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FCC Radio Test Report FCC ID: 2AKBP-Q13W

Original Grant

Report No. TB-FCC166904

Applicant Shenzhen Hysiry Technology Co., Ltd.

Equipment Under Test (EUT)

EUT Name Smart bulb

Model No. **Q13W**

Series Model No. Q13C

HUSIRU **Brand Name**

2019-06-24 **Receipt Date**

2019-06-24 to 2019-07-01 **Test Date**

Issue Date 2019-07-01

Standards FCC Part 15, Subpart C (15.247: 2018)

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

Test/Witness Engineer

Approved&

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-FCC166904	Rev.01	Initial issue of report	2019-07-01
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1. General Information about EUT

1.1 Client Information

Applicant : Shenzhen Hysiry Technology Co., Ltd.		Shenzhen Hysiry Technology Co., Ltd.	
Address	1	2403D, 24th floor, coast huanqing building, no.24 futian road, xu town community, futian street, futian district, Shenzhen, China	
Manufacturer	1:	Shenzhen Hysiry Technology Co., Ltd.	
Address		2403D, 24th floor, coast huanqing building, no.24 futian road, xu town community, futian street, futian district, Shenzhen, China	

1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	Smart bulb			
Models No.	(:	Q13W, Q13C			
Model Different	All these models are the same PCB, layout and electrical circles only difference is Lamp bead color temperature.				
		Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz		
	5	Number of Channel:	802.11b/g/n(HT20):11 channels see note(3)		
	3	RF Output Power:	802.11b: 5.45dBm 802.11g: 16.07dBm 802.11n (HT20): 15.98dBm		
Product	4	Antenna Gain:	1.7dBi Microstrip Antenna		
Description	B	Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK,QPSK,16QAM, 64QAM)		
	1	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 Supply		AC Voltage supplied			
Power Rating	:	Input: AC 110~240V,50/	60Hz		
Software Version		1.0			
Hardware Version		1.0			
Connecting I/O Port(S)		Please refer to the User	Please refer to the User's Manual		



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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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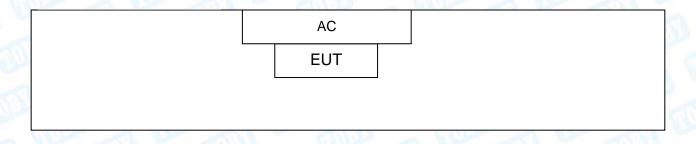
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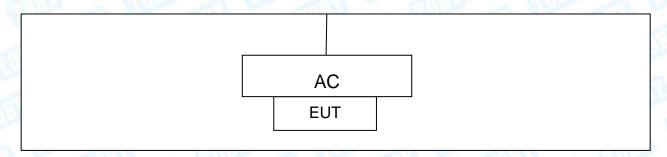
(3) Channel List:

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)						

(4) The Antenna information about the equipment is provided by the applicant.

1.3 Block Diagram Showing the Configuration of System Tested





1.4 Description of Support Units

The EUT has been tested as an independent unit.

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



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EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For Conducted Test			
Final Test Mode Description			
Mode 1	Normal Working 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			

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)

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a portable 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	TOWN THE	SecureCRT.exe	TO THE
Channel	CH 01	CH 06	CH 11
IEEE 802.11b DSSS	55	55	55
IEEE 802.11g OFDM	30	30	30
IEEE 802.11n (HT20)	30	30	30

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 _{Lab})
	Level Accuracy:	
Conducted Emission	9kHz~150kHz	±3.42 dB
Diss and District	150kHz to 30MHz	±3.42 dB
D. F. STILLER	Level Accuracy:	. 4 CO dD
Radiated Emission	9kHz to 30 MHz	±4.60 dB
Dodiated Emission	Level Accuracy:	. 4 40 dD
Radiated Emission	30MHz to 1000 MHz	±4.40 dB
Radiated Emission	Level Accuracy:	±4.20 dB
Radiated Emission	Above 1000MHz	±4.20 dB



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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	t 15 Subpart C(15.247)/ RSS 247	Issue 2	
Standa	rd Section	Tool Hom	ludament	Damark
FCC	IC	Test 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

Note: "/" for no requirement for this test item.

N/A is an abbreviation for Not Applicable.



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3. Test Equipment

Conducted Emissi	ion Test				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 18, 2018	Jul. 17, 2019
RF Switching Unit	Compliance Direction Systems Inc	RSU-A4	34403	Jul. 18, 2018	Jul. 17, 2019
AMN	SCHWARZBECK	NNBL 8226-2	8226-2/164	Jul. 18, 2018	Jul. 17, 2019
LISN	Rohde & Schwarz	ENV216	101131	Jul. 18, 2018	Jul. 17, 2019
Radiation Emissio	n Test		<u>L</u>	1	+
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 18, 2018	Jul. 17, 2019
EMI Test Receiver	Rohde & Schwarz	ESPI	100010/007	Jul. 18, 2018	Jul. 17, 2019
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Jan. 27, 2019	Jan. 26, 2020
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Jan. 27, 2019	Jan. 26, 202
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.03, 2019	Mar. 02, 202
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar.03, 2019	Mar. 02, 202
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Mar.04, 2019	Mar. 03, 202
Pre-amplifier	Sonoma	310N	185903	Mar.03, 2019	Mar. 02, 202
Pre-amplifier	HP	8449B	3008A00849	Mar.03, 2019	Mar. 02, 202
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.03, 2019	Mar. 02, 202
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A
Antenna Conducte	ed Emission				
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
Spectrum Analyzer	Agilent	E4407B	MY45106456	Jul. 18, 2018	Jul. 17, 2019
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 18, 2018	Jul. 17, 2019
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 15, 2018	Sep. 14, 201
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 15, 2018	Sep. 14, 201
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 15, 2018	Sep. 14, 201
DE Davis C	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO26	Sep. 15, 2018	Sep. 14, 201
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO29	Sep. 15, 2018	Sep. 14, 201



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miles a	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO31	Sep. 15, 2018	Sep. 14, 2019
(0)33	DARE!! Instruments	RadiPowerRPR3006W	17I00015SNO33	Sep. 15, 2018	Sep. 14, 2019



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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

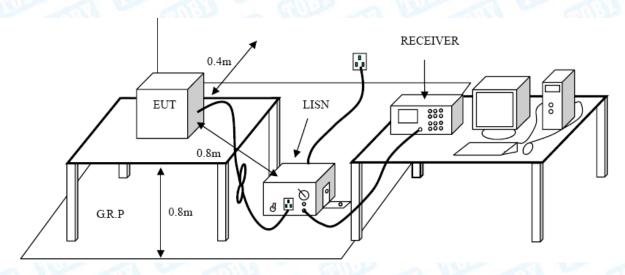
Conducted Emission Test Limit

Fraguency	Maximum RF Line 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)

Frequency	Field Strength	Measurement Distance
(MHz	(microvolt/meter)	(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:

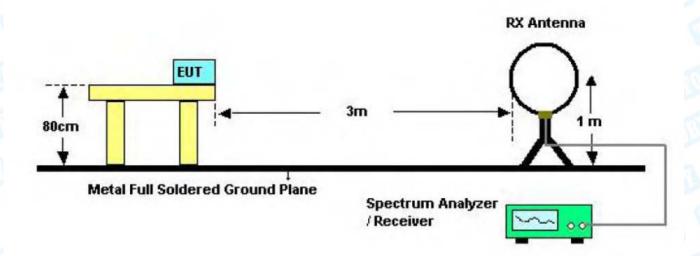
- (1) The tighter limit applies at the band edges.
- (2) Emission Level(dBuV/m)=20log Emission Level(uV/m)



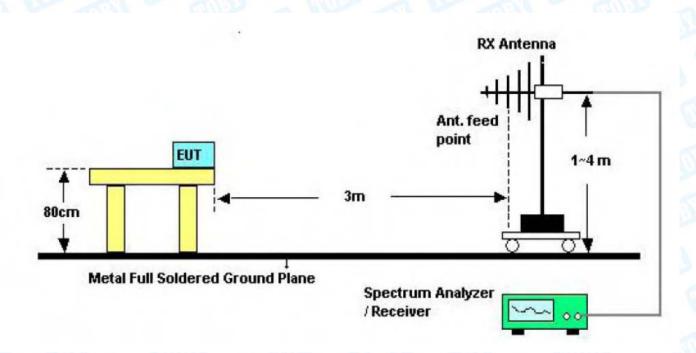
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5.2 Test Setup



Below 30MHz Test Setup

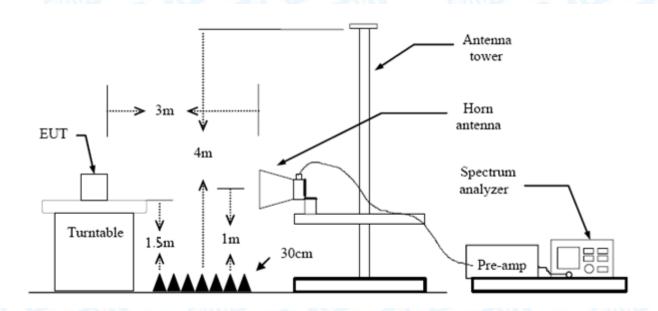


Below 1000MHz Test Setup



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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. 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.
- (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



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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.

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)

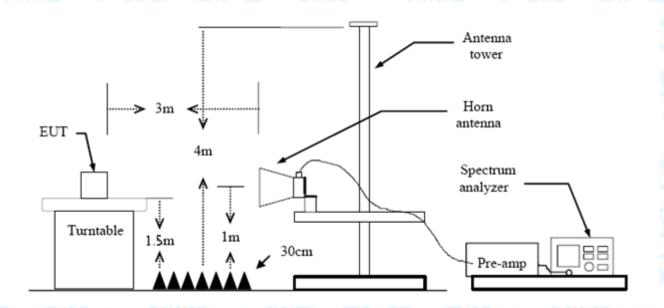
FCC Part 15.209

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

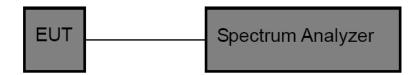
7.1 Test Standard and Limit

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

7.1.2 Test Limit

F	FCC Part 15 Subpart C(15.247)						
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. Peak Output Power Test

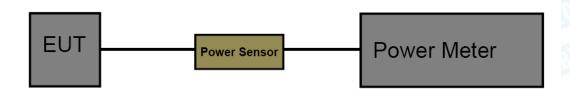
8.1 Test Standard and Limit

8.1.1 Test Standard FCC Part 15.247 (b)

8.1.2 Test Limit

FCC Part 15 Subpart C(15.247)						
Test Item	Limit	Frequency Range(MHz)				
Peak 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

FCC Part 15 Subpart C(15.247)						
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 1.7dBi, 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 Microstrip Antenna. It complies with the standard requirement.

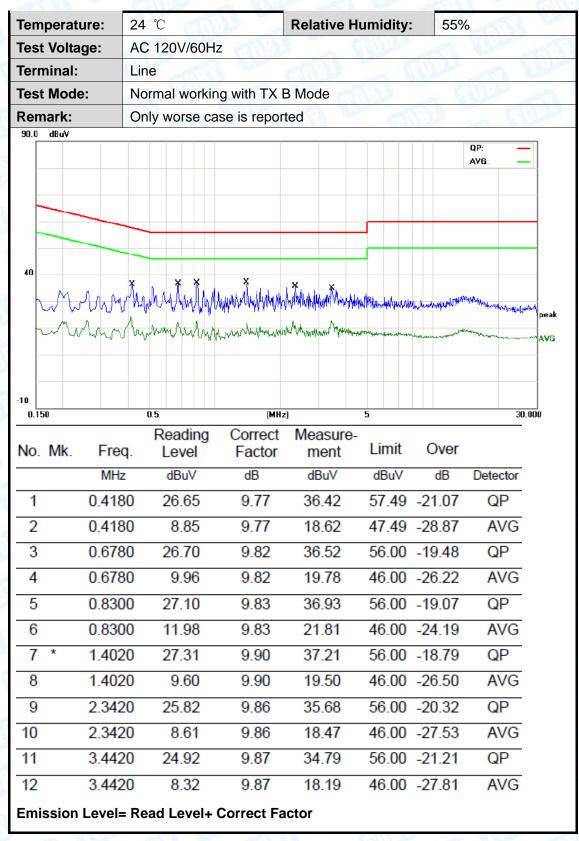
	Antenna Type		
TOBS	⊠Permanent attached antenna		
23	Unique connector antenna	1000	
E TOPE CONTRACTOR	Professional installation antenna	B &	



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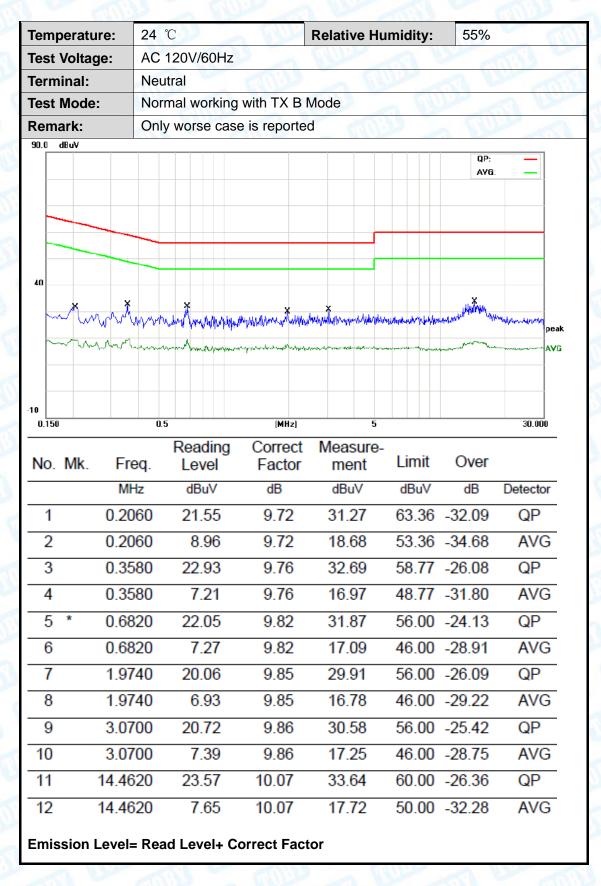
Attachment A-- Conducted Emission Test Data





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emperature:	25 °C	C	A RELIEF	Relativ	e Humid	lity: 5	5%
est Voltage:	AC 2	40V/50Hz	3	Millian	A STATE	Charles Street	THE STATE OF
erminal:	Line	3	THE PARTY OF THE P	- 1	Miles		Ram
est Mode:	Norm	Normal working with TX B Mode					
emark:	Only	worse cas	e is reported	d	193		The same
).O dBuV						QP:	_
						AVG:	_
10		× ×	×				
www	n Mahala V	~Xm/M/Mm	hvitushqqqxxhhiiqqq	44,044,74,044,044,044.0	Helpert May Lever	the physical states	www.qu/pake4 peak
			n de de la			market and the second second second	AVG
0.150	0.5		(MHz)	5			30.000
		Reading	Correct	Measure-			
No. Mk. F	req.	Level	Factor	ment	Limit	Over	
N	ИHz	dBuV	dB	dBuV	dBuV	dB	Detector
1 0.4	1180	16.65	9.77	26.42	57.49	-31.07	QP
2 0.4	1180	7.65	9.77	17.42	47.49	-30.07	AVG
3 0.6	6780	19.84	9.82	29.66	56.00	-26.34	QP
4 0.6	6780	9.76	9.82	19.58	46.00	-26.42	AVG
5 0.8	3300	20.07	9.83	29.90	56.00	-26.10	QP
6 * 0.8	3300	11.18	9.83	21.01	46.00	-24.99	AVG
	1020	18.69	9.90	28.59	56.00	-27.41	QP
7 1.4	1020	.0.00					
	1020	9.30	9.90	19.20	46.00	-26.80	AVG
8 1.4			9.90 9.86	19.20 27.55		-26.80 -28.45	AVG QP
8 1.4 9 2.3	1020	9.30			56.00		
8 1.4 9 2.3 10 2.3	1020 3420	9.30 17.69	9.86	27.55	56.00 46.00	-28.45	QP



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Temperature:	25 ℃	علالا م	Relative	e Humidit	t y: 55°	%
Test Voltage:	AC 240V/50H	Z	Direction	-	C. S. Land	CITIES
Terminal:	Neutral	COUNTY OF	- 1	HILL		Bir
Test Mode:	Normal working	ng with TX B	Mode	-		A DO
Remark:	Only worse ca	ase is reporte	d	Line .	2 V	William .
90.0 dBuV						QP: —
						AVG: —
40						
	×		*		Xult	ξ AV ₀
~ www	May what was the same of the s	phypaphipolophlymacantaviph	ad marting and pully was specially	Approximate the second of the	phylography medicing time	K Maringanian warnan
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		district a language of the second	gudgada, dar waar-2014 - dad		and the second s	- Annah January - Annah An
10						
0.150	0.5	(MHz)		5		30.00
No. Mk. Fre	Reading eq. Level	Correct Factor	Measure- ment	Limit	Over	
No. Mk. Fre	eq. Level				Over	Detector
	eq. Level Iz dBuV	Factor	ment	Limit	dB	Detector QP
MH	eq. Level dz dBuV d60 15.49	Factor dB	ment dBuV	Limit dBuV	dB -38.15	
1 0.20	eq. Level dz dBuV d60 15.49 d60 7.66	Factor dB 9.72	ment dBuV 25.21	dBuV 63.36 53.36	dB -38.15	QP
1 0.20 2 0.20	eq. Level dz dBuV 60 15.49 60 7.66 80 12.12	9.72 9.72	ment dBuV 25.21 17.38	dBuV 63.36 53.36	dB -38.15 -35.98 -36.89	QP AVG
1 0.20 2 0.20 3 0.35	eq. Level day dBuV 60 15.49 60 7.66 80 12.12 80 5.96	9.72 9.72 9.76	ment dBuV 25.21 17.38 21.88	dBuV 63.36 53.36 58.77	dB -38.15 -35.98 -36.89 -33.05	QP AVG QP
1 0.20 2 0.20 3 0.35 4 0.35	eq. Level dz dBuV d60 15.49 d60 7.66 d80 12.12 d80 5.96 d20 12.55	9.72 9.72 9.76 9.76	ment dBuV 25.21 17.38 21.88 15.72	Limit  dBuV  63.36  53.36  58.77  48.77	dB -38.15 -35.98 -36.89 -33.05 -33.63	QP AVG QP AVG
1 0.20 2 0.20 3 0.35 4 0.35 5 0.68	eq. Level de d	9.72 9.72 9.76 9.76 9.82	ment dBuV 25.21 17.38 21.88 15.72 22.37	Limit dBuV 63.36 53.36 58.77 48.77 56.00	dB -38.15 -35.98 -36.89 -33.05 -33.63 -30.21	QP AVG QP AVG QP
MH 1 0.20 2 0.20 3 0.35 4 0.35 5 0.68 6 0.68	eq. Level day	9.72 9.72 9.76 9.76 9.82 9.82	ment dBuV 25.21 17.38 21.88 15.72 22.37 15.79	Limit dBuV 63.36 53.36 58.77 48.77 56.00 46.00	dB -38.15 -35.98 -36.89 -33.05 -33.63 -30.21 -34.11	QP AVG QP AVG QP AVG
MH 1 0.20 2 0.20 3 0.35 4 0.35 5 0.68 6 0.68 7 1.97	eq. Level de d	9.72 9.72 9.76 9.76 9.82 9.82 9.85	ment dBuV 25.21 17.38 21.88 15.72 22.37 15.79 21.89	Limit dBuV 63.36 53.36 58.77 48.77 56.00 46.00 56.00	dB -38.15 -35.98 -36.89 -33.05 -33.63 -30.21 -34.11 -30.09	QP AVG QP AVG QP AVG QP
MH 1 0.20 2 0.20 3 0.35 4 0.35 5 0.68 6 0.68 7 1.97 8 1.97	eq. Level de d	9.72 9.72 9.76 9.76 9.82 9.82 9.85 9.85	ment dBuV 25.21 17.38 21.88 15.72 22.37 15.79 21.89 15.91	Limit dBuV 63.36 53.36 58.77 48.77 56.00 46.00 46.00	dB -38.15 -35.98 -36.89 -33.05 -33.63 -30.21 -34.11 -30.09 -33.61	QP AVG QP AVG QP AVG QP AVG
1 0.20 2 0.20 3 0.35 4 0.35 5 0.68 6 0.68 7 1.97 8 1.97	eq. Level day	9.72 9.72 9.76 9.76 9.82 9.82 9.85 9.85 9.86	ment dBuV 25.21 17.38 21.88 15.72 22.37 15.79 21.89 15.91 22.39	Limit dBuV 63.36 53.36 58.77 48.77 56.00 46.00 56.00 56.00	dB -38.15 -35.98 -36.89 -33.05 -33.63 -30.21 -34.11 -30.09 -33.61 -29.95	QP AVG QP AVG QP AVG QP AVG QP



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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.

#### 30N

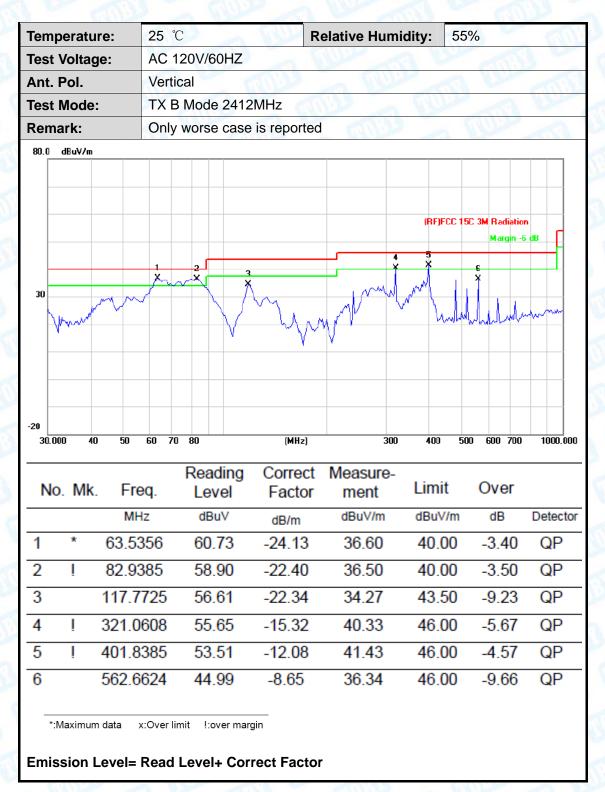
omporatura	26 ℃			Relative H	umidituu	55%	A Property
emperature:		N (/001 III	of Philips	Relative H	umiaity:	55%	
est Voltage:		0V/60HZ	73	CHI STORY			THE REAL PROPERTY.
nt. Pol.	Horizon		CHINE .		The same		3
est Mode:	TXBM	lode 2412N	ИHz	TO THE		Trans.	
emark:	Only w	orse case i	s reported		33	11/10	1000
80.0 dBuV/m							
-20	\		M/////	2 X	(RF)FCC 19	SC 3M Radiation Margin -5 X 6 X	
30.000 40	50 60 7	70	(MHz)	300	400 50	00 600 700	1000.000
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1 20	03.5228	44.98	-19.70	25.28	43.50	-18.22	QP
2 27	79.0436	52.38	-16.44	35.94	46.00	-10.06	QP
3 * 32	21.0608	58.18	-15.32	42.86	46.00	-3.14	QP
		54.04	-12.08	39.16	46.00	-6.84	QP
4 40	01.8385	51.24	-12.00	39.10	10.00	0.0.	~.
	01.8385 62.6624	51.24 45.42	-8.65	36.77	46.00	-9.23	QP

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



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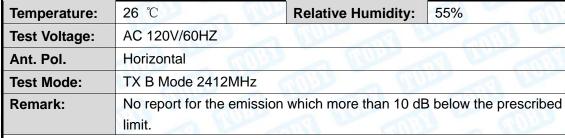


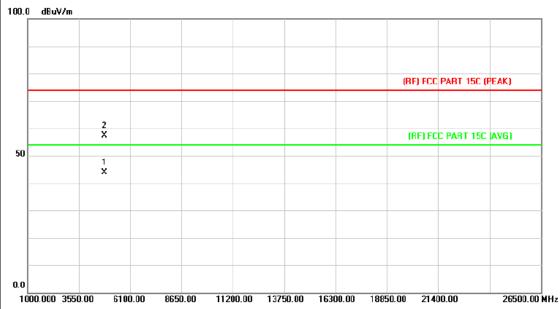


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#### **Above 1GHz**





No	. Mk	. Freq.			Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4823.970	29.44	14.55	43.99	54.00	-10.01	AVG
2		4824.486	42.77	14.55	57.32	74.00	-16.68	peak



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Temperature:	26 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60HZ					
Ant. Pol.	Vertical					
Test Mode:	TX B Mode 2412MHz					
Remark:	No report for the emission which more than 10 dB below the prescribed limit.					



No	).	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4823.946	31.08	14.55	45.63	54.00	-8.37	AVG
2			4824.102	42.83	14.55	57.38	74.00	-16.62	peak



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Temperature:	26 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60HZ					
Ant. Pol.	Horizontal	Direction of the second	THE PARTY OF THE P			
Test Mode:	TX B Mode 2437MHz					
Remark:	No report for the e	emission which more than 10 d	B below the			
100.0 dBuV/m						



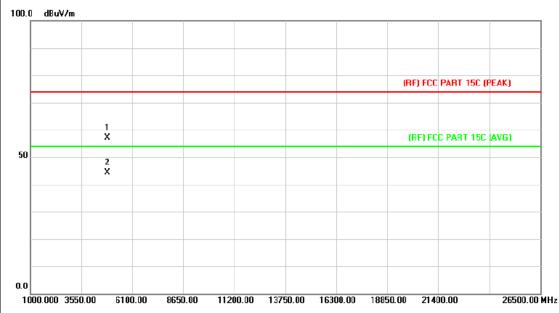
No.	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.900	42.82	14.86	57.68	74.00	-16.32	peak
2	*	4874.900	29.52	14.86	44.38	54.00	-9.62	AVG



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Temperature:	26 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical	THE PARTY OF THE P	THE PARTY OF THE P
Test Mode:	TX B Mode 2437M	-lz	No.
Remark:	No report for the en	nission which more than 10 db	3 below the



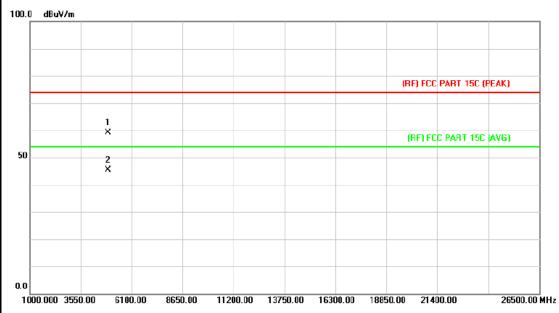
No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.348	42.27	14.86	57.13	74.00	-16.87	peak
2	*	4874.348	29.52	14.86	44.38	54.00	-9.62	AVG



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Temperature:	26 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60HZ	The same of the sa					
Ant. Pol.	Horizontal	Horizontal					
Test Mode:	TX B Mode 2462MH	z					
Remark:	No report for the em prescribed limit.	ission which more than 10 dB	3 below the				



No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4923.682	44.05	15.17	59.22	74.00	-14.78	peak
2	*	4924.666	30.16	15.17	45.33	54.00	-8.67	AVG



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Temperature:	26 ℃	Relative Humidity: 55%					
Test Voltage:	AC 120V/60HZ						
Ant. Pol.	Vertical	Old The Park					
Test Mode: TX B Mode 2462MHz							
Remark:	No report for the e prescribed limit.	emission which more than 10 dB below the					
Remark:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	emission which more than 10 dB below the					



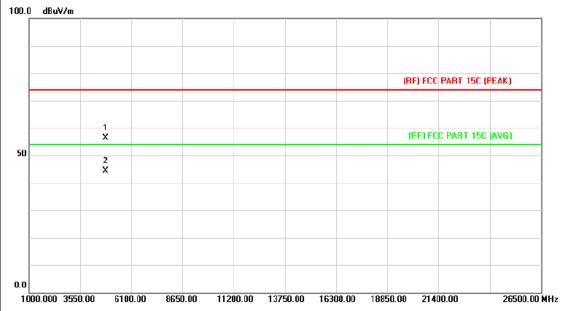
No	o. Mk	. Freq.			Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4923.784	30.10	15.17	45.27	54.00	-8.73	AVG
2		4925.122	42.78	15.19	57.97	74.00	-16.03	peak



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55%	<b>':</b>	Relative Humidity:	26 ℃	Temperature:
		The same	AC 120V/60HZ	Test Voltage:
Charles and the second		THE PARTY OF THE P	Horizontal	Ant. Pol.
	طنال	THE PARTY OF THE P	TX G Mode 2412MH	Test Mode:
below the	dB	n which more than 10 de	No report for the emis	Remark:
			prescribed limit.	100.0 dBuV/m



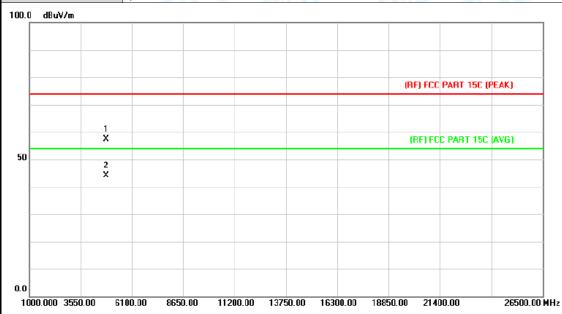
No.	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.616	41.72	14.55	56.27	74.00	-17.73	peak
2	*	4823.616	29.82	14.55	44.37	54.00	-9.63	AVG



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Temperature:	<b>26</b> ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60HZ	The same of the sa					
Ant. Pol. Vertical							
Test Mode:	TX G Mode 2412MHz						
Remark:	No report for the em prescribed limit.	ission which more than 10 o	dB below the				
100.0 dBuV/m							



No.	. Mk	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4824.624	42.76	14.55	57.31	74.00	-16.69	peak
2	*	4824.624	29.58	14.55	44.13	54.00	-9.87	AVG



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30 10 10 10 10			
Temperature:	26 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ	The same of the sa	
Ant. Pol.	Horizontal		THE PARTY OF THE P
Test Mode:	TX G Mode 2437M	Hz (1)	
Remark:	No report for the emprescribed limit.	nission which more than 10 dl	3 below the
100.0 dPul//m	<u>'</u>		



No	). I	Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	18	r	4874.336	29.74	14.86	44.60	54.00	-9.40	AVG
2			4874.528	43.05	14.86	57.91	74.00	-16.09	peak



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Temperature:	<b>26</b> ℃	Relative Humi	dity: 55%				
Test Voltage:	AC 120V/60HZ	TUP TO	The same				
Ant. Pol.	Vertical	THE PARTY OF THE P	THE REAL PROPERTY.				
Test Mode: TX G Mode 2437MHz							
Remark:	No report for the prescribed limit.	emission which more than	10 dB below the				
	procenio da infiniti						
100.0 dBuV/m	precentate minu						
100.0 dBuV/m	processing a minimum						
100.0 dBuV/m	processing a minute						



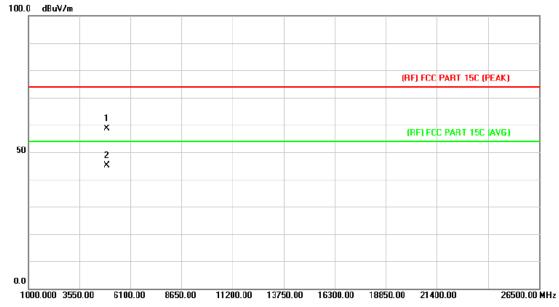
	No.	Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4873.982	29.83	14.86	44.69	54.00	-9.31	AVG
2			4874.336	43.09	14.86	57.95	74.00	-16.05	peak



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Temperature:	26 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ	The same	
Ant. Pol.	Horizontal		THE PARTY OF THE P
Test Mode:	TX G Mode 2462MF	łz	
Remark:	No report for the em prescribed limit.	ission which more than 10 dl	3 below the
100.0 dBuV/m			



No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4923.418	43.56	15.17	58.73	74.00	-15.27	peak
2	*	4923.418	29.85	15.17	45.02	54.00	-8.98	AVG



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Temperature:	26 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Vertical	The Course	THE PERSON NAMED IN
Test Mode:	TX G Mode 2462M	1Hz	THE PERSON NAMED IN
Remark:	No report for the element prescribed limit.	mission which more than 10 o	dB below the
100.0 dBuV/m			



No.	Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4924.606	29.48	15.17	44.65	54.00	-9.35	AVG
2		4925.014	43.44	15.18	58.62	74.00	-15.38	peak



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Temperature:	26 ℃	Relative Humidity:	: 55%				
Test Voltage:	AC 120V/60HZ	AC 120V/60HZ					
Ant. Pol.	Horizontal	The same	13				
Test Mode: TX N(HT20) Mode 2412MHz							
Remark:	No report for the en prescribed limit.	nission which more than 10	dB below the				
100.0 dBuV/m							
			FCC PART 15C (PEAK)				



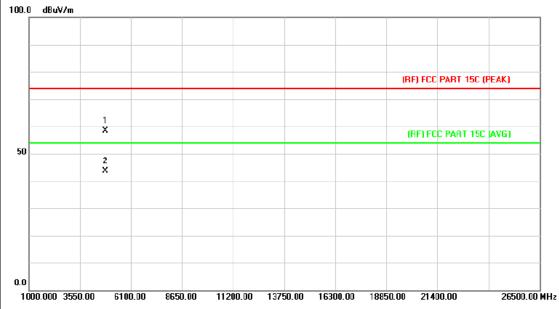
No.	Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.808	42.75	14.55	57.30	74.00	-16.70	peak
2	*	4823.814	30.09	14.55	44.64	54.00	-9.36	AVG



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Temperature:	<b>26</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ	THE REAL PROPERTY.	
Ant. Pol.	Vertical	THE PARTY OF THE P	THE PERSON NAMED IN
Test Mode:	TX N(HT20) Mod	le 2412MHz	The same of
Remark:	No report for the prescribed limit.	emission which more than 10 o	dB below the
100.0 dBuV/m			



No.	Mk.	Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.886	43.94	14.55	58.49	74.00	-15.51	peak
2	*	4825.458	29.00	14.57	43.57	54.00	-10.43	AVG



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Temperature:	<b>26</b> ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60HZ	THE WAY			
Ant. Pol.	Horizontal	William William	C. R. B.		
Test Mode: TX N(HT20) Mode 2437MHz					
Remark:	No report for the e	emission which more than 10 d	B below the		
100.0 dBuV/m					
		(RF) FI	CC PART 15C (PEAK)		

0.0 1000.000 3550.00 6100.00 8650.00 11200.00 13750.00 16300.00 18850.00 21400.00 26500.00 MHz

No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4872.704	42.62	14.85	57.47	74.00	-16.53	peak
2	*	4872.704	29.12	14.85	43.97	54.00	-10.03	AVG



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Temperature:	26 ℃	Relative Hum	idity:	55%		
Test Voltage:	AC 120V/60HZ	The state of the s	1 Min	Time.		
Ant. Pol. Vertical						
Test Mode:	TX N(HT20) Mode	e 2437MHz	CHILL			
_	No report for the emission which more than 10 dB below the					
Remark:	No report for the	emission which more tha	ın 10 dB	below the		
Remark:	No report for the exprescribed limit.	emission which more tha	ın 10 dB	below the		
Remark:	The second	emission which more tha	in 10 dB	below the		
	The second	emission which more tha	ın 10 dB	below the		
	The second	emission which more tha	in 10 dB	below the		
	The second	emission which more tha	:m33	below the		



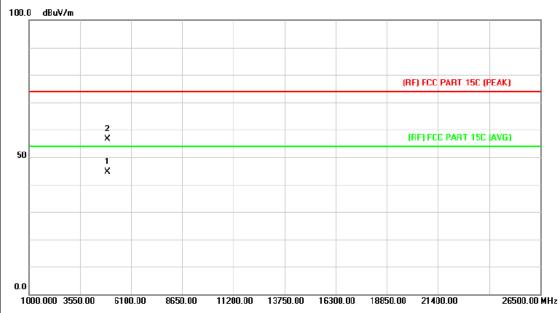
No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.772	42.43	14.86	57.29	74.00	-16.71	peak
2	*	4873.772	29.47	14.86	44.33	54.00	-9.67	AVG



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Temperature:	26 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ	The same of the	100
Ant. Pol.	Horizontal	THE PARTY OF THE P	A COLOR
Test Mode:	TX N(HT20) Mode 2462MH	z	
Remark:	No report for the emission volume prescribed limit.	which more than 10 dB	below the



No.	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4924.306	29.54	15.17	44.71	54.00	-9.29	AVG
2		4924.540	41.38	15.17	56.55	74.00	-17.45	peak



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Temperatu	re:	26 ℃			<b>Relative Humidity:</b> 55%						
Test Voltag	ge:	AC 120	V/60HZ		KILL	-	100	TIL	13		
Ant. Pol.		Vertical	-	1087	~ 1	HILL		130	-000		
Test Mode	:	TX N(H	IT20) Mo	de 2462MH	lz		MILLS.		Bar		
Remark:			ort for the ped limit.	10 dB l	pelow the	OT THE					
100.0 dBuV/m											
							(RF) FCC F	PART 15C (PE	AK)		
	2 X						(RF) FCC	PART 15C (A	VG)		
50	1 X										
	^										
0.0											
1000.000 355	0.00 61	00.00 86	50.00 112	200.00 13750.0	0 16300.0	00 18850.	00 21400	0.00	26500.00 MH		
			eading	Correct	Measu						
No. Mk.	Fre	q. l	_evel	Factor	men	it L	imit	Over			
	MHz	!	dBuV	dB/m	dBuV	/m d	lBuV/m	dB	Detecto		
1 *	4923.4	30 3	30.16	15.17	45.3	33	54.00	-8.67	AVG		
2	4923.5	.00	42.91	15.17	58.0		74.00	-15.92	2 peak		

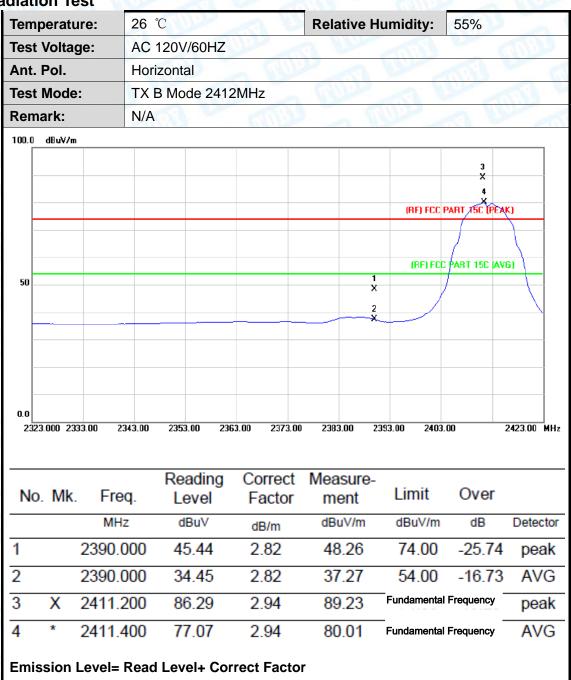


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# Attachment C-- Restricted Bands& Band-edge Requirement Test Data

(1) Radiation Test





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emperatur	e:	26 °C		1		R	elati	ve H	umi	dity:	55%		
est Voltag	e:	AC 1	20V/60	HZ	-	1	Nr.		-	I AR		133	٧
nt. Pol.		Vertic	cal		11.50		A	Ull	اللا		1 12		
est Mode:		TX B	Mode	2412N	lHz	111	339		a.	CHILL		J. W	
Remark:		N/A	1300		1		6		Į,		LANG.		A
100.0 dBuV/m													_
												4	
										(DE) EC	PART 150	(1) X	4
										(NF) FCI	PANT 19C	(FEAK)	$\exists$
										(RF) FO	C PART 150	(AVG)	
50									1 X		+-		$\forall$
									2				¥
					·				×				_
0.0													
2322.000 2332	2.00 234	12.00	2352.00	2362.0	00 237	2.00	2382	2.00	2392	.00 240	2.00	2422.0	00 MI
			Read		Corre		Mea	sure	)-				
No. Mk.	Free	q.	Lev	el	Fact	or	m	ent		Limit	Ove	er	
	MHz		dBu	V	dB/m		dB	uV/m		dBuV/n	n dB	De	tecto
1	2390.0	000	43.4	1	2.82		46	5.23		74.00	-27.	77 p	eal
2	2390.0	000	32.1	7	2.82		34	1.99		54.00	-19.	01 <i>A</i>	VG
3 *	2412.8	800	72.1	5	2.94		75	5.09	F	undament	tal Frequen	cy A	VG
4 X	2413.2	200	81.7	<b>'</b> 0	2.95		84	1.65		undamer	ital Frequer	ncy p	eal



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Tem	peratu	ıre:	26 °	C	A RAILER	Relative H	lumidity:	55%		
Test	Volta	ge:	AC '	120V/60H	Z					
Ant.	Pol.		Hori	zontal		The same	J Rain			
Test	Mode	):	TX E	3 Mode 24	62MHz	USS	July Comme		A STATE	
Ren	nark:		N/A	Many			ر لا	CALL ST	1	
100.0	dBuV/n	n								
		1 × 2					(RF) FCC	C PART 15C (PEA	AK)	
		<b>→</b>					(RF) FC	C PART 15C (AV	/G)	
50				3						
				X 4						
				<del>-</del> -						
Ì										
0.0										
24	51.000 24	161.00 24	471.00	2481.00	2491.00 2501.	00 2511.00	2521.00 253	1.00	2551.00 MH	
				Reading	Correct	Measure	)-			
No	o. Mk	Fre	q.	Level	Factor	ment	Limit	Over		
		MHz	Z	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detecto	
		0.400.0	200	84.58	3.26	87.84	 Fundament	al Frequency	peak	
1	X	2460.6	OUU	04.50	0.20					
	X *	2461.2		75.19	3.27	78.46	 Fundament	tal Frequency	AVG	
1 2 3			200			78.46 46.28	Fundament			



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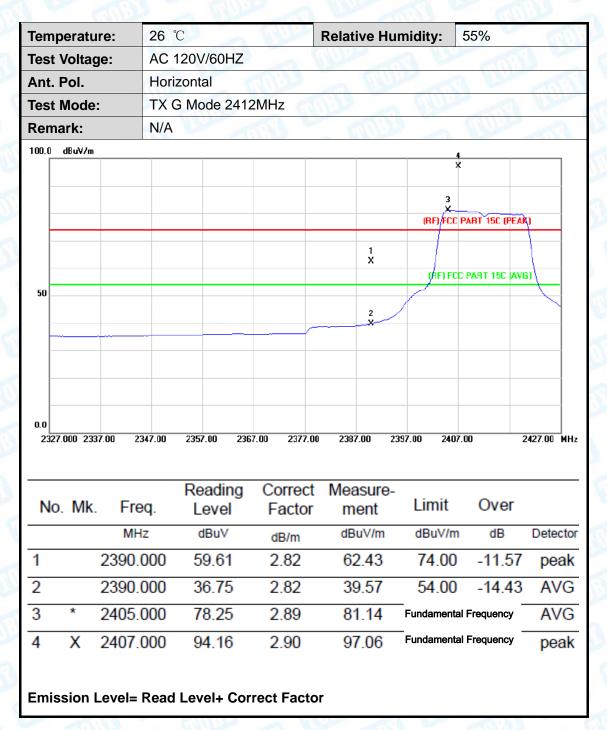
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Temp	peratu	ıre:	26	°C		11		Relat	ive H	lumidity	<b>/</b> : 5	55%	100
Test '	Volta	ge:	AC	120V/	60HZ	3	0	CALL .			طناليا	TIME	3
Ant.	Pol.		Vert	ical		Tim	33			The same		Right	-TITI
Test	Mode	:	TX	3 Mod	le 246	52MHz	Z	11370		2 1			A STATE
Rema	ark:		N/A	10		THE REAL PROPERTY.	} *				a 1	Millian	1
100.0	dBuV/m												
		2 X 1										ART 15C (PEA	
50					3 X 4 X					~			
0.0 2451	1.000 24	61.00 2	471.00	2481.0	00 2	491.00	2501.0	0 251	1.00	2521.00	2531.0	0	2551.00 MH
No	. Mk.	Fre	q.		ding vel		orrect actor		asure ent	}- Lim	nit	Over	
		МН	Z	dB	₿uV	dl	B/m	dB	uV/m	dBu	IV/m	dB	Detecto
1	*	2462.	800	73	.25	3	.27	76	6.52	Funda	mental	Frequency	AVG
2	Χ	2463.4	400	82	.62	3	.28	85	5.90	 Funda	mental	Frequency	peak
3		2483.	500	42	.75	3	.41	46	6.16	74	.00	-27.84	peak
		2483.			.19	_	.41		5.60	E 4	.00	-18.40	AVG



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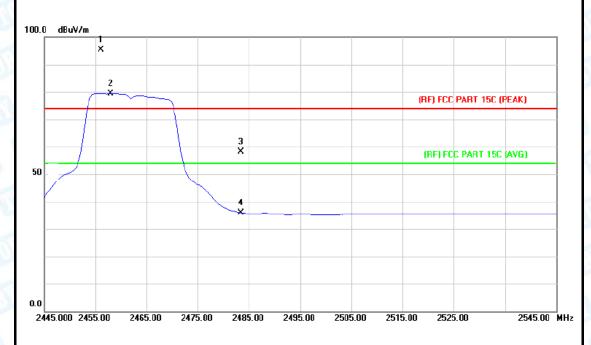




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Temperature:	26 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal	THE PARTY OF THE P	Time of the
Test Mode:	TX G Mode 2462MHz	United States	
Remark:	N/A		LINE COL

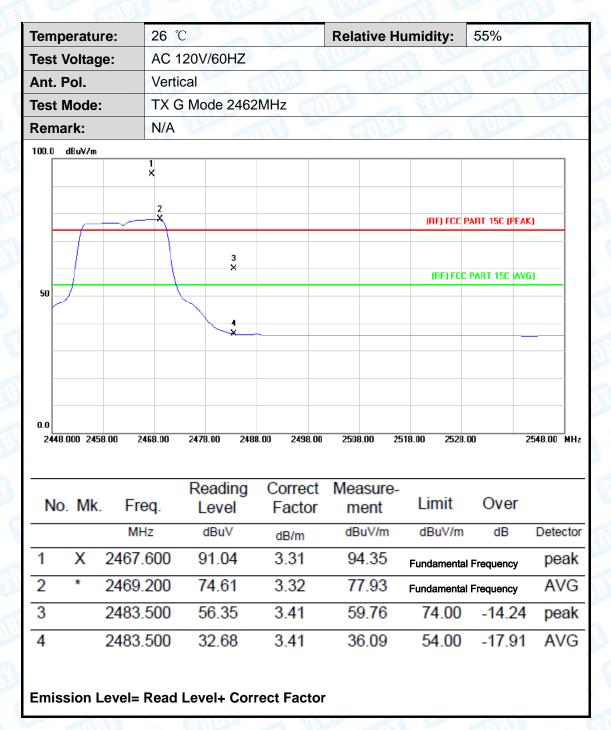


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	X	2456.200	92.21	3.23	95.44	- Fundamental	Frequency	peak
2	*	2458.000	76.14	3.24	79.38	Fundamental	Frequency	AVG
3		2483.500	54.62	3.41	58.03	74.00	-15.97	peak
4		2483.500	32.52	3.41	35.93	54.00	-18.07	AVG



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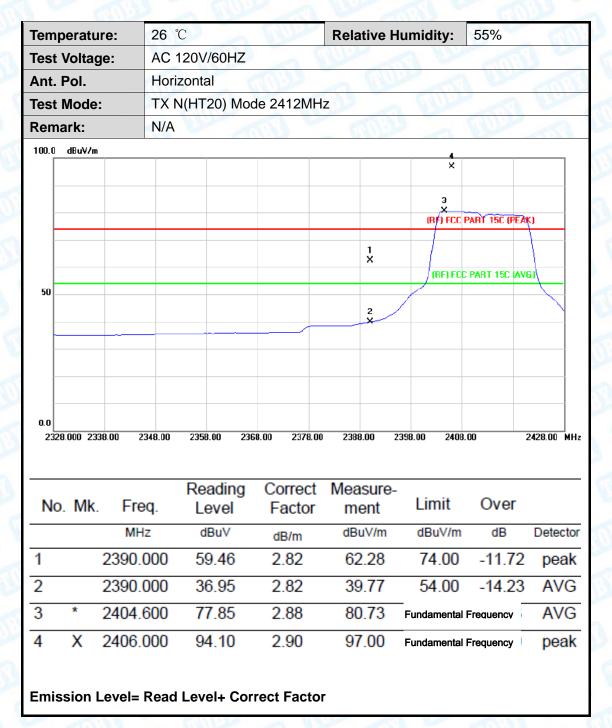
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Гет	perati	ure:	2	6 ℃	2	a			Relati	ive H	umidit	y:	55%	- 5	1
Test	Volta	ge:	А	C 12	0V/60	HZ		2 1	Alle		1	177			
۹nt.	Pol.		V	ertica	al	T.		13	A	19			R. Bille	-	Ñ
Test	Mode	<b>e</b> :	Т	X N(	HT20)	Mode 2412MHz							IR.		
Rem	nark:		N	I/A		1			5			0	Million	1	A
100.0	dBuV/n	n													,
													3 3		
											(F	RF) FCC P	ART 15C (PEA	(K)	
												f +		1	
										1 X		(RF) FCC	PART 15C (A)	/G)	
50										•					1
										2					
										×					
0.0															
	28.000 23	338.00	2348.	00 :	2358.00	2368	.00	2378.00	2388	.00	2398.00	2408.0	00	2428.00	MH
				F	Readi	na	Cor	rect	Mea	sure-	-				_
No	. Mk	. F	req.		Leve			ctor		ent		nit	Over		
		ı	MHz		dBuV	,	dB/	m'	dBu	ıV/m	dB	uV/m	dB	Detec	to
1		239	0.00	0	51.6	1	2.8	32	54	.43	74	1.00	-19.57	pea	ak
2		239	0.00	0	33.2	6	2.8	32	36	.08	54	1.00	-17.92	AV	G
3	Χ	241	4.800	0	88.5	6	2.9	)5	91	.51	— Funda	amental	Frequency	pea	ak
1	*	241	5.000	0	72.2	5	2.9	95	75	.20	— Funda	amental	Frequency	AV	G
•															



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Temperature:	26 ℃		A A Line	Relative F	lumidity:	55%	100
Test Voltage:	AC 120	V/60HZ		Millian	13 W	TITLE	3
Ant. Pol.	Horizon	tal	W. Call	THE REAL PROPERTY.		1830	- TITE
Test Mode:	TX N(H	T20) Mod	le 2462MH	Z	Carrier .		ARTH
Remark:	N/A		(B) ~	inn.		LA LINE	
110.0 dBuV/m							
1 X							
2							
×					(RF) FCC I	PART 15C (PEA	KJ
60			X 3		(RF) FCC	PART 15C AV	G)
			4				
10.0							
2443.000 2453.00	2463.00 24	73.00 2483	3.00 2493.00	2503.00 2	2513.00 2523.	00	2543.00 Mi
No. Mk.	_	eading Level	Correct Factor	Measure-	Limit	Over	
	•	dBuV		ment dBuV/m	dBuV/m	dB	Detecto
			dB/m			_	
1 240		97.94	3.22	101.16	Fundamental —	Frequency	peak
2 X 245		75.76	3.22	78.98	Fundamental	Frequency	AVG
3 248	3.500 5	5.08	3.41	58.49	74.00	-15.51	peak
4 248	3.500 3	32.51	3.41	35.92	54.00	-18.08	AVG
4 248	3.500	32.51	3.41	35.92	54.00	-18.08	Α
Emission Leve	l= Read Le	vel+ Corı	rect Facto	r			



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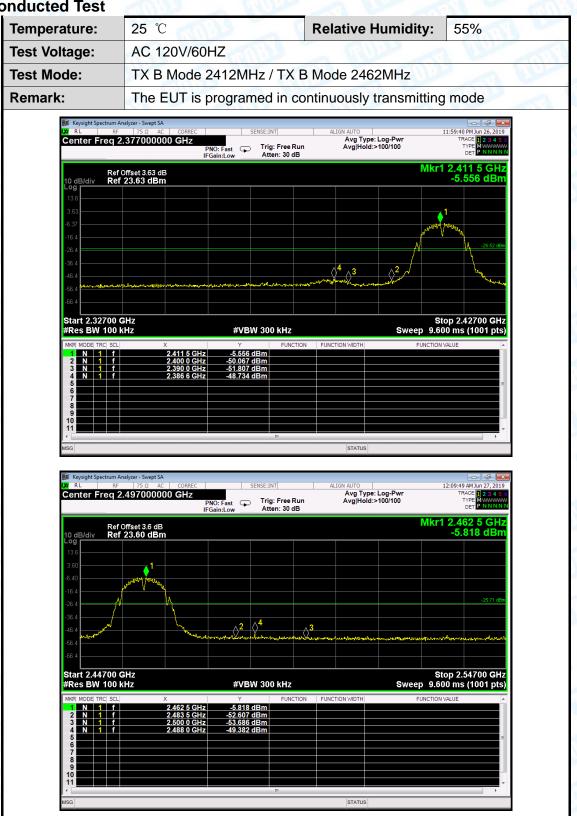
Test Voltage: AC 120V/60HZ  Ant. Pol. Vertical  Test Mode: TX N(HT20) Mode 2462MHz  Remark: N/A  100.0 dbuV/m  2	Ant. Pol. Vertical  Test Mode: TX N(HT20) Mode 2462MHz  Remark: N/A  100.0 dBuV/m  2 x  (RF) FCC PART 15C (PEAK)	
TX N(HT20) Mode 2462MHz	TX N(HT20) Mode 2462MHz  Remark: N/A  100.0 dBuV/m  2 x  (RF) FCC PART 15C (PEAK)	
No. Mk.   Freq.   Reading   Correct   Measure   Limit   Over	N/A	
100.0 dBuV/m  (RF) FCC PART 15C (PEAK)  (RF)	100.0 dBuV/m  2 x  (RF) FCC PART 15C (PEAK)	
No. Mk. Freq. Reading Correct Measure— Level Factor ment Limit Over  MHz dBuV dB/m dBuV/m dBuV/m dB Dete  1 * 2467.000 74.31 3.30 77.61 Fundamental Frequency AV  2 X 2469.400 90.40 3.32 93.72 Fundamental Frequency pe  3 2483.500 56.30 3.41 59.71 74.00 -14.29 pe	2 X 1 (RF) FCC PART 15C (PEAK)	
No. Mk. Freq. Reading Correct Measure— Level Factor ment Limit Over    MHz   dBuV   dB/m   dBuV/m   dBuV/m   dB   Dete	1 X (RF) FCC PART 15C (PEAK)	
No. Mk. Freq. Reading Correct Measure- Level Factor ment Limit Over  MHz dBuV dB/m dBuV/m dBuV/m dB Dete  1 * 2467.000 74.31 3.30 77.61 Fundamental Frequency AV  2 X 2469.400 90.40 3.32 93.72 Fundamental Frequency pe  3 2483.500 56.30 3.41 59.71 74.00 -14.29 pe	(RF) FCC PART 15C (PEAK)	
No. Mk. Freq. Reading Correct Measure— Level Factor ment Limit Over  MHz dBuV dB/m dBuV/m dBuV/m dB Dete  1 * 2467.000 74.31 3.30 77.61 Fundamental Frequency AV  2 X 2469.400 90.40 3.32 93.72 Fundamental Frequency pe  3 2483.500 56.30 3.41 59.71 74.00 -14.29 pe	(RF) FCC PART 15C (PEAK)	$\dashv$
No. Mk. Freq. Reading Correct Measure—    No. Mk. Freq. Level Factor ment Limit Over		- 1
No. Mk. Freq. Reading Correct Measure- Level Factor ment Limit Over  MHz dBuV dB/m dBuV/m dBuV/m dB Dete  1 * 2467.000 74.31 3.30 77.61 Fundamental Frequency AV  2 X 2469.400 90.40 3.32 93.72 Fundamental Frequency pe  3 2483.500 56.30 3.41 59.71 74.00 -14.29 pe		
No. Mk. Freq. Reading Correct Measure- Limit Over  MHz dBuV dB/m dBuV/m dBuV/m dB Dete  1 * 2467.000 74.31 3.30 77.61 Fundamental Frequency AV  2 X 2469.400 90.40 3.32 93.72 Fundamental Frequency personal structure of the struc	×	$\dashv$
No. Mk. Freq. Reading Correct Measure- Level Factor ment Limit Over  MHz dBuV dB/m dBuV/m dBuV/m dB Dete  1 * 2467.000 74.31 3.30 77.61 Fundamental Frequency AV  2 X 2469.400 90.40 3.32 93.72 Fundamental Frequency pe	50	7
No. Mk.         Freq.         Level Factor Measure Fact	1	
No. Mk.         Freq.         Level Factor Measure Fact	***	
No. Mk.         Freq.         Level Factor Measure Fact		
No. Mk.         Freq.         Level Factor Measure Fact		
No. Mk.         Freq.         Level Factor Measure-Limit Over           MHz         dBuV         dB/m         dBuV/m		1
No. Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dBuV         dBuV/m         d		
No. Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dBuV         dBuV/m         d		
No. Mk.         Freq.         Level         Factor         ment         Limit         Over           MHz         dBuV         dBuV         dBuV/m         d	Reading Correct Measure-	_
1       *       2467.000       74.31       3.30       77.61       Fundamental Frequency       A\         2       X       2469.400       90.40       3.32       93.72       Fundamental Frequency       pe         3       2483.500       56.30       3.41       59.71       74.00       -14.29       pe		
2     X     2469.400     90.40     3.32     93.72     Fundamental Frequency     pe       3     2483.500     56.30     3.41     59.71     74.00     -14.29     pe	MHz dBuV _{dB/m} dBuV/m dBuV/m dB Dete	ecto
3 2483.500 56.30 3.41 59.71 74.00 -14.29 pe	1 * 2467.000 74.31 3.30 77.61 Fundamental Frequency A	۷G
·	2 X 2469.400 90.40 3.32 93.72 Fundamental Frequency pe	ak
4 2483.500 32.75 3.41 36.16 54.00 -17.84 A\	3 2483.500 56.30 3.41 59.71 74.00 -14.29 pc	ak
	4 2483.500 32.75 3.41 36.16 54.00 -17.84 A	۷G



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#### (2) Conducted Test





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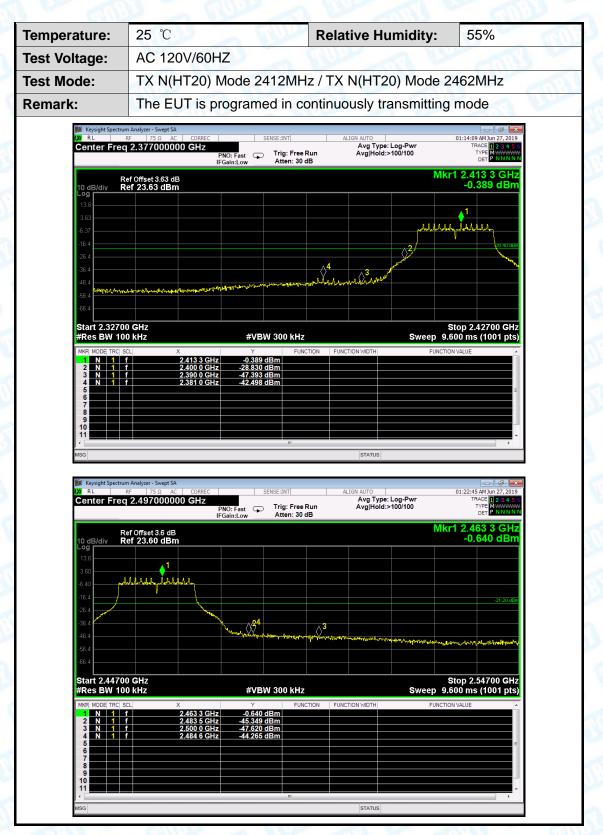
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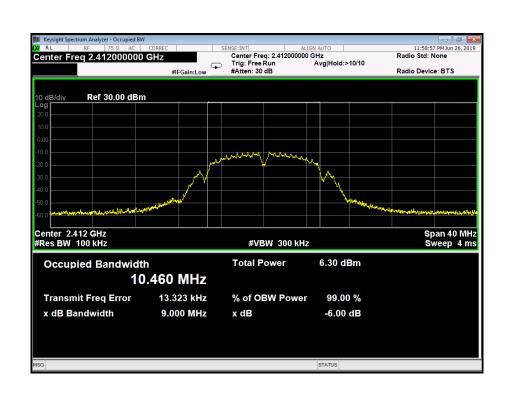
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#### **Attachment D-- Bandwidth Test Data**

Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ	William .	The state of the s
Test Mode:	The same of		
Channel frequence	y 6dB Bandwidth	99% Bandwidth	Limit
(MHz)	(MHz)	(MHz)	(MHz)
2412	9.000	10.460	
2437	8.495	10.445	>=0.5
2462	8.094	10.448	
			•

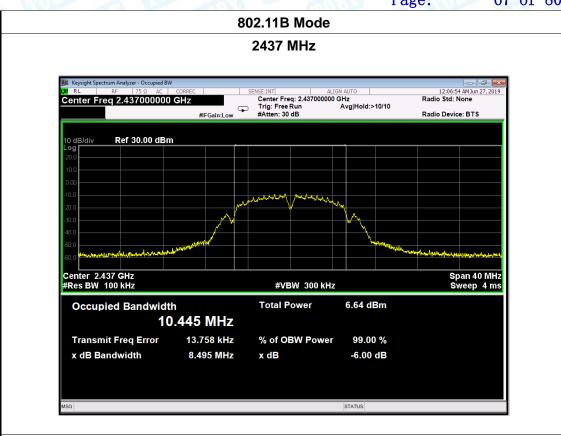
#### 802.11B Mode



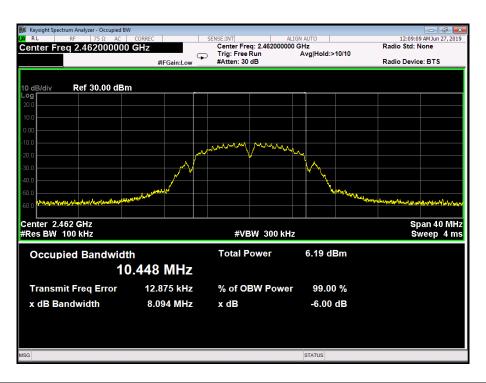


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#### 802.11B Mode



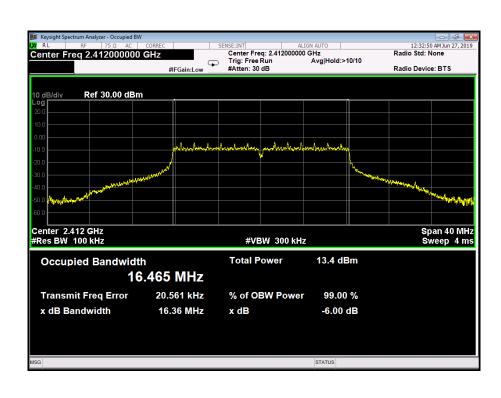


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Temperature:	25 ℃	Relative Humidity:	55%	
Test Voltage:	AC 120V/60HZ			
Test Mode:	TX 802.11G Mode			
Channel frequency 6dB Bandwidth		99% Bandwidth	Limit	
(MHz)	(MHz)	(MHz)	(MHz)	
2412	16.36	16.465		
2437	16.35	16.469	>=0.5	
2462	16.33	16.480		

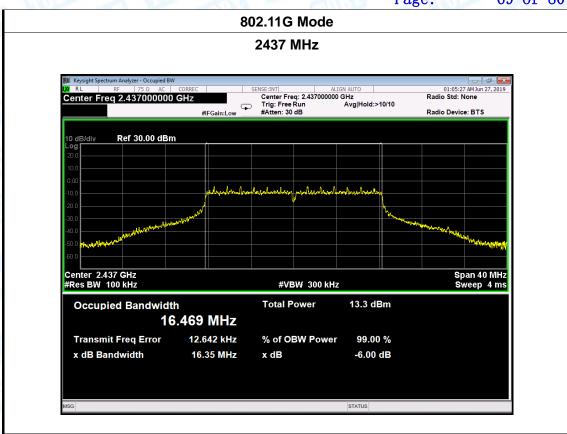
#### 802.11G Mode



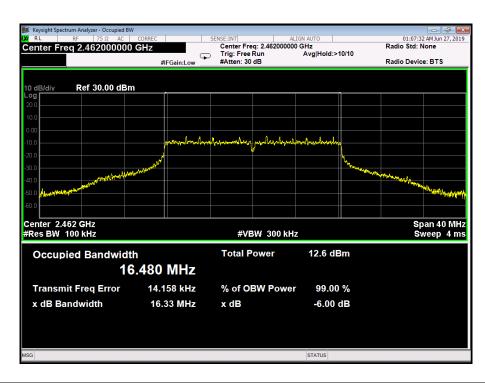


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#### 802.11G Mode



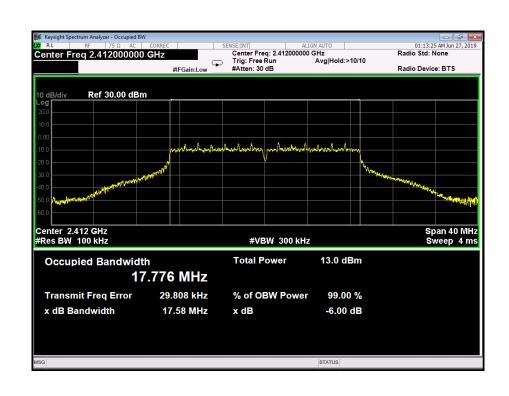


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Temperature:	25 ℃	Relative Humidity:	55%	
Test Voltage:	AC 120V/60HZ			
Test Mode:	TX 802.11N(HT20) Mode			
Channel frequence	cy 6dB Bandwidth	99% Bandwidth	Limit	
(MHz)	(MHz)	(MHz)	(MHz)	
2412	17.58	17.776		
2437	17.58	17.768	>=0.5	
2462 17.54		17.785		

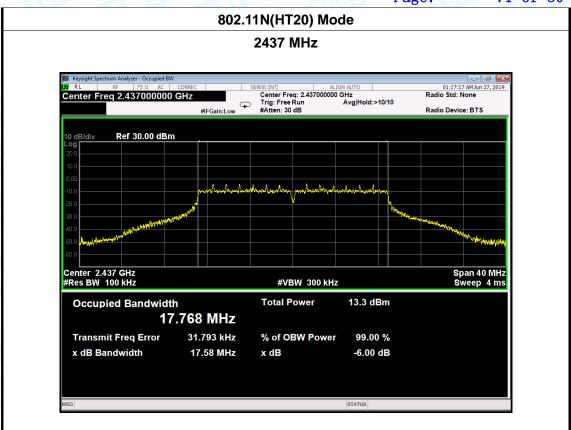
#### 802.11N(HT20) Mode

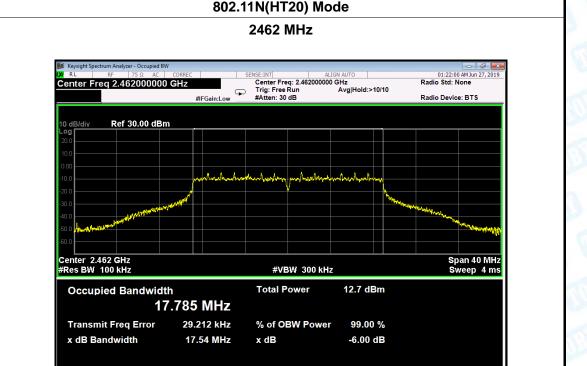




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### **Attachment E-- Peak Output Power Test Data**

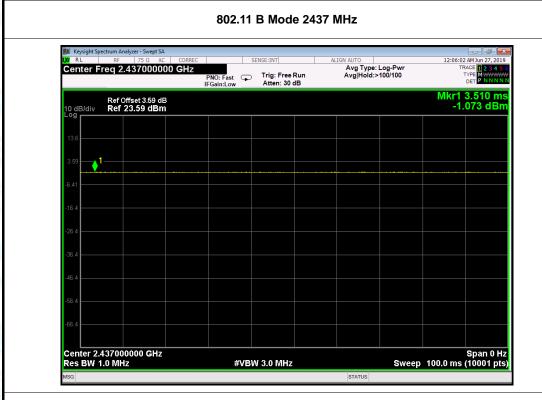
<b>Test Conditions</b>	Continuous transmitting Mode			
Temperature:	25 ℃	Relative Humidity:	55%	
Test Voltage:	AC 120V/60HZ	ans and	The same of	
Mode	Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)	
802.11b	2412	5.07		
	2437	5.45		
	2462	4.92	30	
	2412	16.07		
802.11g	2437	15.97		
	2462	15.41		
802.11n	2412	15.74		
	2437	15.98		
(HT20)	2462	15.49		
	Resu	ult: PASS		

Duty Cycle				
Mode	Channel frequency (MHz)	Test Result		
	2412			
802.11b	2437			
	2462			
	2412			
802.11g	2437	>98%		
	2462			
802.11n (HT20)	2412			
	2437			
	2462			

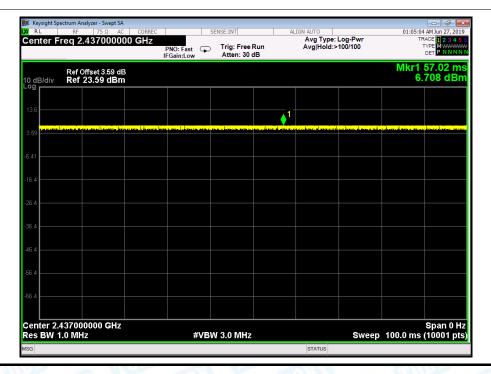


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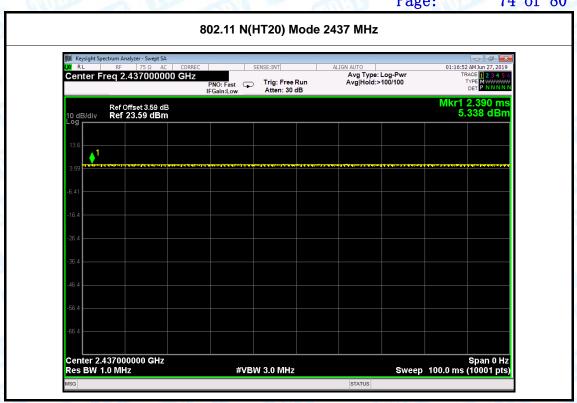
#### 802.11 G Mode 2437 MHz





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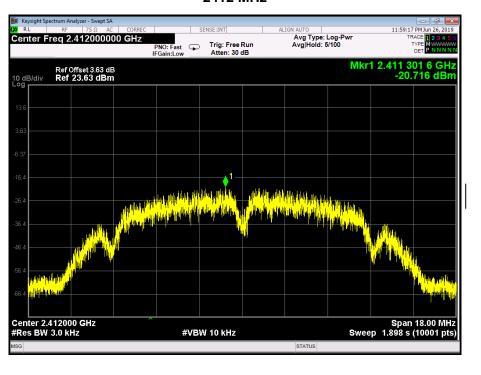
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### **Attachment F-- Power Spectral Density Test Data**

Temperature:	25 ℃	Relative Humidity:		55%
Test Voltage:	AC 120V/60HZ			O CHARLES
Test Mode:	TX 802.11B Mode			
Channel Freq	uency	Power Density Limit		
(MHz) (dBm/3 kHz)		kHz)	(dBm/3kHz)	
2412		-20.7	-20.716	
2437		-19.678		8
2462		-20.507		

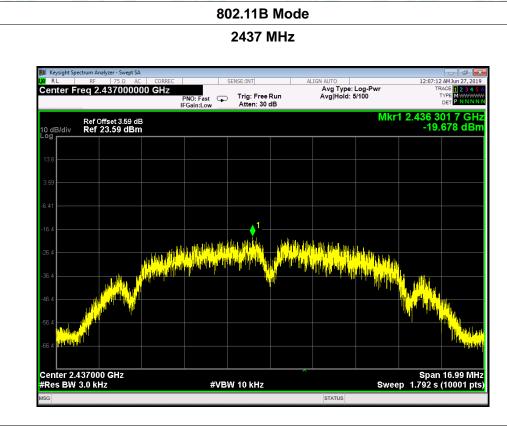
#### 802.11B Mode



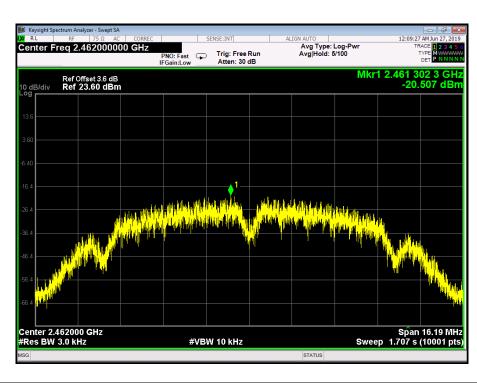


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#### 802.11B Mode



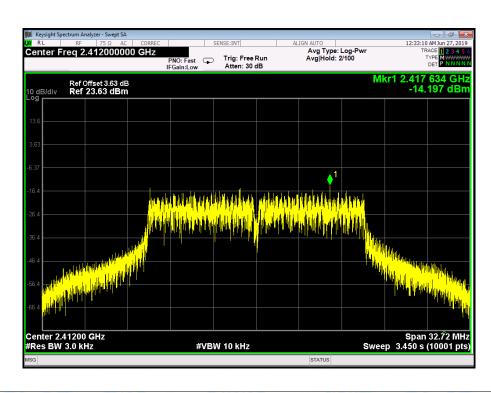


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Temperature:	25 ℃	THE PARTY OF THE P	Temperature:	25 ℃
Test Voltage:	AC 120V/60HZ			
Test Mode:	TX 802.11G Mode			
Channel Freq	uency	ency Power Density Limit		
(MHz)		(dBm/3 kF	lz)	(dBm/3kHz)
2412		-14.197		
2437 -15.0		-15.016		8
2462	62 -15.382			

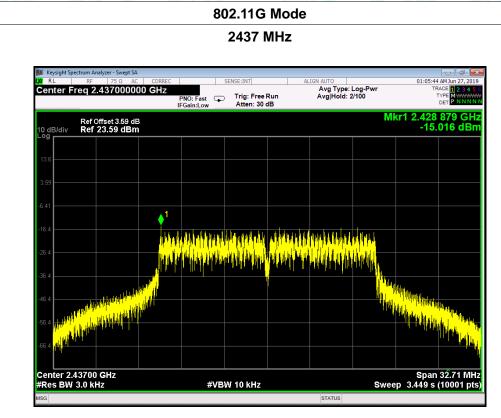
#### 802.11G Mode



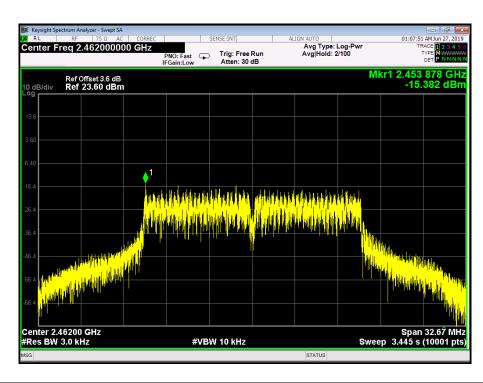


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#### 802.11G Mode



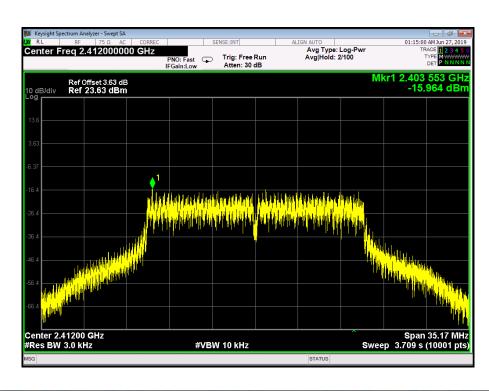


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Temperature:	25 ℃	THE PERSON NAMED IN	Temperature:	25 ℃
Test Voltage:	AC 120V/60HZ			
Test Mode:	TX 802.11N(HT20) Mode			
Channel Freq	uency	Power Density Limit		Limit
(MHz)		(dBm/3 kHz)		(dBm/3kHz)
2412		-15.96	4	
2437		-16.134 <b>8</b>		8
2462		-16.13	3	
000 (41/4/1700) 14				

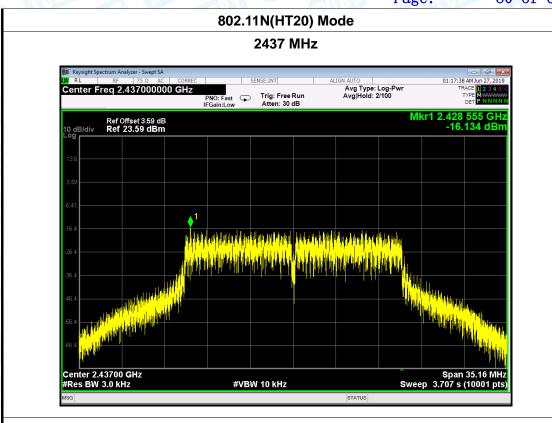
#### 802.11N(HT20) Mode





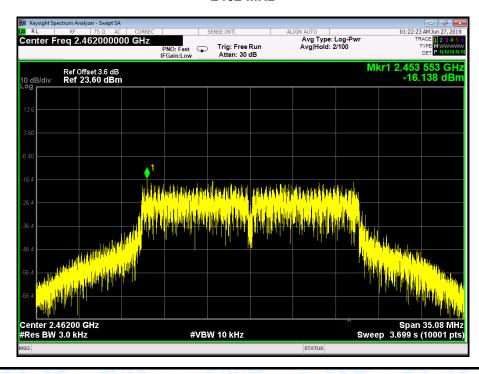
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#### 802.11N(HT20) Mode

#### 2462 MHz



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