SGS

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FCC REPORT

Application No:	SZEM1308004794RF
Applicant:	Lexibook America
Manufacturer:	Jungle Tac Interactive Co., Ltd
Factory:	ATS ELECTRONICS (SHENZHEN) CO., LTD
Product Name:	8inch Tablet
Model No.(EUT):	MFC181
Trade mark:	Lexibook
FCC ID:	UU8-MFC09
Standards:	47 CFR Part 15, Subpart C (2012)
Date of Receipt:	2013-08-29
Date of Test:	2013-09-06 to 2013-09-12
Date of Issue:	2013-12-04
Test Result:	PASS *

.* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Jack Zhang EMC Laboratory Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.



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2 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15, Subpart C Section	ANSI C63.10 2009	PASS
	15.203/15.247 (c)		
AC Power Line	47 CFR Part 15, Subpart C Section		
Conducted	15.207	ANSI C63.10 2009	PASS
Emission	13.207		
Conducted Peak Output	47 CFR Part 15, Subpart C Section	KDB558074 D01	DASS
Power	15.247 (b)(3)	KDB556074 D01	PASS
6dB Occupied	47 CFR Part 15, Subpart C Section	KDB558074 D01	PASS
Bandwidth	15.247 (a)(2)	KDB556074 D01	
Power Spectral Density	47 CFR Part 15, Subpart C Section 15.247 (e)	KDB558074 D01	PASS
Band-edge for RF	47 CFR Part 15, Subpart C Section		DACO
Conducted Emissions	15.247(d)	KDB558074 D01	PASS
RF Conducted Spurious	47 CFR Part 15, Subpart C Section	KDB558074 D01	PASS
Emissions	15.247(d)	KDB556074 D01	FA00
Radiated Spurious	47 CFR Part 15, Subpart C Section	ANSI C63.10 2009	PASS
Emissions	15.205/15.209	ANSI 603. 10 2009	PA33
Band Edge (Radiated	47 CFR Part 15, Subpart C Section	ANSI C63.10 2009	PASS
Emission)	15.205/15.209	ANSI 003. 10 2009	FA00



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4 General Information

4.1 Client Information

Applicant:	Lexibook America
Address of Applicant:	C/O NATXIS PRAMEX INTERNATIONAL – NORTH AMERICA 1251
	avenue of the Americas 34 _{th} floor
Manufacturer:	Jungle Tac Interactive Co., Ltd
Address of Manufacturer:	A/F, Shanshui Building, Nanshan Yungu No.1183, Liuxian Road, Xili
	Town, Nanshan District, Shenzhen
Factory:	ATS ELECTRONICS (SHENZHEN) CO., LTD
Address of Factory:	4/F, Block C, Xufa Science & Technology park, No.2 Industrial Zone,
	Fenghuang, Fuyong. Shenzhen, China 518103

4.2 General Description of EUT

Product Name:	8inch Tablet		
Model No.:	MFC181		
Trade mark:	Lexibook		
Operation Frequency:	IEEE 802.11b/g	/n(HT20): 2412MHz to 2462MHz	
Channel Numbers:	IEEE 802.11b/g	, IEEE 802.11n HT20: 11 Channels	
Channel Separation:	5MHz		
Type of Modulation:	IEEE for 802.11	Ib: DSSS(CCK,DQPSK,DBPSK) Ig : OFDM(64QAM, 16QAM, QPSK, BPSK)	
	IEEE for 802.11	In(HT20) : OFDM (64QAM, 16QAM, QPSK,BPSK)	
Sample Type:	Portable produc	tion	
Test Power Grade:	65(manufacture	r declare)	
Test Software of EUT:	RF Test tool (ma	anufacturer declare)	
Antenna Type and Gain:	Type: Integral		
	Gain:1.56dBi		
Power Supply:	Adapter:	MODEL:BSYB050200U W	
		INPUT:100-240V~ 50/60Hz,0.4A	
		OUTPUT:5.0V ==== 2.0A	
	Battery:	3.7V 5000mAh 18.5Wh (Li-ion Polymer Battery)	
Test Voltage:	AC 120V 60Hz		
	DC 3.7V Battery fully charged		
DC Cable:	82cm (Unshielded)		
USB Cable:	81cm (Unshield	ed)	

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Operation F	Operation Frequency each of channel(802.11b/g/n HT20)						
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, and the selected channel see below:

For 802.11b/g/n (HT20):

Channel	Frequency
The Lowest channel	2412MHz
The Middle channel	2437MHz
The Highest channel	2462MHz

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4.3 Test Environment and Mode

Operating Environment:	Operating Environment:				
Temperature:	23.0 °C				
Humidity:	53 % RH				
Atmospheric Pressure:	1010 mbar				
Test mode:					
Transmitting mode:	The EUT transmitted the continuous modulation test signal at the specific channel(s).				
AC Charge +Tx mode:	The EUT transmitted the continuous modulation test signal at the specific channel(s) and AC charge it.				

4.4 Description of Support Units

The EUT has been tested independent unit.

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch E&E Lab,

No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China. 518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.



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4.6 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• CNAS (No. CNAS L2929)

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

VCCI

The 3m Semi-anechoic chamber, Full-anechoic Chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197, G-416, T-1153 and C-2383 respectively.

• FCC – Registration No.: 556682

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 556682.

Industry Canada (IC)

Two 3m Semi-anechoic chambers of SGS-CSTC Standards Technical Services Co., Ltd. have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1 & 4620C-2.

4.7 Deviation from Standards

None.

4.8 Abnormalities from Standard Conditions

None.

4.9 Other Information Requested by the Customer

None.



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4.10Equipment List

	Conducted Emission					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)	
1	Shielding Room	ZhongYu Electron	GB-88	SEL0042	2014-06-10	
2	LISN	Rohde & Schwarz	ENV216	SEL0152	2013-10-24	
3	LISN	ETS-LINDGREN	3816/2	SEL0021	2014-05-16	
4	8 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T8-02	SEL0162	2013-11-10	
5	4 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T4-02	SEL0163	2013-11-10	
6	2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T2-02	SEL0164	2013-11-10	
7	EMI Test Receiver	Rohde & Schwarz	ESCI	SEL0022	2014-05-16	
8	Coaxial Cable	SGS	N/A	SEL0025	2014-05-29	
9	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2013-10-24	
10	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B	SEL0103	2013-10-24	
11	Barometer	Chang Chun	DYM3	SEL0088	2014-05-24	



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	RE in Chamber					
ltem	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)	
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2014-06-10	
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	2014-05-16	
3	EMI Test software	AUDIX	E3	SEL0050	N/A	
4	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2013-10-24	
5	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2013-10-24	
6	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	2013-10-24	
7	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	2014-05-16	
8	Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEL0168	2013-10-24	
9	Coaxial cable	SGS	N/A	SEL0027	2014-05-29	
10	Coaxial cable	SGS	N/A	SEL0189	2014-05-29	
11	Coaxial cable	SGS	N/A	SEL0121	2014-05-29	
12	Coaxial cable	SGS	N/A	SEL0178	2014-05-29	
13	Band filter	Amindeon	82346	SEL0094	2014-05-16	
14	Barometer	Chang Chun	DYM3	SEL0088	2014-05-24	
15	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2013-10-24	
16	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B	SEL0103	2013-10-24	
17	Signal Generator (10M-27GHz)	Rohde & Schwarz	SMR27	SEL0067	2014-05-16	
18	Signal Generator	Rohde & Schwarz	SMY01	SEL0155	2013-10-24	
19	Loop Antenna	Beijing Daze	ZN30401	SEL0203	2014-06-04	



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	RF connected test						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)		
1	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2013-10-24		
2	Humidity/ Temperature Indicator	HYGRO	ZJ1-2B	SEL0033	2013-10-24		
3	Spectrum Analyzer	Rohde & Schwarz	FSP	SEL0154	2013-10-24		
4	Coaxial cable	SGS	N/A	SEL0178	2014-05-29		
5	Coaxial cable	SGS	N/A	SEL0179	2014-05-29		
6	Barometer	ChangChun	DYM3	SEL0088	2014-05-24		
7	Signal Generator	Rohde & Schwarz	SML03	SEL0068	2014-05-16		
8	Band filter	amideon	82346	SEL0094	2014-05-16		
9	POWER METER	R & S	NRVS	SEL0144	2013-10-24		
10	Attenuator	Beijin feihang taida	TST-2-6dB	SEL0205	2014-05-16		
11	Power Divider(splitter)	Agilent Technologies	11636B	SEL0130	2013-10-24		

Note: The calibration interval is one year, all the instruments are valid.



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5 Test results and Measurement Data

5.1 Antenna Requirement

5.1	Antenna nequirem			
	Standard requirement:	47 CFR Part 15C Section 15.203 /247(c)		
	15.203 requirement:			
	An intentional radiator shall	be designed to ensure that no antenna other than that furnished by the		
	responsible party shall be used with the device. The use of a permanently attached antenna or of			
	antenna that uses a unique	coupling to the intentional radiator, the manufacturer may design the unit		
	so that a broken antenna ca	an be replaced by the user, but the use of a standard antenna jack or		
	electrical connector is prohi	bited.		
	15.247(b) (4) requirement:			
	The conducted output powe	er limit specified in paragraph (b) of this section is based on the use of		
	antennas with directional ga	ains that do not exceed 6 dBi. Except as shown in paragraph (c) of this		
	section, if transmitting anter	nnas of directional gain greater than 6 dBi are used, the conducted output		
	power from the intentional r	radiator shall be reduced below the stated values in paragraphs (b)(1),		
	(b)(2), and $(b)(3)$ of this sec	tion, as appropriate, by the amount in dB that the directional gain of the		
	antenna exceeds 6 dBi.			
	EUT Antenna:			
	The antenna is integrated o	on the main PCB and no consideration of replacement. The best case gain		
	of the antenna is 1.56dBi.			
		Wi-Fi BT		
		WIIIDI		
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		Antenna		
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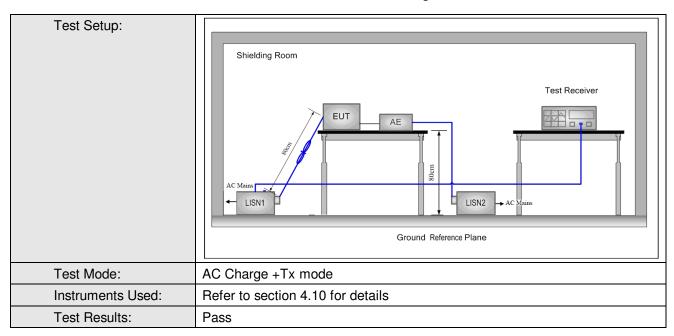
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5.2 Oonducted Linis				
Test Requirement:	47 CFR Part 15C Section 15.207			
Test Method:	ANSI C63.10: 2009			
Test Frequency Range:	: 150kHz to 30MHz			
Limit:		Limit (dBuV)		
	Frequency range (MHz)	Quasi-peak	Average	
	0.15-0.5	66 to 56*	56 to 46*	
	0.5-5	56	46	
	5-30	60	50	
	* Decreases with the logarithm	n of the frequency.		
Test Procedure:			bugh a LISN 1 (Line des a 50Ω/50µH + 4 f the EUT were bonded to the grou being measured. A multiple power cables not exceeded. c table 0.8m above the arrangement, the El erence plane. The rea d reference plane. The rea d reference plane. The rea d reference plane. The rea boundary of the plane for LISNs his distance was EUT. All other units of 0.8 m from the LISN 2.	5Ω Ind s to e UT ar e e f

5.2 Conducted Emissions



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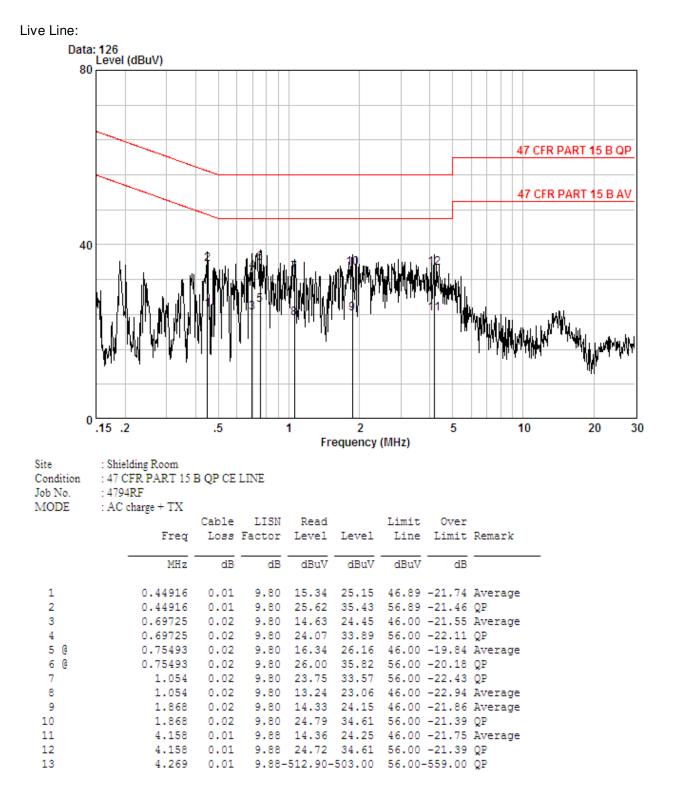
Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.

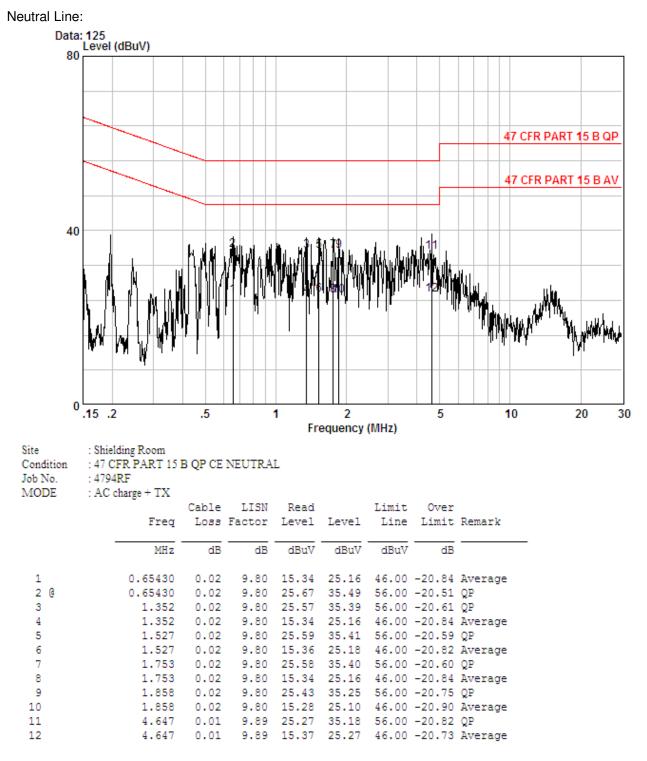


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Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:

2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.



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5.3 Conducted Peak Output Power

Test Requirement:	47 CFR Part 15C Section 15.247 (b)(3)	
Test Method:	KDB558074 D01	
Test Setup:	Spectrum Analyzer F.U.T Non-Conducted Table Ground Reference Plane Remark:	
	Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.	
Test Instruments:	Refer to section 4.10 for details	
Exploratory Test Mode:	Transmitting mode	
Final Test Mode:	Through Pre-scan, find the 11Mbps of rate is the worst case of 802.11b;	
	54Mbps of rate is the worst case of 802.11g ;65Mbps of rate is the worst case of 802.11n(HT20).	
Limit:	30dBm	
Test Results:	Pass	



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Mode	802.11b							
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps				
Power (dBm)	17.75	17.81	17.86	18.13				
Mode	802.11g							
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power (dBm)	17.28	17.32	17.37	17.39	17.42	17.48	17.52	17.58
Mode				802.11	n(HT20)			
Data Rate	6.5Mbps	13Mbps	19.5Mbps	26Mbps	39Mbps	52Mbps	58.5Mbps	65Mbps
Power (dBm)	17.11	17.12	17.14	17.18	17.21	17.24	17.27	17.31

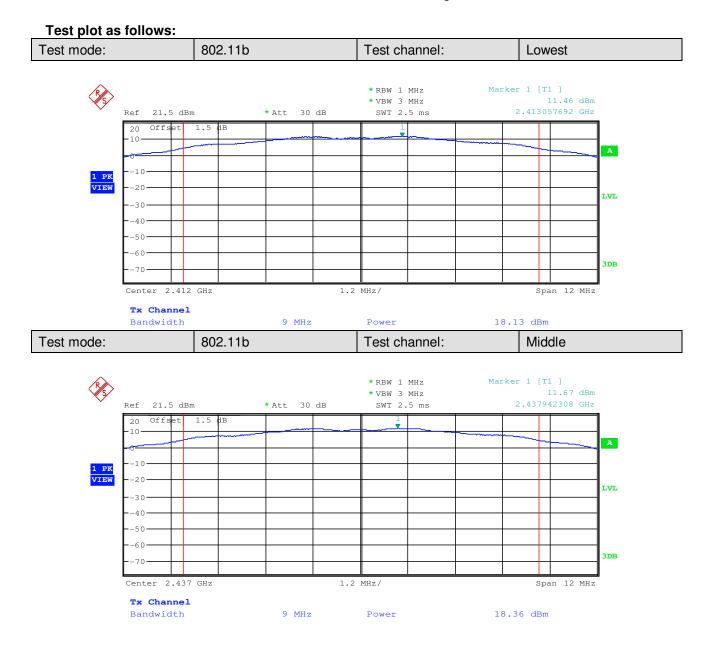


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Measurement Data 802.11b mode Test channel Peak Output Power (dBm) Limit (dBm) Result Lowest 18.13 30.00 Pass Middle 30.00 18.36 Pass Highest 18.76 30.00 Pass 802.11g mode Test channel Peak Output Power (dBm) Limit (dBm) Result Lowest 17.58 30.00 Pass 17.98 Middle 30.00 Pass 18.23 30.00 Highest Pass 802.11n(HT20)mode Test channel Peak Output Power (dBm) Limit (dBm) Result 17.31 30.00 Lowest Pass 17.76 30.00 Middle Pass 17.96 Highest 30.00 Pass

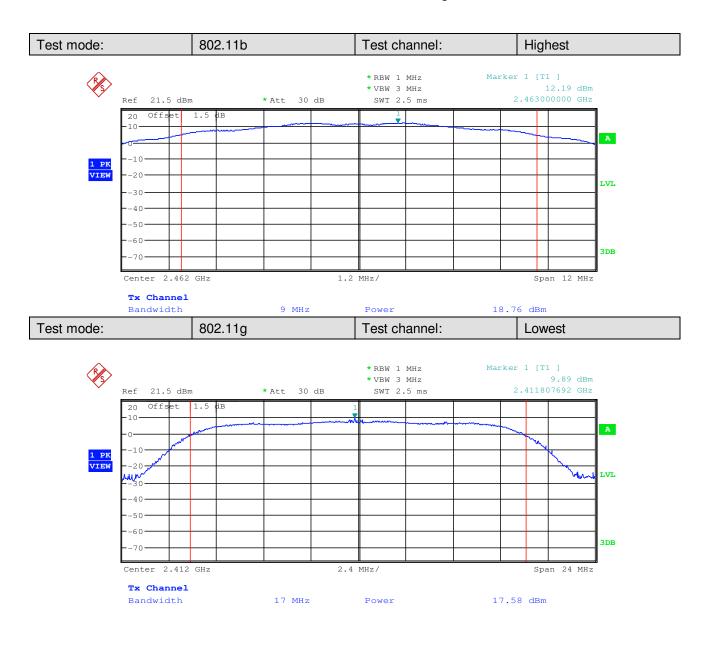


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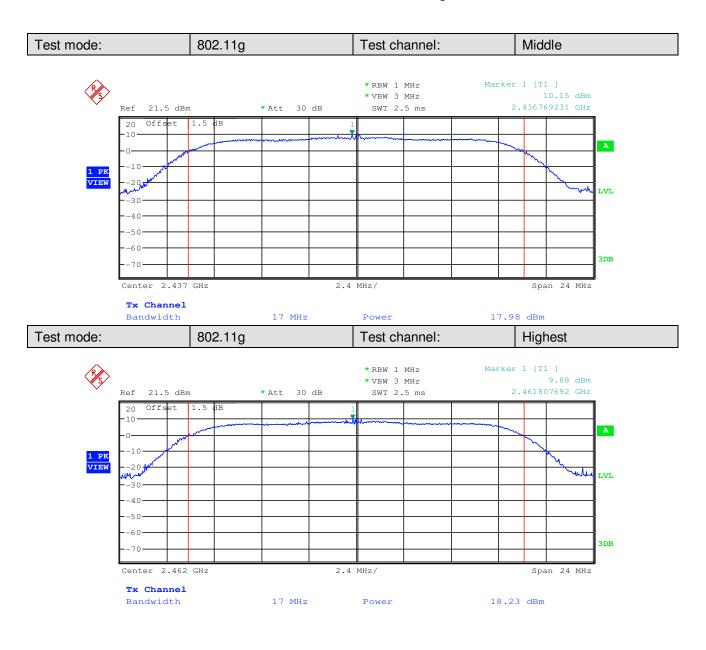


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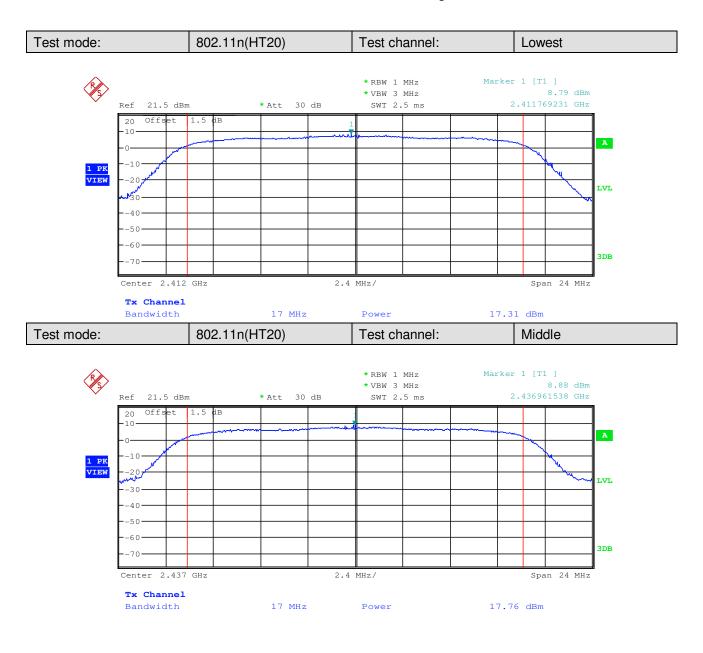


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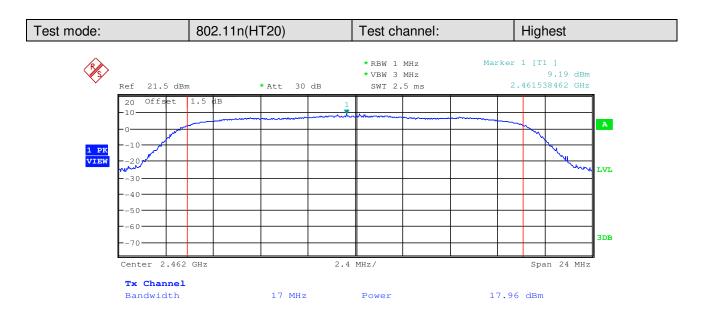
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5.4 6dB Occupy Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.247 (a)(2)	
Test Method:	KDB558074 D01	
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane	
Instruments Used:	Refer to section 4.10 for details	
Exploratory Test Mode:	Transmitting mode	
Final Test Mode:	Through Pre-scan, find the 11Mbps of rate is the worst case of 802.11b;	
	54Mbps of rate is the worst case of 802.11g ; 65Mbps of rate is the worst case of 802.11n(HT20).	
Limit:	≥ 500 kHz	
Test Results:	Pass	

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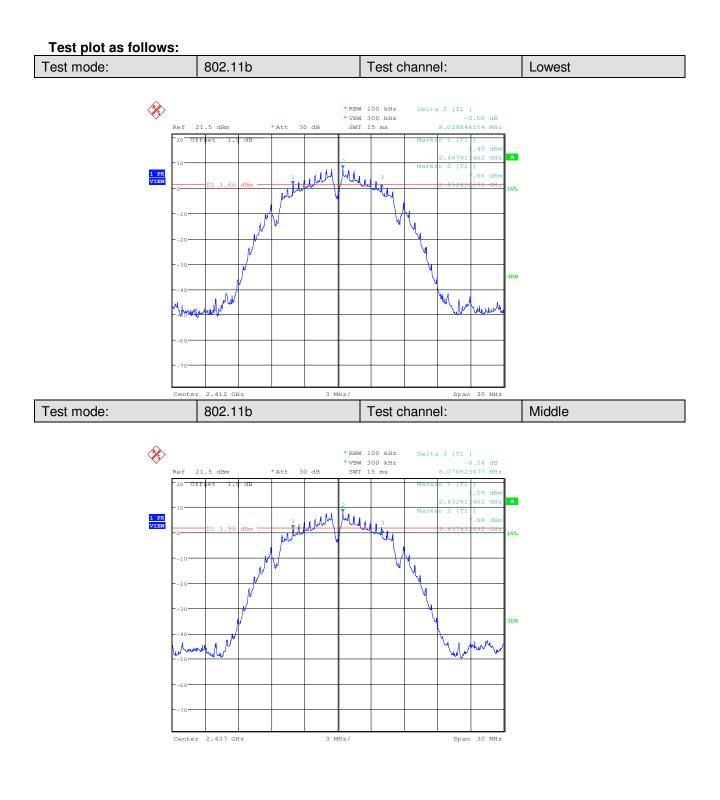


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Measurement Data 802.11b mode Limit (kHz) Test channel 6dB Occupy Bandwidth (MHz) Result 8.028846154 ≥500 Lowest Pass Middle ≥500 8.076923077 Pass Highest 7.163461538 ≥500 Pass 802.11g mode Test channel 6dB Occupy Bandwidth (MHz) Limit (kHz) Result Lowest 15.370192308 ≥500 Pass Middle 15.701923077 ≥500 Pass Highest 15.480769231 ≥500 Pass 802.11n(HT20) mode Test channel 6dB Occupy Bandwidth (MHz) Limit (kHz) Result Lowest 16.105769231 ≥500 Pass Middle 16.201923077 ≥500 Pass Highest 15.192307692 ≥500 Pass

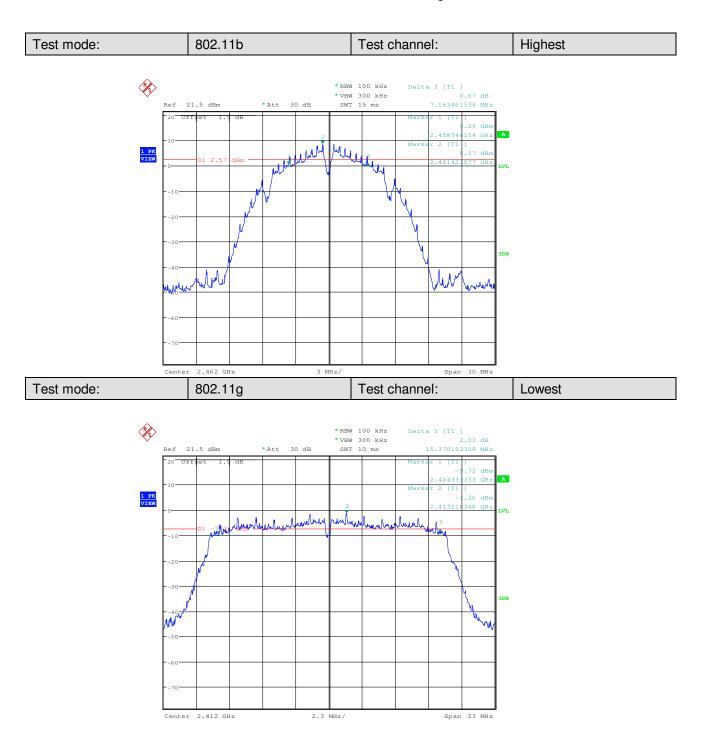


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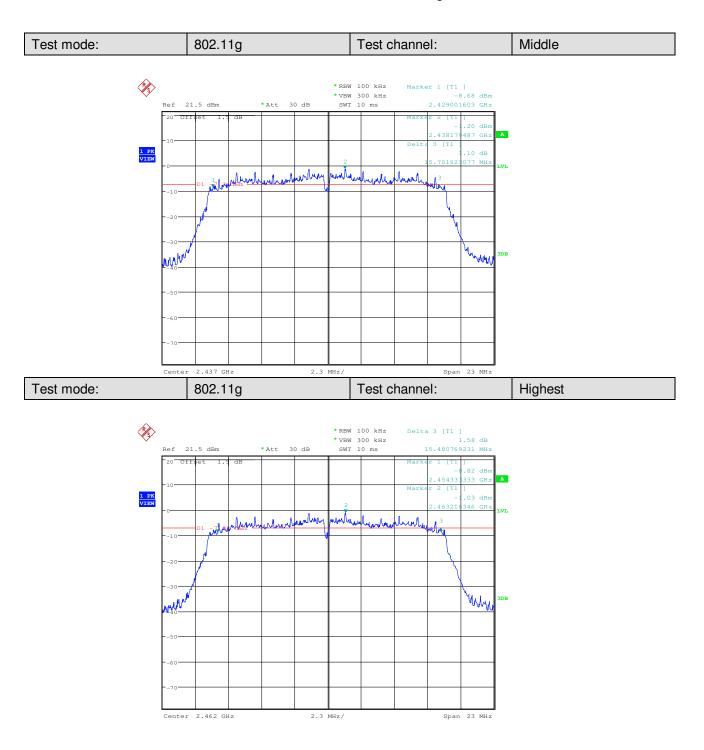


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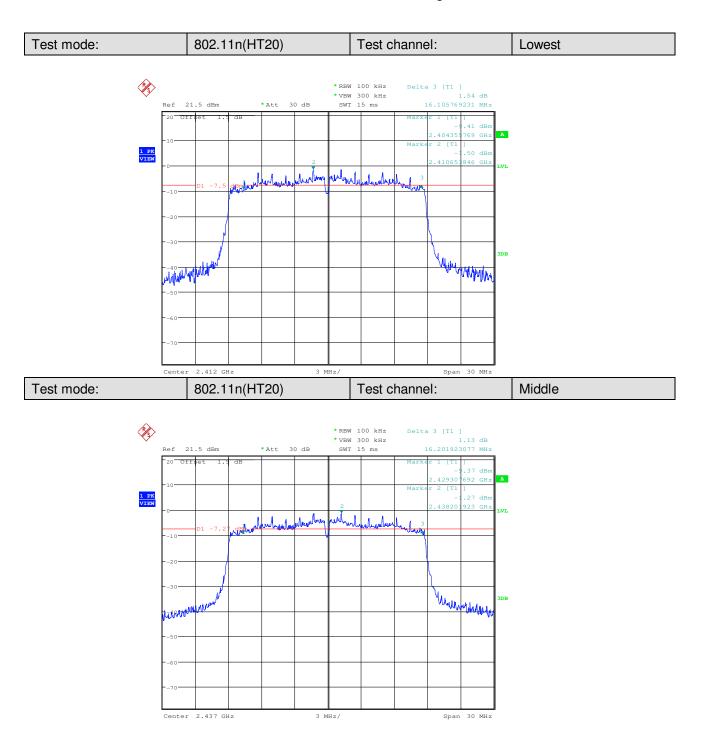


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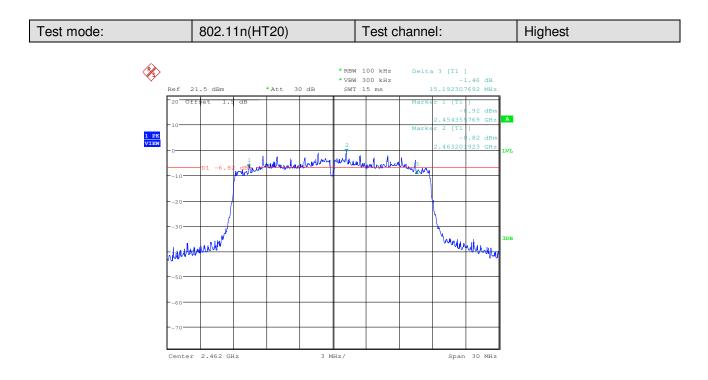


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5.5 Power Spectral Density

Test Requirement:	47 CFR Part 15C Section 15.247 (e)	
Test Method:	KDB558074 D01	
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane	
	Remark:	
	Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.	
Test Instruments:	Refer to section 4.10 for details	
Exploratory Test Mode:	Transmitting mode	
Final Test Mode:	Through Pre-scan, find the 11Mbps of rate is the worst case of 802.11b;	
	54Mbps of rate is the worst case of 802.11g ; 65Mbps of rate is the worst case of 802.11n (HT20).	
Limit:	≤8.00dBm	
Test Results:	Pass	

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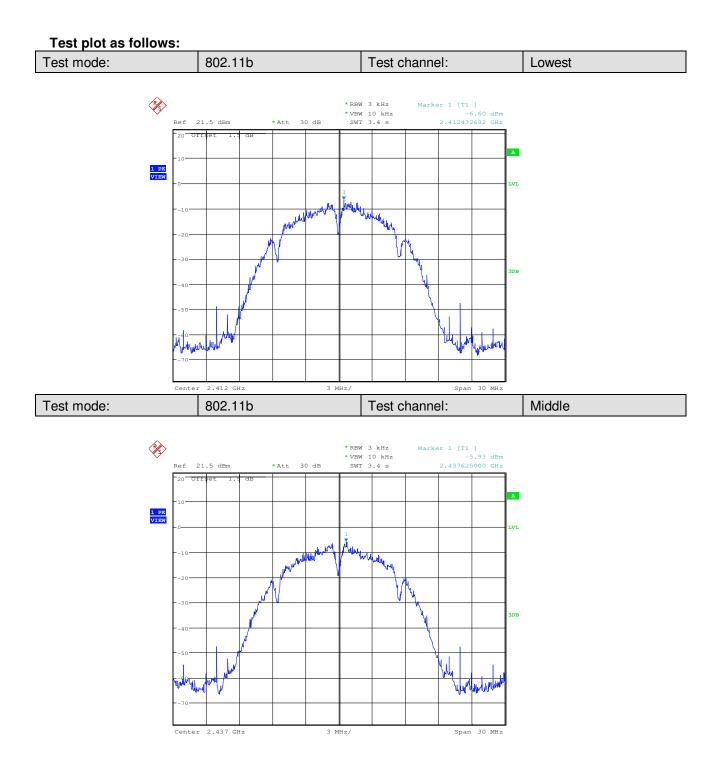
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Measurement Data 802.11b mode Test channel Power Spectral Density (dBm) Limit (dBm) Result Lowest -6.60 ≤8.00 Pass Middle -5.93 ≤8.00 Pass -7.00 Highest ≤8.00 Pass 802.11g mode Test channel Power Spectral Density (dBm) Limit (dBm) Result Lowest -15.11 ≤8.00 Pass Middle -15.61 ≤8.00 Pass -14.57 Highest ≤8.00 Pass 802.11n(HT20) mode Test channel Power Spectral Density (dBm) Limit (dBm) Result Lowest -16.03 ≤8.00 Pass -15.32 Middle ≤8.00 Pass Highest -14.51 ≤8.00 Pass



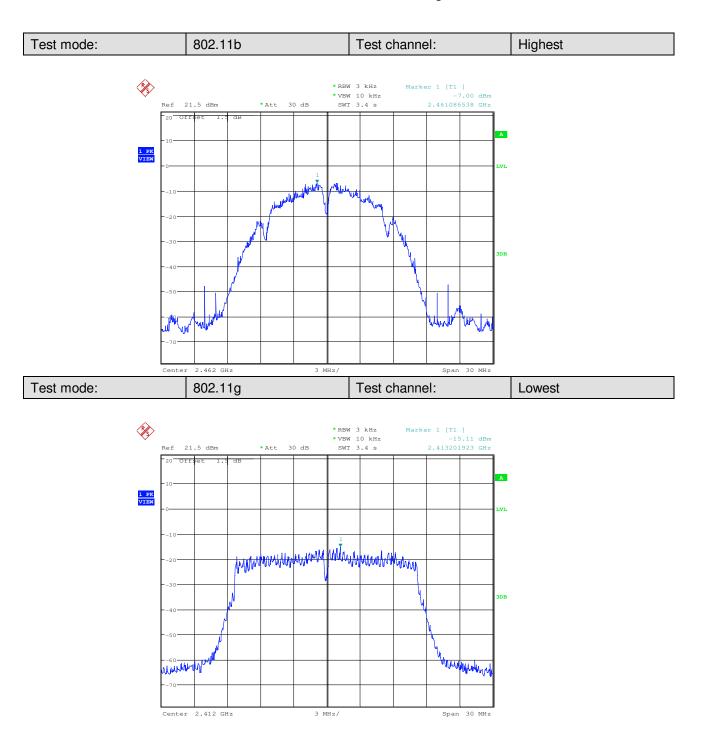


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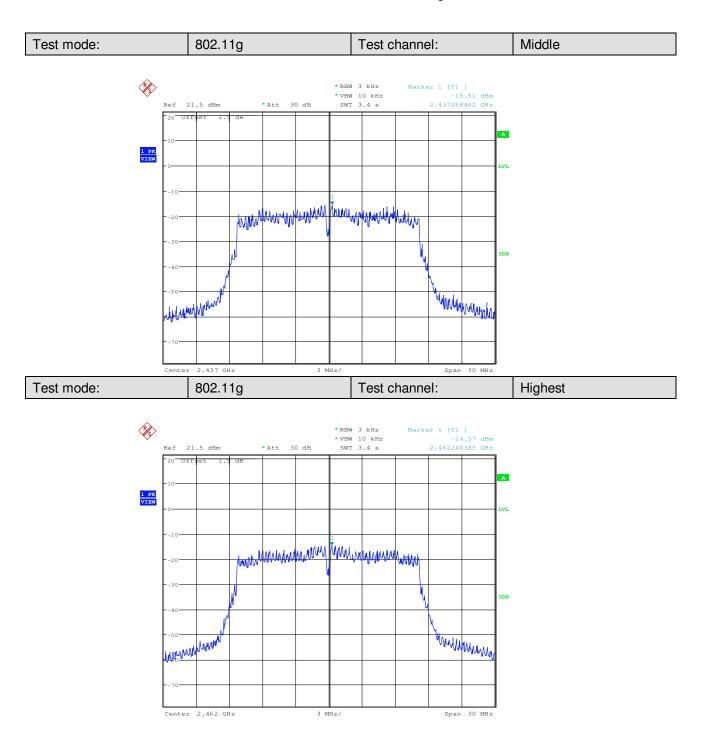


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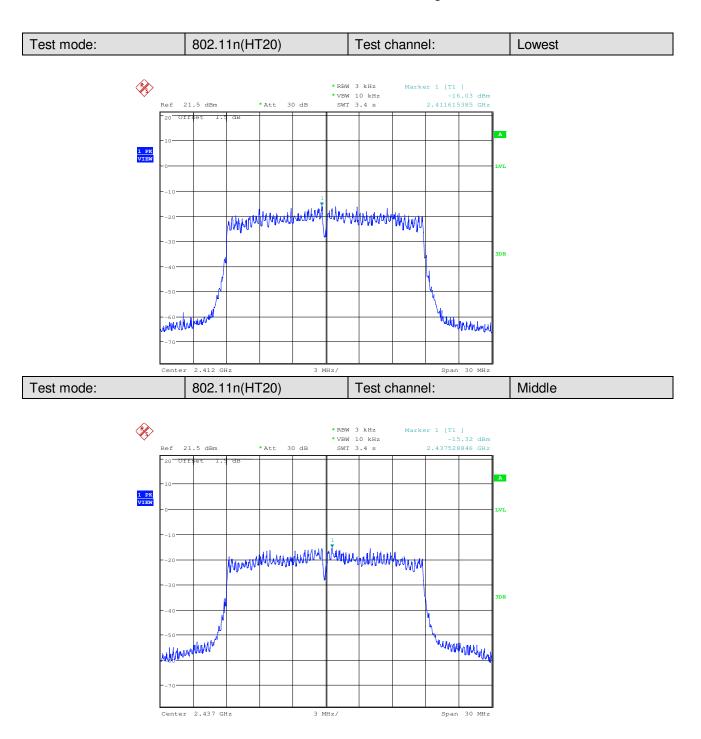


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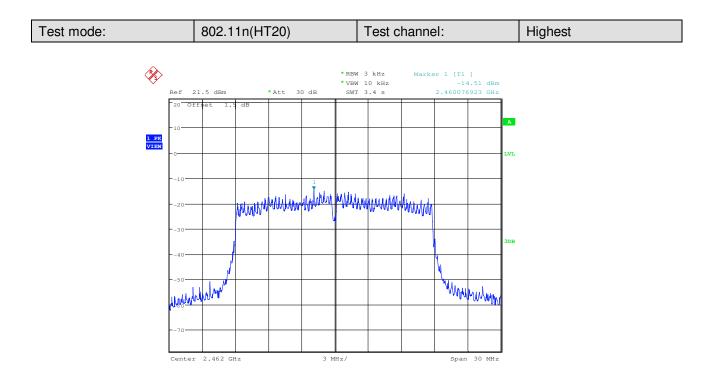


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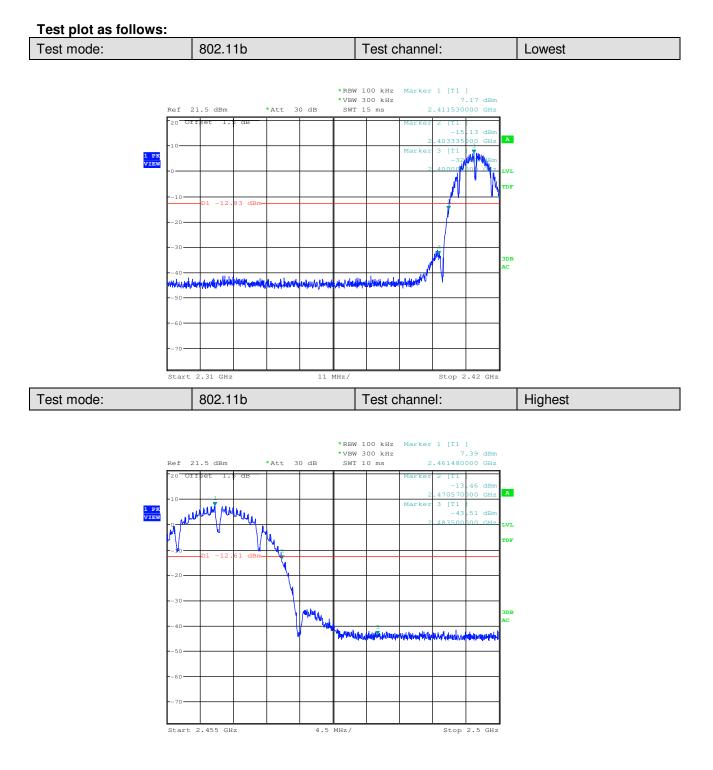
5.6 Band-edge for RF Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)		
Test Method:	KDB558074 D01		
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table		
	Ground Reference Plane Remark: Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.		
Exploratory Test Mode:	Transmitting mode		
Final Test Mode:	Through Pre-scan, find the 11Mbps of rate is the worst case of 802.11b;		
	54Mbps of rate is the worst case of 802.11g ; 65Mbps of rate is the worst case of 802.11n(HT20).		
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread		
	spectrum intentional radiator is operating, the radio frequency power that is		
	produced by the intentional radiator shall be at least 20 dB below that in the		
	100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.		
Instruments Used:	Refer to section 4.10 for details		
Test Results:	Pass		

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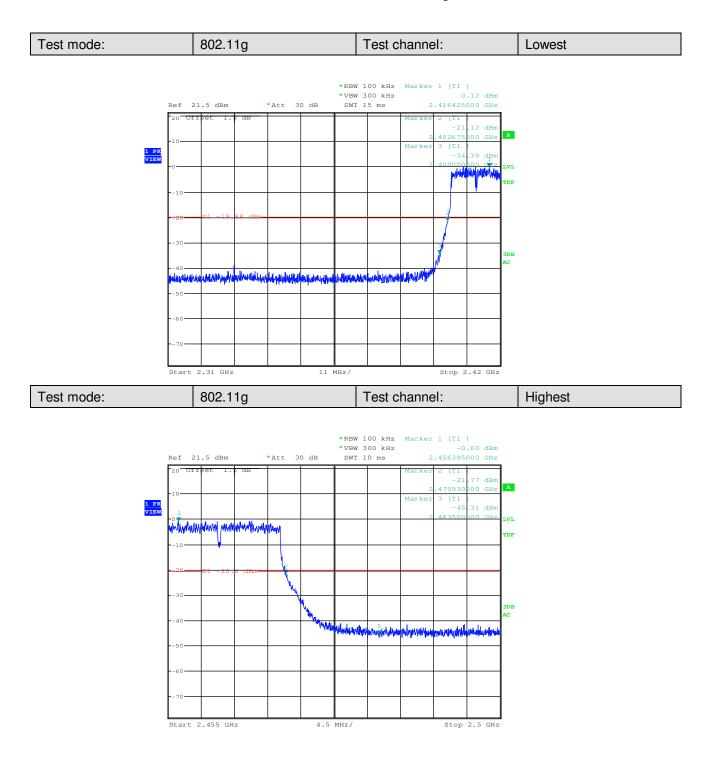


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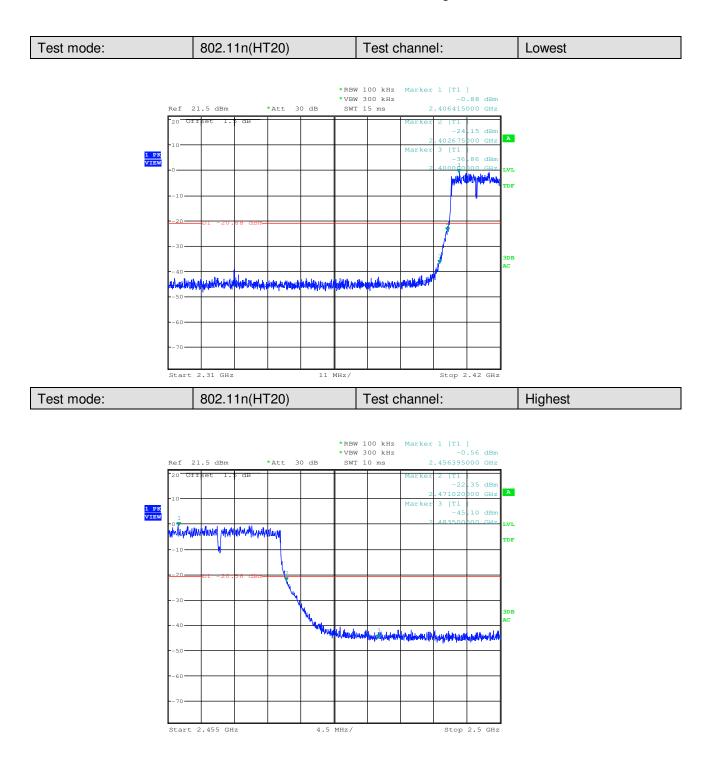


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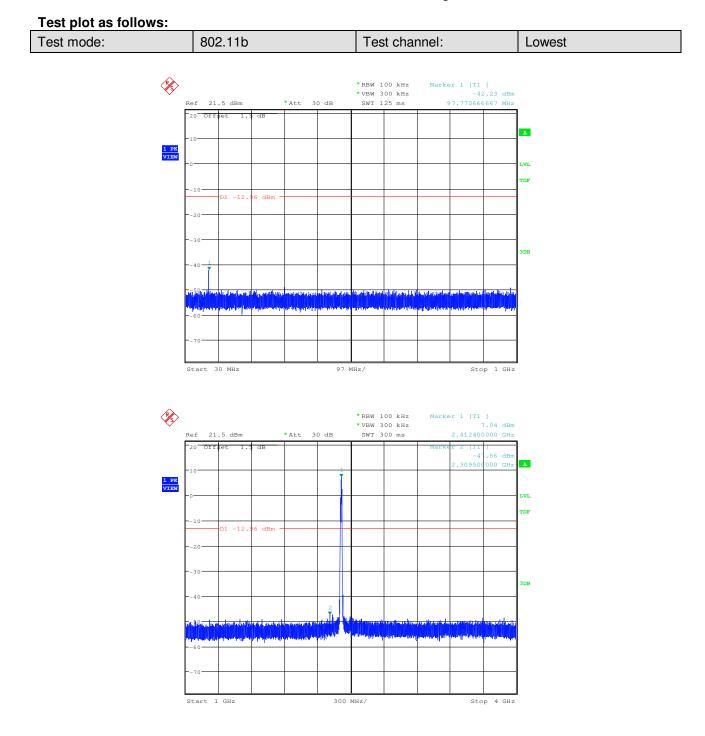
5.7 RF Conducted Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)		
Test Method:	KDB558074 D01		
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane		
	Remark: Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.		
Exploratory Test Mode:	Transmitting mode		
Final Test Mode:	Through Pre-scan, find the 11Mbps of rate is the worst case of 802.11b;		
	54Mbps of rate is the worst case of 802.11g ; 65Mbps of rate is the worst case of 802.11n(HT20).		
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread		
	spectrum intentional radiator is operating, the radio frequency power that is		
	produced by the intentional radiator shall be at least 20 dB below that in the		
	100 kHz bandwidth within the band that contains the highest level of the		
desired power, based on either an RF conducted or a radiated measurement.			
Instruments Used:	Refer to section 4.10 for details		
Test Results:	Pass		



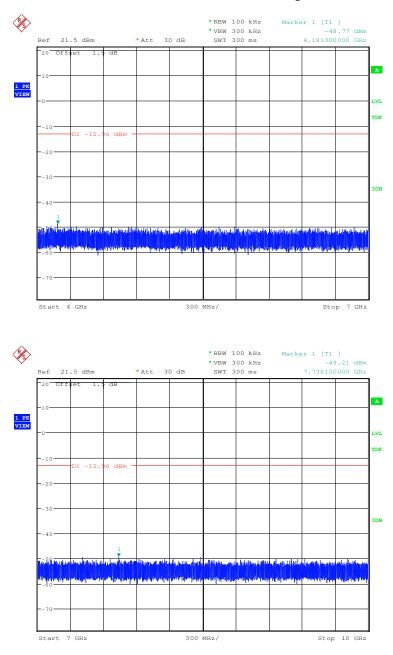


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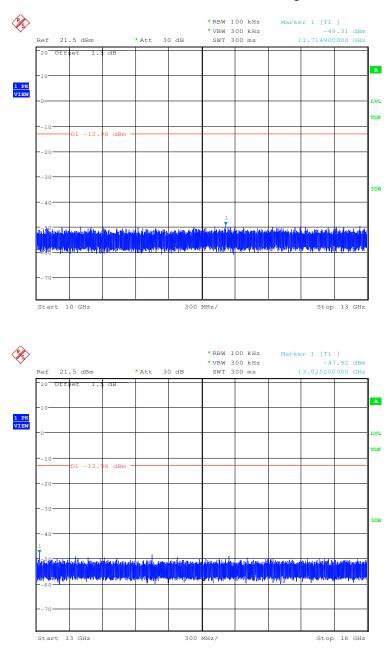


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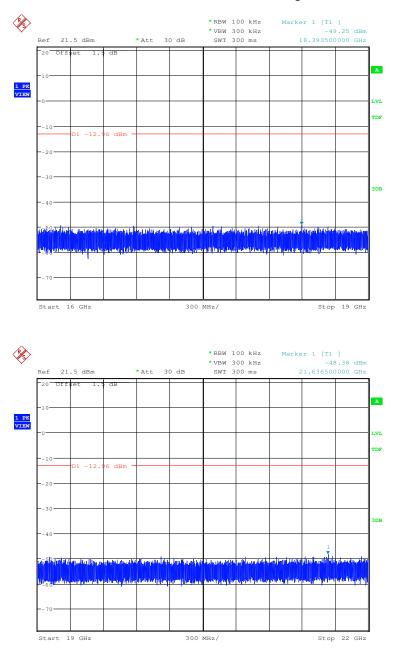


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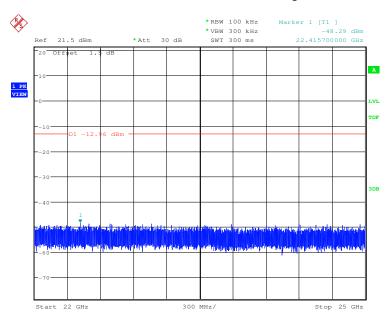
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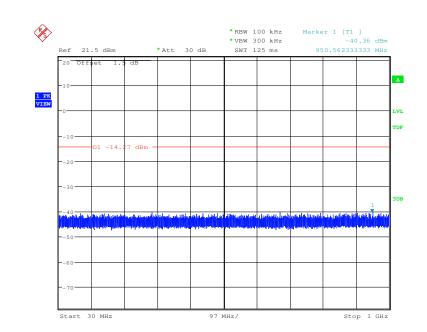
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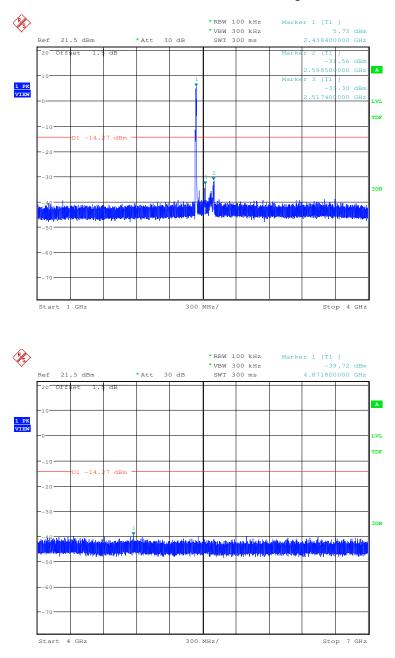


Test mode: 802.11b	Test channel:	Middle
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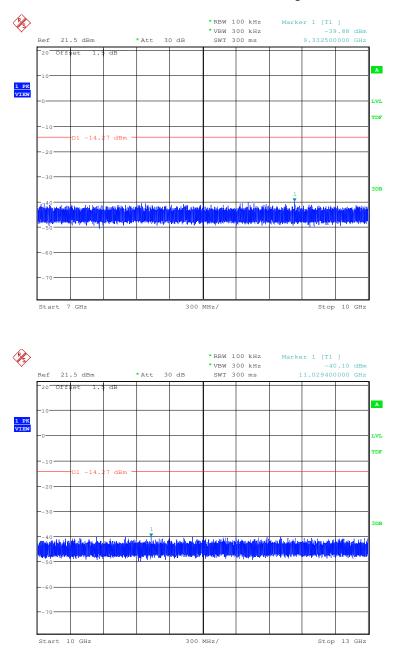


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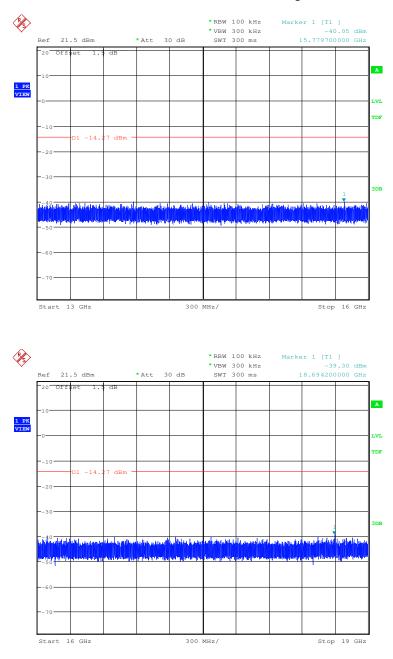


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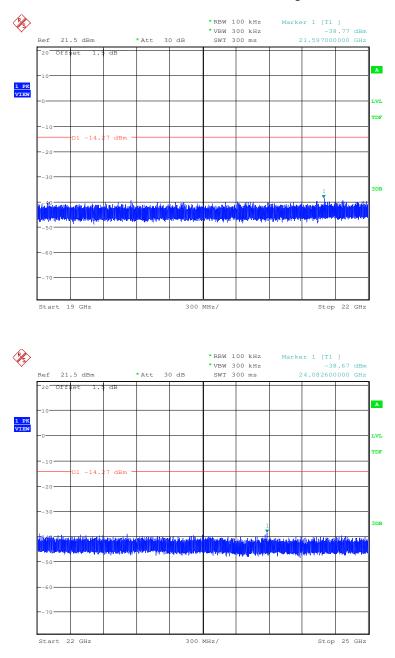


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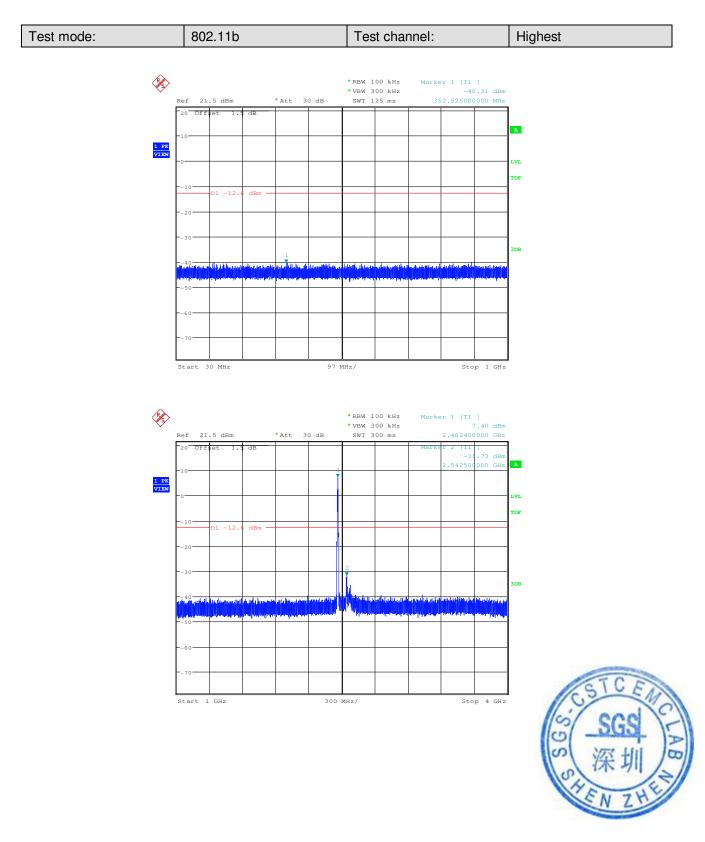


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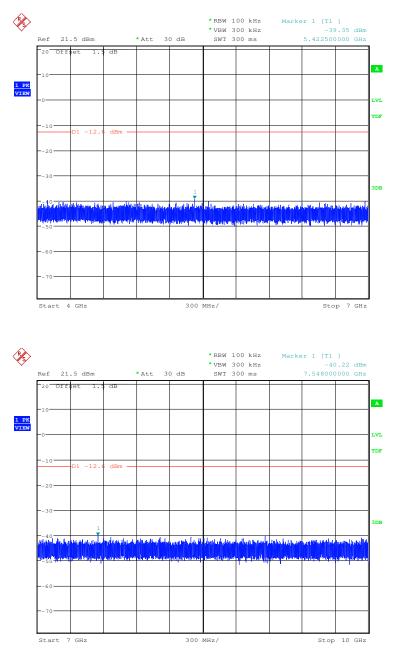


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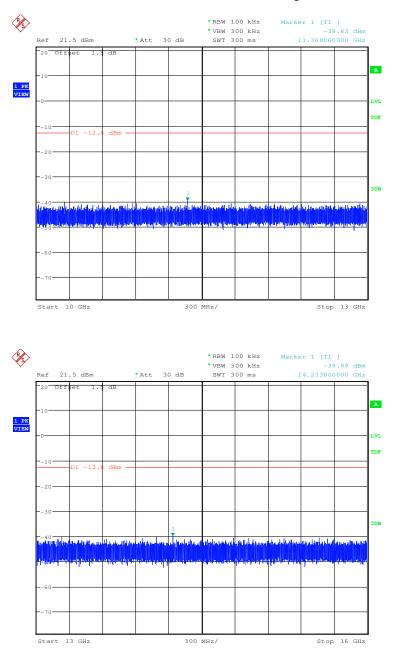


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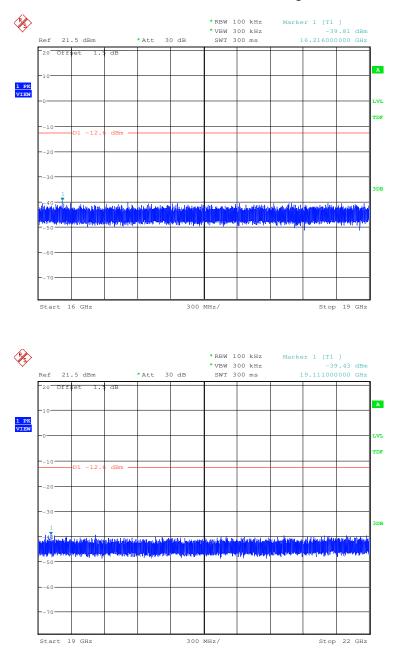


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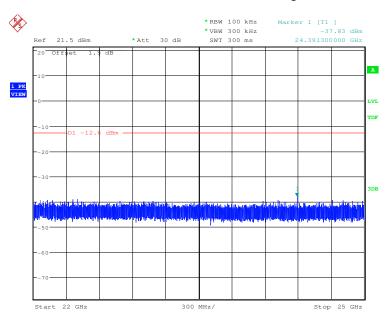


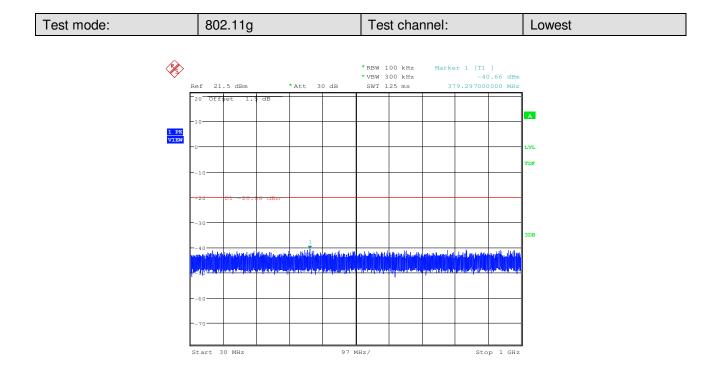
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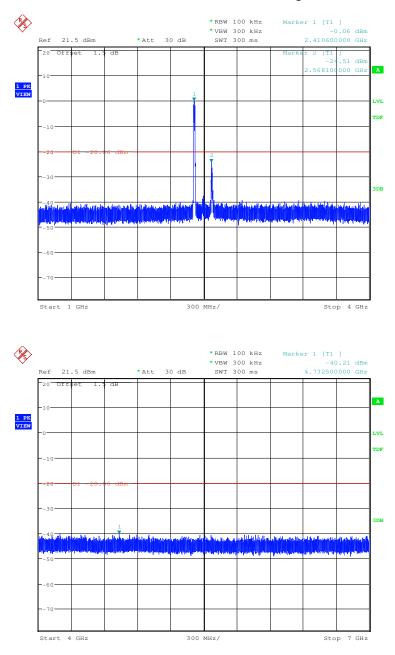
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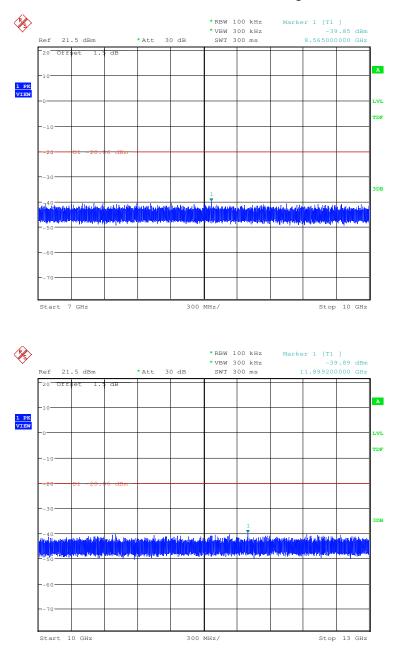


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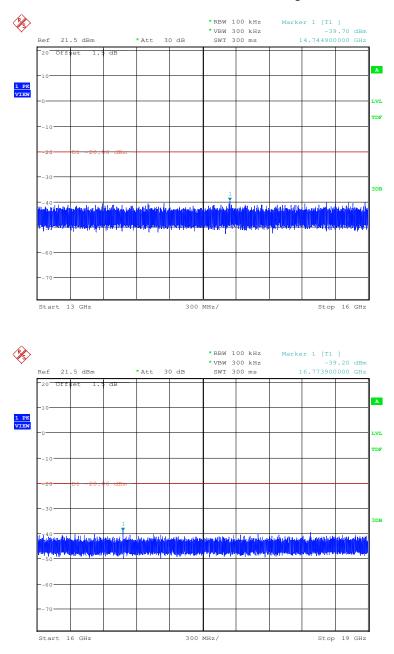


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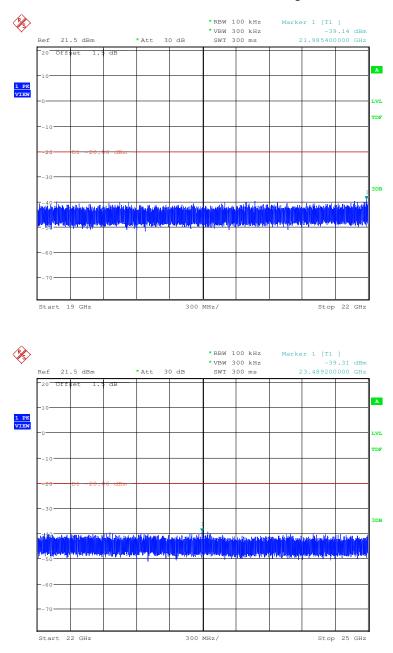


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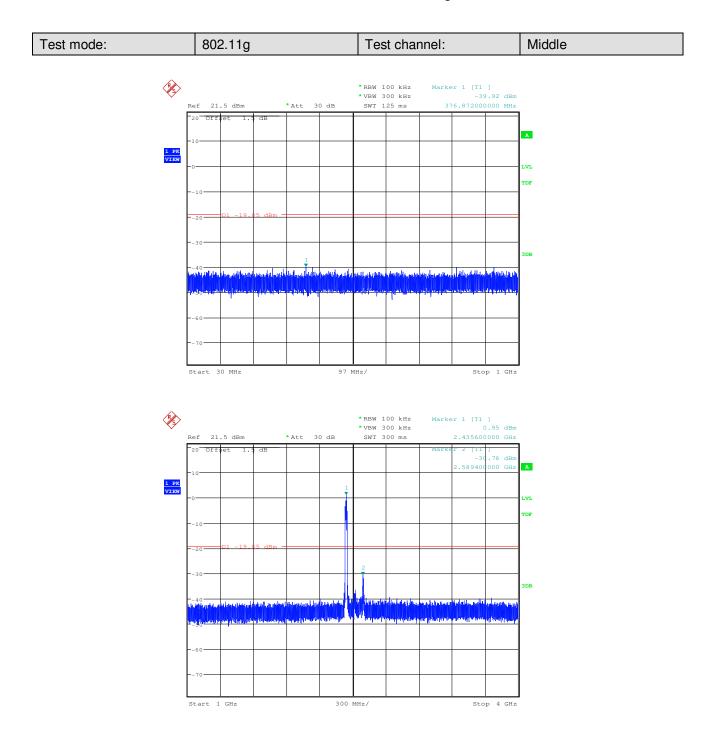


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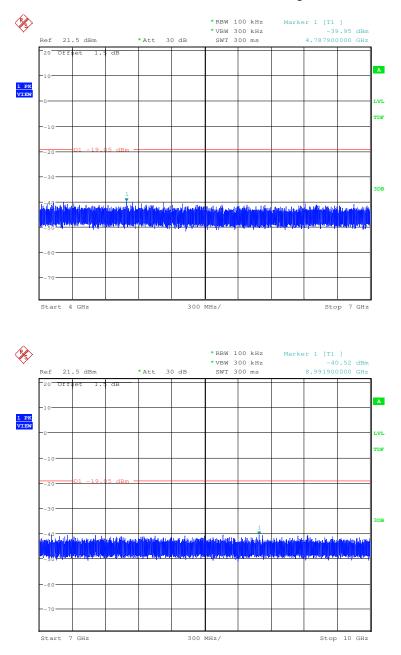


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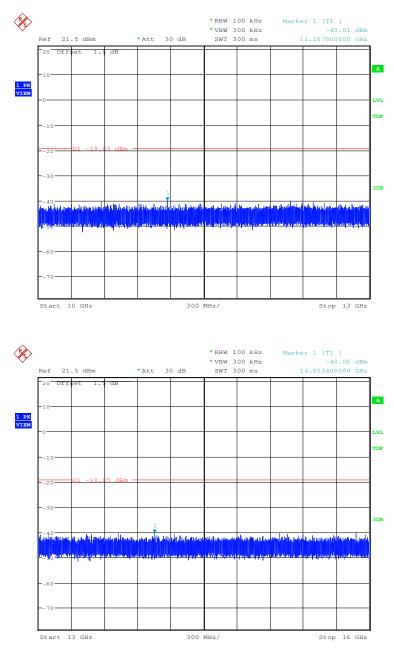
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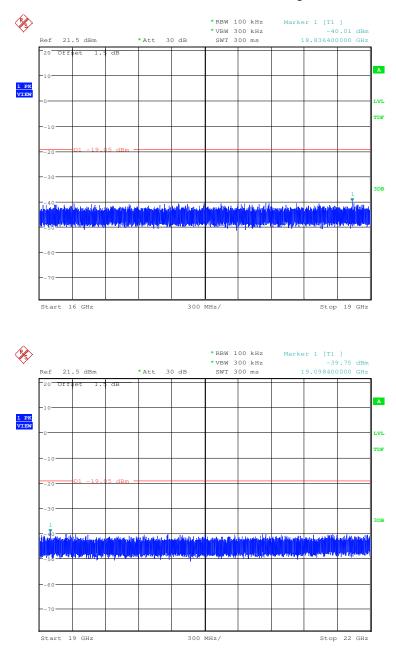


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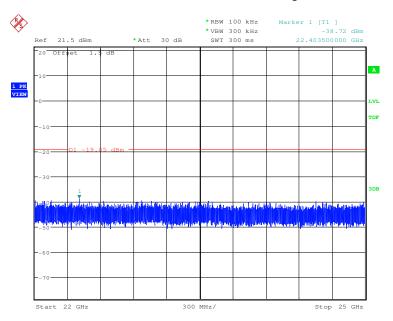


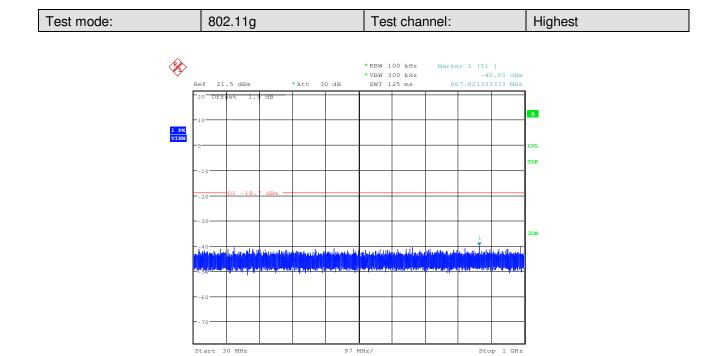
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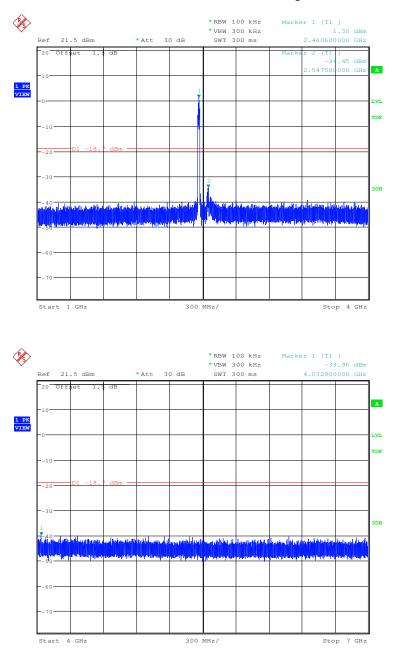
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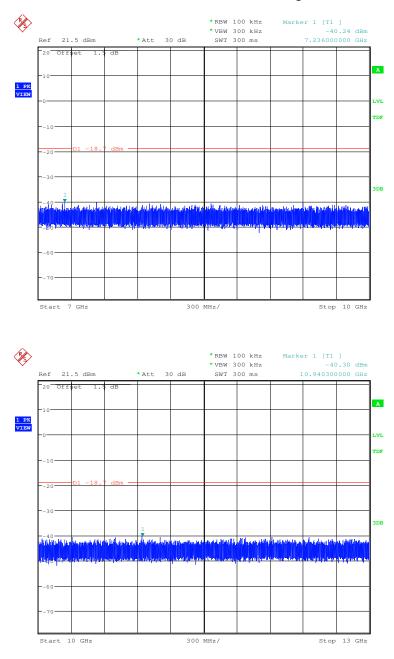


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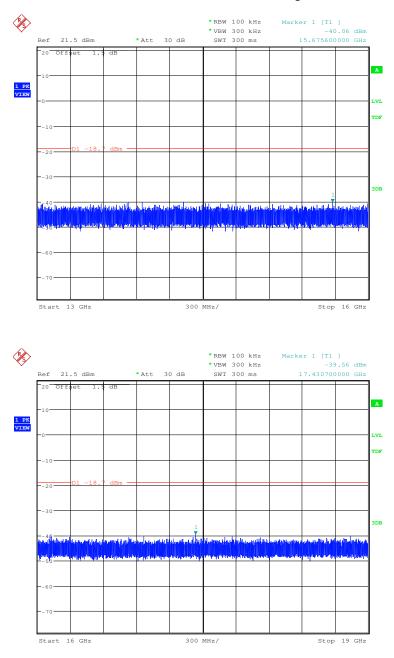


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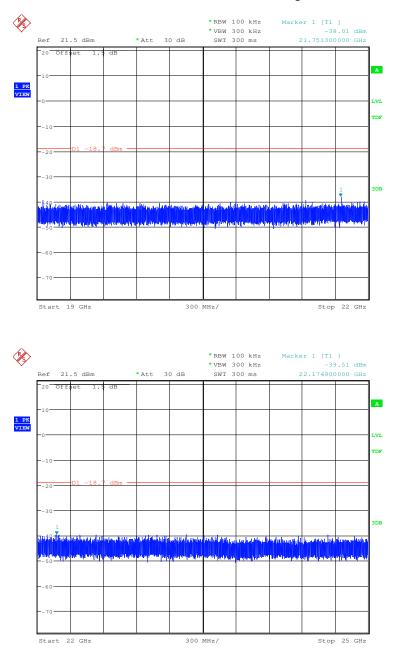


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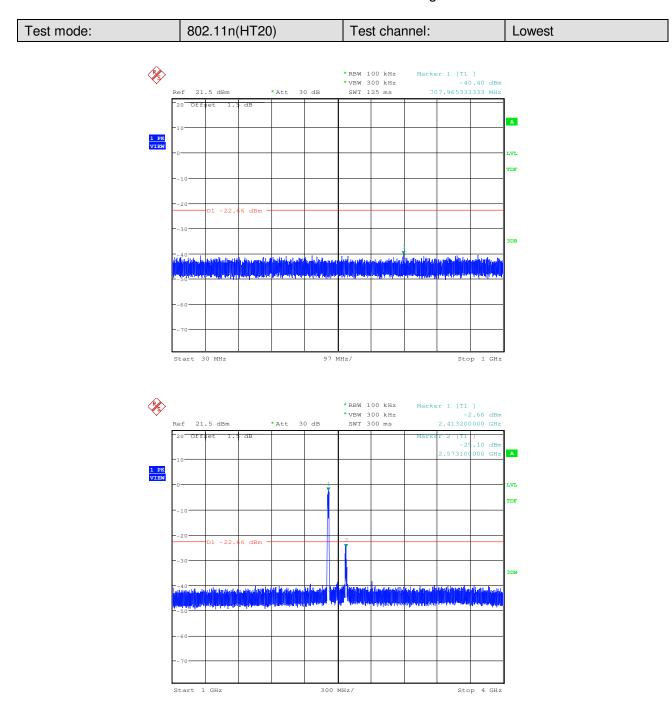


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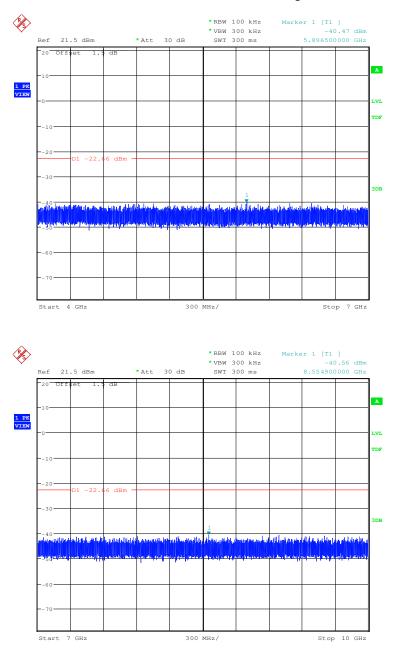


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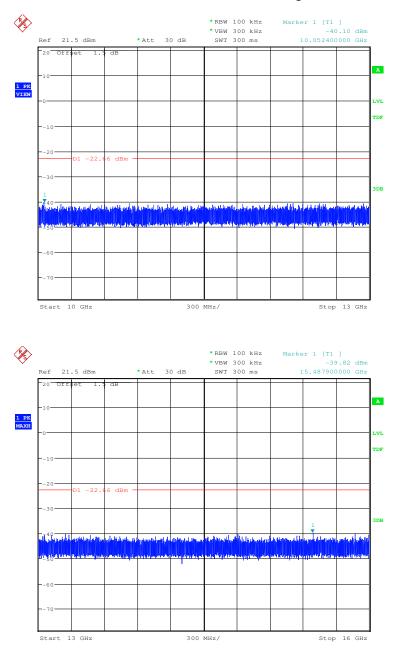


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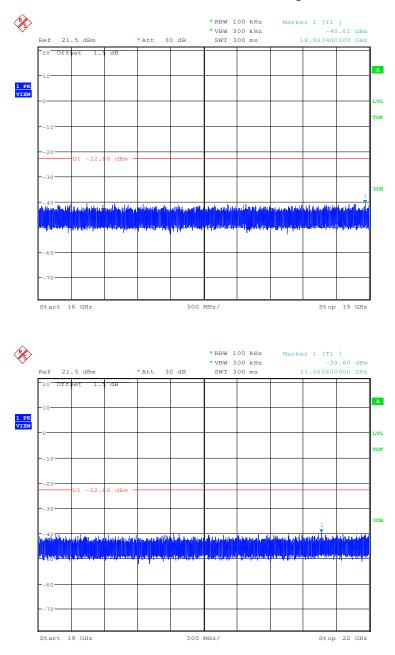
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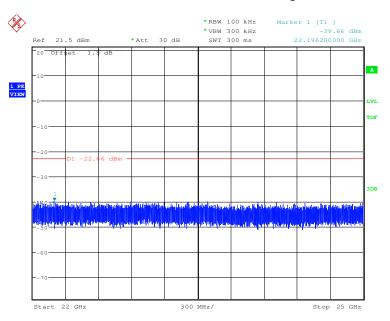




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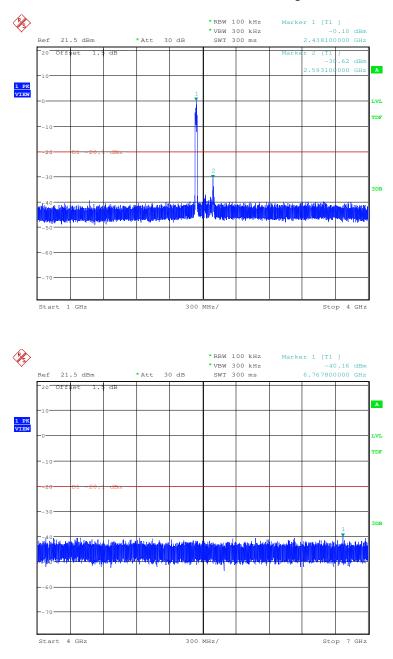


Test mode:		802.11n	(HT20)		Tes	t char	nnel:			Middle
	Re	f 21.5 dBm		Att 30	dB	* RBW 1 * VBW 3 SWT 1	00 kHz		≥r 1 [T1 -40 07.027666	0.31 dBm	
	-1 1 PK VIEW -0	0 Offset 1.	dB								X
		10	: dBm								TDF
		30 40	Rectar Destanting	ry dellanda deren a bler	Alexandran	ndy 18. dis hilfs staf	ala la directo de all	; v. Olevite da de se	Liftente star		3DB
		<mark>88 9 10-41 9-04 9 19-04</mark> 50		₽ <mark>₩</mark> ₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩₩	upencer (neuror	Helerense dos du	97 (2017) ⁻⁰ 494 (3200-17-17-1	<mark>Perengia and principal ex</mark>	anite for the former		
		70 art 30 MHz			97 №	1Hz/			Sto	p 1 GHz	

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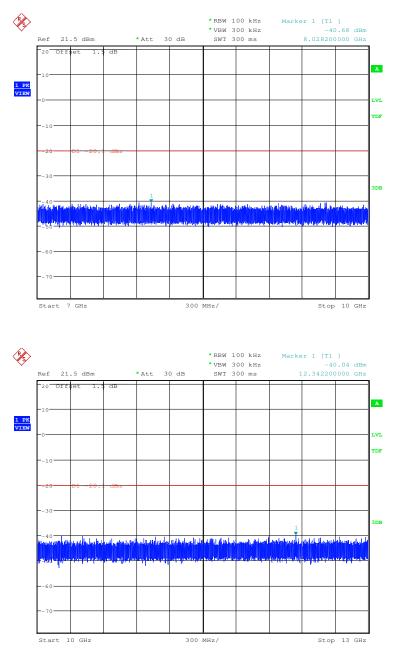


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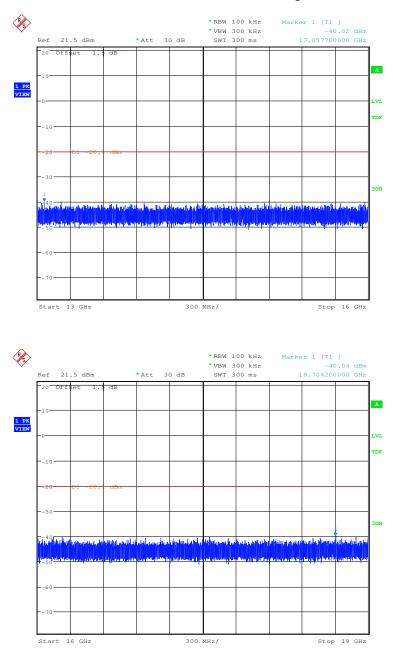


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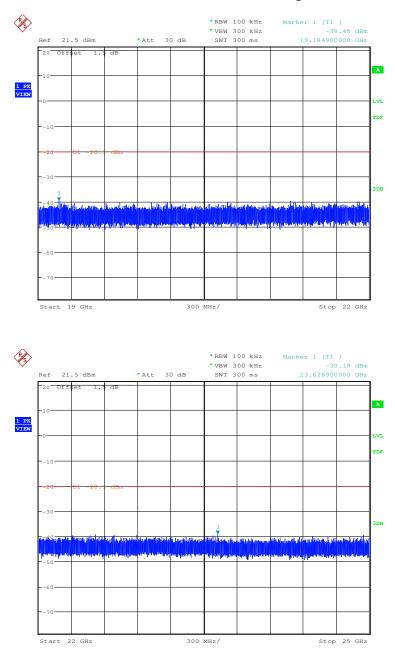


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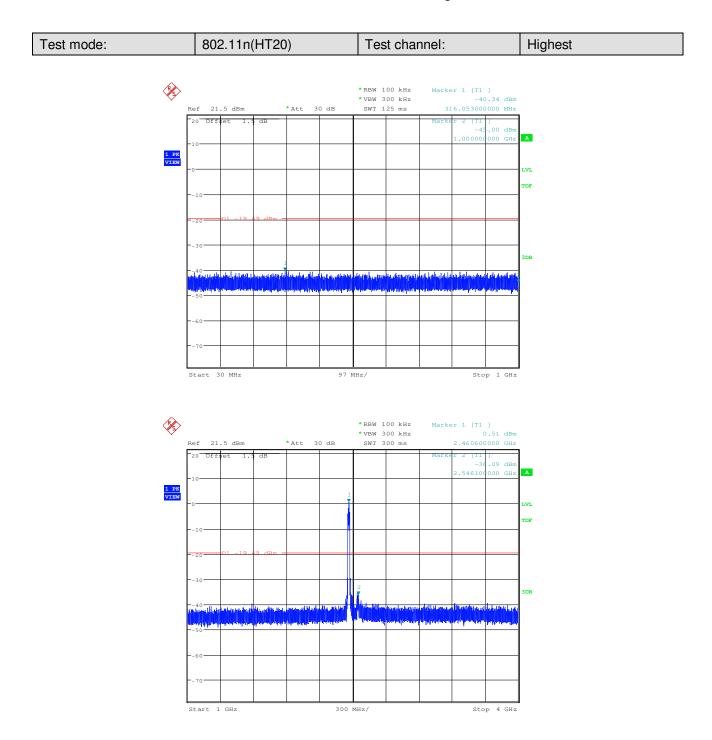


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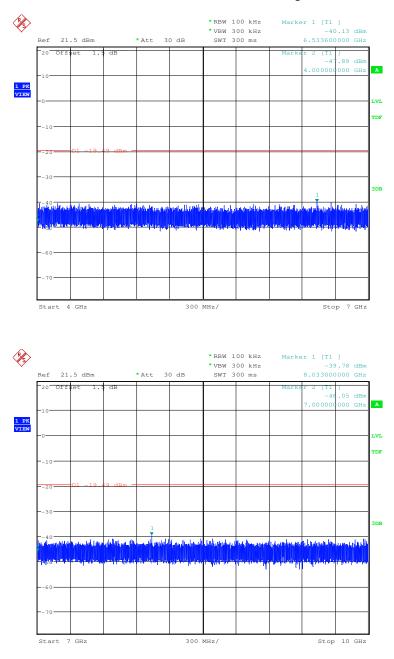


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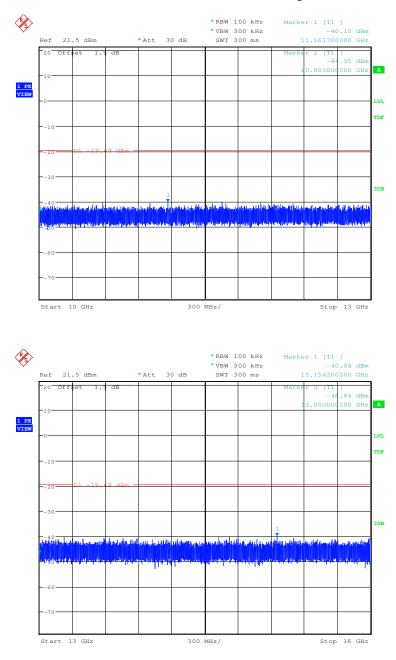


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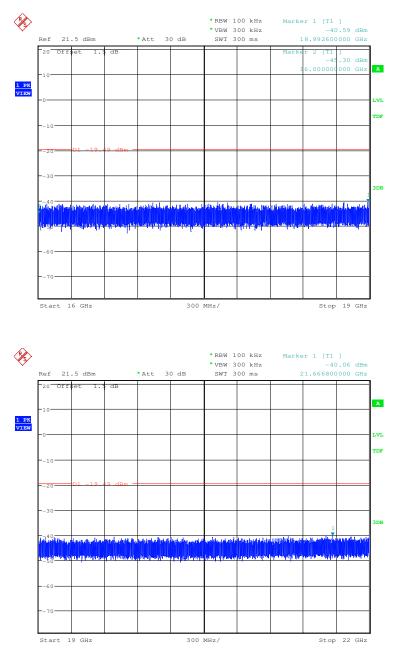


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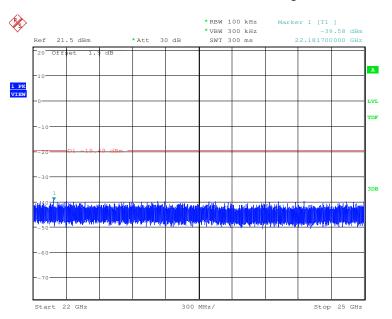
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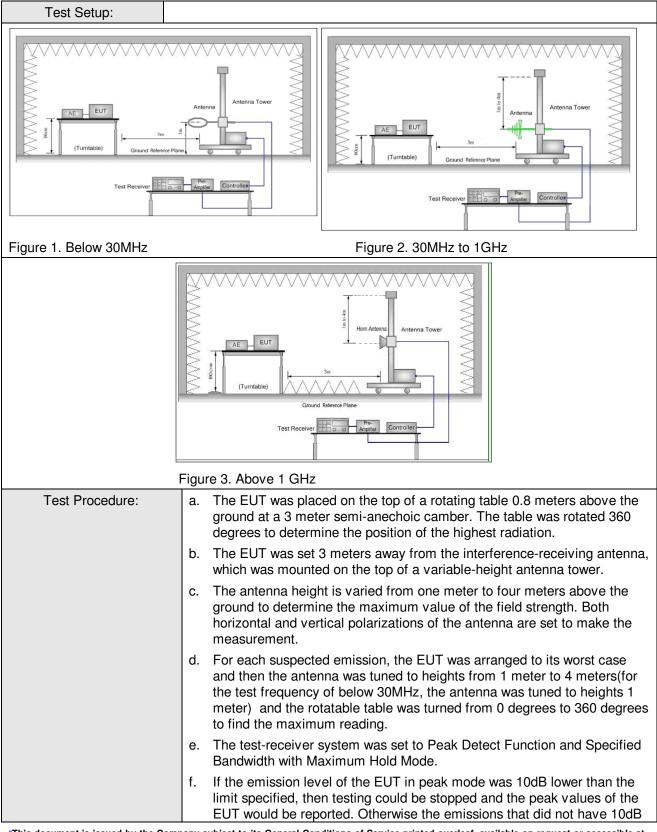
5.8 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.209 and 15.205										
Test Method:	ANSI C63.10 2009										
Test Site:	Measurement Distance:	3m (Semi-Anecho	ic Chamber)								
Receiver Setup:	Frequency	Detector	RBW	VBW	Remark						
	0.009MHz-0.090MHz	Peak	10kHz	30kHz	Peak						
	0.009MHz-0.090MHz	Average	10kHz	30kHz	Average						
	0.090MHz-0.110MHz	Quasi-peak	10kHz	30kHz	Quasi-peak						
	0.110MHz-0.490MHz	Peak	10kHz	30kHz	Peak						
	0.110MHz-0.490MHz	Average	10kHz	30kHz	Average						
	0.490MHz -30MHz	Quasi-peak	10kHz	30kHz	Quasi-peak						
	30MHz-1GHz	Quasi-peak	100 kHz	300kHz	Quasi-peak						
	Above 1GHz	Peak	1MHz	3MHz	Peak						
	Above ronz	Peak	1MHz	10Hz	Average						
Limit:	Frequency	Field strength (microvolt/meter)	Limit (dBuV/m)	Remark	Measurement distance (m)						
	0.009MHz-0.490MHz	2400/F(kHz)	-	-	300						
	0.490MHz-1.705MHz	24000/F(kHz)	-	-	30						
	1.705MHz-30MHz	30	-	-	30						
	30MHz-88MHz	100	40.0	Quasi-peak	3						
	88MHz-216MHz	150	43.5	Quasi-peak	3						
	216MHz-960MHz	200	46.0	Quasi-peak	3						
	960MHz-1GHz	500	54.0	Quasi-peak	3						
	Above 1GHz	500	54.0	Average	3						
	Note: 15.35(b), Unless otherwise specified, the limit on peak radio frequency										
	emissions is 20dB above the maximum permitted average emission limit										
	applicable to the equipment under test. This peak limit applies to the total peak										
	emission level rad	iated by the device	е.								

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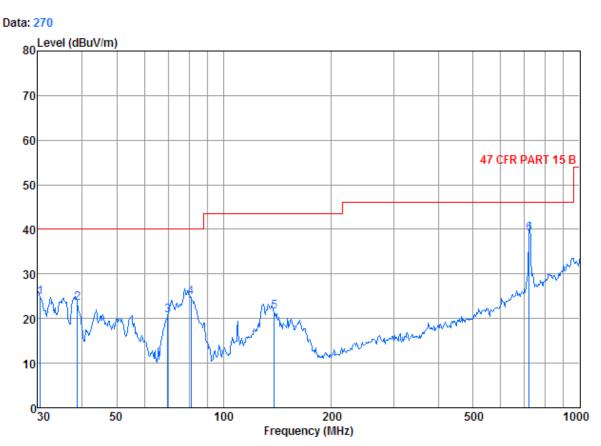
	margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.
	g. Test the EUT in the lowest channel ,the middle channel ,the Highest channel
	 The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, Only the test worst case mode is recorded in the report.
	i. Repeat above procedures until all frequencies measured was complete.
Exploratory Test	Transmitting mode
Mode:	
Final Test Mode:	Through Pre-scan, find the 11Mbps of rate is the worst case of 802.11b; 54Mbpsof rate is the worst case of 802.11g; 65Mbps of rate is the worst case of 802.11n(HT20).
Instruments Used:	Refer to section 4.10 for details
Test Results:	Pass



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5.8.1 Radiated emission below 1GHz

30MHz~1GHz (QP)		
Test mode:	Transmitting	Vertical

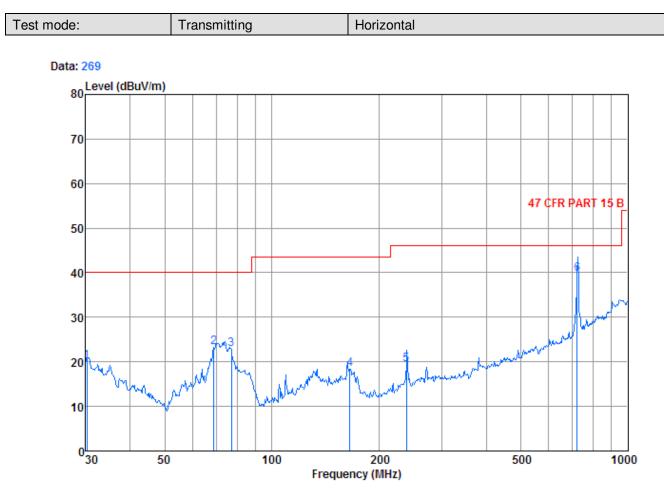


Condition: 47 CFR PART 15 B 3m 3142C VERTICAL Job No. : 4794RF Mode : AC ChargetTX

oae			ntenna	Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	30, 53 38, 75 69, 60 80, 93 138, 39 721, 73	0.60 0.60 0.80 1.10 1.29 2.97		27.35 27.32 27.25 27.23 26.97 27.39	34.06 38.61 42.22 45.46 38.78 46.28	24.79 23.40 20.64 24.65 21.61 38.94	40.00 40.00 40.00 43.50	-15.21 -16.60 -19.36 -15.35 -21.89 -7.06



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Condition: 47 CFR PART 15 B 3m 3142C HORIZONTAL Job No. : 4794RF

Mode : AC Charge+TX

			ntenna	Preamp Factor		Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 3 4 5 6	30.21 68.63 77.05 165.49 239.15 721.73	0.60 0.80 1.01 1.35 1.62 2.97	17.73 4.72 4.79 9.50 8.08 17.08	27.36 27.25 27.23 26.83 26.57 27.39		19.96 23.35 22.88 18.38 19.51 39.64	40.00 40.00 43.50 46.00	-20.04 -16.65 -17.12 -25.12 -26.49 -6.36



Report No.: SZEM130800479401 Page: 89 of 119

Test mode:	802	.11b	Test ch	annel:	Lowest	Remark	•	Peak
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarizatio n
3410.797	3.65	33.23	40.61	47.69	43.96	74.00	-30.04	Vertical
4748.673	4.66	34.79	41.58	46.49	44.36	74.00	-29.64	Vertical
6315.233	5.21	36.08	40.64	46.94	47.59	74.00	-26.41	Vertical
7961.425	6.21	36.00	39.23	44.67	47.65	74.00	-26.35	Vertical
9587.228	5.99	37.29	37.81	42.37	47.84	74.00	-26.16	Vertical
11663.190	6.39	38.56	38.13	43.23	50.05	74.00	-23.95	Vertical
2726.283	3.16	33.03	40.10	44.92	41.01	74.00	-32.99	Horizontal
3463.291	3.70	33.21	40.65	46.83	43.09	74.00	-30.91	Horizontal
4617.550	4.57	35.01	41.49	47.49	45.58	74.00	-28.42	Horizontal
6544.350	5.27	36.27	40.45	46.41	47.50	74.00	-26.50	Horizontal
8527.851	6.18	36.23	38.73	44.79	48.47	74.00	-25.53	Horizontal
11515.680	6.35	38.42	38.07	43.45	50.15	74.00	-23.85	Horizontal

5.8.2 Transmitter emission above 1GHz

Test mode:	802	.11b	Test ch	annel:	Middle	Remark	:	Peak
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarizatio n
2768.242	3.19	33.07	40.13	45.79	41.92	74.00	-32.08	Vertical
3625.669	3.84	33.34	40.76	46.16	42.58	74.00	-31.42	Vertical
5047.827	4.79	34.45	41.75	47.37	44.86	74.00	-29.14	Vertical
6662.007	5.30	36.14	40.35	47.63	48.72	74.00	-25.28	Vertical
8419.999	6.18	36.17	38.82	44.83	48.36	74.00	-25.64	Vertical
10888.510	6.19	38.46	37.81	42.54	49.38	74.00	-24.62	Vertical
2854.107	3.24	33.19	40.20	45.14	41.37	74.00	-32.63	Horizontal
4065.707	4.21	33.99	41.08	46.96	44.08	74.00	-29.92	Horizontal
5338.579	4.90	34.73	41.50	47.36	45.49	74.00	-28.51	Horizontal
6833.768	5.37	35.97	40.20	46.96	48.10	74.00	-25.90	Horizontal
8462.975	6.18	36.19	38.78	46.23	49.82	74.00	-24.18	Horizontal
10750.810	6.16	38.40	37.76	41.86	48.66	74.00	-25.34	Horizontal



Report No.: SZEM130800479401 Page: 90 of 119

Test mode:	802	.11b	Test ch	annel:	Highest	Remark	:	Peak
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarizatio n
3316.617	3.58	33.28	40.54	45.73	42.05	74.00	-31.95	Vertical
4958.678	4.75	34.46	41.74	47.11	44.58	74.00	-29.42	Vertical
6251.257	5.19	36.00	40.71	46.98	47.46	74.00	-26.54	Vertical
7741.590	6.22	36.00	39.41	45.10	47.91	74.00	-26.09	Vertical
9251.580	6.08	36.89	38.11	44.63	49.49	74.00	-24.51	Vertical
11370.050	6.31	38.43	38.02	42.85	49.57	74.00	-24.43	Vertical
2890.665	3.26	33.24	40.23	45.47	41.74	74.00	-32.26	Horizontal
4343.896	4.38	34.78	41.29	46.25	44.12	74.00	-29.88	Horizontal
5631.725	5.00	35.09	41.24	47.45	46.30	74.00	-27.70	Horizontal
7432.622	6.04	35.97	39.67	45.95	48.29	74.00	-25.71	Horizontal
9042.038	6.15	36.64	38.29	44.33	48.83	74.00	-25.17	Horizontal
11574.460	6.36	38.47	38.10	43.25	49.98	74.00	-24.02	Horizontal

Test mode:	802	2.11g	Test ch	annel:	Lowest	Remark	:	Peak
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarizatio n
2775.298	3.19	33.07	40.13	45.75	41.88	74.00	-32.12	Vertical
3883.622	4.07	33.68	40.95	46.69	43.49	74.00	-30.51	Vertical
5490.177	4.95	34.88	41.37	47.36	45.82	74.00	-28.18	Vertical
6851.185	5.39	35.96	40.18	46.82	47.99	74.00	-26.01	Vertical
8441.459	6.18	36.18	38.80	44.82	48.38	74.00	-25.62	Vertical
11027.980	6.23	38.49	37.88	43.34	50.18	74.00	-23.82	Vertical
2883.316	3.25	33.24	40.21	45.82	42.10	74.00	-31.90	Horizontal
3690.853	3.90	33.43	40.81	46.34	42.86	74.00	-31.14	Horizontal
5393.215	4.92	34.78	41.45	46.46	44.71	74.00	-29.29	Horizontal
6799.064	5.34	36.01	40.23	47.68	48.80	74.00	-25.20	Horizontal
8882.347	6.16	36.51	38.42	44.84	49.09	74.00	-24.91	Horizontal
11283.550	6.29	38.44	37.98	42.54	49.29	74.00	-24.71	Horizontal



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Test mode:	802	.11g	Test ch	annel:	Middle	Remark	:	Peak
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarizatio n
2890.665	3.26	33.24	40.23	45.47	41.74	74.00	-32.26	Vertical
3933.367	4.11	33.74	40.98	46.49	43.36	74.00	-30.64	Vertical
5504.170	4.95	34.90	41.35	47.95	46.45	74.00	-27.55	Vertical
7117.842	5.67	35.85	39.95	46.34	47.91	74.00	-26.09	Vertical
9441.913	6.03	37.14	37.94	43.87	49.10	74.00	-24.90	Vertical
11903.140	6.44	38.80	38.24	42.90	49.90	74.00	-24.10	Vertical
2832.394	3.22	33.17	40.17	45.11	41.33	74.00	-32.67	Horizontal
4055.371	4.20	33.99	41.08	46.54	43.65	74.00	-30.35	Horizontal
5588.881	4.98	35.04	41.27	47.56	46.31	74.00	-27.69	Horizontal
7319.964	5.92	35.93	39.77	45.56	47.64	74.00	-26.36	Horizontal
9465.979	6.02	37.16	37.91	44.48	49.75	74.00	-24.25	Horizontal
11994.380	6.47	38.90	38.28	43.58	50.67	74.00	-23.33	Horizontal

Test mode:	802	.11g	Test ch	annel:	Highest	Remark	:	Peak
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
3249.760	3.53	33.30	40.48	46.05	42.40	74.00	-31.60	Vertical
4181.159	4.28	34.31	41.16	46.68	44.11	74.00	-29.89	Vertical
5776.922	5.05	35.34	41.12	47.27	46.54	74.00	-27.46	Vertical
7489.599	6.10	36.00	39.62	46.69	49.17	74.00	-24.83	Vertical
9538.543	6.00	37.23	37.86	42.88	48.25	74.00	-25.75	Vertical
11933.470	6.45	38.83	38.24	43.32	50.36	74.00	-23.64	Vertical
3176.155	3.46	33.33	40.44	47.19	43.54	74.00	-30.46	Horizontal
4410.750	4.43	34.97	41.35	47.22	45.27	74.00	-28.73	Horizontal
5703.861	5.02	35.23	41.17	48.11	47.19	74.00	-26.81	Horizontal
6799.064	5.34	36.01	40.23	47.68	48.80	74.00	-25.20	Horizontal
8549.586	6.18	36.24	38.72	44.56	48.26	74.00	-25.74	Horizontal
11084.270	6.24	38.48	37.90	42.82	49.64	74.00	-24.36	Horizontal



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Test mode:	80	2.11n(HT20)	Test ch	annel:	Lowest	Remark	:	Peak	
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarizatio n	
2846.851	3.23	33.19	40.19	45.20	41.43	74.00	-32.57	Vertical	
4065.707	4.21	33.99	41.08	46.96	44.08	74.00	-29.92	Vertical	
5325.007	4.89	34.72	41.50	46.98	45.09	74.00	-28.91	Vertical	
7702.278	6.22	36.00	39.44	45.04	47.82	74.00	-26.18	Vertical	
9834.406	5.98	37.54	37.60	42.71	48.63	74.00	-25.37	Vertical	
11933.470	6.45	38.83	38.24	43.32	50.36	74.00	-23.64	Vertical	
2927.691	3.28	33.28	40.24	45.61	41.93	74.00	-32.07	Horizontal	
4332.852	4.38	34.73	41.28	46.09	43.92	74.00	-30.08	Horizontal	
5297.966	4.88	34.70	41.53	46.23	44.28	74.00	-29.72	Horizontal	
6921.301	5.47	35.89	40.12	47.17	48.41	74.00	-25.59	Horizontal	
8950.438	6.16	36.56	38.37	44.13	48.48	74.00	-25.52	Horizontal	
11963.890	6.46	38.87	38.26	43.33	50.40	74.00	-23.60	Horizontal	

Test mode:	8	02.11n(HT20)	Test ch	annel:	Middle	Remark		Peak	
Frequency (MHz)	Cable Loss (dB)	_	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarizatio n	
3143.979	3.44	33.34	40.41	46.18	42.55	74.00	-31.45	Vertical	
4310.849	4.36	34.69	41.26	45.75	43.54	74.00	-30.46	Vertical	
5406.961	4.92	34.80	41.43	47.54	45.83	74.00	-28.17	Vertical	
7027.823	5.56	35.81	40.03	47.01	48.35	74.00	-25.65	Vertical	
8593.224	6.18	36.28	38.67	44.77	48.56	74.00	-25.44	Vertical	
11140.850	6.26	38.47	37.92	42.38	49.19	74.00	-24.81	Vertical	
2854.107	3.24	33.19	40.20	45.14	41.37	74.00	-32.63	Horizontal	
3903.444	4.08	33.70	40.97	46.51	43.32	74.00	-30.68	Horizontal	
5532.263	4.96	34.96	41.32	47.11	45.71	74.00	-28.29	Horizontal	
7135.984	5.69	35.86	39.94	46.49	48.10	74.00	-25.90	Horizontal	
9759.591	5.98	37.46	37.66	43.35	49.13	74.00	-24.87	Horizontal	
11633.540	6.38	38.54	38.13	43.53	50.32	74.00	-23.68	Horizontal	



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Test mode:	80	2.11n(HT20)	Test ch	annel:	Highest	Remark:		Peak	
Frequency (MHz)	Cable Loss (dB)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization	
2651.004	3.12	32.91	40.05	44.87	40.85	74.00	-33.15	Vertical	
4004.083	4.16	33.85	41.04	46.66	43.63	74.00	-30.37	Vertical	
5204.399	4.85	34.60	41.62	47.36	45.19	74.00	-28.81	Vertical	
7027.823	5.56	35.81	40.03	47.01	48.35	74.00	-25.65	Vertical	
8996.121	6.16	36.59	38.32	44.66	49.09	74.00	-24.91	Vertical	
11399.030	6.32	38.42	38.02	42.86	49.58	74.00	-24.42	Vertical	
2854.107	3.24	33.19	40.20	45.14	41.37	74.00	-32.63	Horizontal	
3728.625	3.93	33.49	40.84	47.35	43.93	74.00	-30.07	Horizontal	
4920.955	4.74	34.51	41.71	47.65	45.19	74.00	-28.81	Horizontal	
6283.164	5.20	36.04	40.68	47.32	47.88	74.00	-26.12	Horizontal	
8334.700	6.19	36.13	38.90	44.39	47.81	74.00	-26.19	Horizontal	
10888.510	6.19	38.46	37.81	42.54	49.38	74.00	-24.62	Horizontal	

Remark:

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

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor

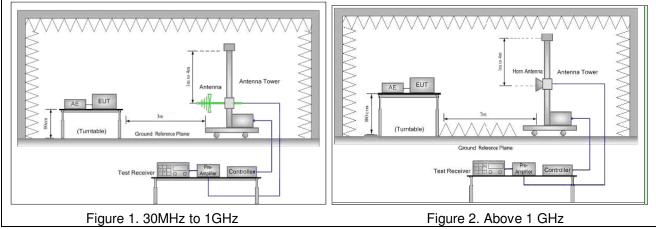
- Scan from 9kHz to 25GHz, The disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 3) As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.



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5.9 Band Edge (Radiated Emission)

Test Requirement:	47 CFR Part 15C Section	7 CFR Part 15C Section 15.209 and 15.205							
Test Method:	ANSI C63.10 2009	ANSI C63.10 2009							
Test Site:	Measurement Distance: 3r	easurement Distance: 3m (Semi-Anechoic Chamber)							
Limit:	Frequency	Frequency Limit (dBuV/m @3m) Remark							
	30MHz-88MHz	40.0	Quasi-peak Value						
	88MHz-216MHz	43.5	Quasi-peak Value						
	216MHz-960MHz	46.0	Quasi-peak Value						
	960MHz-1GHz	54.0	Quasi-peak Value						
	Above 1011-	54.0	Average Value						
	Above 1GHz	74.0	Peak Value						
Test Setup:									





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Test Procedure:	 a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.
	b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
	c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
	d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
	e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
	f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel
	g. Test the EUT in the lowest channel, the Highest channel
	 h. The radiation measurements are performed in X, Y, Z axis positioning. And found the X axis positioning which it is worse case, only the test worst case mode is recorded in the report.
	i. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Transmitting mode
Final Test Mode:	Through Pre-scan, find the 11Mbps of rate is the worst case of 802.11b;
	54Mbps of rate is the worst case of 802.11g ; 65Mbps of rate is the worst
	case of 802.11n(HT20).
Instruments Used:	Refer to section 4.10 for details
Test Results:	Pass

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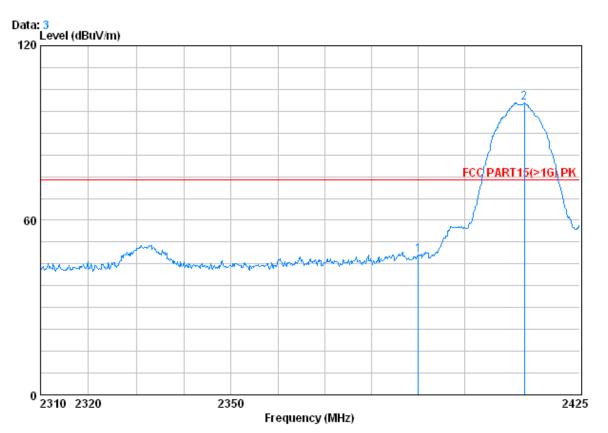


Test plot as follows:

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Worse case mode:	802.11b	Test channel:	Lowest	Remark:	Peak	Vertical		



Condition : FCC PART15(>1G) PK 3m VERTICAL Job No. : 4794RF

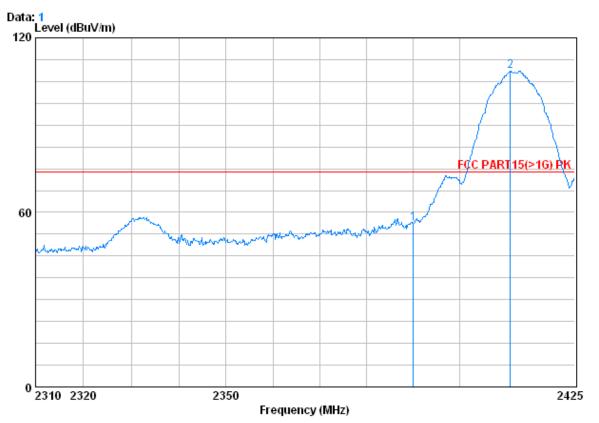
Job No. : 4794RF Mode : 2412 Bandedge b

1046	Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 20	2390.000 2412.925			39.85 39.86				



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Worse case mode: 802.1	1b Test channel:	Lowest	Remark:	Peak	Horizontal	
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Condition : FCC PART15(>1G) PK 3m HORIZONTAL

Job No. : 4794RF

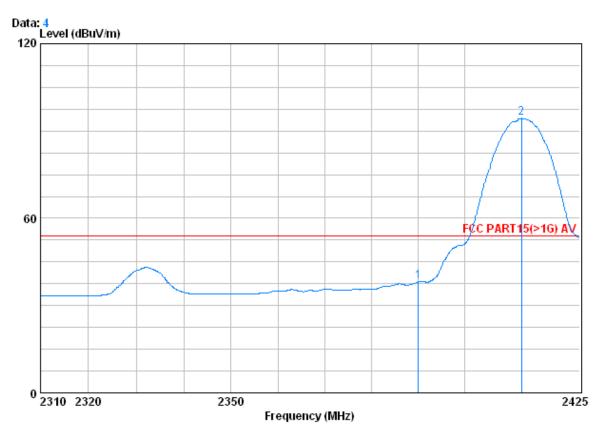
Mode	: 2412 Bandedge b	I
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	Freq			Preamp Factor				Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 0	2390.000 2410.970			39.85 39.86				



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Worse case mode: 802.11b	Test channel:	Lowest	Remark:	Average	Vertical
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Condition : FCC PART15(>1G) AV 3m VERTICAL Job No. : 4794RF

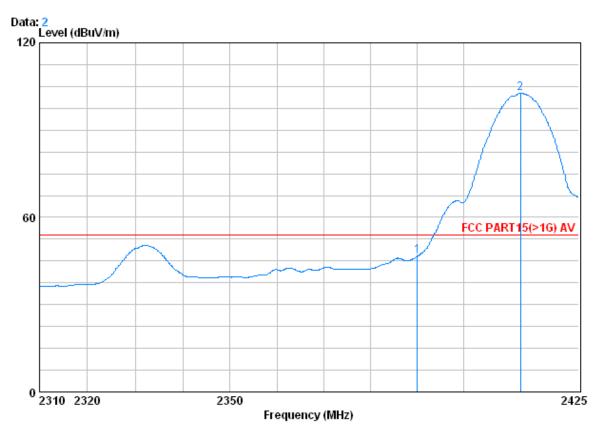
Mode :2412 Bandedge b

	Freq		Antenna Factor	Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 20	2390.000 2412.350			39.85 39.86				



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Worse case mode:	802.11b	Test channel:	Lowest	Remark:	Average	Horizontal	
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Condition : FCC PART15(>1G) AV 3m HORIZONTAL

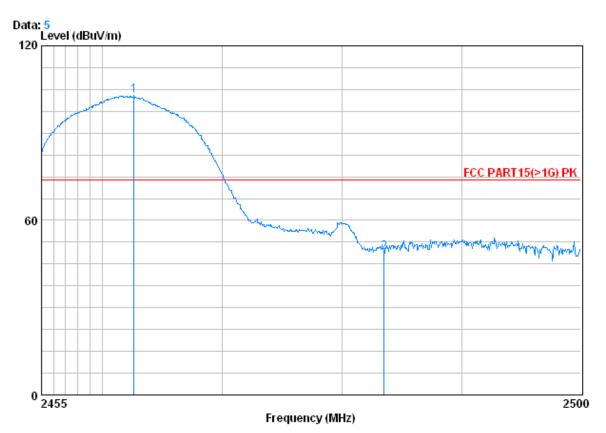
Job No. : 4794RF Mode : 2412 Bandedge b

1046	. 2412 Danueuge o			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 20	2390.000 2412.350						54.00 54.00	



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Worse case mode:	802.11b	Test channel:	Highest	Remark:	Peak	Vertical	
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Condition : FCC PART15(>1G) PK 3m VERTICAL

Job No. : 4794RF

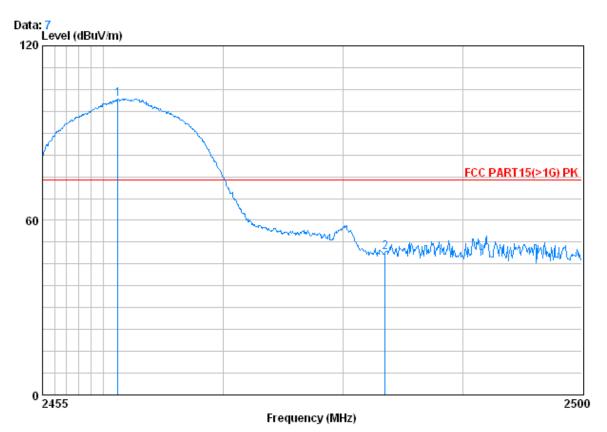
Mode : 2462 Bandedge b

	Freq			Preamp Factor				Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
10 2	2462.650 2483.500			39.91 39.92				



Report No.: SZEM130800479401 Page: 101 of 119

Worse case mode:	802.11b	Test channel:	Highest	Remark:	Peak	Horizontal	
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Condition : FCC PART15(>1G) PK 3m HORIZONTAL

Job No. : 4794RF

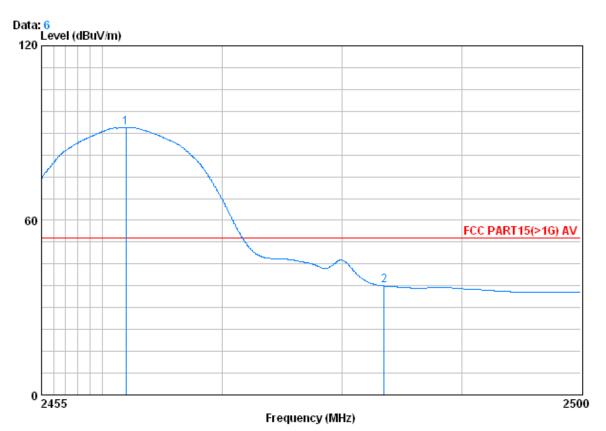
Mode : 2462 Bandedge b

	Freq			Preamp Factor			Limit Line	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
10 2	2461.255 2483.500			39.91 39.92				



Report No.: SZEM130800479401 Page: 102 of 119

Worse case mode: 802.11b	Test channel:	Highest	Remark:	Average	Vertical
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Condition : FCC PART15(>1G) AV 3m VERTICAL

Job No. : 4794RF

Mode	: 2462 Bandedge b	
		Cable

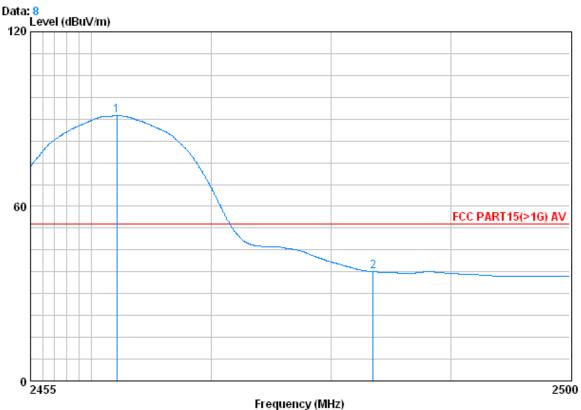
		Cable	lntenna	Preamp	Read		Limit	Over
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
10	2461.975	3.02	32.64	39.91	96.26	92.01	54.00	38.01
2	2483.500	3.03	32.67	39.92	41.66	37.44	54.00	-16.56





Report No.: SZEM130800479401 Page: 103 of 119

Worse case mode:	802.11b	Test channel:	Highest	Remark:	Average	Horizontal	
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Condition : FCC PART15(>1G) AV 3m HORIZONTAL

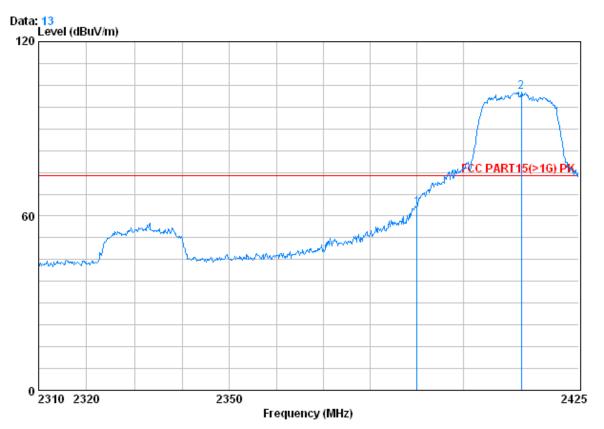
: 4794RF Job No. Mode

Iode	: 2462 Bandedge b							
		CableA	Intenna	Preamp	Read		Limit	Over
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
10 2	2462.155 2483.500	3.02 3.03		39.91 39.92				37.23 -16.45



Report No.: SZEM130800479401 Page: 104 of 119

Worse case mode: 802.11g	Test channel:	Lowest	Remark:	Peak	Vertical
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Condition : FCC PART15(>1G) PK 3m VERTICAL Job No. : 4794RF

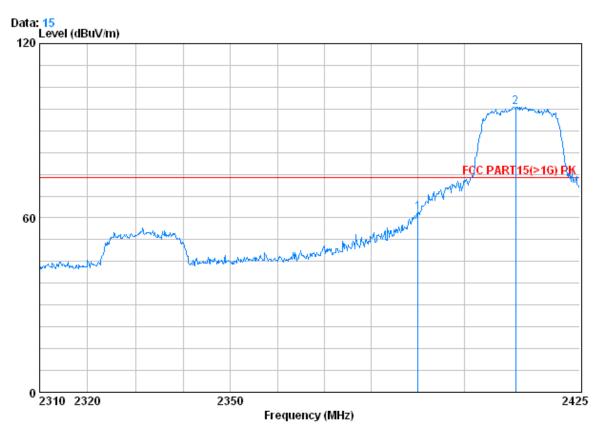
Job No. : 4794RF Mode : 2412 Bandedge g

1046	. 2412 Danueuge g		Antenna Factor	•	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 0	2390.000 2412.465						74.00 74.00	



Report No.: SZEM130800479401 Page: 105 of 119

Worse case mode: 802.11g	Test channel:	Lowest	Remark:	Peak	Horizontal	
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Condition : FCC PART15(>1G) PK 3m HORIZONTAL Job No. : 4794RF

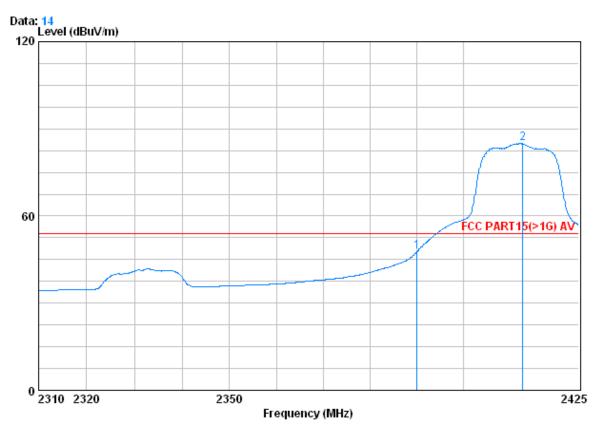
Job No. : 4794RF Mode : 2412 Bandedge g

1046	. 2412 Danseuge g			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 X	2390.000 2411.085			39.85 39.86				



Report No.: SZEM130800479401 Page: 106 of 119

Worse case mode: 802.11g	Test channel:	Lowest	Remark:	Average	Vertical
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Condition : FCC PART15(>1G) AV 3m VERTICAL

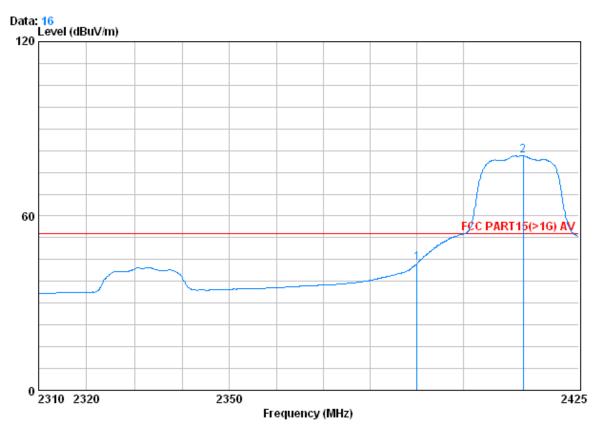
Job No. : 4794RF Mode : 2412 Bandedge g

lođe	. 2412 Bandeuge g Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 20	2390.000 2412.810			39.85 39.86				



Report No.: SZEM130800479401 Page: 107 of 119

Worse case mode: 802.1	g Test channel:	Lowest	Remark:	Average	Horizontal	
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Condition : FCC PART15(>1G) AV 3m HORIZONTAL

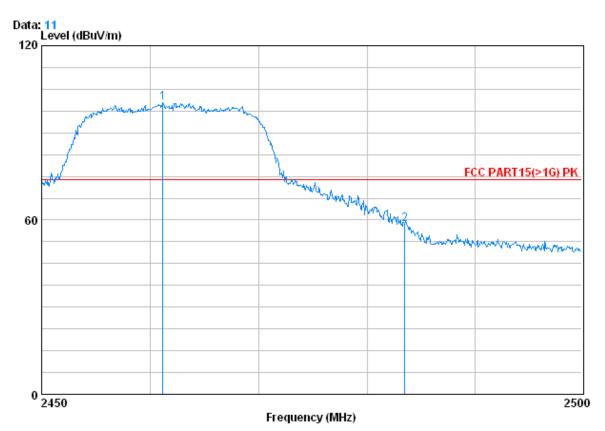
Job No. : 4794RF Mode : 2412 Bandedge g

node	. 2412 Bandedge g Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 20	2390.000 2412.925			39.85 39.86				



Report No.: SZEM130800479401 Page: 108 of 119

Worse case mode:	802.11g	Test channel:	Highest	Remark:	Peak	Vertical
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Condition : FCC PART15(>1G) PK 3m VERTICAL

Job No. : 4794RF

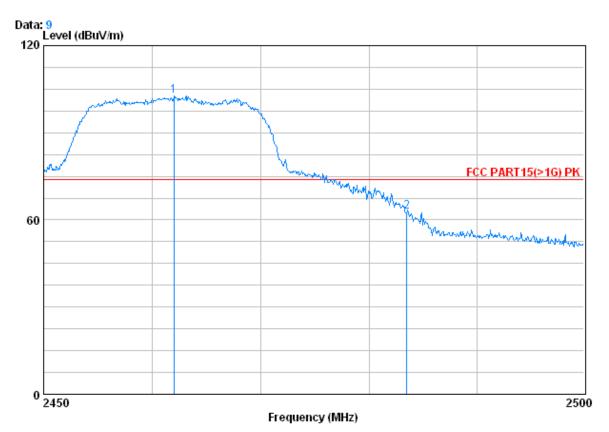
Mode : 2462 Bandedge g

	Freq			Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
10 2	2461.150 2483.500				104.74 62.83			



Report No.: SZEM130800479401 Page: 109 of 119

Worse case mode: 802	2.11g Test channel:	Highest	Remark:	Peak	Horizontal
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Condition : FCC PART15(>1G) PK 3m HORIZONTAL

1 2

Mode : 2462 Bandedge g

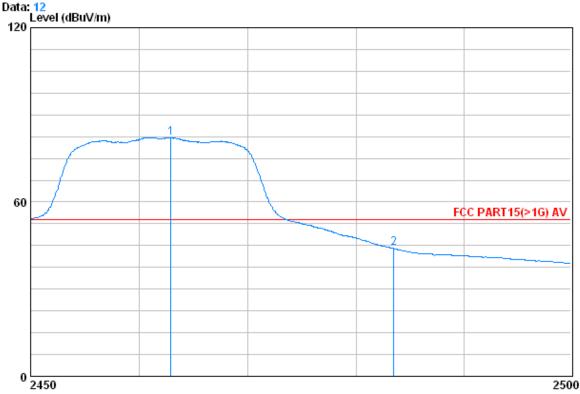
	Freq		Antenna Factor	-			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
0	2461.950 2483.500						74.00 74.00	

Job No. : 4794RF



Report No.: SZEM130800479401 Page: 110 of 119

Worse case mode: 802	2.11g Test channel:	Highest	Remark:	Average	Vertical
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Frequency (MHz)

Condition : FCC PART15(>1G) AV 3m VERTICAL

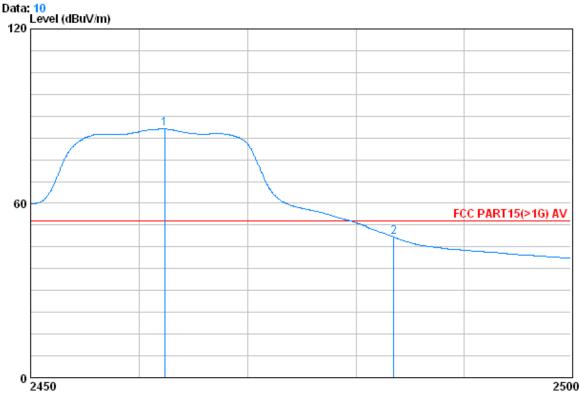
Job No. : 4794RF · 2462 Bandedge g Mode

.046	. 2402 Danueuge g		Antenna Factor	-	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
10 2	2462.900 2483.500						54.00 54.00	



Report No.: SZEM130800479401 Page: 111 of 119

Worse case mode:	802.11g	Test channel:	Highest	Remark:	Average	Horizontal	
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Frequency (MHz)

Condition : FCC PART15(>1G) AV 3m HORIZONTAL

: 4794RF Job No.

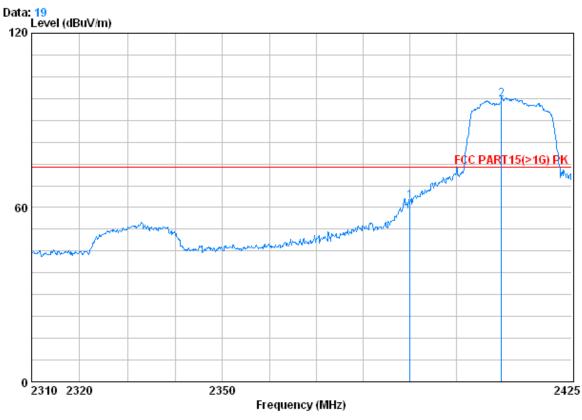
Mode	: 2462 Bandedge g
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		Cable <i>i</i>	lntenna	Preamp	Read		Limit	Over
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
10	2462.300	3.02	32.64	39.91	89.81	85.57	54.00	31.57
2	2483.500	3.03	32.67	39.92	52.67	48.45	54.00	-5.55



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Condition : FCC PART15(>1G) PK 3m VERTICAL

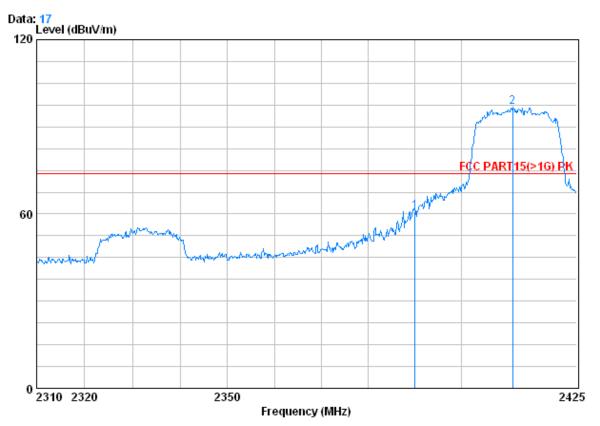
Job No. : 4794RF Mode : 2412Ba

: 2412 Bandedge N 20 CableAntenna Preamp Read Limit Over Freq Loss Factor Factor Level Level Line Limit MHz dBuV dBuV/m dBuV/m dB dB dB/m dB 2390.000 2.98 32.51 39.85 66.43 62.08 74.00 -11.92 1 2 X 2409.705 2.99 32.54 39.86 101.29 96.96 74.00 22.96



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Worse case mode:	802.11n(HT20)	Test channel:	Lowest	Remark:	Peak	Horizontal	
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Condition : FCC PART15(>1G) PK 3m HORIZONTAL

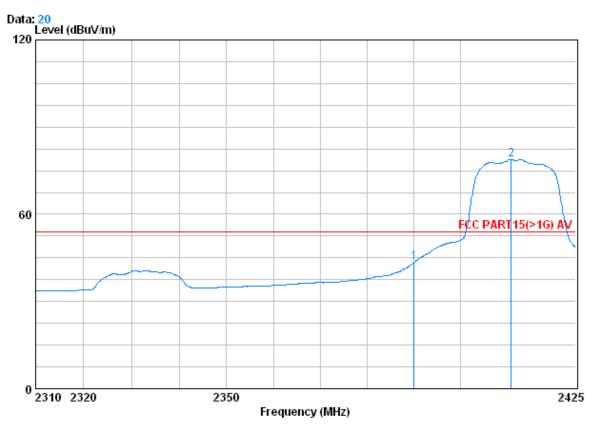
Job No. : 4794RF Mode 2412 0-

loqe	: 2412 Bandedge N 20 Freq			Preamp Factor	Read Level	Level	Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 X	2390.000 2411.085			39.85 39.86				



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Worse case mode:	802.11n(HT20)	Test channel:	Lowest	Remark:	Average	Vertical	
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Condition : FCC PART15(>1G) AV 3m VERTICAL . .

17.00

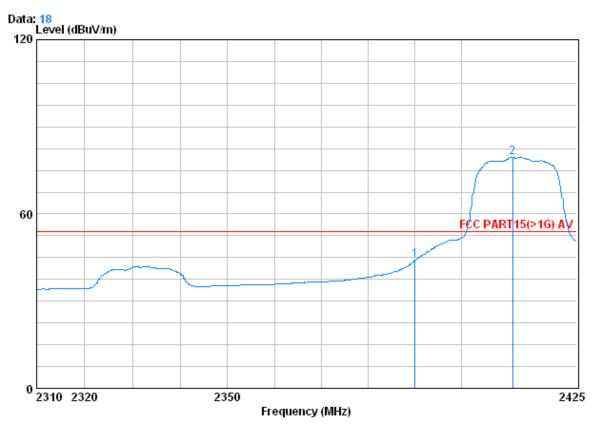
Job No. : 4794RF Mo 2412.0 đ

lode	:2412BandedgeN2U Freq		Antenna Factor	Preamp Factor	Read Level		Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 X	2390.000 2410.970			39.85 39.86				



Report No.: SZEM130800479401 Page: 115 of 119

Worse case mode:	802.11n(HT20)	Test channel:	Lowest	Remark:	Average	Horizontal
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Condition : FCC PART15(>1G) AV 3m HORIZONTAL

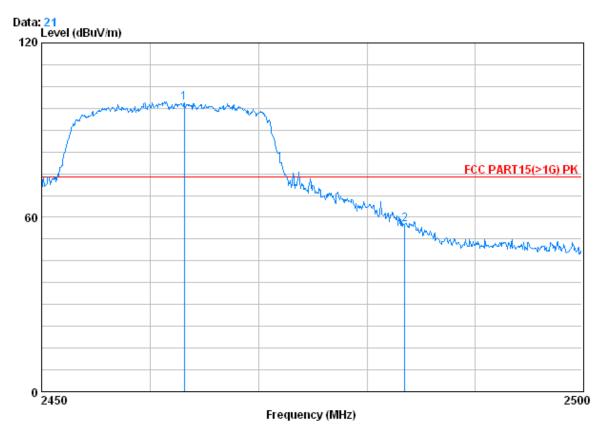
Job No. : 4794RF

	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 0	2390.000 2411.085			39.85 39.86				



Report No.: SZEM130800479401 Page: 116 of 119

Worse case mode:	802.11n(HT20)	Test channel:	Highest	Remark:	Peak	Vertical	1
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Condition : FCC PART15(>1G) PK 3m VERTICAL

Job No. : 4794RF

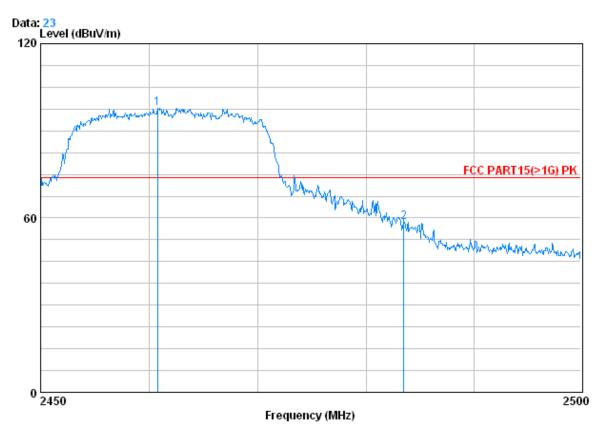
Mode : 2462 Bandedge N 20

	Freq			Preamp Factor			Limit Line	Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
10 2	2463.100 2483.500			39.91 39.92				



Report No.: SZEM130800479401 Page: 117 of 119

Worse case mode:	802.11n(HT20)	Test channel:	Highest	Remark:	Peak	Horizontal	l
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Condition : FCC PART15(>1G) PK 3m HORIZONTAL

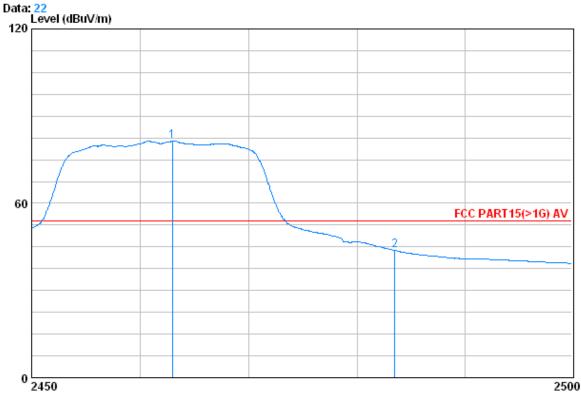
Job No. : 4794RF

Mode	: 2462 Bandedge N 20							
	_	Cable.	Antenna	Preamp	Read		Limit	Over
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 X	2460.750	3.02	32.64	39.91	102.07	97.82	74.00	23.82
2	2483.500				62.79			



Report No.: SZEM130800479401 Page: 118 of 119

Worse case mode: 802.1	11n(HT20) Test channel:	Highest Re	emark: Average	Vertical
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Frequency (MHz)

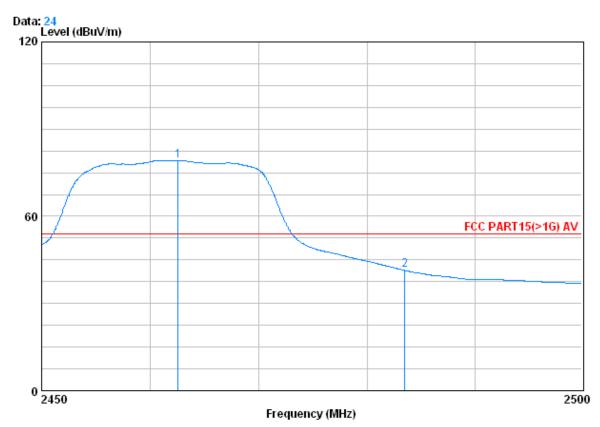
Condition : FCC PART15(>1G) AV 3m VERTICAL

Job No. : 4794RF Μ

vlođe	: 2462 Bandedge N 20							
		Cablei	lntenna	Preamp	Read		Limit	Over
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
10	2462.950	3.02	32.64	39.91	85.61	81.36	54.00	27.36
2	2483.500	3.03	32.67	39.92	48.09	43.87	54.00	-10.13



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Condition : FCC PART15(>1G) AV 3m HORIZONTAL

Job No. : 4794RF

	Freq			Preamp Factor				Over Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
10 2	2462.550 2483.500			39.91 39.92				

Note:

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

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor - Preamplifier Factor