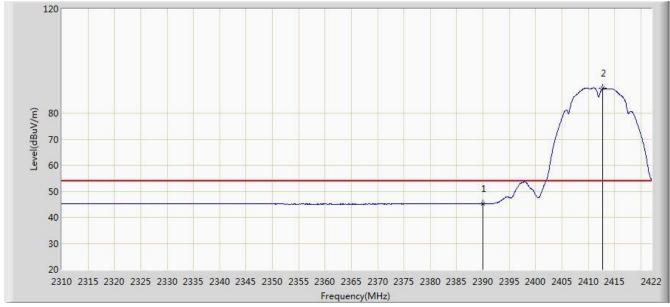
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2369.136	59.349	26.766	-14.651	74.000	32.583	PK
2			2390.000	58.440	25.886	-15.560	74.000	32.554	PK
3		*	2410.352	94.177	61.649	N/A	N/A	32.528	PK

Note: Measure Level ( $dB\mu V/m$ ) = Reading Level ( $dB\mu V$ ) + Factor (dB)





Site: AC1	Time: 2017/07/19 - 01:50			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 0				

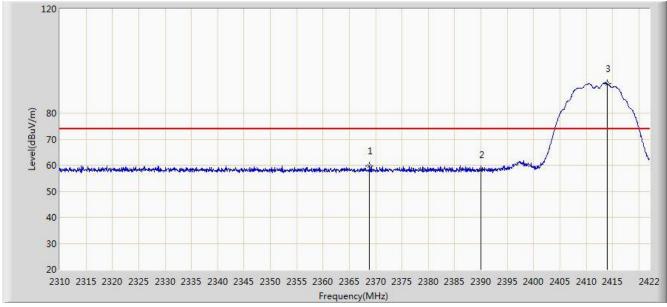


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.209	12.655	-8.791	54.000	32.554	AV
2		*	2412.760	89.423	56.898	N/A	N/A	32.525	AV

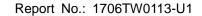




Site: AC1	Time: 2017/07/19 - 01:50			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 0				

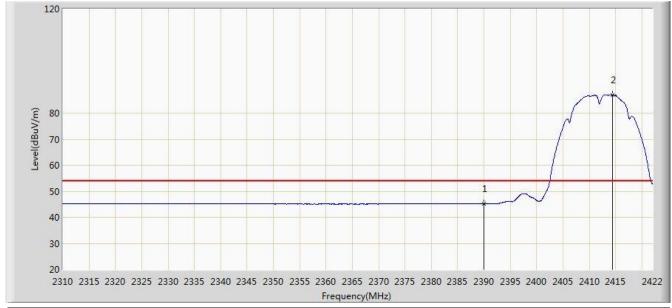


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2368.856	59.649	27.065	-14.351	74.000	32.584	PK
2			2390.000	58.191	25.637	-15.809	74.000	32.554	PK
3		*	2413.936	91.301	58.778	N/A	N/A	32.523	PK





Site: AC1	Time: 2017/07/19 - 01:52			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 0				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.174	12.620	-8.826	54.000	32.554	AV
2		*	2414.440	86.970	54.447	N/A	N/A	32.523	AV





Site: AC1	Time: 2017/07/19 - 01:52			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 0				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2463.544	93.488	60.967	N/A	N/A	32.521	PK
2			2483.500	58.873	26.292	-15.127	74.000	32.580	PK
3			2487.064	60.517	27.926	-13.483	74.000	32.592	PK





Site: AC1	Time: 2017/07/19 - 01:56			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 0				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2464.816	88.901	56.376	N/A	N/A	32.525	AV
2			2483.500	45.397	12.816	-8.603	54.000	32.580	AV





Site: AC1	Time: 2017/07/19 - 01:56			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 0				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2463.616	91.007	58.486	N/A	N/A	32.521	PK
2			2483.500	58.479	25.898	-15.521	74.000	32.580	PK
3			2484.184	60.298	27.715	-13.702	74.000	32.582	PK





Site: AC1	Time: 2017/07/19 - 01:58			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 0				

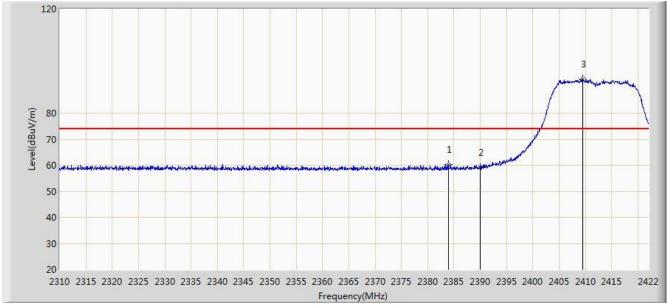


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2462.944	86.557	54.038	N/A	N/A	32.519	AV
2			2483.500	45.454	12.873	-8.546	54.000	32.580	AV





Site: AC1	Time: 2017/07/19 - 01:59			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11g at channel 2412MHz Ant 0				

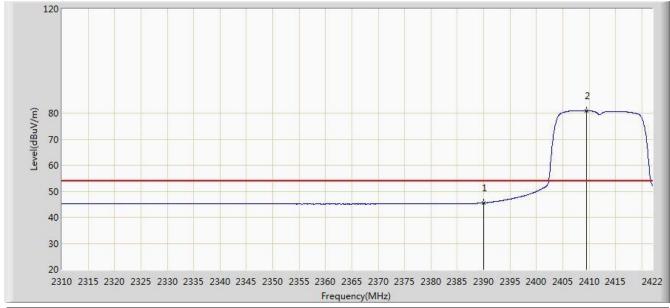


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2383.920	60.164	27.601	-13.836	74.000	32.563	PK
2			2390.000	59.260	26.706	-14.740	74.000	32.554	PK
3		*	2409.568	92.920	60.391	N/A	N/A	32.529	PK

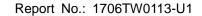




Site: AC1	Time: 2017/07/19 - 02:05				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2412MHz Ant 0					

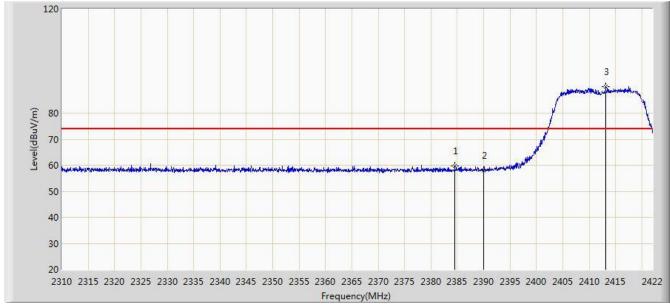


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.530	12.976	-8.470	54.000	32.554	AV
2		*	2409.568	80.846	48.317	N/A	N/A	32.529	AV





Site: AC1	Time: 2017/07/19 - 02:06				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2412MHz Ant 0					

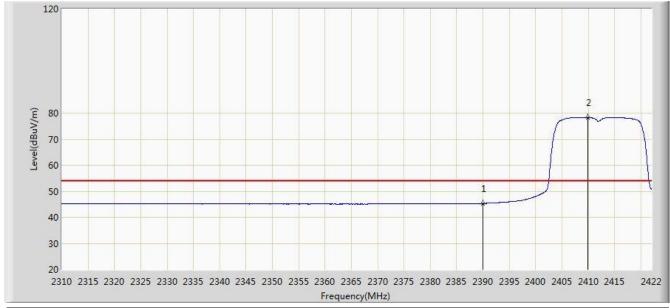


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2384.536	59.653	27.091	-14.347	74.000	32.561	PK
2			2390.000	57.993	25.439	-16.007	74.000	32.554	PK
3		*	2413.152	90.186	57.662	N/A	N/A	32.524	PK





Site: AC1	Time: 2017/07/19 - 02:07				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2412MHz Ant 0					

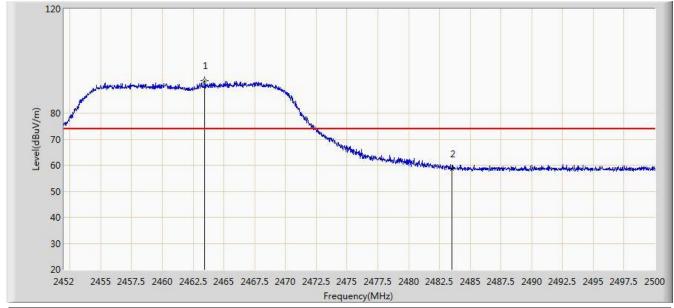


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.360	14.157	-8.640	54.000	31.203	AV
2		*	2409.904	78.256	47.083	N/A	N/A	31.173	AV





Site: AC1	Time: 2017/07/19 - 02:08				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2462MHz Ant 0					

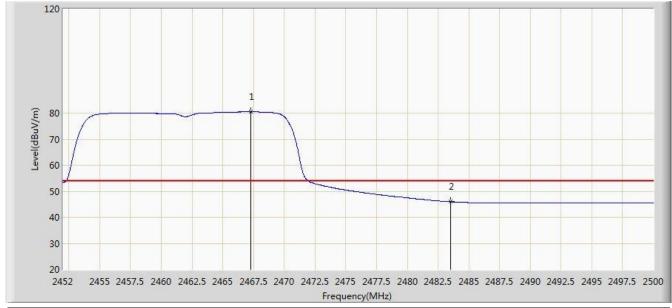


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2463.448	92.337	59.816	N/A	N/A	32.521	PK
2			2483.500	58.535	25.954	-15.465	74.000	32.580	PK





Site: AC1	Time: 2017/07/19 - 02:11				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2462MHz Ant 0					

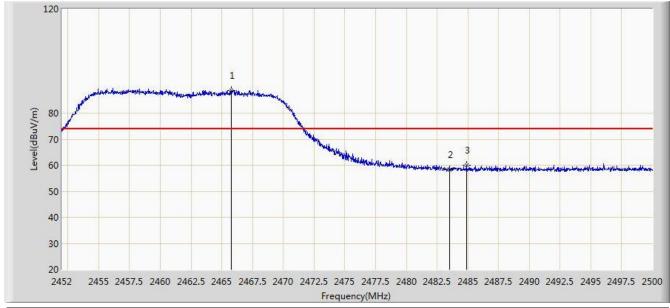


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2467.288	80.500	47.968	N/A	N/A	32.532	AV
2			2483.500	46.051	13.470	-7.949	54.000	32.580	AV





Site: AC1	Time: 2017/07/19 - 02:12				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2462MHz Ant 0					

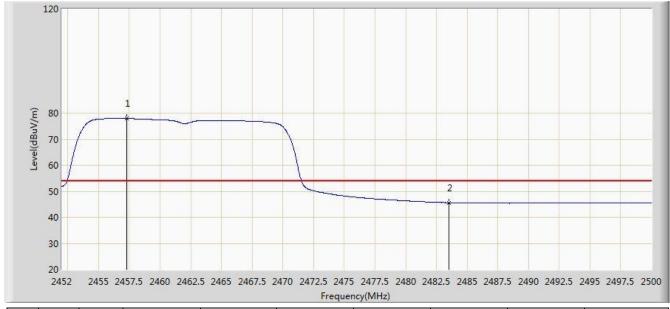


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2465.776	88.837	56.310	N/A	N/A	32.528	PK
2			2483.500	58.346	25.765	-15.654	74.000	32.580	PK
3			2484.880	59.897	27.312	-14.103	74.000	32.585	PK

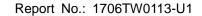




Site: AC1	Time: 2017/07/19 - 02:13				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2462MHz Ant 0					

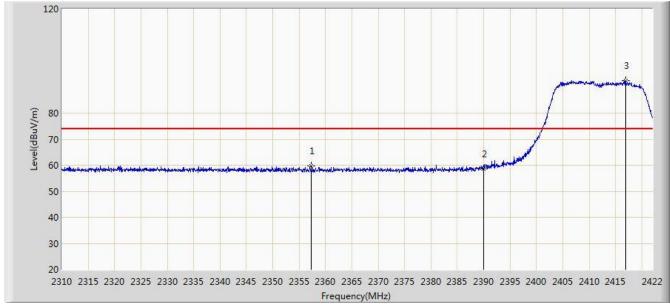


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2457.280	77.924	45.416	N/A	N/A	32.508	AV
2			2483.500	45.638	13.057	-8.362	54.000	32.580	AV





Site: AC1	Time: 2017/07/19 - 02:14				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz Ant 0					

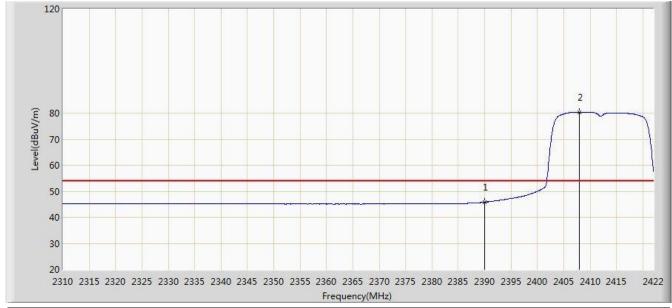


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2357.264	59.738	27.135	-14.262	74.000	32.603	PK
2			2390.000	58.626	26.072	-15.374	74.000	32.554	PK
3		*	2416.904	92.519	59.999	N/A	N/A	32.520	PK





Site: AC1	Time: 2017/07/19 - 02:17				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz Ant 0					

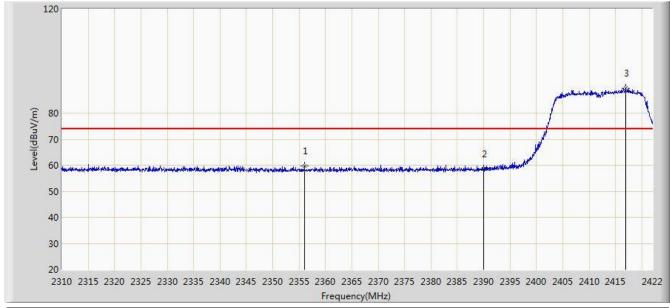


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.857	13.303	-8.143	54.000	32.554	AV
2		*	2408.000	80.385	47.854	N/A	N/A	32.530	AV





Site: AC1	Time: 2017/07/19 - 02:17				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz Ant 0					

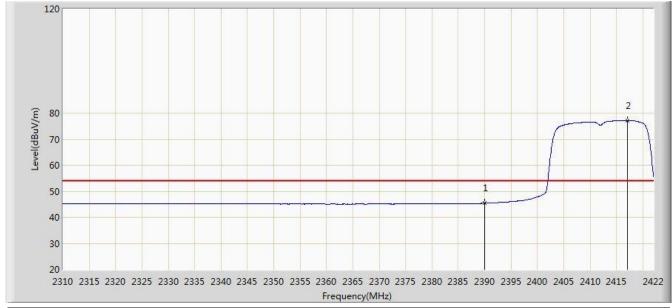


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2356.032	59.766	27.159	-14.234	74.000	32.607	PK
2			2390.000	58.579	26.025	-15.421	74.000	32.554	PK
3		*	2416.960	89.496	56.976	N/A	N/A	32.520	PK





Site: AC1	Time: 2017/07/19 - 02:19				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz Ant 0					

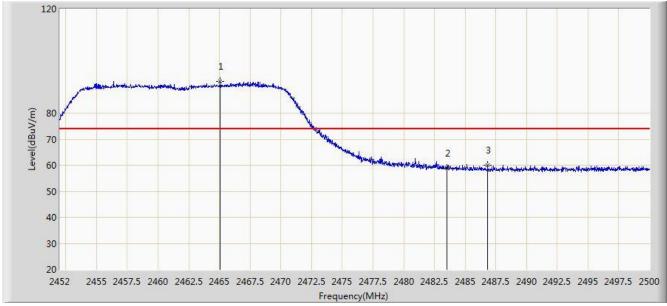


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.481	12.927	-8.519	54.000	32.554	AV
2		*	2417.072	77.202	44.682	N/A	N/A	32.519	AV

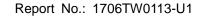




Site: AC1	Time: 2017/07/19 - 02:20				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz Ant 0					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2465.080	92.240	59.715	N/A	N/A	32.525	PK
2			2483.500	58.777	26.196	-15.223	74.000	32.580	PK
3			2486.848	59.995	27.404	-14.005	74.000	32.590	PK





Site: AC1	Time: 2017/07/19 - 02:22				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz Ant 0					

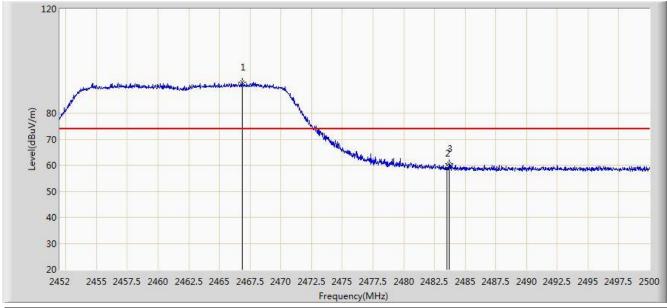


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2467.120	79.820	47.289	N/A	N/A	32.531	AV
2			2483.500	46.010	13.429	-7.990	54.000	32.580	AV





Site: AC1	Time: 2017/07/19 - 02:23				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz Ant 0					

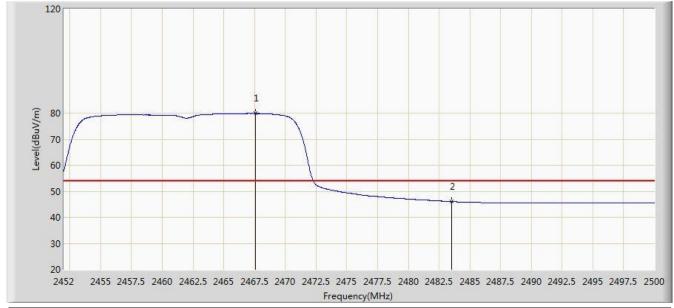


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2466.832	92.017	59.486	N/A	N/A	32.531	PK
2			2483.500	58.838	26.257	-15.162	74.000	32.580	PK
3			2483.728	60.688	28.107	-13.312	74.000	32.582	PK





Site: AC1	Time: 2017/07/19 - 02:25				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11n-HT20 at channel 2412MHz Ant 0					

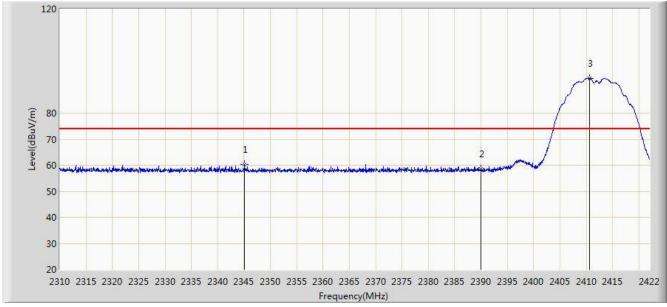


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2467.576	79.858	47.325	N/A	N/A	32.533	AV
2			2483.500	46.045	13.464	-7.955	54.000	32.580	AV

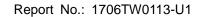




Site: AC1	Time: 2017/07/19 - 02:25				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 1					

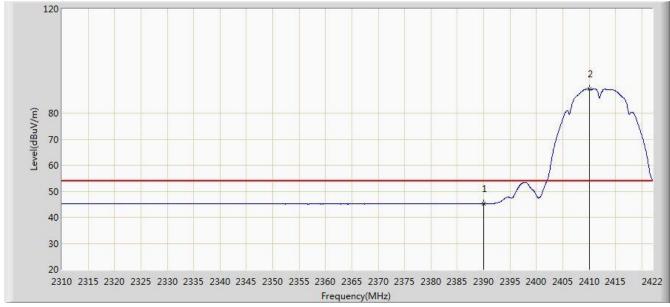


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2345.112	60.393	27.759	-13.607	74.000	32.634	PK
2			2390.000	58.409	25.855	-15.591	74.000	32.554	PK
3		*	2410.688	93.447	60.920	N/A	N/A	32.527	PK





Site: AC1	Time: 2017/07/19 - 02:28				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 1					

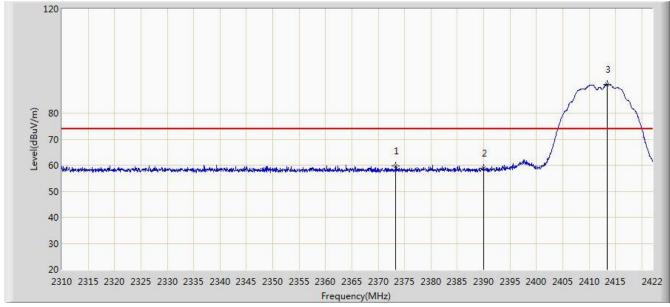


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.279	12.725	-8.721	54.000	32.554	AV
2		*	2410.072	89.164	56.636	N/A	N/A	32.528	AV





Site: AC1	Time: 2017/07/19 - 02:29				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 1					

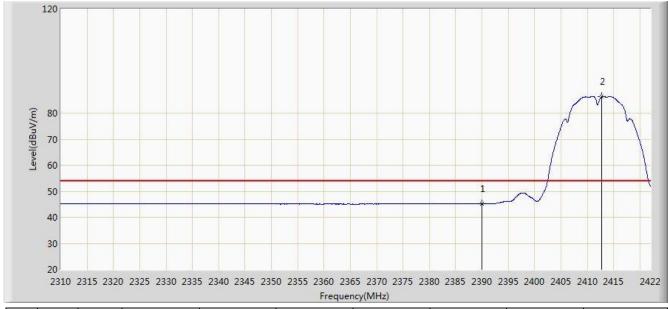


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2373.336	59.768	27.191	-14.232	74.000	32.577	PK
2			2390.000	58.815	26.261	-15.185	74.000	32.554	PK
3		*	2413.432	91.043	58.519	N/A	N/A	32.524	PK





Site: AC1	Time: 2017/07/19 - 02:30				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2412MHz Ant 1					

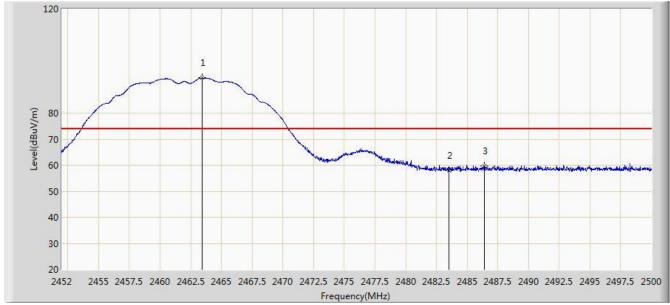


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.242	12.688	-8.758	54.000	32.554	AV
2		*	2412.760	86.338	53.813	N/A	N/A	32.525	AV

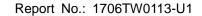




Site: AC1	Time: 2017/07/19 - 02:31				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2462MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2463.424	93.490	60.970	N/A	N/A	32.521	PK
2			2483.500	58.109	25.528	-15.891	74.000	32.580	PK
3			2486.392	59.643	27.054	-14.357	74.000	32.589	PK





Site: AC1	Time: 2017/07/19 - 02:33				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2462MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2464.432	88.835	56.312	N/A	N/A	32.523	AV
2			2483.500	45.500	12.919	-8.500	54.000	32.580	AV

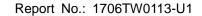




Site: AC1	Time: 2017/07/19 - 02:34				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2462MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2463.616	90.436	57.915	N/A	N/A	32.521	PK
2			2483.500	58.848	26.267	-15.152	74.000	32.580	PK
3			2487.208	59.932	27.340	-14.068	74.000	32.592	PK





Site: AC1	Time: 2017/07/19 - 02:36				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11b at channel 2462MHz Ant 1					

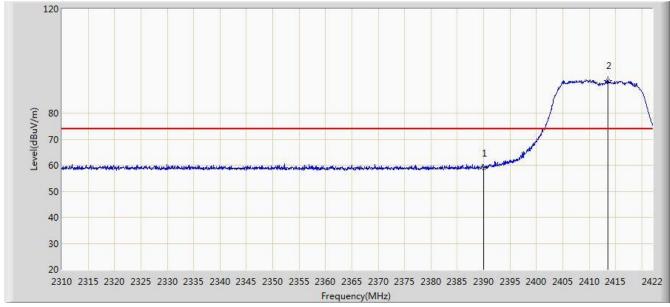


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2462.944	85.994	53.475	N/A	N/A	32.519	AV
2			2483.500	45.425	12.844	-8.575	54.000	32.580	AV





Site: AC1	Time: 2017/07/19 - 02:36				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2412MHz Ant 1					

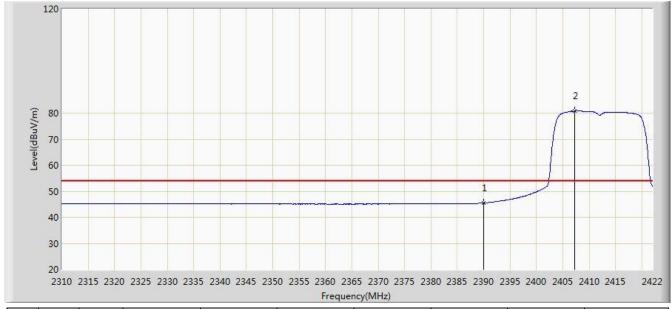


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	58.936	26.382	-15.064	74.000	32.554	PK
2		*	2413.600	92.423	59.899	N/A	N/A	32.524	PK





Site: AC1	Time: 2017/07/19 - 02:47				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2412MHz Ant 1					

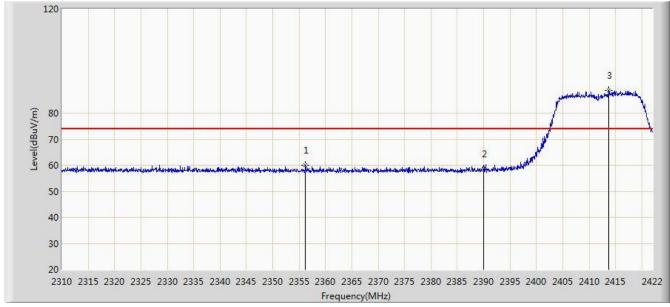


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.507	12.953	-8.493	54.000	32.554	AV
2		*	2407.328	80.751	48.219	N/A	N/A	32.532	AV

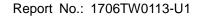




Site: AC1	Time: 2017/07/19 - 02:48				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: Thermal Printer	Power: AC 120V/60Hz				
Test Mode: Transmit by 802.11g at channel 2412MHz Ant 1					

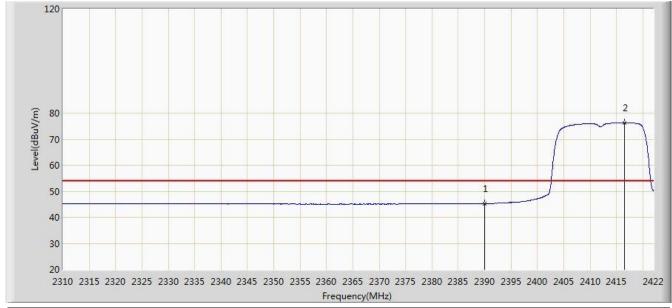


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2356.200	59.883	27.277	-14.117	74.000	32.606	PK
2			2390.000	58.410	25.856	-15.590	74.000	32.554	PK
3		*	2413.712	88.773	56.249	N/A	N/A	32.523	PK





Site: AC1	Time: 2017/07/19 - 02:49			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11g at channel 2412MHz Ant 1				

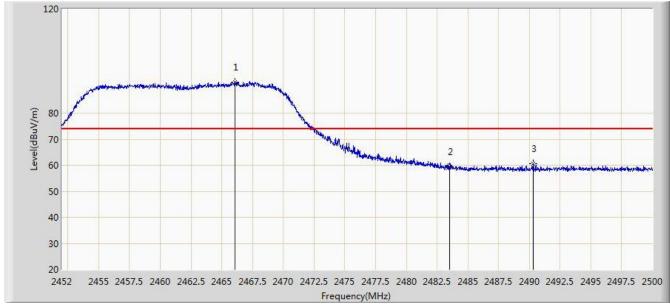


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			2390.000	45.239	12.685	-8.761	54.000	32.554	AV
2		*	2416.568	76.264	43.744	N/A	N/A	32.521	AV





Site: AC1	Time: 2017/07/19 - 02:50			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11g at channel 2462MHz Ant 1				

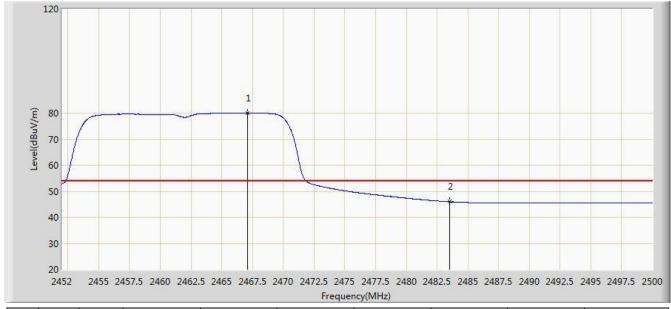


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2466.088	91.937	59.409	N/A	N/A	32.528	PK
2			2483.500	59.339	26.758	-14.661	74.000	32.580	PK
3			2490.328	60.645	28.044	-13.355	74.000	32.601	PK





Site: AC1	Time: 2017/07/19 - 02:53			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11g at channel 2462MHz Ant 1				

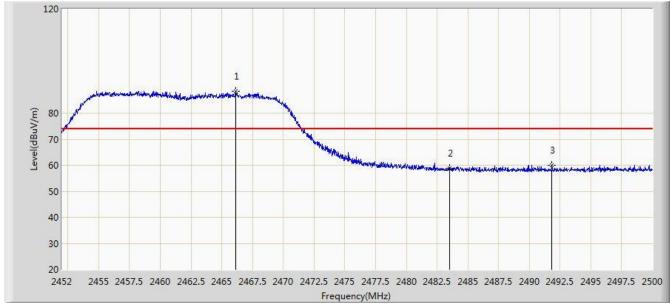


No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2467.120	80.141	47.610	N/A	N/A	32.531	AV
2			2483.500	45.961	13.380	-8.039	54.000	32.580	AV





Site: AC1	Time: 2017/07/19 - 02:53			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical			
EUT: Thermal Printer	Power: AC 120V/60Hz			
Test Mode: Transmit by 802.11g at channel 2462MHz Ant 1				



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	2466.136	88.310	55.782	N/A	N/A	32.528	PK
2			2483.500	58.824	26.243	-15.176	74.000	32.580	PK
3			2491.840	60.009	27.403	-13.991	74.000	32.605	PK