

Report No.: TB-FCC169402

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## **FCC Radio Test Report** FCC ID: 2AKUR-INDOOR-CAMERA

### **Original Grant**

Report No. TB-FCC169402

**Applicant** Hangzhou Jufeng Technology Co., Ltd.

**Equipment Under Test (EUT)** 

**EUT Name** Indoor camera

Model No. Indoor camera

N/A Series Model No.

**FPT Brand Name** 

**Receipt Date** 2019-10-09

2019-10-09 to 2019-12-01 **Test Date** 

**Issue Date** 2019-12-06

**Standards** FCC Part 15, Subpart C (15.247: 2019)

**Test Method** ANSI C63.10: 2013

**Conclusions PASS** 

In the configuration tested, the EUT complied with the standards specified above,

The EUT technically complies with the FCC and IC requirements

**Test/Witness Engineer** Garen

**Test/Witness Engineer** Ivan Su

Galen WAN SU Long La. Approved& Ray Lai **Authorized** 

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

TB-RF-074-1.0

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## **Revision History**

Report No.	Version	Description	Issued Date
TB-FCC169402	Rev.01	Initial issue of report	2019-12-06
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## 1. General Information about EUT

### 1.1 Client Information

Applicant	:	Hangzhou Jufeng Technology Co., Ltd.
Address		Building 9, Yinhu Innovation Center, No.9 Fuxian Road, Yinhu Street, Fuyang,Zhejiang, China
Manufacturer	Ŀ	Hangzhou Jufeng Technology Co., Ltd.
Address		Building 9, Yinhu Innovation Center, No.9 Fuxian Road, Yinhu Street, Fuyang,Zhejiang, China

## 1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	Indoor camera		
Models No.	: Indoor camera			
D COURT	5	Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz	
TOPS IN		Number of Channel:	802.11b/g/n(HT20):11 channels see note(3) 802.11n(HT40):7 channels see note(3)	
Product Description		RF Output Power:	802.11b: 15.68 dBm 802.11g: 14.54 dBm 802.11n (HT20): 13.74 dBm 802.11n (HT40): 12.80 dBm	
1000		Antenna Gain:	3dBi FPC Antenna	
		Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK,QPSK,16QAM,64QAM)	
		Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n:up to 150Mbps	
Power Rating		Adapter model:CS-1201000 Input: AC 100-240V, 50/60Hz 0.5A Output: DC 12V,1A		
SoftwareVersion		General_FPT_Telecom_IPC_HI3516CV300_53H20L_FPT_8188EU_V4.03.R		
Hardware Version		XMDZ-FPT-HL-38X38-SD-WIFI V2.01		
Connecting I/O Port(S)	8	Please refer to the User's Manual		
Remark	:	The antenna gain provided by the applicant, the verified for the RF conduction test provided by TOBY test lab.		



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#### Note:

(1) This Test Report is FCC Part 15.247 for 802.11b/g/n, the test procedure follows the FCC KDB 558074 D01 DTS Meas Guidance v05.

(2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



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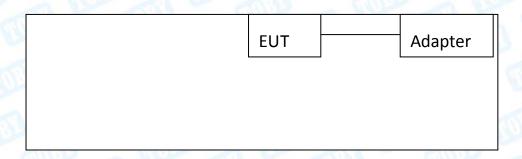
### (3) Channel List:

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

Note: CH 01~CH 11 for 802.11b/g/n(HT20) CH 03~CH 9 for 802.11n(HT40)

- (4) The Antenna information about the equipment is provided by the applicant.
- 1.3 Block Diagram Showing the Configuration of System Tested

#### TX Mode





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### 1.4 Description of Support Units

Equipment Information					
Name	Manufacturer	Note			
ADAPTER	SAN-05015	CHILD IN		Accessories	
Test board	L100_POWER_REV1.1	TO THE PERSON WITH THE PERSON	Shenzhen BOJINGnet Technology Co., Ltd	Accessories	

### 1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For Conducted Test			
Final Test Mode Description			
Mode 1	Power Supply with TX B Mode		

For Radiated Test				
Final Test Mode Description				
Mode 2 TX Mode B Mode Channel 01/06/11				
Mode 3 TX Mode G Mode Channel 01/06/11				
Mode 4 TX Mode N(HT20) Mode Channel 01/06/11				
Mode 5 TX Mode N(HT40) Mode Channel 03/06/09				

#### Note:

(1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

According to ANSI C63.10 standards, the measurements are performed at the highest, Middle, lowest available channels, and the worst case data rate as follows:

802.11b Mode: CCK (1 Mbps) 802.11g Mode: OFDM (6 Mbps)

802.11n (HT20) Mode: MCS 0 (6.5 Mbps) 802.11n (HT40) Mode: MCS 0 (13 Mbps)

(2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.



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(3) The EUT is mobile unit; in normal use it was positioned on X-plane. The worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.



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### 1.6 Description of Test Software Setting

During testing channel&Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN.

Test Software Version		n/a	
Channel	CH 01	CH 06	CH 11
IEEE 802.11b DSSS	15	15	15
IEEE 802.11g OFDM	17	17	17
IEEE 802.11n (HT20)	17	17	17
Test Software Version	The same	n/a	The same of the same
Channel	CH 03	CH 06	CH 09
IEEE 802.11n (HT40)	18	18	18

### 1.7 Measurement Uncertainty

The reported uncertainty of measurement y  $\pm$  U, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty (U <sub>Lab</sub> )	
COLUMN TO THE REAL PROPERTY OF THE PERTY OF	Level Accuracy:		
Conducted Emission	9kHz~150kHz	±3.42 dB	
	150kHz to 30MHz	±3.42 dB	
Radiated Emission	Level Accuracy:	±4.60 dB	
Radiated Effission	9kHz to 30 MHz	±4.00 db	
Radiated Emission	Level Accuracy:	±4.40 dB	
Radiated Effission	30MHz to 1000 MHz		
Radiated Emission	Level Accuracy:	±4.20 dB	
Radiated Emission	Above 1000MHz	±4.20 UD	



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### 1.8 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

### CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

#### A2LA Certificate No.: 4750.01

The laboratory has been accredited by American Association for Laboratory Accreditation(A2LA) to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the technical competence in the field of Electrical Testing. And the A2LA Certificate No.: 4750.01. FCC Accredited Test Site Number: 854351.

### IC Registration No.: (11950A-1)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.



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## 2. Test Summary

FCC Part 15 Subpart C(15.247)/ RSS 247 Issue 2						
Standa	rd Section	Test Item	ludamont	Remark		
FCC	IC	rest item	Judgment	Remark		
15.203	1	Antenna Requirement	PASS	N/A		
15.207	RSS-GEN 7.2.4	Conducted Emission	PASS	N/A		
15.205	RSS-GEN 7.2.2	Restricted Bands	PASS	N/A		
15.247(a)(2)	RSS 247 5.2 (1)	6dB Bandwidth	PASS	N/A		
15.247(b)	RSS 247 5.4 (4)	Peak Output Power	PASS	N/A		
15.247(e)	RSS 247 5.2 (2)	Power Spectral Density	PASS	N/A		
15.247(d)	RSS 247 5.5	Band Edge	PASS	N/A		
15.247(d)& 15.209	RSS 247 5.5	Transmitter Radiated Spurious Emission	PASS	N/A		

N/A is an abbreviation for Not Applicable.

## **Test Software**

Í	Test Item	Test Software	Manufacturer	Version No.
	Conducted Emission	EZ-EMC	EZ	CDI-03A2
Ś	Radiation Emission	EZ-EMC	EZ	FA-03A2RE
	RF Conducted Measurement	MTS-8310	MWRFtest	V2.0.0.0



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## 3. Test Equipment

<b>Conducted Emiss</b>	ion Test				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 13, 2019	Jul. 12, 2020
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 13, 2019	Jul. 12, 2020
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 13, 2019	Jul. 12, 2020
LISN	Rohde & Schwarz	ENV216	101131	Jul. 13, 2019	Jul. 12, 2020
Radiation Emission	n Test		-		-
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 13, 2019	Jul. 12, 2020
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 13, 2019	Jul. 12, 2020
Spectrum Analyzer	Rohde & Schwarz	FSVR	1311.006K40-10094 5-DH	Feb. 10, 2019	Feb. 09, 2020
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Jan. 27, 2019	Jan. 26, 2020
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Jan. 27, 2019	Jan. 26, 2020
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.03, 2019	Mar. 02, 2020
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar.03, 2019	Mar. 02, 2020
Horn Antenna	ETS-LINDGREN	BBHA 9170	BBHA9170582	Mar.03, 2019	Mar. 02, 2020
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Jul. 13, 2019	Jul. 12, 2020
Pre-amplifier	Sonoma	310N	185903	Mar.04, 2019	Mar. 03, 2020
Pre-amplifier	HP	8449B	3008A00849	Mar.03, 2019	Mar. 02, 2020
Pre-amplifier	EMCI	EMC02325	980217	Mar.03, 2019	Mar. 02, 2020
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.03, 2019	Mar. 02, 2020
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A

#### Antenna Conducted Emission

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 13, 2019	Jul. 12, 2020
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 13, 2019	Jul. 12, 2020
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 16, 2019	Sep. 15, 2020
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 16, 2019	Sep. 15, 2020
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 16, 2019	Sep. 15, 2020
The state of the s	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Sep. 16, 2019	Sep. 15, 2020
DE Dawes Courses	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Sep. 16, 2019	Sep. 15, 2020
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Sep. 16, 2019	Sep. 15, 2020
	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Sep. 16, 2019	Sep. 15, 2020



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## 4. Conducted Emission Test

#### 4.1 Test Standard and Limit

4.1.1Test Standard FCC Part 15.207

#### 4.1.2 Test Limit

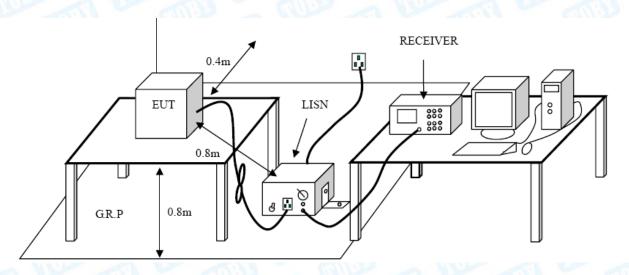
#### **Conducted Emission Test Limit**

Fraguency	Maximum RF Lin	e Voltage (dBμV)
Frequency	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

#### Notes:

- (1) \*Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

### 4.2 Test Setup



#### 4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/50uH of coupling impedance for the measuring instrument.



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Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

### 4.4 EUT Operating Mode

Please refer to the description of test mode.

#### 4.5 Test Data

Please refer to the Attachment A.



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## 5. Radiated Emission Test

### 5.1 Test Standard and Limit

5.1.1 Test Standard FCC Part 15.209

5.1.2 Test Limit

Radiated Emission Limits (9 kHz~1000 MHz)

· · ·	nated Ellission Ellints ( 5 ki	12 1000 111112)
Frequency (MHz	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

### Radiated Emission Limit (Above 1000MHz)

Frequency	Distance of 3	sm (dBuV/m)
(MHz)	Peak	Average
Above 1000	74	54

#### Note:

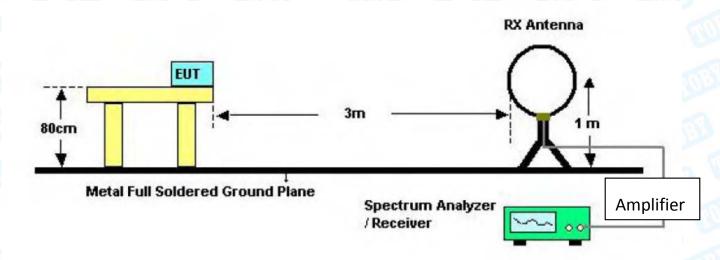
- (1) The tighter limit applies at the band edges.
- (2) Emission Level(dBuV/m)=20log Emission Level(uV/m)



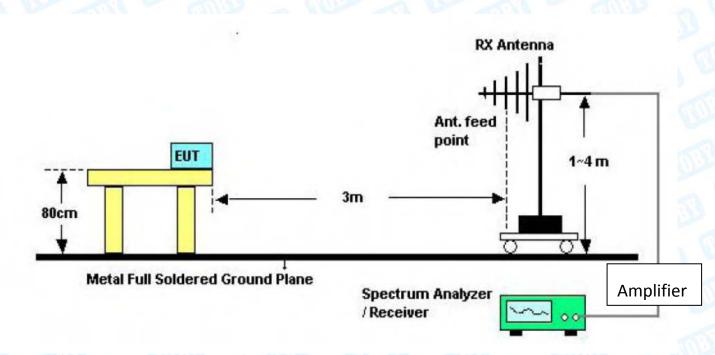
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## 5.2 Test Setup



Below 30MHz Test Setup

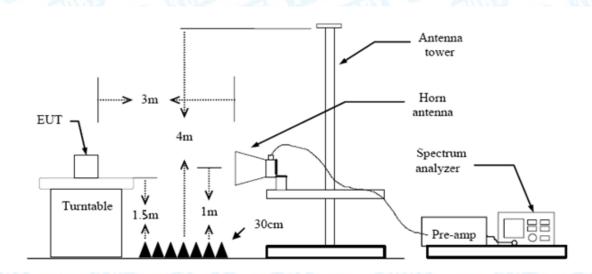


Below 1000MHz Test Setup



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Above 1GHz Test Setup

### 5.3 Test Procedure

- (1) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency Below 1GHz. The EUT was placed on a rotating 0.8m high above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.



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(8) For the actual test configuration, please see the test setup photo.

### 5.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

#### 5.5 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

Please refer to the Attachment B.



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## 6. Restricted Bands Requirement

#### 6.1 Test Standard and Limit

6.1.1 Test Standard

FCC Part 15.247(d)

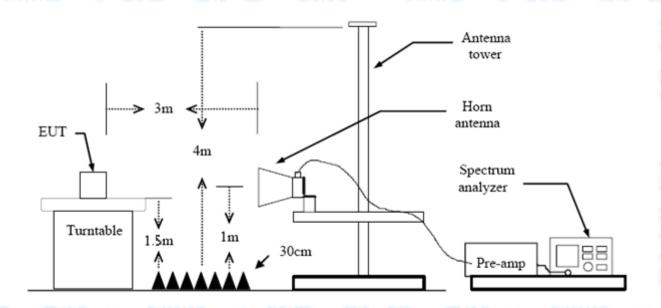
FCC Part 15.209

FCC Part 15.205

6.1.2 Test Limit

Restricted Frequency	Distance of	3m (dBuV/m)
Band (MHz)	Peak	Average
2310 ~2390	74	54
2483.5 ~2500	74	54

### 6.2 Test Setup



#### 6.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency below 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by



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3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.

- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

### 6.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

#### 6.5 Test Data

Please refer to the Attachment C.



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### 7. Bandwidth Test

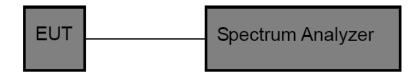
#### 7.1 Test Standard and Limit

7.1.1 Test Standard FCC Part 15.247 (a)(2)

7.1.2 Test Limit

FCC I	Part 15 Subpart C(15.247)/F	RSS-210
Test Item	Limit	Frequency Range(MHz)
Bandwidth	>=500 KHz (6dB bandwidth)	2400~2483.5

### 7.2 Test Setup



#### 7.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) The bandwidth is measured at an amplitude level reduced 6dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst –case (i.e the widest) bandwidth.
- (3)Measure the channel separation the spectrum analyzer was set to Resolution Bandwidth:100 kHz, and Video Bandwidth:300 kHz, Detector: Peak, Sweep Time set auto.

### 7.4 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Digital photo framesdle and high channel for the test.

#### 7.5 Test Data

Please refer to the Attachment D.



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## 8. Output Power Test

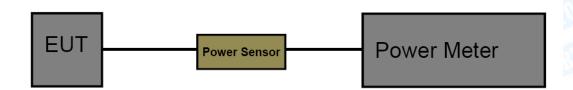
#### 8.1 Test Standard and Limit

8.1.1 Test Standard FCC Part 15.247 (b)

8.1.2 Test Limit

FCC Par	t 15 Subpart C(15.247)/RS	S-210
Test Item	Limit	Frequency Range(MHz)
Output Power	1 Watt or 30 dBm	2400~2483.5

### 8.2 Test Setup



#### 8.3 Test Procedure

The measurement is according to section 9.1.2 of KDB 558074 D01 DTS Meas Guidance v05. The EUT was connected to RF power meter via a broadband power sensor as show the block above. The power sensor video bandwidth is greater than or equal to the DTS bandwidth of the equipment.

## 8.4 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.

#### 8.5 Test Data

Please refer to the Attachment E.



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## 9. Power Spectral Density Test

#### 9.1 Test Standard and Limit

9.1.1 Test Standard FCC Part 15.247 (e)

9.1.2 Test Limit

FC	CC Part 15 Subpart C(15.2	47)
Test Item	Limit	Frequency Range(MHz)
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5

### 9.2 Test Setup



#### 9.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v05.

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Set analyser center frequency to DTS channel center frequency.
- (3) Set the span to 1.5 times the DTS bandwidth.
- (4) Set the RBW to: 3 kHz (5) Set the VBW to: 10 kHz
- (6) Detector: peak(7) Sweep time: auto
- (8) Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

### 9.4 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, Digital photo framesdle and high channel for the test.



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## 9.5 Test Data

Please refer to the Attachment F.



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## 10. Antenna Requirement

### 10.1 Standard Requirement

10.1.1 Standard FCC Part 15.203

### 10.1.2 Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

#### 10.2 Antenna Connected Construction

The gains of the antenna used for transmitting is 3dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

#### Result

The EUT antenna is a Wire Antenna. It complies with the standard requirement.

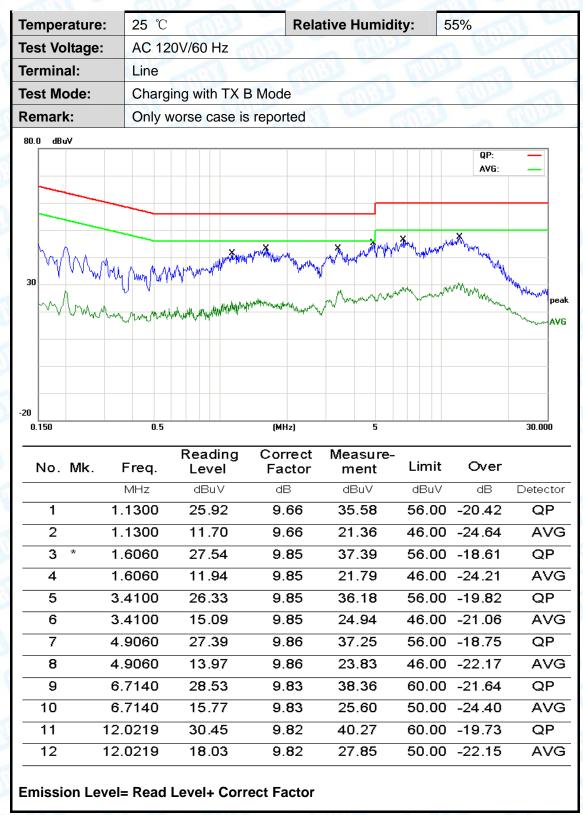
Antenna Type
Permanent attached antenna
Professional installation antenna



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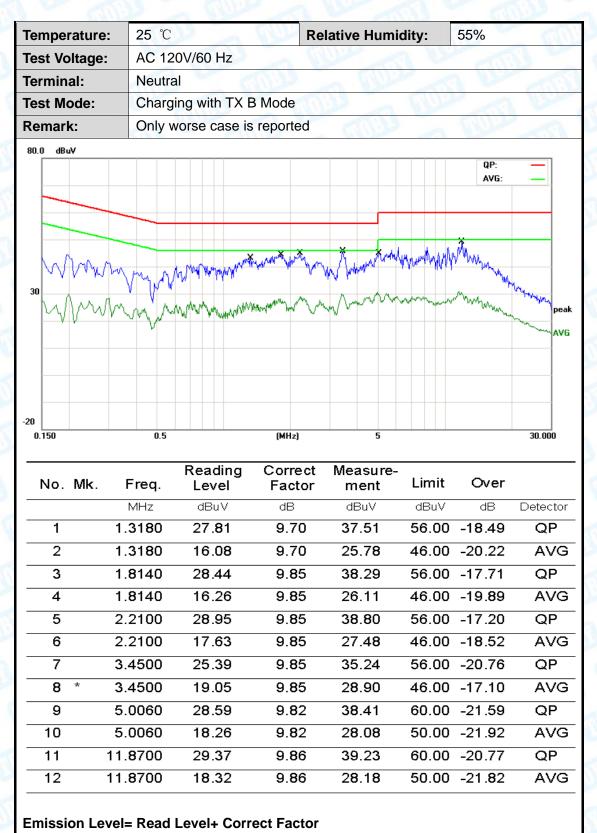
### **Attachment A-- Conducted Emission Test Data**





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## Attachment B-- Radiated Emission Test Data

#### 9KHz~30MHz

From 9KHz to 30MHz: Conclusion: PASS

Note: The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

#### 30MHz~1GHz

lz~1GHz							
emperature:	25 ℃	THE T	- GIV	Relative Hu	midity:	55%	6700
est Voltage:	AC 120	)V/60 Hz	3	(1) 12 3	-ea 1	Millian	100
Ant. Pol.	Horizon	ntal	COLUMN TO SERVICE SERV		1,33	- N	W. Carlotte
Test Mode:	TXBM	lode 2437N	1Hz			133	- E
Remark:	Only w	orse case is	s reported	Ser Control	3	Tim	11.9
80.0 dBuV/m							
		2 3	<b>4</b> ,*^\/\.	5	(RF)FCC	15C 3M Radiati Margin 6	
Mayoring Mayoring	MMMM	Want of the second	Mayor "	h. M.	Mann	Munul	mud
1 ////////////////////////////////////			Manyara M			humm	mud
Maryadoway Mysh	0 60 70		(MHz)	L J/^A/^\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		500 600 70	0 1000.000
20 30.000 40 50	0 60 70 =req.		(MHz)  Correct Factor	h. white		000 600 700 Over	
20 30.000 40 50	Freq. MHz	Reading Level	Correct Factor	300  Measurement  dBuV/m	400 5	<b>Over</b>	Detect
20 30.000 40 50	Freq.	Reading	Correct Factor	300  Measurement	400 5	<b>Over</b> n dB	Detect
20 30.000 40 50 No. Mk. I	Freq. MHz	Reading Level	Correct Factor	300  Measurement  dBuV/m	400 s	Over n dB ) -16.6	Detecto
20 30.000 40 50 No. Mk. F	=req. MHz .6586	Reading Level dBuV 45.96	Correct Factor dB/m -22.56	Measure- ment dBuV/m 23.40	400 5 Limit dBuV/n 40.00	Over n dB ) -16.6	Detector QP
20 30.000 40 50 No. Mk. I 1 47 2 81 3 109	Freq. MHz .6586	Reading Level dBuV 45.96 54.54	Correct Factor dB/m -22.56 -22.49	Measure- ment dBuV/m 23.40 32.05	400 5 Limit dBuV/n 40.00	Over n dB 0 -16.6 0 -7.95 0 -14.5	Detectors O QP O QP O QP
20 30.000 40 50 No. Mk. I 1 47 2 81 3 109 4 * 175	Freq. MHz .6586 .2117	Reading Level dBuV 45.96 54.54 51.44	Correct Factor dB/m -22.56 -22.49 -22.45	300 Measurement dBuV/m 23.40 32.05 28.99	400 s Limit dBuV/n 40.00 40.00 43.50	Over  dB  -16.6  -7.99  -14.5  -6.44	Detectors  O QP  O QP  O QP  O QP  O QP

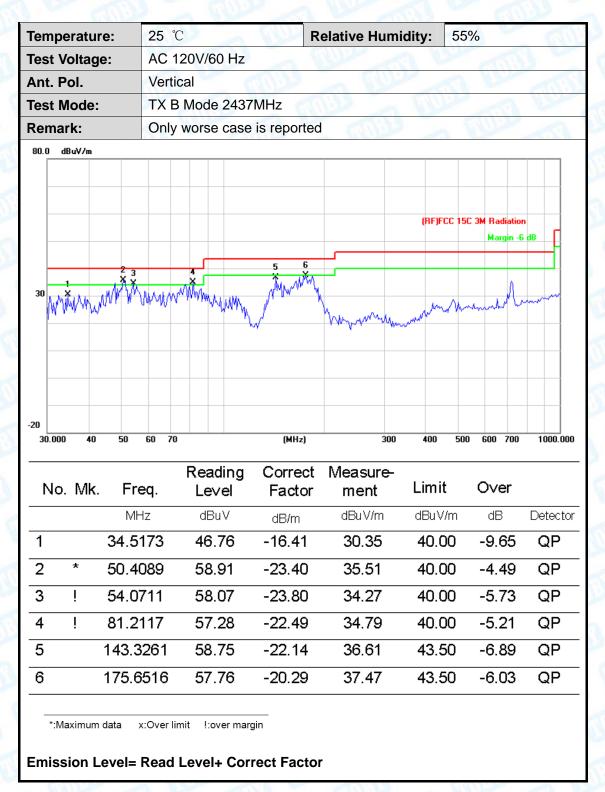
\*:Maximum data x:Over limit !:over margin

**Emission Level= Read Level+ Correct Factor** 



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## **Above 1GHz**

Temperature:	25 ℃	R	elative Humi	dity: 55	5%	Tilling
Test Voltage:	AC 120V/60HZ	-	Miles Comment	3 1000	TOTAL ST	1
Ant. Pol.	Horizontal	10:33			N. S.	
Test Mode:	TX B Mode 2412N	ИHz	مر فرزا	CALL		Con .
Remark:	No report for the	emission wh	ich more thar	10 dB be	low the pr	escribed
	limit.	1		THE		Illos
No. Mk. F	Reading req. Level	Correct Factor	Measure- ment	Limit	Over	
N	MHz dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1 * 4823	3.946 29.66	14.55	44.21	54.00	-9.79	AVG
2 4824	4.018 42.46	14.55	57.01	74.00	-16.99	peak
Emission Level:	= Read Level+ Cor	rect Factor				



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Tempe	ratu	ıre:	25 °	C	MILL	Relative Hu	ımidity:	55%	THE .
Test Vo	oltaç	ge:	AC '	120V/60HZ	- 1	Million	3 100	-1013	3
Ant. Po	ol.		Vert	ical	TOP	a Cilli		Barre	- THE
Test M	lode	:	TXE		Frank .				
Remar	k:		100	eport for the cribed limit.	emission w	which more th	an 10 dB l	pelow the	1033
No.	Mk.	. Fre	q.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		МН	Z	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4822.	698	43.34	14.55	57.89	74.00	-16.11	peak
2	*	4822.	698	29.09	14.55	43.64	54.00	-10.36	AVG
Emissi	ion	Level=	Read	Level+ Cor	rect Factor	7			



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Temperat	ure:	25	°C	Million	Relative Hur	midity:	55%	
Test Volta	age:	AC	120V/60HZ	- 1	Million	a W		3
Ant. Pol.		Hori	zontal	TOWN	THE PARTY OF THE P	1	J Kron	-00
Test Mod	e:	TX	3 Mode 2437	7MHz	الانا	CHIE	-	S. B. Com
Remark:		V B, To	eport for the cribed limit.	emission	which more th	an 10 dE	below the	TOS
			Reading	Correct	Measure-			
No. Mk	. Fre	q.	Level	Factor	ment	Limit	Over	
No. Mk	K. Fre		_			Limit dBuV/m		Detector
No. Mk		z	Level	Factor	ment		dB	Detector



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<b>Temperat</b>	ure:	25 °	С	O. M. Trans	Relative Hun	nidity:	55%	TIE
Test Volta	ge:	AC 1	120V/60HZ	- 1	M. Comment	J FI	-000	1
Ant. Pol.		Verti	cal	1000	- FILL		1 River	
Test Mode	9:	TX B Mode 2437MHz						Freeze
Remark:		170	eport for the cribed limit.	emission w	hich more tha	an 10 dB	below the	033
No. MI	c. Fre	eq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MH	łz	dBuV	dB/m	dBuV/m	dBuV/m	n dB	Detecto
1 *	4873.	976	29.03	14.86	43.89	54.00	-10.11	AVG
		414	42.60	14.86	57.46	74.00	-16.54	peak



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<b>Temperat</b> u	ıre:	25 ℃	Relative Humidity:		nidity:	55%		
Test Volta	ge:	AC 12	20V/60HZ	-	Illin	J KIN	-000	3
Ant. Pol.		Horiz	ontal	MILE	- GIVE		Bar	-011
Test Mode	:	TX B	Mode 2462	MHz	ر الزرا	Dilli		FREE
Remark:			eport for the cribed limit.	emission v	which more tha	an 10 dB	below the	TOP
No. Mk	. Fre	∍q.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
No. Mk	. Fre		_			<b>Limit</b>	<b>Over</b>	Detector
No. Mk		łz	Level	Factor	ment			Detector <b>peak</b>



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Temperature:	25 ℃	P. Dillion	Relative Hur	nidity:	55%	The same	
Test Voltage:	AC 120V/60HZ	- 1	W.	J 62	100	3 -	
Ant. Pol.	Vertical						
Test Mode:	TX B Mode 2462MHz						
Remark:	No report for the prescribed limit.	1100	y American	an 10 dB	below the	ME	
No. Mk. Fre	Reading eq. Level	Correct Factor	Measure- ment	Limit	Over		
MH	lz dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	
1 4923.	034 41.65	15.17	56.82	74.00	-17.18	peak	
2 * 4923.	034 29.39	15.17	44.56	54.00	-9.44	AVG	



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Temperature:	25 ℃	P. Dire	Relative Hur	nidity:	55%	Thm .		
Test Voltage:	AC 120V/60HZ		MI.	S 10	- TO 13	3		
Ant. Pol.	Horizontal	Horizontal						
Test Mode:	est Mode: TX G Mode 2412MHz							
Remark:	No report for the prescribed limit.	emission v	vhich more th	an 10 dB	below the	TOST		
No. Mk. Fre	Reading eq. Level	Correct Factor	Measure- ment	Limit	Over			
MH	z dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector		
1 * 4823.	700 29.60	14.55	44.15	54.00	-9.85	AVG		
2 4823.	772 42.42	14.55	56.97	74.00	-17.03	peak		
Emission Level=	Read Level+ Cor	rect Facto	r					



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Temperature:	25 ℃	Milita	Relative Hui	midity:	55%	TIME		
Test Voltage:	AC 120V/60HZ		ALL DE	a W	-000	3		
Ant. Pol.	Vertical	Vertical						
Test Mode:	TX G Mode 241	TX G Mode 2412MHz						
Remark:	No report for the prescribed limit		which more th	an 10 dB	below the	TON		
No. Mk. Fre	Reading q. Level	Correct Factor	Measure- ment	Limit	Over			
No. Mk. Fre	q. Level			Limit dBuV/m	Over	Detector		
	q. Level z dBuV	Factor	ment			Detector		



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Tempera	ture:	25	$^{\circ}$ C	O. M. T. F.	Relative Hur	nidity:	55%	TITO	
Test Volt	age:	AC	120V/60HZ	-	Million	3 10	-1013	3	
Ant. Pol.		Hori	Horizontal						
Test Mod	le:	TX	TX G Mode 2437MHz						
Remark:		V D. To	report for the scribed limit.	emission v	vhich more th	an 10 dB	below the	OF	
No. M	k. Fre	q.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MH	Z	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	
1	4873.	592	41.69	14.86	56.55	74.00	-17.45	peak	
2 *	4873.	592	29.05	14.86	43.91	54.00	-10.09	AVG	
Emission	n Level=	Read	l Level+ Cor	rect Facto	r				



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Temperatu	re:	<b>25</b> ℃	2 Dillion	Relative Hum	nidity:	55%	TITO	
Test Voltag	e:	AC 120V/60H	IZ	W.	J KR	1000	1	
Ant. Pol.		Vertical	milita	a fills		F FFFF	-	
Test Mode:		TX G Mode 2437MHz						
Remark:		No report for prescribed lim	the emission v nit.	which more tha	an 10 dB	below the	OF	
No. Mk.	Fred	Readir	•	Measure- ment	Limit	Over		
110. 11111.		1. LOVOI	i actor					
	MHz		dB/m	dBuV/m	dBuV/m	dB	Detecto	
		dBuV	dB/m		dBuV/m	dB -16.04	Detecto	



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Tempera	ature:	25	${\mathbb C}$	Million	<b>Relative Hur</b>	nidity:	55%	
Test Vol	tage:	AC	120V/60HZ		Million	A KIN	-000	1
Ant. Pol	l <b>.</b>	Hor	izontal	MUNICIPAL	- FILL		Barre	-000
Test Mo	de:	TX G Mode 2462MHz						
Remark	:	13.0	report for the scribed limit.	emission v	which more th	an 10 dB	below the	1033
No. M	lk. Fre	q.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
No. M	lk. Fre		_			Limit dBuV/m	Over	Detector
No. M		z	Level	Factor	ment			Detector peak



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Temperature:	25 ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60HZ	a TUDE						
Ant. Pol.	Vertical	De College	O LONG TO SERVICE OF THE PARTY					
Test Mode:	TX G Mode 2462MHz	X G Mode 2462MHz						
Remark:	No report for the emis prescribed limit.	sion which more than 10 d	B below the					
No. Mk. Fre		rrect Measure- actor ment Limit	t Over					
MH	lz dBuV dE	3/m dBuV/m dBuV	/m dB Detector					
1 * 4923.	676 29.45 15	.17 44.62 54.0	00 -9.38 AVG					
2 4925.	242 42.72 15	.19 57.91 74.0	00 -16.09 peak					
Emission Level=	Read Level+ Correct	-actor						



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Temperature:	<b>25</b> ℃	Relative Humidity:	55%						
Test Voltage:	AC 120V/60HZ	THE PARTY OF THE P							
Ant. Pol.	Horizontal	orizontal							
Test Mode:	TX N(HT20) Mode 2412N	X N(HT20) Mode 2412MHz							
Remark:	No report for the emission prescribed limit.	n which more than 10 dl	3 below the						
No. Mk. Fre	Reading Correct eq. Level Facto	1 :	Over						
MH	lz dBuV dB/m	dBuV/m dBuV/r	n dB Detector						
1 4824.	078 42.65 14.55	57.20 74.00	) -16.80 peak						
2 * 4824.	078 29.63 14.55	44.18 54.00	9.82 AVG						
Emission Level=	Read Level+ Correct Fac	tor							



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Temperature:	25 ℃	Million	Relative Hun	nidity:	55%			
Test Voltage:	AC 120V/60HZ	- 1	W.	3 100	-1013	3		
Ant. Pol.	Vertical	/ertical						
Test Mode:	TX N(HT20) Mod	X N(HT20) Mode 2412MHz						
Remark:	No report for the emission which more than 10 dB below the prescribed limit.							
No. Mk. Fre	Reading q. Level	Correct Factor	Measure- ment	Limit	Over			
MH	z dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector		
1 4822.9	944 41.56	14.55	56.11	74.00	-17.89	peak		
2 * 4822.9	944 29.05	14.55	43.60	54.00	-10.40	AVG		
Emission Level=	Read Level+ Corr	ect Facto	r					



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Tempera	iture:	25 °	C	D. H. J. C.	Relative Hum	nidity:	55%			
Test Volt	tage:	AC 1	120V/60HZ					1		
Ant. Pol.		Hori	lorizontal							
Test Mod	de:	TXN	X N(HT20) Mode 2437MHz							
Remark:		No r	o report for the emission which more than 10 dB below the							
		pres	cribed limit.		1	THE		Miss		
No. M	1k. Fre	eq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
	MH	łz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector		
1	4873.	610	43.11	14.86	57.97	74.00	-16.03	peak		
2 *	4874.	192	29.08	14.86	43.94	54.00	-10.06	AVG		
Emissio	n Level=	Read	Level+ Cori	ect Facto	r					



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Temperature	e:	25 °	C	DITTE:	Relative Hun	nidity:	55%	THE PERSON	
Test Voltage	<b>:</b> :	AC 1	120V/60HZ	-1	W.	3 10	100	3	
Ant. Pol.		Verti	/ertical						
Test Mode:		TXN	X N(HT20) Mode 2437MHz						
Remark:			eport for the cribed limit.	emission v	vhich more tha	an 10 dB	below the	TOTAL TOTAL	
No. Mk.	Fre	eq.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
	MH	Z	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	
1 4	4875.	002	41.04	14.86	55.90	74.00	-18.10	peak	
2 * 4	<del>1</del> 875.	002	29.14	14.86	44.00	54.00	-10.00	AVG	
Emission Le	evel=	Read	Level+ Cori	rect Facto	r				



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Temperatu	ıre:	25 °	C		Relative Hu	ımidity:	55%		
Test Voltag	ge:	AC '	120V/60HZ		W.	3 100	1000	3	
Ant. Pol.		Hori	zontal	TO BE	EM.		Barre		
Test Mode	:	1XT	TX N(HT20) Mode 2462MHz						
Remark:			eport for the cribed limit.	emission w	vhich more th	an 10 dB l	pelow the	TOTA	
			D 1:						
No. Mk.	Fre	q.	Reading Level	Correct Factor	Measure- ment	Limit	Over		
No. Mk.	Fre		_			Limit dBuV/m	Over	Detector	
No. Mk.		z	Level	Factor	ment			Detector peak	



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Temperature	e: 2	25 ℃	Millian	Relative Hu	umidity:	55%	The same		
Test Voltage	e: A	AC 120V/60HZ	- 1	M.	J Fr	-1013	3		
Ant. Pol.	V	Vertical							
Test Mode:	T	TX N(HT20) Mode 2462MHz							
Remark:	1.10	No report for the prescribed limit.	emission v	vhich more th	an 10 dB l	below the	TO ST		
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over			
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector		
1 4	923.00	4 43.23	15.17	58.40	74.00	-15.60	peak		
2 * 4	923.00	4 29.35	15.17	44.52	54.00	-9.48	AVG		
Emission Le	evel= Re	ead Level+ Cor	rect Facto	r					



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Temperature:	25 ℃		Milita	Relative Hun	nidity:	55%	THE
Test Voltage:	AC 1	20V/60HZ	- 1	The same	3 100	-1013	3
Ant. Pol.	Horiz	ontal	1000	a Cilli		Barre	1000
Test Mode:	TX N	(HT40) Mod	de 2422MH	Z	Chine		A ROSE
Remark:	1 1	eport for the cribed limit.	emission v	vhich more th	an 10 dB	below the	TOST
No. Mk. F	req.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
N.	ИНZ	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1 * 484	2.644	29.22	14.66	43.88	54.00	-10.12	AVG
2 484	3.160	42.20	14.67	56.87	74.00	-17.13	peak
Emission Level	l= Read	Level+ Cor	rect Facto	r			



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Temperature	<b>:</b> :	25 °	C	PATTER	Relative Hur	midity:	55%	
Test Voltage:	:	AC 1	20V/60HZ		Million	A ME		3
Ant. Pol.		Verti	cal	10:33			J Rom	- TOTAL
Test Mode:		TXN	I(HT40) Mod	le 2422MH	lz	Chin	100	F. Brown
Remark:			eport for the cribed limit.	emission v	which more th	an 10 dB	below the	TOP
No. Mk.	Fre	q.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MH	Z	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1 4	844.	588	41.29	14.68	55.97	74.00	-18.03	peak
2 * 4	844.	588	29.21	14.68	43.89	54.00	-10.11	AVG
Emission Le	vel= F	Read	Level+ Cori	rect Facto	r			



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Tempe	eratu	ıre:	25 °	C	DITTE:	Relative Hun	nidity:	55%	out 1
Test V	oltag	ge:	AC	120V/60HZ	-1	W.	J 10	100	3
Ant. P	ol.		Hori	zontal	10:33	a fill		1 Roman	
Test N	lode	:	1XT	N(HT40) Mod	de 2437MH	z	Chin		From !
Rema	rk:			eport for the cribed limit.	emission v	vhich more th	an 10 dB	below the	TOST
No.	Mk.	. Fre	q.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		МН	Z	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.	696	42.77	14.86	57.63	74.00	-16.37	peak
2	*	4874.	696	29.07	14.86	43.93	54.00	-10.07	AVG
Emiss	ion l	Level=	Read	Level+ Cor	rect Facto	r			



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AC						
, , ,	120V/60HZ				-	1
Vert	ical	TO THE PARTY OF	- EMI		Barre	-000
1 XT	N(HT40) Mod	de 2437MH	Z	Mille		S. B. Carrie
		emission v	vhich more tha	an 10 dB l	oelow the	TOST
Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
73.862	42.97	14.86	57.83	74.00	-16.17	peak
73.862	28.99	14.86	43.85	54.00	-10.15	AVG
	TX I No r pres Freq. MHz	No report for the prescribed limit.  Reading Freq. Level  MHz dBuV  73.862 42.97	TX N(HT40) Mode 2437MH  No report for the emission vertical prescribed limit.  Reading Correct Factor  MHz dBuV dB/m  73.862 42.97 14.86	TX N(HT40) Mode 2437MHz  No report for the emission which more the prescribed limit.  Reading Correct Measure-Freq. Level Factor ment  MHz dBuV dB/m dBuV/m  73.862 42.97 14.86 57.83	TX N(HT40) Mode 2437MHz  No report for the emission which more than 10 dB is prescribed limit.  Reading Correct Measure-Freq. Level Factor ment Limit  MHz dBuV dB/m dBuV/m dBuV/m  73.862 42.97 14.86 57.83 74.00	TX N(HT40) Mode 2437MHz  No report for the emission which more than 10 dB below the prescribed limit.  Reading Correct Measure-Freq. Level Factor ment Limit Over  MHz dBuV dB/m dBuV/m dBuV/m dB  73.862 42.97 14.86 57.83 74.00 -16.17



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Temperature:	25 ℃	MILL	Relative Hu	midity:	55%	TIME
Test Voltage:	AC 120V/60HZ	-1	Miles Comment	J Fre	-1013	3
Ant. Pol.	Horizontal	TOP			Race	THE PARTY OF
Test Mode:	TX N(HT40) Mod	de 2452MH	z	Chin		Frank .
Remark:	No report for the prescribed limit.	emission w	hich more tha	an 10 dB b	pelow the	OB
No. Mk. Fre	Reading eq. Level	Correct Factor	Measure- ment	Limit	Over	
MH	lz dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1 4905.	062 42.24	15.05	57.29	74.00	-16.71	peak
2 * 4905.	062 29.40	15.05	44.45	54.00	-9.55	AVG
Emission Level=	Read Level+ Cor	rect Factor				



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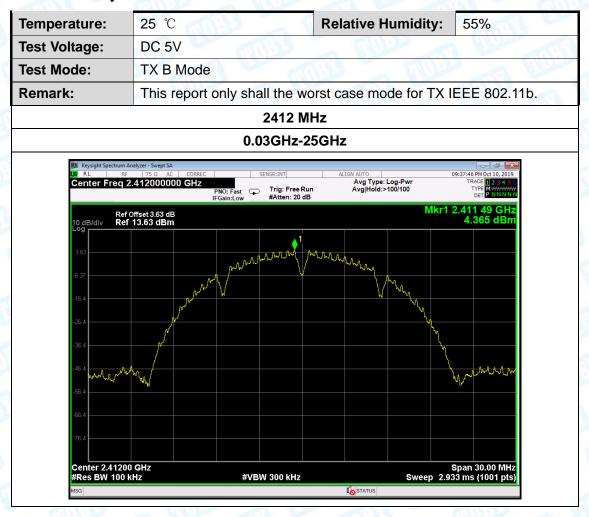
	111/1/11/20					- 10/10/1	
Tempera	ature:	25 ℃	THE PERSON NAMED IN	Relative H	umidity:	55%	THE S
Test Vol	tage:	AC 120V/6	60HZ				
Ant. Pol	l.	Vertical		S COUR		N. S. Com	
Test Mo	de:	TX N(HT40	0) Mode 2452MF	łz	Chiles		Ser.
Remark	:	No report f prescribed	or the emission vilimit.	which more th	an 10 dB t	pelow the	1033
No. N	Mk. Fre	Read eq. Lev	•	Measure- ment	Limit	Over	
	MH	łz dBi	uV dB/m	dBuV/m	dBuV/m	dB	Detector
1	4903.	316 40.	90 15.04	55.94	74.00	-18.06	peak
2 *	4903.	316 29.	40 15.04	44.44	54.00	-9.56	AVG
Emissio	on Level=	Read Level	+ Correct Facto	or			



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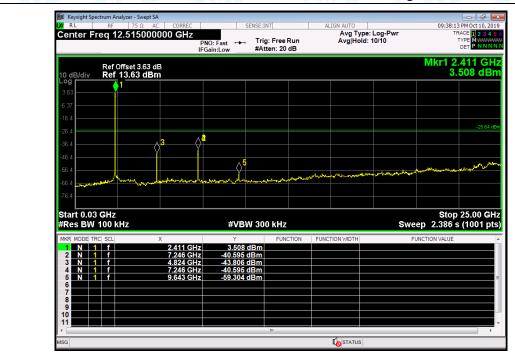
#### Conducted RF Spurious Emission Test Data





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#### 2437 MHz

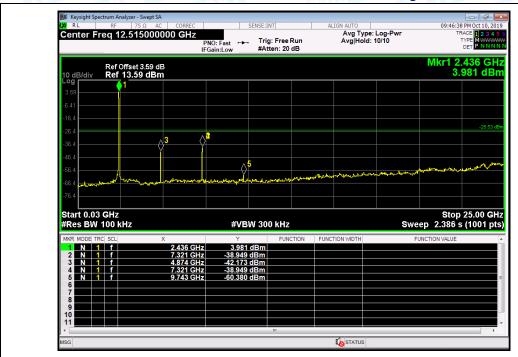
#### 0.03GHz-25GHz





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#### 2462 MHz

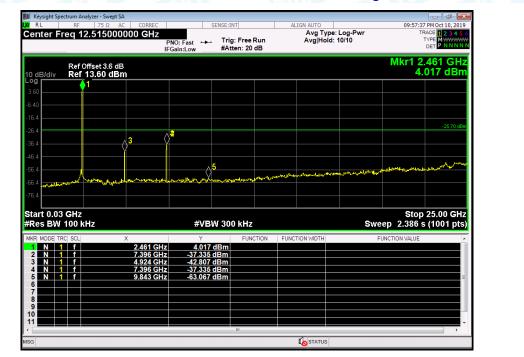
#### 0.03GHz-25GHz





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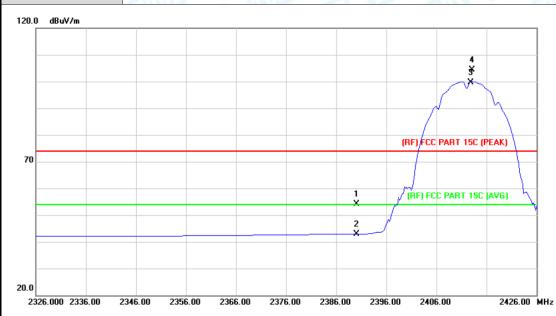
Report No.: TB-FCC169402

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# Attachment C-- Restricted Bands Requirement and Band-edge Test Data

(1) Radiation Test





No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	51.39	2.82	54.21	74.00	-19.79	peak
2		2390.000	40.02	2.82	42.84	54.00	-11.16	AVG
3	*	2412.800	96.62	2.94	99.56	- Fundamental F	requency	AVG
4	X	2413.200	101.55	2.95	104.50	- Fundamental F	Frequency -	peak



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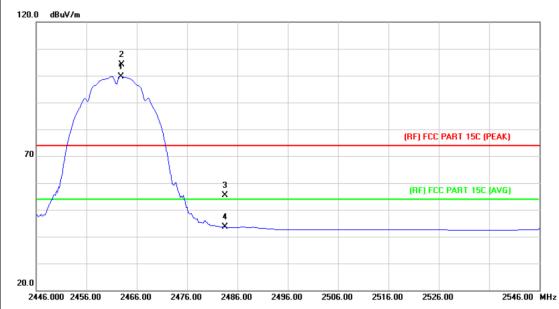
empe	ratui	re:	25	$^{\circ}$ C				R	elati	ve Hu	ımidity	<b>/</b> : !	55%		11
est V	oltag	e:	AC	120V/	60 HZ	Z	-		17.78		<b>SA</b> 1		-101	13	
nt. P	ol.		Ve	rtical		1100	33		_	BM)		1	No.	-	
est M	ode:		TX	В Мос	de 241	12MH	z	m	33		0.11	طنالا	-	1670	) and
Remar	k:		N/A	4		1111	3		6	M.	)	a	PHILLIP		ħ
120.0	dBuV/m	1													
													4		]
													3 X		
												ل.	$\langle \cdot \rangle$	h	1
												-/[		$\rightarrow$	-
70											(R	FIFCC	PART 15C (PE	AK)	-
											JI,				
										1 X	1	RF) FCC	PART 15C (A	VG)	
										2					
		+-													-
20.0															
2326	.000 23	36.00	2346.0	00 2356	6.00	2366.00	2376	6.00	2386	6.00	2396.00	2406.	.00	2426.00	МН
				Re	ading	g C	orrec	ct	Mea	sure-					
No	. Mk	. F	req.	L	evel	F	acto	r	me	ent	Lin	nit	Over		
		1	MHz	d	lBuV		dB/m		dBı	uV/m	dBu	ıV/m	dB	Detec	ctor
1		239	0.00	0 5	3.42		2.82		56	5.24	74	.00	-17.76	pea	ak
2		239	0.00	0 4	1.75		2.82		44	.57	54	.00	-9.43	AV	G
3	*	241	1.000	0 10	1.32		2.93		104	4.25	_ Fundar	nental	Frequency	AV	G
4	X	241	3.600	0 10	5.49		2.95		10	8.44	Fundar	nental	Frequency	pea	ak
	/ \	1	3.50		.5.40				100	Ŭ. <b>1</b> T	rungan	nental	rrequency	Ped	AIT\



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2 1114.112			1011111
Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60 HZ	MILLS FOR	
Ant. Pol.	Horizontal	The state of the s	A VICTORIA
Test Mode:	TX B Mode 2462MHz	THE PARTY OF THE P	The same of the sa
Remark:	N/A	and a	THUE
120.0 dBuV/m			



No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2462.800	96.48	3.27	99.75	Fundamental	Frequency	AVG
2	Χ	2463.000	100.75	3.27	104.02	Fundamental	Frequency	peak
3		2483.500	52.02	3.41	55.43	74.00	-18.57	peak
4		2483.500	40.13	3.41	43.54	54.00	-10.46	AVG



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2/11/2			0415
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60 HZ	Min A	
Ant. Pol.	Vertical	The state of the s	A COLOR
Test Mode:	TX B Mode 2462MHz	THE PARTY OF THE P	The same of the sa
Remark:	N/A		THE
120.0 dBuV/m			
2			
~~×			
<i></i>	4		

		2 <b>X</b>						
		wxx						
		`						
						(RF) FCC	PART 15C (	PEAK)
70	-		1	3				
			4	×		(RF) FC	C PART 15C	(AVG)
				******************	 · · · · · · · · · · · · · · · · · · ·	 		
0.0								

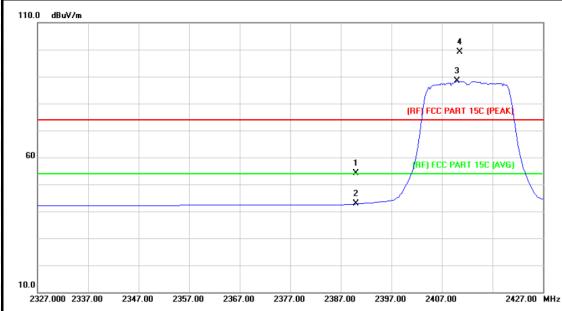
No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2462.800	103.30	3.27	106.57	Fundamental	Frequency	AVG
2	Χ	2463.000	106.98	3.27	110.25	Fundamental	Frequency	peak
3		2483.500	55.33	3.41	58.74	74.00	-15.26	peak
4		2483.500	42.97	3.41	46.38	54.00	-7.62	AVG



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2 0.4/17			THIS SECTION
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60 HZ	Marie Contraction of the	
Ant. Pol.	Horizontal	The state of the s	A COLOR
Test Mode:	TX G Mode 2412MHz		The same of the sa
Remark:	N/A		THE PARTY OF THE P
110.0 dBuV/m			
			4
			×



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	51.30	2.82	54.12	74.00	-19.88	peak
2		2390.000	40.01	2.82	42.83	54.00	-11.17	AVG
3	*	2410.000	85.43	2.93	88.36	Fundamental F	requency	AVG
4	X	2410.600	96.19	2.93	99.12	Fundamental F	requency	peak



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emperature:	25 ℃		<b>Relative Humidity</b>	: 55%
est Voltage:	AC 120V/6	0 HZ	TUIL TO BE	
nt. Pol.	Vertical		- College	O W
est Mode:	TX G Mode	e 2412MHz	THE CHU	The same of
Remark:	N/A			TUE
120.0 dBuV/m				
70			1	CC PART 15C (PEAK) FCC PART 15C (AVG)
20.0				

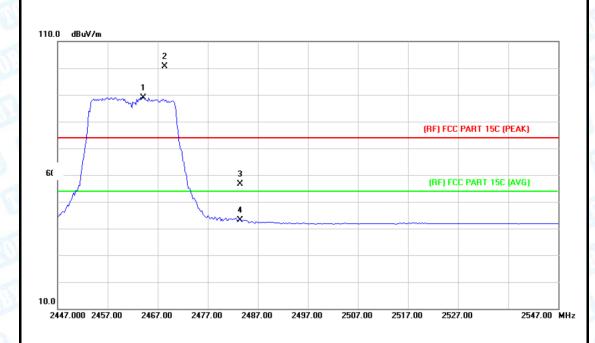
No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	53.56	2.82	56.38	74.00	-17.62	peak
2		2390.000	41.50	2.82	44.32	54.00	-9.68	AVG
3	Χ	2417.800	103.16	2.98	106.14	- Fundamental	Frequency	peak
4	*	2419.000	92.47	2.98	95.45	- Fundamental	Frequency	AVG



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Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60 HZ	Entra Partie	The state of the s
Ant. Pol.	Horizontal	The state of the s	
Test Mode:	TX G Mode 2462MHz	Min I min	The state of the s
Remark:	N/A	COLUMN TO THE PARTY OF THE PART	THE



No	o. Mk	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2464.200	85.70	3.28	88.98	Fundamental	Frequency	AVG
2	Χ	2468.400	97.27	3.31	100.58	Fundamental	Frequency	peak
3		2483.500	53.34	3.41	56.75	74.00	-17.25	peak
4		2483.500	39.72	3.41	43.13	54.00	-10.87	AVG



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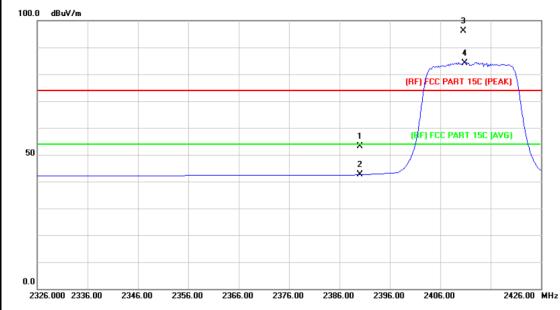
empe	rature:	25 ℃		P. F. Commission	Relative H	umidity:	55%	100
est Vo	ltage:	AC 1	20V/60 HZ					
nt. Po	ol.	Vertic	cal	1000			RECO	
est Mo	ode:	TX G	Mode 2462	MHz	ر ون	Chine	Till I	A Brown
Remarl	<b>K</b> :	N/A	The same of	THE P			MILLER	1
120.0 dl	BuV/m							
70		2 X	3 X				PART 15C (PEA)	
							200	
20.0 2449.00	00 2459.00	2469.00	2479.00 248	9.00 2499.00	2509.00 2	519.00 2529	.00	2549.00 MI
2449.00	00 2459.00 Mk.	2469.00 Freq.	Reading Level	9.00 2499.00  Correct Factor	2509.00 2		Over	2549.00 MI
2449.00			Reading	Correct	Measure-			Detecto
2449.00	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	Detecto
2449.00 No.	Mk.	Freq.	Reading Level dBuV	Correct Factor	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detecto
No.	Mk.  * 24  X 24	Freq. MHz 464.000	Reading Level dBuV 93.76	Correct Factor dB/m 3.28	Measure- ment dBuV/m 97.04	Limit dBuV/m Fundamenta	Over dB	



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3 6415			CHIS.
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60 HZ	The state of the s	
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT20) Mode 241	12MHz	The state of the s
Remark:	N/A		THE
100.0 dBuV/m			3
			×
		(DE) FOO	DADT 450 (DEAK)

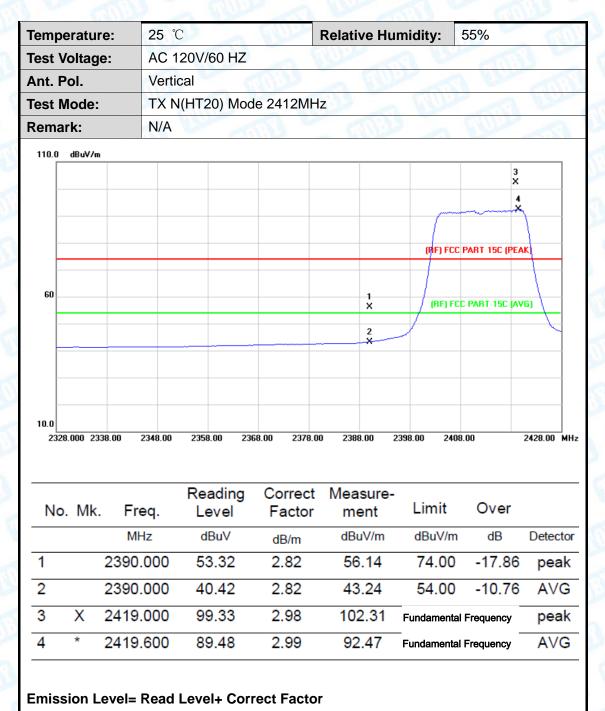


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	50.34	2.82	53.16	74.00	-20.84	peak
2		2390.000	39.81	2.82	42.63	54.00	-11.37	AVG
3	X	2410.600	93.22	2.93	96.15	Fundamental F	requency	peak
4	*	2410.800	81.32	2.93	84.25	Fundamental F	requency	AVG



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emperature:	25 ℃		TATE OF THE PARTY	Relative H	lumidity:	55%	
est Voltage:	AC 120V/	60 HZ		Miles.	3 m		1 4
Ant. Pol.	Horizonta		1173			1830	-00
est Mode:	TX N(HT2	20) Mode	2462MHz	333	CHILL		FREE
Remark:	N/A	100	33 6		3	MUL	
100.0 dBuV/m	2 X	3 X				PART 15C (PEAK	
0.0 2448.000 2458.00 No. Mk.		3.00 2488. eading	Correct	Measure-	2518.00 2528. - Limit	00 2	548.00 MH
2448.000 2458.00	Re Freq. L	ading	Correct Factor				548.00 MH
2448.000 2458.00 No. Mk.	Re Freq. L	eading evel dBuV	Correct Factor	Measure- ment dBuV/m	- Limit	Over	Detecto
No. Mk.	Re Freq. L MHz 0	eading evel dBuV 3.39	Correct Factor dB/m 3.22	Measure- ment dBuV/m 86.61	Limit  dBuV/m  Fundamental	Over dB _ Frequency	Detecto
No. Mk.  1 * 245 2 X 246	Re Freq. L MHz 0 55.000 8	eading evel dBuV	Correct Factor	Measure- ment dBuV/m	Limit	Over dB _ Frequency	Detecto

**Emission Level= Read Level+ Correct Factor** 



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Temperature:	<b>25</b> ℃			Relative Hur	nidity:	55%	
Test Voltage:	AC 120V/	60 HZ		Miles .	a W		30
Ant. Pol.	Vertical	100	11:33	- EM		J Free	-
Test Mode:	TX N(HT2	0) Mode	2462MH:	z	Chis		Service Services
Remark:	N/A		13 E			THUE	
110.0 dBuV/m							
1 X	2 ×	3 X				C PART 15C (PE	
10.0 2448.000 2458.00	2468.00 2478.	00 2488.0	00 2498.00	2508.00 25	18.00 25	28.00	2548.00 MH
No. Mk.		ading evel	Correct Factor	Measure- ment	Limit	Over	
	MHz d	BuV	dB/m	dBuV/m	dBuV/n	n dB	Detecto
1 * 245	4.800 8	1.51	3.22	84.73	Fundamen	tal Frequency	AVG

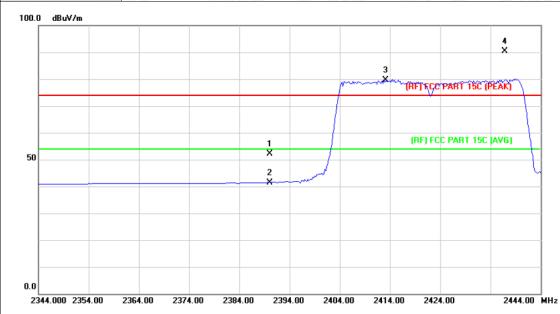
No	o. Mk	. Freq.	Level	Factor	ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2454.800	81.51	3.22	84.73	Fundamental Frequency		AVG
2	X	2464.000	91.89	3.28	95.17	Fundamental	Frequency	peak
3		2483.500	50.74	3.41	54.15	74.00	-19.85	peak
4		2483.500	34.70	3.41	38.11	54.00	-15.89	AVG



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Temperature:	<b>25</b> ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60 HZ							
Ant. Pol.	Ant. Pol. Horizontal							
Test Mode:	TX N(HT40) Mode 2422M	Hz	The same of					
Remark:	N/A		THE					



No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	49.32	2.82	52.14	74.00	-21.86	peak
2		2390.000	38.68	2.82	41.50	54.00	-12.50	AVG
3	*	2413.200	76.57	2.95	79.52	- Fundamental	Frequency	AVG
4	X	2436.800	87.39	3.09	90.48	- Fundamental	Frequency	peak



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Temperature:	25 ℃		Relative Humidity:	55%			
Test Voltage:	AC 120V/60	HZ	THE PARTY OF THE P				
Ant. Pol. Vertical							
Test Mode:	TX N(HT40)	Mode 2422N	1Hz	THE RESERVE THE PARTY OF THE PA			
Remark:	N/A	Account to		THU .			
100.0 dBuV/m				3 X			
			(BE) F	CC-PART-15C-(PEAK)			
			(RF) I	FCC PART 15C (AVG)			
50		1 X					

$\vdash$		+					-		-		-	+			a	OE) EC	C PART 15	C (AVC)	$\vdash$
50		+		-		_	+-		-		-	+		$\rightarrow$	- (1	irj ru	PANT 19	LIAVUJ	+
"										1 X		7							X
		_					-			2	لسها								
-										X									
		+		$\rightarrow$			+		-					$\rightarrow$					
-		_					+		-		-								
.0																			
	5 000	2355.0	<del></del>	2365.	00	237	<b>75.00</b>	238	5.00	239	5.00	2405	5.00	2415	.00	2425	5.00	2445	.00

No.	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	43.63	2.82	46.45	74.00	-27.55	peak
2		2390.000	32.75	2.82	35.57	54.00	-18.43	AVG
3	Χ	2438.200	87.33	3.11	90.44	Fundamental Frequency		peak
4	*	2439.000	75.95	3.11	79.06	Fundamental l	Frequency	AVG



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em	peratur	e:	<b>25</b> ℃			DATE:	Re	lative	Hu	midity:	55%	_ <	
est	Voltage	<b>e</b> :	AC 12	20V/6	O HZ								
۹nt.	Pol.		Horizontal										
Гest	Mode:		TX N	(HT40	) Mod	le 2452N	1Hz			CHIE	1	10	y.
Rem	ark:		N/A			M I		TITE	17.7	1	THURS		a
100.0	dBuV/m												
				1 X									
					2								
	pun		-	~~~~	~~X~~	4				(RF) FCC	PART 15C (PEA	K)	+
						4	3						
50	<del>/</del>						x			(RF) FC	C PART 15C (AV	G)	-
						- war	4 X						
-													-
													-
0.0													
24	29.000 243	9.00 24	49.00	2459.00	246	9.00 2479	0.00	2489.00	24	199.00 250	9.00	2529.00	МН
				Pos	ding	Corre	ct N	Measi	uro				
١	No. Mk	. Fre	eq.		vel	Facto		mer		Limit	Over		
		MH	łz	dE	₿uV	dB/m		dBuV	//m	dBuV/n	n dB	Dete	ecto
1	Χ	2456.	000	90	.29	3.23		93.5	52	Fundament	al Frequency	ре	eak
2	*	2465.	200	78	.68	3.29		81.9	97	_ Fundament	al Frequency	A۱	√G
		2483.	500	51	.73	3.41		55.1	14	74.00	-18.86	pe	ak
3													

**Emission Level= Read Level+ Correct Factor** 



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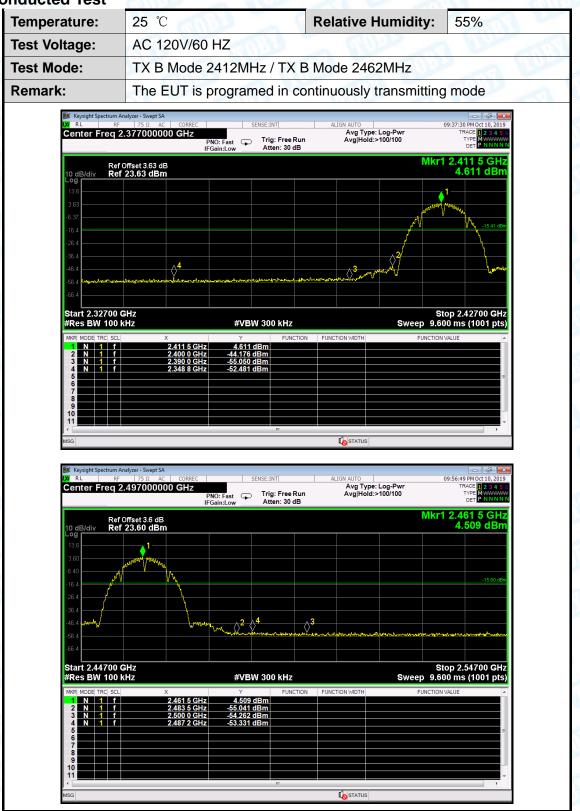
emp	eratu	re:	25	$^{\circ}$ C		DATE	R	elative Hu	midity:	55%	
est V	/oltag	e:	AC 120V/60 HZ						3 4		
nt. F	ol.		Vertical								
est N	/lode:		TX	N(HT	10) Mo	de 2452N	1Hz	ر دو	CHILL	TOTAL STREET	A Property
Rema	rk:		N/A	4		THE !			2	EMIL:	
100.0	dBuV/	n									
			1 X								
				2 X							
	/mm		~~		~~~~~				(RF) FC	C PART 15C (PEA	AK)
						1					
J						_	3		(RE) E	CC PART 15C (A)	/G)
50							×		()	CCTAIT 13C A	
						Manne .	4				
							×_	***************************************			
0.0	2.000 2	442.00	2452.0	00 240	2.00 2	2472.00 24	32.00	2492.00 2	2502.00 25	12.00	2532.00 M
240	2.000 2	442.00	2432.	30 240	2.00 2	.472.00 24	2.00	2432.00	2302.00 23	12.00	2332.00 M
N.	MI	Г.			ading	Correc		Measure-	Limit	Over	
INO	. Mk		eq.		evel	Facto	r	ment			
			Hz		BuV	dB/m		dBuV/m	dBuV/m —	dB	Detecto
1	X	2448	.000	) 89	9.97	3.17		93.14	Fundamer	ntal Frequency	peak
2	*	2457	.000	78	8.88	3.23		82.11	Fundamer	ntal Frequency	AVG
3		2483	.500	) 50	0.74	3.41		54.15	74.00	-19.85	peak
4		2483	.500	3	5.32	3.41		38.73	54.00	-15.27	AVG
•											



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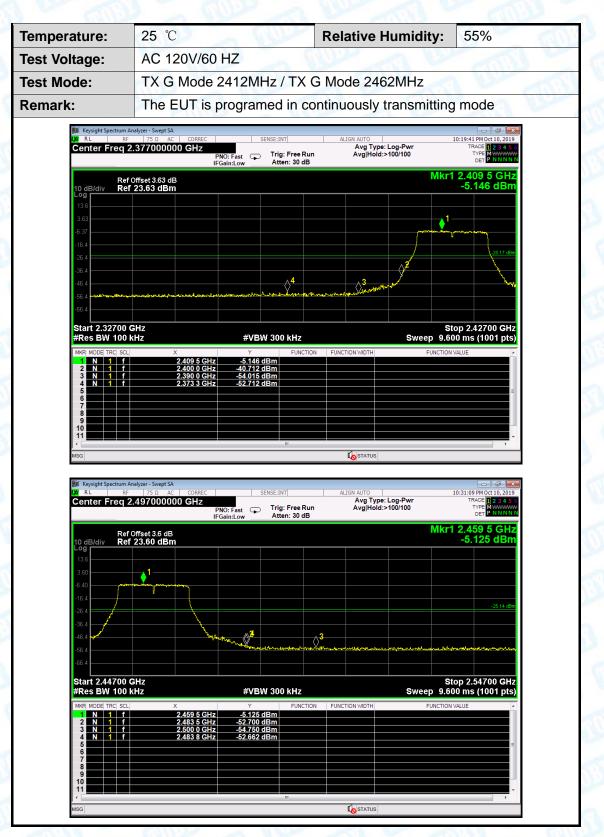
#### (2) Conducted Test





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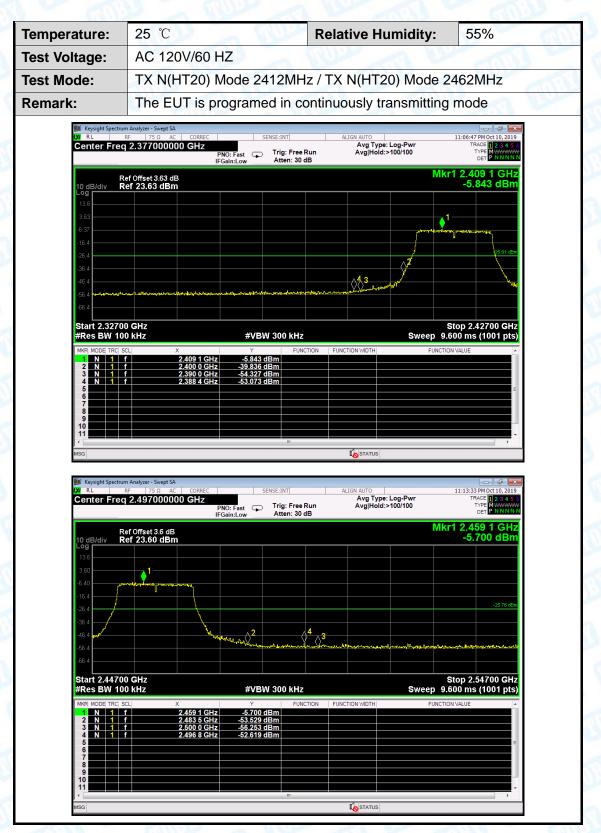
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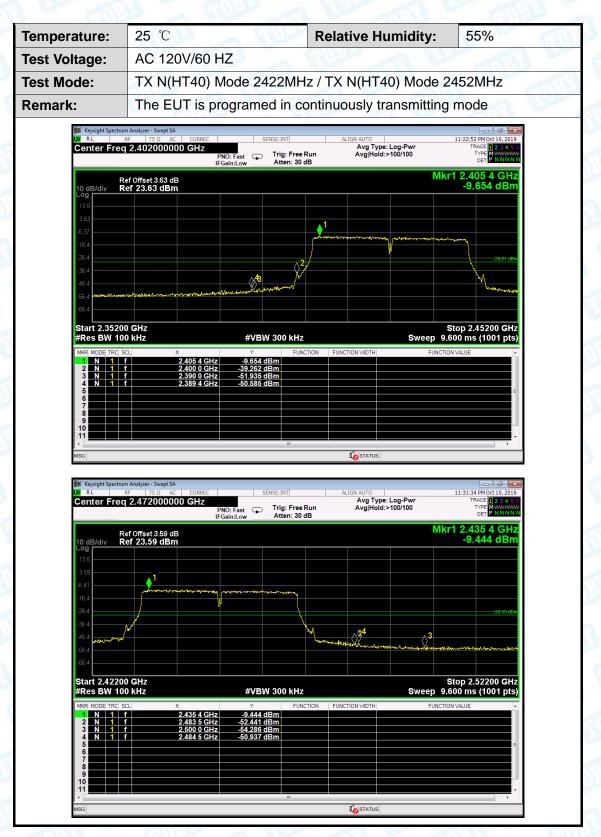
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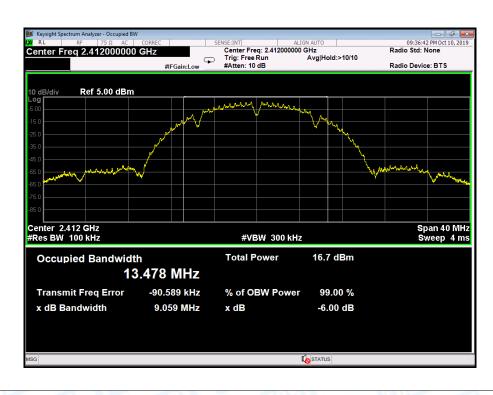
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### **Attachment D-- Bandwidth Test Data**

Temperature:	25 ℃ Relative Hum		55%		
Test Voltage:	AC 120V/60 HZ				
Test Mode:	Test Mode: TX 802.11B Mode				
Channel frequence	y 6dB Bandwidth	99% Bandwidth	Limit		
(MHz)	(MHz)	(MHz)	(MHz)		
2412	9.059	13.478			
2437	9.052 13.488		>=0.5		
2462	9.067	13.475			

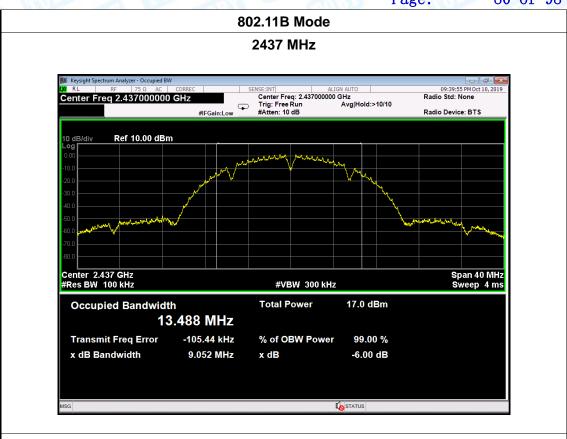
#### 802.11B Mode



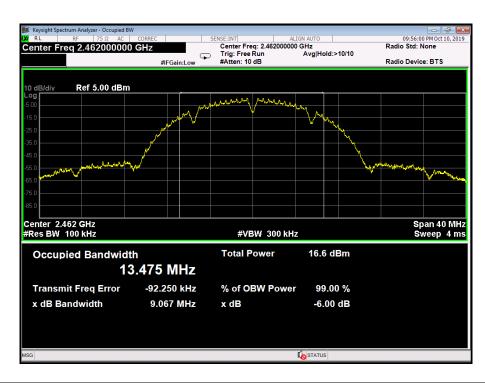


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#### 802.11B Mode



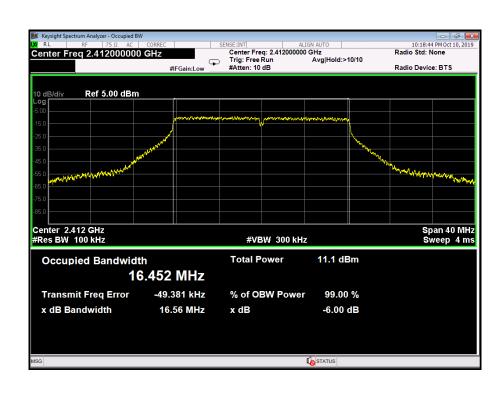


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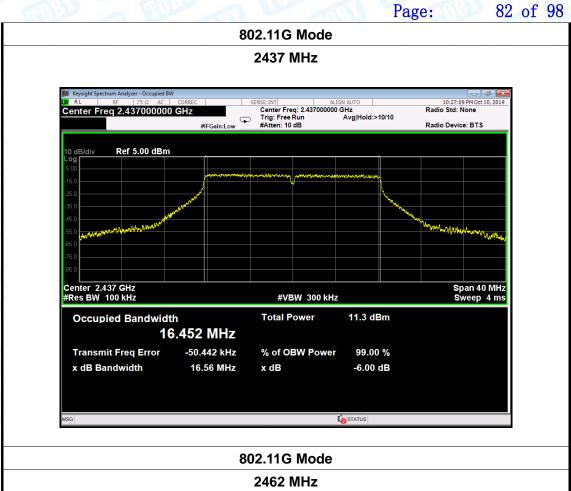
Temperature: 25 ℃		Relative Humidity:	55%		
Test Voltage:	AC 120V/60 HZ				
Test Mode:	TX 802.11G Mode				
Channel frequence	cy 6dB Bandwidth	99% Bandwidth	Limit		
(MHz)	(MHz)	(MHz)	(MHz)		
2412	16.56	16.452			
2437	16.56	16.452	>=0.5		
2462	16.56	16.448			

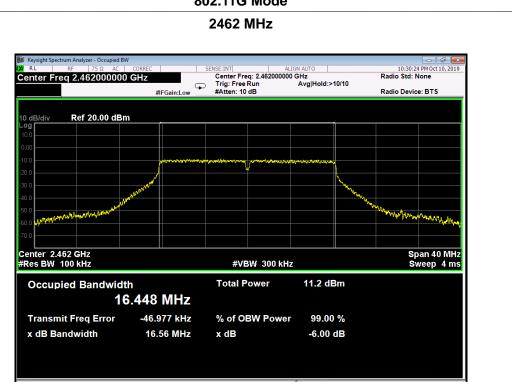
#### 802.11G Mode





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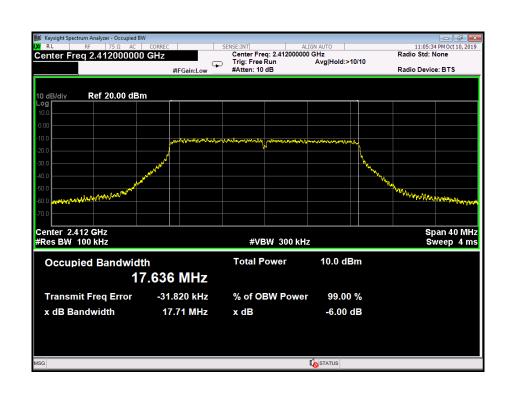


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Temperature: 25 ℃		Relative Humidity:	55%
Test Voltage:	AC 120V/60 HZ	The same	
Test Mode:	TX 802.11N(HT20) Mode		
Channel frequence	cy 6dB Bandwidth	99% Bandwidth	Limit
(MHz)	(MHz)	(MHz)	(MHz)
2412	17.71	17.636	
2437	17.72	17.635	>=0.5
2462	17.73	17.633	
	000 441/1170	O\ B.C I.	

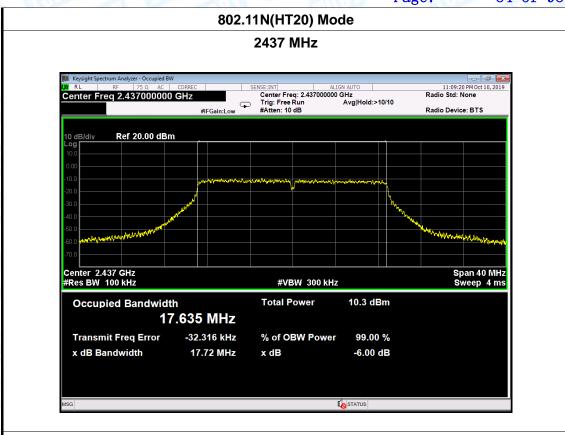
#### 802.11N(HT20) Mode

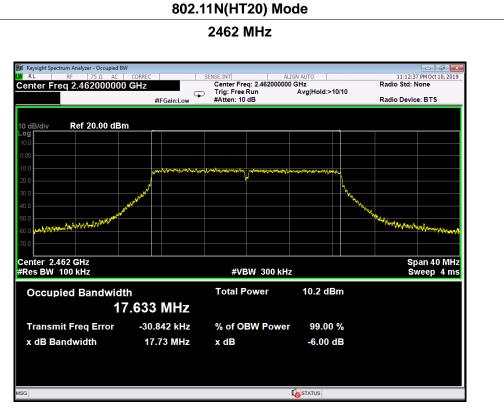




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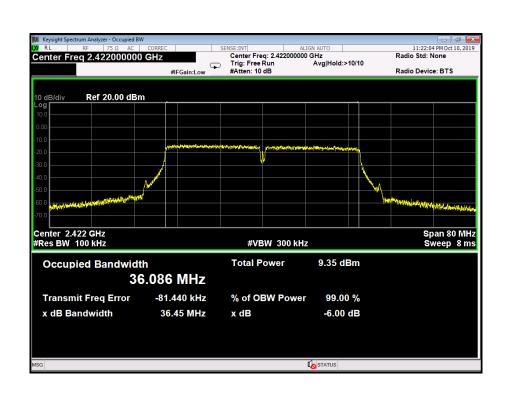


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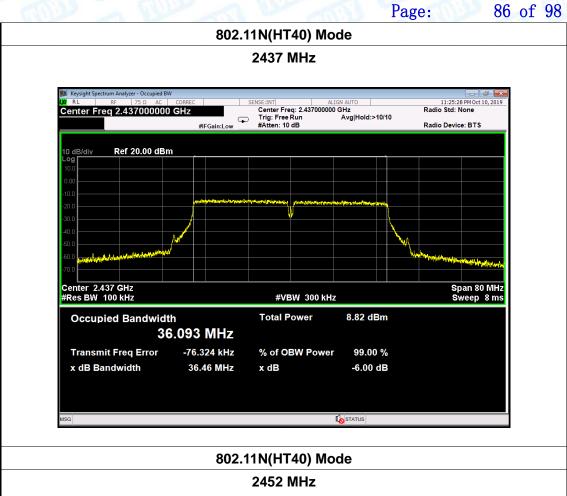
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60 HZ		
Test Mode:	TX 802.11N(HT40) Mode		CODE -
Channel frequence	cy 6dB Bandwidth	99% Bandwidth	Limit
(MHz)	(MHz)	(MHz)	(MHz)
2422	36.45	36.086	
2437	36.46	36.093	>=0.5
2452	36.46	36.108	
	<b>'</b>	1	1

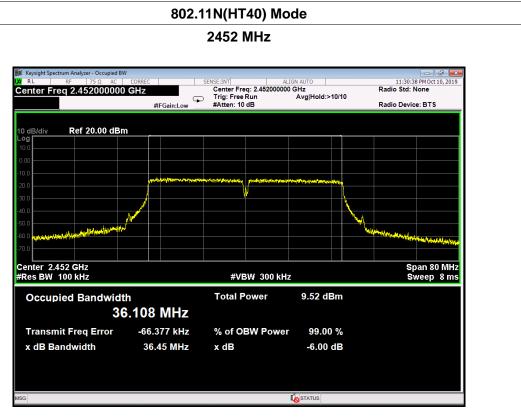
#### 802.11N(HT40) Mode





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### **Attachment E-- Average Output Power Test Data**

Test Condition	ıs:	Continuous Transm	itting	Mode		
Temperature:		25 ℃	B	Relative Humidity:	55%	
Test Voltage:		AC 120V/60 HZ		a man	0.0037	
Mode	С	hannel frequency (MHz)	Tes	st Result (dBm)	Limit (dBm)	
		2412		15.48		
802.11b		2437		15.68		
	2462			15.28		
		2412		14.51		
802.11g		2437	14.54			
		2462		14.43	30	
000 44		2412		13.38	30	
802.11n (HT20)		2437		13.74		
(11120)		2462		13.59		
902.44.		2422		12.80		
802.11n (HT40)		2437		12.56		
(11140)		2452		12.31		
		Resu	ılt: I	PASS		



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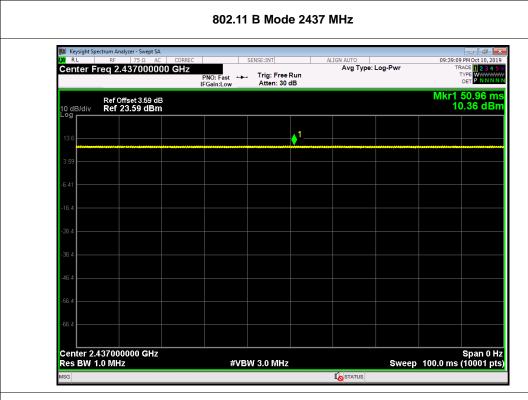
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Duty Cycle								
Mode	Channel frequency (MHz)	Test Result						
	2412							
802.11b	2437							
	2462							
	2412							
802.11g	2437							
	2462	000/						
000 44	2412	>98%						
802.11n (HT20)	2437							
(П120)	2462							
	2422							
802.11n	2437							
(HT40)	2452							

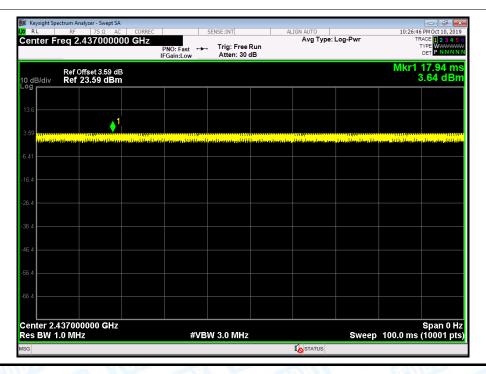


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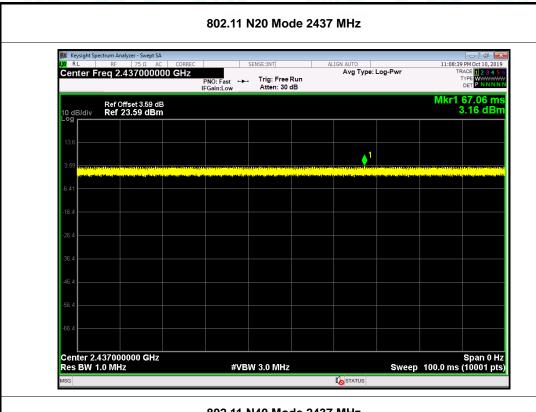
#### 802.11 G Mode 2437 MHz



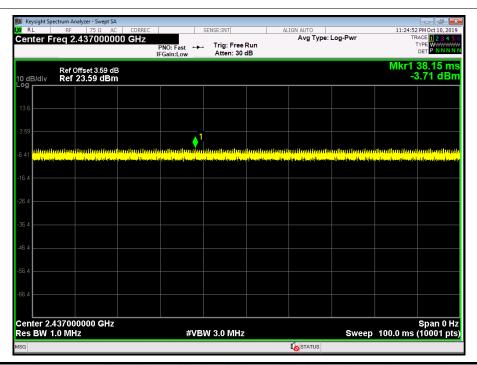


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#### 802.11 N40 Mode 2437 MHz





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### **Attachment F-- Power Spectral Density Test Data**

	Temperature:	25 ℃	1033	Relative Humidity	<b>7:</b> 55%	630		
	Test Voltage:	AC 120V/60 HZ						
	Test Mode:	TX 802.11	TX 802.11B Mode					
	Channel Frequency		Power Density		Limit			
ı	(MHz)		(dBm/3	kHz)	(dBm/3 kHz)			
	2412		-15.310					
	2437		-15.411		8			
	2462		-15.508					

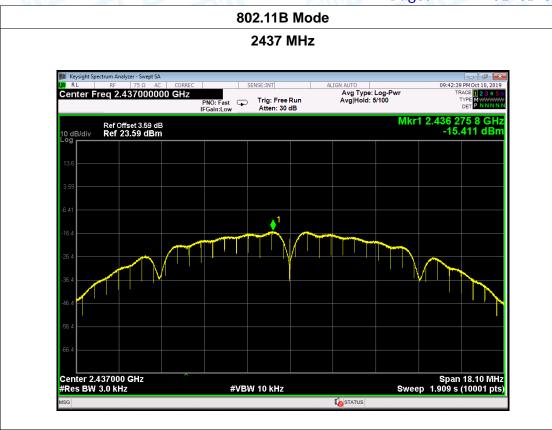
#### 802.11B Mode



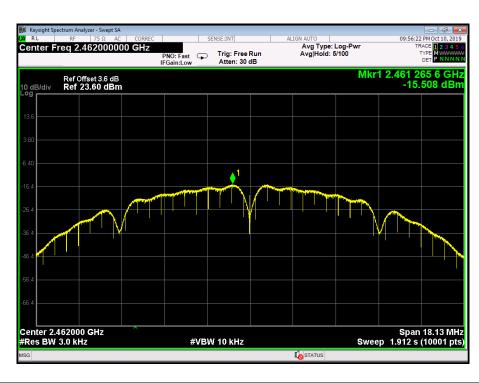


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#### 802.11B Mode



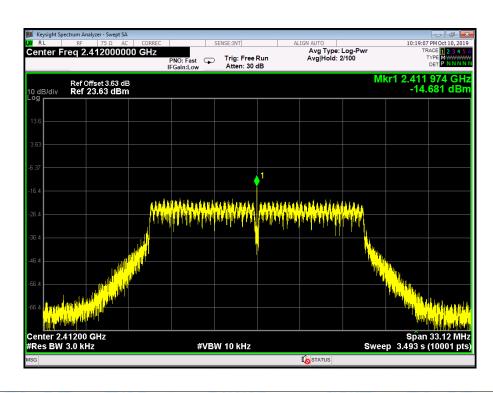


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Temperature: 25 °C			Temperature:	25 ℃			
Test Voltage:	AC 120V	AC 120V/60 HZ					
Test Mode:	TX 802.1	TX 802.11G Mode					
Channel Free	Channel Frequency		ensity	Limit			
(MHz)		(dBm/3	kHz)	(dBm/3 kHz)			
2412		-14.6	81				
2437		-19.0	12	8			
2462	2462		18				

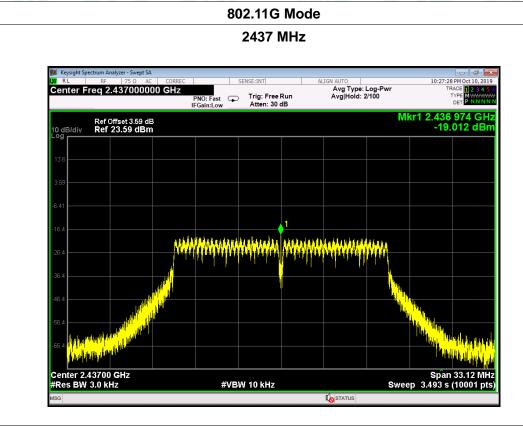
#### 802.11G Mode



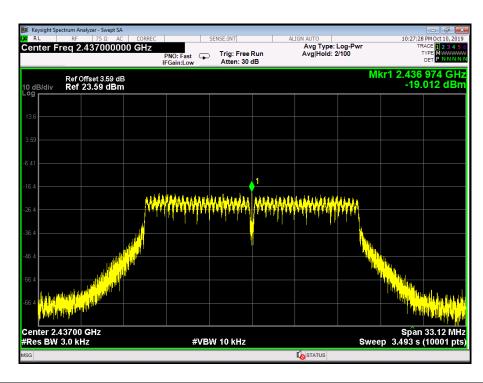


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#### 802.11G Mode



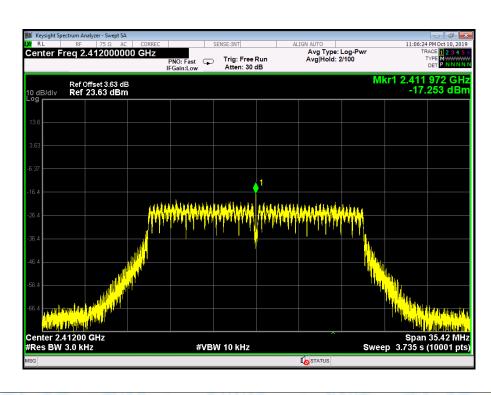


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Temperature:	25 ℃	Temperat		25 ℃		
Test Voltage:	AC 120V/60 HZ					
Test Mode:	TX 802.1	1N(HT20) Mode	The same			
Channel Frequency		Power Density		Limit		
(MHz)		(dBm/3 kHz)		(dBm/3 kHz)		
2412	2412		-17.253			
2437		-18.937		8		
2462		-19.93	1			

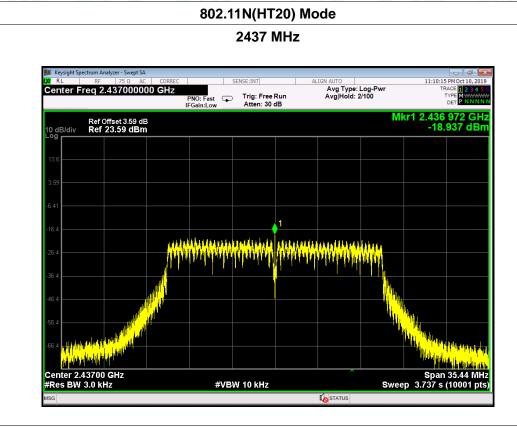
#### 802.11N(HT20) Mode



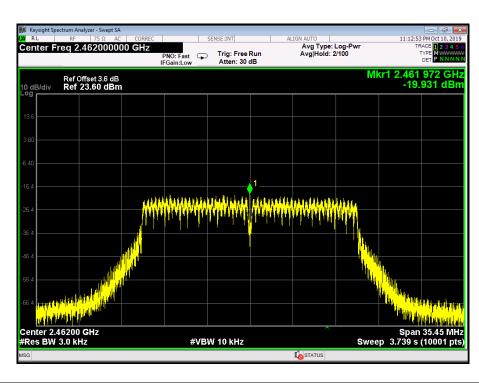


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#### 802.11N(HT20) Mode



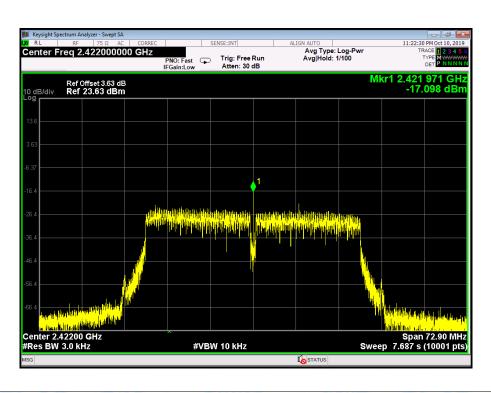


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Temperature:	25 ℃	Temperatu		25 ℃			
Test Voltage:	Voltage: AC 120V/60 HZ						
Test Mode:	TX 802.1	11N(HT40) Mode					
Channel Frequency		Power Density		Limit			
(MHz)		(dBm/3 kHz)		(dBm/3 kHz)			
2422	2422		-17.098				
2437		-18.147		8			
2452		-19.88	3				

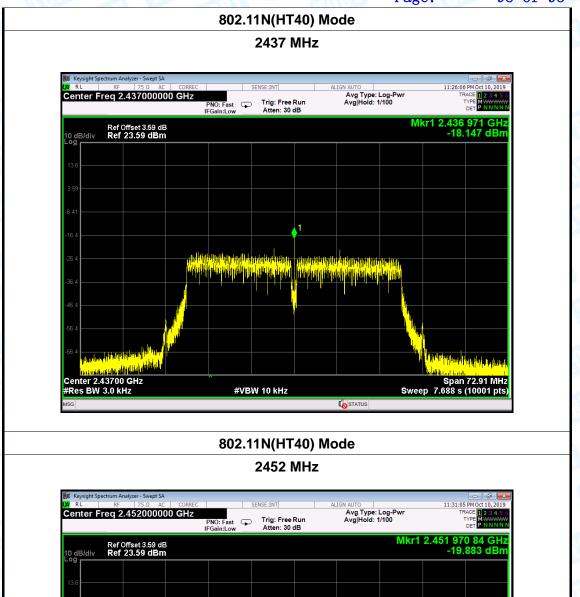
#### 802.11N(HT40) Mode





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----END OF REPORT-----

#VBW 10 kHz