

FCC Test Report

Part 15 subpart C

Client Information:

Applicant:	Shenzhen Home Smart Tech Co., Ltd		
Applicant add.:	No.82 Qijinglongji Building Xinanwulu Road, Baoan District, Shenzhen, China		
Product Information:			
EUT Name:	Wireless WIFI Smart switch & Plug		
Model No.:	PS-15, PS-16, PS-15-SW, PS-16-SW, PS-15-SSW, PS-SOC, PS-DOSW, PS-WISW, PS-LT, PS-C45, PS-WSO, PS-WPSO		
Brand Name:	cloud ihome		
FCC ID:	2AMPTPS-15		
Standards:	FCC PART 15 Subpart C: 2017 section 15.247		
Prepared By:			
SI	nenzhen ECT Testing Technology Co., Ltd.		
Add. : Room 1106, Era Innovation Center, Xixiang gushu second road, Baoan district, Shenzhen city, China			
Date of Receipt: Jun. 01, 2	017 Date of Test: Jun. 01~08, 2017		

Date of Issue:Jun. 08, 2017Test Result:Pass

This device described above has been tested by Shenzhen ECT Testing Technology Co., Ltd., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

*This test report must not be used by the client to claim product endorsement by any agency of the U.S. government.

Reviewed by:_

Nanu

Approved by:

kelly Jiang

Shenzhen ECT Testing Technology Co., Ltd. Room 1106, Era Innovation Center, Xixiang gushu second road,Baoan district, Shenzhen city, China



1 Contents

	C	OVER PAGE	Page
	-		_
1	CC	ONTENTS	2
2	TE	EST SUMMARY	3
	2.1	COMPLIANCE WITH FCC PART 15 SUBPART C	3
	2.2	MEASUREMENT UNCERTAINTY	4
	2.3	TEST LOCATION	4
3	GE	ENERAL INFORMATION	5
	3.1	GENERAL DESCRIPTION OF EUT	5
	3.2	EUT PERIPHERAL LIST	7
	3.3	TEST PERIPHERAL LIST	7
4	EG	QUIPMENTS LIST FOR ALL TEST ITEMS	8
5	TE	EST RESULT	9
	5.1	DESCRIPTION OF TEST CONDITIONS	9
	5.2	ANTENNA REQUIREMENT	10
	5.3	CONDUCTION EMISSIONS MEASUREMENT	11
	5.4	RADIATED EMISSIONS MEASUREMENT	15
	5.5	6 dB Bandwidth	39
	5.6	MAXIMUM PEAK OUTPUT POWER	46
	5.7	Peak Power Spectral Density	48
	5.8	BAND EDGES REQUIREMENT	56
	5.9	CONDUCTED SPURIOUS EMISSIONS	61
6	PH	HOTOGRAPHS	80
	6.1	RADIATED SPURIOUS EMISSION TEST SETUP	80
	6.2	CONDUCTED EMISSION TEST SETUP	81
7	AF	PPENDIX-PHOTOGRAPHS OF EUT CONSTRUCTIONAL DETAILS	82



2 Test Summary

2.1 Compliance with FCC Part 15 subpart C

TEST	TEST REQUIREMENT	TEST METHOD	RESULT
Antenna Requirement	FCC PART 15 C section 15.247 (c) and Section 15.203	FCC PART 15 C section 15.247 (c) and Section 15.203	PASS
Conducted Emissions at Mains Terminals	FCC PART 15 C section 15.207	ANSI C63.10: Clause 6.2	PASS
Radiated Spurious Emission (30 MHz to 25 GHz)	FCC PART 15 C section 15.209 &15.247(d)	ANSI C63.10: Clause 6.4, 6.5 and 6.6	PASS
6 dB Bandwidth	FCC PART 15 C section 15.247 (a)(2)	ANSI C63.10: Clause 6.9.1	PASS
Maximum Peak Output Power	FCC PART 15 C section 15.247(b)(3)	FCC/KDB-558074 D01 v04 Clause 9.1.2	PASS
Peak Power Spectral Density	FCC PART 15 C section 15.247(e)	ANSI C63.10: Clause 6.11.2.3	PASS
Band Edges Measurement	FCC PART 15 C section 15.247 (d) &15.205	FCC/KDB-558074 D01 v04 Clause 13.3.1	PASS

Remark:

N/A: not applicable. Refer to the relative section for the details.

EUT: In this whole report EUT means Equipment Under Test.

Tx: In this whole report Tx (or tx) means Transmitter.

Rx: In this whole report Rx (or rx) means Receiver.

RF: In this whole report RF means Radio Frequency.

ANSI C63.10: the detail version is ANSI C63.10:2013 in the whole report.



2.2 Measurement Uncertainty

All measurements involve certain levels of uncertainties, the following measurements uncertainty Levels have estimated based on standards, the maximum value of the uncertainty as below:

No.	Item	Uncertainty
1	Conducted Emission Test	1.20dB
2	Radiated Emission Test	3.30dB

2.3 Test Location

All tests were performed at:

Dongguan Yaxu (AiT) Technology Limited No.22, Jinqianling Third Street, Jitigang, Huangjiang, Dongguan, Guangdong, China Tel.: +86.769.82020499 Fax.: +86.769.82020495

The FCC Registration No. of Dongguan Yaxu (AiT) Technology Limited is 248337.



3 General Information

3.1 General Description of EUT

Manufacturer: WENZHOU TRUST MOULD FACTORY		
Manufacturer Address:	No.214 Zhenxing West Road, Hongqiao Town, Yueqing, Zhejiang, China	
EUT Name:	Wireless WIFI Smart switch & Plug	
Model No:	PS-15	
Brand Name:	cloud ihome	
Derivative model No.:	PS-16, PS-15-SW, PS-16-SW, PS-15-SSW, PS-SOC, PS-DOSW, PS-WISW, PS-LT, PS-C45, PS-WSO, PS-WPSO	
Model description:	Only the model name is different.	
Operation frequency:	2412 MHz to 2462 MHz for 802.11b/g/n(HT20)	
Number of Channels:	11 Channels for 802.11b/g/n(HT20)	
Modulation Technology:	802.11b: CCK/QPSK/BPSK 802.11g/n: OFDM	
Transmit Data Rate:	802.11b :1/2/5.5/11 Mbps 802.11g :6/9/12/18/24/36/48/54 Mbps 802.11n(HT20): 6.5/13/19.5/26/39/52/58.8/65/72.2 Mbps	
Channel Separation:	5 MHz	
Antenna Type:	PCB antenna	
Antenna Gain:	maximum 0 dBi	
H/W No.:	DLX_S20_EU_V1.3	
S/W No.:	V1.0	
Power Supply Range:	AC 100-240V~50/60Hz	
Power Supply:	AC 120V/60Hz	
Power Cord:	N/A	
Note:		
1.	For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.	



EUT channels and frequencies list:

 Test frequencies are lowest channel: 2412 MHz, middle channel: 2437 MHz and highest channel: 2462 MHz for 802.11b/g/n(HT20)

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	2412	7	2442
2	2417	8	2447
3	2422	9	2452
4	2427	10	2457
5	2432	11	2462
6	2437		



3.2 EUT Peripheral List

No	Equipment	Manufacturer	Model No.	Serial No.	Power cord	signal cable
1	N/A	N/A	N/A	N/A	N/A	N/A

3.3 Test Peripheral List

No	Equipment	Manufacturer	Model No.	Serial No.	Power cord	signal cable
1	Lap top	ASUS	N/A	X401A	X16-96072	N/A
2	Adapter (laptop)	ASUS	N/A	EXA0703YH	N/A	1.8m/unshielded /detachable
3	SPI cable	N/A	N/A	N/A	N/A	
4	USB cable	N/A	N/A	N/A	N/A	Provided by client
5	WiFi transform board	N/A	N/A	N/A	N/A	



4 Equipments List for All Test Items

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal. Due Date
1	Spectrum Analyzer	ADVANTEST	R3182	150900201	2016.06.29	2017.06.28
2	EMI Measuring Receiver	R&S	ESR	101660	2016.06.29	2017.06.28
3	Low Noise Pre Amplifier	Tsj	MLA-10K01-B01-27	1205323	2016.06.29	2017.06.28
4	Low Noise Pre Amplifier	Tsj	MLA-0120-A02-34	2648A04738	2016.06.29	2017.06.28
5	TRILOG Super Broadband test Antenna	SCHWARZBECK	VULB9160	9160-3206	2016.06.29	2017.06.28
6	Broadband Horn Antenna	SCHWARZBECK	BBHA9120D	452	2016.06.29	2017.06.28
7	SHF-EHF Horn	SCHWARZBECK	BBHA9170	BBHA917036 7	2016.06.29	2017.06.28
8	50Ω Coaxial Switch	Anritsu	MP59B	6200264416	2016.06.29	2017.06.28
9	EMI Test Receiver	R&S	ESCI	100124	2016.06.29	2017.06.28
10	LISN	Kyoritsu	KNW-242	8-837-4	2016.06.29	2017.06.28
11	LISN	Kyoritsu	KNW-407	8-1789-3	2016.06.29	2017.06.28
12	50Ω Coaxial Switch	Anritsu	MP59B	6200264417	2016.06.29	2017.06.28
13	Loop Antenna	ETS	6512	00165355	2016.06.29	2017.06.28
14	Radiated Cable 1# (30MHz-1GHz)	FUJIKURA	5D-2W	01	2016.06.29	2017.06.28
15	Radiated Cable 2# (1GHz -25GHz)	FUJIKURA	10D2W	02	2016.06.29	2017.06.28
16	Conducted Cable 1#(9KHz-30MHz)	FUJIKURA	1D-2W	01	2016.06.29	2017.06.28
17	Power Meter	Anritsu	ML2495A	N/A	2016.06.29	2017.06.28
18	Power sensor	Anritsu	MA2411B	N/A	2016.06.29	2017.06.28
19	SMA Antenna connector	Dosin	Dosin-SMA	N/A	N/A	N/A
Note	Note: The SMA antenna connector is soldered on the PCB board in order to perform conducted tests and this SMA antenna connector is listed in the equipment list.					



5 Test Result

5.1 Description of Test conditions

(1) EUT was tested in normal configuration (Please See following Block diagram)

1.	1. Block diagram of EUT configuration(TX Mode)					
	EUT SPI cable		Test Board	USB Line	Laptop	
Note:						
 The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%. Using the laptop and the transform board to control the fixed transmitting power index (0-25): 15, frequency, data rate and other test mode. After finishing the test setting, the 						
notebook and the transform board will be removed during measurements. (2) E.U.T. test conditions:						

15.31(e): For intentional radiators, measurements of the variation of the input power or the adiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

15.32: Power supplies and CPU boards used with personal computers and for which separate authorizations are required to be obtained shall be tested as follows: Testing shall be in accordance with the procedures specified in Section 15.31 of this part.

(3) Test frequencies:

According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and. If required reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over	Number of	Location in
which device operates	frequencies	the range of operation
1 MHz or less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom

(4) Frequency range of radiated measurements: According to the 15.33, the test range will be up to the tenth harmonic of the highest fundamental frequency.

- (5) Pre-test the EUT in all transmitting mode at the lowest, middle and highest channel with different data rate and conducted to determine the worst-case mode, only the worst-case results are recorded in this report.
- (6) The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.



5.2 Antenna Requirement

5.2.1 Standard requirement

15.203 requirement: For intentional device, according to 15.203: 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.

15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.

5.2.2 EUT Antenna

The antenna is an PCB antenna and no consideration of replacement. Antenna gain is maximum 0 dBi from 2.4GHz to 2.5GHz.



5.3 Conduction Emissions Measurement

Test Requirement:	FCC Part 15 C section 15.207
Test Method:	ANSI C63.10: Clause 6.2
Frequency Range:	150 kHz to 30 MHz
Detector:	Peak for pre-scan (9kHz Resolution Bandwidth)

Test Limit

Limits for conducted disturbance at the mains ports of class B

	Frequency Range	Class B Limit (dBuV)			
	(MHz)	Quasi-peak	Average		
	0.15 to 0.50	66 to 56	56 to 46		
	0.50 to 5	56	46		
	5 to 30	60	50		
	NOTE 1 The limit decreases linearly wit to 0,50 MHz.	th the logarithm of the freq	uency in the range 0,15 MHz		
E	UT Operation: Test in norm	al operating mode. For int	entional radiators, measureme		

Test in normal operating mode. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage.

Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

Test procedure

1. The mains terminal disturbance voltage test was conducted in a shielded room.

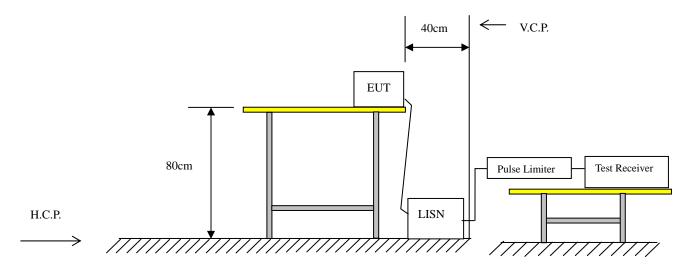
2. The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu$ H + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.

3. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.

4. The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0,4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0,8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0,8 m from the LISN 2.



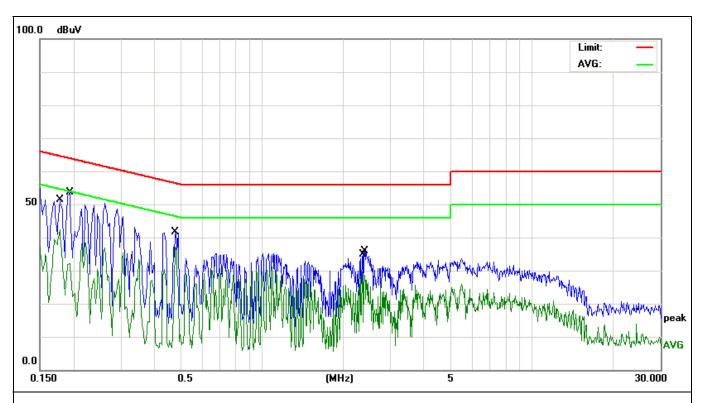
Test setup





5.3.1 Test results

EUT:	WIRELESS WIFI SMART PLUG	Model Name. :	PS-15	
Temperature:	26 ℃	Relative Humidity:	54%	
Pressure:	1010hPa	Test Date :	2017-06-05	
Test Mode:	TX 802.11b (11Mbps) CH1 (worst case)	Phase :	Line	
Test Voltage :	AC 120V/60Hz			

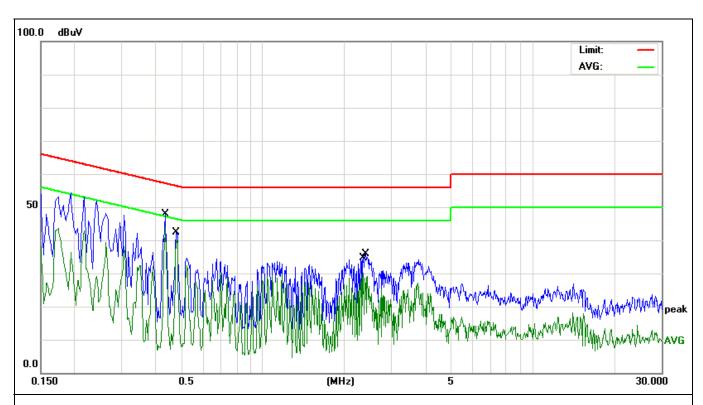


No. I	Иk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1		0.1780	31.00	11.41	42.41	54.57	-12.16	AVG
2		0.1940	42.49	11.21	53.70	63.86	-10.16	QP
3		0.4780	31.61	10.04	41.65	56.37	-14.72	QP
4	*	0.4780	27.16	10.04	37.20	46.37	-9.17	AVG
5		2.3540	19.63	10.00	29.63	46.00	-16.37	AVG
6		2.3980	25.87	10.01	35.88	56.00	-20.12	QP

Remark: Factor = LISN factor + Cable Loss + Pulse limiter factor.



EUT:	WIRELESS WIFI SMART PLUG	Model Name. :	PS-15	
Temperature:	26 ℃	Relative Humidity:	54%	
Pressure:	1010hPa	Test Date :	2017-06-05	
Test Mode:	TX 802.11b (11Mbps) CH1	Phase :	Neutral	
Test Mode:	(worst case)	Flidse .	ineutiai	
Test Voltage :	AC 120V/60Hz			



 Remark: Factor = LISN factor + Cable Loss + Pulse lim	itar tactor
$\Delta = 11 a \ln \lambda$. $1 a \ln 0 = \ln 0 \ln 1 a \ln 0 \ln 1 = \ln 0 \ln 1 \ln 0 \ln 1 \ln 1 \ln 1 \ln 1 \ln 1 \ln 1 \ln 1$	

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBu∨	dBu∨	dB	Detector
1		0.4340	37.72	10.09	47.81	57.18	-9.37	QP
2	*	0.4340	33.69	10.09	43.78	47.18	-3.40	AVG
3		0.4780	32.26	10.04	42.30	56.37	-14.07	QP
4		0.4780	30.12	10.04	40.16	46.37	-6.21	AVG
5		2.3500	20.00	10.00	30.00	46.00	-16.00	AVG
6		2.3980	25.86	10.01	35.87	56.00	-20.13	QP



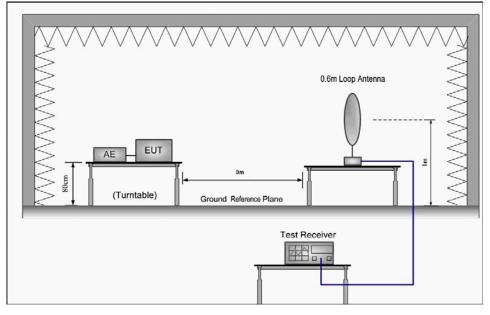
5.4 Radiated Emissions Measurement

Test Requirement:	 FCC Part 15 C section 15.247 (d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating. The radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that Contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, and provided the transmitter demonstrates compliance with the peak conducted power limits.
Test Method:	ANSI C63.10: Clause 6.4, 6.5 and 6.6
Test Status: Detector:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below. For PK value:
	RBW = 1 MHz for $f \ge 1$ GHz, 100 kHz for f < 1 GHz
	$VBW \ge RBW$
	Sweep = auto
	Detector function = peak
	Trace = max hold
	For AV value:
	RBW = 1 MHz for $f \ge 1$ GHz, 100 kHz for f < 1 GHz
	VBW =10Hz
	Sweep = auto
	Detector function = peak
	Trace = max hold
15.209 Limit:	40.0 dBμV/m between 30MHz & 88MHz 43.5 dBμV/m between 88MHz & 216MHz 46.0 dBμV/m between 216MHz & 960MHz 54.0 dBμV/m above 960MHz

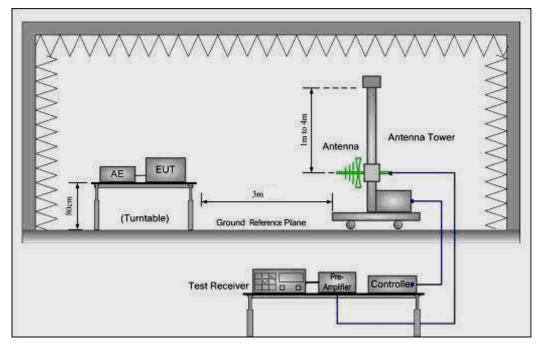


Test Configuration:

1) 9 kHz to 30 MHz emissions:

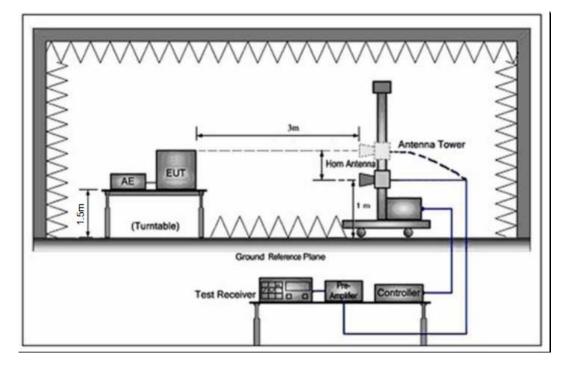


2) 30 MHz to 1 GHz emissions:





3) 1 GHz to 40 GHz emissions:



Report No.: ECT2017E06025 Page 18 of 86 Rev: 00



Test procedure:

Test site with RF absorbing material covering the ground plane that met the site validation criterion called out in CISPR 16-1-4:2007 was used to perform radiated emission test above 1 GHz.

The receiver was scanned from 30MHz to 25GHz. When an emission was found, the table was rotated to produce the maximum signal strength. An initial pre-scan was performed for in peak detection mode using the receiver. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes. For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. The worst case emissions were reported.

From 30MHz to 1GHz, read the Quasi-Peak field strength of the emissions with receiver QP detector RBW=120KHz.

Above 1GHz, read the Peak field strength and Average field strength.

Read the Peak field strength through RBW=1MHz,VBW=3MHz in spectrum analyzer setting;

Read the Average field strength through RBW=1MHz,VBW=10Hz in spectrum analyzer setting;

For measurement at frequency above 1GHz

Place the measurement antenna away from each area of the EUT determined to be a source of emissions at the specified measurement distance, while keeping the measurement antenna aimed at the source of emissions at each frequency of significant emissions, with polarization oriented for maximum response. The measurement antenna may have to be higher or lower than the EUT, depending on the radiation pattern of the emission and staying aimed at the emission source for receiving the maximum signal. The final measurement antenna elevation shall be that which maximizes the emissions. The measurement antenna elevation for maximum emissions shall be restricted to a range of heights of from 1 m to 4 m above the ground or reference ground plane.

While maintaining all of the other instrument settings. This peak level, once corrected, must comply with the limit specified in Section 15.209. If the dwell time per channel of the hopping signal is less than 100 ms, then the average field strength reading obtained with the 10 Hz VBW may be further adjusted by a "duty cycle correction factor", derived from 20log(dwell time/100 ms), in an effort to demonstrate compliance with the 15.209 limit.



5.4.1 Test Result

5.4.1.1 Radiated Emissions Test Data Below 30MHz

EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15
Temperature:	25 ℃	Test Data	2017-06-05
Draaaura	1005 hPa	Relative	60%
Pressure:	1005 11-2	Humidity:	00%
Test Mode :	тх	Test Voltage :	AC 120V/60Hz
Measurement Distance	3 m Frenqucy Range		9KHz to 30MHz
RBW/VBW	9KHz~150KHz/RB 200Hz for QP, 15	50KHz~30MHz/RB 9	KHz for QP

No emission found between lowest internal used/generated frequencies to 30MHz.



5.4.1.2 Radiated Emissions Test Data 30MHz-1000MHz

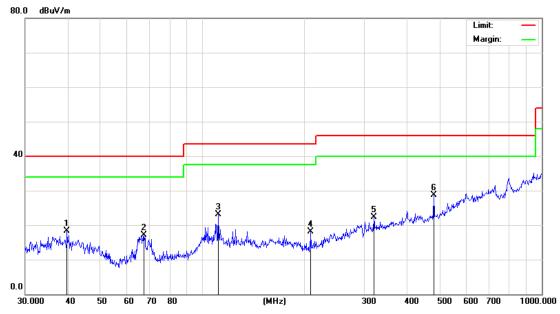
EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15		
Temperature:	25 ℃	Test Data	2017-06-05		
Pressure:	1010 hPa	Relative Humidity:	60%		
Test Mode :	TX:802.11b 2.412 GHz-1Mbps (worst-case)	Test Voltage :	AC 120V/60Hz		
Measurement Distance	3 m	Frenqucy Range	30MHz to 1GHz		
RBW/VBW	100KHz / 300KHz for spectrum, RBW=120KHz for receiver.				

30 MHz~1 GHz Spurious Emissions .Quasi-Peak Measurement

Vertical:

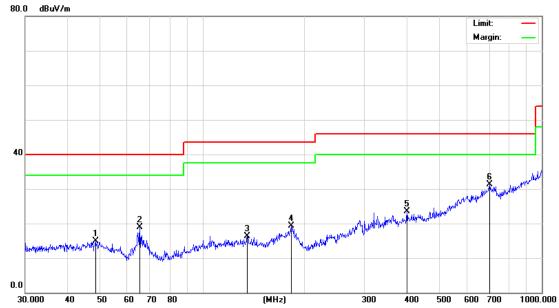
Peak scan

Level (dBµV/m)



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB	dBuV/m	dBuV/m	dB	Detector
1		39.8542	34.92	-16.60	18.32	40.00	-21.68	QP
2		67.2022	36.28	-19.12	17.16	40.00	-22.84	QP
3		111.3468	36.72	-13.60	23.12	43.50	-20.38	QP
4	2	208.5803	34.92	-16.86	18.06	43.50	-25.44	QP
5		319.9370	31.16	-8.80	22.36	46.00	-23.64	QP
6	* 4	480.5276	34.53	-5.90	28.63	46.00	-17.37	QP





Quasi-peak measurement

No	o. Mł	k. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector
	1	48.3318	29.08	-14.22	14.86	40.00	-25.14	QP
2	2	65.3432	36.32	-17.50	18.82	40.00	-21.18	QP
	3	135.5062	31.10	-14.74	16.36	43.50	-27.14	QP
4	4	182.5592	30.65	-11.36	19.29	43.50	-24.21	QP
į	5	400.4319	30.34	-6.89	23.45	46.00	-22.55	QP
(6 *	701.7610	30.91	0.32	31.23	46.00	-14.77	QP



5.4.1.3 Radiated Emissions Test Data above 1GHz

802.11b mode with 11Mbps data rate

EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15				
Temperature:	25 ℃	Test Data	2017-06-05				
Pressure:	11010 hPa	Relative Humidity:	60%				
Test Mode :	TX:802.11b 2.412 GHz	Test Voltage :	AC 120V/60Hz				
Measurement Distance	3 m	Frenqucy Range	1GHz to 25GHz				
RBW/VBW	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average. non-restricted band: 100KHz/300KHz for Peak.						

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement (a) Antenna polarization: Horizontal

Frequency	Reading	Correct	Measure	Limit	Margin	Detector		
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре		
	(dBuV)	(dB)	(dBuV/m)					
4824.000	57.65	5.08	62.73	74.00	-11.27	PEAK		
4824.000	42.44	5.08	47.52	54.00	-6.48	AVERAGE		
7236.000	49.09	7.16	56.25	74.00	-17.75	PEAK		
7236.000	39.10	7.16	46.26	54.00	-7.74	AVERAGE		

(b) Antenna polarization: Vertical

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4824.000	57.42	5.08	62.50	74.00	-11.50	PEAK
4824.000	43.23	5.08	48.31	54.00	-5.69	AVERAGE
7236.000	48.29	7.16	55.45	74.00	-18.55	PEAK
7236.000	37.01	7.16	44.17	54.00	-9.83	AVERAGE



EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15				
Temperature:	25 ℃	Test Data	2017-06-05				
Pressure:	1010 hPa	Relative Humidity:	60%				
Test Mode :	TX:802.11b 2.437 GHz	Test Voltage :	AC 120V/60Hz				
Measurement Distance	3 m	Frenqucy Range	1GHz to 25GHz				
RBW/VBW	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average. non-restricted band: 100KHz/300KHz for Peak.						

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement (a) Antenna polarization: Horizontal

Frequency	Reading	Correct	Measure	Limit	Margin	Detector			
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре			
	(dBuV)	(dB)	(dBuV/m)						
4874.000	58.02	5.13	63.15	74.00	-10.85	PEAK			
4874.000	44.09	5.13	49.22	54.00	-4.78	AVERAGE			
7311.000	48.37	7.49	55.86	74.00	-18.14	PEAK			
7311.000	36.54	7.49	44.03	54.00	-9.97	AVERAGE			

(b) Antenna polarization: Vertical

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4874.000	57.75	5.13	62.88	74.00	-11.12	PEAK
4874.000	42.22	5.13	47.35	54.00	-6.65	AVERAGE
7311.000	48.77	7.49	56.26	74.00	-17.74	PEAK
7311.000	36.38	7.49	43.87	54.00	-10.13	AVERAGE



EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15		
Temperature:	25 ℃	Test Data	2017-06-05		
Pressure:	1010 hPa	Relative	60%		
	101011Pa	Humidity:	00%		
Test Mode :	TX:802.11b 2.462 GHz	Test Voltage :	AC 120V/60Hz		
Measurement Distance	3 m	Frenqucy Range	1GHz to 25GHz		
RBW/VBW	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.				
KDVV/VDVV	non-restricted band: 100KHz/300KHz for Peak.				

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

(a) Antenna polarization: Horizontal

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4924.000	57.53	5.18	62.71	74.00	-11.29	PEAK
4924.000	42.41	5.18	47.59	54.00	-6.41	AVERAGE
7386.000	50.69	7.82	58.51	74.00	-15.49	PEAK
7386.000	36.80	7.82	44.62	54.00	-9.38	AVERAGE

(b) Antenna polarization: Vertical

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4924.000	56.92	5.18	62.10	74.00	-11.90	PEAK
4924.000	41.25	5.18	46.43	54.00	-7.57	AVERAGE
7386.000	50.45	7.82	58.27	74.00	-15.73	PEAK
7386.000	37.83	7.82	45.65	54.00	-8.35	AVERAGE

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Loss –Preamplifier Factor.

As shown in Section, for frequencies above 1000 MHz. the above field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



802.11g mode with 54Mbps data rate

EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15			
Temperature:	25 ℃	Test Data	2017-06-05			
Pressure:	1010 hPa	Relative	60%			
	101011Fa	Humidity:	00 //			
Test Mode :	TX:802.11g 2.412 GHz	Test Voltage :	AC 120V/60Hz			
Measurement Distance	3 m	Frenqucy Range	1GHz to 25GHz			
RBW/VBW	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
	non-restricted band: 100KHz/300KHz for Peak.					

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

(a) Antenna polarization: Horizontal

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4824.000	56.14	5.08	61.22	74.00	-12.78	PEAK
4824.000	43.22	5.08	48.30	54.00	-5.70	AVERAGE
7236.000	49.08	7.16	56.24	74.00	-17.76	PEAK
7236.000	37.02	7.16	44.18	54.00	-9.82	AVERAGE

(b) Antenna polarization: Vertical

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4824.000	55.50	5.08	60.58	74.00	-13.42	PEAK
4824.000	43.56	5.08	48.64	54.00	-5.36	AVERAGE
7236.000	47.56	7.16	54.72	74.00	-19.28	PEAK
7236.000	36.33	7.16	43.49	54.00	-10.51	AVERAGE



EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15		
Temperature:	25 ℃	Test Data	2017-06-05		
Drocouro	1010 hPa	Relative	60%		
Pressure:	101011Pa	Humidity:	00%		
Test Mode :	TX:802.11g 2.437 GHz	Test Voltage :	AC 120V/60Hz		
Measurement Distance	3 m	Frenqucy Range	1GHz to 25GHz		
	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.				
RBW/VBW	non-restricted band: 100KHz/300KHz for Peak.				

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

(a) Antenna polarization: Horizontal

Frequency	Reading	Correct	Measure	Limit	Margin	Detector		
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре		
	(dBuV)	(dB)	(dBuV/m)					
4874.000	54.28	5.13	59.41	74.00	-14.59	PEAK		
4874.000	41.89	5.13	47.02	54.00	-6.98	AVERAGE		
7311.000	46.77	7.49	54.26	74.00	-19.74	PEAK		
7311.000	35.64	7.49	43.13	54.00	-10.87	AVERAGE		

(b) Antenna polarization: Vertical

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4874.000	54.28	5.13	59.41	74.00	-14.59	PEAK
4874.000	41.23	5.13	46.36	54.00	-7.64	AVERAGE
7311.000	48.59	7.49	56.08	74.00	-17.92	PEAK
7311.000	35.98	7.49	43.47	54.00	-10.53	AVERAGE



EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15		
Temperature:	25 ℃	Test Data	2017-06-05		
Pressure:	1010 hPa	Relative	60%		
Pressure:	101011Fa	Humidity:	00%		
Test Mode :	TX:802.11g 2.462 GHz	Test Voltage :	AC 120V/60Hz		
Measurement Distance	3 m	Frenqucy Range	1GHz to 25GHz		
RBW/VBW	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.				
	non-restricted band: 100KHz/300KHz for Peak.				

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

(a) Antenna po	arization: Horizor	ntal

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4924.000	54.68	5.18	59.86	74.00	-14.14	PEAK
4924.000	42.92	5.18	48.10	54.00	-5.90	AVERAGE
7386.000	46.41	7.82	54.23	74.00	-19.77	PEAK
7386.000	35.70	7.82	43.52	54.00	-10.48	AVERAGE

(b) Antenna polarization: Vertical

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4924.000	54.42	5.18	59.60	74.00	-14.40	PEAK
4924.000	37.69	5.18	42.87	54.00	-11.13	AVERAGE
7386.000	47.51	7.82	55.33	74.00	-18.67	PEAK
7386.000	35.80	7.82	43.62	54.00	-10.38	AVERAGE

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor –Preamplifier Factor.

As shown in Section, for frequencies above 1000 MHz. the above field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.



802.11n(HT20) mode with 72.2Mbps data rate

EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15		
Temperature:	25 ℃	Test Data	2017-06-05		
Pressure:	1010 hPa	Relative	60%		
Pressure:	1010 IIPa	Humidity:	00%		
Test Mode :	TX:802.11n(HT20) 2.412 GHz	Test Voltage :	AC 120V/60Hz		
Measurement Distance	3 m	Frenqucy Range	1GHz to 25GHz		
RBW/VBW	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.				
	non-restricted band: 100KHz/300KHz for Peak.				

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

(a) Antenna polarization: Horizontal

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4824.000	52.22	5.08	57.30	74.00	-16.70	PEAK
4824.000	40.78	5.08	45.86	54.00	-8.14	AVERAGE
7236.000	47.05	7.16	54.21	74.00	-19.79	PEAK
7236.000	35.67	7.16	42.83	54.00	-11.17	AVERAGE

(b) Antenna polarization: Vertical

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4824.000	53.47	5.08	58.55	74.00	-15.45	PEAK
4824.000	42.12	5.08	47.20	54.00	-6.80	AVERAGE
7236.000	48.60	7.16	55.76	74.00	-18.24	PEAK
7236.000	36.66	7.16	43.82	54.00	-10.18	AVERAGE



EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15		
Temperature:	25 ℃	Test Data	2017-06-05		
Pressure:	1010 hPa	Relative	60%		
Flessule:	101011Fa	Humidity:	00%		
Test Mode :	TX:802.11n(HT20) 2.437 GHz	Test Voltage :	AC 120V/60Hz		
Measurement Distance	3 m	Frenqucy Range	1GHz to 25GHz		
RBW/VBW	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.				
	non-restricted band: 100KHz/300KHz for Peak.				

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

(a) Antenna polarization: Horizontal

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4874.000	53.18	5.13	58.31	74.00	-15.69	PEAK
4874.000	41.32	5.13	46.45	54.00	-7.55	AVERAGE
7311.000	47.24	7.49	54.73	74.00	-19.27	PEAK
7311.000	35.67	7.49	43.16	54.00	-10.84	AVERAGE

(b) Antenna polarization: Vertical

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4874.000	53.47	5.13	58.60	74.00	-15.40	PEAK
4874.000	39.09	5.13	44.22	54.00	-9.78	AVERAGE
7311.000	47.00	7.49	54.49	74.00	-19.51	PEAK
7311.000	35.24	7.49	42.73	54.00	-11.27	AVERAGE



EUT:	WIRELESS WIFI SMART PLUG	Model Name :	PS-15			
Temperature:	25 ℃	Test Data	2017-06-05			
Pressure:	1010 hPa	Relative	60%			
	101011Fa	Humidity:	00%			
Test Mode :	TX:802.11n(HT20) 2.462 GHz	Test Voltage :	AC 120V/60Hz			
Measurement Distance	3 m	Frenqucy Range	1GHz to 25GHz			
RBW/VBW	Spurious emission: 1MHz/3MHz for Peak, 1MHz/10Hz for Average.					
	non-restricted band: 100KHz/300KHz for Peak.					

1~25 GHz Harmonics & Spurious Emissions. Peak & Average Measurement

(a) Antenna polarization: Horizontal									
	Frequency	Reading	Correct	Measure	Limit	Margin	Detector			
	(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре			
		(dBuV)	(dB)	(dBuV/m)						
	4924.000	52.91	5.18	58.09	74.00	-15.91	PEAK			
	4924.000	41.25	5.18	46.43	54.00	-7.57	AVERAGE			
	7386.000	46.45	7.82	54.27	74.00	-19.73	PEAK			
	7386.000	34.66	7.82	42.48	54.00	-11.52	AVERAGE			

(b) Antenna polarization: Vertical

Frequency	Reading	Correct	Measure	Limit	Margin	Detector
(MHz)	Level	Factor	Level	(dBuV/m)	(dB)	Туре
	(dBuV)	(dB)	(dBuV/m)			
4924.000	53.39	5.18	58.57	74.00	-15.43	PEAK
4924.000	40.23	5.18	45.41	54.00	-8.59	AVERAGE
7386.000	46.86	7.82	54.68	74.00	-19.32	PEAK
7386.000	35.68	7.82	43.50	54.00	-10.50	AVERAGE

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Loss –Preamplifier Factor.

As shown in Section, for frequencies above 1000 MHz. the above field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation.

No any other emissions level which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

Test result: The unit does meet the FCC requirements.



5.4.2 Radiated Emissions which fall in the restricted bands

Test Requirement:	FCC Part 15 C section 15.247
	(d) In addition, radiated emissions which fall in the restricted bands, as defined in Section 15.205(a), must also comply with the radiated emission limits specified in Section 15.209(a) (see Section 15.205(c)).
Test Method:	ANSI C63.10: Clause 6.4, 6.5 and 6.6
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test site:	Measurement Distance: 3m (Semi-Anechoic Chamber)
Limit:	40.0 dBμV/m between 30MHz & 88MHz;
	43.5 dBμV/m between 88MHz & 216MHz;
	46.0 dB μ V/m between 216MHz & 960MHz;
	54.0 dB μ V/m above 960MHz.
Detector:	For PK value:
	RBW = 1 MHz for $f \ge 1$ GHz, 100 kHz for $f < 1$ GHz
	$VBW \geq RBW$
	Sweep = auto
	Detector function = peak
	Trace = max hold
	For AV value:
	RBW = 1 MHz for $f \ge 1$ GHz, 100 kHz for $f < 1$ GHz
	VBW =10Hz
	Sweep = auto
	Detector function = peak
	Trace = max hold



Section 15.205 Restricted bands of operation.

(a) Except as shown in paragraph (d) of this section. only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 -	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.52525	2655 - 2900	22.01 - 23.12
8.41425 - 8.41475	156.7 - 156.9	3260 - 3267	23.6 - 24.0
12.29 - 12.293	162.0125 - 167.17	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	167.72 - 173.2	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	240 - 285	3600 - 4400	
13.36 - 13.41	322 - 335.4		



Test Result:

802.11b mode with 11Mbps data rate

Test at Channel 1 (2.412 GHz) in transmitting status

Peak Measurement:

Frequency (MHz)	Reading Level (dBμV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	53.45	27.93	4.74	35.09	51.03	74.00	Vertical
2390.000	55.13	27.63	4.96	35.05	52.67	74.00	V
2483.500	54.62	27.55	4.90	34.99	52.08	74.00	V
2500.000	56.28	27.55	5.00	34.98	53.85	74.00	V
2310.000	54.60	27.93	4.74	35.09	52.18	74.00	Horizontal
2390.000	54.13	27.63	4.96	35.05	51.67	74.00	Н
2483.500	53.91	27.55	4.90	34.99	51.37	74.00	Н
2500.000	57.24	27.55	5.00	34.98	54.81	74.00	Н

Frequency (MHz)	Reading Level	Antenna factors	Cable loss	Preamp factor	Emission Level	Limit (dBµV/m)	Antenna polarization
. ,	(dBµV)	(dB/m)	(dB)	(dB)	(dBµV/m)	,	•
2310.000	43.51	27.93	4.74	35.09	41.09	54.00	Vertical
2390.000	43.78	27.63	4.96	35.05	41.32	54.00	V
2483.500	43.17	27.55	4.90	34.99	40.63	54.00	V
2500.000	42.35	27.55	5.00	34.98	39.92	54.00	V
2310.000	43.51	27.93	4.74	35.09	41.09	54.00	Horizontal
2390.000	44.90	27.63	4.96	35.05	42.44	54.00	Н
2483.500	43.74	27.55	4.90	34.99	41.20	54.00	Н
2500.000	43.22	27.55	5.00	34.98	40.79	54.00	Н



Test at Channel 11 (2.462 GHz) in transmitting status

Peak Measurement:

Frequency (MHz)	Reading Level (dBµV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	54.37	27.93	4.74	35.09	51.95	74.00	Vertical
2390.000	53.24	27.63	4.96	35.05	50.78	74.00	V
2483.500	53.28	27.55	4.90	34.99	50.74	74.00	V
2500.000	54.61	27.55	5.00	34.98	52.18	74.00	V
2310.000	53.49	27.93	4.74	35.09	51.07	74.00	Horizontal
2390.000	54.42	27.63	4.96	35.05	51.96	74.00	Н
2483.500	54.50	27.55	4.90	34.99	51.96	74.00	Н
2500.000	52.37	27.55	5.00	34.98	49.94	74.00	Н

Frequency (MHz)	Reading Level (dBµV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	44.62	27.93	4.74	35.09	42.20	54.00	Vertical
2390.000	41.50	27.63	4.96	35.05	39.04	54.00	V
2483.500	43.73	27.55	4.90	34.99	41.19	54.00	V
2500.000	44.16	27.55	5.00	34.98	41.73	54.00	V
2310.000	43.05	27.93	4.74	35.09	40.63	54.00	Horizontal
2390.000	44.73	27.63	4.96	35.05	42.27	54.00	Н
2483.500	45.26	27.55	4.90	34.99	42.72	54.00	Н
2500.000	43.61	27.55	5.00	34.98	41.18	54.00	Н



802.11g mode with 54Mbps data rate

Test at Channel 1 (2.412 GHz) in transmitting status

Peak Measurement:

Frequency (MHz)	Reading Level (dBµV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	55.84	27.93	4.74	35.09	53.42	74.00	Vertical
2390.000	53.99	27.63	4.96	35.05	51.53	74.00	V
2483.500	54.62	27.55	4.90	34.99	52.08	74.00	V
2500.000	52.70	27.55	5.00	34.98	50.27	74.00	V
2310.000	53.55	27.93	4.74	35.09	51.13	74.00	Horizontal
2390.000	53.97	27.63	4.96	35.05	51.51	74.00	Н
2483.500	53.13	27.55	4.90	34.99	50.59	74.00	Н
2500.000	55.66	27.55	5.00	34.98	53.23	74.00	Н

Frequency (MHz)	Reading Level (dBµV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	43.18	27.93	4.74	35.09	40.76	54.00	Vertical
2390.000	43.49	27.63	4.96	35.05	41.03	54.00	V
2483.500	43.32	27.55	4.90	34.99	40.78	54.00	V
2500.000	44.23	27.55	5.00	34.98	41.80	54.00	V
2310.000	43.01	27.93	4.74	35.09	40.59	54.00	Horizontal
2390.000	44.27	27.63	4.96	35.05	41.81	54.00	Н
2483.500	43.64	27.55	4.90	34.99	41.10	54.00	Н
2500.000	42.90	27.55	5.00	34.98	40.47	54.00	Н



Test at Channel 11 (2.462 GHz) in transmitting status

Peak Measurement:

Frequency (MHz)	Reading Level (dBµV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	53.88	27.93	4.74	35.09	51.46	74.00	Vertical
2390.000	52.86	27.63	4.96	35.05	50.40	74.00	V
2483.500	53.01	27.55	4.90	34.99	50.47	74.00	V
2500.000	54.10	27.55	5.00	34.98	51.67	74.00	V
2310.000	52.77	27.93	4.74	35.09	50.35	74.00	Horizontal
2390.000	53.91	27.63	4.96	35.05	51.45	74.00	Н
2483.500	53.25	27.55	4.90	34.99	50.71	74.00	Н
2500.000	53.97	27.55	5.00	34.98	51.54	74.00	Н

Frequency (MHz)	Reading Level (dBµV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBμV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	42.60	27.93	4.74	35.09	40.18	54.00	Vertical
2390.000	43.73	27.63	4.96	35.05	41.27	54.00	V
2483.500	41.83	27.55	4.90	34.99	39.29	54.00	V
2500.000	43.00	27.55	5.00	34.98	40.57	54.00	V
2310.000	43.78	27.93	4.74	35.09	41.36	54.00	Horizontal
2390.000	43.36	27.63	4.96	35.05	40.90	54.00	Н
2483.500	43.01	27.55	4.90	34.99	40.47	54.00	Н
2500.000	41.99	27.55	5.00	34.98	39.56	54.00	Н



802.11n(HT20) mode with 72.2Mbps data rate

Test at Channel 1 (2.412 GHz) in transmitting status

Peak Measurement:

Frequency (MHz)	Reading Level (dBµV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	55.94	27.93	4.74	35.09	53.52	74.00	Vertical
2390.000	55.28	27.63	4.96	35.05	52.82	74.00	V
2483.500	54.50	27.55	4.90	34.99	51.96	74.00	V
2500.000	54.83	27.55	5.00	34.98	52.40	74.00	V
2310.000	55.23	27.93	4.74	35.09	52.81	74.00	Horizontal
2390.000	54.38	27.63	4.96	35.05	51.92	74.00	Н
2483.500	53.27	27.55	4.90	34.99	50.73	74.00	Н
2500.000	55.56	27.55	5.00	34.98	53.13	74.00	Н

Average Measurement:

Frequency (MHz)	Reading Level (dBμV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	43.28	27.93	4.74	35.09	40.86	54.00	Vertical
2390.000	44.57	27.63	4.96	35.05	42.11	54.00	V
2483.500	43.50	27.55	4.90	34.99	40.96	54.00	V
2500.000	42.32	27.55	5.00	34.98	39.89	54.00	V
2310.000	43.50	27.93	4.74	35.09	41.08	54.00	Horizontal
2390.000	45.03	27.63	4.96	35.05	42.57	54.00	Н
2483.500	44.43	27.55	4.90	34.99	41.89	54.00	Н
2500.000	43.57	27.55	5.00	34.98	41.14	54.00	Н



Test at Channel 11 (2.462 GHz) in transmitting status

Peak Measurement:

Frequency (MHz)	Reading Level (dBµV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	57.60	27.93	4.74	35.09	55.18	74.00	Vertical
2390.000	56.76	27.63	4.96	35.05	54.30	74.00	V
2483.500	57.21	27.55	4.90	34.99	54.67	74.00	V
2500.000	56.33	27.55	5.00	34.98	53.90	74.00	V
2310.000	53.98	27.93	4.74	35.09	51.56	74.00	Horizontal
2390.000	55.20	27.63	4.96	35.05	52.74	74.00	Н
2483.500	55.12	27.55	4.90	34.99	52.58	74.00	Н
2500.000	53.58	27.55	5.00	34.98	51.15	74.00	Н

Average Measurement:

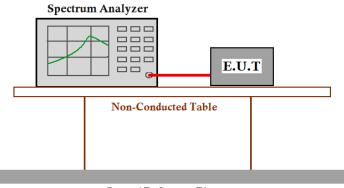
Frequency (MHz)	Reading Level (dBµV)	Antenna factors (dB/m)	Cable loss (dB)	Preamp factor (dB)	Emission Level (dBµV/m)	Limit (dBµV/m)	Antenna polarization
2310.000	44.45	27.93	4.74	35.09	42.03	54.00	Vertical
2390.000	43.31	27.63	4.96	35.05	40.85	54.00	V
2483.500	43.97	27.55	4.90	34.99	41.43	54.00	V
2500.000	39.72	27.55	5.00	34.98	37.29	54.00	V
2310.000	41.09	27.93	4.74	35.09	38.67	54.00	Horizontal
2390.000	44.23	27.63	4.96	35.05	41.77	54.00	Н
2483.500	46.00	27.55	4.90	34.99	43.46	54.00	Н
2500.000	45.04	27.55	5.00	34.98	42.61	54.00	Н



5.5 6 dB Bandwidth

Test Requirement:	FCC Part 15 C section 15.247
	(a)(2)Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.
Test Method:	ANSI C63.10: Clause 6.9.1
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Ground Reference Plane

Test Procedure:

- 1. Remove the antenna from the EUT and then connect a low attention attenuation RF cable (cable loss =1.5dB) from the antenna port to the spectrum.
- 2. Set the spectrum analyzer:

Sweep = auto; Detector Function = Peak; ace = Max Hold

RBW: 1%~5% OBW; VBW: ≥3*RBW

Span: two times and five times the OBW.

- 3. Mark the peak power frequency and -6dB (upper and lower) power frequency.
- 4. Repeat until all the test status is investigated.
- 5. Report the worse case.



Channel	Frequency			Measured 6dB		
No.	(MHz)	Mode	Data Rate	bandwidth	Limit	Result
110.	(11112)			(MHz)		
1	2412		11 Mbps	10.0596		Pass
6	2437	802.11b	11 Mbps	10.0563	≥500KHz	Pass
11	2462		11 Mbps	10.0672		Pass
1	2412		54 Mbps	16.5437	≥500KHz	Pass
6	2437	802.11g	54 Mbps	16.5532		Pass
11	2462		54 Mbps	16.5500		Pass
1	2412	802.11n	72.2 Mbps	17.8063		Pass
6	2437	(HT20)	72.2 Mbps	17.8016	≥500KHz	Pass
11	2462	(1120)	72.2 Mbps	17.8062		Pass

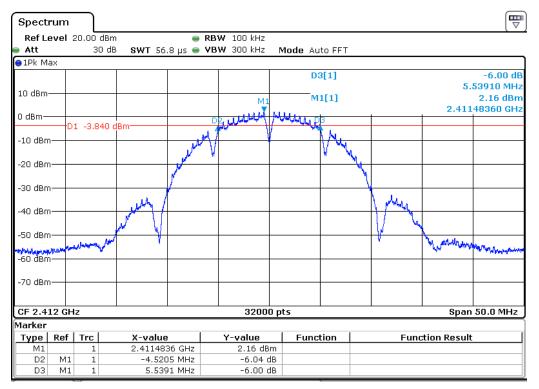
Test result: The unit does meet the FCC requirements.



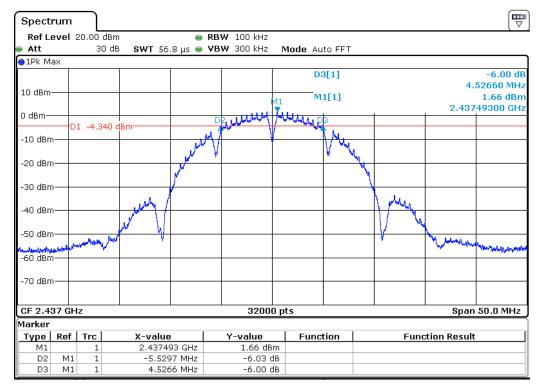
Result plot as follows:

802.11b mode with 11Mbps data rate

Channel 1: 2.412GHz:

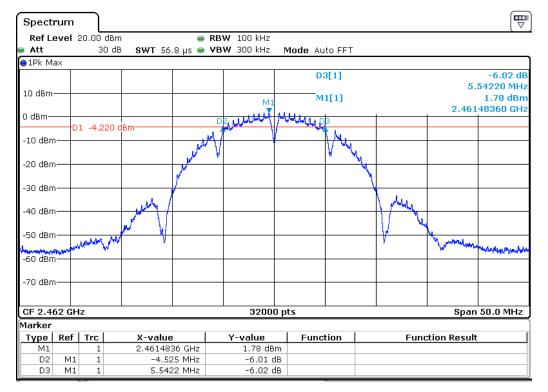


Channel 6: 2.437GHz:



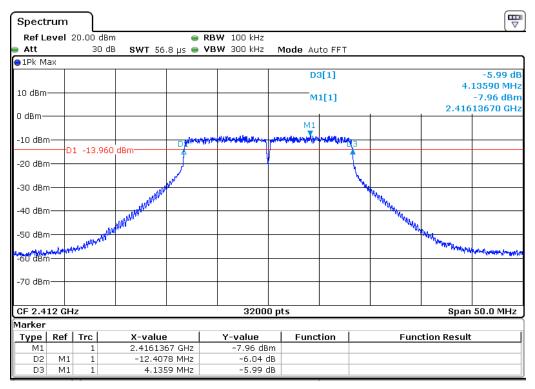


Channel 11: 2.462GHz:



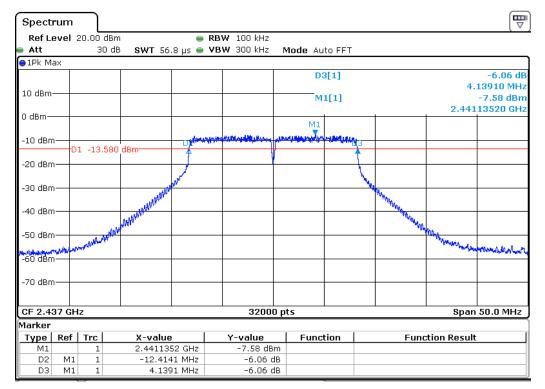
802.11g mode with 54Mbps data rate

Channel 1: 2.412GHz:

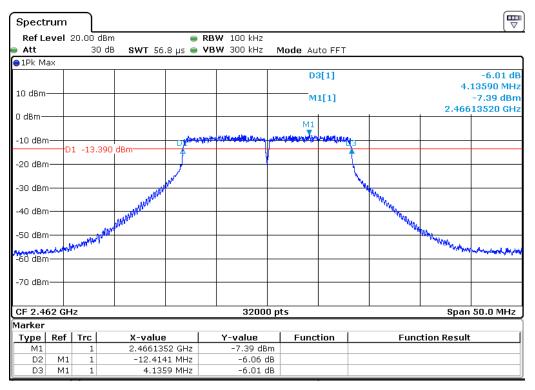




Channel 6: 2.437GHz:



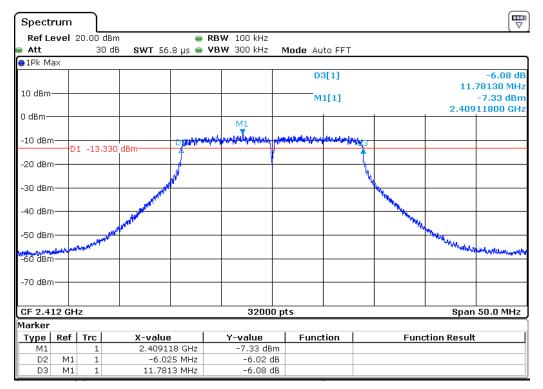
Channel 11: 2.462GHz:



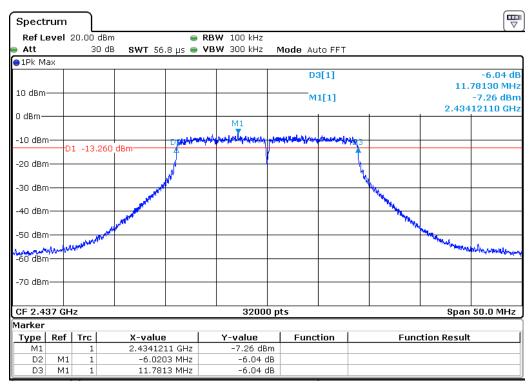


802.11n(HT20) mode with 72.2Mbps data rate

Channel 1: 2.412GHz:

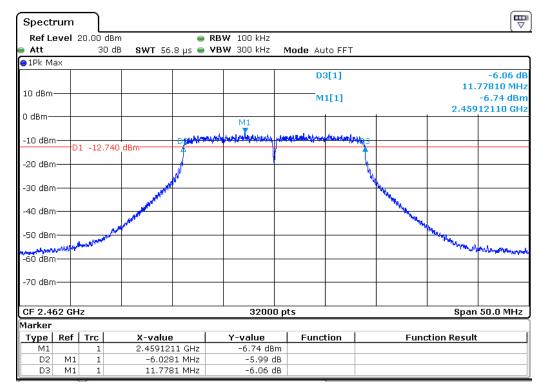


Channel 6: 2.437GHz:





Channel 11: 2.462GHz:

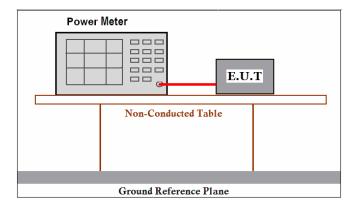




5.6 Maximum Peak Output Power

Test Requirement:	FCC Part 15 C section 15.247 (b)(3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b) (1), (b) (2), and (b) (3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
Test Method:	FCC/KDB-558074 D01 v04 9.2.3 Measurement using an RF peak power meter
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	

Test Configuration:





Test Procedure:

1. Remove the antenna from the EUT and then connect a low attention attenuation RF cable

(Cable loss =0.5dB) from the antenna port to the power meter.

- 2. Measurement using an RF peak power meter.
- 3. Report the worse case.

Test result:

Channel	Frequency	Mode	Data Data	Measured Power	Limit	Result
No.	(MHz)	Mode	Data Rate	(dBm)	LIIIII	Result
1	2412		11 Mbps	14.17		Pass
6	2437	802.11b	11 Mbps	14.35		Pass
11	2462		11 Mbps	14.73		Pass
1	2412	802.11g	54 Mbps	14.64		Pass
6	2437		54 Mbps	15.04	1W(30dBm)	Pass
11	2462		54 Mbps	15.41		Pass
1	2412	802.11n (HT20)	72.2 Mbps	14.73		Pass
6	2437		72.2 Mbps	15.06		Pass
11	2462	(11120)	72.2 Mbps	15.22		Pass

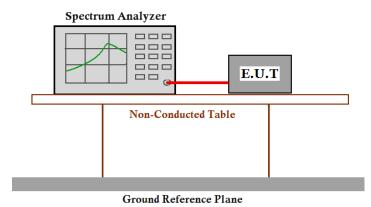
Remark: Level = Read Level + Cable Loss.

The unit does meet the FCC requirements.



5.7 Peak Power Spectral Density

Test Requirement:	FCC Part 15 C section 15.247 (e) For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.
Test Method:	ANSI C63.10: Clause 6.11.2.3
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.
Test Configuration:	





Test Procedure:

- Remove the antenna from the EUT and then connect a low attention attenuation RF cable (cable loss =1.0 dB) from the antenna port to the spectrum analyzer or power meter.
- 2. Set the spectrum analyzer:
 - a) Set CENTER FREQUENCY = Frequency from Power Spectral Density Test Matrix (see 6.10.2)
 - b) Set SPAN = 20 MHz (For devices with a nominal 40 MHz BW, 50 MHz span will be needed)
 - c) Set REFERENCE LEVEL = 20 dBm
 - d) Set ATTENUATION = 0 dB (add internal attenuation, if necessary)
 - e) Set SWEEP TIME = Coupled
 - f) Set RBW = 3 kHz
 - g) Set VBW = 10 kHz
 - h) Set DETECTOR = Peak
 - i) Set MKR = Center Frequency
 - j) Set TRACE = CLEAR WRITE

Place the radio in continuous transmit mode. Set the TRACE to MAX HOLD, and after the trace stabilizes, the TRACE to VIEW. Set the marker on the peak of the signal and then adjust the center frequency of the spectrum analyzer to the marker frequency.

- 3. Measure the Power Spectral Density of the test frequency with special test status.
- 4. Repeat until all the test status is investigated.
- 5. Report the worse case.



Report No.: ECT2017E06025 Page 50 of 86 Rev: 00

Channel No.	Frequency (MHz)	Mode	Data Rate	Measured Peak Power Spectral Density (dBm/3KHz)	Limit	Result
1	2412		11 Mbps	-20.70		Pass
6	2437	802.11b	11 Mbps	-20.33		Pass
11	2462		11 Mbps	-19.63		Pass
1	2412	802.11g	54 Mbps	-22.78		Pass
6	2437		54 Mbps	-22.26	8dBm/3KHz	Pass
11	2462		54 Mbps	-21.99		Pass
1	2412	802.11n (HT20)	72.2 Mbps	-22.02		Pass
6	2437		72.2 Mbps	-21.53		Pass
11	2462		72.2 Mbps	-21.13		Pass

Test result: Level = Read Level + Cable Loss.

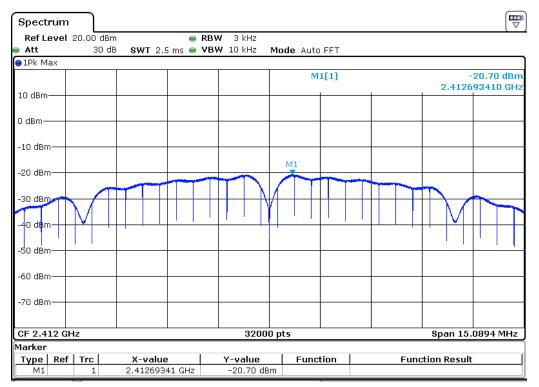
The unit does meet the FCC requirements.



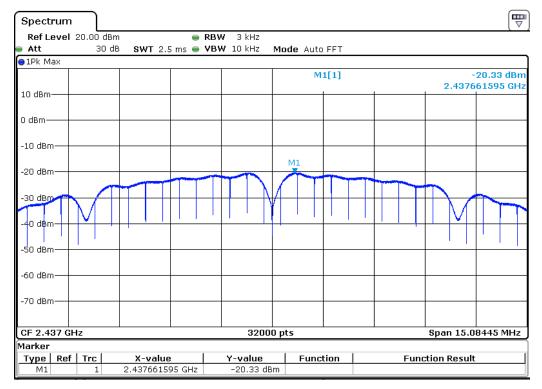
Result plot as follows:

802.11b mode with 11Mbps data rate

Channel 1: 2.412GHz:

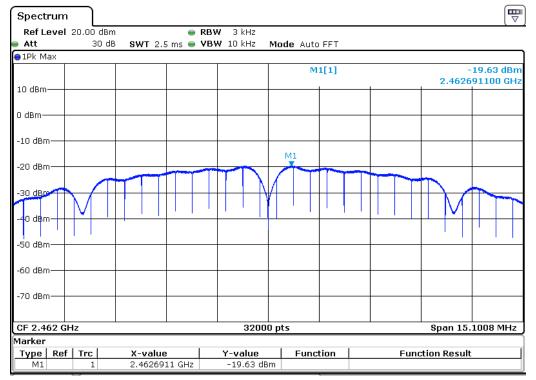


Channel 6: 2.437GHz:



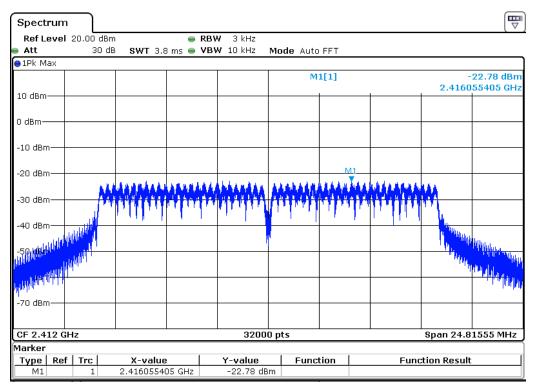


Channel 11: 2.462GHz:



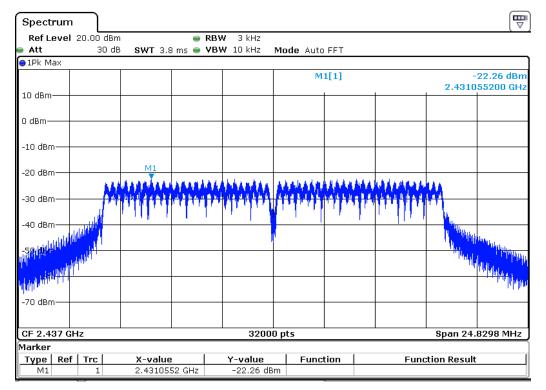


Channel 1: 2.412GHz:

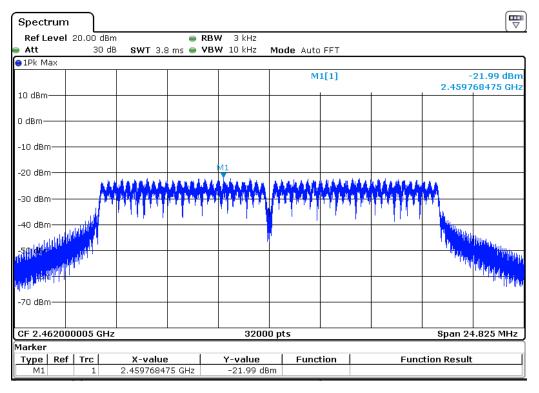




Channel 6: 2.437GHz:



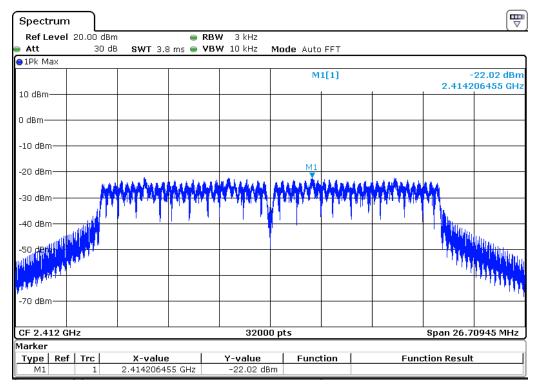
Channel 11: 2.462GHz:



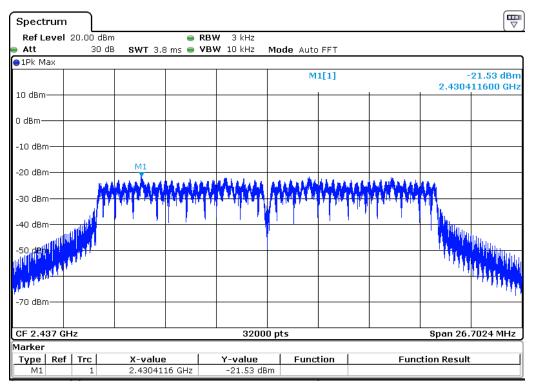


802.11n(HT20) mode with 72.2Mbps data rate

Channel 1: 2.412GHz:

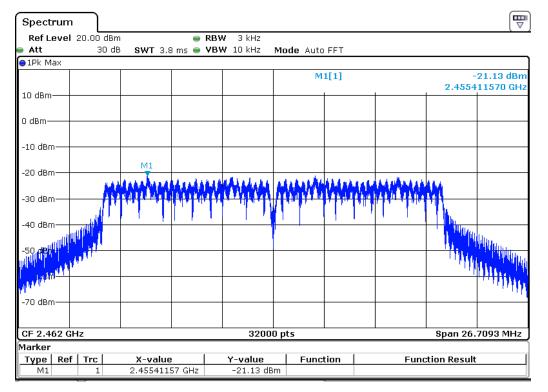


Channel 6: 2.437GHz:





Channel 11: 2.462GHz:

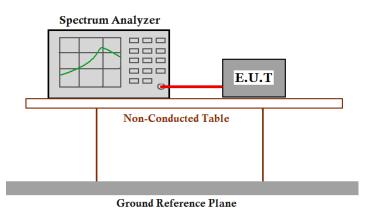




5.8 Band Edges Requirement

Test Requirement:	FCC Part 15 C section 15.247
	(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating. The radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Based on either an RF conducted or a radiated measurement. Provided the transmitter demonstrates compliance with the peak conducted power limits.
Frequency Band:	2400 MHz to 2483.5 MHz
Test Method:	FCC/KDB-558074 D01 v04 Clause 13.3.1
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below.

Test Configuration:



Test Procedure:

- 1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer or power meter.
- 2. Set instrument center frequency to the frequency of the emission to be measured(must be within 2MHz of the authorized band edge).
- 3. Set span to 2MHz,
- 4. RBW=100kHz,
- 5. VBW≥3×RBW
- 6. Detector=peak
- 7. Sweep time =auto,
- 8. Trace mode=max hold.
- 9. Allow sweep to continue until the trace stabilizes(required measurement time may increase for low duty cycle applications)



10. Compute the power by integrating the spectrum over 1MHz using the analyzer's band power measurement function with band limits set equal to the emission frequency($f_{emission}$)±0.5MHz.If the instrument does not have a band power function,the sum the amplitude levels(in power units) at 100kHz intervals extending across the 1MHz spectrum defined by femission±0.5MHz.



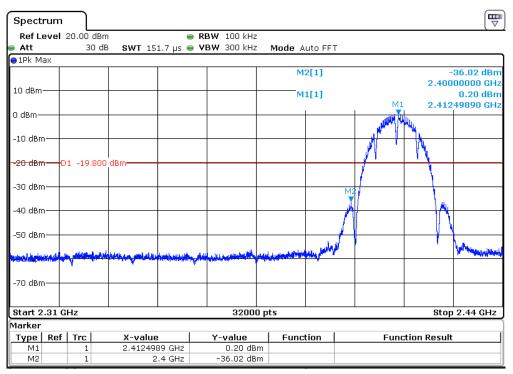
Test result with plots as follows:

Compare with the output power of the lowest frequency, the Lower Edges attenuated more than 20dB

Compare with the output power of the highest frequency, the Upper Edges attenuated more than 20dB.

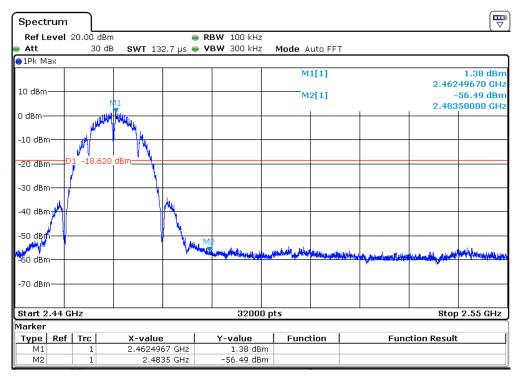
802.11b mode with 11 Mbps data rate

Channel1: 2.412 GHz



802.11b mode with 11 Mbps data rate

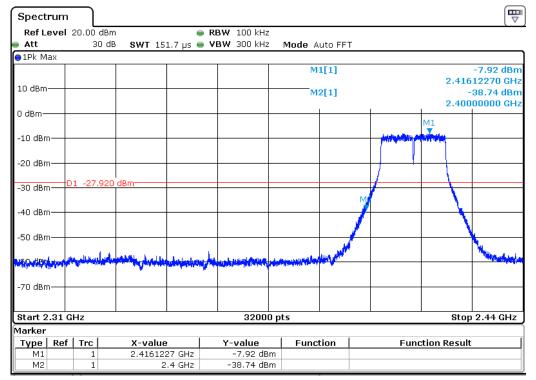
Channel11: 2.462 GHz

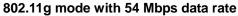




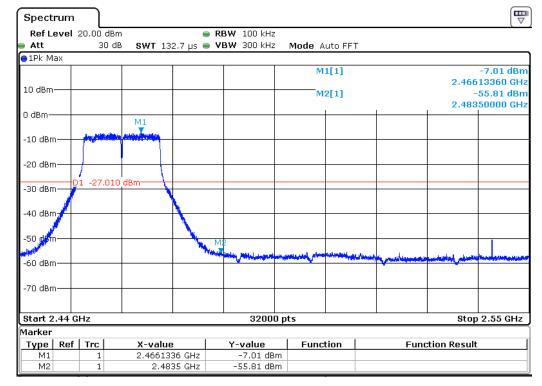
802.11g mode with 54 Mbps data rate

Channel1: 2.412 GHz





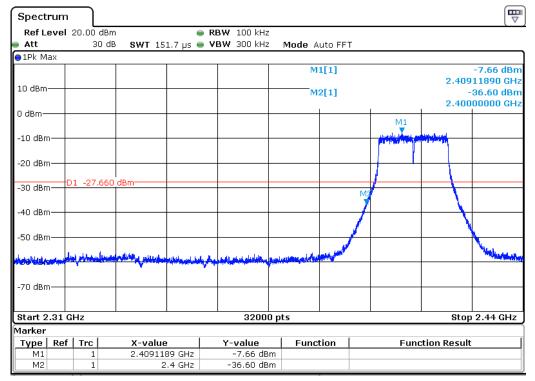
Channel11: 2.462 GHz





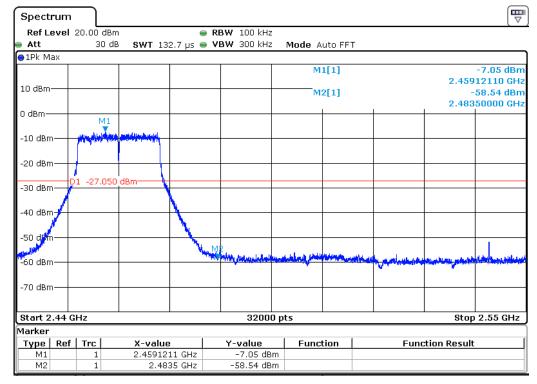
802.11n(HT20) mode with 72.2Mbps data rate

Channel1: 2.412 GHz



802.11n(HT20) mode with 72.2Mbps data rate

Channel11: 2.462 GHz

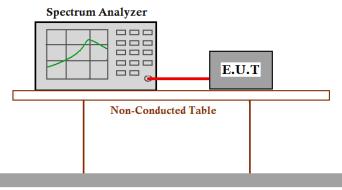




5.9 Conducted Spurious Emissions

Test Requirement:	FCC Part 15 C section 15.247
	(d) In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating. the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power. Based on either an RF conducted or a radiated measurement. Provided the transmitter demonstrates compliance with the peak conducted power limits.
Test Method:	ANSI C63.10: Clause 6.7
Test Status:	Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture). Following channel(s) was (were) selected for the final test as listed below. Pre-test the EUT under 2 modes: power-supplied by using the AC adapter and power-supplied by using internal battery. After pre-testing, we found the worst case is the test mode of EUT power-supplied by using internal battery.

Test Configuration:



Ground Reference Plane

Test Procedure:

- 1. Remove the antenna from the EUT and then connect a low RF cable from the antenna port to the spectrum analyzer or power meter.
- 2. Set the spectrum analyzer: RBW=100 KHz, VBW = 300KHz. Sweep = auto; Detector Function = Peak. Trace = Max Hold, Scan up through 10th harmonic.
- 3. Measure the Conducted Spurious Emissions of the test frequency with special test status.
- 4. Repeat until all the test status is investigated.
- 5. Report the worse case.

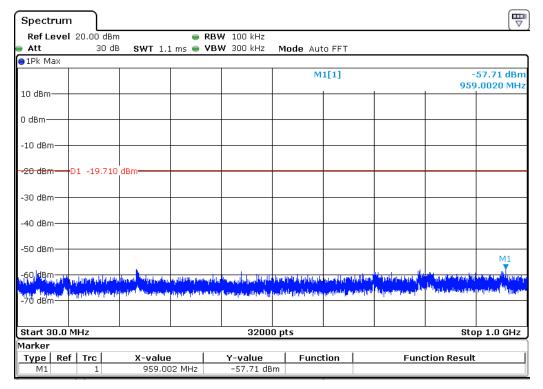


Result plot as follows:

802.11b mode with 11Mbps data rate

Channel 1: 2.412GHz:

30 MHz to 1 GHz



1 G to 3 GHz

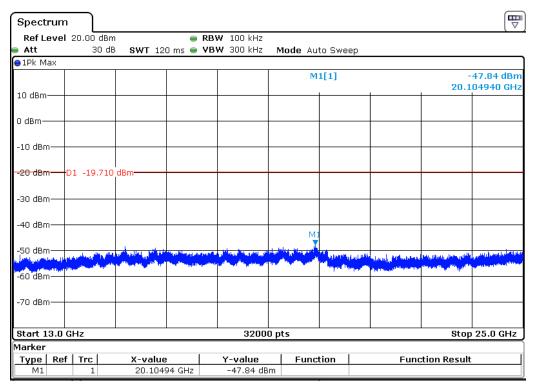
Spect	rum										
Ref Lo	evel	20.00 dBr 30 d			BW 100 k BW 300 k		ode Auto	1 Sween			
●1Pk M	ах		- 0 02				out nate				
-							М	1[1]		2.4	0.29 dBm L25310 GHz
10 dBm											
0 dBm—									M1		
-10 dBm	<u>ا</u> ر										
-20 dBm		1 -19.71() dBm								
-30 dBm	n										
-40 dBrr	-										
-50 dBm	<u>ا</u> ر										
-60. dBr). 		لولو و المحمد		ينابية معايدين	and the state	. A set to marke	and the fight of the fight	-	de la de la contra d	n na ala sulla su ala
		tan manakétan m	an an an an an an Archang an Arch				and the second data and the se				
-70 dBr	ד י										
Start 1	.0 GH	Iz				32000 p	ots			Ste) pp 3.0 GHz
Marker											
Type M1	Ref	Trc	X-value 2.4125		Y-val	ue 29 dBm	Func	tion	Fun	ction Resul	t
TIME		1	2.4125	SI GHZ	0.,	s ubili					



3 G to 13 GHz

Spectrum	<u> </u>								
Ref Level	20.00 dBi	m	👄 RB	W 100 kHz					
Att	30 d	B SWT 10	10 ms 👄 VB	W 300 kHz	Mode Au	to Swee	р		
😑 1Pk Max									
					М	1[1]			51.63 dBm 76090 GHz
10 dBm									
0 dBm									
-10 dBm									
- 20 dBm	D1 -19.71	D dBm							
-30 dBm									
-40 dBm							M1		
-50 dBm	a lla de la constalla.	المراجع الربا والمراجع	Bard Anna Malar	والمطاوطة والمقدر ومقاوم	dellars and the off the	and the second second		a pression poil las	ر
and holes are a	adhybhasanyanay	and the second secon	a înteș e Barbara (înteș) I	Weards & a fill grad for	ang nang ng n	di ^{nic} ieliente	akula kashiri kasa	un an	بالمربابي ويتربعه
-70 dBm									
Start 3.0 G	Hz			32000) pts			l Stop	13.0 GHz
Marker									
Type Ref		X-valu		Y-value	Func	tion	Fund	tion Result	
M1	1	10.676	09 GHz	-51.63 dB	m				

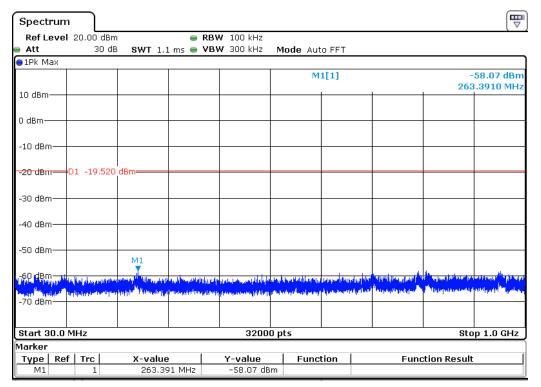
13 G to 25 GHz





Channel 6: 2.437GHz:

30 MHz to 1 GHz



1 G to 3 GHz

Spectrum	
Ref Level 20.00 dBm	
2.43853	I8 dBr 10 GH
10 dBm-	
0 dBm	
-10 dBm	
-10 UBIII	
-20 dBm D1 -19.520 dBm	
-30 dBm	
-40 dBm	
-50 dBm	
.60, dBosard a standard and a standard	urlahtijaah
	a surger of the second s
-70 dBm	
Start 1.0 GHz 32000 pts Stop 3.	0 GHz
Marker	
Type Ref Trc X-value Y-value Function Function Result M1 1 2.438531 GHz 0.48 dBm	



3 G to 13 GHz

Spectrum													
Ref Level	20.00	dBm		(■ RB	W 100 kHz							
🖷 Att	3	O dB	SWT	100 ms (● VB	W 300 kHz	N	lode Au	to Swe	ер			
😑 1Pk Max													
								М	1[1]				52.23 dBm 89840 GHz
10 dBm													
0 dBm													
-10 dBm													
- 20 dBm D	1 -19.	520 d	Bm 										
-30 dBm													
-40 dBm													
-50 dBm											M1		
-SU dBm	ubiel and	والمرار	بالمقرود المر	والمرومة والمروس	الاط إنه يلا معال	والمعرور والمرو والملاح	l _{lul.}	datalla. of	de la companya da seria da se	hand	a, Maga <mark>K</mark> hilas	pand day and plants	a la
hand de the help the set of the set of the set	per la suga	-openado	ana	Carried Control of Con	in the second	And and the Loris of the	i Mirite	i pirantera peri	ad ⁱⁿ niqi	alant and	tal militure and a second	and the second	and the second line of the secon
-70 dBm													
Start 3.0 GH	1-1					3200						Rton	13.0 GHz
Marker	12					3200	υp	13				διυμ	13.0 GHZ
Type Ref	Trc		X-va	lue	1	Y-value	1	Func	tion	1	Fund	tion Result	1
M1	1			8984 GHz	2	-52.23 dE	3m						

13 G to 25 GHz

Spectrum									
Ref Level	20.00 dE	m		RBW 100 kHz					
Att	30 (dB SWT 1	120 ms 👄	VBW 300 kHz	Mode Au	to Swee	эр		
⊖1Pk Max)
					м	1[1]			49.40 dBm 56440 GHz
10 dBm									
0 dBm									
-10 dBm									
- 20 dBm— (01 -19.52	20 dBm							
-30 dBm									
-40 dBm		м							
-50 dBm			r		L av a de				
an obtained as	المعظلهم والطابعا	والمراجع المريكان	7 II N 7	ويحالروه كالمردا الأبار فكحاماته	andre, de parea	all a point	a destriction of the destriction of the state of the stat	فالمرجلين بالاستك	, and the back of the local sector
an a	and the second second	the particular staff	and The Atlantication	a presidente de la constitución de	a post filling and the second	Mary Street	a a series and a series of the	فالأربع وفأنطى والمندر والأر	Lating Annal a Minney
MOONABINE P									
-70 dBm									
-70 dbm									
Start 13.0 (GHz			3200	l0 pts			Ston	25.0 GHz
Marker									
Type Ref	Trc	X-val	ue	Y-value	Func	tion	Fund	tion Result	1
M1	1	16.35	644 GHz	-49.40 di	Зm				



Channel 11:2.462 GHz

30 MHz to 1 GHz

Spectrun	n								
Ref Leve			_	₩ 100 kHz					
Att 1Pk Max	30	dB SWT 1.	1 ms 👄 🛛 🗛	W 300 kHz	Mode Aut	O FFT			
-					м	1[1]			-58.55 dBm).6660 MHz
10 dBm									
0 dBm									
-10 dBm									
-20 dBm	D1 -19.4	90 dBm							
-30 dBm—									
-40 dBm—									
-50 dBm									M1
-60 /dBm	and produced by	The Delta Decoretty	Hangonin'ny av	and such play had along	a Nadianta	eperita epicat	na ini bakara akalanti		
-70 dBm	(<mark>arenali))Diae</mark>	f Def general of def avoid of		nderste stelsen bereiten ettelster	intelling og filstilligt	որություն	and a second second second	u namhtarainn	alm da an t, , dal da di
Start 30.0	MHz			32000	pts			Sto	p 1.0 GHz
Marker					•				<u> </u>
Type Re	f Trc	X-value		Y-value	Func	tion	Fun	ction Result	:
M1	1	950.6	56 MHz	-58.55 dBm					

1 G to 3 GHz

	rum evel	20.00 dBr	n	e RP	W 100 kHz						(
Att		30 d		32 ms 🖷 🗸		Mode Auto	o Sweep)			
∋1Pk Ma	эх										
						М	1[1]			2.4	0.51 dBr 610310 GH
10 dBm·				_							1
								M	1		
0 dBm—											
-10 dBm	-										
-20 dBn		1 -19,490) dBm								
-30 dBm											
-40 dBm											
-50 dBm	ı										
-60 dBm	والمراجعة والمراجعة والم	1 Transmitter	Network (Second States)		and a paragraphic of the date	- _{Մունք} ու շահնանակ	المليب المرام		heles	A second second	and the second
and the second	and a second	lan - a that an abatra ta	n maaan dagada pablar	uka na pinini di kacara	a hana dana dikeri kun senan dan dala di	an a lague production from the state of the st	a la constante de la constante				in in a ministrick in a few sectors in the sectors in the sectors of the sectors of the sectors of the sectors a
-70 dBm	·+										
Start 1	.0 GH	lz			32000	pts				St	op 3.0 GHz
1arker											
Type M1	Ref	1 Trc	X-val	ue	Y-value 0.51 dBn	Func	tion		Fund	ction Resu	lt



3 G to 13 GHz

Spectrum	, J								
Ref Level	20.00 dBn	ı	👄 RB	W 100 kHz					,,
🗕 Att	30 dB	SWT 10	0 ms 👄 🛛 🗷	W 300 kHz	Mode Au	to Sweej	р		
😑 1Pk Max									
					М	1[1]			52.24 dBm 88280 GHz
10 dBm									
0 dBm									
-10 dBm									
-20 dBm-	D1 -19.490	dBm							
-30 dBm									
-40 dBm									
-50 dBm							M1		
والمطاورة والمطاور وال	dhatalan ad peranas	the sector and the sector of the	lidigite and multilized	lang ang ang ang ang ang ang ang ang ang		and in success	and the second state of the second	and a constant of the	ومريعا فأقادروا فاختر ورعا
Suberript-Bability	etfeditenenester	and the property of the party of	and the second s	^{Noncondo Friday a^{dari} ¹}		and _{prov} ation of the	Georgia Constitution and the second	Hele Contraction	and a street of the second
-70 dBm—									
Start 3.0 G	Hz			32000	pts			Ston	13.0 GHz
Marker								P	
Type Ref	f Trc	X-value	,	Y-value	Func	tion	Fund	tion Result	1
M1	1	10.588		-52.24 dBr					

13 G to 25 GHz

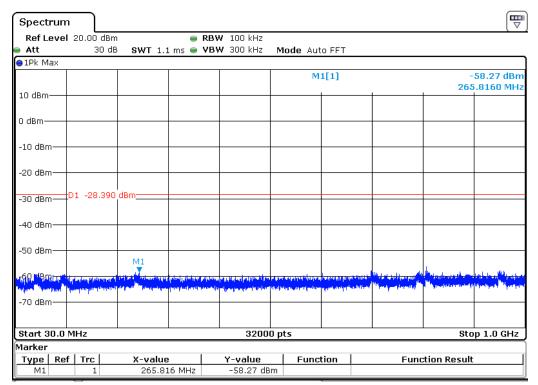
Spectrum									
Ref Level	20.00 dBm		_	₩ 100 kHz					
🗕 Att	30 dB	SWT 120) ms 😑 🛛 🛛	W 300 kHz	Mode Aut	to Sweep			
😑 1Pk Max									
					M	1[1]			49.25 dBm
10 dBm						1		20.1	20690 GHz
10 ubiii									
0 dBm									
U UBIII									
-10 dBm									
-10 UBIII									
-20 dBm	D1 -19.490	dem							
-20 UBIII	01 -19,490	ubin							
-30 dBm									
-30 ubiii									
-40 dBm									
-40 UBIII					M				
-50 dBm					· · · · · · · · · · · · · · · · · · ·				
	and the plant	Life addition of the second	Haddelig and the second	ut and a start of the	and a strengther.	all Loth good for	معادياته والأعرى بالعاعر والمح	الملري والخس والمأولان بخا	and the first of the sec
ndikadinina. Pdikadinina	a sublicit of the second	and water in a state of	han baan tahu	on line the set part	and the state of the	and the second second	للباهرة وعاقمات ومعدوها	والمراجع والمتحد والمتحد والمتحد	Callebra with Mall Marketon
-70 dBm									
-70 0011									
Start 13.0 (GHz			32000) pts			Stop	25.0 GHz
Marker]
Type Ref		X-value		Y-value	Func	tion	Func	tion Result	
M1	1	20.1206	9 GHz	-49.25 dB	m]



802.11g mode with 54Mbps data rate

Channel 1: 2.412GHz:

30 MHz to 1 GHz



1 G to 3 GHz

Spectru	um 🗋								
Ref Lev Att	vel 20.00 dBi 30 d		_	W 100 kHz W 300 kHz	Mode Auto	o Sweep			
⊖1Pk Ma>	<	1			1				
					M	1[1]		2 40	-8.39 dBn 180310 GH
10 dBm—								1	
0 dBm—									
							M1		
-10 dBm-									
-20 dBm-									
-30 dBm-	D1 -28.39	J.dBm		_					
00 00									
-40 dBm-									
-50 dBm-									
60 d0m						L. J. murd	and the second second	و و رواند رواند و المحالي هذا و	فاستعمده والمراجع
	and a second		laing an succession of the	aparaturan seria arata da arata da		and a sub-	and the second	le mine distanting in a single	
-70 dBm-	-								
Start 1.0) GHz			3200	0 pts			Sto	op 3.0 GHz
Marker Type 1	Ref Trc	X-value	e	Y-value	Func	tion	Fun	ction Result	:
M1	1	2.4080	31 GHz	-8.39 dB					



3 G to 13 GHz

Spectrum	<u> </u>								
Ref Level	20.00 dBm		👄 RB	W 100 kHz					
Att	30 dB	SWT 10	0 ms 👄 🛛 🗷	W 300 kHz	Mode Au	to Swee	p		
😑 1Pk Max									
					М	1[1]			52.07 dBm 28590 GHz
10 dBm									
0 dBm									
-10 dBm—									
-20 dBm									
-30 dBm	D1 -28.390	dBm <u></u>							
-40 dBm									
-50 dBm							M1		
فللماليفية بطيرهون وروران	Mindel Installed	and the set of the set	li _{ten p} antantan	and the state of the second	a configuration of the second	ماهيا ويتغللون	al de la constant de La constant de la cons	Contraction of the	ale data di Stand
hand data and a state of the last	¹⁴⁸ ng Bandya and Sherr	photo Description of the photoe	CHINE STREET	May provide provide a	derfah _{ter} gegenessen ^e ldet.	and Colorador	And a state of the	h <mark>a kan diking diking dikana sa</mark>	and the second
-70 dBm									
Start 3.0 G	Hz			32000) pts			Stop	13.0 GHz
Marker									
Type Ref	Trc	X-value	, L	Y-value	Func	tion	Fund	tion Result	
M1	1	10.628	59 GHz	-52.07 dB	m				

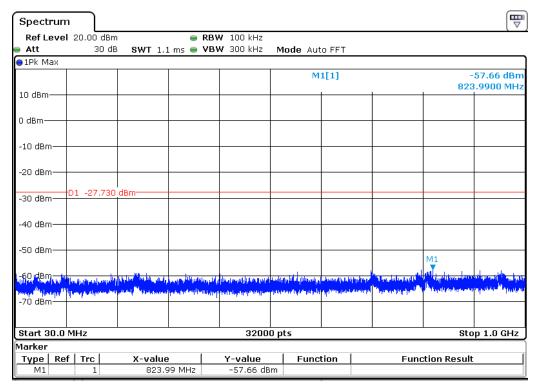
13 G to 25 GHz

Spectrum									
Ref Level	20.00 dBm		🖷 RB\	₩ 100 kHz					
🖷 Att	30 dB	SWT 12	D ms 👄 VBN	W 300 kHz	Mode Aut	to Sweep			
😑 1Pk Max									
					M	1[1]			49.32 dBm 14310 GHz
10 dBm									
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm—	01 -28.390	dBm <u></u>							
-40 dBm					MI				
-50 dBm	ار الماري المالي المالي المالي	HIM open at the	and the second	all ⁱⁿ a all ⁱⁿ a anda, tal	and Installated	1 ¹¹	ilia I. J. a. a silita antonia	فالتعريد فأقتر رواحة والعأوة	الفتانا والمراجع فرعوان
an da kana da kata kata Kana Dinan Ata	A	فيطافي فيريطان	htinhting and public	profiles of the sector public	and the state of the state of the	Same Productor	ing and the second s	Alle and a sector colle	and the state of the
-70 dBm									
Start 13.0 (GHz			3200	D pts	1	1	Stop	25.0 GHz
Marker									
Type Ref	Trc	X-value		Y-value	Func	tion	Fund	tion Result	
M1	1	20.114	31 GHz	-49.32 dB	m				



Channel 6: 2.437GHz:

30 MHz to 1 GHz



1 G to 3 GHz

Spect		L										
Ref Lo Att	evel	20.00 dE 30 i		_	BW 100 kHz ' BW 300 kHz	Mode Auto	n Swoor	n				
) 1Pk M	ах		00 0001	JZ 1115 🕌 🖡		HOUE AUT	0 0 0 0 0 0 0	2				
-							-7.73 dBr 2.4411560 GH					
10 dBm·												1
0 dBm—	_											
-10 dBm	<u>ا</u> ر		_						M1			
-20 dBm	۱											
-30 dBm		1 -27.73	30 dBm									
-40 dBm	<u>۱</u>											
-50 dBm	<u>ا</u> ر									1		
						مروي المروي مروي	n, here wi	au lua				and a known of the
-70 dBm		والتراجيبية وأصاديه وال	alaya dagaan ka jarahira	an fra shi an in	a balan a tana mana mana mana mana mana mana	and the state of the						
Start 1	.0 GH	Iz			32000	nts					St	op 3.0 GHz
larker									_			
Type M1	Ref	Trc 1	X-V a	alue	Y-value -7.73 dBn	Func	tion			Fund	ction Resul	t



3 G to 13 GHz

Spectrum	Γ										
Ref Leve	l 20.00 dB	m	e Re	3W 100 kHz							
Att	30 0	IB SWT 1	00 ms 👄 ۷	3W 300 kHz	Mode Au	to Swee	эр				
⊖1Pk Max											
					М	1[1]		-52.55 dBm 12.248910 GHz			
10 dBm											
0 dBm											
-10 dBm——											
-20 dBm—											
-30 dBm	D1 -27.73	0 dBm									
-40 dBm											
-50 dBm—									M1		
والمعالية ومعادلة المراجل	فسروينا أسافا أأتقرب	الأطسيماني والطفور بالمعره	a abde a bit hereite	all and the state of the state	When the state of the	and those a	hand and a second second second second	المتعادير التربية خطران إبراس	Actor in presidential a		
negenal perfect of the	a printi da mana ana	the sublic sector desidences	na feilinn se jhlag sa na initia	and the second		1 All the second	n an an 1976 fa ²⁰¹⁶ fa fa	and a state of the second s	and the particular sector of the sector o		
-70 dBm											
Start 3.0 G	Hz			3200) pts			Stop	13.0 GHz		
Marker											
Type Re		X-valı		Y-value	Function Function Result						
M1	1	12.24	891 GHz	-52.55 dB	m						

13 G to 25 GHz

Spectrum											
Ref Level	20.00 dBm		🖷 R	BW 100 kHz							
🖷 Att	30 dB	SWT 1	120 ms 😑 V	BW 300 kHz	Mode Au	to Sweep					
⊖1Pk Max											
					м	1[1]		-49.21 dBm 19.324940 GHz			
10 dBm											
0 dBm											
-10 dBm											
-20 dBm											
-30 dBm	01 -27.730	dBm									
-40 dBm					M1						
-50 dBm				n.)40 ^M (a ^{da} liyahaya					المعانين فليس واعتان		
العاملية أوراحتهما	as tally a block and	an cadaarafi.	an a	nandr dag sider and	and the strength		A CANCE OF LEAD	a nako ako naturi	19 - 19 - 19 - 19 - 19 - 19 - 19 - 19 -		
∽e8ÜrjäBîn ^{de,} n≞	ine station and the states		an ann a bhairte	n an	arwar cum found o	and the second	ى يەرىكەن بىدالەت _{بىر ق} ىرىيەر بىل ^{ىلى}	<mark>hiddon filmon filmon film</mark> i	patheset for the second		
-70 dBm											
Start 13.0 (202			3200	0 ntc			Stor	25.0 GHz		
Marker	3112			3200	o prs			atup	20.0 GHZ		
Type Ref	Trc	X-valı	le	Y-value	Func	tion	Fund	tion Result	1		
M1 M1	1		494 GHz	-49.21 dB							

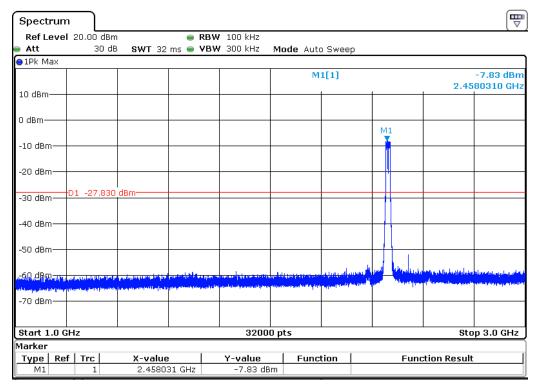


Channel 11:2.462 GHz

30 MHz to 1 GHz

Specti	rum													
	evel :	20.00 d			•		V 100 kHz							`
Att		30	dB	SWT 1.:	1 ms 😑	VBV	V 300 kHz	Mode	Aut	o FFT				
⊖1Pk Ma	ax T													50.44 dB
									IN I	[1]			8	-58.14 dBm 13.2600 MHz
10 dBm-														
0 dBm—														
-10 dBm														
-10 0011	'													
-20 dBm	h													
-30 dBm		1 -27.8	зо авг	n										
-40 dBm														_
-50 dBm														
00 0011													11	
-60 dBm		the construction of	1.1.1.11.11		the stand of the sec	d al data	aliyali takan yaka sa sa ƙafa		t du con	a la sul anos	والعرباني		- Construction	Inclust instants Classifier
Intra Line of	and the	n al an	-	The state of the	المر والمراجع	Laipth (diment la contract d'arth	and a photo for	da Li mari	AN AN AN AN	Internet	and spinstering		
-70 dBm) 													
Start 3	0.0 M	Hz					3200	0 pts						Stop 1.0 GHz
Marker														
Туре	Ref	Trc		X-value						ult				
M1		1		813.2	26 MHz		-58.14 dB	m						

1 G to 3 GHz





Spectrum						
Ref Level 20.00 dBm	n 👄 RB	W 100 kHz				
Att 30 dB	3 🛛 SWT 100 ms 👄 VB	W 300 kHz	Mode Auto Swee	ер		
⊖1Pk Max						
			M1[1]			.53 dBm)90 GHz
10 dBm						
0 dBm						
-10 dBm						
-20 dBm						
-30 dBm D1 -27.830	dBm					
-40 dBm						
-50 dBm				M1		
المعرور فالمقابلون محمقين ومعرورا	أوليا المحادثين ويترونه الطعيري والمعادية ومعرف	Contracting to deputy of the	territoring scholar dest	A CONTRACT OF	الأرام المورية ويعرز للاحطارات	الماريك ^{الي} ريك محمد معمد محمد
and the second production of the product of the second second second second second second second second second	The second s	Character Manager Street Stree	filosod setter for the fill the plat	elabaren federi ^{ak} eri ^{ake} itete	- and the particular in the second	Lean Alla
-70 dBm						
Start 3.0 GHz		32000	pts		Stop 13	.0 GHz
Marker Type Ref Trc	X-value	Y-value	Function	Eupo	tion Result	
M1 1	10.67109 GHz	-52.53 dBm		Punc	cion Result	

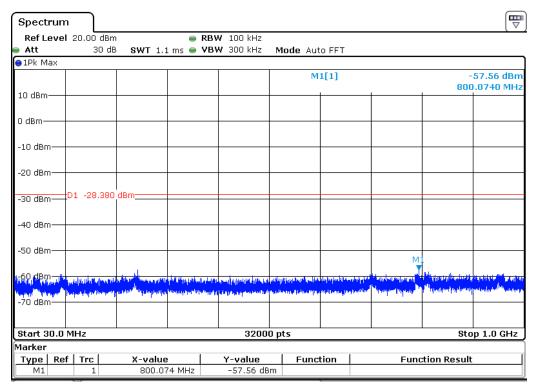
Spectrum									
Ref Level	20.00 dBm		👄 RE	3W 100 kHz					
🖷 Att	30 dB	SWT 1	20 ms 👄 ۷	3W 300 kHz	Mode Au	to Sweep			
😑 1Pk Max									
					м	1[1]			48.26 dBm 12060 GHz
10 dBm									
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm	D1 -27.830	dBm							
-40 dBm					MI				
-50 dBm	1	المغر بعر وأمقر	مارى بەر يى يا الىلى يىكى.	فد افلد، حاقان عالم ان	Sala Internet Strength		1 40.5	a and a star still	a na ha consta di marada
and the second started by	a and a shirt of the second		n on porter		the office of the other	and and a second se		content of the states of	du, ere e
⊷ชบินอย่ำท่่—่าา	Angelden, die heefte in	a waaraan	and the state of the state of the	and the constraints		alah Antinediki payantiki	hanna _{a sa} alahaniah ito.	اللادر بحدار _{بر} وناند <u>م زمان</u>	A) - AMARAN
-70 dBm									
Start 13.0 (GHz			3200	0 pts			Stop	25.0 GHz
Marker									
Type Ref	Trc	X-valı	ie	Y-value	Func	tion	Func	tion Result	1
M1	1	20.11	206 GHz	-48.26 dB	m				



802.11n(HT20) mode with 72.2Mbps data rate

Channel 1: 2.412GHz:

30 MHz to 1 GHz



1 G to 3 GHz

Spectrur	n								
Ref Leve Att	el 20.00 dBm 30 dB		e RBW	100 kHz 300 kHz	Mode Auto	o Sweep			
●1Pk Max	1								a. a.a. 1a
					M	1[1]		2.40	-8.38 dBr 91560 GH
10 dBm									
0 dBm									
							N11		
-10 dBm—							1		
-20 dBm—									
-30 dBm	D1 -28.380	dBm					1		
00 000									
-40 dBm—									
-50 dBm									
co In					de and radiate windowide	.	an a	المراورين والمراجع ومعاقلات	
 I house on the 	dala ani ing ang ing ang ing ang ing ang ing ang ing ang ing ing ing ing ing ing ing ing ing i	and the street of a street for a state of the street of a street for		a geographic de la companya de la co La companya de la comp		and a second	e Contra and a starting of	and the state of the	a da ang sa
-70 dBm—							-		
Start 1.0 (GHz			32000) pts			Sto	p 3.0 GHz
Marker Type Re		X-value		Y-value	Func	tion	Fun	ction Result	
M1	1	2.409156	5 GHz	-8.38 dB	m				



Spectrum)								
Ref Level 20.	DO dBm		👄 RB	W 100 kHz					
Att	30 dB	SWT 100) ms 👄 🛛 🛛 🖉	W 300 kHz	Mode Aut	to Sweep			
⊖1Pk Max									
					M	1[1]			52.25 dBm
10 dBm							_	10.6	01410 GHz
TO GBIII									
0 dBm									
o abiii									
-10 dBm									
10 dbm									
-20 dBm									
-30 dBm D1 -	28.380 dBr	m							
-40 dBm									
-50 dBm							M1		
		بالبول ورور	and the state of the state		and a nati	Autom	والملا المتحلين ومطالحه برالعه و	المعربة جاريك والمأملكينين	المان والمحاصرين حسالة وال
Constrainty Halvana and Andrews	and the Later of Belleville	ngger in t stationalise	Landon Maria	Street Barry Solar Street	a successive and the second		and a still market when	and the property of the	and the state of the state
personal second statements of the	an a di katalan katala	AND ALL AND A	int i	a substant and a substant	. In a second	an stlandara	and the second		
-70 dBm									
Start 3.0 GHz				3200	lnts			Ston	13.0 GHz
Marker				02000	, pro			0.00	10.0 012
Type Ref Ti	·c	X-value	1	Y-value	Func	tion	Fund	tion Result	1
M1	1	10.6014	1 GHz	-52.25 dB					

Spectrum									
Ref Level	20.00 dBm		e RB	₩ 100 kHz					
🖷 Att	30 dB	SWT 12	20 ms 👄 🛛 🗷	W 300 kHz	Mode Au	to Sweep			
⊖1Pk Max									
					М	1[1]			49.25 dBm 36190 GHz
10 dBm									
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm—-1	D1 -28.380	dBm <u></u>							
-40 dBm					M1				
-50 dBm	فالأوار الموريكين وال		The Land The Local Jacobie	n ^{a a} lgal ^a tan man ^a	il Anadalat	The second states and second	and a supplier of the superior	a <mark>hala sa dha a ku sa </mark>	
ine operations and	والمحاد ويتحاد والم	ليراقص بالإسروطامي	hadden opposite	and a state of the state of	and Market Provide P	and the trial from the	fill an energy the state of the	الكر والكر بدفعت ال	and the second
-70 dBm									
Start 13.0 (GHz			32000) nts			Ston	25.0 GHz
Marker				02000	· F ·				
Type Ref	Trc	X-valu	e	Y-value	Func	tion	Fund	tion Result	
M1	1	19.336	19 GHz	-49.25 dB	n				



Channel 6: 2.437GHz:

30 MHz to 1 GHz

Spectr	um																(₩
Ref Le	vel 2					•		V 100 kHz										
Att		30	dB	SW	T 1.:	1 ms 🖷	VB1	₩ 300 kHz	M	ode Au	to FFT							
⊖1Pk Ma	X																	
										M	1[1]						57.64 d .7760 M	
10 dBm-																		
0 dBm—	_		_															
-10 dBm·	_		_															
-20 dBm·	_		+															
-30 dBm·	-D1	L -27.7	740 di	Bm—														
-40 dBm·	_		_															
-50 dBm·	+		+												М1			
-60 dBm	un ^{te} lu	unantilipi	nder or	प्पती (गृहा	Մաշրհ	- Anna Ma	they year	n, part for the second	-	durate di tati	- Anna a state	da naj tipe	'मार्गम्				were the state of	
-70 dBm	tal ^{hi} bet	-	hand for the	And ^a he	nnalle	Konfeinyer	An dear	the product of the second	er an	والدوائل ومعمودات	all providences	-mhengly be	"United	o (de service)	L	AND MARK	the second second second	in the second
70 GDIII																		
Start 30).0 MI	Hz						3200	0 pt	s	1				1	Sto	p 1.0 G	Hz
Marker																	-	
Туре	Ref	Trc		X-1	alue	;		Y-value		Fund	tion			Fund	ction F	lesult		
M1		1		8	16.77	76 MHz		-57.64 dB	m									

1 G to 3 GHz

Spect	rum												
	evel :	20.00 dE			_	/ 100 kHz		_					
Att 1Pk M.		30	ав SW	T 32 ms	● VBV	✔ 300 kHz	Mode Aut	o Sweej	р				
-							м	1[1]				2.43	-7.74 dBn 341560 GH
10 dBm·													1
0 dBm—													
-10 dBm										M1 V			
10 000													
-20 dBrr	י									+			
-30 dBm		1 -27.74	10 dBm							t			
-40 dBm	<u> </u>									+			
-50 dBm	<u>، </u>												
-60 dBm), de colora	e n legener i systeri	n sy al river a birth	Marine Street	hdaapaa maat			مريد المريد المريد الم	and and	L	Indiana ana kaom	lange built nate	
or statistic production		pre-openational series	had paper in a little	obaraulă și lite	inga mendapang kara	a de la constante de la constan La constante de la constante de	n deter son den sinder det bes					a second s	
-70 dBm	<u> </u>												
Start 1	.0 GH	z				3200	0 pts	L				Sto	op 3.0 GHz
1arker													
Type M1	Ref	Trc 1		/alue 434156 (GHz	<u>Y-value</u> -7.74 dB	Func	tion			Fund	tion Resul	t



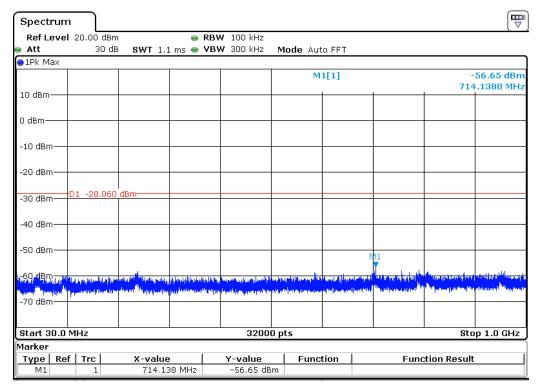
Spectrum	')								
Ref Level	20.00 dBm		e RB	₩ 100 kHz					
🗕 Att	30 dB	SWT 10	D ms 👄 VB'	W 300 kHz	Mode Au	to Sweep			
😑 1Pk Max									
					М	1[1]			53.18 dBm 89220 GHz
10 dBm									
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm	D1 -27.740	dBm							
-40 dBm									
-50 dBm								M1	
مريع والمعطية والمعرفة	and defined play articular		high production of the second s	Instal standary and	Manhan and and a second	delille and a he	and the second state of th	the of the base of the second section of	اليولية الأفسالية المراسية ال المراسية المراسية الم
and the set for the set of the se	ala Kingen geber	Hard and the second second	Champer's Definition	Mangan Contains All	here were the second	nalangan na sangan n Na sangan na	an a	مانياناريدايوم ياغانيونو م	Alexander of the first
-70 dBm									
Start 3.0 G	Hz			32000	J pts			Stop	13.0 GHz
Marker Type Ref	Trc	X-value	. 1	Y-value	Fund	tion	Fund	tion Result	
M1	1	11.1892		-53.18 dB			i unu	alon Kesult	

Spectrum	<u> </u>								
Ref Level	20.00 dBm		e RB	₩ 100 kHz					
🗕 Att	30 dB	SWT 12	D ms 👄 VBY	W 300 kHz	Mode Aut	to Sweep			
⊖1Pk Max									
					M	1[1]			48.75 dBm 57440 GHz
10 dBm									
0 dBm									
-10 dBm—									
-20 dBm									
-30 dBm	D1 -27.740	dBm							
-40 dBm					м	1			
-50 dBm	-1.0min. com. e c	a till geter gan ^{a f} red	Alexandra de la des	parting policity of the state Static States and states and	and the second second	and And Market	د. اطلاقا الم ^{ار} ي _ا سمادواد ^{معر}		and the second second
րմնեղծքու <mark>հետք</mark>	and the state of the state of the	na da an	e internation of	A. At checken	19 - 19 1	Strap Strategy	alit in pales	فاشدر بالكرب يليان بالبابا	and a taba in t
-70 dBm									
Start 13.0	GHz			32000) pts		1	Stop	25.0 GHz
Marker									
Type Ref	Trc	X-value		Y-value	Func	tion	Fund	tion Result	
M1	1	20.1574	44 GHz	-48.75 dB	m				

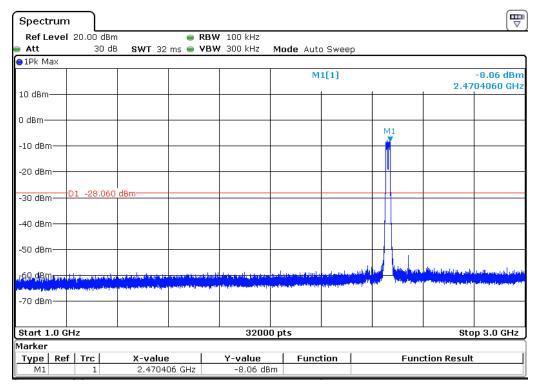


Channel 11:2.462 GHz

30 MHz to 1 GHz



1 G to 3 GHz





Spectrum	Γ								
Ref Leve	l 20.00 dBn	1	👄 RB	W 100 kHz					
Att	30 di	3 SWT 10	0 ms 👄 VB	W 300 kHz	Mode Au	to Swee	p		
😑 1Pk Max									
					М	1[1]			52.27 dBm 74530 GHz
10 dBm									
0 dBm									
-10 dBm									
-20 dBm—									
-30 dBm	D1 -28.06C	dBm							
-40 dBm									
-50 dBm									M1
Langue Langue and a little	ورواستال وفر الأسوا أترو	A Contraction of the	the day of the providence	Mandala Managarth 11	New works and the second s	a Providence	بالهرية المحارية الأرارية ومساية المراجعين. مراقب		en e
alast Helej (and hards)	a telesiya taya telejiri	and the second state of the	and the second se	Mang Brende Kommender	and the particular states of the particular st	(d) ¹¹ Trained		line of the second s	
-70 dBm									
Start 3.0 G	Hz		I	32000) pts			Stop	13.0 GHz
Marker									
Type Ret		X-value		Y-value	Func	tion	Fund	ction Result	
M1	1	12.674	53 GHz	-52.27 dB	m				

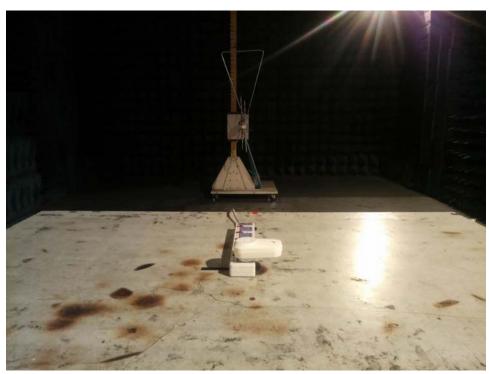
Spectrum									
Ref Level	20.00 dBm		e RB	₩ 100 kHz					
👄 Att	30 dB	SWT 1	20 ms 👄 🛛 🗛	W 300 kHz	Mode Aut	to Sweep			
😑 1Pk Max									
					M	1[1]			49.47 dBm 00060 GHz
10 dBm									
0 dBm									
-10 dBm									
-20 dBm									
-30 dBm	01 -28.060	dBm							
-40 dBm									
-50 dBm	to and the second second second	na ^{lla} l sondag a ^{beta}	le ^{ann} h, còmh leann an bail		M1 NJ Ny Transfer	an a	darik zastik sanaza	فالقرن وطاور والموروقة	ر. مىلىرىللەرمارىمىرىكى
and addition of the	and a first state	والتقرير والمراطي	and the shift mandle and the	and have discussions of	and the different of the little	A	يلو يو	antinanila, still a shift	a shine where the south
- JUNABINE							1		
-70 dBm									
Start 13.0 (GHz			32000) nts			Ston	25.0 GHz
Marker									
Type Ref	Trc	X-valı	ie	Y-value	Fund	tion	Fund	tion Result	1
M1	1		006 GHz	-49.47 dB					



6 Photographs

6.1 Radiated Spurious Emission Test Setup

Below 1GHz



Above 1GHz





6.2 Conducted Emission Test Setup





7 APPENDIX-Photographs of EUT Constructional Details

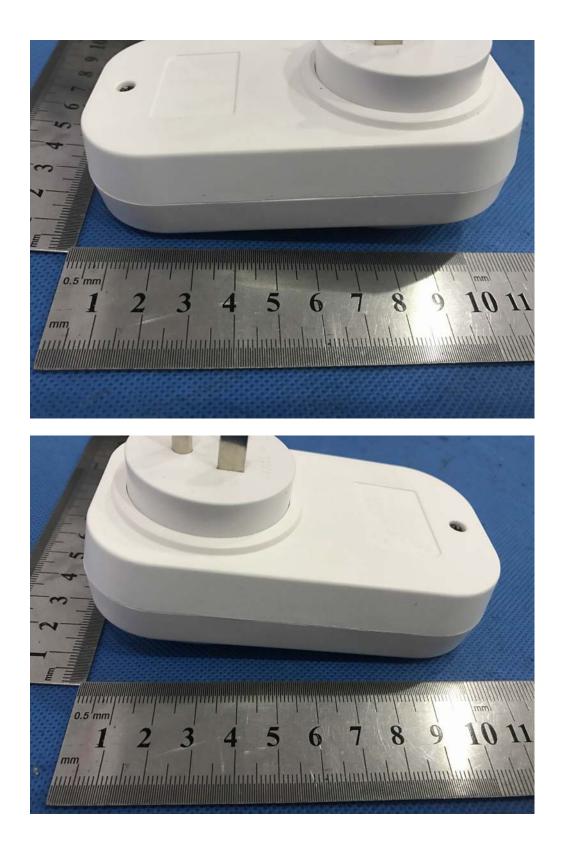


Shenzhen ECT Testing Technology Co., Ltd. Room 1106, Era Innovation Center, Xixiang gushu second road,Baoan district, Shenzhen city, China





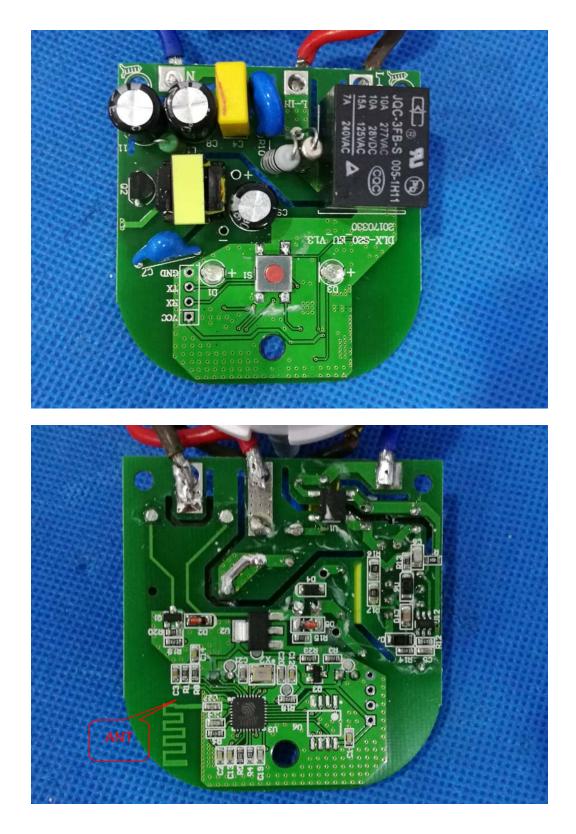












End of report