

Shenzhen Toby Technology Co., Ltd.

Report No.: TB-FCC167069 Page: 1 of 67

# FCC Radio Test Report FCC ID: 2AKBP-Q3CM

# **Original Grant**

Report No.	:	TB-FCC167069
Applicant	:	Shenzhen Hysiry Technology Co., Ltd.
Equipment Under 1	<b>Fest</b>	(EUT)
EUT Name		Smart bulb
Model No.	*	Q3CM
Series Model No.		Q3WM
Brand Name	:	HUSIRU 汇履税
Receipt Date		2019-07-02
Test Date	-	2019-07-03 to 2019-07-17
Issue Date		2019-07-18
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

H Jack Deng

Ray L

**Test/Witness Engineer** 

Test/Witness Engineer :

WRN SU fogstar.

Jack



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-FCC167069	Rev.01	Initial issue of report	2019-07-18
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# 1. General Information about EUT

# **1.1 Client Information**

Applicant		Shenzhen Hysiry Technology Co., Ltd.	
Address :		2403D, 24th Floor, Coast Huanqing Building, No.24 Futian Road, Xu Town Community, Futian Street, Futian District, Shenzhen	
Manufacturer : Shenzhen H		Shenzhen Hysiry Technology Co., Ltd.	
		2403D, 24th Floor, Coast Huanqing Building, No.24 Futian Road, Xu Town Community, Futian Street, Futian District, Shenzhen	

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

EUT Name	:	SMART Bulb		
Models No.	:	Q3CM, Q3WM		
Model Different			e same PCB, layout and electrical circuit, the temperature of lamp beads	
MUL		<b>Operation Frequency:</b>	802.11b/g/n(HT20): 2412MHz~2462MHz	
6.1		Number of Channel:	802.11b/g/n(HT20):11 channels see note(3)	
TER V		RF Output Power:	802.11b: 0.374dBm 802.11g: 0.981dBm 802.11n (HT20): 1.014dBm	
Product		Antenna Gain:	1.7dBi microstrip Antenna	
Description	•	Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK,QPSK,16QAM, 64QAM)	
a TON		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 100~240V, 50/60Hz		
Software Version		1.0		
Hardware Version		1.0		
Connecting I/O Port(S)		Please refer to the User's Manual		

### 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.

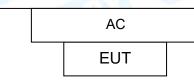


- (2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.
- (3) Channel List:

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

ż	For Conducted Test			
0	Final Test Mode Description			
1	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.



# 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	SecureCRT.exe		
Channel	CH 01	CH 06	CH 11
IEEE 802.11b DSSS	80	80	85
IEEE 802.11g OFDM	60	60	60
IEEE 802.11n (HT20)	60	60	60

### 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> )
	Level Accuracy:	
Conducted Emission	9kHz~150kHz	±3.42 dB
	150kHz to 30MHz	±3.42 dB
Dedicted Emission	Level Accuracy:	
Radiated Emission	9kHz to 30 MHz	±4.60 dB
Dedicted Emission	Level Accuracy:	
Radiated Emission	30MHz to 1000 MHz	±4.40 dB
Dedicted Emission	Level Accuracy:	
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 15 Subpart C(15.247)/ RSS 247 Issue 2					
Standa	rd Section	Test How		Dennel		
FCC	IC	Test Item	Judgment	Remark		
15.203 /		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	Note: "/" for no requirement for this test item.					

N/A is an abbreviation for Not Applicable.



# 3. Test Equipment

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 Emissio	on Test	<u>.</u>		<u>.</u>	<u>.</u>	
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	
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	
Loop Antenna	SCHWARZBECK	FMZB 1519 B	1519B-059	Mar.04, 2019	Mar. 03, 2020	
Pre-amplifier	Sonoma	310N	185903	Mar.03, 2019	Mar. 02, 2020	
Pre-amplifier	HP	8449B	3008A00849	Mar.03, 2019	Mar. 02, 2020	
Cable	HUBER+SUHNER	100	SUCOFLEX	Jan. 27, 2019	Jan. 26, 2020	
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. 13, 2019	Jul. 12, 2020	
Spectrum Analyzer	Rohde & Schwarz	ESCI	100010/007	Jul. 13, 2018	Jul. 12, 2019	
MXA Signal Analyzer	Agilent	N9020A	MY49100060	Sep. 15, 2018	Sep. 14, 2019	
Vector Signal Generator	Agilent	N5182A	MY50141294	Sep. 15, 2018	Sep. 14, 2019	
Analog Signal Generator	Agilent	N5181A	MY50141953	Sep. 15, 2018	Sep. 14, 2019	
6	DARE !! Instruments	RadiPowerRPR3006W	17100015SNO26	Sep. 15, 2018	Sep. 14, 2019	
PE Dower Sereer	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO29	Sep. 15, 2018	Sep. 14, 2019	
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO31	Sep. 15, 2018	Sep. 14, 2019	
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO33	Sep. 15, 2018	Sep. 14, 2019	



# 4. Conducted Emission Test

- 4.1 Test Standard and Limit
  - 4.1.1Test Standard FCC Part 15.207
  - 4.1.2 Test Limit

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

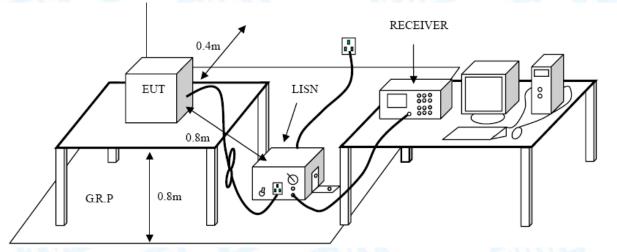
Notes:

(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.

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.



# 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 (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

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

#### Note:

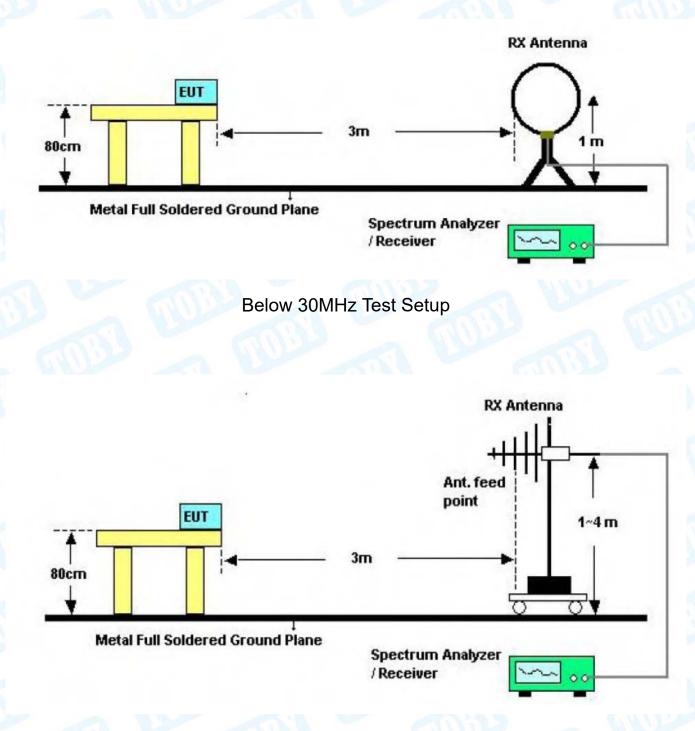
(1) The tighter limit applies at the band edges.

(2) Emission Level(dBuV/m)=20log Emission Level(uV/m)



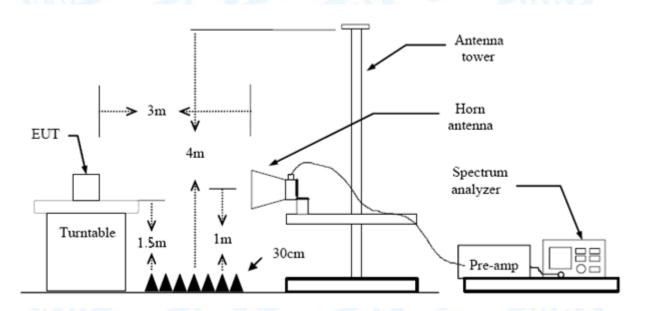
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5.2 Test Setup



Below 1000MHz Test Setup





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 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.

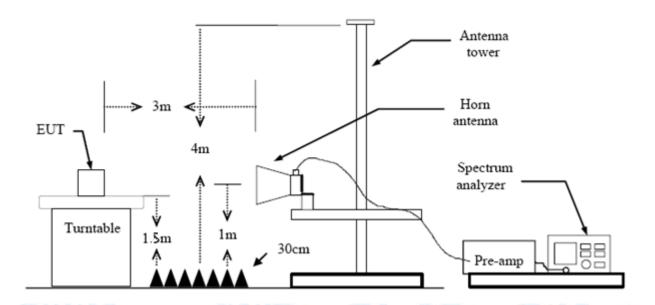


# 6. Restricted Bands Requirement

- 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 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.

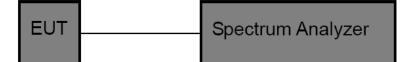


# 7. Bandwidth Test

- 7.1 Test Standard and Limit
  - 7.1.1 Test Standard
  - FCC Part 15.247 (a)(2) 7.1.2 Test Limit

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

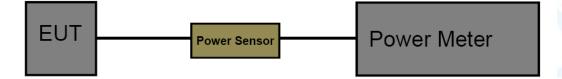


# 8. Peak Output Power Test

- 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(MH					
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.

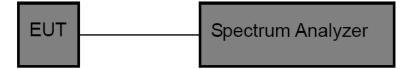


# 9. Power Spectral Density Test

- 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.

## 9.5 Test Data

Please refer to the Attachment F.



# 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 2.5dBi, 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 PCB Antenna. It complies with the standard requirement.

Antenna Type				
	Permanent attached antenna			
	Unique connector antenna			
000	Professional installation antenna			

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

TOBY

Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Terminal:	Line		GRUP
Test Mode:	Mode 1		
Remark:	Only worse case is re	ported	
90.0 dBuV			
	Mat Mar Mar Markel and Marke		QP: AVG:
-10 0.150	0.5	(MHz) 5	30.000
No. Mk.		Correct Measure- Factor ment Limit	it Over

No.	Mk.	Freq.	Level	Factor	measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	*	0.1620	50.19	9.70	59.89	65.36	-5.47	QP
2		0.1620	35.06	9.70	44.76	55.36	-10.60	AVG
3		0.1900	46.25	9.72	55.97	64.03	-8.06	QP
4		0.1900	31.89	9.72	41.61	54.03	-12.42	AVG
5		0.2140	42.63	9.72	52.35	63.04	-10.69	QP
6		0.2140	27.54	9.72	37.26	53.04	-15.78	AVG
7		0.2779	34.62	9.72	44.34	60.88	-16.54	QP
8		0.2779	20.21	9.72	29.93	50.88	-20.95	AVG
9		0.3260	30.92	9.74	40.66	59.55	-18.89	QP
10		0.3260	18.73	9.74	28.47	49.55	-21.08	AVG
11		0.3860	24.51	9.77	34.28	58.15	-23.87	QP
12		0.3860	12.87	9.77	22.64	48.15	-25.51	AVG



Temperature:	<b>25</b> ℃	Relative Humidity:	55%				
Fest Voltage:	AC 120V/60Hz		P				
Terminal:	Neutral						
Test Mode:	: Mode 1						
Remark:	Only worse case is	Only worse case is reported					
90.0 dBuV							
			QP: AVG:				
40	WM Mithy MM Marine and Marine		Malanda Mandahat Anger (alkan Anger Markon) Anger Mandahat Manager (alkan Anger Markon) Anger Manager (alkan Anger Markon)				

No. N	/lk. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1 '	0.1580	52.28	9.67	61.95	65.56	-3.61	QP
2	0.1580	34.17	9.67	43.84	55.56	-11.72	AVG
3	0.1860	49.17	9.69	58.86	64.21	-5.35	QP
4	0.1860	32.22	9.69	41.91	54.21	-12.30	AVG
5	0.2220	44.62	9.69	54.31	62.74	-8.43	QP
6	0.2220	27.57	9.69	37.26	52.74	-15.48	AVG
7	0.2700	40.52	9.70	50.22	61.12	-10.90	QP
8	0.2700	25.80	9.70	35.50	51.12	-15.62	AVG
9	0.3580	30.76	9.72	40.48	58.77	-18.29	QP
10	0.3580	15.66	9.72	25.38	48.77	-23.39	AVG
11	0.5060	17.43	9.72	27.15	56.00	-28.85	QP
12	0.5060	7.62	9.72	17.34	46.00	-28.66	AVG



# **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

emperature:	<b>25</b> ℃		Relative Humidity	<b>/:</b> 55%
est Voltage:	AC 120V/60H	Z		20102
nt. Pol.	Horizontal	CHILL		
est Mode:	TX B Mode 24	412MHz	112	10
lemark:	Only worse ca	ase is reported	N. O.	
80.0 dBuV/m				
			(BE)EC	CC 15C 3M Radiation
				Margin -6 dB
			3 X 5	6
30		1 Å	why have	markallala
myin		Maring		
	manum			
20				
30.000 40 50	60 70 80	(MHz)	300 400	500 600 700 1000.

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		145.3506	53.70	-21.91	31.79	43.50	-11.71	QP
2		170.7926	53.99	-20.46	33.53	43.50	-9.97	QP
3		242.5253	55.55	-17.48	38.07	46.00	-7.93	QP
4	*	291.0360	58.29	-16.17	42.12	46.00	-3.88	QP
5		377.2591	50.96	-13.13	37.83	46.00	-8.17	QP
6		760.7036	44.17	-6.21	37.96	46.00	-8.04	QP

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



Temperature:	<b>25</b> ℃		R	elative Hun	nidity:	55%	
Test Voltage:	AC 1	20V/60HZ		5	110		2
Ant. Pol.	Vertic	al				-	2.1
Test Mode:	TX B	Mode 2412	MHz			EN1	
Remark:	Only	worse case	is reported		12		0
80.0 dBu∀/m							
30 1		2 X X	<sup>3</sup> <sup>4</sup> ₩	MM M		C 15C 3M Radi Marg	ation in -6 dB
30.000 40	50 60 70	80	(MHz)	30	0 400	500 600	700 1000.00
No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	37.0248	50.81	-17.75	33.06	40.00	-6.94	QP
				31.53	43.50	-11.97	QP
2 1	09.7960	54.00	-22.47	31.55	40.00		
	09.7960 48.4410	54.00 59.65	-22.47 -21.59	38.06	43.50	-5.44	QP
3 ! 1							
3 ! 1 4 ! 1	48.4410	59.65	-21.59	38.06	43.50	-5.44	QP

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

### Above 1GHz

Temperature:	<b>25 ℃</b>	Relative Humidity:	55%				
Test Voltage:	AC 120V/60HZ						
Ant. Pol.	Horizontal						
Test Mode:	TX B Mode 2412MHz						
Remark:	No report for the emis	No report for the emission which more than 10 dB below the prescribed					
	limit.						

No	. Mk	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.574	46.58	14.55	61.13	74.00	-12.87	peak
2	*	4823.604	29.49	14.55	44.04	54.00	-9.96	AVG

Emission Level= Read Level+ Correct Factor

Temperature:	<b>25 ℃</b>	Relative Humidity:	55%				
Test Voltage:	AC 120V/60HZ						
Ant. Pol.	Vertical						
Test Mode:	TX B Mode 2412MHz						
Remark:	No report for the emission w	No report for the emission which more than 10 dB below the					
	prescribed limit.	A V	19				

No	. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4824.924	48.32	14.55	62.87	74.00	-11.13	peak
2	*	4824.924	34.06	14.55	48.61	54.00	-5.39	AVG



2

\*

Temperature:	<b>25 ℃</b>		Relative Hun	nidity:	55%	0		
Test Voltage:	AC 120V/60HZ	AC 120V/60HZ						
Ant. Pol.	Horizontal	Horizontal						
Test Mode:	TX B Mode 2437	TX B Mode 2437MHz						
Remark:	No report for the prescribed limit.	emission v	vhich more th	an 10 dB	below the	177		
No. Mk. Fre	Reading eq. Level	Correct Factor	Measure- ment	Limit	Over			
MH	Hz dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector		
1 4873.	562 44.05	14.86	58.91	74.00	-15.09	peak		

14.86

44.09

54.00

-9.91

AVG

Emission Level= Read Level+ Correct Factor

29.23

4873.562

Temperature:	<b>25</b> ℃	<b>Relative Humidity:</b>	55%				
Test Voltage:	AC 120V/60HZ						
Ant. Pol.	Vertical						
Test Mode:	TX B Mode 2437MHz						
Remark:	No report for the emission	No report for the emission which more than 10 dB below the					
	prescribed limit.		11				

No	b. Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.990	48.85	14.86	63.71	74.00	-10.29	peak
2	*	4875.218	34.45	14.87	49.32	54.00	-4.68	AVG



Temperature:	<b>25 ℃</b>		Relative Hum	idity:	55%	0			
Test Voltage:	AC 120V/60HZ	AC 120V/60HZ							
Ant. Pol.	Horizontal	Horizontal							
Test Mode:	TX B Mode 2462	MHz		-	( AU				
Remark:	No report for the prescribed limit.	emission v	vhich more tha	n 10 dB	below the				
No. Mk. F	Reading req. Level	Correct Factor	Measure- ment	Limit	Over				
	MHz dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector			

		IVIH2	dBuv	dB/m	ubuv/m	ubuv/m	uв	Delector
1		4925.128	43.87	15.19	59.06	74.00	-14.94	peak
2	*	4925.182	29.59	15.19	44.78	54.00	-9.22	AVG

Temperature:	<b>25</b> ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60HZ				
Ant. Pol.	Vertical				
Test Mode:	TX B Mode 2462MHz				
Remark:	No report for the emission which more than 10 dB below the				
	prescribed limit.				

No	b. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4924.234	29.60	15.17	44.77	54.00	-9.23	AVG
2		4924.558	48.48	15.17	63.65	74.00	-10.35	peak



Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2412MH	z	MUL .
Remark:	No report for the emi prescribed limit.	ssion which more than 10 dE	3 below the

No	. Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.220	45.05	14.55	59.60	74.00	-14.40	peak
2	*	4825.056	30.32	14.56	44.88	54.00	-9.12	AVG

Temperature:	<b>25</b> ℃	<b>Relative Humidity:</b>	55%			
Test Voltage:	AC 120V/60HZ					
Ant. Pol.	Vertical					
Test Mode:	TX G Mode 2412MHz					
Remark:	No report for the emission which more than 10 dB below the					
	prescribed limit.					

No	. Mk	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4822.500	29.49	14.55	44.04	54.00	-9.96	AVG
2		4825.008	44.01	14.55	58.56	74.00	-15.44	peak



Temperature:	<b>25 ℃</b>		<b>Relative Hun</b>	nidity:	55%	6
Test Voltage:	AC 120V/60HZ			(D)		
Ant. Pol.	Horizontal					
Test Mode:	TX G Mode 2437	'MHz				
Remark:	No report for the prescribed limit.	emission v	vhich more tha	an 10 dB	below the	11
No. Mk. Fre	Reading eq. Level	Correct Factor	Measure- ment	Limit	Over	
MH	Hz dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1 * 4874.	.708 29.25	14.86	44.11	54.00	-9.89	AVG
2 4874.	.726 43.60	14.86	58.46	74.00	-15.54	peak

Emission Level= Read Level+ Correct Factor

Temperature:	<b>25 ℃</b>	<b>Relative Humidity:</b>	55%			
Test Voltage:	AC 120V/60HZ					
Ant. Pol.	Vertical					
Test Mode:	TX G Mode 2437MHz					
Remark:	No report for the emission which more than 10 dB below the					
	prescribed limit.					

No	o. Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4875.236	42.89	14.87	57.76	74.00	-16.24	peak
2	*	4875.236	29.26	14.87	44.13	54.00	-9.87	AVG



Temperature:	<b>25 ℃</b>	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2462MHz	12	and is
Remark:	No report for the emission prescribed limit.	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		4924.798	43.46	15.18	58.64	74.00	-15.36	peak
2	*	4925.182	29.57	15.19	44.76	54.00	-9.24	AVG

Temperature:	<b>25</b> ℃	<b>Relative Humidity:</b>	55%			
Test Voltage:	AC 120V/60HZ					
Ant. Pol.	Vertical					
Test Mode:	TX G Mode 2462MHz					
Remark: No report for the emission which more than 10 dB below the						
	prescribed limit.					

No	b. Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4923.292	29.54	15.17	44.71	54.00	-9.29	AVG
2		4924.630	43.93	15.17	59.10	74.00	-14.90	peak



Temperature:	<b>25</b> ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60HZ					
Ant. Pol.	Horizontal					
Test Mode:	TX N(HT20) Mode 2412M	Hz	CTU I			
Remark:	No report for the emission prescribed limit.	which more than 10 dE	3 below the			

No	. Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4824.630	45.80	14.55	60.35	74.00	-13.65	peak
2	*	4824.714	30.27	14.55	44.82	54.00	-9.18	AVG

Temperature:	<b>25</b> ℃	<b>Relative Humidity:</b>	55%			
Test Voltage:	AC 120V/60HZ					
Ant. Pol.	Vertical					
Test Mode:	TX N(HT20) Mode 2412M	Hz				
Remark:	<b>c:</b> No report for the emission which more than 10 dB below the					
	prescribed limit.					

N	o. Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4822.656	29.47	14.55	44.02	54.00	-9.98	AVG
2		4822.710	43.73	14.55	58.28	74.00	-15.72	peak



Temperature:	<b>25</b> ℃	<b>Relative Humidity:</b>	55%			
Test Voltage:	AC 120V/60HZ					
Ant. Pol.	Horizontal					
Test Mode:	TX N(HT20) Mode 2437MI	Hz	and is			
Remark:	No report for the emission	which more than 10 dE	3 below the			
	prescribed limit.					

No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4872.548	43.17	14.85	58.02	74.00	-15.98	peak
2	*	4875.260	29.25	14.87	44.12	54.00	-9.88	AVG

Temperature:	<b>25</b> ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60HZ						
Ant. Pol.	Vertical	Vertical					
Test Mode:	TX N(HT20) Mode 2437M	Hz					
Remark:	No report for the emission which more than 10 dB below the						
	prescribed limit.						

N	o. Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.108	43.70	14.86	58.56	74.00	-15.44	peak
2	*	4875.080	29.27	14.87	44.14	54.00	-9.86	AVG



Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ	(TID)	
Ant. Pol.	Horizontal		
Test Mode:	TX N(HT20) Mode 2462MH	z	
Remark:	No report for the emission w prescribed limit.	vhich 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		4924.774	43.80	15.18	58.98	74.00	-15.02	peak
2	*	4925.188	29.55	15.19	44.74	54.00	-9.26	AVG

Temperature:	<b>25</b> ℃	<b>Relative Humidity:</b>	55%			
Test Voltage: AC 120V/60HZ						
Ant. Pol.	Vertical					
Test Mode:	TX N(HT20) Mode 2462MHz					
Remark:	No report for the emission which more than 10 dB below the					
prescribed limit.						

No	. Mk	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4922.728	43.26	15.17	58.43	74.00	-15.57	peak
2	*	4925.344	29.57	15.19	44.76	54.00	-9.24	AVG



# Conducted RF Spurious Emission Test Data

Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120/60Hz		
Test Mode:	TX B Mode		ENUL SE
Remark:	This report only shall the wo	orst case mode for TX I	EEE 802.11b.
	2412 M	Hz	
	0.03GHz-26	6.5GHz	
Burlow         Ref Ta53 db           10	The first function of the second seco	li August kannan hangen "kaap tit de Kunst Free 12.515000000 GHz Cervice Free 12.515000000 GHz Ref Offer 2.51500000 GHz The State Ref 13.53 dB 10 dB 1	Allow of the second sec
	2462 M	Hz	
	0.03GHz-26	6.5GHz	
Center Freq 2.46200000 GHz Biological Content of the Content	Mkr1 2.462 54 GHz -2.478 dBm	Control for any of the second	Alto table Arg Type Leg-Par Arg Type Leg-Par Arg Type Leg-Par Micri 2::453 GHz -3:433
Center 2.46200 GHz avB/	/ 300 bitz gantes	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	pixea

# Attachment C-- Restricted Bands Requirement and

## Band-edge Test Data

## (1) Radiation Test

Temperature:	<b>25</b> ℃		<b>Relative Humidit</b>	t <b>y:</b> 55%
Test Voltage:	AC 120V/60	HZ		
Ant. Pol.	Horizontal			
Fest Mode:	TX B Mode	2412MHz		THE GINS
Remark:	N/A	and a		
110.0 dBuV/m				
				4
				3
			(RF)	FCC PART 15C (PEAK)
60				F) FCC PART 15C (AVG)
				Tree ran Tae (ava)
			×	~ `
			2	~
10.0				

No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	- Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	42.62	2.82	45.44	74.00	-28.56	peak
2		2390.000	33.08	2.82	35.90	54.00	-18.10	AVG
3	*	2413.000	76.52	2.94	79.46	Fundamental	Frequency	AVG
4	Х	2413.200	86.31	2.95	89.26	Fundamental F	requency	peak



Temperature:	<b>25</b> ℃		Relative H	lumidity:	55%
Fest Voltage:	AC 120	V/60HZ		2110	
Ant. Pol.	Vertical				
Fest Mode:	TX B M	ode 2412MHz			CULD
Remark:	N/A		1		
100.0 dBuV/m					
					3 ×
					4
				(RF) FC	C PART 15C (PEAK)
					CC PART 15C (AVG)
50				1 X 2	$\sim$
		~		-×	
0.0					

No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	43.78	2.82	46.60	74.00	-27.40	peak
2		2390.000	33.14	2.82	35.96	54.00	-18.04	AVG
3	Х	2410.600	87.59	2.93	90.52	- Fundamenta	I Frequency	peak
4	*	2411.200	77.90	2.94	80.84	- Fundamenta	I Frequency	AVG



empe	erature		25 °	2	-		R	elati	ive Hu	midity:	55	%		
	/oltage			20V/60H	ΗZ			oraci			100	/0		
nt. P			Horizontal									Ċ		
'est N	/lode:		ТХ Е	Mode 2	462	ЛНz					5			
Rema	rk:		N/A	. 1	5	NN	1							1
100.0	dBuV/m		I											
50	1 2 ×			3 X 4 X								15C (PEAK)		
0.0	2.000 2462	.00 2	2472.00	2482.00	2492.	00 2502	.00	2512	.00 25	522.00 253	2.00	25	52.00	MHz
N	o. Mk	F	req.	Read		Corre Fact			asure ient	- Limit		Over		
			/Hz	dBu		dB/m			BuV/m	dBuV/	m	dB	Dete	ecto
1	Х	246	0.600	86.3	30	3.26		8	9.56	Fundamen	tal Fre	equency _	pe	eak
2	*	246	1.000	76.0	62	3.26		7	9.88	- Fundamen	tal Fre	equency}	A	VG
3		248	3.500	43.2	26	3.41		4	6.67	74.0	0	-27.33	DE	eak

32.53

3.41

35.94

54.00

2483.500

4

AVG

-18.06



2

3

4

Х

emperature:	<b>25</b> ℃		<b>Relative Hum</b>	nidity:	55%	
est Voltage:	AC 120V/60H	ΗZ		1103	2	
nt. Pol.	Vertical				-	$\mathcal{I}$
est Mode:	TX B Mode 2	462MHz		-	011	200
emark:	N/A	1 15		12		
100.0 dBuV/m						
2 X						
1				(BE) FCC	: PART 15C (PI	EAKI
				(111)100		
	$\mathbf{x}$					
				(RF) FC	C PART 15C (	476)
50	X					
· · · · · · · · · · · · · · · · · · ·	Without the second seco					
0.0						
2453.000 2463.00	2473.00 2483.00	2493.00 2503.0	00 2513.00 252	3.00 253	3.00	2553.00 MH
	Read			1 : :+	0	
No. Mk.	Freq. Lev			Limit	Over	
	MHz dBu	V dB/m	dBuV/m	dBuV/r	n dB	Detecto
1 * 2	461.000 76.7	78 3.26	80.04	undamenta	al Frequency	AVG

Emission Level= Read Level+ Correct Factor

86.94

43.55

32.52

3.28

3.41

3.41

90.22 Fundamental Frequency?

74.00

54.00

46.96

35.93

2463.400

2483.500

2483.500

peak

peak

AVG

-27.04

-18.07



emperature:	<b>25</b> ℃		Relative Humid	ity:	55%
est Voltage:	AC 120V/60HZ			DP2	
nt. Pol.	Horizontal				
est Mode:	TX G Mode 241	2MHz	32	_	MUSS
emark:	N/A	199			
100.0 dBu∀/m					
					4 ×
				(RF) FCC P	ART 15C (PEAK)
			1 *	(RF) FCC	PART 15C (AVG)
50			2		
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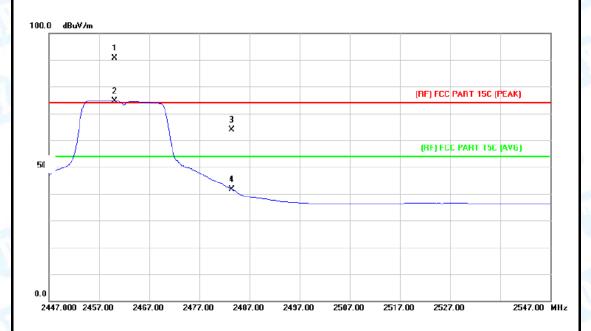
No.	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	57.13	2.82	59.95	74.00	-14.05	peak
2		2390.000	38.84	2.82	41.66	54.00	-12.34	AVG
3	*	2410.600	71.38	2.93	74.31	– Fundamenta	I Frequency	AVG
4	Х	2416.600	87.48	2.97	90.45	- Fundamental	Frequency	peak



					100	Y		100						_	12	21	12	
emp	peratur	e:	2	<b>5</b> ℃	2		2			Rela	tive	Hun	nidit	ty:	55%			
est	Voltag	e:	A	C 12	20V/(	60HZ												
nt.	Pol.		V	'ertic	cal	97 B	and the second s			3								
est	Mode:		Т	X G	Mod	le 24	12MH	z	1	3.3		•	_		muss			
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23	30.00D 234	10.00	2350	). <b>00</b>	2360.	00 2	2370.00	2380	). 00	2390	). 00	2400.	00	2410.0	00	243	30.00	MH2
					Re	ading	) C	orred	ct	Mea	sure				_			
N	lo. Mk		Free	<b>]</b> .	Le	evel	F	acto	r	me	ent		Lim	it	Over			
			MHz		d	BuV	(	dB/m		dBu	uV/m		dBu	V/m	dB	D	etect	tor
1		23	90.0	00	6	1.64	2	2.82		64	.46		74.	00	-9.54	ļ	pea	k
2		23	90.0	00	4(	0.72	2	2.82		43	8.54		54.	00	-10.4	6	AV	G
3	Х	24	17.8	00	88	8.99	2	2.98		91	.97	F	unda	menta	I Frequer	су	pea	k
4	*	24	19.4	00	7	3.11		2.99		76	6.10		unda	monta	I Frequen		AV	G



Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Ant. Pol.	Horizontal		
Test Mode:	TX G Mode 2462MHz	1.2	mue
Remark:	N/A		



No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Х	2460.200	87.46	3.26	90.72	Fundamental	Frequency	peak
2	*	2460.200	71.48	3.26	74.74	- Fundamental	Frequency	AVG
3		2483.500	60.49	3.41	63.90	74.00	-10.10	peak
4		2483.500	38.19	3.41	41.60	54.00	-12.40	AVG



emperature:	<b>25</b> ℃		Re	lative Humidity:	55%	
est Voltage:	AC 120\	//60HZ		CIII)		
nt. Pol.	Vertical	NO.				
est Mode:	TX G M	ode 2462MH	lz		MUS	
emark:	N/A	2	Nº -			Ø.
100.0 dBuV/m						
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No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	- Fundamental	- Frequency	Detector
1	*	2469.200	72.35	3.32	75.67	Fundamenta	Frequency	AVG
2		2473.500	42.87	3.34	46.21	74.00	-27.79	peak
3		2483.500	61.81	3.41	65.22	74.00	-8.78	peak
4		2483.500	38.80	3.41	42.21	54.00	-11.79	AVG



empera	ture:	<b>25</b> ℃			Relative H	umidity:	55%	
est Volt	age:	AC 120	V/60HZ		1	AL DE		
nt. Pol.		Horizon	tal					
est Mod	de:	TX N(H	T20) Mode	e 2412MHz			mue	
Remark:		N/A	2	A Des		12		
100.0 dBu	.W/m	i						
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						(RF) FCC	PART 15C (PEAK)	
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No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	60.43	2.82	63.25	74.00	-10.75	peak
2		2390.000	40.26	2.82	43.08	54.00	-10.92	AVG
3	*	2410.800	70.95	2.93	73.88	Fundamenta	Frequency	AVG
4	Х	2419.600	87.02	2.99	90.01	- Fundamenta	Frequency	peak



emperature:	<b>25</b> ℃		Rela	tive Hum	nidity:	55%	
est Voltage:	AC 120	V/60HZ		60	10		
nt. Pol.	Vertical	N. C.			1		0.1
est Mode:	TX N(H	T20) Mode 2	412MHz		-	2011	
Remark:	N/A	~	199		12		-
100.0 dBuV/m							
					(RF) FCC	PART 15C (F	EAK)
				1 ×			
					- PELEC	C PART 15C	
50				3	nrjru	C PANT TOC	
				X			
0.0							

No	. Mk	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	63.38	2.82	66.20	74.00	-7.80	peak
2		2390.000	42.50	2.82	45.32	Fundament	al Frequenc	y peak
3	*	2419.600	72.85	2.99	75.84	- Fundamenta	I Frequency	peak



Cemperature:	<b>25</b> ℃		Relative	Humidity:	55%	
est Voltage:	AC 120V/	60HZ		anne		8
Ant. Pol.	Horizonta	N.				
est Mode:	TX N(HT2	0) Mode 24	62MHz		CALO P	2
Remark:	N/A	2	Nº M	5		ø
100.0 dBuV/m						
2						
×						
1 X				(RF) FCC I	PART 15C (PEAK)	
		3 X				
		^		(BE) FCC	PART 15C (AVG)	
50				(11)100		_
		4				
0.0						

No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2458.000	71.02	3.24	74.26	Fundamental F	requency ;	AVG
2	Х	2459.600	86.71	3.26	89.97	- Fundamental I	requency	peak
3		2483.500	61.56	3.41	64.97	74.00	-9.03	peak
4		2483.500	39.18	3.41	42.59	54.00	-11.41	AVG



		100		
Temperature:	<b>25 ℃</b>	R	elative Humidity:	55%
Test Voltage:	AC 120V/60HZ			
Ant. Pol.	Vertical		2.12	
Test Mode:	TX N(HT20) Mod	de 2462MHz		CAL UP
Remark:	N/A	A Ber	- All	
100.0 dBu∀/m				
	2 X			
	X			
	X		(BF) FC	C PART 15C (PEAK)
		3		
		×		
50			(RF) I	CC PART 15C (AVG)
		4 X		
0.0				
2441.000 2451.00	2461.00 2471.00 244	81.00 2491.00	2501.00 2511.00 25	21.00 2541.00 MHz
	Reading	Correct	Measure-	
No. Mk.	Freq. Level	Factor	ment Limit	Over
	MHz dBuV	dB/m	dBuV/m dBuV/	/m dB Detector
1 * 246	69.400 72.05	3.32	75.37 Fundame	ntal Frequency AVG
2 X 246	69.800 88.25	3.32	91.57 Fundame	ntal Frequency peak
	89.80088.2583.50062.30	3.32 3.41	91.57 Fundame 65.71 74.0	



# (2) C

<b>25</b> ℃		Relative Humid	ity: 55%	
AC 120V/60F	łΖ	A 12		1
TX B Mode 2	412MHz / TX	B Mode 2462MHz	611	1
The EUT is p	rogramed in c	continuously transm	itting mode	
75 Ω AC CORREC 77000000 GHz PN		ALIGN AUTO Avg Type: Log-Pwr tun Avg Hold:>100/100 B	10:30:40 PMJul 08 TRACE 2 TYPE MW DET P N	, 2019 3 <b>4 5 6</b>
fset 3.63 dB			Mkr1 2.412 5 0 -10.270 c	
			1	
			por wy wear	_
		A4 2 4	N M	ISSIEHM
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	#VBW 300 kHz	Swe	Stop 2.42700 ep 9.600 ms (1001	GHz pts)
X	Y FUNC		FUNCTION VALUE	Â
2.400 0 GHz 2.390 0 GHz 2.386 0 GHz	-50.470 dBm -52.404 dBm			
	III			
		STATUS		
yzer - Swept SA				
75 Ω AC CORREC 97000000 GHz PN	m SENSE:INT] O: Fast ⊂ Trig: Free R	ALIGN AUTO Avg Type: Log-Pwr tun Avg Hold:>100/100	10:56:28 PM Jul 08 TRACE 1 2 TYPE MW	,2019
75 Ω AC CORREC 97000000 GHz PN IFG		ALIGN AUTO Avg Type: Log-Pwr tun Avg Hold:>100/100	10:56:28 PM Jul 08 TRACE 2 TYPE MW DET P N Mkr1 2.462 5	, 2019 3 4 5 6 NNNN GHZ
75 Ω AC CORREC 97000000 GHz PN	0: Fast 🕠 Trig: Free R	ALIGN AUTO Avg Type: Log-Pwr tun Avg Hold:>100/100	10:56:28 PM Jul 08 TRACE 1 2 TYPE MW DET P N	, 2019 3 4 5 6 NNNN GHZ
75 Ω AC CORREC 97000000 GHz PN IFG	0: Fast 🕠 Trig: Free R	ALIGN AUTO Avg Type: Log-Pwr tun Avg Hold:>100/100	10:56:28 PM Jul 08 TRACE 2 TYPE MW DET P N Mkr1 2.462 5	, 2019 3 4 5 6 NNNN GHZ
75 Ω AC CORREC 97000000 GHz PN IFG	0: Fast 🕠 Trig: Free R	ALIGN AUTO Avg Type: Log-Pwr tun Avg Hold:>100/100	10:56:28 PM Jul 08 TRACE 2 TYPE MW DET P N Mkr1 2.462 5	, 2019 3 4 5 6 NNNN GHZ
297000000 GHz 197000000 GHz PN IFG fset 3.6 dB 3.60 dBm	0: Fast 🕠 Trig: Free R	ALIGN AUTO Avg Type: Log-Pwr tun Avg Hold:>100/100	10:56:28 PM Jul 08 TRACE 2 TYPE MW DET P N Mkr1 2.462 5	, 2019 3 4 5 6 NNNN GHZ
	TX B Mode 2 The EUT is p	AC 120V/60HZ TX B Mode 2412MHz / TX The EUT is programed in c ver-sweptsA 75 Q AC CORREC PNO: Fast PNO:	AC 120V/60HZ TX B Mode 2412MHz / TX B Mode 2462MHz The EUT is programed in continuously transm ver-sweptSA 75 g AC CORREC PRO: Fast IFGain:Low PRO: Fast IFGAIN PRO: Fa	AC 120V/60HZ TX B Mode 2412MHz / TX B Mode 2462MHz The EUT is programed in continuously transmitting mode

-56.4 -66.4														
	rt2. sB				#VB	W 300	kHz			Sw	eep	Stop 2. 9.600 ms	54700 G⊦ s (1001 pt	iz s)
MKR	MODE	TRC	SCL	X	Y		FUNCTION	FUNC	TION WIDTH		FUNC	TION VALUE		Ŀ
1 2 3 4 5 6 7 8 9 10 11				2.462 5 GHz 2.483 5 GHz 2.500 0 GHz 2.488 1 GHz	-10.860 -53.228 -52.256 -48.829	dBm dBm								
<									074710					



oltage:       AC 120V/60HZ         ode:       TX G Mode 2412MHz / TX G Mode 2462MHz					
Ode:       TX G Mode 2412MHz / TX G Mode 2462MHz         The EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Operating the EUT is programed in continuously transmitting mode         Start 2.32700 GHz       Step 2.42700 GHz         Start 2.32720 GHz       Step 2.42700 GHz         Step 2.42700 GHz       Step 2.42700 GHz         Step 2.42700 GHz       Step 2.42700 GHz         Operating the EUT is programed in the EUT is	perature:	<b>25</b> ℃	Relative H	umidity: 5	55%
k: The EUT is programed in continuously transmitting mode The rest of the re	t Voltage:	AC 120V/60HZ	5	MDD P	
Montpactagement Autor     Low     Low <thlow< th="">     Low     <thlow< th=""> <thlow< th="" thl<=""><th>Mode:</th><th>TX G Mode 2412MF</th><th>Iz / TX G Mode 2462</th><th>2MHz</th><th>5</th></thlow<></thlow<></thlow<>	Mode:	TX G Mode 2412MF	Iz / TX G Mode 2462	2MHz	5
Image: Start 2.32700.0000     Image: Start 2.32700.00000     Image: Start 2.32700.0000     Image: Start 2.33700.0000     Image: Start 2.447000000     I	nark:	The EUT is program	ed in continuously tr	ransmitting m	ode
Ref Official 3.5 dE         Mkr1 2.413 3 GHz           0 dB/dd         Ref 23.63 dEm         -3.017 dEm           0 dB/dd         -3.017 dEm         -3.017 dEm           1 dB/dd         -3.017 dEm         -3.017 dEm           2 h         -4.038 dEm         -3.017 dEm           1 dB/dd         -3.017 dEm         -3.017 dEm           1 dB/dd         -3.017 dEm         -3.017 dEm           2 h         -4.038 dEm         -3.017 dEm           2 h         -4.038 dEm	LXI R L RF	75 Ω AC CORREC SE .377000000 GHz PNO: Fast	Avg Type: L Trig: Free Run Avg Hold:>1	.og-Pwr	55 PM Jul 08, 2019 TRACE 1 2 3 4 5 6
Image: Start 2.32700 CHz       #VEW 300 KHz       Stop 2.42700 CHz         #Res BW 100 KHz       #VEW 300 KHz       Stop 2.42700 CHz         #Res BW 100 KHz       #VEW 300 KHz       Stop 2.42700 CHz         #Res BW 100 KHz       #VEW 300 KHz       Stop 2.42700 CHz         #Res BW 100 KHz       #VEW 300 KHz       Stop 2.42700 CHz         #Res BW 100 KHz       #VEW 300 KHz       Stop 2.42700 CHz         #Res BW 100 KHz       #VEW 300 KHz       Stop 2.42700 CHz         # N 1 f       2.399 S CHz       -3012 dBm       -1010 FBL         # N 1 f       2.399 S CHz       -3012 dBm       -1010 FBL         # N 1 f       2.399 S CHz       -3012 dBm       -1010 FBL         # N 1 f       2.399 S CHz       -3012 dBm       -1010 FBL         # N 1 f       2.399 S CHz       -3012 dBm       -1010 FBL         # Res BW 100 KHz       # Correct Stall       -2010 FBL       -1010 FBL         # Res BW 100 KHz       # Start 2.457000000 GHz       # Start 2.457000000 GHz       -1010 FBL       -1010 FBL         # Start 2.44700 CHz       # Start 2.44700 CHz       Stop 2.54700 CHz       Stop 2.54700 CHz       Stop 2.54700 CHz         # N 1 f       2.463 S GHz       -3523 dBm       -3523 dBm       -3523 dBm       -3523 dBm	Ref	Offset 3.63 dB			
Start       2.3700       CH       Stop 2.42700       CH         Start       2.3700       CH       Stop 2.42700       CH         WF       Note:       YEW 300       KH       Stop 2.42700       CH         Start       2.3700       CH       Stop 2.42700       CH       Store 2.42700       CH         WF       Note:       YEW 300       KH       Stop 2.42700       CH       Store 2.42700       CH         Store       2.4130       CH       2.4130       CH       Store 2.42700       CH       CH       CH       Store 2.42700       CH <th>Log</th> <th></th> <th></th> <th></th> <th></th>	Log				
34     4 </td <th></th> <td></td> <td></td> <td>1 مەلمامىرىماساسە يەركىمار باي</td> <td>hhdd</td>				1 مەلمامىرىماساسە يەركىمار باي	hhdd
Image: Start 2.32700 CHz     XUBW 000 KHz     Stop 2.42700 CHz       Start 2.32700 CHz     #UBW 000 KHz     Stop 2.42700 CHz       West MOSE RESULT     2.413 8 CHz     -3.017 dBm       Image: Stop 2.42700 CHz     2.413 8 CHz     -3.017 dBm       Image: Stop 2.42700 CHz     FUNCTION     FUNCTION       Image: Stop 2.42700 CHz     -3.017 dBm       Image: Stop 2.42700 CHz     -3.027 dBm       Image: Stop 2.42700 CHz     -3.023 dBm       Image: Stop 2.42700 CHz     -3.023 dBm       Image: Stop 2.44700 CHz     -3.023 dBm       Image: Stop 2.44700 CHz     -3.023 dBm       Image:				<sup>2</sup> ,	-23.07 dBm
Image: Start 2.32700 GHz     Stop 2.42700 GHz       Start 2.32700 GHz     FUNCTION       File     2.413 GHz       Start 2.32700 GHz     FUNCTION       File     2.413 GHz       Start 2.32700 GHz     FUNCTION       File     File       Start 2.32700 GHz     FUNCTION       File     File       Start 2.32700 GHz     File       Start 2.32700 GHz     File       Start 2.32700 GHz     File       File     File       Start 2.42700 GHz     File       File     File       File     File       Start 2.42700 GHz     File       File     File	-36.4		A3	N <sup>LYME</sup>	an way
Start 2.32700 CHz       Stop 2.42700 CHz         #Res BW 100 kHz       #VEW 300 kHz       Sweep 9.600 ms (1001 pts)         MR MODE TRC SCL       2 413 3 GHz       3 017 dBm       FUNCTION WOTH       FUNCTION WOTH         2 M 1       1       2 400 GHz       2 4013 GHz       3 017 dBm       FUNCTION WOTH       FUNCTION WOTH       FUNCTION WALLE         3 M 1       1       2 3980 GHz       -29 182 dBm	and dates two sters	whether astronomy and an advantage of the	mound and an and a state of the second state o		
#Res BW 100 kHz       #VBW 300 kHz       Sweep 9.600 ms (1001 pts)         MR MODE TRC: SCL       X       Y       FUNCTION       FUNCTION WOTH       FUNCTION WOTH         2       N       1       2.413 3 GHz       -30 if 7 Big dBm       - <th></th> <td></td> <td></td> <td>- Stor 1</td> <td>42700 CH-</td>				- Stor 1	42700 CH-
1       1       f       2.400 GHz       -29.62 dBm         2       N       1       f       2.400 GHz       -50.184 dBm         4       N       1       f       2.389.8 GHz       -50.184 dBm         4       N       1       f       2.389.8 GHz       -50.184 dBm         5       1       f       2.389.8 GHz       -50.184 dBm       -60.184 dBm         9       1       f       2.389.8 GHz       -50.184 dBm       -60.184 dBm         9       1       f       2.389.8 GHz       -50.184 dBm       -60.184 dBm         9       1       f       2.389.8 GHz       -50.184 dBm       -60.184 dBm         9       1       f       2.389.8 GHz       -50.246       -50.164         9       1       f       2.389.8 GHz       -50.246       -50.164         9       1       f       f       -50.224       -50.164       -50.163         9       1       f       f       -50.234       -50.164       -50.163       -50.234       -50.234       -50.234       -50.234       -50.234       -50.234       -50.234       -50.234       -50.234       -50.234       -50.234       -50.234       -50.234	#Res BW 100 H			Sweep 9.600 m	is (1001 pts)
Keysight Spectrum Analyzer - Swept SA       CORREC       SERVEEINT       ALION AUTO       11:11:27 PM Mide, 2019         Center Freq 2.497000000 GHz       PHO: Fast (FGainLow)       Arg Type: Log-Pwr Atten: 30 dB       Arg Type: Log-Pwr Arg Hold:>100/100       TTACE Tree Data         Ref Offset 3.6 dB (0 dB/div 6.40       Ref 23.60 dBm       -3.623 dBm       -3.623 dBm         Start 2.44700 GHz       Stort 2.44700 GHz       Storp 2.54700 CHz       Storp 2.54700 CHz         Start 2.44700 GHz       YEW 300 KHz       YEW 300 KHz       Storp 2.54700 CHz         WM NOE TRC: Scl.       X       YEW 300 KHz       Storp 2.54700 CHz         N 1       Z 2.633 CHz       Storp 2.54700 CHz       YEW 300 KHz       YEW 300 KHz       Storp 2.54700 CHz         N 1       Z 2.483 GHz       Storp 2.54700 CHz       YEW 300 KHz       YEW 300 KHz       YEW 300 KHz       Storp 2.54700 CHz	1         N         1         f           2         N         1         f           3         N         1         f           4         N         1         f           5	2.413 3 GHz -3.017 d 2.400 0 GHz -29.162 d 2.390 0 GHz -50.184 d	Bm Sm		
W. R.L.       RF       T5 0: AC       CORREC       SENSE:NTI       ALLOW AITO       11:11:27 PH34 09,3019         Center Freq 2.497000000 GHz       Trig: Free Run IFGain:Low       Trig: Free Run Atten: 30 dB       Aug Type: Log-Pwr Avg Hoid:>100/100       Trig: Free Run Avg Hoid:>100/100       Mkr1 2.463 3 GHz -3.623 dBm         Ref Offset 3.6 dB       Mkr1 2.463 3 GHz       -3.623 dBm       -3.623 dBm         10 dB/div       Ref 0ffset 3.6 dB       -3.623 dBm       -3.623 dBm         16 4       -4       -4       -3.623 dBm       -3.623 dBm         360       -4       -4       -4       -3.623 dBm         361       -4       -4       -4       -3.623 dBm         364       -4       -4       -4       -4         364       -4       -4       -4       -4       -4         364       -4       -4       -4       -4       -4         364       -4       -4       -4       -4       -4         364       -4       -4       -4       -4       -4         364       -4       -4       -4       -4       -4         364       -4       -4       -4       -4       -4       -4         364	MSG		III STATUS		4
1       1       1       1       2.463 3 GHz       Stop 2.54700 GHz         #Res BW 100 kHz       #VBW 300 kHz       Sweep 9.600 ms (1001 pts)         MR MODE TRC Scl       X       Y       FUNCTION         1       1       f       2.463 3 GHz       -3.623 dBm         3       N       1       f       2.463 3 GHz       -48.971 dBm         3       N       1       f       2.483 5 GHz       -46.424 dBm         5       6       -       -       -       -         8       9       -       -       -       -       -         9       1       -       -       -       -       -       -         1       -       -       -       -       -       -       -       -         1       1       - <th>XI         RF           Center Freq 2           10 dB/div           10 dB/div           13 6           3.60           -6.40           -16.4           -36.4</th> <th>25.0 AC CORREC SE .497000000 GHZ PNO: Fast IFGein:Low Offset 3.6 dB 23.60 dBm</th> <th>Avg Type: L Avg Type: L Avg Hold:&gt;1</th> <th>-09-Pwr 100/100 Mkr1 2.4 -3</th> <th>27 PHJU 08, 2019 TYPE 01, 23 4 5 G TYPE 01, 23 4 5 G TYPE 01, 10, 10, 10, 10, 10, 10, 10, 10, 10,</th>	XI         RF           Center Freq 2           10 dB/div           10 dB/div           13 6           3.60           -6.40           -16.4           -36.4	25.0 AC CORREC SE .497000000 GHZ PNO: Fast IFGein:Low Offset 3.6 dB 23.60 dBm	Avg Type: L Avg Type: L Avg Hold:>1	-09-Pwr 100/100 Mkr1 2.4 -3	27 PHJU 08, 2019 TYPE 01, 23 4 5 G TYPE 01, 23 4 5 G TYPE 01, 10, 10, 10, 10, 10, 10, 10, 10, 10,
#Res BW 100 kHz         #VBW 300 kHz         Sweep         9.600 ms (1001 pts)           MKR MODE TRC: SCL         X         Y         FUNCTION         FUNCTION WIDTH         FUNCTION VALUE           1         f         2.463 3 GHz         -3.623 dBm         FUNCTION WIDTH         FUNCTION VALUE         FUNCTION VALUE           2         N         1         f         2.463 3 GHz         -3.623 dBm         FUNCTION WIDTH         FUNCTION VALUE           3         N         1         f         2.600 0 GHz         -50.153 dBm         FUNCTION VALUE	-66.4				
1         N         1         f         2.483 3 GHz         -3.623 dBm           2         N         1         f         2.483 5 GHz         -48.971 dBm           3         N         1         f         2.483 5 GHz         -48.971 dBm           3         N         1         f         2.488 0 GHz         -50.153 dBm           4         N         1         f         2.488 0 GHz         -46.424 dBm           6         6         6         6         6         6           7         7         7         7         7         7           8         9 <th>#Res BW 100 H</th> <th>(Hz #VBW</th> <th></th> <th>Sweep 9.600 m</th> <th>is (1001 pts)</th>	#Res BW 100 H	(Hz #VBW		Sweep 9.600 m	is (1001 pts)
MSG STATUS	1         N         1         7           2         N         1         7           3         N         1         7           4         N         1         7           5         -         -         7           6         -         -         -           7         -         -         -           9         -         -         -           10         -         -         -	2.463 3 GHz -3.623 d 2.483 5 GHz -48.971 d 2.500 0 GHz -50.153 d	Bm Sm	FUNCTION VALUE	
	MSG		III STATUS		4

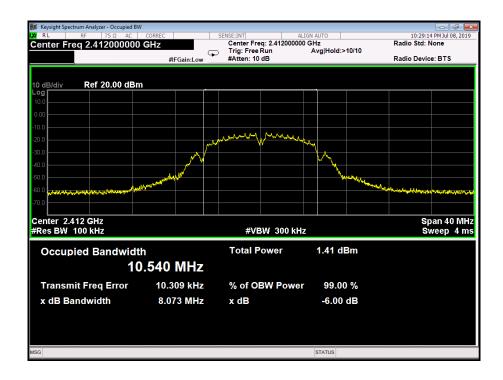


		Deletive U.	· · · · · · · · · · · · · · · · · · ·	F F 0/					
erature:	<b>25</b> ℃	Relative Hu	midity:	55%					
oltage:	AC 120V/60HZ		WILL -						
lode:		412MHz / TX N(HT20							
rk:	<b>k:</b> The EUT is programed in continuously transmitting mode								
Center Fred	m Analyzer - Swept SA RF 75 0. AC CORREC 2.3777000000 GHz PNO: Fast IFGain:Low tef Offset 3.63 dB tef 23.63 dBm	SENSE:INT ALIGN AUTO Avg Type:   Trig: Free Run Atten: 30 dB	Log-Pwr 100/100	2.413 3 GHz -3.007 dBm					
3.63 -6.37 -16.4 -26.4 -36.4 -66.4 -66.4	مود می مرافع این مرافع این مرافع این مرافع می مرافع این مرافع این مرافع این مرافع این مرافع این مرافع این مرافع این مرافع این	angra calum straburgh making status an and a same of	and Staded and and a state of the state of t	1					
Start 2.3270 #Res BW 10		SW 300 kHz		p 2.42700 GHz ms (1001 pts)					
3 N 1 4 N 1									
5 6 7 8 9 9 10 11 < MSG		m STATUS							
6 7 8 9 10 11 MSG MSG Keysight Spectrum (X) RL Center Frec	m Analyzer - Swept SA RF  75 Ω AC   CORREC   2.497000000 GHz IFGain:Low	III STATUS SENSE:INT ALIGN AUTO AVG Type: 1	Log-Pwr 100/100	28:36 PM JU 08, 2019 TRACE 2 34 5 C TYPE P NNNNN DET P NNNNN 2,463 3 GHZ					
6 7 8 9 9 10 11 MSG MSG MSG MSG MSG Center Freco	m Analyzer - Swept SA RF  75 G AC CORREC 2.497000000 GHz PNO: Fast IFGain:Low tef Offset 3.6 dB tef 0ffset 3.6 dB tef 0ffset 3.6 dB	sense:INT ALIGN AUTO Trig: Free Run Atten: 30 dB	Log-Pwr 100/100 Mkr1 :	22:36 MU10 08, 2019 TRACE 112:34 5 G VPE P MWWWW DET P NNNNN 22:463 3 GHz -3.636 dBm					
6         7           8         9           10         11           MSG         MSG	m Analyzer - Swept SA RF /75 G AC CORREC <b>2.497000000 GHz</b> PNO: Fast IFGain:Low tef Offset 3.6 dB tef 0ffset 3.6 dB tef 0ffset 3.6 dB	sense:INT ALIGN AUTO Trig: Free Run Atten: 30 dB	Log-Pwr 100/100 Mkr1 :	22:36 MU10 08, 2019 TRACE 112:34 5 G VPE P MWWWW DET P NNNNN 22:463 3 GHz -3.636 dBm					
6         7           8         9           10         11           MSG         MSG	m Analyzer - Swept SA RF 75 Ω AC CORREC 1 2.497000000 GHz PNO: Fast IFGain:Low ref Offset 3.6 dB tef 23.60 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1	sense:INT ALIGN AUTO Trig: Free Run Atten: 30 dB	Log-Pwr 100/100 Mkr1 :	22:36 MU10 08, 2019 TRACE 112:34 5 G VPE P MWWWW DET P NNNNN 22:463 3 GHz -3.636 dBm					
MSG 10 11 MSG 10 11 MSG 10 11 11 MSG 10 11 11 MSG 10 11 11 MSG 10 11 11 MSG 10 11 11 11 MSG 10 11 11 11 MSG 10 11 11 11 11 11 11 11 11 11	m Analyzer - Swept SA RF 75 Ω AC CORREC 2.497000000 GHz PNO: Fast IFGaint.ow ef Offset 3.6 dB tef 23.60 dBm 0 GHz 0 GHz 0 KHz #VE CLI X Y f 2.463 3 GHz 3.662	SENSE:INT ALIGN AUTO Trig: Free Run Atten: 30 dB Atten: 4 Atten: 4 Atte	Log-Pwr 100/100 Mkr1 :	22:36 MUL 08, 2019 TRACE 112:34 5 G TYPE MUL 08, 2019 DET P NIN NYN 22:463 3 GHz -3.636 dBm -23:86 dbm -23:86 dbm -23:86 dbm -23:86 dbm -23:86 dbm -23:86 dbm -23:86 dbm -23:86 dbm -23:86 dbm					

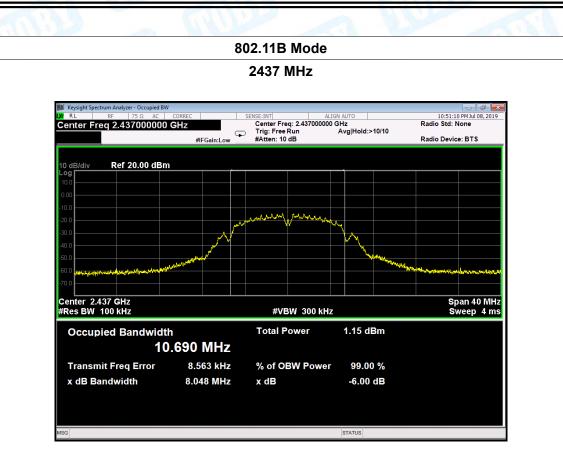


# Attachment D-- Bandwidth Test Data

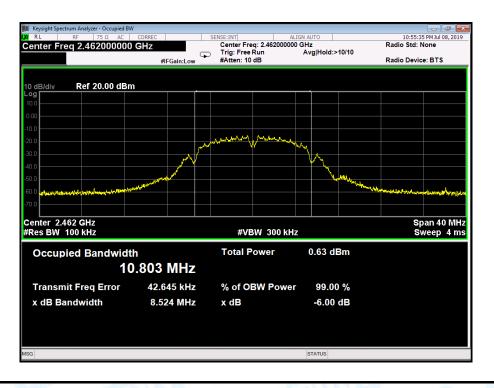
Temperature:	<b>25</b> ℃	Relative Humidity:	55%		
Test Voltage:	ge: AC 120V/60HZ				
Test Mode:	TX 802.11B Mode		GILL		
Channel frequen	cy 6dB Bandwidth	99% Bandwidth	Limit		
(MHz)	(MHz)	(MHz)	(MHz)		
2412	8.073	10.540			
2437	8.048	10.690	>=0.5		
2462	8.524	10.803			
	802.1	1B Mode			





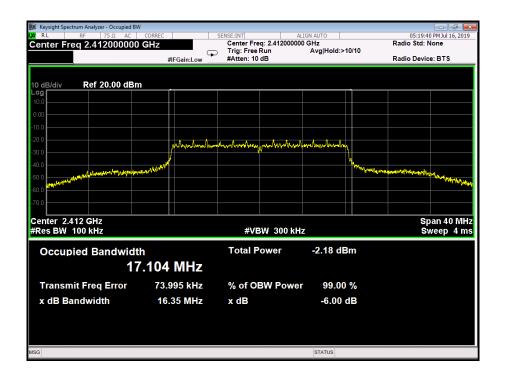


#### 802.11B Mode

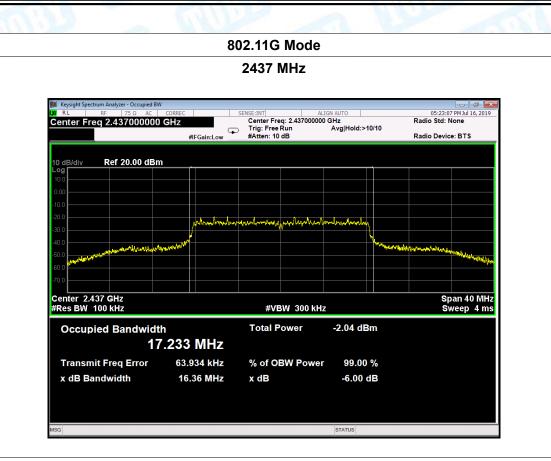




Temperature:	<b>25</b> ℃		Relative Humidity:	55%
Test Voltage:	est Voltage: AC 120V/60HZ			
Test Mode:	ТΧ	802.11G Mode		
Channel frequend	;y	6dB Bandwidth	99% Bandwidth	Limit
(MHz)		(MHz)	(MHz)	(MHz)
2412		16.35	17.104	
2437		2437 16.36		>=0.5
2462		16.37	17.455	
		802.11G	Mode	







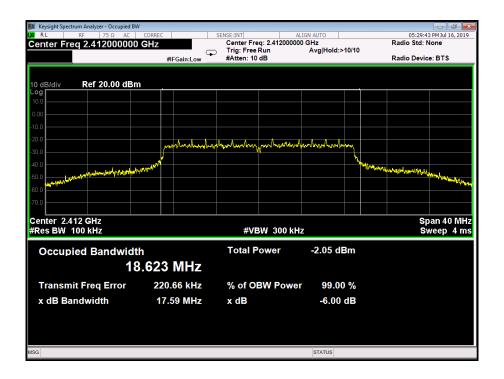
#### 802.11G Mode

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			10/10		
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			<b>N</b> .		
www			Number of Street, or St	unnerstration of the second	h-
					and the second second
					an 40 Mi
	#VBW 300 kl	lz			an 40 Ivii veep 4 n
	Total Power	-1 95 di	Зm		
		1.00 ui			
4.119 kHz	% of OBW Powe	er 99.00	)%		
16.37 MHz	x dB	-6.00	dB		
	#FGain:Low	Hz #IFGain:Low Center Freq: 2.4620000 Trig: Free Run #Atten: 10 dB #Atten: 10 dB #VBW 300 kl #VBW 300 kl Total Power 455 MHz 4.119 kHz % of OBW Power	Hz Center Freq: 2.46200000 GHz Trig: Freq Run Avg Hold:> #/FGain:Low #Atten: 10 dB #/Dow/www.how/wow/wow/wow/wow/wow/wow/wow/wow/wow/	Hz         Center Free: 2.46200000 GHz           #IFGain:Low         Trig: Free Run         Avg Hold:>10/10           #Atten: 10 dB         Avg Hold:>10/10           #WBW 300 kHz         #VBW 300 kHz           Total Power -1.95 dBm           455 MHz         % of OBW Power 99.00 %	Hz Center Free: 2.46200000 GHz Radio Std: N Trig: Free Run Avg Hold:>10/10 Radio Device #Atten: 10 dB Avg Hold:>10/10 Radio Device #Atten: 10 dB Avg Hold:>10/10 Radio Device #Atten: 10 dB Avg Hold:>10/10 Radio Device #VBW 300 kHz Sp #VBW 300 kHz Sp #VBW 300 kHz Sp #VBW 300 kHz Sp #VBW 300 kHz Sp

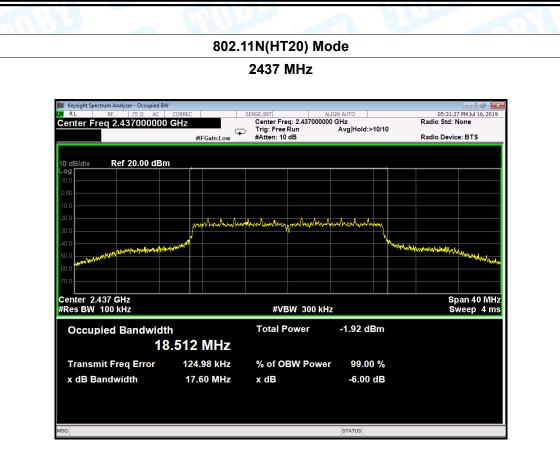


Temperature:	25	5°C	55%	
Test Voltage:	A	C 120V/60HZ		
Test Mode:	T)	K 802.11N(HT20) Mode		
Channel frequen	су	6dB Bandwidth	99% Bandwidth	Limit
(MHz)		(MHz)	(MHz)	(MHz)
2412		17.59	18.623	
2437		17.60	18.512	>=0.5
2462 17.60			18.728	
				4

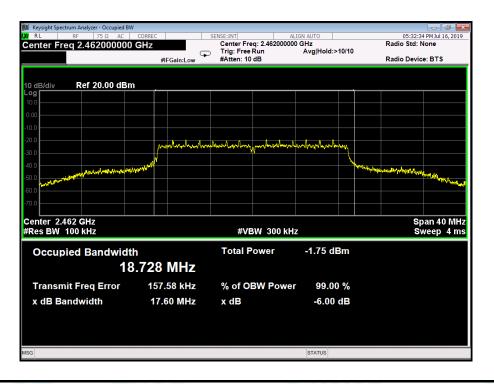
### 802.11N(HT20) Mode







### 802.11N(HT20) Mode



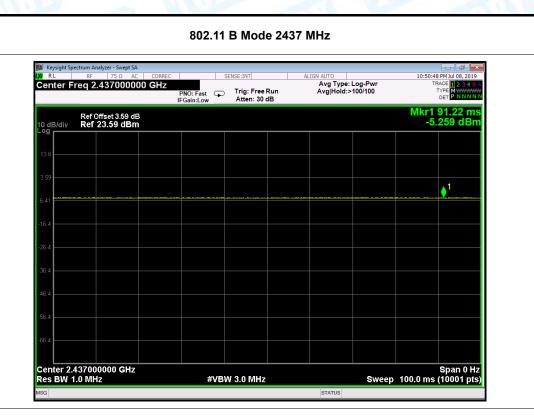


# Attachment E-- Peak Output Power Test Data

<b>Test Condition</b>	ns: Continuous transm	s: Continuous transmitting Mode					
Temperature:	<b>25</b> ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60HZ	min l	CH USS				
Mode	Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)				
	2412	0.341					
802.11b	2437	0.374					
-	2462	-0.04					
	2412	0.549					
802.11g	2437	0.788	30				
-	2462	0.981					
	2412	0.723					
802.11n (HT20)	2437	0.815					
(HT20)	2462	1.014					
¥	Resi	ult: PASS					

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

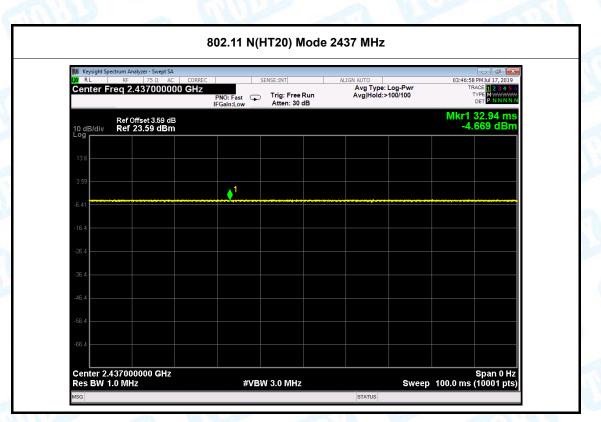




802.11 G Mode 2437 MHz

enter F	RF 75 Ω req 2.43700				SE:INT	Run	ALIGN AUTO Avg Type Avg Hold:	: Log-Pwr >100/100	TF	8 PM Jul 17, 2019 RACE <mark>1 2 3 4 5 (</mark> TYPE <b>N</b> WAY WAY
			IFGain:Low		Atten: 30					DET P NNNN
dB/div	Ref Offset 3.5 Ref 23.59 d	9 dB Bm							Mkr1 -5.	73.85 ms 244 dBm
g [										
.6										
59										
								1		
1				-						
4										
4										
.4										
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4										
4										
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ntor 2	437000000 G	47								Span 0 Hz
	437000000 G	H2		#VBM	3.0 MHz			Sweet	o 100.0 ms	(10001 nts)
3 6 7 8							STATUS	enice		(interest play

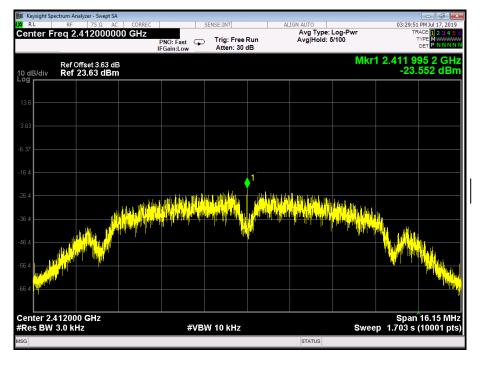






# **Attachment F-- Power Spectral Density Test Data**

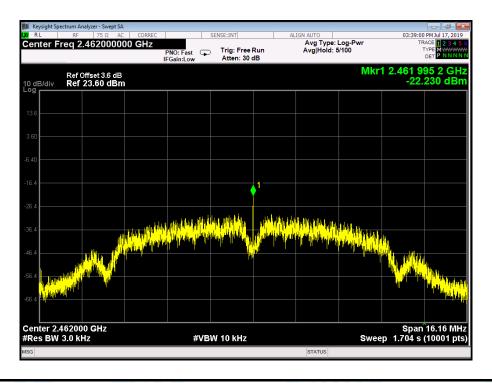
Temperature:	<b>25</b> ℃		Relative Humidity:	55%			
Test Voltage:	AC 120V	AC 120V/60HZ					
Test Mode:	TX 802.1	TX 802.11B Mode					
Channel Freq	uency	Power D	ensity	Limit			
(MHz)		(dBm/3	kHz)	(dBm/3kHz)			
2412	2412		52				
2437		-23.4	39	8			
2462		-22.230					
		802.11B	Mode				





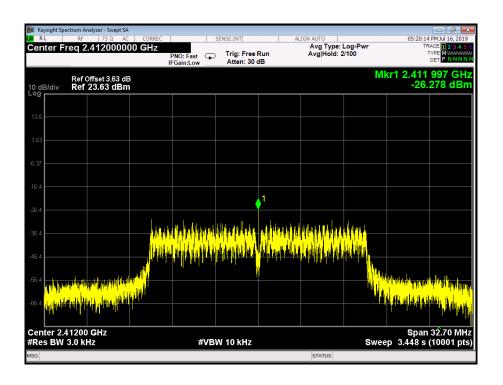
802.11B Mode 2437 MHz Center Freq 2.437000000 GHz Avg Type: Log-Pwr Avg|Hold: 5/100 PNO: Fast Trig: Free Run IFGain:Low Atten: 30 dB Mkr1 Ref Offset 3.59 dB Ref 23.59 dBm -23.439 dBn 10 dB/div ter entre filter alle Anni entre filtere entre Anni all here and Center 2.437000 GHz #Res BW 3.0 kHz Span 16.10 MHz Sweep 1.698 s (10001 pts) #VBW 10 kHz

802.11B Mode

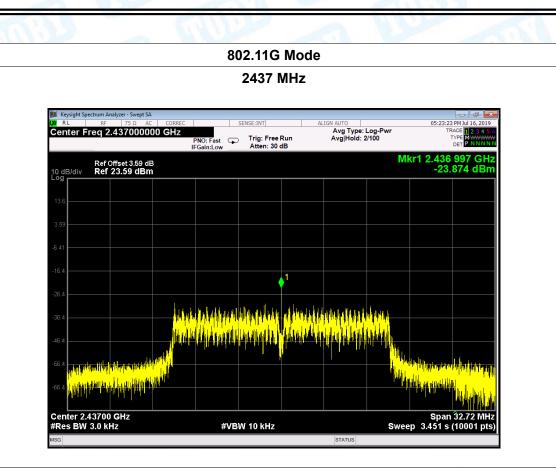




Temperature:	<b>25</b> ℃		Temperature:	<b>25 ℃</b>		
Test Voltage:	AC 120V/	AC 120V/60HZ				
Test Mode:	TX 802.1	1G Mode	0.12			
Channel Freq	Channel Frequency Power Density Li					
(MHz)	(MHz) (dBm/3 kHz) (d			(dBm/3kHz)		
2412		-26.27	78			
2437		-23.87	74	8		
2462		-25.704				
		802.11G I	Mode			

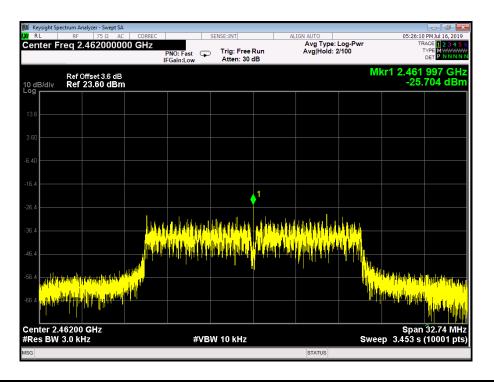






## 802.11G Mode

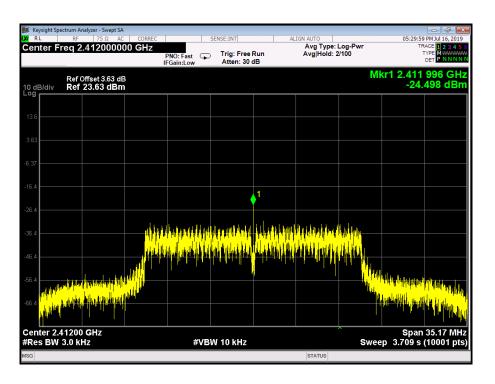






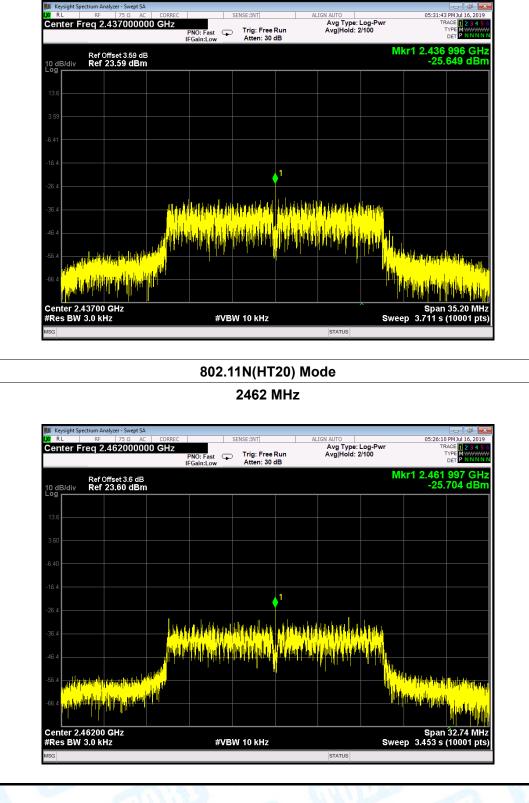
Temperature:	<b>25</b> ℃		Temperature:	<b>25</b> ℃	
Test Voltage:	AC 120V/	60HZ			
Test Mode:	TX 802.1	02.11N(HT20) Mode			
Channel Freq	uency	Power De	nsity	Limit	
(MHz)		(dBm/3 l	(dBm/3kHz)		
2412		-24.498			
2437		-25.64	9	8	
2462		-25.704			

### 802.11N(HT20) Mode





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



802.11N(HT20) Mode 2437 MHz

TOBY