

Prüfbericht-Nr.: <i>Test report No.:</i>	50084596 003	Auftrags-Nr.: <i>Order No.:</i>	164088664	Seite 1 von 21 <i>Page 1 of 21</i>	
Kunden-Referenz-Nr.: <i>Client reference No.:</i>	N/A	Auftragsdatum: <i>Order date.:</i>	22.03.2017		
Auftraggeber: <i>Client:</i>	Lightcomm Technology Co., Ltd. RM 1808 18/F, FO TAN INDUSTRIAL CENTRE, NOS. 26-28 AU PUI WAN STREET, FO TAN SHATIN NEW TERRITORIES HONG KONG				
Prüfgegenstand: <i>Test item:</i>	Tablet PC				
Bezeichnung / Typ-Nr.: <i>Identification / Type No.:</i>	MID7006-L, DL7006, MID7006A-L, DL7006-KB, DL7006KB, DL70XXXXXX (X can be 0~9, A~Z) (DIGILAND)				
Auftrags-Inhalt: <i>Order content:</i>	FCC approval				
Prüfgrundlage: <i>Test specification:</i>	CFR47 FCC Part 15: Subpart C Section 15.247 CFR47 FCC Part 15: Subpart C Section 15.207 CFR47 FCC Part 15: Subpart C Section 15.209				
Wareneingangsdatum: <i>Date of receipt:</i>	03.04.2017	Refer to photo documents			
Prüfmuster-Nr.: <i>Test sample No.:</i>	A000520683-002 A000520683-003				
Prüfzeitraum: <i>Testing period:</i>	07.04.2017 - 18.05.2017				
Ort der Prüfung: <i>Place of testing:</i>	SHENZHEN ALPHA PRODUCT TESTING CO., LTD.				
Prüflaboratorium: <i>Testing laboratory:</i>	TÜV Rheinland (Shenzhen) Co., Ltd.				
Prüfergebnis*: <i>Test result:</i>	Pass				
geprüft von / tested by:	kontrolliert von / reviewed by:				
01.06.2017	Andy Yan / Project Manager		01.06.2017	Owen Tian / Technical Certifier	
Datum Date	Name/Stellung Name/Position	Unterschrift Signature	Datum Date	Name/Stellung Name/Position	Unterschrift Signature
Sonstiges / Other:					
Only the 2.4GHz Wi-Fi 802.11 b/g/n(HT20)/n(HT40) function is reported in this test report. FCC ID: XMF-MID7006 For model difference information refer to clause 3.1					
Zustand des Prüfgegenstandes bei Anlieferung: <i>Condition of the test item at delivery:</i>			Prüfmuster vollständig und unbeschädigt <i>Test item complete and undamaged:</i>		
* Legende: 1 = sehr gut 2 = gut 3 = befriedigend 4 = ausreichend 5 = mangelhaft P(all) = entspricht o.g. Prüfgrundlage(n) F(all) = entspricht nicht o.g. Prüfgrundlage(n) N/A = nicht anwendbar N/T = nicht getestet Legend: 1 = very good 2 = good 3 = satisfactory 4 = sufficient 5 = poor P(all) = passed a.m. test specifications(s) F(all) = failed a.m. test specifications(s) N/A = not applicable N/T = not tested					
Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.					
<i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i>					

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Test Summary

5.1.1 ANTENNA REQUIREMENT
RESULT: Pass

5.1.2 MAXIMUM PEAK CONDUCTED OUTPUT POWER
RESULT: Pass

5.1.3 CONDUCTED POWER SPECTRAL DENSITY
RESULT: Pass

5.1.4 6dB BANDWIDTH
RESULT: Pass

5.1.5 CONDUCTED SPURIOUS EMISSIONS MEASURED IN 100 kHz BANDWIDTH
RESULT: Pass

5.1.6 RADIATED SPURIOUS EMISSION
RESULT: Pass

5.1.7 CONDUCTED EMISSION ON AC MAINS
RESULT: Pass

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1 General Remarks

1.1 Complementary Materials

All attachments are integral parts of this test report. This applies especially to the following appendix:

Appendix A: Test Results of Wi-Fi 802.11b/g/n of Conducted Testing

Appendix B: Test Results of Wi-Fi 802.11b/g/n of Radiated Spurious Emission and Conducted Emission on AC Mains

2 Test Sites

2.1 Test Facilities

SHENZHEN ALPHA PRODUCT TESTING CO., LTD.

Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen City, Guangdong Province, P.R. China

FCC Registration No.: 203110

The tests at the test sites have been conducted under the supervision of a TÜV engineer.

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2.2 List of Test and Measurement Instruments

Table 1: List of Test and Measurement Equipment

SHENZHEN ALPHA PRODUCT TESTING CO., LTD.

Radio Spectrum Test				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
Signal Analyzer	Agilent	N9020A	MY499100060	2017.09.28
Conducted Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
Test Receiver	ROHDE&SCHWARZ	ESCI	101165	2017.09.28
L.I.S.N.	SCHWARZBECK	NSLK8126	8126-466	2017.09.28
L.I.S.N.	ROHDE&SCHWARZ	ENV216	101043	2017.09.28
Pulse Limiter	SCHWARZBECK	9516F	9618	2017.09.28
Radiated Emission & Spurious Emission				
Equipment	Manufacturer	Model No.	Serial No.	Cal. Until
Loop Antenna	SCHWARZBECK	FMZB 1519B	00005	2018.09.28
Bilog Antenna	SCHWARZBECK	VULB 9168	9168#627	2018.09.29
Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA 9120 D(1201)	2018.09.29
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA 9170 D(1432)	2019.01.20
PreAmplifier	Agilent	8449B	3008A02664	2017.09.28
Test Receiver	ROHDE&SCHWARZ	ESR	1316.3003K03-102082-Wa	2017.09.28
Spectrum analyzer	Agilent	E4407B	MY49510055	2017.09.28

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2.3 Traceability

All measurement equipment calibrations are traceable to NIM (National Institute of Metrology) or where calibration is performed in other countries, to equivalent nationally recognized standards organizations.

2.4 Calibration

Equipment requiring calibration is calibrated periodically by the manufacturer or according to manufacturer's specifications. Additionally all equipment is verified for proper performance on a regular basis using in house standards or comparisons.

2.5 Measurement Uncertainty

The estimated combined standard uncertainty for radiated emissions and conducted emissions measurements as below table

Item	Extended Uncertainty
Conducted Emission	± 2.74 dB
Radiated Emission (up to 1GHz)	± 3.80 dB
Radiated Emission (above 1GHz)	± 4.16dB
Antenna Port Emission	± 0.56 dB
Temperature	± 0.5 °C
Humidity	± 3.0 %

2.6 Location of Original Data

The original copies of all test data taken during actual testing were attached at Appendix A & B of this report and delivered to the applicant. A copy has been retained in the TÜV Rheinland (Shenzhen) file for certification follow-up purposes.

2.7 Status of Facility Used for Testing

The SHENZHEN ALPHA PRODUCT TESTING CO., LTD. Test facility located at Building i, No.2, Lixin Road, Fuyong Street, Bao'an District, 518103, Shenzhen City, Guangdong Province, P.R. China is listed on the US Federal Communications Commission list of facilities approved to perform measurements.

3 General Product Information

3.1 Product Function and Intended Use

The EUT is a 'Tablet PC' device. It supports Wi-Fi 802.11a/ b/g/n and Bluetooth 4.2 (Dual mode) technology. This report is only for DTS with Wi-Fi function.

Model difference description:

All the models in this reports are identical in the PCBA, Drivers, Enclosure etc. electronic aspects, the detail as below.

Model No.	Detail
MID7006A-L, DL7006-KB	Excepting with Micro USB Port to connect the keyboard, with DC jack. All other electronic aspects are identical with the models.
MID7006-L, DL7006, DL70XXXXXX	Excepting without Micro USB Port to connect the keyboard, without DC jack. All other electronic aspects are identical with the other models.

For details refer to the User Manual, Technical Description and Circuit Diagram.

3.2 Ratings and System Details

Table 2: Technical Specification of EUT

Technical Specification	Value
Kind of Equipment	Tablet PC
Type Designation	MID7006A-L, DL7006-KB, MID7006-L, DL7006, DL70XXXXXX
Trade Mark	DIGILAND
FCC ID	XMF-MID7006
Operating Frequency	802.11b/g/n(HT20)/n(HT40): 2412 MHz to 2462 MHz
Operating Temperature Range	0 °C ~ +40 °C
Operating Voltage	DC 3.7V 2100mAh via internal rechargeable Li-Poly battery DC 5.0V 1.5A via AC/DC adapter for charging
Testing Voltage	Fully charged DC 3.7V internal rechargeable Li-Poly battery DC 5.0V 1.5A via AC/DC adapter with 120V/60Hz input
Type of Modulation	802.11b: DSSS(DBPSK/DQPSK/CCK) 802.11g/n: OFDM(BPSK/QPSK/16QAM/64QAM)
Data Rate	802.11b: 1/2/5.5/11 Mbps 802.11g: 6/9/12/18/24/36/48/54 Mbps 802.11n(HT20): MCS0 ~ MCS7 Mbps 802.11n(HT40): MCS0 ~ MCS7 Mbps
Channel Number	802.11b/g/n(HT20): 11 channels 802.11n(HT40): 7 channels
Channel Separation	5 MHz
Wireless Technology	Wi-Fi 802.11b/g/n
Antenna Type	Integral Antenna
Antenna Gain	3.79 dBi

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Table 3: RF Channel and Frequency of Wi-Fi

RF Channel	Frequency (MHz)	RF Channel	Frequency (MHz)
01	2412	07	2442
02	2417	08	2447
03	2422	09	2452
04	2427	10	2457
05	2432	11	2462
06	2437	/	/

Remark:

1. Test frequencies are lowest channel: 2412 MHz, middle channel: 2437 MHz and highest channel: 2462 MHz for 802.11b/g/n(HT20)
2. Test frequencies are lowest channel: 2422 MHz, middle channel: 2437 MHz and highest channel: 2452 MHz for 802.11n(HT40)

3.3 Independent Operation Modes

The basic operation modes are:

- A. On, Wi-Fi Transmitting mode (2.4 GHz)
 - a. Low Channel
 - b. Middle Channel
 - c. High Channel
- B. On, Wi-Fi connecting mode
- C. Off

3.4 Noise Generating and Noise Suppressing Parts

Refer to Circuit Diagram for further details.

3.5 Submitted Documents

- Application Form
- Block Diagram
- ID Label and Location Info
- User Manual
- Parts List
- Schematics
- Photo Document
- Operation Description

4 Test Set-up and Operation Modes

4.1 Principle of Configuration Selection

Radio Spectrum: The equipment under test (EUT) was configured at its highest power output in order to measure its highest possible radiation and conducted level. The test modes were adapted accordingly in reference to the instructions for use.

Emission: The equipment under test (EUT) was configured to measure its highest possible radiation level. The test modes were adapted accordingly in reference to the instructions for use.

4.2 Test Operation and Test Software

Test operation refers to test setup in chapter 5. All testing were performed according to the procedures in ANSI C63.10: 2013.

According to clause 3.1, all tests were performed on model MID7006A-L in this report.

4.3 Special Accessories and Auxiliary Equipment

Table 4: List of Accessories and Auxiliary Equipment

Description	Manufacturer	Model	Rating
Adapter	TEKA	TEKA006-0501500UKC	Input: AC100~240V 50/60Hz 0.3A, Output: DC 5V/1.5A

4.4 Countermeasures to Achieve EMC Compliance

The test sample which has been tested contained the noise suppression parts as described in the Technical Construction File (TCF).

No additional measures were employed to achieve compliance.

4.5 Test Setup Diagram

Diagram of Measurement Configuration for Radiation Test (Below 1GHz)

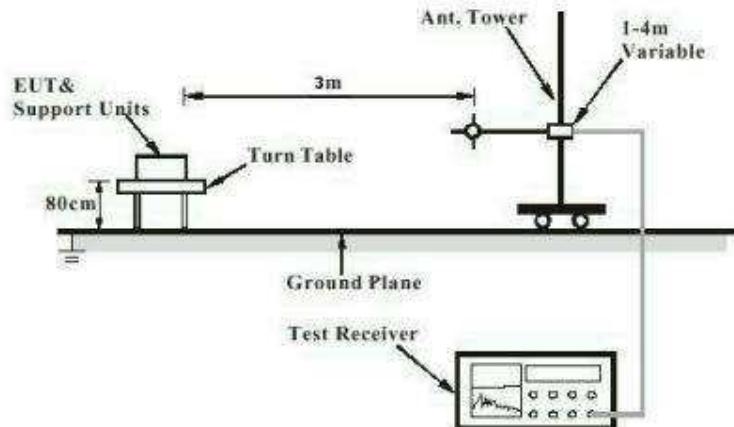
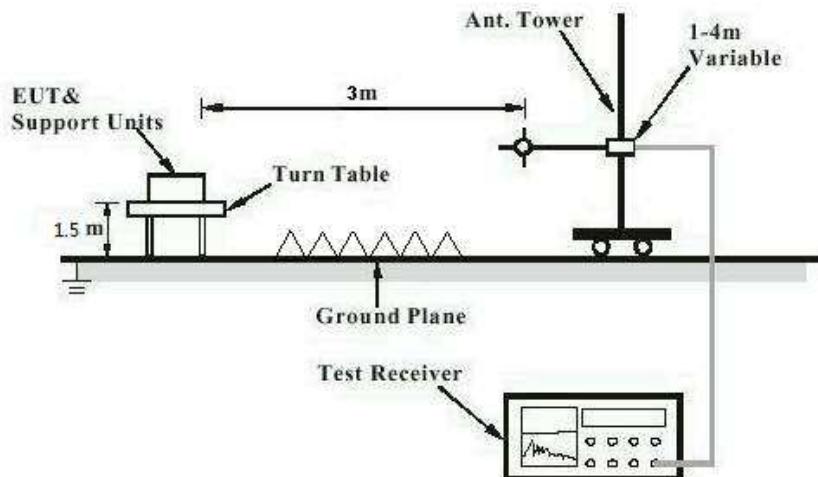


Diagram of Measurement Configuration for Radiation Test (Above 1GHz)



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Diagram of Measurement Configuration for Mains Conduction Measurement

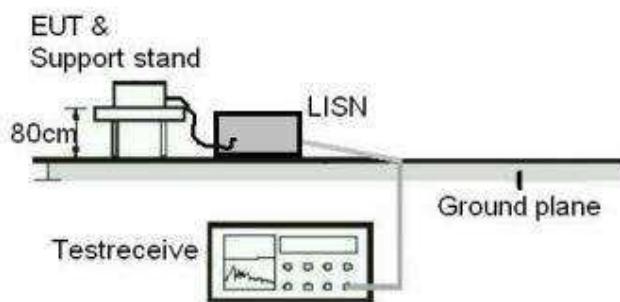
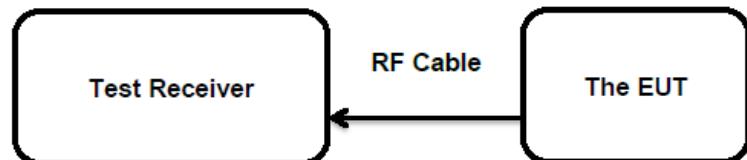


Diagram of Measurement Configuration for Conducted Transmitter Measurement



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5 Test Results

5.1 Transmitter Requirement & Test Suites

5.1.1 Antenna Requirement

RESULT: Pass

Test Specification

Test standard : FCC Part 15.247(b)(4) and Part 15.203

According to the manufacturer declared, the EUT has an internal antenna, the directional gain of antenna is 3.79 dBi, and the antenna connector is designed with permanent attachment and no consideration of replacement. Therefore the EUT is considered sufficient to comply with the provision.

Therefore the EUT is considered sufficient to comply with the provision.

Refer to EUT Photo for further details.

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5.1.2 Maximum Peak Conducted Output Power

RESULT:
Pass
Test Specification

Test standard	:	FCC Part 15.247(b)(1)&(3)
Basic standard	:	ANSI C63.10: 2013
Limits	:	< 1.0 Watts
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	18.05.2017
Input voltage	:	Fully charged DC 3.7V internal rechargeable Li-Poly battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 °C
Relative humidity	:	54 %
Atmospheric pressure	:	101 kPa

Table 5: Test Result of Maximum Peak Conducted Output Power

Test Mode	Data Rate	Frequency (MHz)	Measured Power		Limit
			dBm	W	
802.11b	1 Mbps	2412	15.35	0.034	< 1W(30dBm)
		2437	15.23	0.033	
		2462	14.80	0.030	
802.11g	6 Mbps	2412	12.82	--	< 1W(30dBm)
		2437	12.79	--	
		2462	13.32	--	
802.11n (HT20)	MCS0 Mbps	2412	13.07	--	< 1W(30dBm)
		2437	12.84	--	
		2462	13.37	--	
802.11n (HT40)	MCS0 Mbps	2422	12.55	--	< 1W(30dBm)
		2437	13.22	--	
		2452	13.06	--	
Maximum Measured Value			15.35	0.034	

Note: The cable loss is taken into account in results.

For the measurement records, refer to the Appendix A.

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5.1.3 Conducted Power Spectral Density

RESULT:
Pass
Test Specification

Test standard	:	FCC Part 15.247(e)
Basic standard	:	ANSI C63.10: 2013
Limits	:	8 dBm / 3kHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	18.05.2017
Input voltage	:	Fully charged DC 3.7V internal rechargeable Li-Poly battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 °C
Relative humidity	:	54 %
Atmospheric pressure	:	101 kPa

Table 6: Test Result of Power Spectral Density

Test Mode	Data Rate	Frequency (MHz)	Measured Peak Power Spectral Density (dBm/3KHz)
802.11b	1 Mbps	2412	-9.8
		2437	-10.5
		2462	-11.6
802.11g	6 Mbps	2412	-16.6
		2437	-13.9
		2462	-13.7
802.11n (HT20)	MCS0 Mbps	2412	-16.9
		2437	-14.4
		2462	-14.8
802.11n (HT40)	MCS0 Mbps	2422	-18.1
		2437	-17.9
		2452	-18.0
Maximum Measured Value			-9.8

Note: The cable loss is taken into account in results.

For the measurement records, refer to the Appendix A.

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5.1.4 6dB Bandwidth

RESULT:
Pass
Test Specification

Test standard	:	FCC Part 15.247(a)(2)
Basic standard	:	ANSI C63.10: 2013
Limits	:	> 500 KHz
Kind of test site	:	Shielded Room

Test Setup

Date of testing	:	18.05.2017
Input voltage	:	Fully charged DC 3.7V internal rechargeable Li-Poly battery
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	25 °C
Relative humidity	:	54 %
Atmospheric pressure	:	101 kPa

Table 7: Test Result of 6dB Bandwidth

Test Mode	Data Rate	Frequency (MHz)	-6dB Bandwidth (MHz)	Limit (kHz)
802.11b	1 Mbps	2412	9.56	> 500
		2437	10.08	
		2462	10.03	
802.11g	6 Mbps	2412	15.17	> 500
		2437	15.18	
		2462	15.10	
802.11n (HT20)	MCS0 Mbps	2412	16.95	> 500
		2437	15.19	
		2462	15.12	
802.11n (HT40)	MCS0 Mbps	2422	35.16	> 500
		2437	35.24	
		2452	35.27	
Minimum Measured Value			9.56	

For the measurement records, refer to the Appendix A.

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5.1.5 Conducted Spurious Emissions Measured in 100 kHz Bandwidth

RESULT:

Pass

Test Specification

Test standard : FCC Part 15.247(d)
Basic standard : ANSI C63.10: 2013
Limits : 20dB (below that in the 100kHz bandwidth within the band that contains the highest level of the desired power);

Kind of test site : Shielded Room

Test Setup

Date of testing : 11.04.2017
Input voltage : Fully charged DC 3.7V internal rechargeable Li-Poly battery
Operation mode : A
Test channel : Low / Middle / High
Ambient temperature : 25 °C
Relative humidity : 54 %
Atmospheric pressure : 101 kPa

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to following test plot, and compliance is achieved as well.

For the measurement records, refer to the Appendix A.

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5.1.6 Radiated Spurious Emission

RESULT:

Pass

Test Specification

Test standard	:	FCC Part 15.247(d) & FCC Part 15.205
Basic standard	:	ANSI C63.10: 2013
Limits	:	Refer to 15.209(a) of FCC part 15.247(d)
Kind of test site	:	3m Semi-anechoic Chamber

Test Setup

Date of testing	:	10.04.2017 – 08.05.2017
Input voltage	:	Fully charged DC 3.7V internal rechargeable Li-Poly battery DC 5.0V 2.5A via AC/DC adapter with 120V/60Hz input
Operation mode	:	A
Test channel	:	Low / Middle / High
Ambient temperature	:	23.5 °C
Relative humidity	:	51 %
Atmospheric pressure	:	101 kPa

Remark:

During the pretest the EUT was rotated through three orthogonal axes to determine the attitude that maximizes the emissions. After that the EUT was manually handled to find the orientation that has the maximum emission, which is the orientation shown in the test set-up photos.

Test results of 100kHz Bandwidth of Frequency Band Edge by Conducted method refer to following test plot, and compliance is achieved as well.

Testing was carried out within frequency range 9kHz to the tenth harmonics.

For the measurement records, refer to the Appendix B.

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Page 18 of 21**5.1.7 Conducted Emission on AC Mains****RESULT:** Pass**Test Specification**

Test standard : FCC Part 15.207(a)
Basic standard : ANSI C63.10: 2013
Frequency range : 0.15 – 30MHz
Limits : FCC Part 15.207(a)
Kind of test site : Shielded Room

Test Setup

Date of testing : 07.04.2017
Operation mode : B
Earthing : Not connected
Ambient temperature : 23.6 °C
Relative humidity : 54%
Atmospheric pressure : 101 kPa

For the measurement records, refer to the appendix B.

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Appendix A

Test Results of Wi-Fi 802.11b/g/n of Conducted Testing

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Wi-Fi 802.11 b mode, 1 Mbps	2
Wi-Fi 802.11 g mode, 6 Mbps	3
Wi-Fi 802.11 n(HT20) mode, MCS0 Mbps.....	5
Wi-Fi 802.11 n(HT40) mode, MCS0 Mbps.....	6
Wi-Fi 802.11 b mode, 1 Mbps	8
Wi-Fi 802.11 g mode, 6 Mbps	9
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Wi-Fi 802.11 g mode, 6 Mbps	15
Wi-Fi 802.11 n(HT20) mode, MCS0 Mbps.....	17
Wi-Fi 802.11 n(HT40) mode, MCS0 Mbps.....	18
Wi-Fi 802.11 b mode, Band Edge	20
Wi-Fi 802.11 g mode, Band Edge	20
Wi-Fi 802.11 n(HT20) mode, Band Edge	20
Wi-Fi 802.11 n(HT40) mode, Band Edge	20

Appendix A.1: Conducted Power Spectral Density

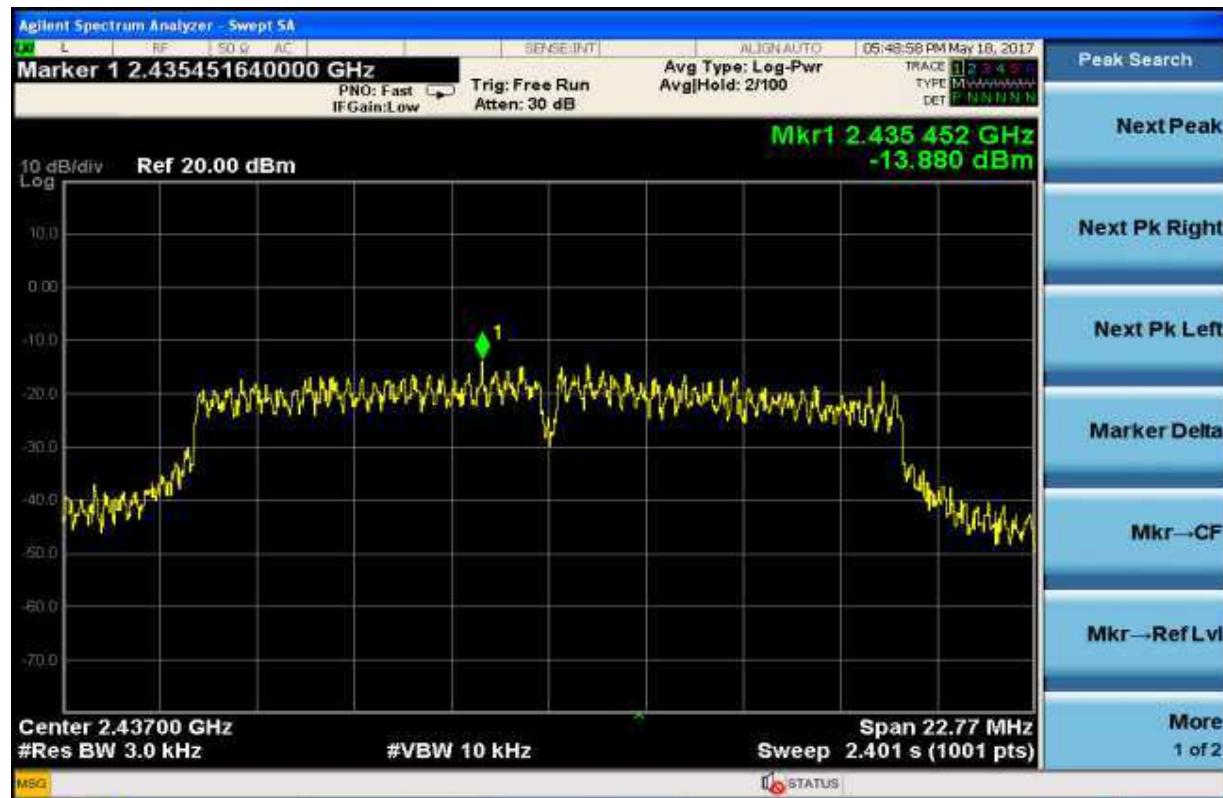
Wi-Fi 802.11 b mode, 1 Mbps



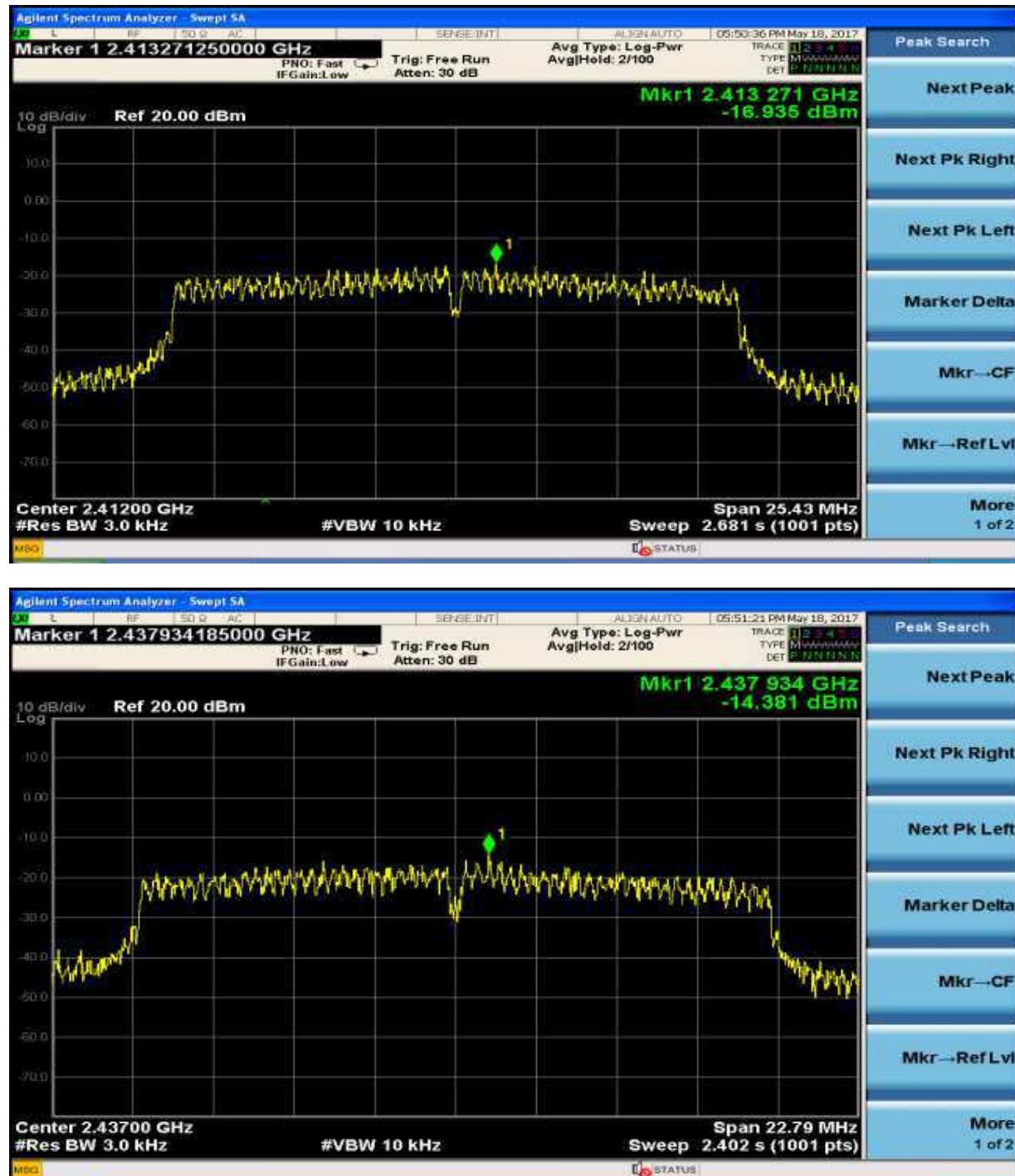


Wi-Fi 802.11 g mode, 6 Mbps





Wi-Fi 802.11 n(HT20) mode, MCS0 Mbps





Wi-Fi 802.11 n(HT40) mode, MCS0 Mbps



Produkte

Products



Appendix A.2: 6dB Bandwidth

Wi-Fi 802.11 b mode, 1 Mbps



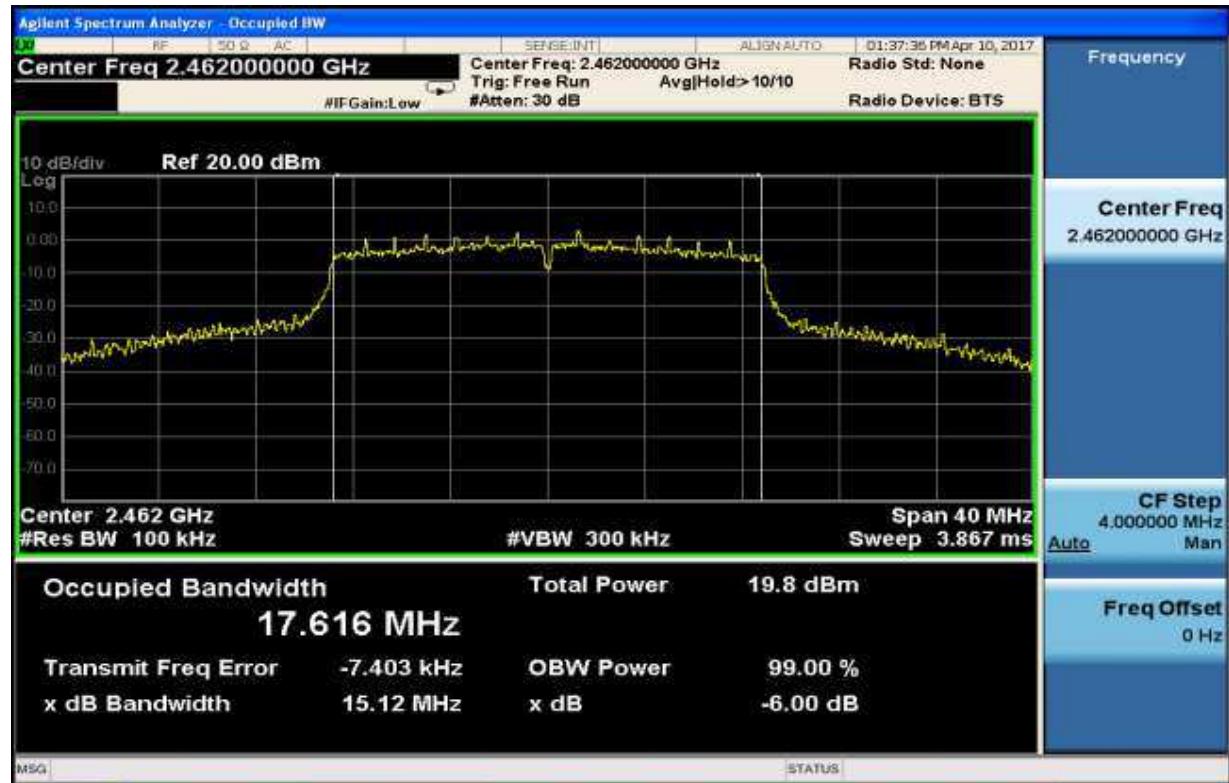
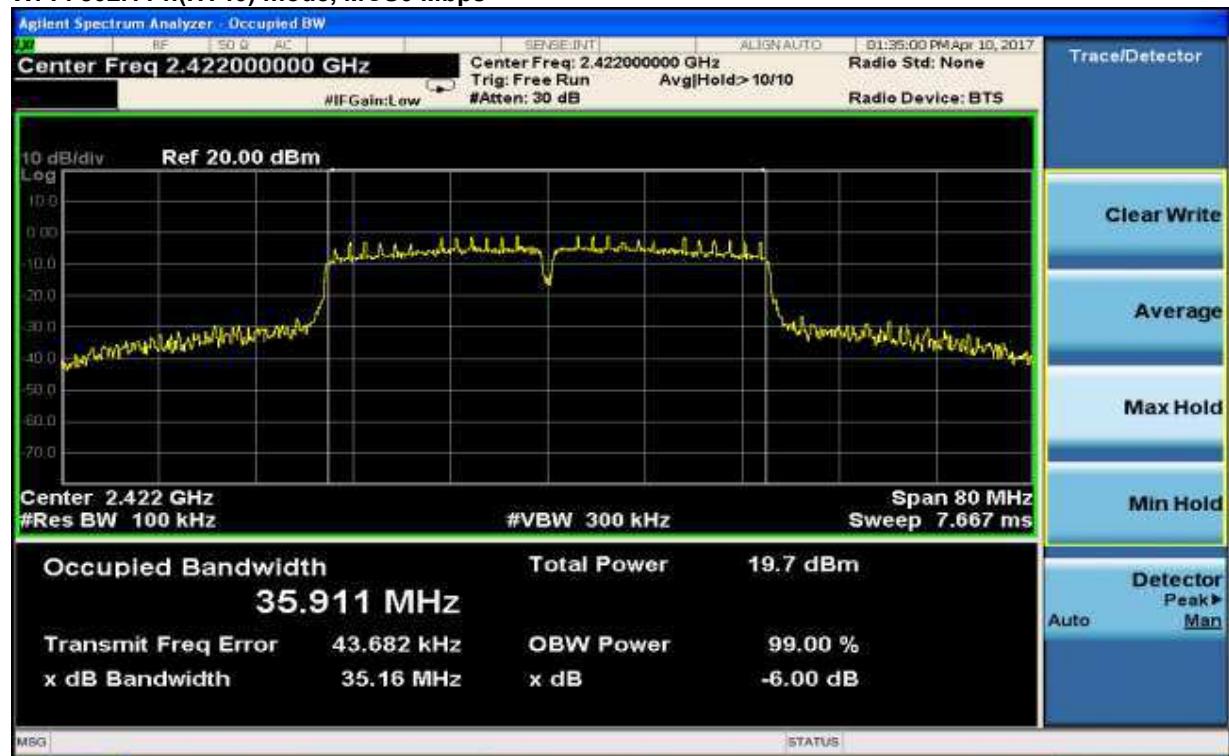


Wi-Fi 802.11 g mode, 6 Mbps





Wi-Fi 802.11 n(HT20) mode, MCS0 Mbps

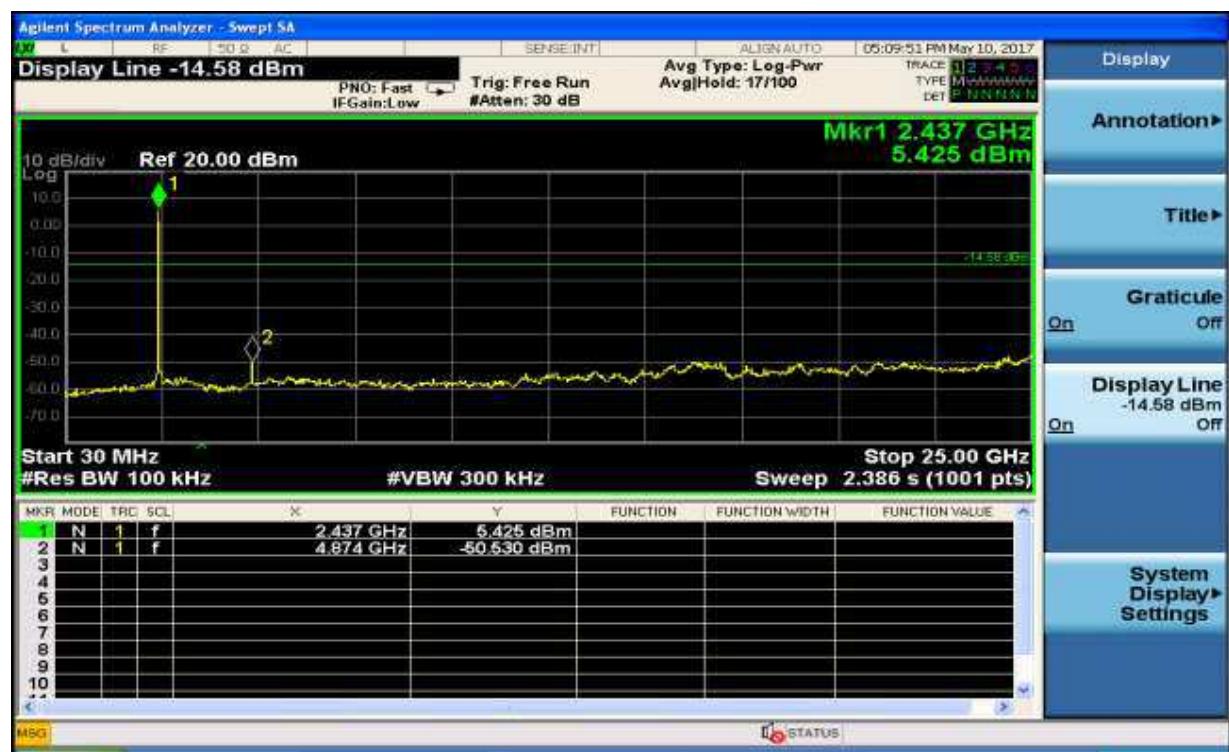
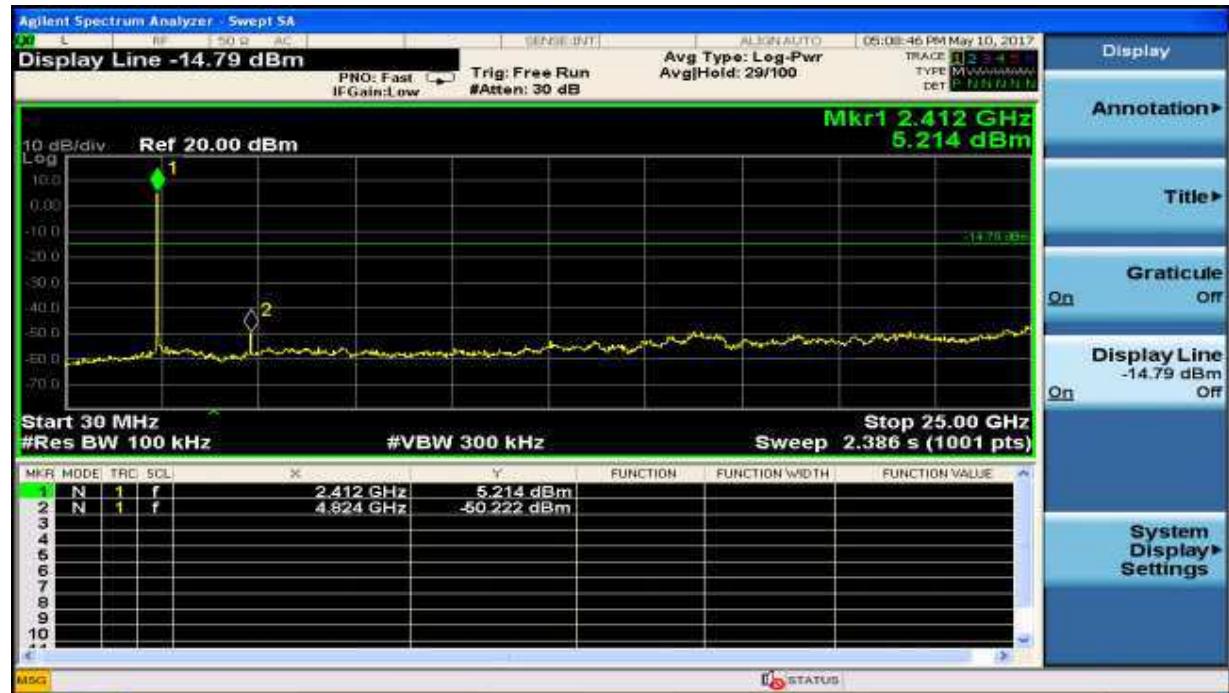
**Wi-Fi 802.11 n(HT40) mode, MCS0 Mbps**





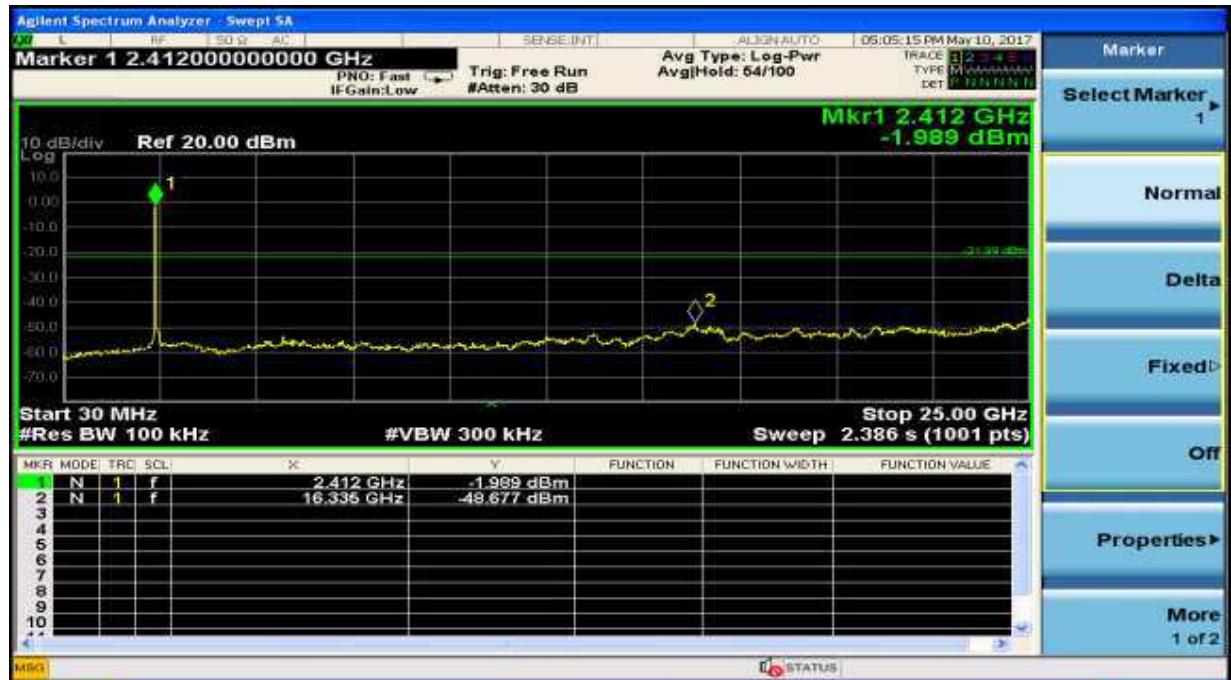
Appendix A.3: Conducted Spurious Emissions Measured in 100 kHz Bandwidth

Wi-Fi 802.11 b mode, 1 Mbps



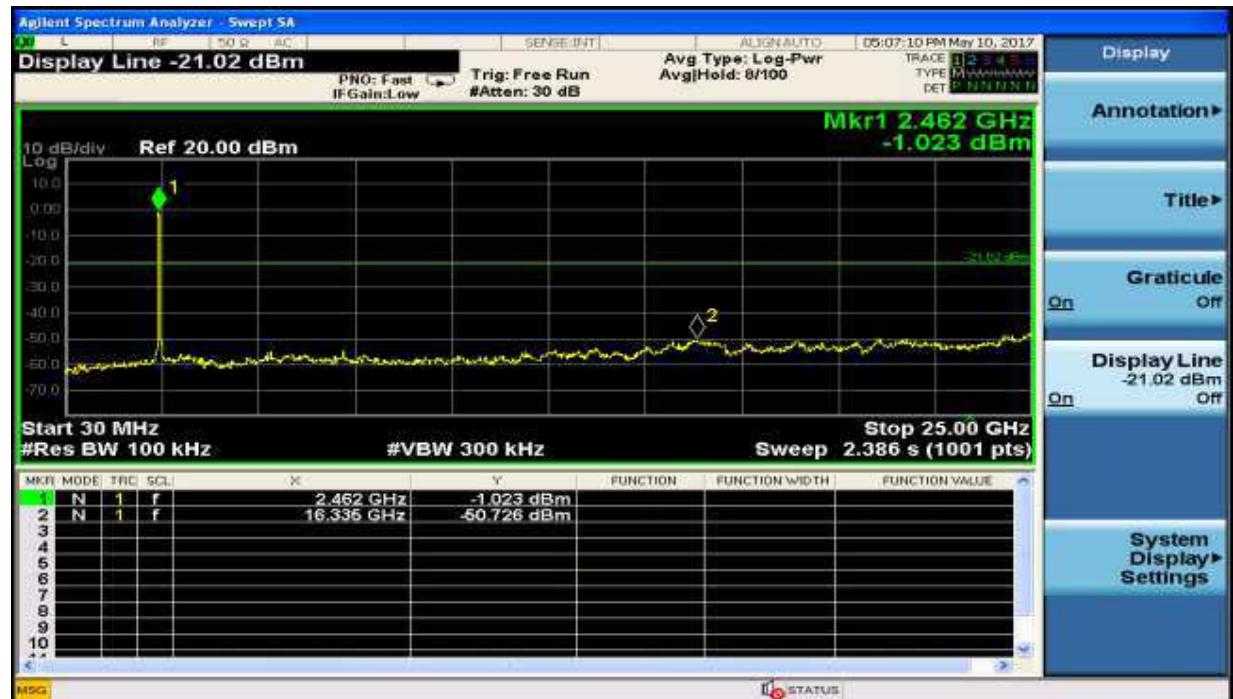
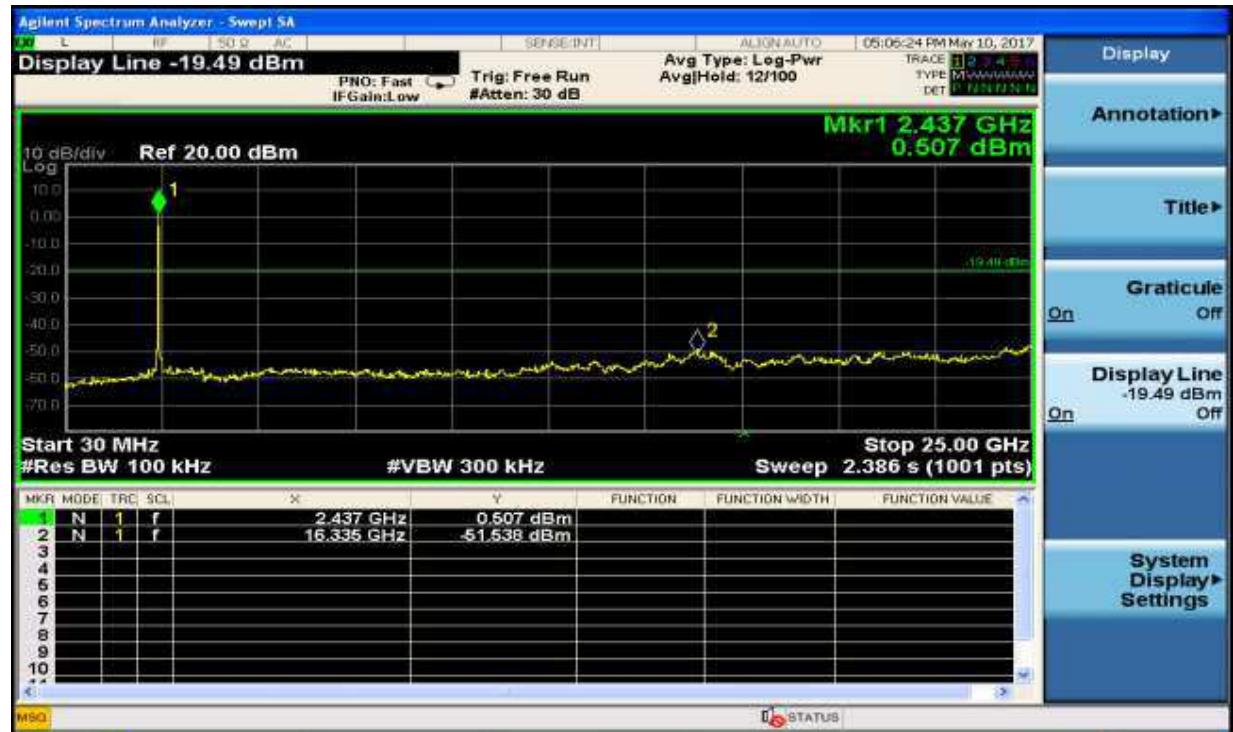


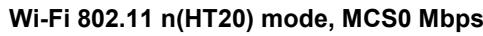
Wi-Fi 802.11 g mode, 6 Mbps



Produkte

Products







Wi-Fi 802.11 n(HT40) mode, MCS0 Mbps





Wi-Fi 802.11 b mode, Band Edge

Refer to 50084595 003_Appnedix B

Wi-Fi 802.11 g mode, Band Edge

Refer to 50084595 003_Appnedix B

Wi-Fi 802.11 n(HT20) mode, Band Edge

Refer to 50084595 003_Appnedix B

Wi-Fi 802.11 n(HT40) mode, Band Edge

Refer to 50084595 003_Appnedix B

Appendix B

Test Results of Wi-Fi 802.11b/g/n of Radiated Emission and Conducted Emission Testing

APPENDIX B	1
APPENDIX B.1: RADIATED SPURIOUS EMISSIONS	2
<i>Wi-Fi 802.11 b mode, 1 Mbps</i>	2
<i>Wi-Fi 802.11 g mode, 6 Mbps</i>	17
<i>Wi-Fi 802.11 n(HT20) mode, MCS0 Mbps</i>	26
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<i>Wi-Fi 802.11 b mode, 1 Mbps</i>	44
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Note: The measurements of radiated spurious emission from 9KHz~30MHz and 18-26GHz were greater than 20dB below the limit, so Radiated Spurious Emissions from 9kHz – 30MHz and 18-26GHz tests were not reported. Only the worst case mode reported.

Appendix B.1: Radiated Spurious Emissions

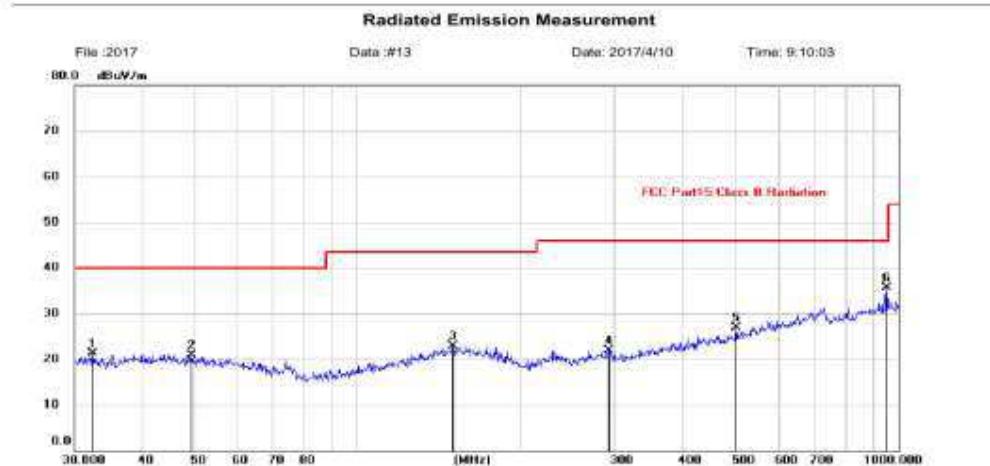
Wi-Fi 802.11 b mode, 1 Mbps

30MHz - 1GHz



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: Horizontal Temperature: 23.5
Limit: FCC Part15 Class B Radiation Power: AC 120V/60Hz Humidity: 51 %
EUT: Distance:
M/N:
Mode: Charging and Wifi 1M 2412
Note:



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		32.4059	7.83	13.41	21.24	40.00	-18.76	peak		
2		49.3594	7.32	13.67	20.99	40.00	-19.01	peak		
3		150.0108	8.26	14.55	22.81	43.50	-20.69	peak		
4		292.0583	8.78	13.20	21.98	46.00	-24.02	peak		
5		501.1790	9.72	17.22	26.94	46.00	-19.06	peak		
6	*	952.0937	12.03	23.58	35.61	46.00	-10.39	peak		

Note: 1. *:Maximum data; x:Over limit; l:over margin.

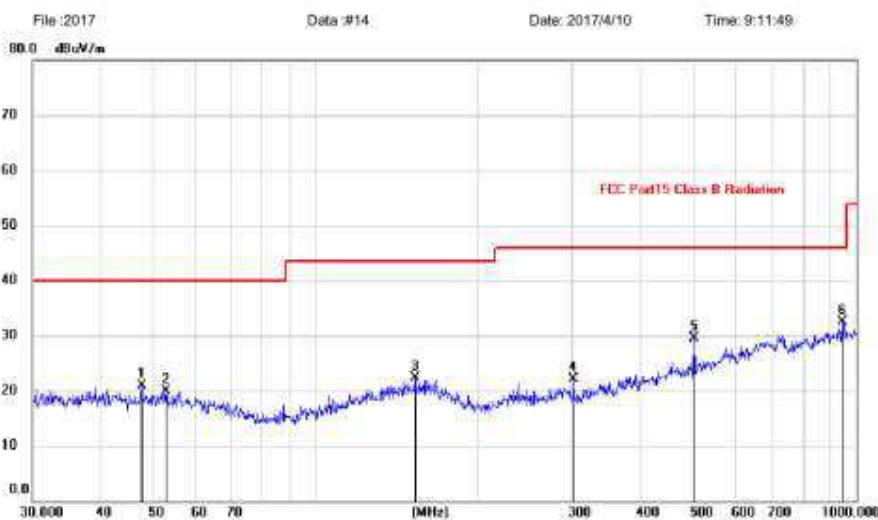
2. Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Vertical** Temperature: 23.5
Limit: FCC Part15 Class B Radiation Power: AC 120V/60Hz Humidity: 51 %
EUT: Distance:
M/N:
Mode: Charging and Wifi 1M 2412.
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	47.6586	7.13	13.69	20.82	40.00	-19.18	peak			
2	52.9453	6.38	13.45	19.83	40.00	-20.17	peak			
3	152.6641	7.73	14.55	22.28	43.50	-21.22	peak			
4	301.4224	8.67	13.51	22.18	46.00	-23.82	peak			
5	501.1790	12.34	17.22	29.56	46.00	-16.44	peak			
6	* 942.1305	9.34	23.18	32.52	46.00	-13.48	peak			

Note:1. *:Maximum data; x:Over limit; l:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB

Polarization: **Vertical**

Temperature: 23.5

Limit: FCC Part15 Class B Radiation

Power: AC 120V/60Hz

Humidity: 51 %

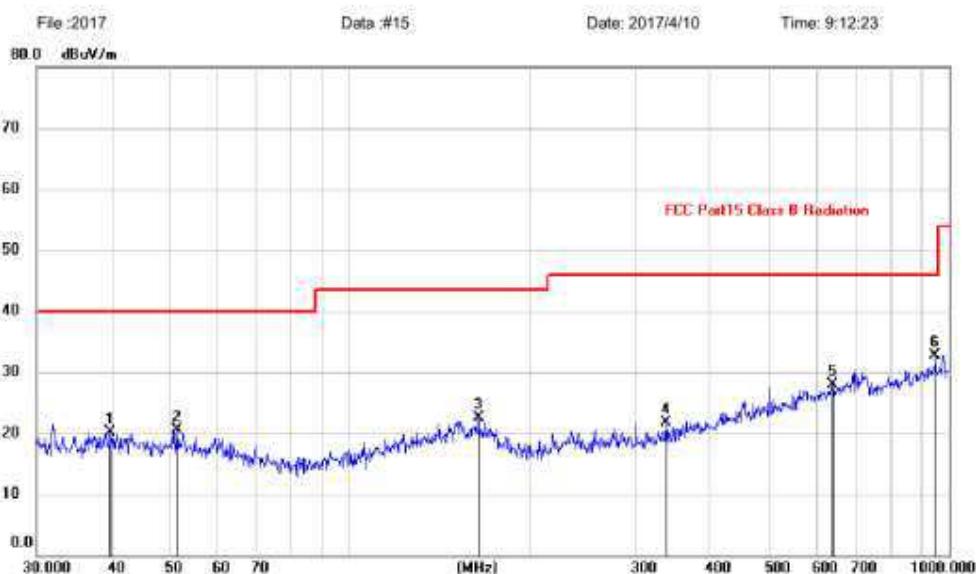
EUT:

Distance:

M/N:

Mode: Charging and Wifi 1M 2437

Note:

Radiated Emission Measurement

No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height		Table Degree						
								MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	Comment
1	39.8542	5.89	14.23	20.12	40.00	-19.88	peak									
2	51.4807	6.82	13.63	20.45	40.00	-19.55	peak									
3	163.7550	8.13	14.28	22.41	43.50	-21.09	peak									
4	337.2155	7.28	14.39	21.67	46.00	-24.33	peak									
5	638.3686	7.83	20.01	27.84	46.00	-18.16	peak									
6 *	948.7610	9.36	23.43	32.79	46.00	-13.21	peak									

Note:1. *:Maximum data; x:Over limit; !:over margin.

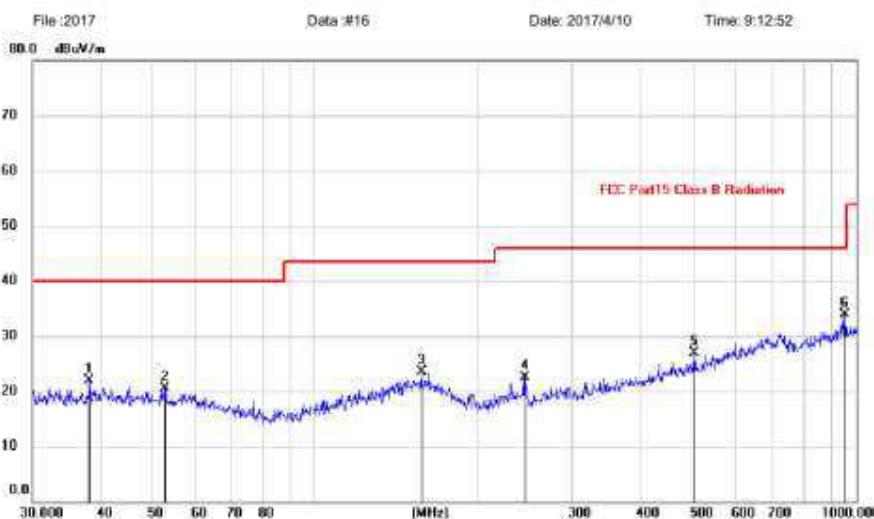
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part15 Class B Radiation	Power: AC 120V/60Hz	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: Charging and Wifi 1M 2437		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	38.2120	8.05	13.89	21.94	40.00	-18.06	peak			
2	52.5753	6.89	13.52	20.41	40.00	-19.59	peak			
3	157.5588	8.87	14.57	23.44	43.50	-20.06	peak			
4	243.3772	10.44	12.00	22.44	46.00	-23.56	peak			
5	501.1790	9.76	17.22	26.98	46.00	-19.02	peak			
6	* 952.0937	10.34	23.58	33.92	46.00	-12.08	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

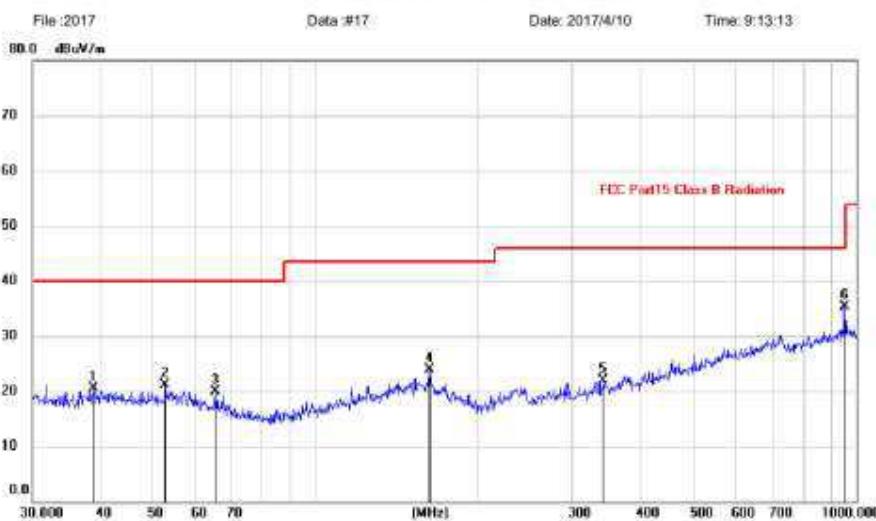
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part15 Class B Radiation	Power: AC 120V/60Hz	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: Charging and Wifi 1M 2462		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	39.0245	6.33	14.20	20.53	40.00	-19.47	peak			
2	52.7600	7.54	13.48	21.02	40.00	-18.98	peak			
3	65.3432	8.10	11.84	19.94	40.00	-20.06	peak			
4	163.1818	9.52	14.32	23.84	43.50	-19.66	peak			
5	340.7817	7.57	14.43	22.00	46.00	-24.00	peak			
6	* 952.0937	11.69	23.58	35.27	46.00	-10.73	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

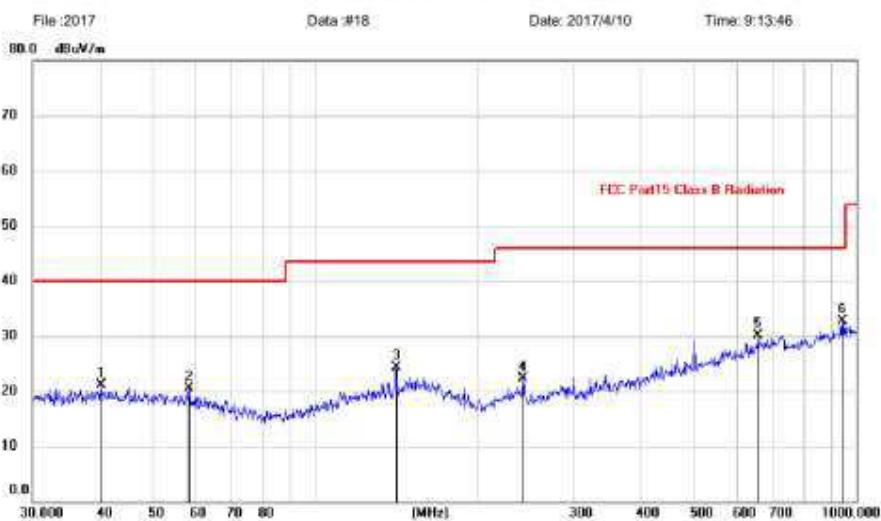
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Vertical	Temperature: 23.5
Limit: FCC Part15 Class B Radiation	Power: AC 120V/60Hz	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: Charging and Wifi 1M 2462		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	40.1347	6.87	14.22	21.09	40.00	-18.91	peak			
2	58.4074	7.36	13.11	20.47	40.00	-19.53	peak			
3	141.3298	10.43	13.93	24.36	43.50	-19.14	peak			
4	241.6763	10.31	11.99	22.30	46.00	-23.70	peak			
5	658.8362	9.86	20.23	30.09	46.00	-15.91	peak			
6	* 942.1305	9.50	23.18	32.68	46.00	-13.32	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

1GHz - 18GHz



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB

Polarization: **Horizontal**

Temperature: 23.5

Limit: FCC Part 15_Above 1G_Peak

Power: DC 5V

Humidity: 51 %

EUT:

Distance:

M/N:

Mode: WiFi b 2412

Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	*	1334.774	48.49	-7.21	41.28	74.00	-32.72	peak		
2	*	2185.816	46.93	-3.45	43.48	74.00	-30.52	peak		
3		4824.000	40.84	-2.88	37.96	74.00	-36.04	peak		

Note: 1. *Maximum data; x:Over limit; !:over margin.

2. Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Vertical** Temperature: 23.5
 Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
 EUT: Distance:
 M/N:
 Mode: WiFi b 2412
 Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	1373.633	48.44	-7.08	41.36	74.00	-32.64	peak			
2	*	2373.801	47.41	-3.38	44.03	74.00	-29.97	peak		
3		4824.000	40.95	-2.88	38.07	74.00	-35.93	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

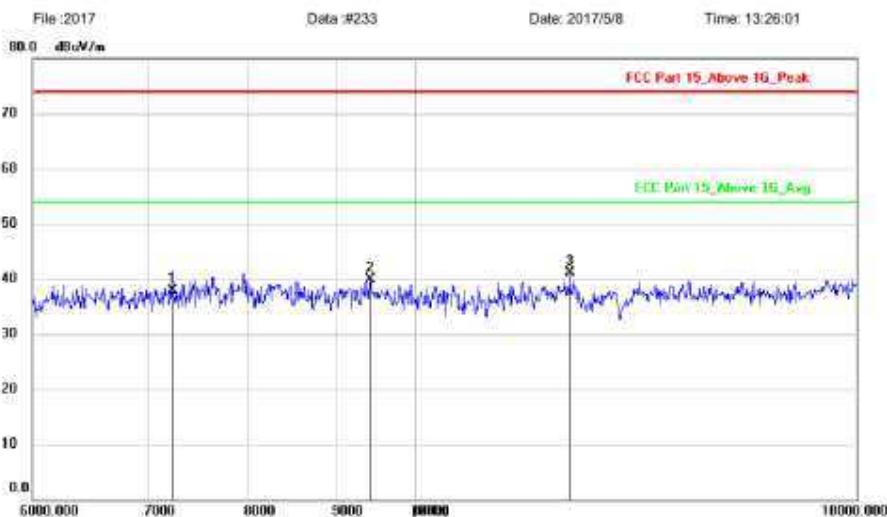


Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB
Limit: FCC Part 15_Above 1G_Peak
EUT:
M/N:
Mode: WIFI b 2412
Note:

Polarization: **Vertical** Temperature: 23.5
Power: DC 5V Humidity: 51 %
Distance:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	7236.000	34.40	3.46	37.86	74.00	-36.14	peak			
2	9422.431	36.38	3.45	39.83	74.00	-34.17	peak			
3	*	12298.65	35.66	5.49	41.15	74.00	-32.85	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI b 2437		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1416.160	50.45	-7.00	43.45	74.00	-30.55	peak			
2	* 2365.301	46.94	-3.38	43.56	74.00	-30.44	peak			
3	4874.000	41.81	-2.77	39.04	74.00	-34.96	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

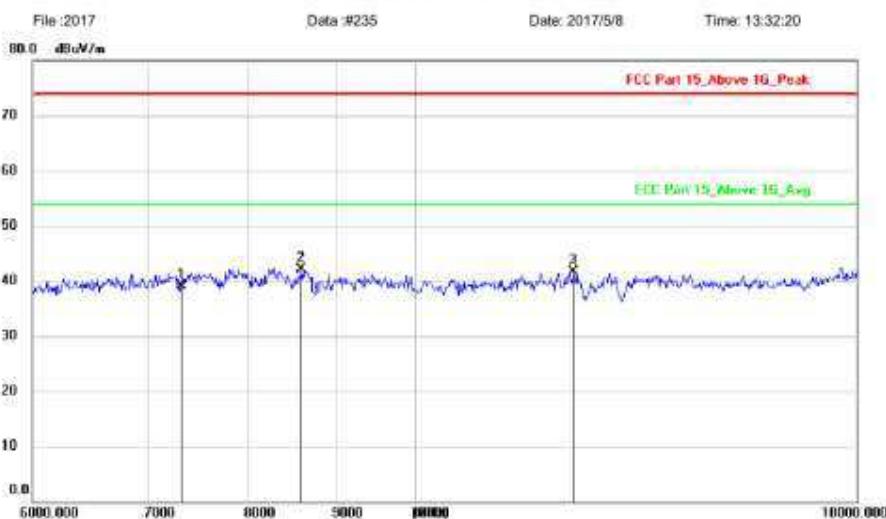
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI b 2437		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	7311.000	35.68	3.45	39.13	74.00	-34.87	peak			
2	* 8599.685	38.25	3.92	42.17	74.00	-31.83	peak			
3	12352.93	36.18	5.47	41.65	74.00	-32.35	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Vertical	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI b 2437		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1334.774	49.19	-7.21	41.98	74.00	-32.02	peak			
2	* 2378.063	46.37	-3.39	42.98	74.00	-31.02	peak			
3	4874.000	41.65	-2.77	38.88	74.00	-35.12	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Vertical	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI b 2462		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1406.037	49.01	-7.00	42.01	74.00	-31.99	peak			
2	*	2434.161	46.83	-3.40	43.43	74.00	-30.57	peak		
3		4924.000	41.42	-2.66	38.76	74.00	-35.24	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI b 2462		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1403.517	48.89	-7.00	41.89	74.00	-32.11	peak			
2	*	2193.671	46.05	-3.39	42.66	74.00	-31.34	peak		
3		4924.000	41.11	-2.66	38.45	74.00	-35.55	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

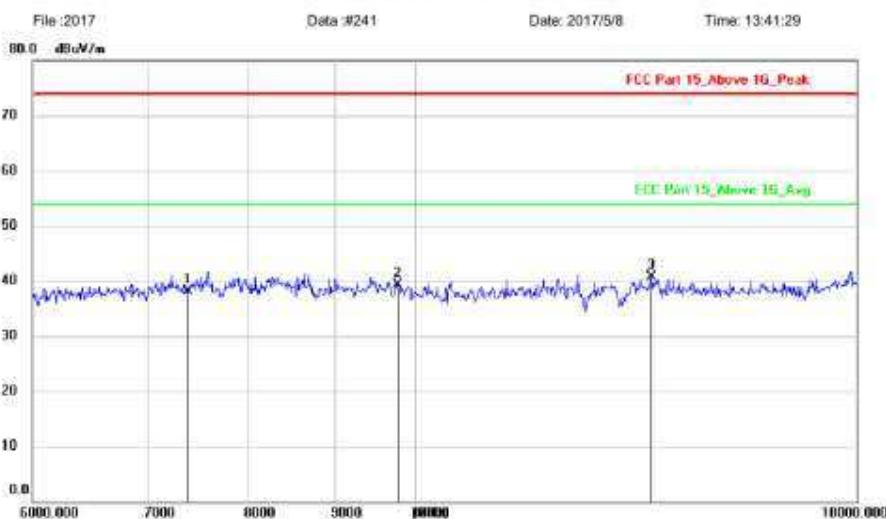
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI b 2462		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq. MHz	Reading Level dB	Correct Factor	Measure- ment dBuV/m	Limit dB	Margin peak	Antenna Height cm	Table Degree degree	Comment
1	7386.000	34.65	3.45	38.10	74.00	-35.90	peak			
2	9760.262	35.52	3.80	39.32	74.00	-34.68	peak			
3	* 13699.64	34.16	6.47	40.63	74.00	-33.37	peak			

Note: 1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Wi-Fi 802.11 g mode, 6 Mbps

30MHz - 1GHz

Refer to Wi-Fi 802.11 b mode as the worst case.

1GHz - 18GHz



Shenzhen Alpha Product Testing Co., Ltd.
Building I, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51%
EUT:	Distance:	
M/N:		
Mode: WiFi g 2412		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	
1		1366.262	47.93	-7.12	40.81	74.00	-33.19	peak			
2	*	2193.671	46.03	-3.39	42.64	74.00	-31.36	peak			
3		4824.000	40.15	-2.88	37.27	74.00	-36.73	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Vertical** Temperature: 23.5
 Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
 EUT: Distance:
 M/N:
 Mode: WiFi g 2412
 Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1383.523	48.31	-7.06	41.25	74.00	-32.75	peak			
2	*	2170.190	46.69	-3.58	43.11	74.00	-30.89	peak		
3		4824.000	39.82	-2.88	36.94	74.00	-37.06	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

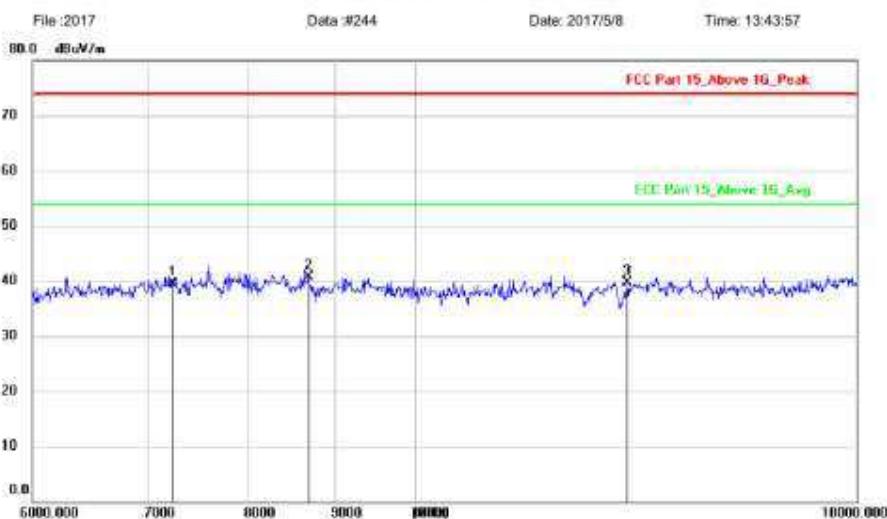
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WiFi g 2412		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	7236.000	35.98	3.46	39.44	74.00	-34.56	peak			
2	* 8666.208	36.81	3.90	40.71	74.00	-33.29	peak			
3	13269.21	33.99	5.69	39.68	74.00	-34.32	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Vertical** Temperature: 23.5
 Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
 EUT: Distance:
 M/N:
 Mode: WiFi g 2437
 Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1		1376.099	48.54	-7.08	41.46	74.00	-32.54	peak		
2	*	2127.794	46.70	-3.91	42.79	74.00	-31.21	peak		
3		4874.000	40.49	-2.77	37.72	74.00	-36.28	peak		

Note: 1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Horizontal** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance:
M/N:
Mode: WiFi g 2437
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1406.037	48.41	-7.00	41.41	74.00	-32.59	peak			
2	*	2185.816	46.97	-3.45	43.52	74.00	-30.48	peak		
3		4874.000	39.90	-2.77	37.13	74.00	-36.87	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI g 2437		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	7311.000	35.63	3.45	39.08	74.00	-34.92	peak			
2	11512.59	34.41	5.72	40.13	74.00	-33.87	peak			
3	* 15026.84	32.27	7.88	40.15	74.00	-33.85	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Horizontal** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance:
M/N:
Mode: WIFI g 2462
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1341.975	47.56	-7.19	40.37	74.00	-33.63	peak			
2	*	2681.709	45.23	-2.95	42.28	74.00	-31.72	peak		
3		4924.000	39.89	-2.66	37.23	74.00	-36.77	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Vertical	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI g 2462		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1322.858	48.48	-7.25	41.23	74.00	-32.77	peak			
2	*	2456.088	46.54	-3.39	43.15	74.00	-30.85	peak		
3		4924.000	40.96	-2.66	38.30	74.00	-35.70	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

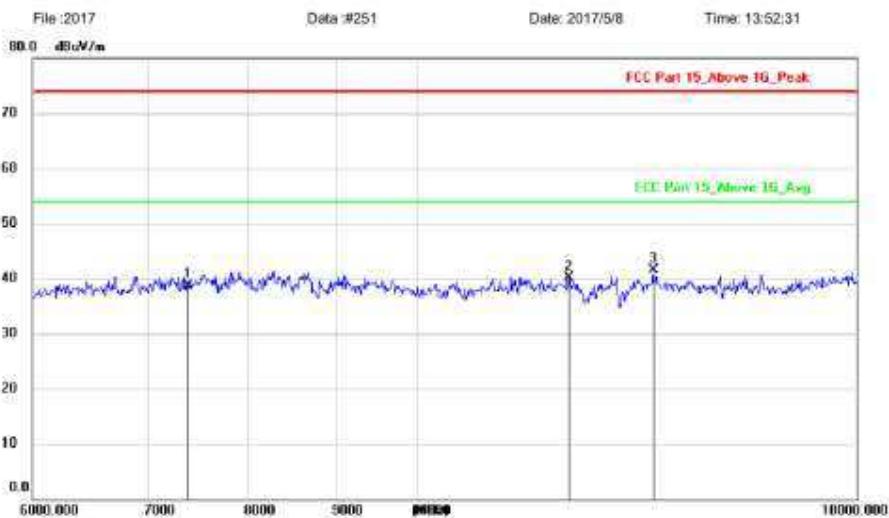
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Vertical** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance:
M/N:
Mode: WiFi g 2462
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	7386.000	35.34	3.45	38.79	74.00	-35.21	peak			
2	12271.61	34.59	5.50	40.09	74.00	-33.91	peak			
3	*	13744.96	34.95	6.55	41.50	74.00	-32.50	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

**Wi-Fi 802.11 n(HT20) mode, MCS0 Mbps
30MHz - 1GHz**

Refer to Wi-Fi 802.11b as the worst case

1GHz - 18GHz



Shenzhen Alpha Product Testing Co., Ltd.
Building I, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB

Polarization: **Vertical**

Temperature: 23.5

Limit: FCC Part 15_Above 1G_Peak

Power: DC 5V

Humidity: 51 %

EUT:

Distance:

M/N:

Mode: WIFI N20 2412

Note:

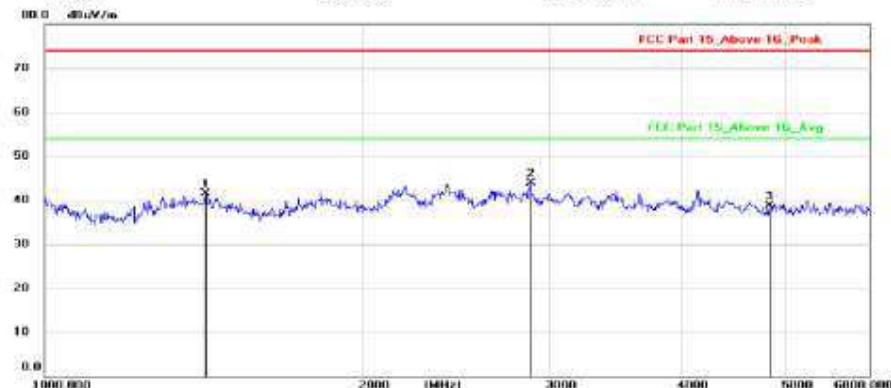
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File: 2017

Data #255

Date: 2017/5/8

Time: 13:57:51



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1421.249	48.41	-7.00	41.41	74.00	-32.59	peak			
2	*	2881.169	46.65	-2.65	44.00	74.00	-30.00	peak		
3		4824.000	41.63	-2.88	38.75	74.00	-35.25	peak		

Note: 1. *Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI N20 2412		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	*	2378.063	45.90	-3.39	42.51	74.00	-31.49	peak		
2		3422.521	48.66	-6.89	41.77	74.00	-32.23	peak		
3		4824.000	38.26	-2.88	35.38	74.00	-38.62	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

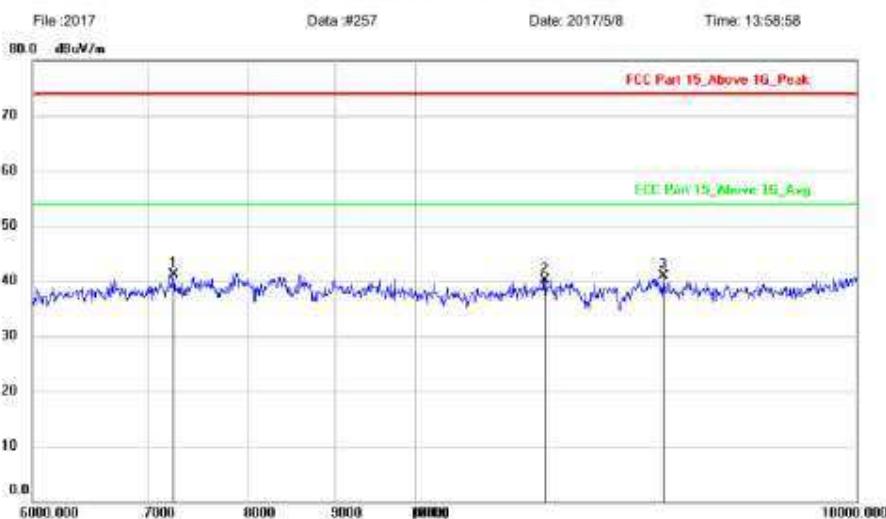
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI N20 2412		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	*	7236.000	37.68	3.46	41.14	74.00	-32.86	peak		
2		11886.04	34.44	5.63	40.07	74.00	-33.93	peak		
3		13927.73	34.08	6.87	40.95	74.00	-33.05	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI N20 2437		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1358.930	47.72	-7.14	40.58	74.00	-33.42	peak			
2	*	2185.816	46.10	-3.45	42.65	74.00	-31.35	peak		
3		4874.000	39.14	-2.77	36.37	74.00	-37.63	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Vertical	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI N20 2437		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1386.006	49.03	-7.05	41.98	74.00	-32.02	peak			
2	*	2174.086	47.24	-3.54	43.70	74.00	-30.30	peak		
3		4874.000	41.22	-2.77	38.45	74.00	-35.55	peak		

Note:1. *:Maximum data; x:Over limit; l:over margin.

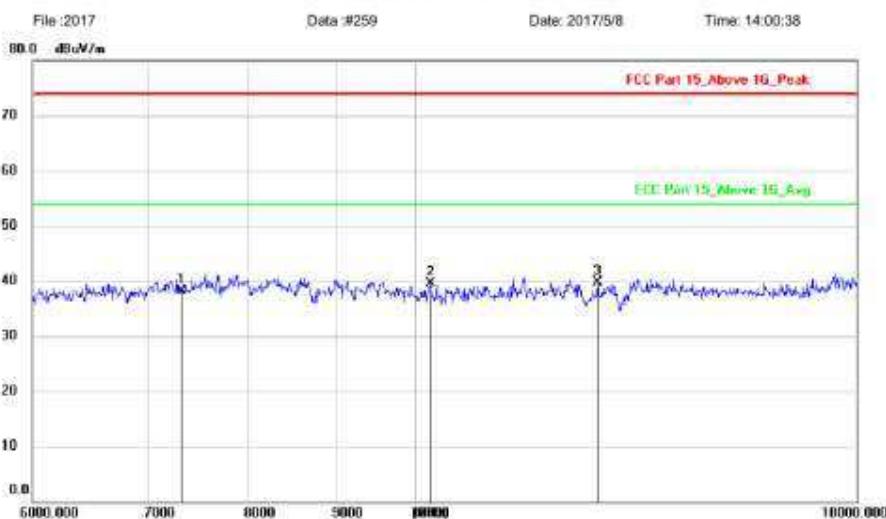
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Vertical	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI N20 2437		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	7311.000	34.64	3.45	38.09	74.00	-35.91	peak			
2	10210.86	34.64	4.82	39.46	74.00	-34.54	peak			
3	* 12753.64	34.50	5.30	39.80	74.00	-34.20	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB Polarization: **Vertical** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT:
M/N:
Mode: WIFI N20 2462
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	1297.014	47.99	-7.36	40.63	74.00	-33.37	peak			
2	*	2442.909	46.27	-3.40	42.87	74.00	-31.13	peak		
3		4924.000	41.46	-2.66	38.80	74.00	-35.20	peak		

Note: 1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI N20 2462		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	2189.740	45.58	-3.42	42.16	74.00	-31.84	peak			
2	*	3254.888	44.92	-2.31	42.61	74.00	-31.39	peak		
3		4924.000	40.45	-2.66	37.79	74.00	-36.21	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

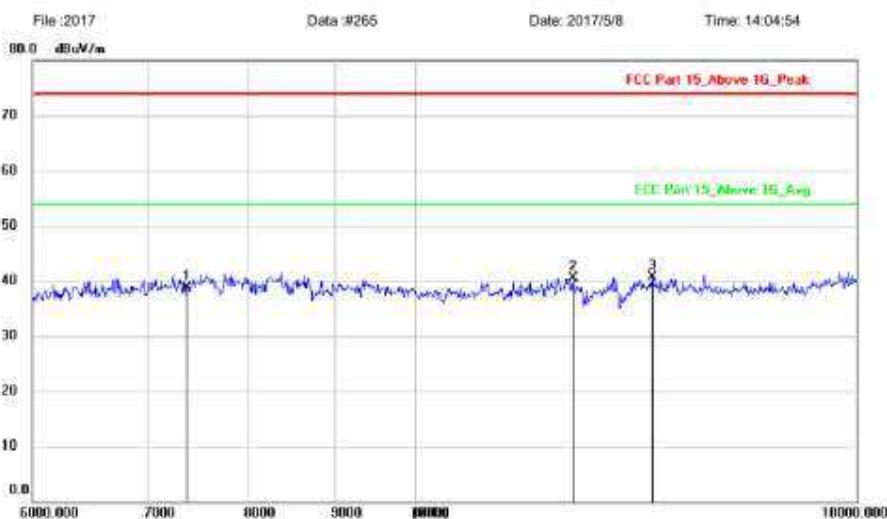
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI N20 2462		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	7386.000	35.24	3.45	38.69	74.00	-35.31	peak			
2	12339.34	35.01	5.47	40.48	74.00	-33.52	peak			
3	* 13729.84	34.20	6.52	40.72	74.00	-33.28	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Wi-Fi 802.11 n(HT40) mode, MCS0 Mbps

30MHz - 1GHz

Refer to Wi-Fi 802.11b as the worst case

1GHz - 18GHz



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB

Polarization: **Vertical**

Temperature: 23.5

Limit: FCC Part 15_Above 1G_Peak

Power: DC 5V

Humidity: 51 %

EUT:

Distance:

M/N:

Mode: WIFI N40 2422

Note:

Radiated Emission Measurement

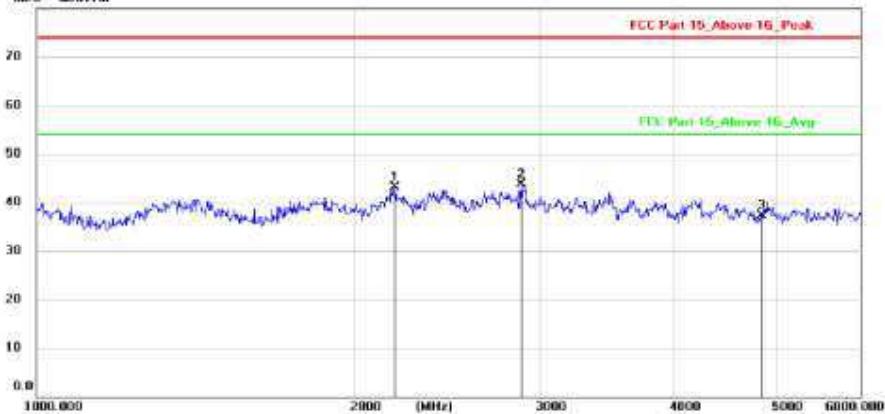
File: 2017

Data #: 270

Date: 2017/5/8

Time: 14:10:02

80.0 dBuV/m



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	2185.816	46.50	-3.45	43.05	74.00	-30.95	peak			
2	*	2870.853	46.29	-2.68	43.61	74.00	-30.39	peak		
3		4844.000	40.17	-2.83	37.34	74.00	-36.66	peak		

Note: 1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI N40 2422		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	*	2408.107	45.39	-3.40	41.99	74.00	-32.01	peak		
2		3249.055	43.38	-2.31	41.07	74.00	-32.93	peak		
3		4844.000	40.78	-2.83	37.95	74.00	-36.05	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

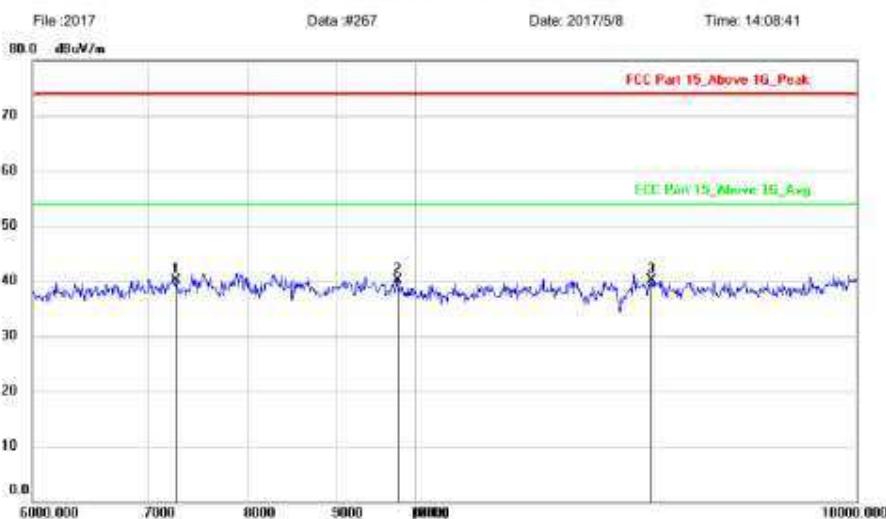
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Vertical** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance:
M/N:
Mode: WIFI N40 2422
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	*	7266.000	36.67	3.45	40.12	74.00	-33.88	peak		
2		9760.262	36.26	3.80	40.06	74.00	-33.94	peak		
3		13699.64	33.54	6.47	40.01	74.00	-33.99	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Vertical** Temperature: 23.5
 Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
 EUT: Distance:
 M/N:
 Mode: WIFI N40 2437
 Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	1423.801	47.56	-7.00	40.56	74.00	-33.44	peak			
2	* 2686.523	45.05	-2.94	42.11	74.00	-31.89	peak			
3	4874.000	40.03	-2.77	37.26	74.00	-36.74	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building I, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB: Polarization: **Horizontal** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance:
M/N:
Mode: WIFI N40 2437
Note:

Radiated Emission Measurement

File:2017

Data #272

Date: 2017/5/8

Time: 14:11:45



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1		1465.251	47.41	-7.00	40.41	74.00	-33.59	peak			
2	*	2408.107	44.99	-3.40	41.59	74.00	-32.41	peak			
3		4874.000	39.97	-2.77	37.20	74.00	-36.80	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

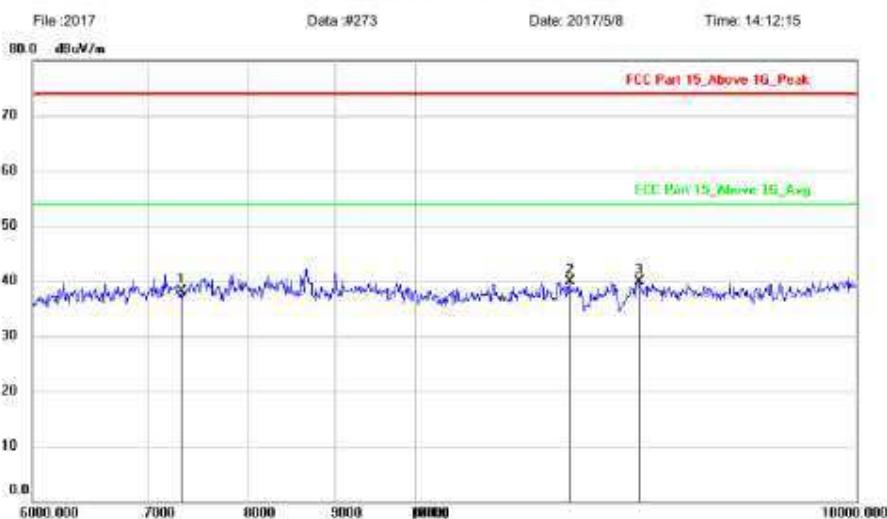
2. Measurement = Reading Level + Correct Factor; Correct Factor = Antenna Factor + Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance:	
M/N:		
Mode: WIFI N40 2437		
Note:		

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	7311.000	34.58	3.45	38.03	74.00	-35.97	peak			
2	* 12298.65	34.39	5.49	39.88	74.00	-34.12	peak			
3	13490.13	33.77	6.08	39.85	74.00	-34.15	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

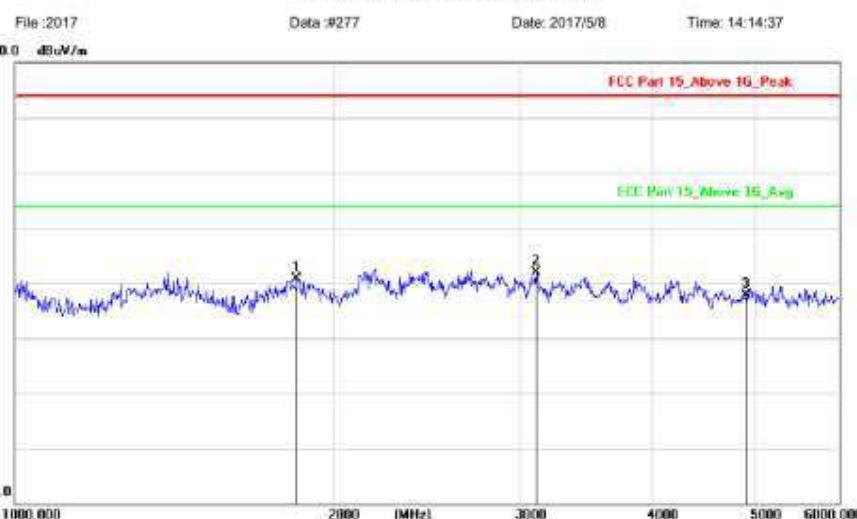
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB Polarization: **Horizontal** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51%
EUT: Distance:
M/N:
Mode: WIFI N40 2452
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Antenna Height		Table Degree	Comment			
								MHz	dBuV	dB	dBuV/m	dB	Detector	cm
1	*	1846.690	46.96	-6.24	40.72	74.00	-33.28	peak						
2	*	3112.166	43.93	-2.06	41.87	74.00	-32.13	peak						
3		4904.000	40.45	-2.70	37.75	74.00	-36.25	peak						

Note: 1. *:Maximum data; x:Over limit; l:over margin.

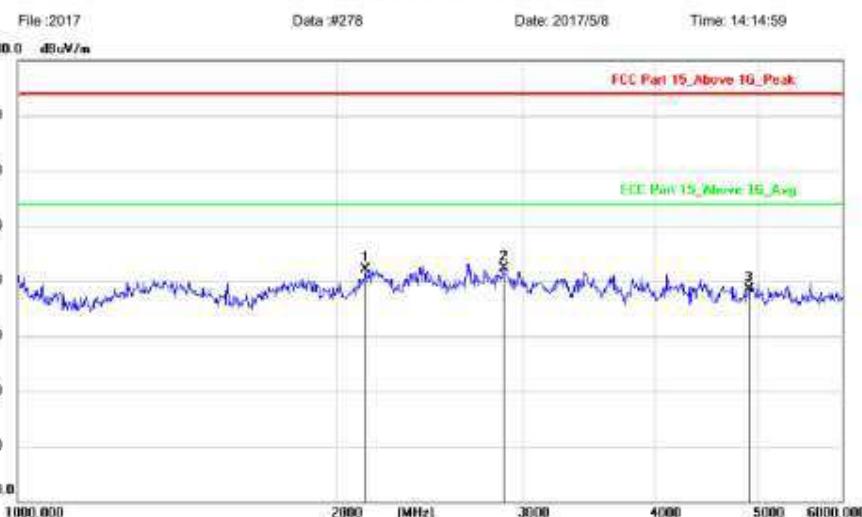
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB Polarization: **Vertical** Temperature: 23.5
 Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
 EUT: Distance:
 M/N:
 Mode: WIFI N40 2452
 Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Antenna Height		Table Degree						
								MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2131.614	46.03	-3.87	42.16	74.00	-31.84	peak								
2	*	2881.169	44.92	-2.65	42.27	74.00	-31.73	peak								
3		4904.000	41.22	-2.70	38.52	74.00	-35.48	peak								

Note: 1. *:Maximum data; x:Over limit; l:over margin.

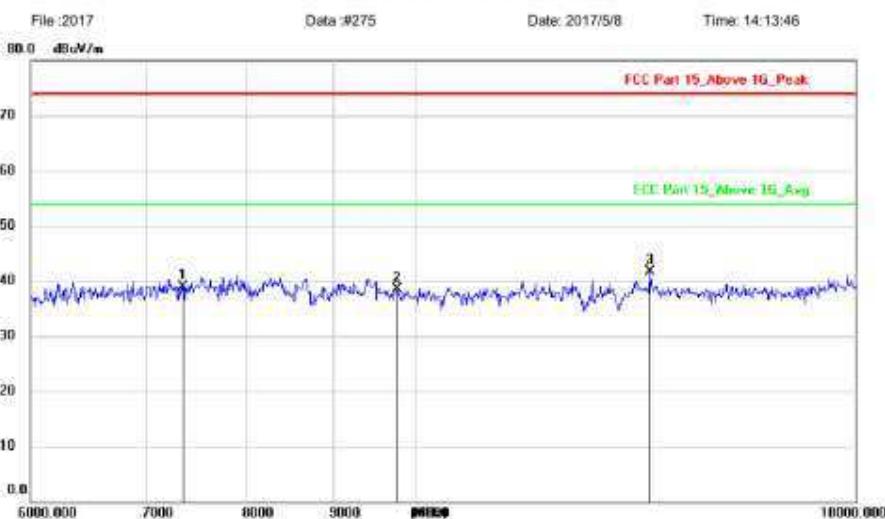
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB Polarization: **Vertical** Temperature: 23.5
 Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51%
 EUT: Distance:
 M/N:
 Mode: WIFI N40 2452
 Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Antenna Height	Table Degree	Comment	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	
1		7356.000	35.43	3.45	38.88	74.00	-35.12	peak			
2		9781.774	34.68	3.90	38.58	74.00	-35.42	peak			
3	*	13699.64	35.21	6.47	41.68	74.00	-32.32	peak			

Note: 1. *:Maximum data; x:Over limit; !:over margin.

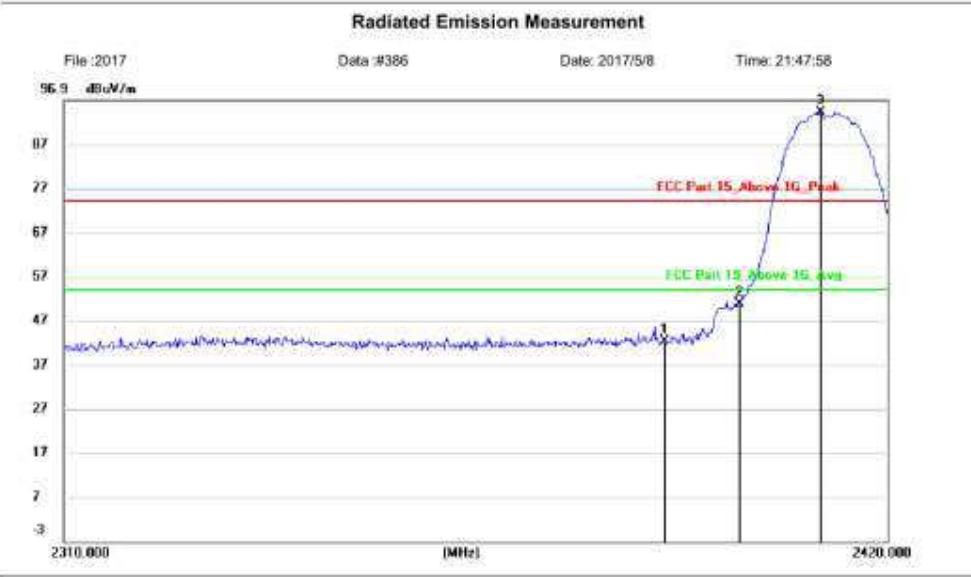
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Appendix B.2: Radiated Emissions in Restricted Bands near the band edge
Wi-Fi 802.11 b mode, 1 Mbps
Low channel



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance: 3m	
M/N:		
Mode:wifi b 2412		
Note:		



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		2390.000	45.71	-3.40	42.31	74.00	-31.69	peak		
2		2400.000	54.18	-3.41	50.77	74.00	-23.23	peak		
3	*	2410.992	97.70	-3.40	94.30	74.00	20.30	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

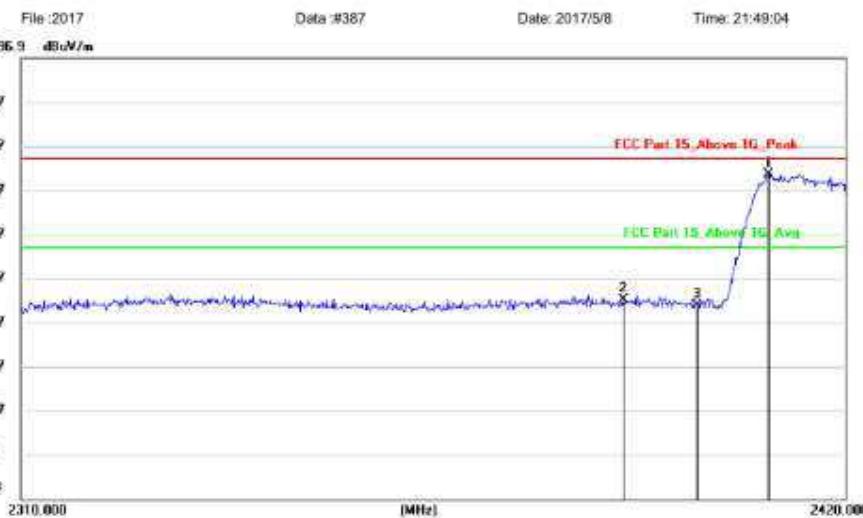


Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB
Limit: FCC Part 15_Above 1G_Peak
EUT:
MN:
Mode:wifi b 2412
Note:

Polarization: **Vertical** Temperature: 23.5
Power: DC 5V Humidity: 51 %
Distance: 3m

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height		Table Degree	Comment				
								MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree
1	*	2409.532	73.82	-3.40	70.42	74.00	-3.58	peak							
2		2390.000	45.52	-3.40	42.12	74.00	-31.88	peak							
3		2400.000	44.07	-3.41	40.66	74.00	-33.34	peak							

Note: 1. *:Maximum data; x:Over limit; !:over margin.

2. Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

High channel



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB

Polarization: **Horizontal**

Temperature: 23.5

Limit: FCC Part 15_Above 1G_Peak

Power: DC 5V

Humidity: 51 %

EUT:

Distance: 3m

M/N:

Mode:wifi b 2462

Note:

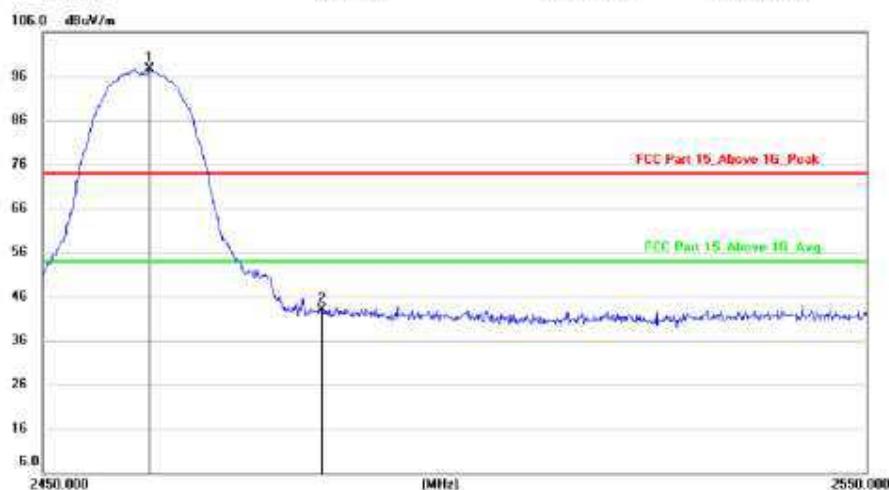
Radiated Emission Measurement

File: 2017

Data #388

Date: 2017/5/8

Time: 21:51:00



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	*	2462.899	100.99	-3.40	97.59	74.00	23.59	peak		
	2	2483.500	46.34	-3.38	42.96	74.00	-31.04	peak		

Note: 1. *Maximum data; x:Over limit; l:over margin.

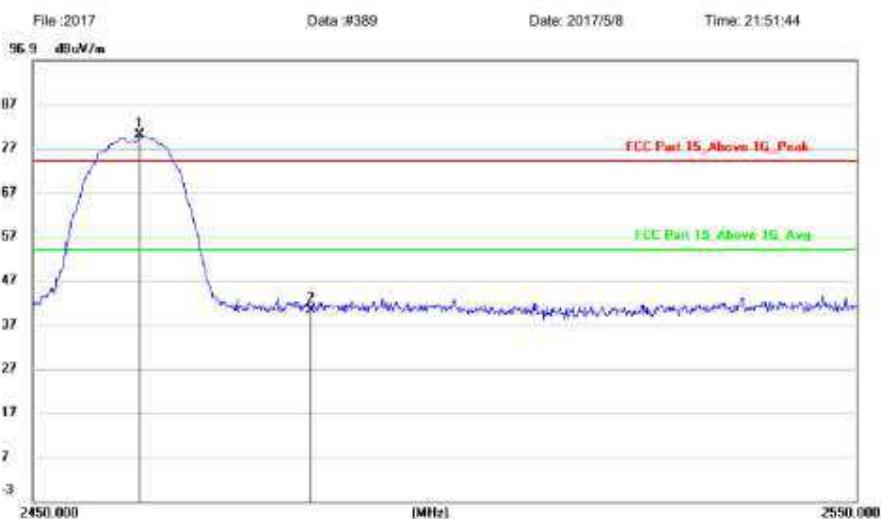
2. Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Vertical** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance: 3m
M/N:
Mode:wifi b 2462
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	*	2462.899	83.38	-3.40	79.98	74.00	5.98	peak		
2		2483.500	43.73	-3.38	40.35	74.00	-33.65	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

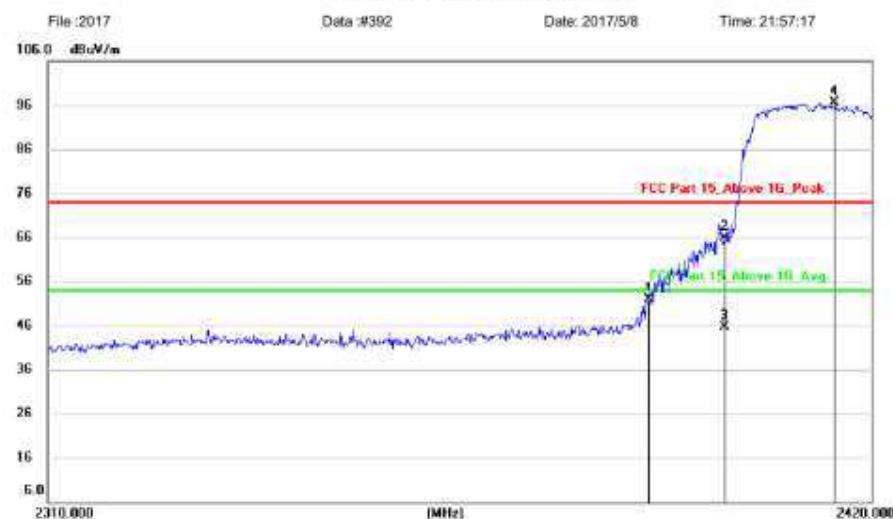
Wi-Fi 802.11 g mode, 6 Mbps
Low channel



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB Polarization: **Horizontal** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance: 3m
M/N:
Mode: wifi g 2412
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1		2390.000	55.27	-3.40	51.87	74.00	-22.13	peak		
2		2400.000	69.29	-3.41	65.88	74.00	-8.12	peak		
3		2400.000	49.03	-3.41	45.62	54.00	-8.38	AVG		
4	*	2415.154	100.12	-3.41	96.71	74.00	22.71	peak		

Note: 1. *Maximum data; x:Over limit; !:over margin.

2. Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building I, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB: Polarization: **Vertical** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance: 3m
M/N:
Mode:wifi g 2412
Note:

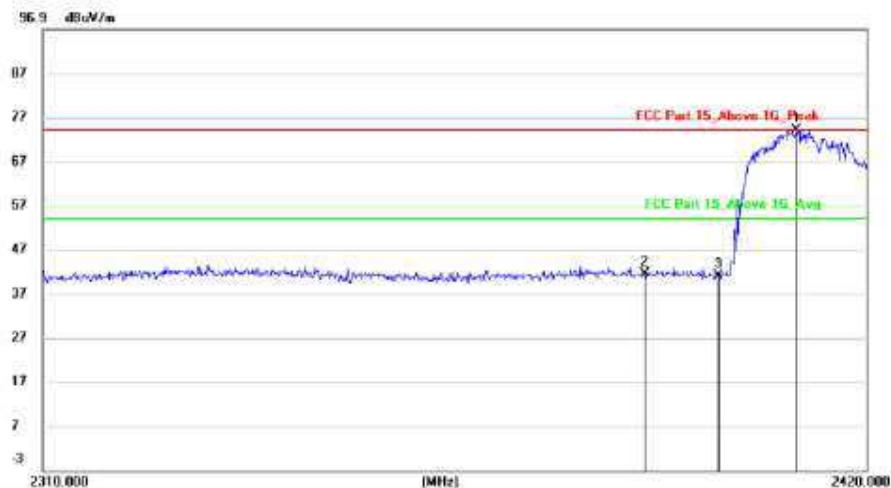
Radiated Emission Measurement

File:2017

• Date: 11/3/93

Date: 2017/5/8

Time: 21:58:27



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2410.431	77.49	-3.40	74.09	74.00	0.09	peak			
2		2390.000	44.82	-3.40	41.42	74.00	-32.58	peak			
3		2400.000	44.38	-3.41	40.97	74.00	-33.03	peak			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2. Measurement = Reading Level + Correct Factor; Correct Factor = Antenna Factor + Cable Loss.

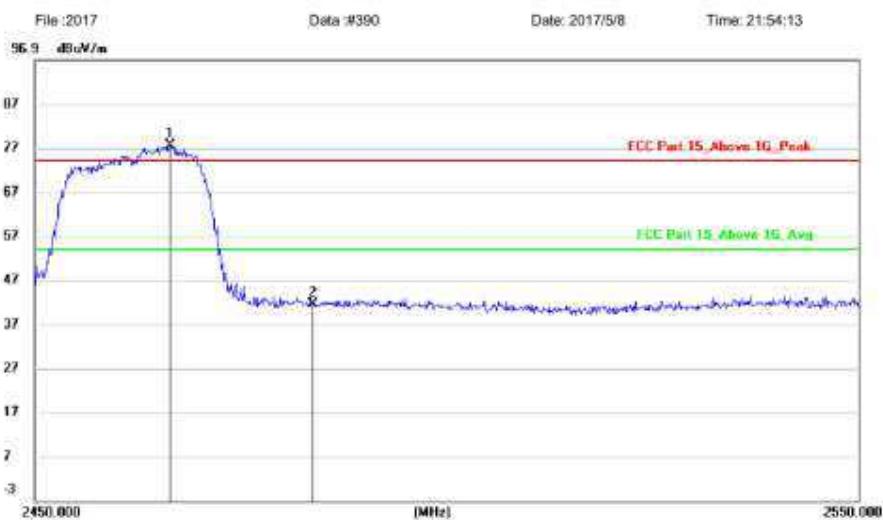
High channel



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB Polarization: **Vertical** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51%
EUT: Distance: 3m
M/N:
Mode:wifi g 2462
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2466.159	80.82	-3.39	77.43	74.00	3.43	peak		
	2	2483.500	44.89	-3.38	41.51	74.00	-32.49	peak		

Note:1. *:Maximum data; x:Over limit; l:over margin.

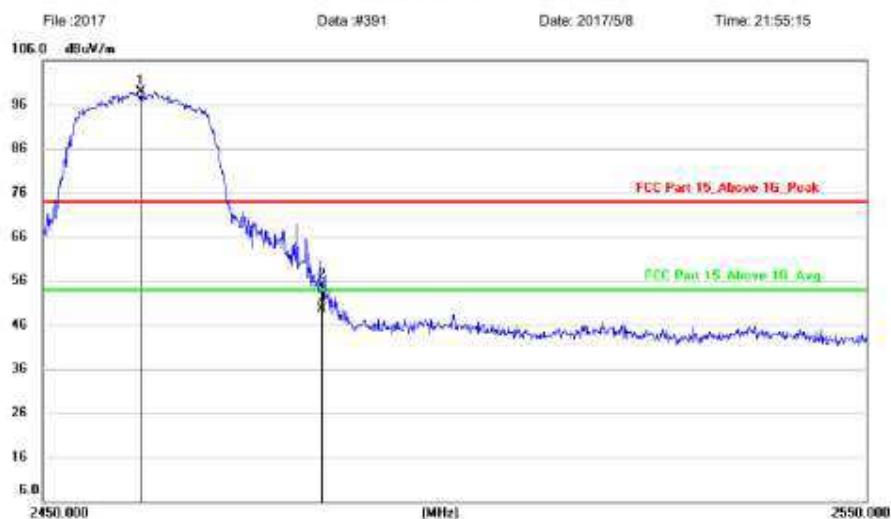
2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Horizontal** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance: 3m
M/N:
Mode:wifi g 2462
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	*	2461.715	102.31	-3.39	98.92	74.00	24.92	peak		
2		2483.500	58.37	-3.38	54.99	74.00	-19.01	peak		
3		2483.500	53.03	-3.38	49.65	54.00	-4.35	AVG		

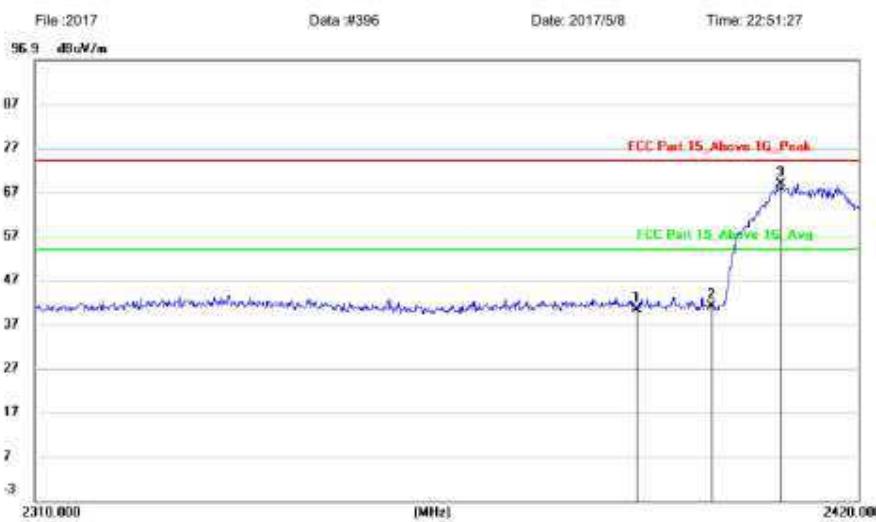
Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

Wi-Fi 802.11 n(HT20) mode, MCS0 Mbps
Low channel


Shenzhen Alpha Product Testing Co., Ltd.
 Building i, No.2, Lixin Road, Fuyong Street,
 Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB Polarization: **Vertical** Temperature: 23.5
 Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51%
 EUT: Distance: 3m
 M/N:
 Mode:wifi n20 2412
 Note:

Radiated Emission Measurement


No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1		2390.000	43.79	-3.40	40.39	74.00	-33.61	peak		
2		2400.000	44.44	-3.41	41.03	74.00	-32.97	peak		
3	*	2409.420	72.13	-3.40	68.73	74.00	-5.27	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

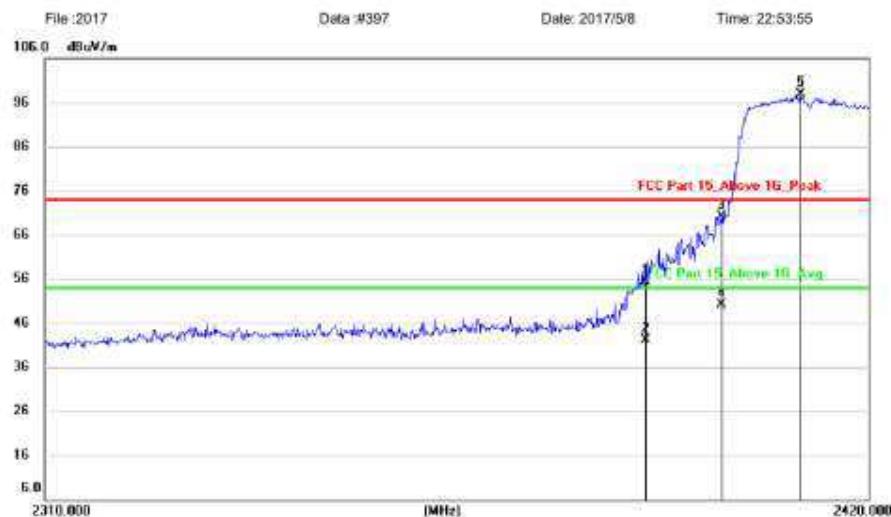


Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB
Limit: FCC Part 15_Above 1G_Peak
EUT:
M/N:
Mode:wifi n20:2412
Note:

Polarization: **Horizontal** Temperature: 23.5
Power: DC 5V Humidity: 51 %
Distance: 3m

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	2390.000	58.77	-3.40	55.37	74.00	-18.63	peak			
2	2390.000	45.65	-3.40	42.25	54.00	-11.75	AVG			
3	2400.000	73.61	-3.41	70.20	74.00	-3.80	peak			
4	2400.000	53.58	-3.41	50.17	54.00	-3.83	AVG			
5	*	2410.768	101.33	-3.40	97.93	74.00	23.93	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

High channel



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB Polarization: **Horizontal** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance: 3m
M/N:
Mode:wifi n20 2462
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Antenna Height	Table Degree	Comment	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	
1	*	2461.419	101.41	-3.39	98.02	74.00	24.02	peak			
2		2483.500	62.90	-3.38	59.52	74.00	-14.48	peak			
3		2483.500	46.38	-3.38	43.00	54.00	-11.00	AVG			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building I, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB: Polarization: **Vertical** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51 %
EUT: Distance: 3m
M/N:
Mode:wifi n20 2462
Note:

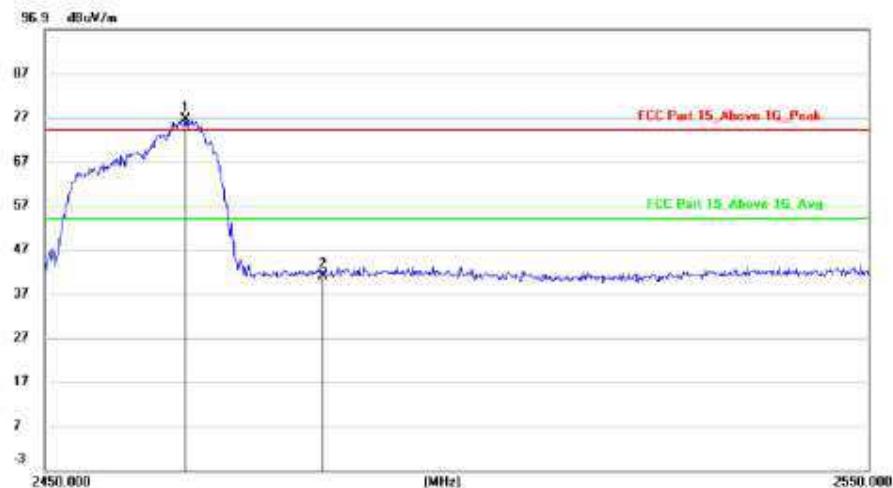
Radiated Emission Measurement

File:2017

Data 395

Date: 2017/5/8

Time: 22:47:36



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2466.852	79.94	-3.39	76.55	74.00	2.55	peak		
2		2483.500	44.49	-3.38	41.11	74.00	-32.89	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2. Measurement = Reading Level + Correct Factor; Correct Factor = Antenna Factor + Cable Loss.

Wi-Fi 802.11 n(HT40) mode, MCS0 Mbps
Low channel

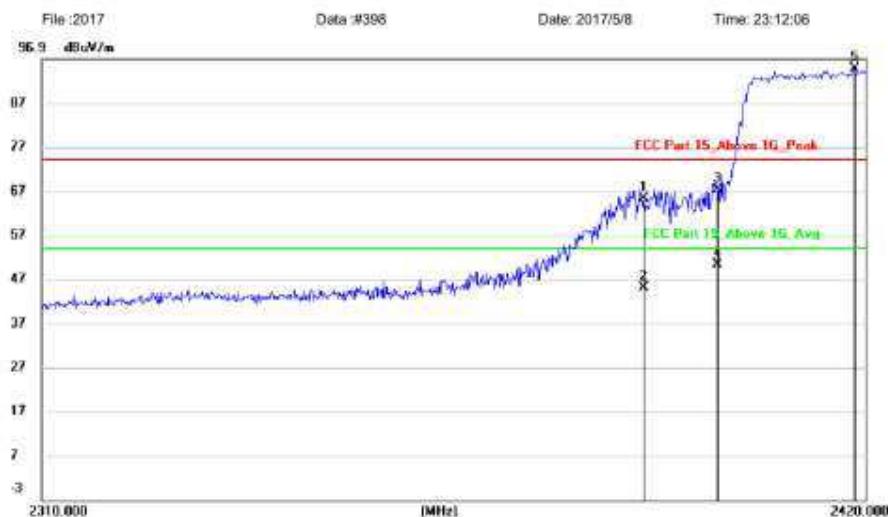


Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB
Limit: FCC Part 15_Above 1G_Peak
EUT:
M/N:
Mode:wifi n40 2422
Note:

Polarization: **Horizontal** Temperature: 23.5
Power: DC 5V Humidity: 51 %
Distance: 3m

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1		2390.000	68.59	-3.40	65.19	74.00	-8.81	peak		
2		2390.000	48.52	-3.40	45.12	54.00	-8.88	AVG		
3		2400.000	70.75	-3.41	67.34	74.00	-6.66	peak		
4		2400.000	53.77	-3.41	50.36	54.00	-3.64	AVG		
5	*	2418.534	98.07	-3.41	94.66	74.00	20.66	peak		

Note: 1. *Maximum data; x:Over limit; !:over margin.

2. Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

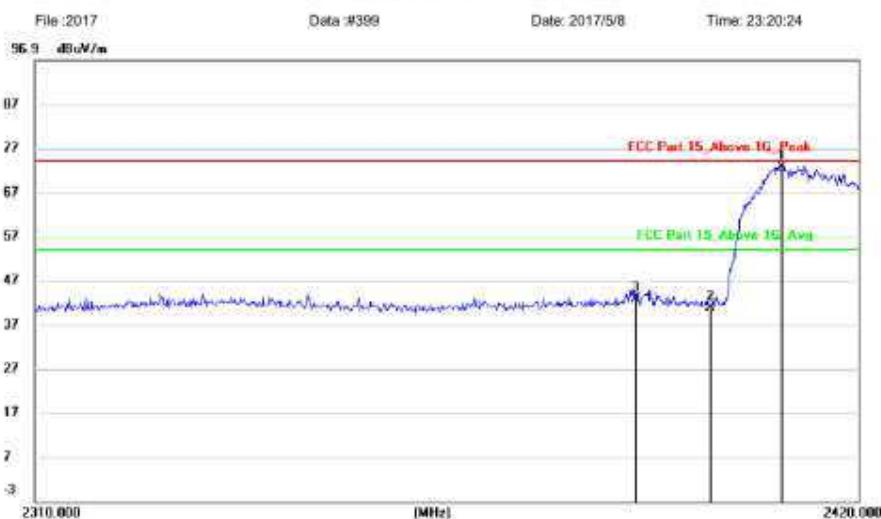


Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB
Limit: FCC Part 15_Above 1G_Peak
EUT:
M/N:
Mode:wifi n40:2422
Note:

Polarization: **Vertical** Temperature: 23.5
Power: DC 5V Humidity: 51 %
Distance: 3m

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dB	Detector	cm	degree	
1	*	2409.532	76.18	-3.40	72.78	74.00	-1.22	peak		
2		2400.000	44.21	-3.41	40.80	74.00	-33.20	peak		
3		2390.000	46.18	-3.40	42.78	74.00	-31.22	peak		

Note:1. *:Maximum data; x:Over limit; !:over margin.

2.Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.

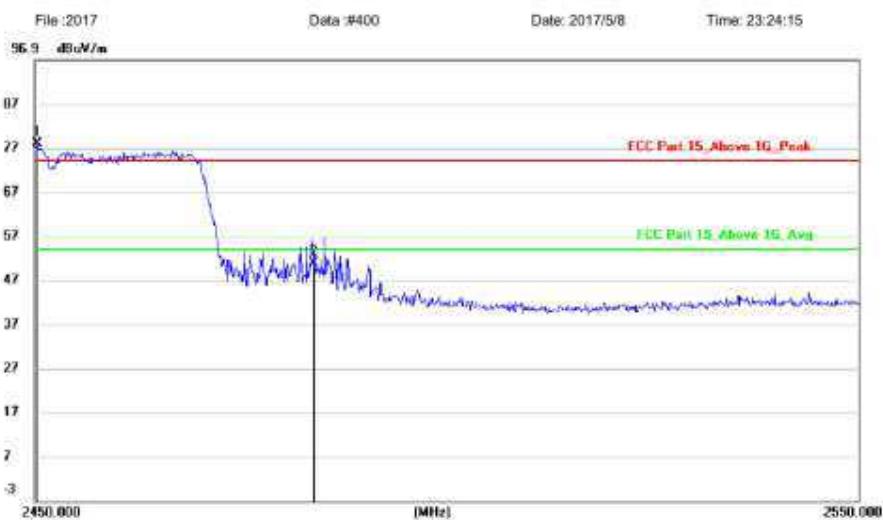
High channel



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB Polarization: **Vertical** Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak Power: DC 5V Humidity: 51%
EUT: Distance: 3m
M/N:
Mode: wifi n40 2422
Note:

Radiated Emission Measurement



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin	Antenna Height	Table Degree	Comment
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree
1	*	2450.295	81.31	-3.39	77.92	74.00	3.92	peak		
2		2483.500	54.25	-3.38	50.87	74.00	-23.13	peak		

Note: 1. *:Maximum data; x:Over limit; !:over margin.

2. Measurement=Reading Level+Correct Factor; Correct Factor=Antenna Factor+Cable Loss.



Shenzhen Alpha Product Testing Co., Ltd.
Building I, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site LAB	Polarization: Horizontal	Temperature: 23.5
Limit: FCC Part 15_Above 1G_Peak	Power: DC 5V	Humidity: 51 %
EUT:	Distance: 3m	
M/N:		
Mode:wifi n40 2422		
Note:		

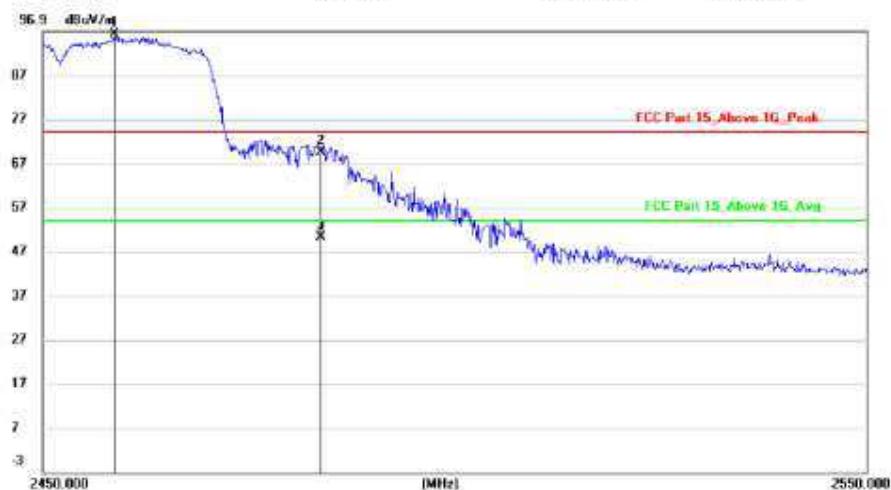
Radiated Emission Measurement

File:2017

Data #401

Date: 2017/5/8

Time: 23:26:01



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Margin		Antenna Height	Table Degree	
		MHz	dBuV	dB	dBuV/m	dBuV/m	dB	Detector	cm	degree	Comment
1	*	2458.658	99.65	-3.39	96.26	74.00	22.26	peak			
2		2483.500	72.97	-3.38	69.59	74.00	-4.41	peak			
3		2483.500	53.56	-3.38	50.18	54.00	-3.82	AVG			

Note:1. *:Maximum data; x:Over limit; !:over margin.

2. Measurement = Reading Level + Correct Factor; Correct Factor = Antenna Factor + Cable Loss.

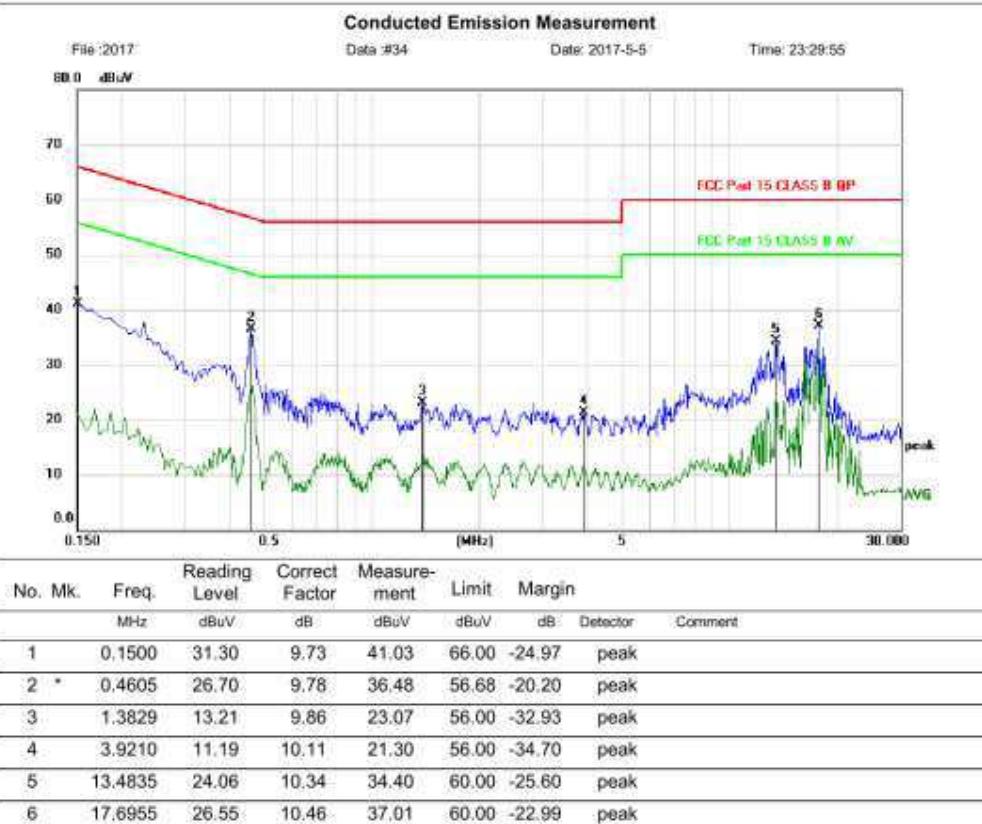
Appendix B.3: Conducted Emission on AC Mains B mode



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB
Limit: FCC Part 15 CLASS B QP
EUT: MID
M/N:
Mode: Charging and b 2462
Note:

Phase: **L1** Temperature: 24.2
Power: AC 120V/60Hz Humidity: 53 %



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

(Reference Only)

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

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Engineer Signature:



Shenzhen Alpha Product Testing Co., Ltd.
Building i, No.2, Lixin Road, Fuyong Street,
Bao'an District, 518103, Shenzhen, Guangdong, China

Site: LAB Phase: **N** Temperature: 24.2
Limit: FCC Part 15 CLASS B QP Power: AC 120V/60Hz Humidity: 53 %
EUT: MID
M/N:
Mode: Charging and b 2462
Note:

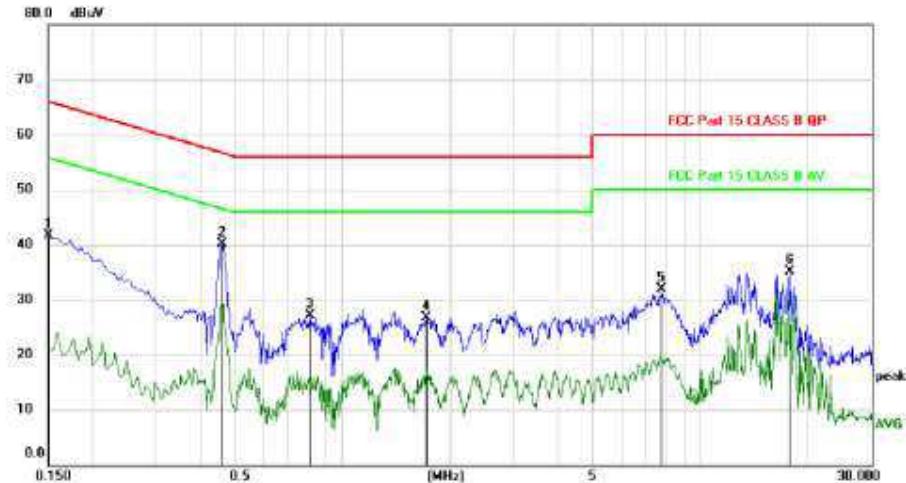
Conducted Emission Measurement

File :2017

Data #33

Date: 2017-5-5

Time: 23:28:20



No.	Mk.	Freq.	Reading Level	Correct Factor	Measure-ment	Margin			
						dB	dB	Detector	Comment
1		0.1500	31.90	9.73	41.63	66.00	-24.37	peak	
2	*	0.4605	30.29	9.78	40.07	56.68	-16.61	peak	
3		0.8115	17.32	9.81	27.13	56.00	-28.87	peak	
4		1.7115	16.88	9.90	26.78	56.00	-29.22	peak	
5		7.7775	21.61	10.28	31.89	60.00	-28.11	peak	
6		17.6955	24.69	10.46	35.15	60.00	-24.85	peak	

*Maximum data x:Over limit l:over margin

(Reference Only)

Note: Measurement=Reading Level+Correc Factor. Factor=(LISN or ISN or PLC or Current Probe)Factor+Cable

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Engineer Signature: