

Shenzhen Toby Technology Co., Ltd.

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# FCC Radio Test Report FCC ID: 2AMVU-SL6098

# **Original Grant**

Report No.	-	TB-FCC160273
Applicant	1.8	Shenzhen lotton Technologies Co.,Ltd.
Equipment Under	Test	(EUT)
EUT Name	:	Smart Tree Light
Model No.	:	SL6098
Series Model No.	1:0	See the page 5
Brand Name	P	N/A
Receipt Date		2018-03-06
Test Date		2017-03-07 to 2018-06-04
Issue Date		2018-09-27
Standards	22	FCC Part 15, Subpart C (15.247: 2017)
Test Method	:	ANSI C63.10: 2013
Conclusions	3:	PASS

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In the configuration tested, the EUT complied with the standards specified above, The EUT technically complies with the FCC and IC requirements

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**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-FCC160273	Rev.01	Initial issue of report	2018-09-27
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# 1. General Information about EUT

# **1.1 Client Information**

Address

Applicant	:	Shenzhen lotton Technologies Co.,Ltd.
Address		Qianhai Complex A201, Qianwan Road 1, Qianhai Shenzhen-Hong
		Kong Cooperation Zone, Shenzhen, China
Manufacturer	192	Shenzhen lotton Technologies Co.,Ltd.

- : Shenzhen lotton Technologies Co.,Ltd.
- Qianhai Complex A201, Qianwan Road 1, Qianhai Shenzhen-Hong 2 Kong Cooperation Zone, Shenzhen, China



# 1.2 General Description of EUT (Equipment Under Test)

EUT Name	:	Smart Tree Light			
Models No.		SL6098, SL****(* represents 2-digit characters, and each character can be anything ranging from 0 to 9, A to Z ,symbols like "- "or "space"and different product models.)			
Models Different		And * is targeted at different sales territories, sales regions, sales methods, varied client groups, different market positioning and different product colors, and won't affect the product safety and electromagnetic compatibility.			
		Operation Frequency:	802.11b/g/n(HT20): 2412MHz~2462MHz		
		Number of Channel:	802.11b/g/n(HT20):11 channels see note(3)		
	A V F	RF Output Power:	802.11b: 17.97dBm 802.11g: 16.52dBm 802.11n (HT20): 15.15dBm		
Product		Antenna Gain:	1.5dBi PCB Antenna		
Description		Modulation Type:	802.11b: DSSS(CCK, DQPSK, DBPSK) 802.11g/n: OFDM(BPSK,QPSK,16QAM, 64QAM)		
		Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n:up to 150Mbps		
Power Supply	:	AC Voltage Supply from adapter: GQ12-240065-AU			
Power Rating	:	Input: AC 100V-240V 50Hz/60Hz Output:DC24V 650mA			
Software Version	:	N/A			
Hardware Version	:	N/A	BI MODI M		
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.

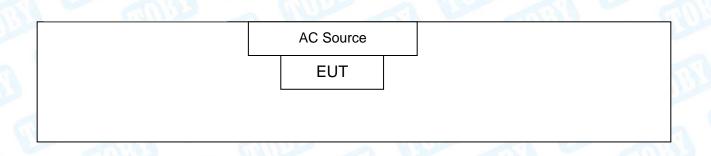


#### (3) Channel List:

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 1	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.

For Conducted Test			
Final Test Mode Description			
Mode 1	Adapter1 + TX B Mode		
Mode 2	Adapter1 + TX B Mode		

	For Radiated Test		
Final Test Mode Description			
Mode 3	TX Mode B Mode Channel 01/06/11		
Mode 4	TX Mode G Mode Channel 01/06/11		
Mode 5	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	ESP-F.exe		
Channel	CH 01	CH 06	CH 11
IEEE 802.11b DSSS	2.0	2.0	2.0
IEEE 802.11g OFDM	-3.5	-3.5	-3.5
IEEE 802.11n (HT20)	-4.0	-4.0	-4.0

### 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:	1.0 dD
Radiated Emission	9kHz to 30 MHz	±4.60 dB
Dedicted Emission	Level Accuracy:	1 40 dB
Radiated Emission	30MHz to 1000 MHz	±4.40 dB
Dedicted Emission	Level Accuracy:	±4.20 dB
Radiated Emission	Above 1000MHz	±4.20 0B



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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					
Standard Section		Test Item	Judgment	Remark	
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	

N/A is an abbreviation for Not Applicable.



# 3. Test Equipment

<b>Conducted Emiss</b>	ion Test					
Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date	
EMI Test Receiver	Rohde & Schwarz	ESCI	100321	Jul. 18, 2018	Jul. 17, 2019	
RF Switching Unit	Compliance Direction Systems Inc			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	on Test	÷		<u>-</u>		
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	Mar.16, 2018	Mar. 15, 2019	
Bilog Antenna	ETS-LINDGREN	3142E	00117542	Mar.16, 2018	Mar. 15, 2019	
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar.16, 2018	Mar. 15, 2019	
Horn Antenna	ETS-LINDGREN	3117	00143209	Mar.16, 2018	Mar. 15, 2019	
Loop Antenna	Laplace instrument	RF300	0701	Mar.16, 2018	Mar. 15, 2019	
Pre-amplifier	Sonoma	310N	185903	Mar.16, 2018	Mar. 15, 2019	
Pre-amplifier	HP	8449B	3008A00849	Mar.16, 2018	Mar. 15, 2019	
Cable	HUBER+SUHNER	100	SUCOFLEX	Mar.16, 2018	Mar. 15, 2019	
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A	



Antenna Conducted Emission					
Equipment	Manufacturer	cturer 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	Oct. 26, 2017	Oct. 25, 2018
Vector Signal Generator	Agilent	N5182A	MY50141294	Oct. 26, 2017	Oct. 25, 2018
Analog Signal Generator	Agilent	N5181A	MY50141953	Oct. 26, 2017	Oct. 25, 2018
33 - 6	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO26	Oct. 26, 2017	Oct. 25, 2018
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO29	Oct. 26, 2017	Oct. 25, 2018
RF Power Sensor	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO31	Oct. 26, 2017	Oct. 25, 2018
	DARE!! Instruments	RadiPowerRPR3006W	17100015SNO33	Oct. 26, 2017	Oct. 25, 2018



# 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	<b>Test Limit</b>
--	-----------	----------	-------------------

Eroquonov	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	

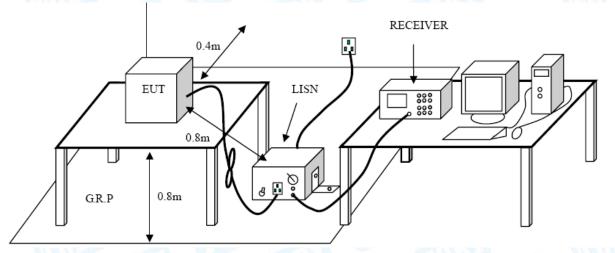
Notes:

(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.

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		

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

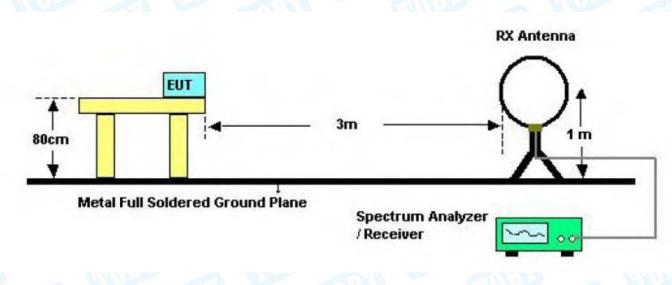
#### Note:

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

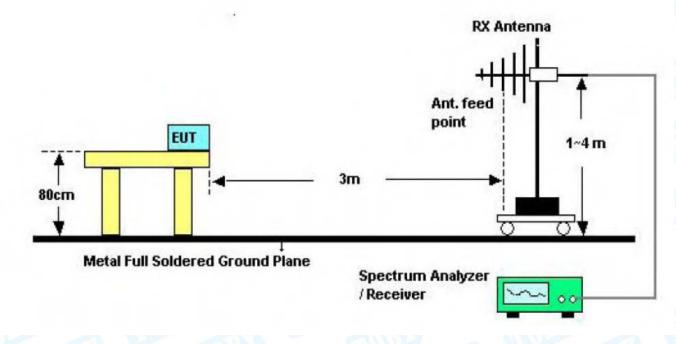
(2) Emission Level(dBuV/m)=20log Emission Level(uV/m)



5.2 Test Setup

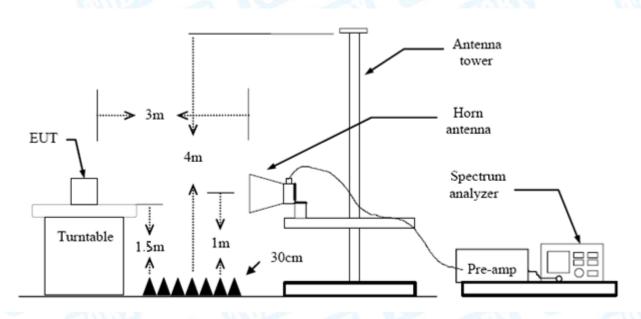


Below 30MHz Test Setup



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.

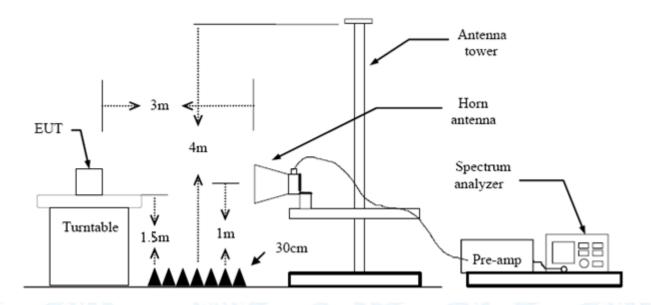


# 6. Restricted Bands Requirement

- 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



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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.

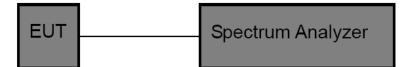


# 7. Bandwidth Test

- 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	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.

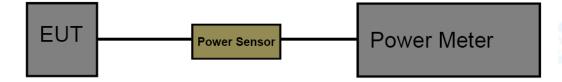


# 8. Peak Output Power Test

- 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	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.

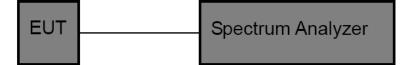


# 9. Power Spectral Density Test

- 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(M				
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 1.5dBi, 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
U I	Permanent attached antenna
2 100	Unique connector antenna
	Professional installation antenna

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

Temperature:	: 25	°C	R	elative Hu	midity:	55%	
Test Voltage:	AC	120V/60Hz	- 0	231		CINA	2
Terminal:	Line	9	2 15		10		(ADD)
Test Mode:	Ada	apter1 + TX I	3 Mode		22		1 Bus
Remark:	Onl	y worse case	e is reported	d	61		
90.0 dBuV			1				
							QP: AVG:
m		×.	¥., ×>	· · · · ·	б.,,		
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		two was de.		We			WDW4
10							
0.150		D.5	(MHz)		5		30.000
No. Mk.	From	Reading	Correct	Measure-	Limit	Over	
INO. IVIK.	Freq. MHz	Level dBuV	Factor	ment dBuV	dBuV	dB	Detector
4 0							
	.7620	18.00	9.61	27.61		-28.39	QP
	.7620	8.61	9.61	18.22	46.00	-27.78	AVG
3 1	.1380	17.26	9.60	26.86	56.00	-29.14	QP
4 1	.1380	12.05	9.60	21.65	46.00	-24.35	AVG
5 1	.4380	19.57	9.60	29.17	56.00	-26.83	QP
6 1	.4380	11.35	9.60	20.95	46.00	-25.05	AVG
7 1	.9020	29.45	9.61	39.06	56.00	-16.94	QP
8 1	.9020	19.83	9.61	29.44	46.00	-16.56	AVG
	.2820	28.64	9.62	38.26		-17.74	QP
	.2820	15.48	9.62	25.10		-20.90	AVG
10 /				43.87		-12.13	QP
	7580	3/1 1/	u / <				
11 4	.7580	34.14 25.61	9.73 9.73	35.34		-10.66	AVG



Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		-
Terminal:	Neutral	TRU C	
Test Mode:	Adapter1 + TX B Mod	le	Contist.
Remark:	Only worse case is re	ported	1
90.0 dBuV	-		
			QP: AVG:
40	, X v	X X X	
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No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.7620	29.10	9.59	38.69	56.00	-17.31	QP
2		0.7620	17.27	9.59	26.86	46.00	-19.14	AVG
3		0.9500	27.72	9.59	37.31	56.00	-18.69	QP
4		0.9500	17.48	9.59	27.07	46.00	-18.93	AVG
5		1.7100	29.92	9.60	39.52	56.00	-16.48	QP
6		1.7100	24.72	9.60	34.32	46.00	-11.68	AVG
7		1.9100	30.47	9.61	40.08	56.00	-15.92	QP
8	*	1.9100	25.30	9.61	34.91	46.00	-11.09	AVG
9		4.9380	21.29	9.90	31.19	56.00	-24.81	QP
10		4.9380	15.96	9.90	25.86	46.00	-20.14	AVG
11		7.5980	20.33	10.28	30.61	60.00	-29.39	QP
12		7.5980	11.62	10.28	21.90	50.00	-28.10	AVG



Temperature:	<b>25</b> ℃		<b>Relative Humidity:</b>	55%
Test Voltage:	AC 240V/50H	z		200
Terminal:	Line	and a		123
Test Mode:	Adapter1 + T>	K B Mode		
Remark:	Only worse ca	ase is reported	AUPE	a
90.0 dBuV				
				QP: AVG:
40		* * * *	¥	
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	VI A PWAVANA AND	and the contraction of the second	A TANK TANK TANK TANK TANK TANK	
- may	W WWWWWW	WAT INVITUATION	NULWU IVE IVE IVE IVE IVIN	AVG
	°V ₩.	'\~' '		"· "µIJIJ
-10				
0.150	0.5	(MHz)	5	30.000

No. M	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	1.3300	28.37	9.60	37.97	56.00	-18.03	QP
2	1.3300	22.31	9.60	31.91	46.00	-14.09	AVG
3	1.7100	28.50	9.60	38.10	56.00	-17.90	QP
4	1.7100	24.09	9.60	33.69	46.00	-12.31	AVG
5	1.9020	31.78	9.61	41.39	56.00	-14.61	QP
6 *	1.9020	26.54	9.61	36.15	46.00	-9.85	AVG
7	2.2740	28.62	9.62	38.24	56.00	-17.76	QP
8	2.2740	24.00	9.62	33.62	46.00	-12.38	AVG
9	4.1820	20.96	9.75	30.71	56.00	-25.29	QP
10	4.1820	15.74	9.75	25.49	46.00	-20.51	AVG
11	4.9460	18.91	9.90	28.81	56.00	-27.19	QP
12	4.9460	14.58	9.90	24.48	46.00	-21.52	AVG



Temperature:	<b>25</b> ℃	Relati	ve Humidity: 5	55%
Test Voltage:	AC 240V/50Hz	100	MUL	
Terminal:	Neutral	1000	E CIL	2
Test Mode:	Adapter1 + TX E	3 Mode		
Remark:	Only worse case	e is reported	UPP -	
90.0 dBuV				QP: —
				AVG:
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	Y	<u>γν</u>		
-10				
0. 150	0.5	(MHz)	5	30.000

No. Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1	0.1620	29.31	9.64	38.95	65.36	-26.41	QP
2	0.1620	18.75	9.64	28.39	55.36	-26.97	AVG
3	0.5700	27.37	9.58	36.95	56.00	-19.05	QP
4	0.5700	20.45	9.58	30.03	46.00	-15.97	AVG
5	0.7580	29.36	9.59	38.95	56.00	-17.05	QP
6	0.7580	21.94	9.59	31.53	46.00	-14.47	AVG
7	1.7100	17.99	9.60	27.59	56.00	-28.41	QP
8	1.7100	13.38	9.60	22.98	46.00	-23.02	AVG
9	2.4700	22.10	9.64	31.74	56.00	-24.26	QP
10	2.4700	17.94	9.64	27.58	46.00	-18.42	AVG
11	4.7540	33.21	9.86	43.07	56.00	-12.93	QP
12 *	4.7540	26.75	9.86	36.61	46.00	-9.39	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

IHZ~1GHZ								16
Temperature:	<b>25</b> ℃		2023	Relative H	umidity:	55%	1	
Test Voltage:	AC 120	V/60HZ				7	110	2
Ant. Pol.	Horizon	tal	-					20
Test Mode:	Adapter	1 + TX B N	/lode	1	AND DE	1	2	
Remark:	Only wo	orse case is	s reported		5	1123		
80.0 dBuV/m								
					(RF)FCC	: 15C 3M R	adiation	
						M	argin -6 d	₿
							5	
				×	2 X	3 X	4 X X	6 X
30			Δ				11.1	atta
Month	m -			h l hul	man	hand	MULM	10
		A.C.	VVV	Arr.				
	The work	(M)						
-20 30.000 40 5	50 60 70	80	(MHz)	300	400	500 600	) 700	1000.000
			()	500				
		Reading	Correct	Measure-	Limit	0	~ ~	
No. Mk.	Freq.	Level	Factor	ment	Limit	Ov	er	

No.	Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		321.0608	50.99	-15.52	35.47	46.00	-10.53	QP
2		361.7139	47.86	-14.04	33.82	46.00	-12.18	QP
3		520.8882	43.83	-9.99	33.84	46.00	-12.16	QP
4		684.7454	39.87	-7.22	32.65	46.00	-13.35	QP
5	*	724.2611	43.00	-6.70	36.30	46.00	-9.70	QP
6		881.4067	37.99	-4.31	33.68	46.00	-12.32	QP

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



		<u>an 199</u>	
Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ	2	
Ant. Pol.	Vertical		
Test Mode:	Adapter1 + TX B Mode		CILIN I
Remark:	Only worse case is repo	orted	
80.0 dBuV/m	2		JFCC 15C 3M Radiation Margin -6 dB
30.000 40 50	60 70 80 (M	Hz) 300 400	) 500 600 700 1000.000
No. Mk. Fre	Reading Corr q. Level Fac		it Over
MH	z dBuV dB/r	n dBuV/m dBu	V/m dB Detector
1 * 47.99	40 59.67 -22.	57 37.10 40.	.00 -2.90 QP
2 118.60	014 52.47 -22.3	31 30.16 43.	.50 -13.34 QP
3 196.50	098 47.70 -19.9	91 27.79 43.	.50 -15.71 QP
4 240.83	304 57.27 -17.0	69 39.58 46.	.00 -6.42 QP
5 ! 482.21	156 52.84 -11.1	10 41.74 46.	.00 -4.26 QP

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

# TOBY

# Above 1GHz

Temperature:	<b>25</b> ℃		Relative Humidity:	55%			
Test Voltage:	AC 120V	/60HZ	The second second	AU			
Ant. Pol.	Horizonta	al	mBL I	1022			
Test Mode:	TX B Mo	TX B Mode 2412MHz					
Remark:	No report limit.	for the emission	on which more than 10 c	B below the prescr			
100.0 dBu∀/m							
			(AF	F) FCC PART 15C (PEAK)			
	2						
	2 X		(H	RF) FCC PART 15C (AVG)			
50	1 X						

No.	Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4824.436	29.86	14.55	44.41	54.00	-9.59	AVG
2		4824.556	43.72	14.55	58.27	74.00	-15.73	peak



Гет	perature	:	<b>25 ℃</b>		Relative Humidity:55%					
ſes	t Voltage	:	AC 120	0V/60HZ	50					
nt	Pol.		Vertical							
es	t Mode:		TXBN	lode 241	2MHz					
Ren	nark:			ort for the bed limit.		which more th	nan 10 dB	below the		
100.0	dBuV/m									
							(RF) FCC	PART 15C (PEAK)		
		2 X					(BE) EC	PART 15C (AVG)		
50							(in free			
		1 X								
0.0										

No	No. Mk.		Freq.			Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4	4824.312	29.96	14.55	44.51	54.00	-9.49	AVG
2		4	4824.640	44.09	14.55	58.64	74.00	-15.36	peak



emperature:			<b>25</b> ℃			Relative Hu	midity:	55%		
es	t Voltage		AC 12	AC 120V/60HZ Horizontal						
n	t. Pol.		Horizo							
es	t Mode:		TXB	/lode 2437	'MHz		1 2	100		
Remark:				No report for the emission which more than 10 dB below the prescribed limit.						
00.0	) dBu¥/m									
							(RF) FC	C PART 15C (PEAK)		
		1 X					(RF) F	CC PART 15C (AVG)		
50		2 X								
		×								
0.0										

No.	. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.848	43.23	14.86	58.09	74.00	-15.91	peak
2	*	4874.208	29.74	14.86	44.60	54.00	-9.40	AVG



Tem	perature:	<b>25</b> ℃			Relative Hun	nidity:	55%			
Tes	t Voltage:		AC 12	AC 120V/60HZ						
Ant	. Pol.		Vertical							
Tes	t Mode:		TXBI	TX B Mode 2437MHz						
Remark:			No report for the emission which more than 10 dB below the prescribed limit.							
100.0	∣ dBuV/m									
							(RF) FC	C PART 15C (PEAK)		
		1 X					(BF) F	CC PART 15C (AVG)		
50		2								
		ž								
0.0										

No	b. Mk	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.304	41.61	14.86	56.47	74.00	-17.53	peak
2	*	4874.680	29.87	14.86	44.73	54.00	-9.27	AVG



Temperature:	<b>25</b> ℃	Relative Humidity:	55%					
Fest Voltage:	AC 120V/60HZ							
Ant. Pol.	Horizontal	Horizontal						
Fest Mode:	TX B Mode 2462MHz							
Remark:	No report for the emission which more than 10 dB below the prescribed limit.							
00.0 dBuV/m								
		(BF) FC	CC PART 15C (PEAK)					
1 X		(RF) I	FCC PART 15C (AVG)					
50 2 X								
×								
0.0								

No	. Mk.	Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4923.084	43.84	15.17	59.01	74.00	-14.99	peak
2	*	4923.656	30.29	15.17	45.46	54.00	-8.54	AVG



Ten	nt. Pol. est Mode: emark:		<b>25</b> ℃			Relative H	umidity:	55%		
Tes	est Voltage: .nt. Pol. est Mode: emark:		AC 12	0V/60HZ	50		U.S.			
Ant	. Pol.		Vertica	al		R.L.	10			
Test Mode:TX B Mode 2462MHzRemark:No report for the emission which more than 10 dB below the prescribed limit.										
Rer	nark:					n which more	than 10 dł	3 below the		
100.0	dBuV/m									
							(RF) FC	C PART 15C (PEAK)		
		2 X					(RF) F	CC PART 15C (AVG)		
50		1								
		x								
0.0	00.000 3550.00		100.00 8	650.00 11	200.00 137	50.00 16300.00	18850.00 21	400.00 26		

N	o. Mk	. Freq.	Reading Correct Level Factor		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4923.192	30.22	15.17	45.39	54.00	-8.61	AVG
2		4924.624	43.65	15.17	58.82	74.00	-15.18	peak



Temper	ature:	<b>25</b> ℃			Relative H	umidity:	55%		
Test Vo	Itage:	AC 120	)V/60HZ	52	-				
Ant. Po	I.	Horizontal							
Test Mo	ode:	TXGN	lode 24	12MHz		2 13			
Remark	<b>c</b> :	No report for the emission which more than 10 dB below the prescribed limit.							
100.0 dBu	ıV/m								
						(BF) FC	C PART 15C (PEA	.K1	
	2 X					IBELE	CC PART 15C (AV	(61	
50	1							-,	
	×								
0.0									
	3550.00 6	100.00 80	50.00 11	200.00 137	50.00 16300.00	18850.00 21	400.00	26500.	

No.	Mk	. Freq.	Reading Correct Level Factor				Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4824.204	29.62	14.55	44.17	54.00	-9.83	AVG
2		4824.704	43.18	14.55	57.73	74.00	-16.27	peak



Tem	perature:		<b>25</b> ℃			Relative Hu	midity:	55%
Test	Voltage:		AC 12	0V/60HZ	2	- 61		
Ant.	Pol.		Vertica	al		20	10	
Test	Mode:	<b>k:</b> No report for the emission which more than 10 dB below the						
Ren	nark:			oort for the e ibed limit.	mission	which more th	nan 10 dE	3 below the
100.0	dBu∀/m							
							(RF) FC	C PART 15C (PEAK)
		1 X					(BF) F	CC PART 15C (AVG)
50		2						
		x						
0.0								

No.	Mk.	Freq.	Reading Correct Level Factor			Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	
1		4823.700	43.37	14.55	57.92	74.00	-16.08	peak	
2	*	4823.700	29.28	14.55	43.83	54.00	-10.17	AVG	



Tempera	ture:	<b>25</b> ℃		Relative Humidity	y: 55%
Fest Vol	age:	AC 120	)V/60HZ	A DUCK	
emark:		Horizo	ntal	ARY (	RUDD
Test Mode:   TX G Mode 2437MHz     Remark:   No report for the emission which more than 10 dB below the prescribed limit.					
Remark:				sion which more than 10	) dB below the
00.0 dBuV	/m				
				ia)	F) FCC PART 15C (PEAK)
	1 ×				RF) FCC PART 15C (AVG)
50	2 ×				
0.0					

No.	. Mk.	Freq.	Reading Correct M Level Factor			Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.240	43.13	14.86	57.99	74.00	-16.01	peak
2	*	4874.776	29.45	14.86	44.31	54.00	-9.69	AVG



Temperatu	re:	<b>25</b> ℃		Relativ	ve Humidity:	55%
Test Voltag	e:	AC 12	0V/60HZ		MUL .	
Ant. Pol.		Vertica	al			
Test Mode:   TX G Mode 2437MHz     Remark:   No report for the emission which more than 10 dB below the prescribed limit.						
Remark:				ission which m	nore than 10 dl	3 below the
100.0 dBuV/m						
					(BF) FC	C PART 15C (PEAK)
	1 X				(BF) F	CC PART 15C (AVG)
50	2					
	×					
0.0						

No.	Mk.	Freq.	Reading Correct Level Factor				Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector	
1		4873.648	42.78	14.86	57.64	74.00	-16.36	peak	
2	*	4873.788	29.56	14.86	44.42	54.00	-9.58	AVG	



Ter	nperature	:	<b>25</b> ℃			Relative	Humidity:	55%
Temperature:   25 °C   Relative Humidity:   55%     Test Voltage:   AC 120V/60HZ     Ant. Pol.   Horizontal     Test Mode:   TX G Mode 2462MHz     Remark:   No report for the emission which more than 10 dB below the prescribed limit.     100.0   dBuV/m								
Ant. Pol.   Horizontal     Test Mode:   TX G Mode 2462MHz     Remark:   No report for the emission which more than 10					10			
Tes	t Mode:		TX G Mode 2462MHz					
Rei	mark:				emission	which mor	e than 10 dł	3 below the
100.0	) dBuV/m							
							(RF) FC	C PART 15C (PEAK)
		2 X					IBELE	CC PART 15C (AVG)
50		1					().	
		×						
0.0								

No	o. Mk	. Freq.	Reading Correct Level Factor			Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4924.236	30.01	15.17	45.18	54.00	-8.82	AVG
2		4924.992	43.02	15.18	58.20	74.00	-15.80	peak



Tempe	erature:	<b>25</b> ℃			Relative Hu	midity:	55%			
Test V	oltage:	AC 120	V/60HZ	3	- 9YU					
Ant. P	ol.	Vertical			20	10	1000			
Test N	lode:	TXGM	ode 2462N	ЛНz		1 2	(Incol)			
Remark: No report for the emission which more than 10 dB below the prescribed limit.										
100.0 d	BuV/m									
						(RF) FC	C PART 15C (PEAK)			
	2 X					(BF) F	CC PART 15C (AVG			
50										
	×									
0.0										

N	o. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4923.160	29.95	15.17	45.12	54.00	-8.88	AVG
2		4923.256	43.59	15.17	58.76	74.00	-15.24	peak



Ten	nperatur	re:	<b>25</b> ℃			Relative Hum	idity:	55%			
Tes	t Voltag	e:	AC 12	0V/60HZ	50	~ 000		EL C			
٩n	t. Pol.		Horizo	ntal		RU T	12				
Гes	t Mode:		TX N(H	HT20) Mo	de 2412N	1Hz		112			
Remark:				ort for the bed limit.	e emissior	emission which more than 10 dB below the					
1 0 O. C	) dBu∀/m										
							(RF) FC	C PART 15C (PEAK)			
		2 X					(BF1F	CC PART 15C (AVG)			
50		1									
		×									
0.0											

No.	Mk.	Freq.	Reading Correct Measure- Level Factor ment		Limit	Over		
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4823.304	29.62	14.55	44.17	54.00	-9.83	AVG
2		4823.428	42.70	14.55	57.25	74.00	-16.75	peak



Ter	nperature:		<b>25</b> ℃			Relative Humidit	<b>y:</b> 55%	
Tes	st Voltage:		AC 120	0V/60HZ	9	A MUL		
٩n	t. Pol.		Vertica			RU	AUS	
Гes	st Mode:		TX N(H	HT20) Mode	2412N	1Hz	6	22
Re	mark:		No report for the emission which more than 10 dB below the prescribed limit.					
00.	0 dBuV/m							
						(F)	F) FCC PART 15C (P	EAK)
		1 X					RF) FCC PART 15C (	476)
50		2						
		x						
0.0								

No.	Mk.	Freq.	Reading Correct Measure- Level Factor ment		Limit Over			
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.480	43.98	14.55	58.53	74.00	-15.47	peak
2	*	4824.244	29.59	14.55	44.14	54.00	-9.86	AVG



Tempera	ature:	<b>25</b> ℃		R	elative Humidity:	55%		
Test Vol	tage:	AC 120	)V/60HZ	2				
Ant. Pol	I.	Horizor	ntal		5 6	0.02		
Test Mo	de:	TX N(H	TX N(HT20) Mode 2437MHz					
Remark	:	No report for the emission which more than 10 dB below the prescribed limit.						
100.0 dBu	iV/m							
					(RF) F	CC PART 15C (PEAK)		
	1 X				(BF)	FCC PART 15C (AVG)		
50	2							
	×							
0.0								

No	. Mk	Freq.	Reading Correct M Level Factor			Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.160	43.16	14.86	58.02	74.00	-15.98	peak
2	*	4874.172	29.45	14.86	44.31	54.00	-9.69	AVG



Tem	perature:		<b>25</b> ℃			Relat	tive Humid	ity:	55%			
Test	Voltage:		AC 12	0V/60HZ	Z	-	M.A.		3 below the			
Ant.	Pol.		Vertica	al 🕓		18		10				
Test	Mode:		TX N(H	HT20) M	ode 2437	7MHz	1200	<b>V</b> s		1		
Rem	Remark: No report for the emission which more than 10 dB below the prescribed limit.											
100.0	dBuV/m											
								(RF) FC	C PART 15C (PEA	K)		
	2	2						(BE) E	CC PART 15C (AV	61		
50	1											
	, ,											
0.0												

No	. Mk	. Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.100	29.36	14.86	44.22	54.00	-9.78	AVG
2		4874.264	43.18	14.86	58.04	74.00	-15.96	peak



Гетр	erature:	<b>25</b> ℃		Relative H	lumidity:	55%		
Fest V	/oltage:	25 °C   Relative Humidity:   55%     AC 120V/60HZ   Horizontal   Image: Constraint of the series o						
Ant. F	Pol.	Horizon	tal	ARS -	51	122		
Fest N	/lode:	TX N(H	T20) Mode 24	l62MHz				
Rema	rk:							
100.0	dBu∀/m							
					(RF) FCC	PART 15C (PEAK)		
	2 X							
	×				(RF) FC	: PART 15C (AVG)		
50	×							
0.0								

No.	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4923.580	29.97	15.17	45.14	54.00	-8.86	AVG
2		4924.856	43.51	15.18	58.69	74.00	-15.31	peak



Temperature	<b>e</b> :	<b>25</b> ℃		Relat	tive Humidity:	55%				
est Voltage	:	AC 120	)V/60HZ	-	MUL					
nt. Pol.		Vertical								
est Mode:		TX N(H	IT20) Mode 24	l62MHz		10				
Remark:			ort for the emisoed limit.	ssion which m	nore than 10 dB	below the				
00.0 dBuV/m										
					(RF) FCC	PART 15C (PEAK)				
	1 X				(RF) FCC	PART 15C (AVG)				
50	2 X									
	×									
0.0 1000.000 3550.0		100.00 86	50.00 11200.00	13750.00 16300	.00 18850.00 2140	0.00 26				

No	. Mk	Freq.		Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4923.628	44.02	15.17	59.19	74.00	-14.81	peak
2	*	4923.628	30.02	15.17	45.19	54.00	-8.81	AVG



# **Attachment C-- Restricted Bands Requirement Test Data**

Temperature:	<b>25 ℃</b>			Relative H	umidity:	55%
Test Voltage:	AC 12	20V/60HZ	. 690		10	
Ant. Pol.	Horizo	ontal	5	GIND .		A 13
Test Mode:	TX B	Mode 241	2MHz		and?	2
Remark:	N/A		CLAR A	-	Cherry Cherry	-
110.0 dBuV/m						
						3 ×4
						×
					(BF) FCC (	PART 15C (PEAK
					(	1
60						
					(RF) FCC	PART 15C (AVE
				1 X	+ /	r '
				2		
		_	·	×	1	
10.0						
2323.000 2333.00	2343.00	2353.00 23	63.00 2373.00	) 2383.00 23	393.00 2403.	.00 2
		Reading	Correct	Measure-		_
No. Mk. F	req.	Level	Factor	ment	Limit	Over
I	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB
1 239	0.000	42.50	2.82	45.32	74.00	-28.68
2 239	0.000	31.48	2.82	34.30	54.00	-19.70
	0.600	92.65	2.93	95.58	 Fundamenta	al Frequency
	1.200	88.01	2.94	90.95	_	I Frequency



Temper	rature	<b>e</b> :	25 °	C				्	Relat	ive H	lum	idity:	55	5%			
Test Vo	ltage	:	AC <sup>·</sup>	120V	//60HZ	Z	2		2	1	10		2	2		2	
Ant. Po	ol.		Vert	ical	6		1						11	32		1	Ņ
Test Mo	ode:		TX E	3 Mo	de 24	12M	Hz			~	3			6	22		3
Remark	<b>(</b> :		N/A	6	$\mathcal{O}_{\mathcal{I}}$	2		~	1	10	1		~		23	-	
110.0 dBu	iV/m																1
															4 3×		
								-						- (	Ň		
												(RF) F	CC PA	RT 15C (I	PEAK)	+	
								-					_	1			
60																	
												(RF)	FCC P/	RT 15C	(AVG)	{	
											1 X	_	1				
											2 X	م					
								-									
0.0																	
2321.000	2331.0	0 234	1.00	2351		2361.00		1.00	2381 Mea		2391	1.00 2	401.00		24	21.00	<u>мн</u>
No. N	٨k.	Free	1		ading evel	9 (	Jorre Fact			ent	e-	Limi	t	Ove	∍r		
		MHz	·		IBuV		dB/m			uV/n	n	dBuV	/m	dB		Dete	ct
1	2	390.0	00	4	3.17		2.82		4	5.99	)	74.0	00	-28.	01	pe	a
2	2	390.0	00	3	3.12		2.82		3	5.94		54.0	00	-18.	06	AV	
3 *	2	413.0	00	8	7.64		2.94		9(	0.58	}	_ Fundan	nental	Freque	ncy	A٧	10



Temperati	ure: 2	25 ℃			Relative Hu	umidity:	55%	2019
Test Volta	ge: /	AC 120V/6	60HZ		2 14			
Ant. Pol.	ł	Iorizontal		-	22	10	122	~
Test Mode	e: 1	TX B Mode	e 2462M	IHz		1 6		185
Remark:	٦	N/A	132		and a		aU	
110.0 dBuV/m								
	1 X2							
	×							
						(05) 565		
						(RF) FCL	PART 15C (PEAK	1
60						(RF) FC	C PART 15C (AVG	)
			3					
		$\backslash \land$	×					
			4 ×					~
2450.000 24	60.00 2470.	00 2480.00	2490.0	) 2500.00	2510.00 2	2520.00 253	0.00 2	550.00 MH:
2430.000 24	60.00 2470.	00 2480.00	2490.00	J 200.00	2310.00 2	2320.00 233	0.00 2	550.00 MH
		Deer	ling (	Correct	Measure			
No. Mk.	Freq.	Read Lev	-	Factor	ment	Limit	Over	
	MHz	dBu			dBuV/m	dBuV/n	n dB	Detecto
				dB/m				
1 X	2460.40	0 92.	19	3.26	95.45	Fundamer	ital Frequency	peak
	0404.00	0 87.	57	3.26	90.83	Fundamer	ntal Frequency	AVG
2 *	2461.00	0 07.						
	2461.00			3.41	45.50	74.00	-28.50	peak



Ant. Pol. Vertical   Fest Mode: TX B Mode 2462MHz   Remark: N/A	Temperature	: 25 °	С		Relative Hun	nidity:	55%	$\partial D D$
TX B Mode 2462MHz       Remark:     N/A       10.0     dBuV/m       2	Test Voltage:	AC 1	120V/60HZ	22	2 10			
Remark:     N/A       10.0     dBuV/m       2	Ant. Pol.	Verti	ical		13	172	1.20	~
10.0 dBuV/m	Test Mode:	TX E	3 Mode 2462	MHz				185
60 2 X X X A A A A A A A A A A A A A	Remark:	N/A	6031		UN B		av	
60 (RF) FCC PART 15C (PEAK) 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	110.0 dBuV/m							
nni	60		× 4					
			Reading	Correct	Measure-			
Reading Correct Measure-	No Mk	Freq.	Level	Factor	ment	Limit	Over	
Reading Correct Measure- No. Mk. Freq. Level Factor ment Limit Over	INO. IVIK.							
No. Mk. Freq. Level Factor ment Limit Over	INO. IVIK.	· ·	dBuV	dB/m	dBuV/m	dBuV/m	n dB	Detecto
No. Mk.     Freq.     Level     Factor     ment     Limit     Over       MHz     dBuV     dB/m     dBuV/m     dBuV/m     dB     Detector		MHz						
No. Mk. Freq. Level Factor ment Limit Over   MHz dBuV dB/m dBuV/m dBuV/m dB Detector   1 * 2462.800 89.26 3.27 92.53 Fundamental Frequency AVG	1 * 24	MHz 62.800	89.26	3.27	92.53	Fundamen	tal Frequency	AVG
No. Mk.Freq.LevelFactormentLimitOverMHzdBuVdB/mdBuV/mdBuV/mdBDetector1*2462.80089.263.2792.53Fundamental FrequencyAVG2X2463.60093.893.2897.17Fundamental Frequencypeak	1 * 24 2 X 24	MHz 62.800 63.600	89.26 93.89	3.27 3.28	92.53 97.17	Fundamen Fundamen	tal Frequency tal Frequency	AVG peak



Temperatu	re:	25	°C			Rela	ative Hu	midity:	55%	
Test Voltag	e:	AC	120V/	60HZ	32	-				Charles and the
Ant. Pol.		Hori	zonta			23		10	122	-
Test Mode:		TX	G Moo	de 241	2MHz		-	1 2	6	180
Remark:		N/A	163	0.81			LA R			-
110.0 dBuV/m										
									4	
									x	
								(RF) <b>F</b> (	C PART 15C (PI	EAK)
60							1		CC PART 15C (/	
							×		CL PANT TOUR	
							2 X			
								_		
								_		
2327.000 233	7.00 2	347.00	2357.	00 23	67.00 237	7.00 2	387.00 2	397.00 24	07.00	2427.00 M
No. Mk.	Fre	q.		ading vel	Correc Facto		easure- ment	Limit	Over	
	MH	Z	dE	BuV	dB/m	d	IBuV/m	dBuV/ı	m dB	Detect

4	Х	2409.600	85.82	2.93	88.75	Fundamenta	Frequency	peak
3	*	2407.000	76.46	2.90	79.36	 Fundamenta	- I Frequency	AVG
2		2390.000	31.64	2.82	34.46	54.00	-19.54	AVG
								-



Temperatur	e: 25	5°C			Rela	ative Hu	umic	lity:	55%		
Test Voltage	e: A	C 120V	/60HZ	10	-	ALL.					
Ant. Pol.	Ve	ertical			2.5			1172	22	~	į,
Test Mode:	T)	K G Mo	de 241	2MHz		~				183	
Remark:	N	/A	0.87		~ ~	W	2	~	h V	1	
110.0 dBu¥/m											
									3		
									×		
							1	REA FCC P	4 ART TSC (PEA)	a	
							-	ĺ	. ]	~	
60											
						1		(RF) FCC	PART 15C (AV		
							$\searrow$				
						2 X				$\rightarrow$	
10.0											
2328.700 2338	.70 2348.7	0 2358	70 236	8.70 2378	.70 238	8.70 23	98.70	2408.7	0 2	2428.70	мн
	_		ading	Correc		asure-	1.5		0		
No. Mk.	Freq.	Le	evel	Facto	r m	ent	LI	mit	Over		
	MHz	d	BuV	dB/m	dB	uV/m	dE	8uV/m	dB	Detec	to
1 2	390.000	50	.42	2.82	53	3.24	7	4.00	-20.76	pea	ak
2 2	390.000	32	.98	2.82	35	5.80	5	4.00	-18.20	AV	G
	412.900		5.67	2.94		3.61	- Fun	damenta	I Frequency	pea	
							_			· ·	
4 * 2	414.900	75	6.63	2.95	- 78	8.58	Fun	damental	Frequency	AV	G



Temperature:	<b>25 ℃</b>			Relative Hu	imidity:	55%	
Test Voltage:	AC 120	0V/60HZ	2				
Ant. Pol.	Horizo	ntal			10	122	-
Test Mode:	TXG	/lode 2462	2MHz				2885
Remark:	N/A	2018				aV	
110.0 dBu∀/m							
2 X							
	~				(BF) FC	C PART 15C (PE/	AK)
					(,		
60		4					
		ż			(RF) F	CC PART 15C (A)	/6)
		3			_		
					_		
10.0							
2448.000 2458.00	2468.00 2	478.00 248	8.00 2498.00	) 2508.00 2	2518.00 25	28.00	2548.00 MH
			<u> </u>				
No. Mk. F		eading Level	Correct Factor	Measure- ment	Limit	Over	
	· ·						<u> </u>
	MHz	dBuV	dB/m	dBuV/m	dBuV/n	n dB	Detecto
1 * 245	6.800	76.40	3.23	79.63	Fundament	al Frequency	AVG
2 X 246	0.600	82.82	3.26	86.08	Fundamen	al Frequency	peak

53.03

3.41

56.44

74.00

-17.56

peak

2483.500

4



emperature:	<b>25</b> ℃	Relative Humidity:	55%
est Voltage:	AC 120V/60HZ		
nt. Pol.	Vertical	IB _ UB	120
est Mode:	TX G Mode 2462MHz		
emark:	N/A		2 12
10.0 dBuV/m			
1 X			
2			
×		(RF) FCC	PART 15C (PEAK)
60	3		
	×	(RF) FC	C PART 15C (AVG)
	4		
).0			
2447.000 2457.00 2	2467.00 2477.00 2487.00 24	97.00 2507.00 2517.00 2527	.00 2547.00 MI

No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Х	2462.600	87.52	3.27	90.79	- Fundamental	- Frequency	peak
2	*	2463.400	77.36	3.28	80.64	Fundamental	Frequency	AVG
3		2483.500	53.39	3.41	56.80	74.00	-17.20	peak
4		2483.500	32.82	3.41	36.23	54.00	-17.77	AVG



Temp	peratu	ire:	25 °	C				Rela	ative H	umidity:	55%	
Test	Volta	ge:	AC <sup>2</sup>	120V/6	OHZ	12	-	2	all.			
Ant.	Pol.		Hori	zontal			2			170		-
Test	Mode	:	TXN	N(HT20	) Mod	de 2412N	/Hz				6	185
Rem	ark:		N/A	1650	101		-	1.1	10 P		aV	
110.0	dBuV/m											
												4
											3	
										(RF) FCC	PART 15C (PEA	K)
60									1			
									X	(RF) FC	C PART 15C (AV	
									2 X	/		
10.0												
2323	3.000 23	33.00 2	2343.00	2353.00		3.00 237		2383		393.00 2403	3.00	2423.00 MH
No.	. Mk.	Fre	eq.	Read Lev	-	Correc Facto			sure- ent	Limit	Over	
		MH	z	dBu	V	dB/m		dBu	uV/m	dBuV/m	dB	Detecto
1		2390.	000	52.6	63	2.82		55	.45	74.00	-18.55	peak
2		2390.	000	32.2	20	2.82		35	.02	54.00	-18.98	AVG
3	*	2406.	800	77.1	15	2.90		80	.05	Fundamenta	al Frequency	AVG
		2416.		88.0		2.97			.99			peak



Temperat	ure:	25	°C			Relat	ive Hu	midity:	55%	
Test Volta	ige:	AC	120V/	60HZ						
Ant. Pol.		Vert	ical			2.5		10	11:23	~
Test Mod	e:	1 X T	N(HT2	20) Mo	de 2412N	1Hz			6	1835
Remark:		N/A	100	13			NUP			
110.0 dBuV/	n									
									4	
									×	
								(BF) FC	3 C PART 15C (PEA	ໄດ
60										
							1 X	(PF) F	CC PART 15C (AV	<u>e) /                                    </u>
							2	4		
0.0										
2327.000 2	337.00 23	847.00	2357.0	10 236	7.00 2377	.00 238	7.00 23	97.00 24	07.00	2427.00 MI
				ding	Correc		asure-		•	
No. Mł	. Fre	q.	Le	vel	Facto	r m	ent	Limit	Over	
	MH	z	dB	luV	dB/m	dB	uV/m	dBuV/n	n dB	Detecto
1	2390.0	000	49	.64	2.82	52	2.46	74.00	-21.54	peak
2	2390.0	000	32	.98	2.82	35	5.80	54.00	-18.20	AVG
3 *	2414.4			.26	2.95		9.21	_	ntal Frequency	AVG
4 X	2416.0	JUU	- 87	.56	2.97	- 90	0.53	Fundamer	ntal Frequency	peak



Temperatu	re: 2	25 ℃			Relative H	lumidity:	55%	
Test Voltag	e: A	AC 120\	//60HZ	50				
Ant. Pol.	ł	- Iorizont	al			112	122	~
Test Mode:		TX N(HT	20) Mo	de 2462MH	lz			835
Remark:	٦	N/A	03		( AUP		10	
110.0 dBuV/m								
	2							
	x							
1						(05) 500 5	ART 15C (PEAK	,
						(HF) FUU F	ANT TOU (PEAK	J
60			3 X			(RF) FCC	PART 15C (AVG	0
		-						
			4					
			×					
10.0 2448.000 2458	3.00 2468	.00 2478	3.00 248	38.00 2498.00	) 2508.00 29	518.00 2528.0	00 2	548.00 MH:
		Re	ading	Correct	Measure-			
No. Mk.	Freq.		evel	Factor	ment	Limit	Over	
	MHz	d	BuV	dB/m	dBuV/m	dBuV/m	dB	Detecto
1 * 2	2456.60	0 7	6.64	3.23	79.87	Fundamental	Frequency	AVG
-						Fundamenta		
	2461.20	0 8	7.09	3.27	90.36			peak
3 2	2483.50	0 5	1.89	3.41	55.30	74.00	-18.70	peak
4 2	2483.50	0 2	1.05	3.41	34.46	54.00	-19.54	AVG



Temperature:	<b>25 ℃</b>			Relative Hu	midity:	55%	200
Test Voltage:	AC 12	20V/60HZ					
Ant. Pol.	Vertic	al		10	172	122	~
Test Mode:	TX N	(HT20) Mo	de 2462MH	z			183
Remark:	N/A	600		anu?		av	
110.0 dBu¥/m		1					
	2 X						
	1						
	×				(RF) FCC	PART 15C (PEA)	g
60		3 X			(BF) FCC	PART 15C (AVI	31
		4					
		*					
10.0							
2448.000 2458.00	2468.00	2478.00 248	8.00 2498.00	2508.00 25	518.00 2528	.00 2	2548.00 MH
No. Mk. F	req.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
Ν	/Hz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1 * 246	3.600	78.08	3.28	81.36	 Fundamenta	- I Frequency	AVG
2 X 246	6.000	89.12	3.29	92.41	 Fundamenta	I Frequency	peak
3 248	3.500	53.53	3.41	56.94	74.00	-17.06	peak
							AVG



## (2) Conducted Test

emperature:	<b>25</b> ℃		Relative Humidity	: 55%
est Voltage:	AC 120V/60HZ		8	100
est Mode:	TX B Mode 241	12MHz / TX E	3 Mode 2462MHz	
emark:	The EUT is pro	gramed in co	ontinuously transmitti	ng mode
	n Analyzer - Swept SA	CENCE-INT		07:07:00 DMM2: 24 2018
	RF 75 Ω AC 2.377000000 GHz PNO: Fo	SENSE:INT	ALIGN AUTO Avg Type: Log-Pwr Avg Hold:>100/100	07:07:09 PM May 24, 2018 TRACE 123456 TYPE MWWWW DET PNNNNN
R	IFGain:L ef Offset 3.63 dB	Low Atten: 30 dB	M	kr1 2.411 3 GHz
	ef 23.63 dBm			6.839 dBm
3.63				and from the second sec
-6.37				-13:17 dBm
-26.4				Mr.
-46.4	and any set of the property and	mmun	~~~~~	Υ
-56.4				
Start 2.3270 #Res BW 10		#VBW 300 kHz	Sween_(	Stop 2.42700 GHz 9.600 ms (1001 pts)
	CL X	Y FUNCTIO	-	TION VALUE
2 N 1 1 3 N 1	f 2.400 0 GHz f 2.390 0 GHz	6.839 dBm -33.877 dBm -41.630 dBm 41.630 dBm		
4 N 1 1 5 6	f 2.390 0 GHz	-41.630 dBm		
7 8 9				
				-
MSG			STATUS	
	n Analyzer - Swept SA			
	RF 75 Ω AC 2.497000000 GHz PNO: Fi	SENSE:INT ast Trig: Free Run	ALIGN AUTO Avg Type: Log-Pwr Avg Hold:>100/100	07:13:56 PM May 24, 2018 TRACE 1 2 3 4 5 6 TYPE MWWWW
	IFGain:L	Low Atten: 30 dB	M	RT 2.461 3 GHz
Log	ef Offset 3.6 dB ef 23.60 dBm			6.543 dBm
13.6 3.60				
-6.40	A A			-13.56 dBm
-26.4	V.V.	× <b>4</b>		
-36.4	M		3	
-56.4		WV WWW	Land and a strate and a strate of the strate	secontering Weeksenser
-66.4	GHZ			Stop 2.54700 GHz
#Res BW 10	0 kHz	#VBW 300 kHz	-	9.600 ms (1001 pts)
MKR MODE TRC S	CL X	Y FUNCTIO	N FUNCTION WIDTH FUNC	TION VALUE
1 N 1 1	2.461 3 GHz	6.543 dBm		
1 N 1 2 N 1 3 N 1 4 N 1	F 2.461 3 GHz F 2.483 5 GHz F 2.500 0 GHz F 2.484 0 GHz	6.543 dBm -45.865 dBm -50.855 dBm -41.041 dBm		
1     N     1     1       2     N     1     1       3     N     1     1       4     N     1     1       5     -     -     -       6     -     -     -       7     -     -     -	2.461 3 GHz 2.483 5 GHz 2.500 0 GHz 2.484 0 GHz	6.543 dBm -45.865 dBm -50.865 dBm -41.041 dBm		
1     N     1       2     N     1       3     N     1       4     N     1       5     -     -       6     -     -       7     -     -       8     -     -       9     -     -       10     -     -	2.461 3 GHz 2.483 5 GHz 2.500 0 GHz 2.484 0 GHz	6.543 dBm -45.865 dBm -50.856 dBm -41.041 dBm		
1     N     1     f       2     N     1     f       3     N     1     f       4     N     1     f       6     -     -     6       7     -     -     8       9     9     -     -	2.461 3 GHz 2.483 5 GHz 2.500 0 GHz 2.484 0 GHz	6,643 dBm 445,855 dBm -50,855 dBm -41,041 dBm		



Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ	Relative numbulty.	55%
Test Mode:	TX G Mode 2412MHz / TX		
Remark:			mada
	The EUT is programed in co		
Keysight Spectrum An	75 Ω AC SENSE:INT	Avg Type: Log-Pwr	07:47:35 PM May 24, 2018 TRACE 1 2 3 4 5 6
	PNO: Fast Trig: Free Ru IFGain:Low Atten: 30 dB		
Ref C 10 dB/div Ref Log	Dffset 3.63 dB 23.63 dBm	WIRF	2.413 3 GHz -0.597 dBm
13.6			<b>▲</b> 1
-6.37		h.h.h.h.h.h.h.h.h.h.h.h.h.h.h.h.h.h.h.	nille della de la constante de
-16.4			-20.71 dBm
-36.4		3 All and a start of the start	
-56.4	lelinen mennen an		
Start 2.32700 G			op 2.42700 GHz
#Res BW 100 k	X Y FUNCTIO	-	00 ms (1001 pts) VALUE
1 N 1 f 2 N 1 f 3 N 1 f	2.413 3 GHz -0.597 dBm 2.400 0 GHz -29.319 dBm 2.390 0 GHz -47.832 dBm		
4 N 1 f 5 6	2.389 5 GHz -47.821 dBm		E
7 8 9			
	m		-
MSG		STATUS	
Keysight Spectrum An			
Center Freq 2.	497000000 GHz PNO: Fast Trig: Free Ru EGain:Low Atten: 30 dB	Avg Type: Log-Pwr	07:53:17 PM May 24, 2018 TRACE 1 2 3 4 5 6 TYPE M WWWW DET P N N N N N
	Dffset 3.6 dB	Mkr	2.463 3 GHz
10 dB/div Ref	23.60 dBm		-0.661 dBm
3.60	1		
-6.40			-20.64 dBm
-26.4 -36.4		<u>^3</u>	
-46.4		23	and the second second second
-66.4			
Start 2.44700 G #Res BW 100 k			op 2.54700 GHz 00 ms (1001 pts)
MKR MODE TRC SCL	X Y FUNCTION 2.463 3 GHz -0.661 dBm	DN FUNCTION WIDTH FUNCTION	VALUE
2 N 1 f 3 N 1 f 4 N 1 f	2.483 5 GHz -44.469 dBm 2.500 0 GHz -47.515 dBm 2.483 5 GHz -44.469 dBm		
5 6 7			
8 9 10			
MSG		STATUS	



	<b>05</b> °0		550/
Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		
Test Mode:	TX N(HT20) Mode 2412MH	z / TX N(HT20) Mode 24	162MHz
Remark:	The EUT is programed in co	ontinuously transmitting	mode
Test Mode: Remark: Center Freq 13.6 36.3 6.37 16.4 26.4 36.4 46.4 46.4 55tart 2.32700 #Res BW 100 WKR MODE TRC! SC 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	TX N(HT20) Mode 2412MH:     The EUT is programed in co     Analyzer - Swept SA     F   75 Ω     PNO: Feat   SENSE:INT	ALIGN AUTO AVG Type: Log-Pwr Avg Type: Log-Pwr AvgHold:>100/100 Mkr1 Mkr1 Mkr1 Sweep 9.6 Sweep 9.6 Sweep 9.6 Sweep 9.6 Auton Moth FUNCTION WIDTH FUNCTION Avg Type: Log-Pwr Avg Type: Log-Pwr Mkr1 Avg Type: Log-Pwr Mkr1 Mkr	mode 98:06:17 PM May 24, 2018 TARCE 12 34 5 6 DET WINNEN 2.413 3 GHz -2.087 dBm 2.2016 2.2016 00 2.42700 GHz 00 ms (1001 pts)
N   1   f     13.6   3.60   -     -6.40   -   -     -16.4   -   -     -37.7   -   -     -38.9   -   -     -39.9   -   -     -30.1 <t< th=""><th>IFGain:Low Atten: 30 dl fOffset 3.6 dB ef 23.60 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1</th><th>B Mkr1</th><th>2.463 3 GHz -1.973 dBm</th></t<>	IFGain:Low Atten: 30 dl fOffset 3.6 dB ef 23.60 dBm 1 1 1 1 1 1 1 1 1 1 1 1 1	B Mkr1	2.463 3 GHz -1.973 dBm



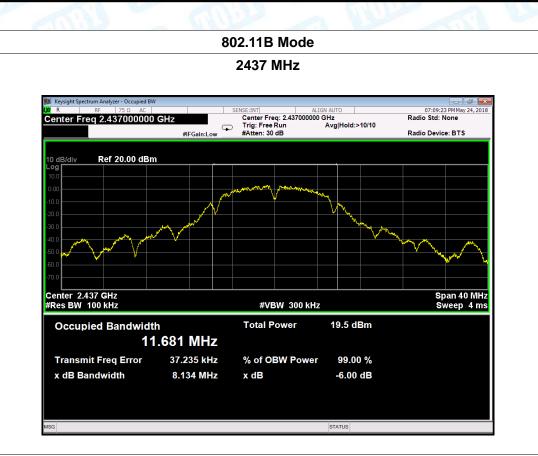
## **Attachment D-- Bandwidth Test Data**

	Temperature:	25	5°C	Relative Humidity:	55%
	Test Voltage:	AC	C 120V/60HZ		122
	Test Mode:	T>	K 802.11B Mode		
	Channel frequen	су	6dB Bandwidth	99% Bandwidth	Limit
	(MHz)		(MHz)	(MHz)	(MHz)
	2412		8.120	11.432	
	2437		8.134	11.681	>=0.5
1	2462		8.168	11.785	
			002 44 D	Mede	

#### 802.11B Mode





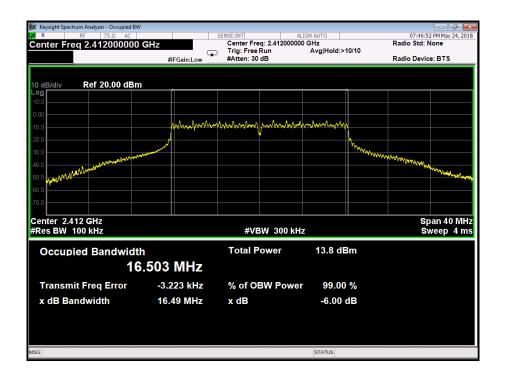


#### 802.11B Mode

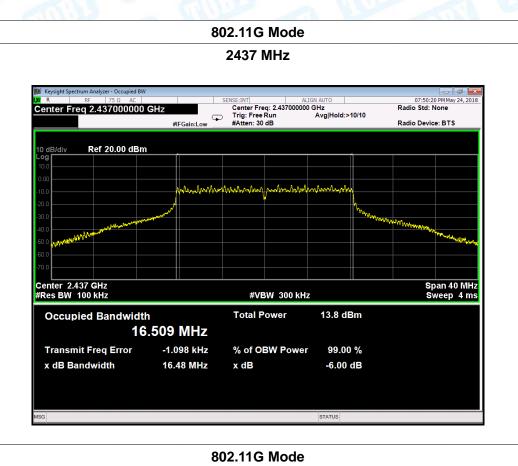


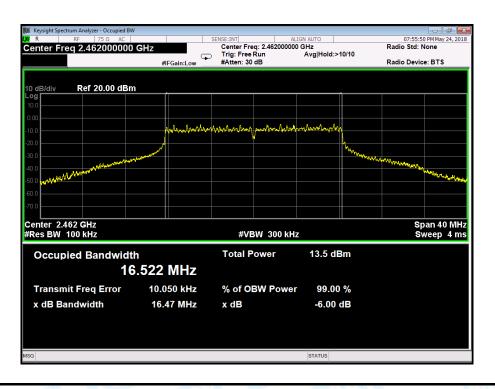


Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ		0
Test Mode:	TX 802.11G Mode		120
Channel frequent	cy 6dB Bandwidth	99% Bandwidth	Limit
(MHz)	(MHz)	(MHz)	(MHz)
2412	16.49	16.503	
2437	16.48	16.509	>=0.5
2462	16.47	16.522	
	802.11	G Mode	





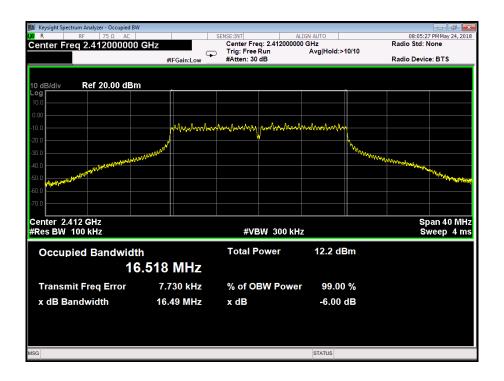




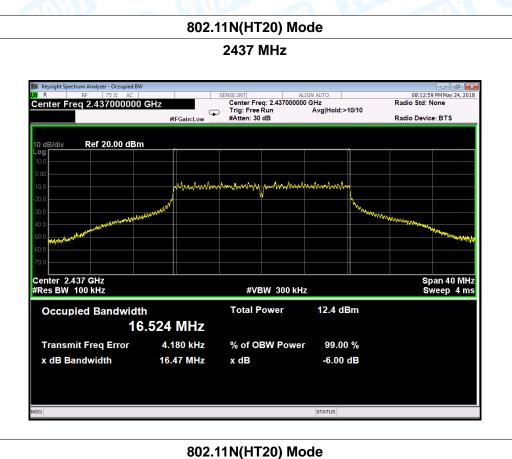


Temperature:	<b>25</b> ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60HZ	n nu	2
Test Mode:	TX 802.11N(HT20) Mode		120
Channel frequen	cy 6dB Bandwidth	99% Bandwidth	Limit
(MHz)	(MHz)	(MHz)	(MHz)
2412	16.49	16.518	
2437	16.47	16.524	>=0.5
0.400		40 507	1
2462	16.47	16.527	

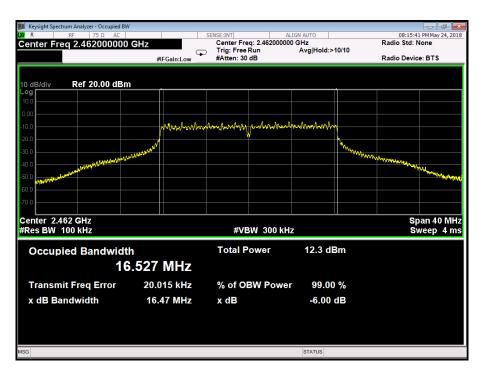
#### 802.11N(HT20) Mode











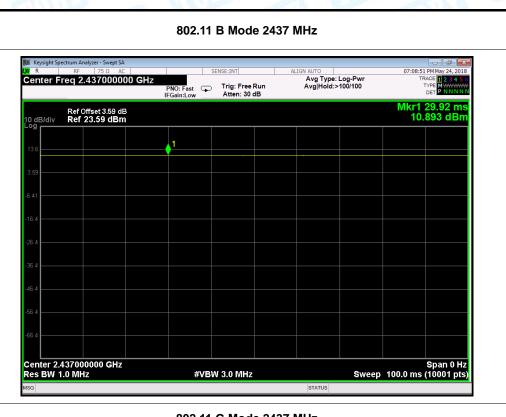
# Attachment E-- Peak Output Power Test Data

Test Condition	s: Continuous transm	itting Mode			
Temperature:	<b>25 ℃</b>	Relative Humidity:	55%		
Test Voltage:	AC 120V/60HZ		1992		
Mode	Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)		
	2412	17.97			
802.11b	2437	17.89			
-	2462	17.58			
	2412	16.52			
802.11g	2437	16.35	30		
-	2462	16.17			
000.44	2412	14.93			
802.11n	2437	15.15			
(HT20)	2462	15.00			
	Res	ult: PASS			

	Duty Cyc	le
Mode	Channel frequency (MHz)	Test Result
	2412	
802.11b	2437	
	2462	
	2412	
802.11g	2437	>98%
	2462	
000.44	2412	
802.11n (HT20)	2437	
(HT20)	2462	

plots

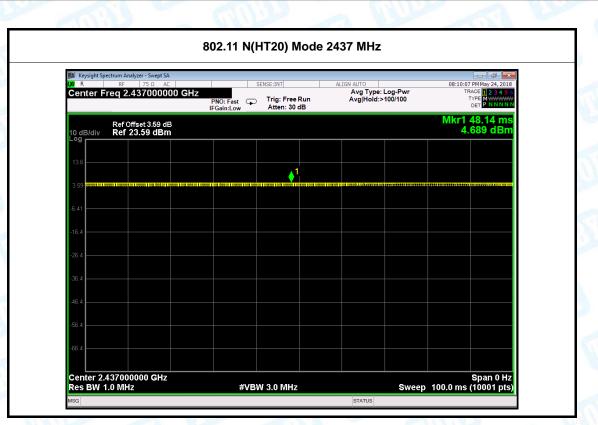




802.11 G Mode 2437 MHz

Center F	RF 75 Ω req 2.437000			SENSE:INT		IGN AUTO Avg Type: I	.og-Pwr	TF	7 PM May 24, 2018 RACE <mark>1 2 3 4 5</mark> (
		P	NO: Fast Gain:Low	Trig: Free R Atten: 30 d	lun B	Avg Hold:>	100/100		
0 dB/div	Ref Offset 3.59 d Ref 23.59 dB	iB m						Mkr1 6.	35.28 ms 082 dBn
13.6									
			<b>∮</b> <sup>1</sup>						
3.59									
5.41									
16.4									
26.4									
20.4									
36.4									
46.4									
56.4									
56.4									
enter 2. es BW 1	437000000 GH: 1.0 MHz	z	#VB	W 3.0 MHz			Sweep	100.0 ms	Span 0 Hz (10001 pts
SG						STATUS			

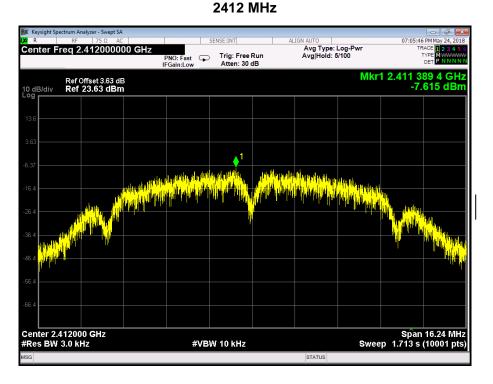




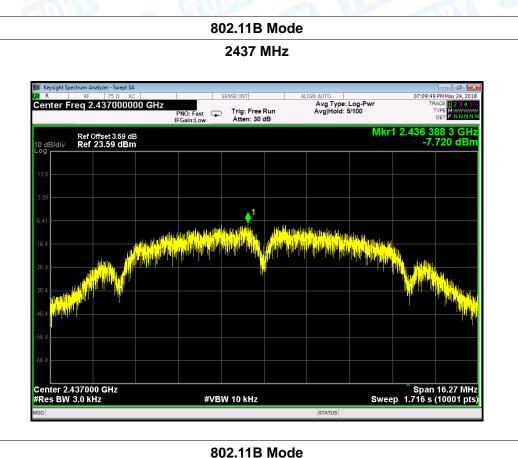
# **Attachment F-- Power Spectral Density Test Data**

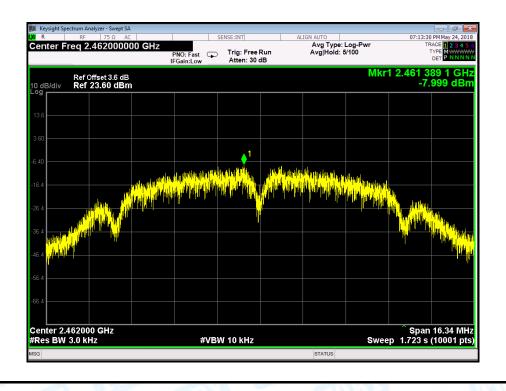
Temperature:25 °C		Relative Humidity:		55%		
Test Voltage: AC 120V		/60HZ				
Test Mode:	TX 802.1	1B Mode				
Channel Frequency		Power Density		Limit		
(MHz)		(dBm/3	s kHz)	(dBm)		
2412		-7.6	15			
2437		-7.7	20	8		
2462		-7.999				
		802.11B	Mode			

2442 MU-



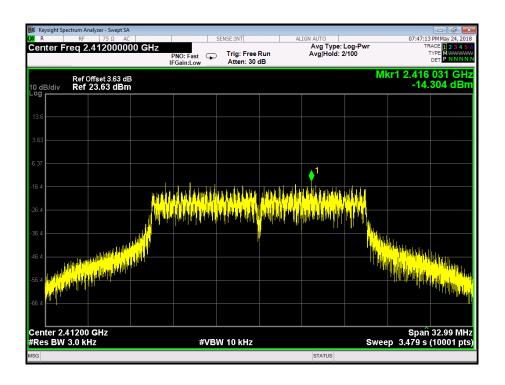




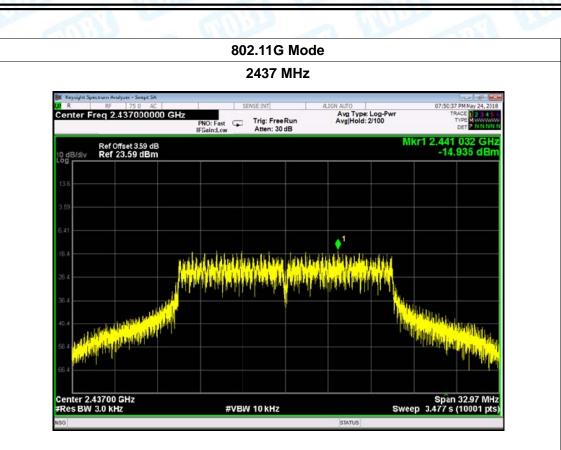




Temperature:25 °C		Temperatu		re: 25 °C		
Test Voltage:	AC 120V	60HZ	A DULL			
Test Mode:	TX 802.1	IG Mode		1122		
Channel Frequency		Power De	ensity	Limit		
(MHz)		(dBm/3	kHz)	(dBm)		
2412		-14.30	04			
2437		-14.93	35	8		
2462		-14.49	-14.495			
		802.11G	Mode			

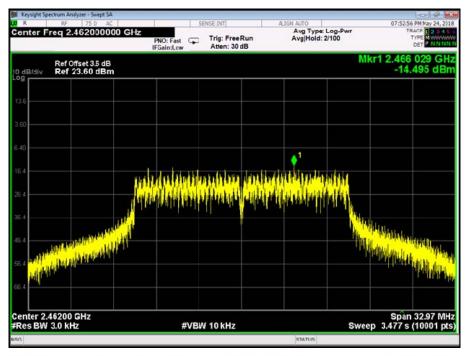






## 802.11G Mode

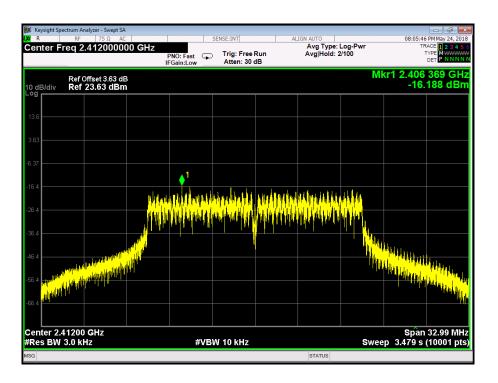




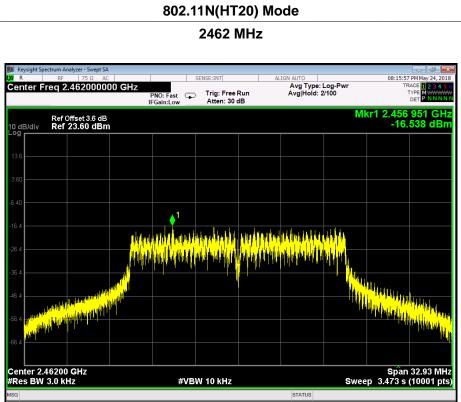


Temperature:25 °C		Temperature:		<b>25</b> ℃	
Test Voltage:	AC 120V	/60HZ	10		
Test Mode:	TX 802.1	1N(HT20) Mode	N T	1000	2
Channel Frequency		Power Density		Limit	
(MHz)		(dBm/3 k	Hz)	(dBm)	
2412		-16.188			
2437		-16.423		8	
2462		-16.538			
					-

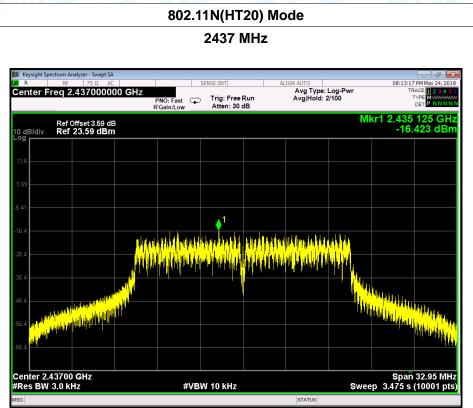
#### 802.11N(HT20) Mode



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









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