SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2ADXCIPF07

Report No.: LCS1605120967E

# FCC TEST REPORT

# For

# Shenzhen Lenkeng Technology CO.LTD

# Internet photo frame

# Model No.: IPF07

# Additional Model No.: IPF10

Prepared for Address	:	Shenzhen Lenkeng Technology CO.LTD West 4F, Jinguangxia Culture&Tech Park, 3 Guangxia Road, Shenzhen, Guangdong, China
Prepared by	:	Shenzhen LCS Compliance Testing Laboratory Ltd.
Address	:	1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue,
		Bao'an District, Shenzhen, Guangdong, China
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Web	:	www.LCS-cert.com
Mail	:	webmaster@LCS-cert.com
Date of receipt of test sample	:	May 15, 2016
Number of tested samples	:	1
Date of Test	:	May 15, 2016- June 28, 2016
Date of Report	:	June 28, 2016

SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD.

FCC ID: 2ADXCIPF07

Report No.: LCS1605120967E

Report Reference No.         Date of Issue.         Testing Laboratory Name		
	· June 28, 2016	
Testing Laboratory Name		
	: Shenzhen LCS Compliance Testing Laborat	tory Ltd.
Address	: 1/F., Xingyuan Industrial Park, Tongda Road, 1 Bao'an District, Shenzhen, Guangdong, China	Bao'an Avenue,
Testing Location/ Procedure	<ul> <li>Full application of Harmonised standards</li> <li>Partial application of Harmonised standards</li> <li>Other standard testing method</li> </ul>	]
Applicant's Name	: Shenzhen Lenkeng Technology CO.LTD	
Address	: West 4F, Jinguangxia Culture&Tech Park, 3 G Shenzhen, Guangdong, China	uangxia Road,
Test Specification		
Standard	: FCC CFR 47 PART 15 C(15.247): 2015	
Test Report Form No	: LCSEMC-1.0	
TRF Originator	: Shenzhen LCS Compliance Testing Laboratory	y Ltd.
Master TRF	: Dated 2011-03	
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Test Item Description	: Internet photo frame	
Trade Mark	: EZFUN	
Model/ Type reference	: IPF07	
Ratings	: Input: AC100-240V 50/60Hz 0.2A Output: DC 5.0V/1000mA	
Result	: Positive	
Compiled by:	Supervised by: Apj	proved by:

Dick Su / File administrators

Glin Lu / Technique principal

Gavin Liang/ Manager

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FCC ID: 2ADXCIPF07

Report No.: LCS1605120967E

# FCC -- TEST REPORT

# Test Report No. : LCS1605120967E

June 28, 2016 Date of issue

<b>F</b>	
Type / Model	: Internet photo frame
EUT	: IPF07
Applicant	: Shenzhen Lenkeng Technology CO.LTD
Address	: West 4F, Jinguangxia Culture&Tech Park, 3 Guangxia Road,
	Shenzhen, Guangdong, China
Telephone	:/
Fax	: /
Manufacturer	: Shenzhen Lenkeng Technology CO.LTD
Address	: West 4F, Jinguangxia Culture&Tech Park, 3 Guangxia Road,
	Shenzhen, Guangdong, China
Telephone	:/
Fax	: /
Factory	: Shenzhen Lenkeng Technology CO.LTD
Address	: West 4F, Jinguangxia Culture&Tech Park, 3 Guangxia Road,
	Shenzhen, Guangdong, China
Telephone	
<u>^</u>	. /
Fax	. /

Test Result   Positive
------------------------

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

# **Revision History**

Revision	Issue Date	Revisions	Revised By
00	June 28, 2016	Initial Issue	Gavin Liang

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# **1. GENERAL INFORMATION**

1.1. Description of	1.1. Description of Device (EUT)			
EUT	: Internet photo frame			
Model Number	: IPF07			
Power Supply	<sup>:</sup> Input: AC100-240V 50/60Hz 0.2A Output: DC 5.0V/1000mA			
Hardware Version	: V1.4			
Software Version	: 11/06/2012,1001.0.1118.2011			
WIFI				
Frequency Range	: 2412.00-2462.00MHz			
Channel Spacing	: 5MHz			
Channel Number	11 Channels for 20MHz Bandwidth			
	7 Channels for 40MHz Bandwidth			
Modulation Technology	IEEE 802.11b: DSSS(CCK,DQPSK,DBPSK)			
	: IEEE 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK)			
	IEEE 802.11n: OFDM (64QAM, 16QAM, QPSK, BPSK)			
Data Rates	IEEE 802.11b: 1-11Mbps			
	: IEEE 802.11g: 6-54Mbps			
	IEEE 802.11n: MCS0-MCS7			
Antenna Description	: Internal Antenna, 2.0dBi (Max.)			

Additional models No.	-			
IPF10				
<i>Remark: PCB board, structure and internal of these model(s) are the same, So no additional models were tested.</i>				

# 1.2. Support equipment List

Manufacturer	Description	Model	Serial Number	Certificate
	Adapter			DOC

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# 1.3. External I/O Cable

I/O Port Description	Quantity	Cable
DC IN	1	N/A

# 1.4. Description of Test Facility

Site Description	
EMC Lab.	: CNAS Registration Number. is L4595.
	FCC Registration Number. is 899208.
	Industry Canada Registration Number. is 9642A-1.
	VCCI Registration Number. is C-4260 and R-3804.
	ESMD Registration Number. is ARCB0108.
	UL Registration Number. is 100571-492.
	TUV SUD Registration Number. is SCN1081.
	TUV RH Registration Number. is UA 50296516-001
Name of Firm	: Shenzhen LCS Compliance Testing Laboratory Ltd.
Site Location	: 1/F., Xingyuan Industrial Park, Tongda Road, Bao'an Avenue,
	Bao'an District, Shenzhen, Guangdong, China
	The 3m-Semi anechoic test site fulfils CISPR 16-1-4 according to ANSI C63.4:2014 and CISPR 16-1-4:2010 SVSWR requirement for radiated emission above 1GHz.

# 1.5. Statement of the Measurement Uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the LCS quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

# 1.6. Measurement Uncertainty

Test Item		Frequency Range	Uncertainty	Note
Radiation Uncertainty		9KHz~30MHz	3.10dB	(1)
		30MHz~200MHz	2.96dB	(1)
	:	200MHz~1000MHz	3.10dB	(1)
		1GHz~26.5GHz	3.80dB	(1)
		26.5GHz~40GHz	3.90dB	(1)
Conduction Uncertainty	:	150kHz~30MHz	1.63dB	(1)
Power disturbance	:	30MHz~300MHz	1.60dB	(1)

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(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

# 1.7. Description of Test Modes

The EUT has been tested under operating condition.

This test was performed with EUT in X, Y, Z position and the worse case was found when EUT in X position.

Worst-case mode and channel used for 150 kHz-30 MHz power line conducted emissions was the mode and channel with the highest output power, which was determined to be 802.11b mode (Low Channel).

Worst-case mode and channel used for 9kHz-1000 MHz radiated emissions was the mode and channel with the highest output power, that was determined to be 802.11b mode(Low Channel).

AC Main conducted emission measured at both AC 120V/60 and AC 240V/50Hz from power adapter. Recorded worst case.

Worst-Case data rates were utilized from preliminary testing of the Chipset, worst-case data rates used during the testing are as follows:

802.11b Mode : 1 Mbps, DSSS. 802.11g Mode : 6 Mbps, OFDM. 802.11n Mode HT20:.MCS0, OFDM. 802.11n Mode HT40:.MCS0, OFDM.

Channel List & Frequency

002.110/S/n(11120)					
Frequency Band	Channel No.	Frequency(MHz)	Channel No.	Frequency(MHz)	
	1	2412	7	2442	
	2	2417	8	2447	
2412~2462MHz	3	2422	9	2452	
2412~2402IVITIZ	4	2427	10	2457	
	5	2432	11	2462	
	6	2437			

802.11b/g/n(HT20)

### 802.11n(HT40)

111)111200	- )			
Frequency Band	Channel No.	Frequency(MHz)	Channel No.	Frequency(MHz)
	1		7	2442
	2		8	2447
2422~2452MHz	3	2422	9	2452
2422~2432IVITIZ	4	2427	10	
	5	2432	11	
	6	2437		

\*\*\*Note: Using a temporary antenna connector for the EUT when the conducted measurements are performed.

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# 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with ANSI C63.10-2013, FCC CFR PART 15C 15.207, 15.209, 15.247.

### **2.1 EUT Configuration**

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

## **2.2 EUT Exercise**

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

According to its specifications, the EUT must comply with the requirements of the Section 15.207, 15.209, 15.247 under the FCC Rules Part 15 Subpart C and RSS-210.

## **2.3 General Test Procedures**

### 2.3.1 Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 6.2.1 of ANSI C63.10-2013 Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using Quasi-peak and average detector modes.

### 2.3.2 Radiated Emissions

The EUT is placed on a turn table 0.8 meter above ground for below 1GHz and 1.5m for above 1GHz. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 6.3 of ANSI C63.10-2013

# **3. SYSTEM TEST CONFIGURATION**

## 3.1. Justification

Note: The EUT was programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

## 3.2. EUT Exercise Software

N/A

# 3.3. Special Accessories

N/A

# 3.4. Block Diagram/Schematics

Please refer to the related document

## 3.5. Equipment Modifications

Shenzhen LCS Compliance Testing Laboratory Ltd. has not done any modification on the EUT.

# 3.6. Test Setup

Please refer to the test setup photo.

# **4. SUMMARY OF TEST RESULTS**

Applied Standard: FCC Part 15 Subpart C				
FCC Rules	FCC Rules Description of Test			
§15.247(b)	Maximum Conducted Output Power	Compliant		
§15.247(e)	Power Spectral Density	Compliant		
§15.247(a)(2)	6dB Bandwidth	Compliant		
§15.247(a)	Occupied Bandwidth	Compliant		
§15.209, §15.247(d)	Radiated and Conducted Spurious Emissions	Compliant		
§15.205	Emissions at Restricted Band	Compliant		
§15.207(a)	Conducted Emissions	Compliant		
§15.203	Antenna Requirements	Compliant		

# 5. SUMMARY OF TEST EQUIPMENT

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1	Power Sensor	R&S	NRV-Z51	100458	2016-06-18	2017-06-17
2	Power Sensor	R&S	NRV-Z32	10057	2016-06-18	2017-06-17
3	Power Meter	R&S	NRVS	100444	2016-06-18	2017-06-17
4	DC Filter	MPE	23872C	N/A	2016-06-18	2017-06-17
5	RF Cable	Harbour Industries	1452	N/A	2016-06-18	2017-06-17
6	SMA Connector	Harbour Industries	9625	N/A	2016-06-18	2017-06-17
7	Spectrum Analyzer	Agilent	N9020A	MY50510140	2015-10-27	2016-10-26
8	Signal analyzer	Agilent	E4448A(Exter nal mixers to 40GHz)	US44300469	2016-06-18	2017-06-17
9	RF Cable	Hubersuhne	Sucoflex104	FP2RX2	2016-06-18	2017-06-17
10	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03СН03-НҮ	2016-06-18	2017-06-17
11	Amplifier	SCHAFFNER	COA9231A	18667	2016-06-18	2017-06-17
12	Amplifier	Agilent	8449B	3008A02120	2016-06-18	2017-06-17
13	Amplifier	MITEQ	AMF-6F-2604 00	9121372	2016-06-18	2017-06-17
14	Loop Antenna	R&S	HFH2-Z2	860004/001	2016-06-18	2017-06-17
15	By-log Antenna	SCHWARZBEC K	VULB9163	9163-470	2016-06-18	2017-06-17
16	Horn Antenna	EMCO	3115	6741	2016-06-18	2017-06-17
17	Horn Antenna	SCHWARZBEC K	BBHA9170	BBHA9170154	2016-06-18	2017-06-17
18	RF Cable-R03m	Jye Bao	RG142	CB021	2016-06-18	2017-06-17
19	RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	2016-06-18	2017-06-17
20	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101142	2016-06-18	2017-06-17
21	Artificial Mains	ROHDE & SCHWARZ	ENV216	101288	2016-06-18	2017-06-17
22	EMI Test Software	AUDIX	E3	N/A	2016-06-18	2017-06-17
23	temporary antenna connector	LCS	LCS-RF-2015 0413	N/A	N/A	N/A

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# 6. TEST RESULT

# 6.1. Maximum Conducted Output Power Measurement

## 6.1.1. Standard Applicable

According to §15.247(b): For systems using digital modulation in the 2400-2483.5 MHz and 5725-5850 MHz band, the limit for maximum peak conducted output power is 30dBm. The limited has to be reduced by the amount in dB that the gain of the antenna exceeds 6dBi. In case of point-to-point operation, the limit has to be reduced by 1dB for every 3dB that the directional gain of the antenna exceeds 6dBi.

Systems operating in the 5725-5850 MHz band that are used exclusively for fixed, point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi without any corresponding reduction in transmitter peak output power.

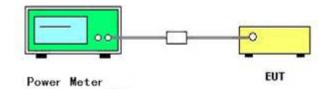
6.1.2. Measuring Instruments

Please refer to section 6 of equipments list in this report.

6.1.3. Test Procedures

The transmitter output (antenna port) was connected to the power meter.

6.1.4. Test Setup Layout



## 6.1.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 6.1.6. Test Result of Maximum Conducted Output Power

Temperature	25°C	Humidity	60%
Test Engineer	Dick	Configurations	802.11b/g/n

#### 802.11b

Channel	Frequency (MHz)	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
1	2412	16.46	30	Complies
6	2437	15.59	30	Complies
11	2462	16.46	30	Complies

#### 802.11g

Channel	Frequency (MHz)	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
1	2412	16.30	30	Complies
6	2437	16.97	30	Complies
11	2462	16.84	30	Complies

#### 802.11n HT20

Channel	Frequency (MHz)	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
1	2412	16.00	30	Complies
6	2437	17.64	30	Complies
11	2462	16.55	30	Complies

#### 802.11n HT40

Channel	Frequency (MHz)	Conducted Peak Power (dBm)	Max. Limit (dBm)	Result
3	2422	15.83	30	Complies
6	2437	16.40	30	Complies
9	2452	16.57	30	Complies

Note: The relevant measured result has the offset with cable loss already.

# 6.2. Power Spectral Density Measurement

### 6.2.1. Standard Applicable

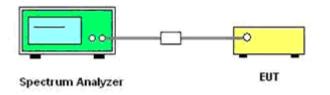
According to §15.247(e): For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

### 6.2.2. Measuring Instruments

Please refer to section 6 of equipments list in this report.

### 6.2.3. Test Procedures

- 1. The transmitter was connected directly to a Spectrum Analyzer through a directional couple.
- 2. The power was monitored at the coupler port with a Spectrum Analyzer. The power level was set to the maximum level.
- 3. Set the RBW = 3 kHz.
- 4. Set the VBW  $\geq$  3\*RBW
- 5. Set the span to 1.5 times the DTS channel bandwidth.
- 6. Detector = peak.
- 7. Sweep time = auto couple.
- 8. Trace mode = max hold.
- 9. Allow trace to fully stabilize.
- 10. Use the peak marker function to determine the maximum power level in any 3 kHz band segment within the fundamental EBW.
- 6.2.4. Test Setup Layout



## 6.2.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 6.2.6. Test Result of Power Spectral Density

Temperature	25°C	Humidity	60%
Test Engineer	Dick	Configurations	802.11b/g/n

802.11b

Channel	Frequency (MHz)	Power <i>Density</i> (dBm/3KHz)	Max. Limit (dBm/3KHz)	Result
1	2412	-21.371	8	Complies
6	2437	-17.066	8	Complies
11	2462	-15.963	8	Complies

### 802.11g

Channel	Frequency (MHz)	Power <i>Density</i> (dBm/3KHz)	Max. Limit (dBm/3KHz)	Result
1	2412	-19.023	8	Complies
6	2437	-18.523	8	Complies
11	2462	-19.087	8	Complies

#### 802.11n HT20

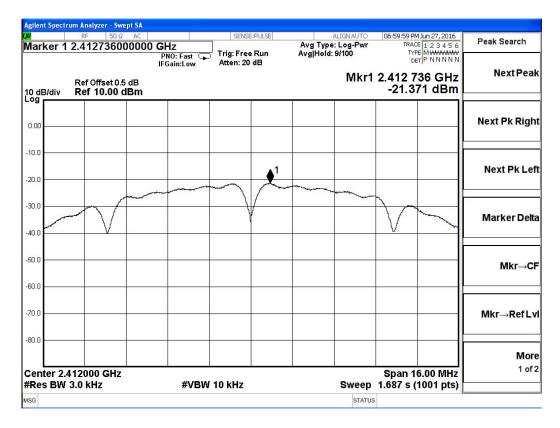
Channel	Frequency (MHz)	Power <i>Density</i> (dBm/3KHz)	Max. Limit (dBm/3KHz)	Result
1	2412	-19.368	8	Complies
6	2437	-17.327	8	Complies
11	2462	-19.007	8	Complies

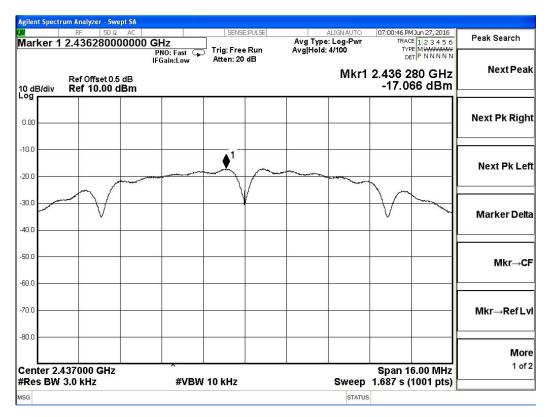
#### 802.11n HT40

Channel	Frequency (MHz)	Power <i>Density</i> (dBm/3KHz)	Max. Limit (dBm/3KHz)	Result
3	2422	-21.180	8	Complies
6	2437	-21.917	8	Complies
9	2452	-22.382	8	Complies

Note: The measured power density (dBm) has the offset with cable loss already.

#### 802.11b power density

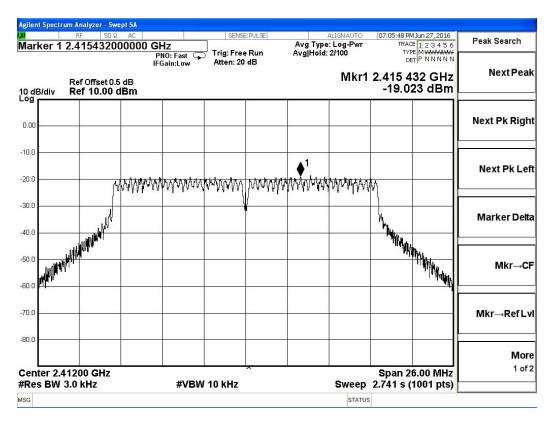




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Agilent Spectr	um Analyzer - Swept S					
Marker 1	RF 50 Ω A0		SENSE:PULSE	ALIGNAUTO Avg Type: Log-Pwr Avg Hold: 5/100	07:02:19 PM Jun 27, 2016 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	Peak Search
10 dB/div	Ref Offset 0.5 dB Ref 10.00 dBn	IFGain:Low	Atten: 20 dB	Mkr1	2.462 736 GHz -15.963 dBm	Next Peak
0.00						Next Pk Righ
20.0						Next Pk Le
30.0			V			Marker Delt
50.0						Mkr→C
70.0						Mkr→RefL
80.0						Mor 1 of
Center 2.4 Res BW	462000 GHz 3.0 kHz	#VBW	10 kHz	Sweep	Span 16.00 MHz 1.687 s (1001 pts)	1 of
ISG				STATUS	3	

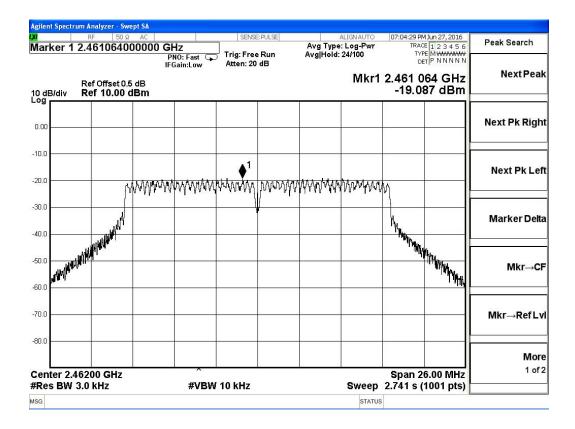
### 802.11g power density



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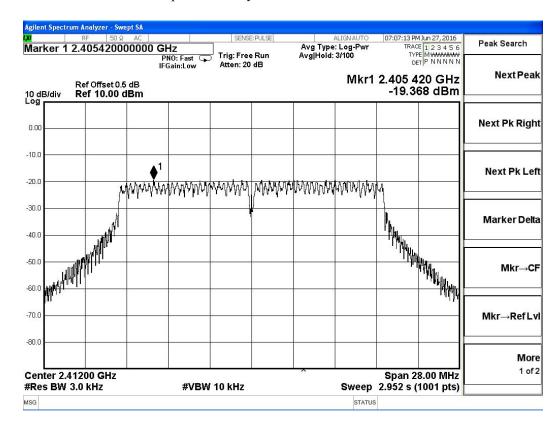
Agilent Spect	rum Analyzer - Swej	ot SA						
Marker 1	RF 50 Ω 2.43476400		SENS			ALIGNAUTO : Log-Pwr 3/100	07:05:13 PM Jun 27, 2016 TRACE 1 2 3 4 5 6 TYPE MWWWWW	Peak Search
10 dB/div	Ref Offset 0.5 Ref 10.00 d				Arginola.		2.434 764 GHz -18.523 dBm	NextPeak
0.00								Next Pk Right
-10.0		MMMMMM		MAMA	WWWW	ntara	Δή	Next Pk Left
-30.0							Mun.	Marker Delta
-50.0	HERE THE REPORT OF THE PARTY OF						With the light of	Mkr→CF
-70.0								Mkr→RefLv
-80.0	43700 GHz						Span 26.00 MHz	More 1 of 2
#Res BW	3.0 kHz	#V	BW 10 kHz			Sweep Status	2.741 s (1001 pts)	

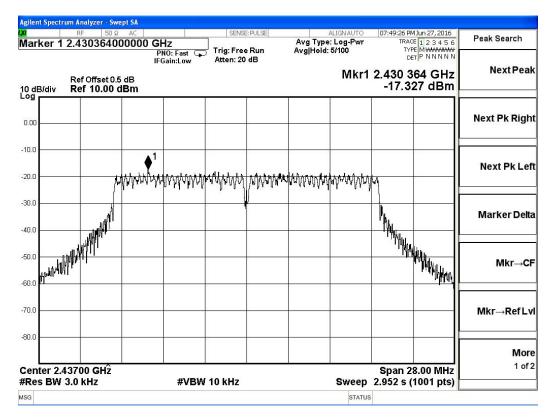


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#### 802.11n HT20 power density





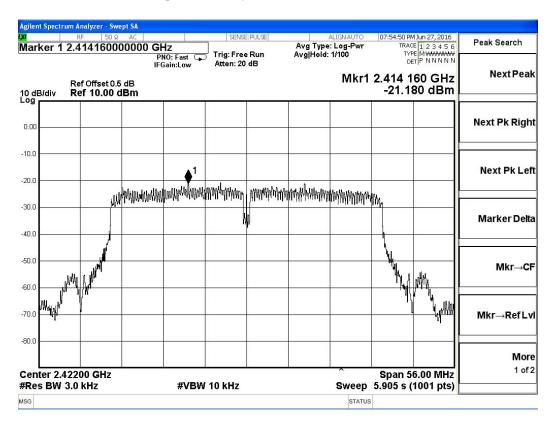
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FCC ID: 2ADXCIPF07

Report No.: LCS1605120967E

RF 50 Ω AC	SENSE:PULSE	ALIGN AUTO	07:53:10 PM Jun 27, 2016	Deals Occurs!
ker 1 2.455364000000 GHz PNO: Fast IFGain:Low		Avg Type: Log-Pwr Avg Hold: 60/100	TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	Peak Search
Ref Offset 0.5 dB div Ref 10.00 dBm		Mkr1	2.455 364 GHz -19.007 dBm	Next Pea
				Next Pk Righ
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	Roll - Jeoda (Julidada)			Marker Delt
. uniter provide the second				Mkr→C
4r.				Mkr→RefL
				Mor 1 of
er 2.46200 GHz BW 3.0 kHz #V	BW 10 kHz	Sweep	Span 28.00 MHz 2.952 s (1001 pts)	1 01

802.11n HT40 power density

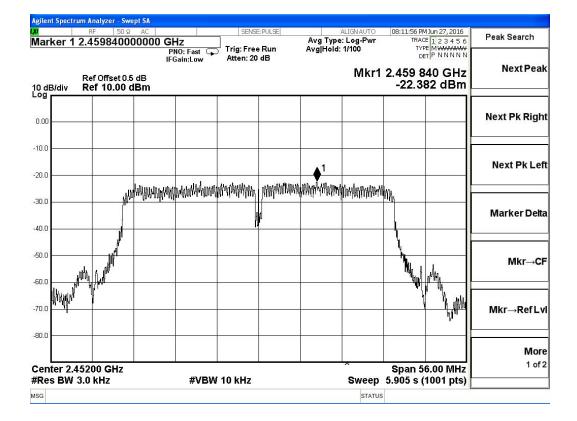


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FCC ID: 2ADXCIPF07

Report No.: LCS1605120967E

Peak Search	07:55:51 PM Jun 27, 2016 TRACE 1 2 3 4 5 6 TYPE MWWWWW DET P N N N N N	ALIGNAUTO : Log-Pwr : 2/100			Trig: Free	IO: Fast 😱	00000 GH	RF 50 S 2.4447840	rker 1 2
Next Pe	2.444 784 GHz -21.917 dBm	Mkr1		dB	Atten: 20	Gain:Low	5 dB	Ref Offset 0. Ref 10.00	lB/div
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Next Pk Le			<b>♦</b> <sup>1</sup>		J				) 
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<b>Mo</b> 1 o	Span 56.00 MHz 5.905 s (1001 pts)	-			10 kHz			3700 GHz	nter 2.43



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# 6.3. 6 dB Spectrum Bandwidth Measurement

### 6.3.1. Standard Applicable

According to §15.247(a)(2): For digital modulation systems, the minimum 6 dB bandwidth shall be at least 500 kHz.

## 6.3.2. Measuring Instruments and Setting

Please refer to section 6 of equipments list in this report. The following table is the setting of the Spectrum Analyzer.

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> RBW
Detector	Peak
Trace	Max Hold
Sweep Time	100ms

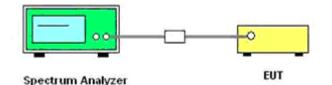
### 6.3.3. Test Procedures

1. The transmitter output (antenna port) was connected to the spectrum analyzer in peak hold mode.

2. The resolution bandwidth and the video bandwidth were set according to KDB558074 D01 v03r05.

3. Measured the spectrum width with power higher than 6dB below carrier.

6.3.4. Test Setup Layout



6.3.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

6.3.6. Test Result of 6dB Spectrum Bandwidth

Temperature	25°C	Humidity	60%
Test Engineer	Dick	Configurations	802.11b/g/n

802.11b

Channel	Frequency	6dB Bandwidth (MHz)	Min. Limit (kHz)	Result
1	2412	10.09	500	Complies
6	2437	10.10	500	Complies
11	2462	10.09	500	Complies

## 802.11g

Channel	Frequency	6dB Bandwidth (MHz)	Min. Limit (kHz)	Result
1	2412	16.60	500	Complies
6	2437	16.60	500	Complies
11	2462	16.59	500	Complies

802.11n HT20

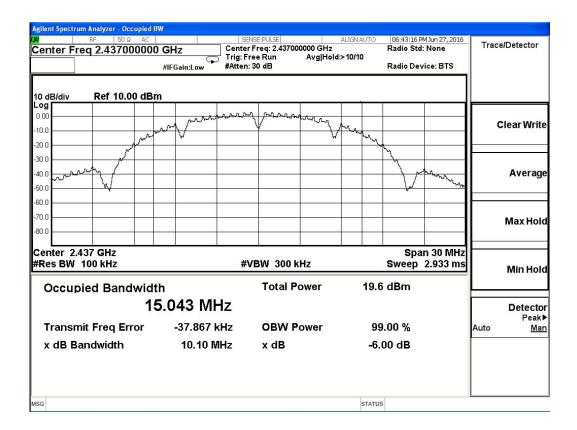
Channel	Frequency	6dB Bandwidth (MHz)	Min. Limit (kHz)	Result
1	2412	17.82	500	Complies
6	2437	17.82	500	Complies
11	2462	17.81	500	Complies

#### 802.11n HT40

Channel	Frequency	6dB Bandwidth (MHz)	Min. Limit (kHz)	Result
3	2422	36.42	500	Complies
6	2437	36.46	500	Complies
9	2452	36.43	500	Complies

### 802.11b channel, 6dB bandwidth

RF	50 Ω /	AC		NSE:PULSE		ALIGN AUTO		M Jun 27, 2016	Tee	e/Detector
enter Freq	2.4120000	DOO GHz #IFGain:Lov	Trig: F	r Freq: 2.41200 ree Run : 30 dB	00000 GHz Avg Hold:	>10/10	Radio Sto Radio De		Trace	Detector
og	Ref 10.00 c	· · ·	+ A A A A A A A A A A A A A A A A A A A	1 Mana						
0.00	ar a	m		V		many	~		C	Clear Writ
0.0 0.0 0.0 0.0	W							have and a second		Averaç
0.0										Max Ho
enter 2.412 Res BW 100			#	VBW 300 k	íHz			n 30 MHz 2.933 ms		Min Ho
Occupied		<sup>idth</sup> 14.981	ИНz	Total P	ower	22.	0 dBm			Detect
Transmit F			30 kHz	OBW P	ower	9	9.00 %		Auto	Pea <u>M</u>
x dB Band	width	10.0	9 MHz	x dB		-6	.00 dB			



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Report No.: LCS1605120967E

Agilent Spect	rum Analyzer - Oc RF 50 Ω		v	Lor	INSE:PULSE		ALIGNAUTO	05-00-00	PM Jun 27, 2016		
x dB -6.0		AL	#IFGain:Low	Cente Trig: F	Center Freq: 2.462000000 GHz Radio Std: No Trig: Free Run Avg Hold>10/10 #Atten: 30 dB Radio Device:						e/Detector
10 dB/div Log	Ref 10.0	0 dBm			1 Marin		<u></u>				
-10.0		man	www	<u></u>	V	h	Man	<u></u>		9	Clear Write
-30.0	man								Margar		Average
-50.0											Max Hold
	2.462 GHz								an 30 MHz		
	pied Banc	widt		#	VBW 300 Total F		21.	Sweep 6 dBm	2.933 ms		Min Hold
		14	.996 1								Detector Peak
	mit Freq En Bandwidth	ror	-15.55 10.09	4 kHz ) MHz	OBW I x dB	ower		9.00 % .00 dB		Auto	Mar
MSG							STAT	JS			

802.11g channel, 6dB bandwidth

Agilent Spec	trum Analyzer - Occupied F						
	RF 50 Ω AC Freq 2.412000000	) GHz #IFGain:Low #Atter	ENSE:PULSE     rr Freq: 2.412000000 GHz Free Run Avg Hol 1:30 dB	Radio 5 Id>10/10	8 PM Jun 27, 2016 Std: None Device: BTS	Trace/Detecto	r
10 dB/div Log 0.00 -10.0 -20.0		11 ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		www.		Clear Wr	ite
-50.0	www.www.www.			- Two way	www.	Avera	ge
-60.0 -70.0 -80.0						Max Ho	old
#Res BV	2.412 GHz V 100 kHz Jpied Bandwidt		VBW 300 kHz		oan 30 MHz p   2.933 ms	Min Ho	old
	10	6.492 MHz				Detec	
	smit Freq Error Bandwidth	-13.310 kHz 16.60 MHz	OBW Power x dB	99.00 % -6.00 dB		And a second	lan
MSG				STATUS		t.	_

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### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2ADXCIPF07

Report No.: LCS1605120967E

	ctrum Analyzer - Occupied I	BW	processory and the second processory of				M Jun 27, 2016		
	RF 50 Ω AC Freq 2.43700000	#IFGain:Low	SENSE:PULSE Center Freq: 2.4370 Trig: Free Run #Atten: 30 dB			Radio Std: None Radio Device: BTS			e/Detector
10 dB/div Log -10.00 -20.0	2 Ref 10.00 dB	m 	mon forman	man the second second	munung l				Clear Write
-50.0	- And Marken M 					Margaret and a second	Maran Bork R. J.		Average
-60.0 -70.0 -80.0									Max Hold
#Res B	2.437 GHz W 100 kHz upied Bandwid	th	#VBW 300 Total F		16.4	Sweep	n 30 MHz 2.933 ms		Min Hold
		6.508 MH -24.523 kH		ower	99.	00 %		Auto	Detector Peak▶ <u>Man</u>
	Bandwidth	16.60 MH	lz xdB		-6.0	0 dB			
MSG					STATUS				

		AC			E:PULSE		ALIGN AUTO		PM Jun 27, 2016	Tree	e/Detector
dB -6.00	) dB	#11	Gain:Low	Center F Trig: Fre #Atten: 3		00000 GHz Avg Hold	>10/10	Radio Sto Radio De	d: None vice: BTS	Trac	elDelector
0 dB/div	Ref 10.00	dBm			1	1	,				
0.0		mm	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ann	forman	marth					Clear Write
0.0 0.0	www	/			*			www			
).0 ).0 .0	mmmmm							. www.www	Mar Mark		Average
0.0											
70.0 30.0											Max Hole
enter 2.4 Res BW				#VE	3W 300	kHz			an 30 MHz 2.933 ms		Min Hol
Occup	ied Bandw	vidth			Total P	ower	15.	9 dBm			
		16.4	192 MI	Ηz							Detecto Peak
Transm	nit Freq Erro	r	-14.185	кНz	OBW F	ower	9	9.00 %		Auto	Mar
x dB Ba	andwidth		16.59 N	<b>1H</b> z	x dB		-6	.00 dB			
SG							STAT	JS			

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### 802.11n HT20 channel, 6dB bandwidth

Agilent Spectrum Analyzer - (							
Center Freq 2.412	0 Ω AC       0000000 GHz #IFGain:Low	SENSE:PULSE Center Freq: 2.41200 Trig: Free Run #Atten: 30 dB	ALIGN AUTO 0000 GHz Avg Hold:>10/10	05:26:31 PM Radio Std: Radio Devi		Trace	e/Detector
10 dB/div Ref 10	.00 dBm	mmm	allon and a family with			c	Clear Write
-30.0 -40.0 -50.0 -60.0				Contraction of the second seco	Margara Stranger		Average
-80.0							Max Hold
Center 2.412 GHz #Res BW 100 kHz Occupied Ban	dwidth	#VBW 300 k			n 30 MHz 2.933 ms		Min Hold
	17.706 MI						Detector Peak▶
Transmit Freq E x dB Bandwidth				9.00 % .00 dB		Auto	<u>Man</u>
MSG			STATU	s			

Agile	nt Spectrum /							-2.0.000.000.000				
x d	B -6.00 c	RF 50 Ω 1 <b>B</b>	AC			E:PULSE req: 2.43700			05:27:55 Radio St	PM Jun 27, 2016 d: None	Trac	e/Detector
			#IF	Gain:Low	#Atten: 3		Avginoid	210/10	Radio De	vice: BTS		
	dB/div	Ref 10.0	0 dBm						0			
0.00 -10.0	) 		herrow	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	mann	and the second s	mm	arran through a			<b></b>	Clear Write
-20.0		and a start	r						horas and a second			
-30.0 -40.0 -50.0	) warman	n de la compañía de l							- Survey	mmm		Average
-60.0											-	
-70.0 -80.0												Max Hold
	nter 2.43 es BW 10				#VE	3W 300 k	Hz			an 30 MHz 2.933 ms	F	Min Hold
	Occupie	d Band	lwidth			Total P	ower	17.8	5 dBm			Minnold
				'29 Mł	Ηz							Detector Peak▶
1	Fransmit	Freq Er	ror	-779	Hz	OBW P	ower	99	9.00 %		Auto	Man
>	( dB Ban	dwidth		17.82 №	1Hz	x dB		-6.	00 dB			
MSG								STATU	S			

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### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD. FCC ID: 2ADXCIPF07

Report No.: LCS1605120967E

	rum Analyzer - Occup									
M Center F	RF  50Ω Freq 2.462000				0000 GHz Avg Hold	ALIGNAUTO	Radio Ste	PM Jun 27, 2016 d: None vice: BTS	Trac	e/Detector
10 dB/div Log	Ref 10.00	dBm			1	,				
0.00 -10.0 -20.0		๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛๛	mann	minere a l'arris	rom	arriven and	<b>.</b>			Clear Write
-20.0 -30.0 -40.0 -50.0	and a second sec						www.	Whow was a fact of the		Average
-60.0 -70.0 -80.0										Max Hold
	2.462 GHz / 100 kHz		#VE	3W 300 k	Hz			an 30 MHz 2.933 ms		Min Hold
Occu	pied Bandw	/idth 17.706 M	Hz	Total P	ower	15.8	dBm			Detector
	mit Freq Erro	r 3.866	kHz	OBW P	ower		0.00 %		Auto	Peak► <u>Man</u>
x dB E	Bandwidth	17.81	ИНz	x dB		-6.1	00 dB			
MSG						STATUS	\$			

802.11n HT40 channel, 6dB bandwidth

Agilent Spectrum Analyzer - Occu		SENSE:PULSE		ALIGNAUTO	05:05:46	PM Jun 27, 2016	1	
Center Freq 2.422000		Center Freq: 2.4	22000000 GHz Avg Hole		Radio Ste		Trac	e/Detector
10 dB/div Ref 10.00	dBm		under and the former	had a free of the second se	<u> </u>			Clear Write
-30.0 -40.0 -50.0					- V	Level and a work of		Average
-60.0								Max Hole
Center 2.422 GHz #Res BW 100 kHz		#VBW 3	00 kHz			an 60 MHz ep 5.8 ms		Min Hol
Occupied Bandy	vidth 35.899 MI		al Power	16.1	dBm			Detecto
Transmit Freq Erro x dB Bandwidth	or -6.890   36.42 N		V Power		0.00 % 00 dB		Auto	Peak <u>Ma</u>
MSG				STATUS	3			

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Report No.: LCS1605120967E

Agilent Spectrum Analyzer - Occupied BW	V						
RF         50 Ω         AC           x dB -6.00 dB             10 dB/div         Ref 10.00 dBm	#IFGain:Low Center #Atten:	NSE:PULSE Freq: 2.437000000 GHz ree Run Avg Hol : 30 dB	ALIGN AUTO d:>10/10	05:24:19 P Radio Std Radio Dev		Trace	e/Detector
Log	terregi franciska stalatelister et av		10004054°	1			Clear Write
-30.0 -40.0 -50.0				- V	Warmen Street		Average
-70.0							Max Hold
Center 2.437 GHz #Res BW 100 kHz	2.00	/BW 300 kHz		Swee	n 60 MHz p 5.8 ms		Min Hold
	.975 MHz	Total Power		dBm			Detector Peak▶
Transmit Freq Error x dB Bandwidth	7.944 kHz 36.46 MHz	OBW Power x dB		00 % 00 dB		Auto	<u>Man</u>
MSG			STATUS	6			

Agilent Spect	trum Analyzer - Oco	upied BW									
KN Center F	RF 50 Ω Freq 2.45200		lz		::PULSE req: 2.45200 • Run	00000 GHz Avg Hol	ALIGN AUTO	05:21:38 Radio Sto	PM Jun 27, 2016 <b>1: None</b>	Trac	e/Detector
10 dB/div			Gain:Low	#Atten: 30	) dB			Radio De	vice: BTS		
Log 0.00 -10.0 -20.0		Mr. Block and france	واست من من الم	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		et an	le affender a strangereig	1		9	Clear Write
-30.0 -40.0 -50.0	- and the second							- V	Ward Wing		Average
-60.0 -70.0 -80.0											Max Hold
	2.452 GHz / 100 kHz			#VB	W 300 H	Hz			an 60 MHz ep 5.8 ms		Min Hold
Occu	pied Band		22 MH	z	Total P	ower	15. <i>*</i>	l dBm			Detector Peak▶
	mit Freq En Bandwidth	or	13.144 kH 36.43 MH		OBW P x dB	ower		9.00 % 00 dB		Auto	Peak► <u>Man</u>
MSG							STATU	5			

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# 6.4. Occupied Bandwidth

### 6.4.1. Standard Applicable

According to §15.247(a): Operation under the provisions of this section is limited to frequency hopping and digitally modulated intentional radiators that comply with the following provisions:

For systems using digital modulation techniques, the EUT may operate in the 902-928 MHz, 2400-2483.5 MHz and 5725-5850 MHz bands. The minimum 6dB bandwidth shall be at least 500 kHz.

### 6.4.2. Measuring Instruments and Setting

Please refer to section 6 of equipments list in this report. The following table is the setting of the Spectrum Analyzer.

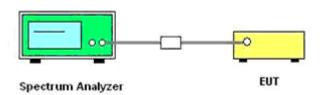
Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> RBW
RBW	1% to 3% of the band
VBW	3 times the RBW
Detector	Peak
Trace	Max Hold
Sweep Time	100ms

#### 5

6.4.3. Test Procedures

The transmitter output is connected to the spectrum analyzer. The RBW is set to 1% to 3% of the bandwidth. The VBW is set to 3 times the RBW. The sweep time is coupled. The spectrum analyzer internal bandwidth measurement function is utilized.

6.4.4. Test Setup Layout



6.4.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

## 6.5. Radiated Emissions Measurement

### 6.5.1. Standard Applicable

According to §15.247 (d): 20dBc in any 100 kHz bandwidth outside the operating frequency band. In case the emission fall within the restricted band specified on 15.205(a), then the 15.209(a) limit in the table below has to be followed.

Frequencies(MHz)	Field Strength(microvolts/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

5.5.2. Measuring Instruments and Setting

Please refer to section 6 of equipments list in this report. The following table is the setting of spectrum analyzer and receiver.

Spectrum Parameter	Setting
Attenuation	Auto
Start Frequency	1000 MHz
Stop Frequency	10th carrier harmonic
RB / VB (Emission in restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average
RB / VB (Emission in non-restricted band)	1MHz / 1MHz for Peak, 1 MHz / 10Hz for Average

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	9kHz~150kHz / RB/VB 200Hz/1KHz for QP/Average
Start ~ Stop Frequency	150kHz~30MHz / RB/VB 9kHz/30KHz for QP/Average
Start ~ Stop Frequency	30MHz~1000MHz / RB/VB 120kHz/1MHz for QP

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6.5.3. Test Procedures

1) Sequence of testing 9 kHz to 30 MHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions.

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Premeasurement:

--- The turntable rotates from  $0^{\circ}$  to  $315^{\circ}$  using  $45^{\circ}$  steps.

--- The antenna height is 0.8 meter.

--- At each turntable position the analyzer sweeps with peak detection to find the maximum of all emissions

Final measurement:

--- Identified emissions during the premeasurement the software maximizes by rotating the turntable position ( $0^{\circ}$  to  $360^{\circ}$ ) and by rotating the elevation axes ( $0^{\circ}$  to  $360^{\circ}$ ).

--- The final measurement will be done in the position (turntable and elevation) causing the highest emissions with QPK detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

2) Sequence of testing 30 MHz to 1 GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Premeasurement:

--- The turntable rotates from 0° to 315° using 45° steps.

--- The antenna is polarized vertical and horizontal.

--- The antenna height changes from 1 to 3 meter.

--- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position  $(\pm 45^\circ)$  and antenna movement between 1 and 4 meter.

--- The final measurement will be done with QP detector with an EMI receiver.

--- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

3) Sequence of testing 1 GHz to 18 GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 3 meter.

--- The EUT was set into operation.

Premeasurement:

--- The turntable rotates from  $0^{\circ}$  to  $315^{\circ}$  using  $45^{\circ}$  steps.

--- The antenna is polarized vertical and horizontal.

--- The antenna height scan range is 1 meter to 2.5 meter.

--- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

Final measurement:

--- The final measurement will be performed with minimum the six highest peaks.

--- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position  $(\pm 45^\circ)$  and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.

--- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.

--- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement with marked maximum final measurements and the limit will be stored.

4) Sequence of testing above 18 GHz

Setup:

--- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.

--- If the EUT is a tabletop system, a rotatable table with 1.5 m height is used.

--- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.

--- Auxiliary equipment and cables were positioned to simulate normal operation conditions

--- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.

--- The measurement distance is 1 meter.

--- The EUT was set into operation.

Premeasurement:

--- The antenna is moved spherical over the EUT in different polarizations of the antenna.

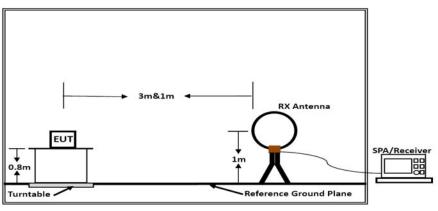
Final measurement:

--- The final measurement will be performed at the position and antenna orientation for all detected emissions that were found during the premeasurements with Peak and Average detector.

--- The final levels, frequency, measuring time, bandwidth, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the premeasurement and the limit will be stored.

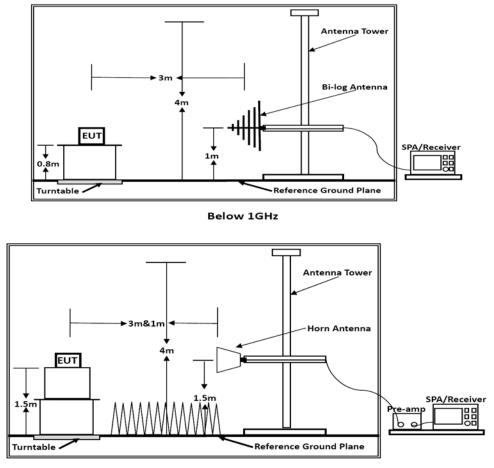
6.5.4. Test Setup Layout

For radiated emissions below 30MHz



Below 30MHz

For radiated emissions above 30MHz



Above 1GHz

Above 10 GHz shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade form 3m to 1.5m.

Distance extrapolation factor = 20 log (specific distanc [3m] / test distance [1.5m]) (dB);

Limit line = specific limits (dBuV) + distance extrapolation factor [6 dB].

5.5.5. EUT Operation during Test

The EUT was programmed to be in continuously transmitting mode.

#### SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD.

FCC ID: 2ADXCIPF07

#### Report No.: LCS1605120967E

QP OP QP

6.5.6. Results of Radiated Emissions (9)	kHz~30MHz)
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Temperature	25°C	Humidity	60%
Test Engineer	Dick	Configurations	802.11b/g/n

Freq.	Level	Over Limit	Over Limit	Remark
(MHz)	(dBuV)	(dB)	(dBuV)	
-	-	-	-	See Note

Note:

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

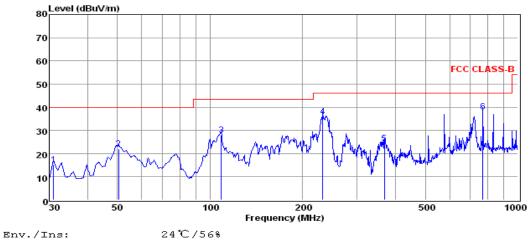
Distance extrapolation factor =  $40 \log (\text{specific distance} / \text{test distance}) (dB);$ 

Limit line = specific limits (dBuV) + distance extrapolation factor.

6.5.7. Results of Radiated Emissions (30MHz~1GHz)

Temperature	25°C	Humidity	60%
Test Engineer	Dick	Configurations	802.11b (Low CH)

Test result for 802.11b (Low Channel)



pol:

HORIZONTAL

	Freq	Reading	Сарьоз	Antiac	Measured	LIMIC	Over	Remark
	MHz	dBuV	dB	dB/m	dBuV/m	dBuV/m	dB	
1	30.96	2.35	0.39	12.32	15.06	40.00	-24.94	QP
2	50.41	8.10	0.54	13.23	21.87	40.00	-18.13	QP
з	108.65	14.96	0.68	12.37	28.01	43.50	-15.49	QP

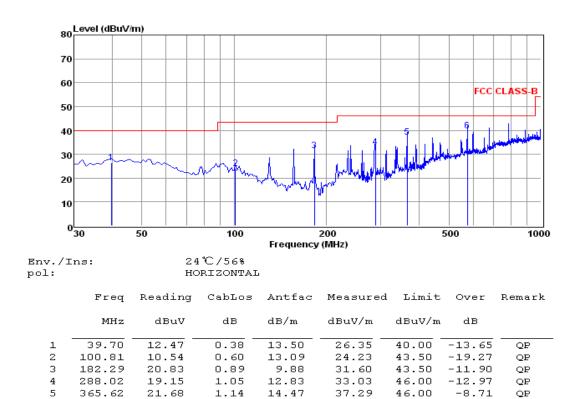
6	768.75	16.51	1.76	19.67	37.94	46.00	-8.06	
5	368.11	8.77	1.22	14.49	24.48	46.00	-21.52	
4	232.53	23.30	0.98	11.76	36.04	46.00	-9.96	

Note: 1. All readings are Quasi-peak values.

2. Measured= Reading + Antenna Factor + Cable Loss

3. The emission that ate 20db blow the offficial limit are not reported

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Note: 1. All readings are Quasi-peak values. 2. Measured= Reading + Antenna Factor + Cable Loss

1.49

20.39

3. The emission that ate 20db blow the offficial limit are not reported

17.97

39.85

46.00

-6.15

QP

#### Note:

6

574.17

*Pre-scan all modes and recorded the worst case results in this report (802.11b (Low Channel)). Emission level (dBuV/m) = 20 log Emission level (uV/m).* 

*Corrected Reading: Antenna Factor + Cable Loss + Read Level - Preamp Factor = Level.* 

6.5.8. Results for Radiated Emissions	(Above 1GHz) 802.11b
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	Channel	1							
Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4824.00	51.38	33.06	35.04	3.94	53.34	74	-20.66	Peak	Horizontal
4824.00	36.64	33.06	35.04	3.94	38.60	54	-15.40	Average	Horizontal
4824.00	46.60	33.06	35.04	3.94	48.56	74	-25.44	Peak	Vertical
4824.00	32.12	33.06	35.04	3.94	34.08	54	-19.92	Average	Vertical

## Channel 6

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4874.00	48.22	33.16	35.15	3.96	50.19	74	-23.81	Peak	Horizontal
4874.00	39.33	33.16	35.15	3.96	41.30	54	-12.70	Average	Horizontal
4874.00	55.86	33.16	35.15	3.96	57.83	74	-16.17	Peak	Vertical
4874.00	42.48	33.16	35.15	3.96	44.45	54	-9.55	Average	Vertical

# Channel 11

Freq. MHz	Reading dBuV	Ant. Fac. dB/m	Pre. Fac. dB	Cab. Loss dB	Measured dBuV/m	Limit dBuV/m	Margin dB	Remark	Pol.
4924.00	50.14	33.26	35.14	3.98	52.24	74	-21.76	Peak	Horizontal
4924.00	33.96	33.26	35.14	3.98	36.06	54	-17.94	Average	Horizontal
4924.00	52.16	33.26	35.14	3.98	54.26	74	-19.74	Peak	Vertical
4924.00	35.88	33.26	35.14	3.98	37.98	54	-16.02	Average	Vertical