

Report No.: SZEM120800473901

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# **FCC REPORT**

**Application No.:** SZEM1208004739RF

Applicant: ARCHOS SA

Manufacturer: ARCHOS SA

Product Name: Child Pad

Model No.(EUT): AN7DG3C

FCC ID: SOVAN7DG3C

**Standards:** 47 CFR Part 15, Subpart C (2011)

**Date of Receipt:** 2012-08-22

**Date of Test:** 2012-08-30 to 2012-09-05

**Date of Issue:** 2012-09-11

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	KDB558074 D01	PASS	
Antenna nequirement	15.203/15.247 (c)	ANSI C63.10 2009	PASS	
AC Power Line	47 CFR Part 15, Subpart C Section			
Conducted	15.207	ANSI C63.10 2009	PASS	
Emission	15.207			
Conducted Peak Output	47 CFR Part 15, Subpart C Section	KDB558074 D01	DACC	
Power	15.247 (b)(3)	ANSI C63.10 2009	PASS	
6dB Occupied	47 CFR Part 15, Subpart C Section	KDB558074 D01	PASS	
Bandwidth	15.247 (a)(2)	ANSI C63.10 2009	PASS	
Power Spectral Density	47 CFR Part 15, Subpart C Section 15.247 (e)	KDB558074 D01	DACC	
Power Spectral Density		ANSI C63.10 2009	PASS	
Band-edge for RF	47 CFR Part 15, Subpart C Section	KDB558074 D01	PASS	
Conducted Emissions	15.247(d)	ANSI C63.10 2009	FASS	
RF Conducted Spurious	47 CFR Part 15, Subpart C Section	KDB558074 D01	PASS	
Emissions	15.247(d)	ANSI C63.10 2009	FASS	
Radiated Spurious	47 CFR Part 15, Subpart C Section	KDB558074 D01	PASS	
Emissions	15.205/15.209	ANSI C63.10 2009	PA33	
Band Edge (Radiated	47 CFR Part 15, Subpart C Section	KDB558074 D01	DACC	
Emission)	15.205/15.209	ANSI C63.10 2009	PASS	



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# 4 General Information

### 4.1 Client Information

Applicant:	ARCHOS SA
Address of Applicant:	12 rue Ampère 91430 Igny France
Manufacturer:	ARCHOS SA
Address of Manufacturer:	12 rue Ampère 91430 Igny France

# 4.2 General Description of EUT

Product Name:	Child Pad				
Model No.:	AN7DG3C	AN7DG3C			
Operation Frequency:	_	n(HT20): 2412MHz to 2462MHz T40): 2422MHz to 2452MHz			
Channel Numbers:	IEEE 802.11b/g,	IEEE 802.11n HT20: 11 Channels T40: 7 Channels			
Channel Separation:	5MHz				
Type of Modulation:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20 and HT40): OFDM (64QAM, 16QAM, QPSK,BPSK)				
Sample Type:	Portable production				
Antenna Type:	Integral				
Antenna Gain:	0.77dBi				
Power Supply:	Adapter: MODEL: ASUC12a-050150 INPUT: AC 100-240V 50/60Hz 0.3A OUTPUT: DC 5.0V 1500mA				
	Battery: P338792 3000mAh 3.7V HY1229110106				
	USB charge				
USB Charging Cable:	<3m				
Test Voltage:	AC 120V 60Hz Full Rechargeab	ole battery			

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Operation Frequency each of channel(802.11b/g/n HT20)										
Channel	Fr	equency	Channe	I Frequency	Channel	Fre	quency	Char	nel	Frequency
1	24	412MHz	4	2427MHz	7	244	42MHz	1(	)	2457MHz
2	24	417MHz	5	2432MHz	8	244	47MHz	11		2462MHz
3	24	422MHz	6	2437MHz	9	24	52MHz			
Operation F	requ	ency each	of channe	el(802.11n HT40)						
						requency				
1		2422	MHz	4	2437MF	łz	7			2452MHz
2		2427	MHz	5	2442MF	lz				
3		2432	MHz	6	2447MF	łz				

#### 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

### For 802.11n (HT40):

Channel	Frequency
The Lowest channel	2422MHz
The Middle channel	2437MHz
The Highest channel	2452MHz

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### 4.3 Test Environment and Mode

Operating Environment:	Operating Environment:					
Temperature:	25.0 °C					
Humidity:	54 % RH					
Atmospheric Pressure:	1006 mbar					
Test mode:						
Transmitting mode:	Keep the EUT transmitting with modulation.					
Charge + Transmitting mode:	Keep the EUT charging and transmitting with modulation.					

# 4.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer	Model No.
Earphone	N/A	N/A

### 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)

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

### 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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### 4.10 Test Instruments List

RE in Chamber								
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)			
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	2013-06-10			
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	2013-05-17			
3	EMI Test software	AUDIX	E3	SEL0050	N/A			
4	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2012-10-29			
5	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2012-10-29			
6	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	2012-10-29			
7	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	2013-05-17			
8	Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEL0168	2012-11-26			
9	Coaxial cable	SGS	N/A	SEL0027	2013-05-59			
10	Coaxial cable	SGS	N/A	SEL0189	2013-05-29			
11	Coaxial cable	SGS	N/A	SEL0121	2013-05-29			
12	Coaxial cable	SGS	N/A	SEL0178	2013-05-29			
13	Band filter	Amindeon	82346	SEL0094	2013-05-17			
14	Barometer	Chang Chun	DYM3	SEL0088	2013-05-24			
15	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2012-10-23			
16	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B	SEL0103	2012-10-27			
17	Signal Generator (10M-27GHz)	Rohde & Schwarz	SMR27	SEL0067	2013-05-17			
18	Signal Generator	Rohde & Schwarz	SMY01	SEL0155	2012-10-23			
19	Loop Antenna	Beijing Daze	ZN30401	SEL0203	2013-06-04			

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	Conducted Emission							
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal.Due date (yyyy-mm-dd)			
1	Shielding Room	ZhongYu Electron	GB-88	SEL0042	2013-06-10			
2	LISN	Rohde & Schwarz	ENV216	SEL0152	2012-10-23			
3	LISN	ETS-LINDGREN	3816/2	SEL0021	2013-5-17			
4	8 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T8-02	SEL0162	2012-11-11			
5	4 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T4-02	SEL0163	2012-11-11			
6	2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T2-02	SEL0164	2012-11-11			
7	EMI Test Receiver	Rohde & Schwarz	ESCI	SEL0022	2013-5-17			
8	Coaxial Cable	SGS	N/A	SEL0025	2013-05-29			
9	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2012-10-23			
10	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B	SEL0103	2012-10-27			
11	Barometer	Chang Chun	DYM3	SEL0088	2013-05-24			

RF c	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	2012-10-23				
2	Humidity/ Temperature Indicator	HYGRO	ZJ1-2B	SEL0033	2012-10-27				
3	Spectrum Analyzer	Rohde & Schwarz	FSP	SEL0154	2012-10-23				
4	Coaxial cable	SGS	N/A	SEL0178	2013-05-29				
5	Coaxial cable	SGS	N/A	SEL0179	2013-05-29				
6	Barometer	ChangChun	DYM3	SEL0088	2013-05-24				
7	Signal Generator	Rohde & Schwarz	SML03	SEL0068	2013-05-17				
8	Band filter	amideon	82346	SEL0094	2013-05-17				
9	POWER METER	R&S	NRVS	SEL0144	2012-10-23				
10	Attenuator	Beijin feihang taida	TST-2-6dB	SEL0205	2013-05-17				
11	Power Divider(splitter)	Agilent Technologies	11636B	SEL0130	2012-11-29				

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# 5 Test results and Measurement Data

# 5.1 Antenna Requirement

Standard requirement: 47 CFR Part 15C Section 15.203 /247(c)

15.203 requirement:

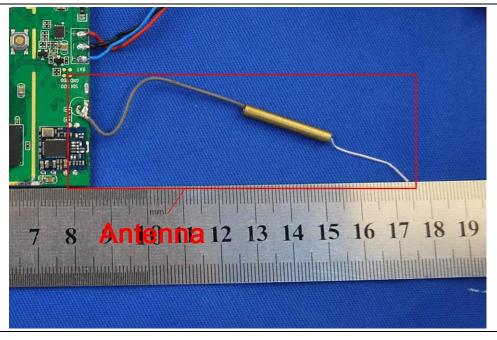
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

#### **EUT Antenna:**

The antenna is integrated on the main PCB and no consideration of replacement. The best case gain of the antenna is 0.77dBi.



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# 5.2 Conducted Emissions

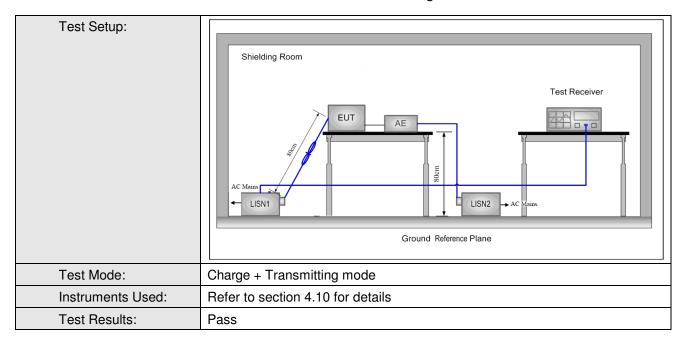
Test Requirement:	47 CFR Part 15C Section 15.207				
Test Method:	ANSI C63.10: 2009				
Test Frequency Range:	150kHz to 30MHz				
Limit:	Fraguenov rango (MIII-)	Limit (c	iBuV)		
	Frequency range (MHz)	Quasi-peak	Average		
	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5	56	46		
	5-30	60	50		
	* Decreases with the logarithn	n of the frequency.		-	
Test Procedure:	<ol> <li>The mains terminal disturbroom.</li> <li>The EUT was connected to Impedance Stabilization Not impedance. The power call connected to a second LIS plane in the same way as implement and all of the impedance. The power call connected to a second LIS plane in the same way as implement and all of the impedance. The LISN provided the result of the EUT shall be 0.4 mediated on the horizontal ground reference plane. All placed on the horizontal ground reference plane. The LISN unit under test and bonded mounted on top of the ground the EUT and associated endoughed the EUT and associated endoughed the impedance of the</li></ol>	o AC power source throetwork) which provides oles of all other units of SN 2, which was bonded the LISN 1 for the unit was used to connect mating of the LISN was noted upon a non-metallice and for floor-standing are cound reference plane, the a vertical ground reference plane was bonded to the 1 was placed 0.8 m from the vertical ground reference und reference plane. The fof the LISN 1 and the quipment was at least 0 am emission, the relative terface cables must be	bugh a LISN 1 (Line a 50Ω/50μH + 5Ω line the EUT were do not the ground reference plane and the EUT were do not exceeded. The table 0.8m above the trangement, the EUT derence plane. The red reference plane. The horizontal ground om the boundary of the plane for LISNs his distance was EUT. All other units of the positions of	near ence to a ne was ear ne he	

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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.

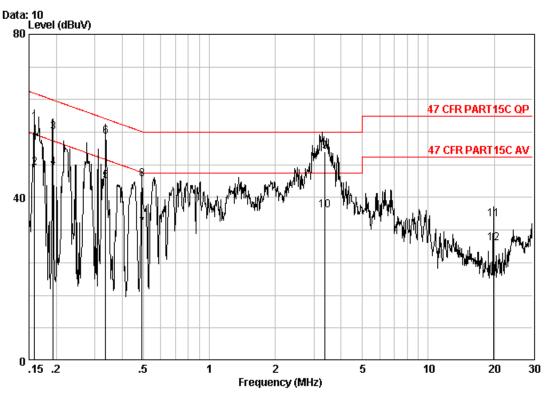
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#### Live Line:



Site : Shielding Room

Condition : 47 CFR PART15C QP CE LINE

Job No. : 4739RF

MODE : charge + TX mode

_	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15900	0.02	9.70	48.60	58.32	65.52	-7.20	QP
2	0.15900	0.02	9.70	37.68	47.40	55.52	-8.12	Average
3	0.19344	0.02	9.70	46.40	56.12	63.89	-7.77	QP
4	0.19344	0.02	9.70	37.48	47.20	53.89	-6.68	Average
5	0.33562	0.01	9.74	34.22	43.97	49.31	-5.34	Average
6 0	0.33562	0.01	9.74	45.22	54.97	59.31	-4.34	QP
7	0.49150	0.01	9.80	22.64	32.45	46.14	-13.69	Average
8	0.49150	0.01	9.80	34.64	44.45	56.14	-11.69	QP
9	3.370	0.02	9.86	41.30	51.17	56.00	-4.83	QP
10	3.370	0.02	9.86	26.90	36.77	46.00	-9.23	Average
11	19.845	0.02	10.10	24.50	34.62	60.00	-25.38	QP
12	19.845	0.02	10.10	18.56	28.68	50.00	-21.32	Average

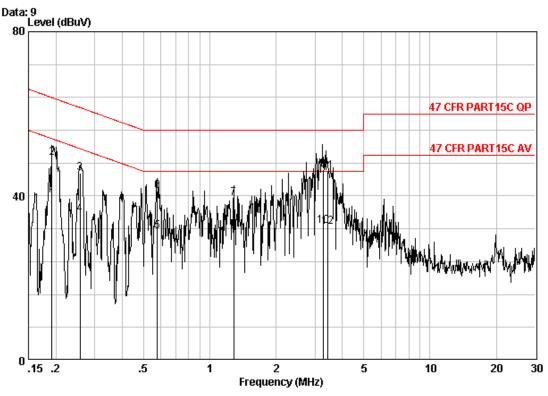
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#### Neutral Line:



Site : Shielding Room

Condition : 47 CFR PART15C QP CE NEUTRAL

Job No. : 4739RF

MODE : charge + TX mode

		Cable	LISN	Read		Limit	Over	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.19140	0.02	9.70	29.56	39.28	53.98	-14.69	Average
2	0.19140	0.02	9.70	39.56	49.28	63.98	-14.70	QP
3	0.25751	0.02	9.70	35.80	45.52	61.51	-16.00	QP
4	0.25751	0.02	9.70	25.81	35.52	51.51	-15.99	Average
5	0.57617	0.01	9.80	21.49	31.31	46.00	-14.69	Average
6	0.57617	0.01	9.80	31.49	41.30	56.00	-14.70	QP
7	1.282	0.02	9.80	29.59	39.41	56.00	-16.59	QP
8	1.282	0.02	9.80	21.59	31.41	46.00	-14.59	Average
9	3.270	0.02	9.85	36.60	46.47	56.00	-9.53	QP
10	3.270	0.02	9.85	22.80	32.67	46.00	-13.33	Average
11	3.430	0.02	9.86	36.20	46.08	56.00	-9.92	QP
12	3.430	0.02	9.86	22.50	32.38	46.00	-13.62	Average

#### 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:	ANSI C63.10 2009 and 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); 135Mbps of rate is the worst case of 802.11n(HT40).			
Limit:	30dBm			
Test Results:	Pass			

Pre-scan under all rate at lowest channel 1								
Mode		802	.11b					
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps				
Power (dBm)	12.26	12.48	13.91	14.72				
Mode	802.11g							
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power (dBm)	14.60	14.70	14.82	14.95	15.14	15.31	15.52	15.75
Mode				802.1	1n(HT20)			
Data Rate	6.5Mbps	13Mbps	19.5Mbps	26Mbps	39Mbps	52Mbps	58.5Mbps	65Mbps
Power (dBm)	13.76	13.85	13.99	14.17	14.32	14.49	14.60	14.89
Mode	802.11n(HT40)							
Data Rate	13.5Mbps	27Mbps	40.5Mbps	54Mbps	81Mbps	108Mbps	121.5Mbps	135Mbps
Power (dBm)	14.35	14.47	14.52	14.71	14.88	15.01	15.14	15.23

Through Pre-scan, 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); 135Mbps of rate is the worst case of 802.11n(HT40).

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#### **Measurement Data**

weasurement Data							
	802.11b mode						
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result				
Lowest	14.72	30.00	Pass				
Middle	15.31	30.00	Pass				
Highest	15.13	30.00	Pass				
	802.11g mo	de					
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result				
Lowest	15.75	30.00	Pass				
Middle	16.07	30.00	Pass				
Highest	16.18	30.00	Pass				
	802.11n(HT20)	mode					
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result				
Lowest	14.89	30.00	Pass				
Middle	15.37	30.00	Pass				
Highest	15.52	30.00	Pass				
802.11n(HT40)mode							
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result				
Lowest	15.23	30.00	Pass				
Middle	15.58	30.00	Pass				
Highest	15.48	30.00	Pass				



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### Test plot as follows:

Test mode: 802.11b Test channel: Lowest







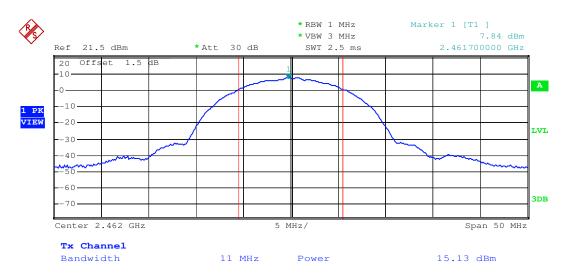
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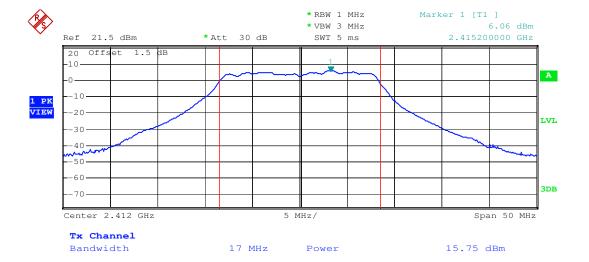
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Test mode: 802.11b Test channel: Highest



Test mode: 802.11g Test channel: Lowest



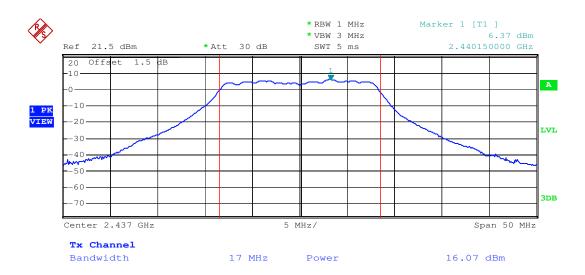
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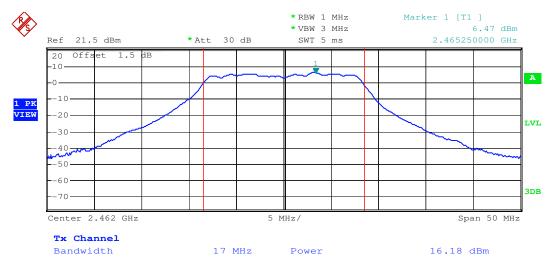
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Test mode: 802.11g Test channel: Middle



Test mode: 802.11g Test channel: Highest





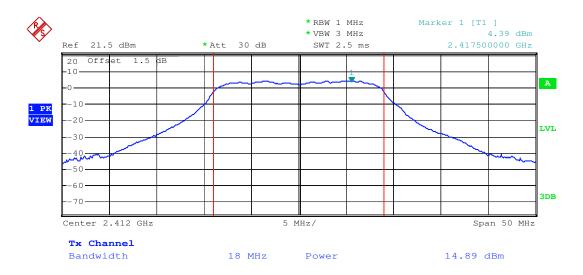
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Test mode: 802.11n(HT20) Test channel: Lowest







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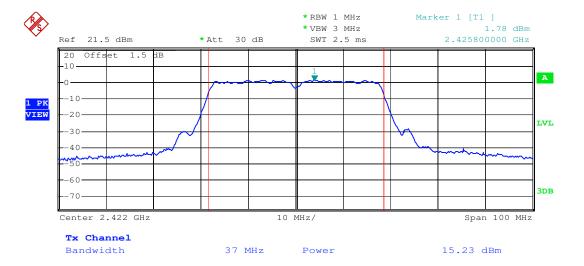
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Test mode:	802.11n(HT40)	Test channel:	Lowest
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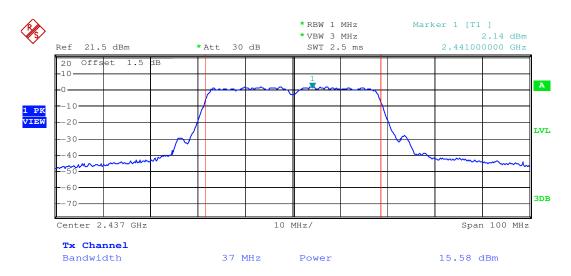
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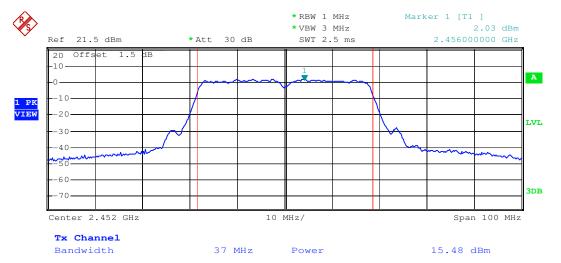
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Test mode: 802.11n(HT40) Test channel: Middle







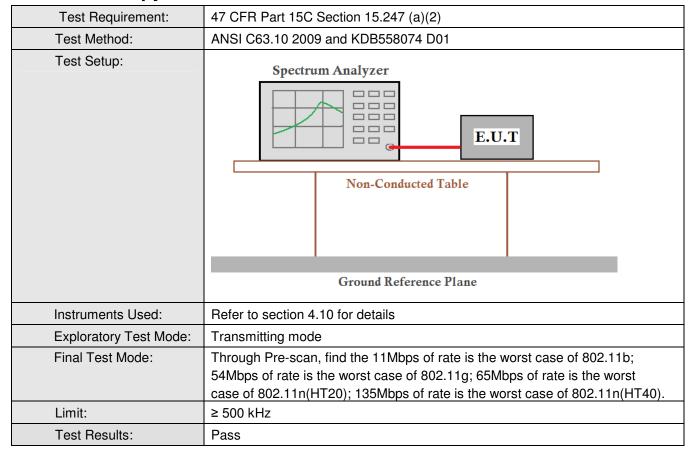
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# 5.4 6dB Occupy Bandwidth



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#### **Measurement Data**

802.11b mode					
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result		
Lowest	10.50	≥500	Pass		
Middle	10.50	≥500	Pass		
Highest	10.50	≥500	Pass		
	802.11g mode				
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result		
Lowest	16.68	≥500	Pass		
Middle	16.62	≥500	Pass		
Highest	16.62	≥500	Pass		
	802.11n(HT20) mode				
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result		
Lowest	17.82	≥500	Pass		
Middle	17.86	≥500	Pass		
Highest	17.82	≥500	Pass		
802.11n(HT40)mode					
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result		
Lowest	36.50	≥500	Pass		
Middle	36.50	≥500	Pass		
Highest	36.50	≥500	Pass		

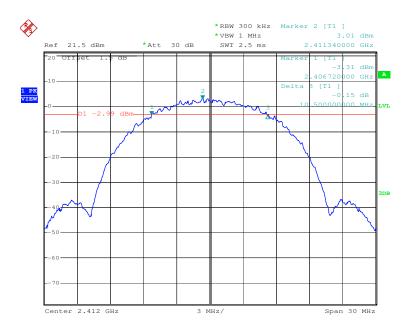


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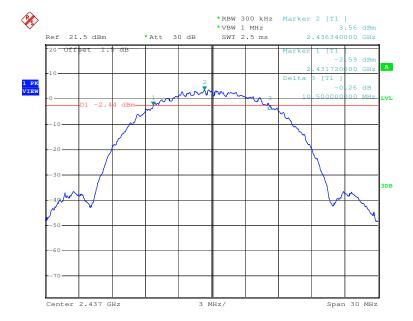
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Test plot as follows:

Test mode: 802.11b Test channel: Lowest



Test mode: 802.11b Test channel: Middle



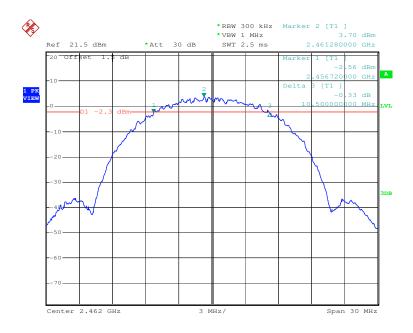
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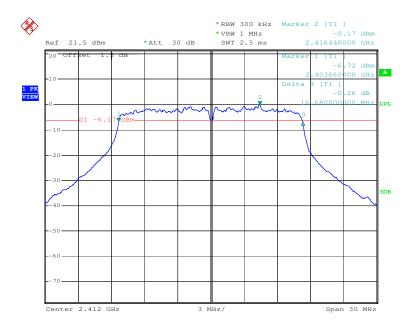
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Test mode: 802.11b Test channel: Highest







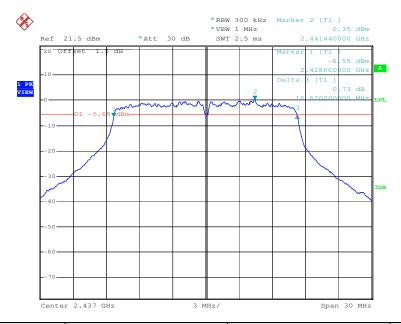
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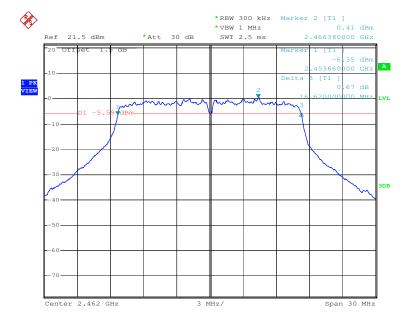
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Test mode: 802.11g Test channel: Middle



Test mode: 802.11g Test channel: Highest



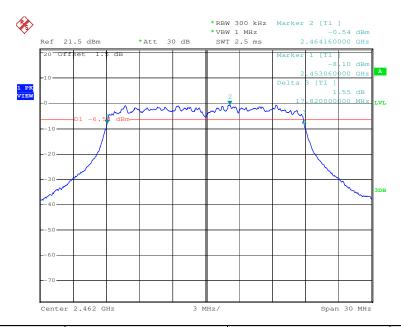
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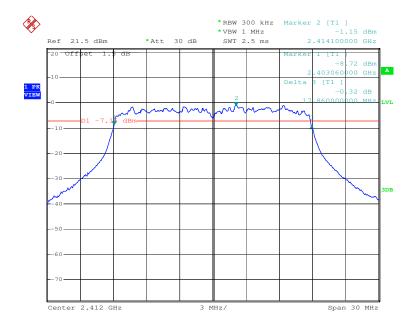
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Test mode: 802.11n(HT20) Test channel: Lowest







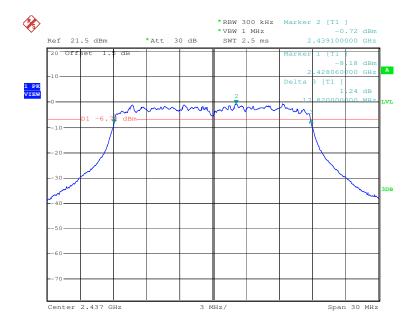
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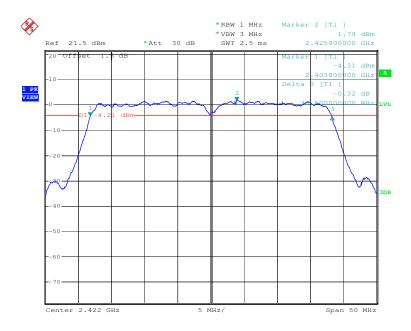
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Test mode: 802.11n(HT20) Test channel: Highest



Test mode: 802.11n(HT40) Test channel: Lowest





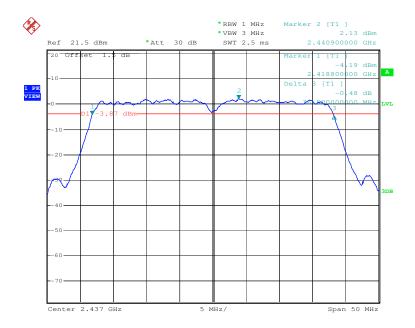
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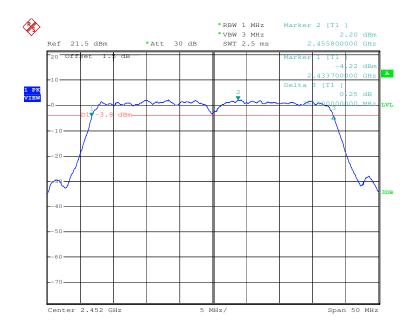
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Test mode: 802.11n(HT40) Test channel: Middle



Test mode: 802.11n(HT40) Test channel: Highest



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# 5.5 Power Spectral Density

Test Requirement:	47 CFR Part 15C Section 15.247 (e)			
Test Method:	ANSI C63.10 2009 and 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); 135Mbps of rate is the worst case of 802.11n(HT40).  Scale the observed power level to an equivalent level in 3 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where: BWCF = 10log (3kHz/100 kHz = -15.2 dB).			
Limit:	≤8.00dBm			
Test Results:	Pass			

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#### **Measurement Data**

Weasurement Bata						
	802.11b mode					
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result			
Lowest	-13.38	≤8.00	Pass			
Middle	-12.92	≤8.00	Pass			
Highest	-12.84	≤8.00	Pass			
	802.11g mode					
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result			
Lowest	-20.4	≤8.00	Pass			
Middle	-20.11	≤8.00	Pass			
Highest	-19.94	≤8.00	Pass			
	802.11n(HT20) mode					
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result			
Lowest	-20.94	≤8.00	Pass			
Middle	-20.44	≤8.00	Pass			
Highest	-20.32	≤8.00	Pass			
802.11n(HT40) mode						
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result			
Lowest	-24.38	≤8.00	Pass			
Middle	-23.92	≤8.00	Pass			
Highest	-24.05	≤8.00	Pass			

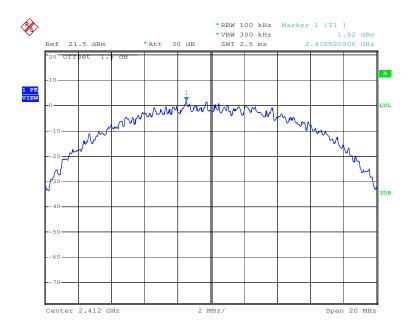


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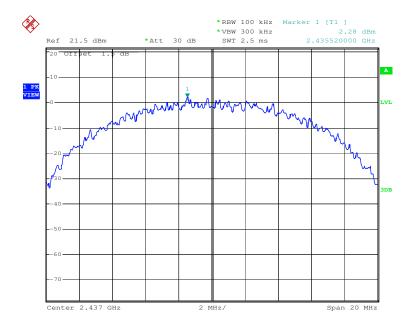
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### Test plot as follows:

Test mode:	802.11b	Test channel:	Lowest
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Test mode: 802.11b Test channel: Middle



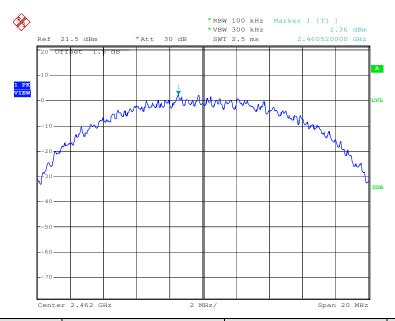
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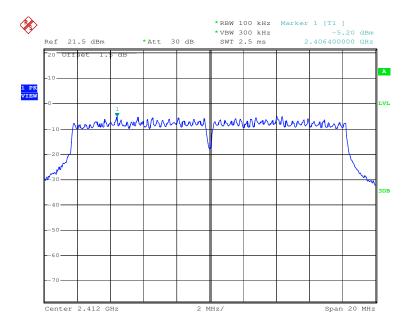
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Test mode: 802.11b Test channel: Highest



Test mode: 802.11g Test channel: Lowest



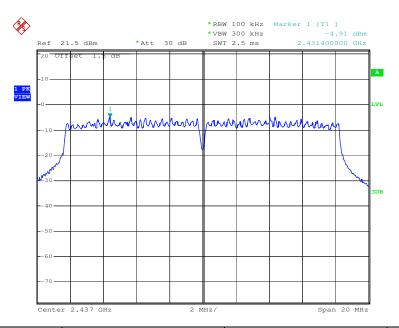
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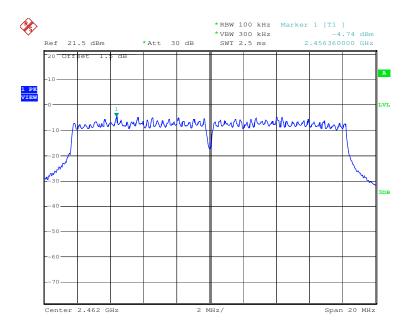
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Test mode: 802.11g Test channel: Middle



Test mode: 802.11g Test channel: Highest



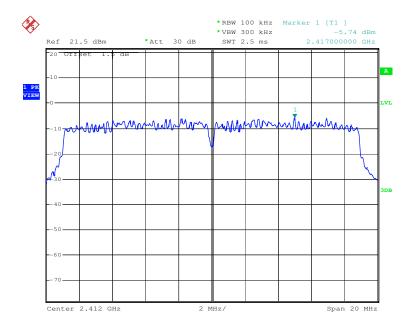
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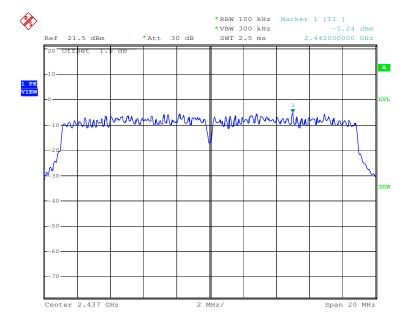
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Test mode: 802.11n(HT20) Test channel: Lowest







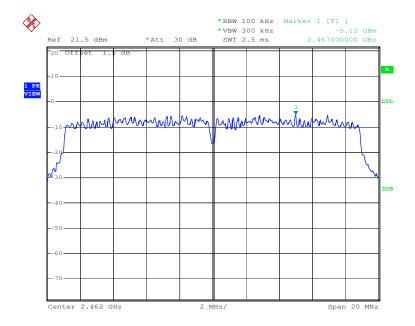
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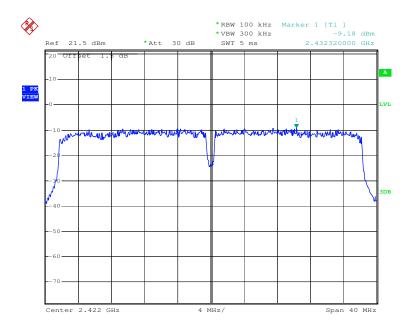
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Test mode: 802.11n(HT20) Test channel: Highest







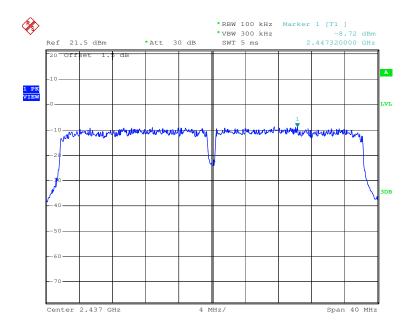
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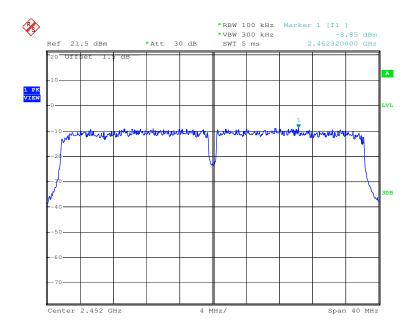
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Test mode: 802.11n(HT40) Test channel: Middle







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## 5.6 Band-edge for RF Conducted Emissions

47 CFR Part 15C Section 15.247 (d)
ANSI C63.10 2009 and KDB558074 D01
Spectrum Analyzer  E.U.T  Non-Conducted Table  Ground Reference Plane
Remark:
Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.
Transmitting 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); 135Mbps of rate is the worst case of 802.11n(HT40).
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.
Refer to section 4.10 for details
Pass



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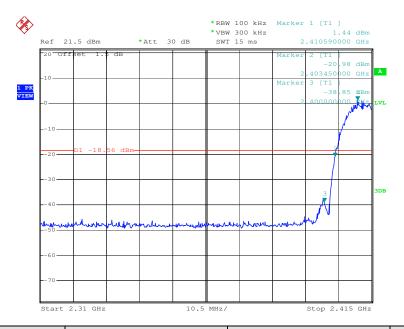


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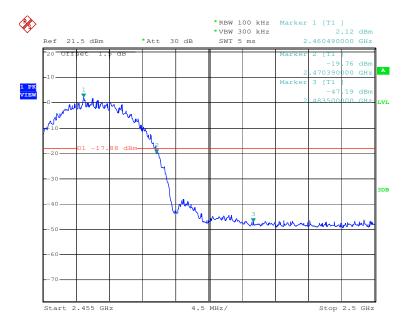
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#### Test plot as follows:

Test mode: 802.11b Test channel: Lowest



Test mode: 802.11b Test channel: Highest



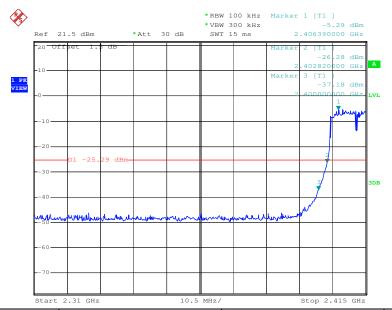
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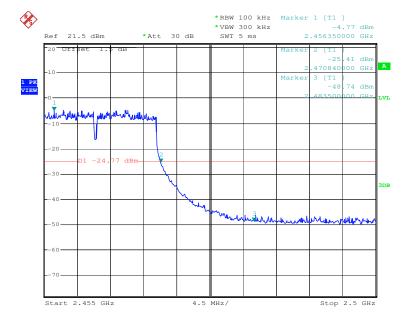
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Test mode: 802.11g Test channel: Lowest







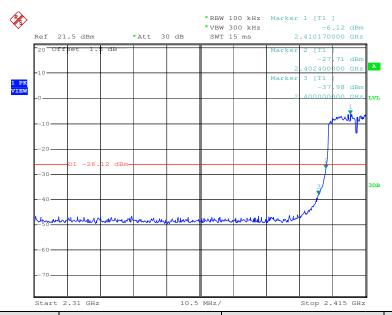
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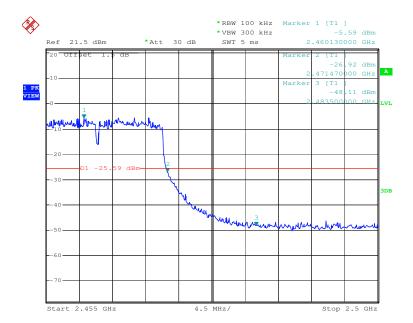
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Test mode: 802.11n(HT20) Test channel: Lowest



Test mode: 802.11n(HT20) Test channel: Highest



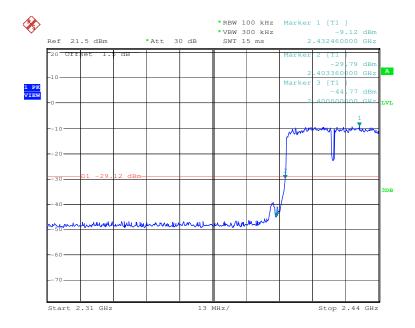
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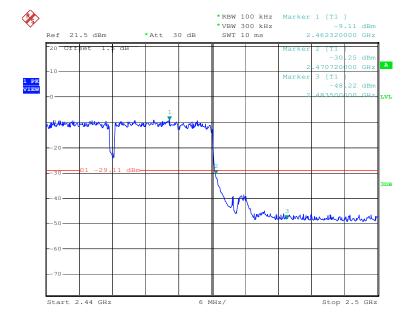
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Test mode: 802.11n(HT40) Test channel: Lowest



Test mode: 802.11n(HT40) Test channel: Highest



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# 5.7 RF Conducted Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)
Test Method:	ANSI C63.10 2009 and 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); 135Mbps of rate is the worst case of 802.11n(HT40).
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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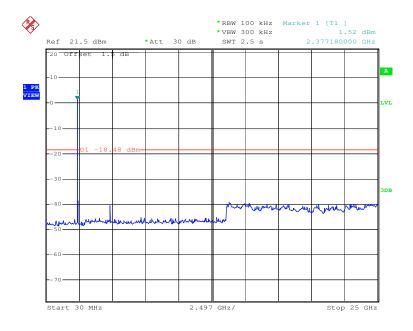


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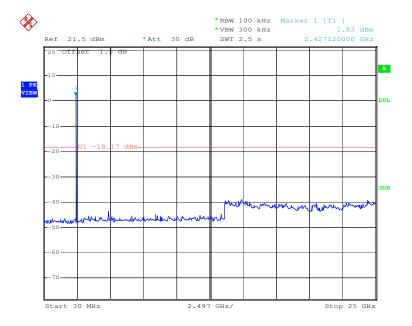
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#### Test plot as follows:

Test mode: 802.11b Test channel: Lowest



Test mode: 802.11b Test channel: Middle



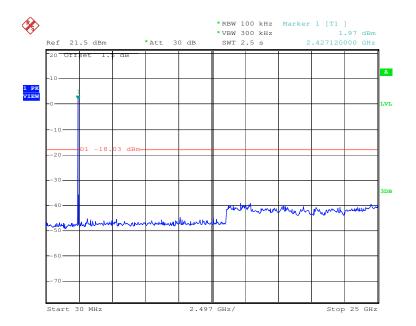
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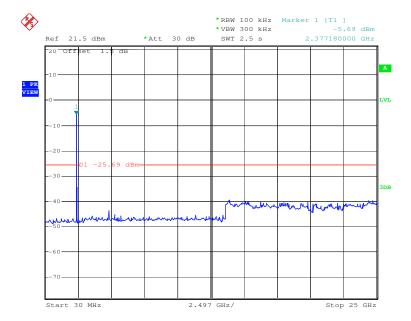
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Test mode: 802.11b Test channel: Highest



Test mode: 802.11g Test channel: Lowest



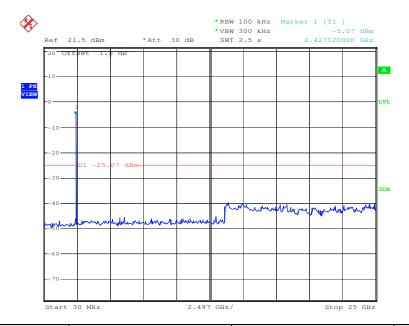
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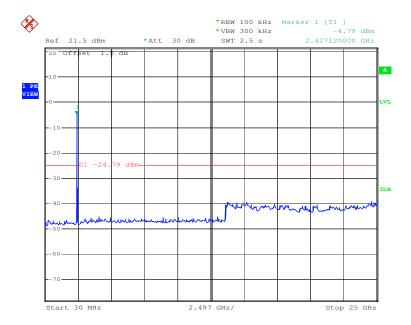
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Test mode: 802.11g Test channel: Middle



Test mode: 802.11g Test channel: Highest



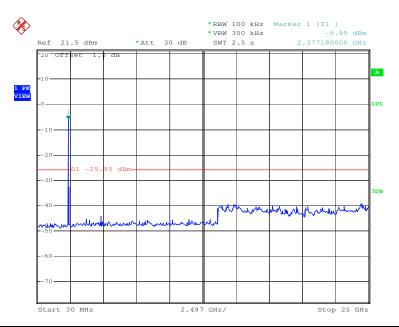
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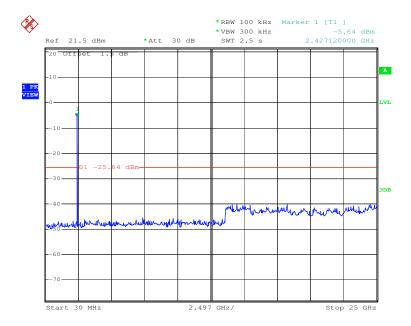
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Test mode: 802.11n(HT20) Test channel: Lowest







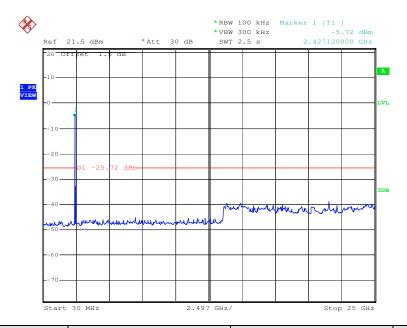
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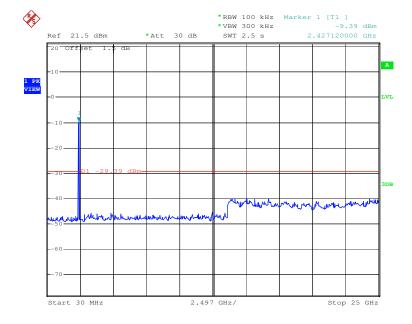
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Test mode: 802.11n(HT20) Test channel: Highest



Test mode: 802.11n(HT40) Test channel: Lowest





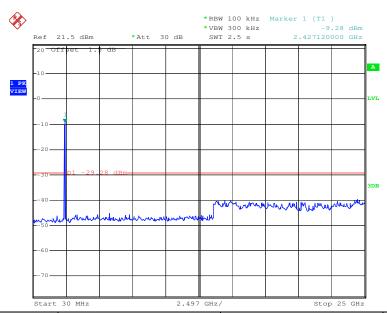
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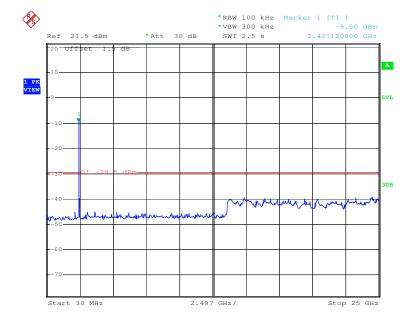
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Test mode: 802.11n(HT40) Test channel: Middle



Test mode: 802.11n(HT40) Test channel: Highest



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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 and KDB558074 D01									
Test Site:	Measurement Distance: 3m (Semi-Anechoic 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 1GH2	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 radiated by the device.									

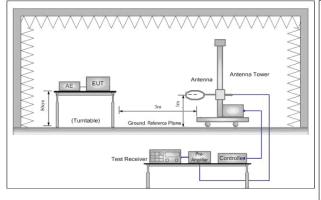
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#### Test Setup:



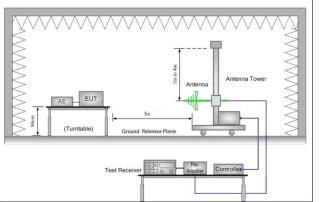


Figure 1. Below 30MHz

Figure 2. 30MHz to 1GHz

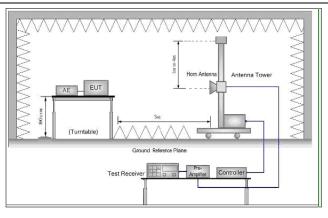


Figure 3. Above 1 GHz

#### 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(for the test frequency of below 30MHz, the antenna was tuned to heights 1 meter) 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. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average

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method as specified and then reported in a data sheet.
g. Test the EUT in the lowest channel, the middle channel, the Highest channel.
h. The radiation measurements of Handle-used mode 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.
Transmitting mode, Charge + Transmitting mode
Pretest the EUT at Transmitting mode and Charge + Transmitting mode, and found the Charge + Transmitting mode which is worse case, the test worse case mode is recorded in the report.
2) 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); 135Mbps of rate is the worst case of 802.11n(HT40).
Refer to section 4.10 for details
Pass

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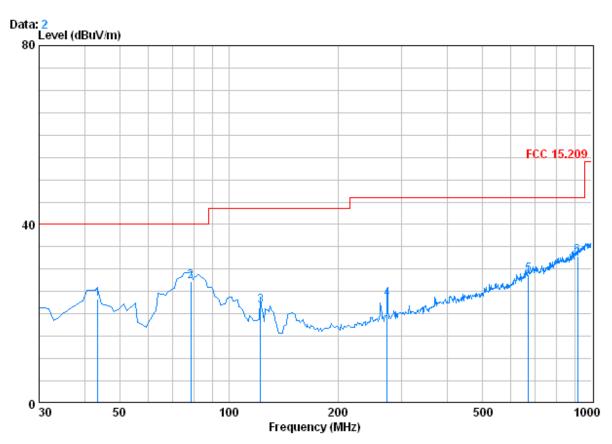


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#### 5.8.1 Radiated emission below 1GHz

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



Condition : FCC 15.209 3m 3142C VERTICAL

Job No. : 4739RF

Mode : charge + TX mode

		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
1	43.580	0.68	9.93	27.31	40.13	23.43	40.00	-16.57
2	78.500	1.05	7.59	27.23	45.93	27.34	40.00	-12.66
3	122.150	1.26	7.85	27.06	39.63	21.69	43.50	-21.81
4	273.470	1.78	12.78	26.47	35.30	23.40	46.00	-22.60
5	669.230	2.84	21.24	27.45	32.13	28.77	46.00	-17.23
6	916.580	3.62	23.26	26.68	32.78	32.99	46.00	-13.01

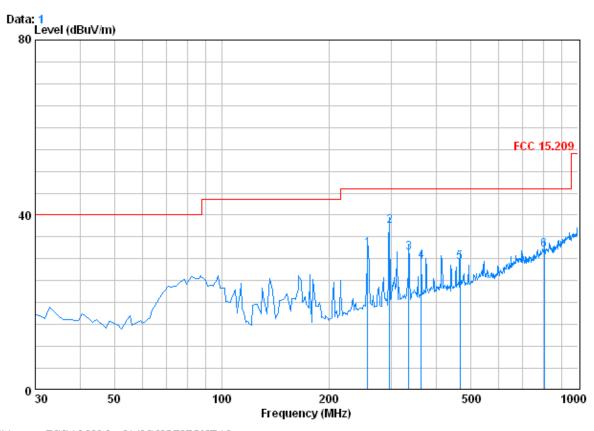
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Test mode: Transmitting Horizontal



Condition : FCC 15.209 3m 3142C HORIZONTAL

Job No. : 4739RF

Mode : charge + TX mode

		Cable	intenna	Preamp	Read		Limit	Over
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	256.980	1.71	12.45	26.51	44.66	32.31	46.00	-13.69
2 0	295.780	1.88	13.72	26.41	48.32	37.51	46.00	-8.49
3	335.550	2.02	15.07	26.68	40.92	31.32	46.00	-14.68
4	362.710	2.10	15.72	26.89	38.41	29.33	46.00	-16.67
5	466.500	2.48	17.48	27.54	36.90	29.31	46.00	-16.69
6	805.030	3.23	22.14	27.27	34.04	32.14	46.00	-13.86

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#### 5.8.2 Transmitter emission above 1GHz

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)	Polarization
4821.757	4.70	34.68	41.64	49.84	47.58	74	-26.42	Vertical
6428.771	5.24	36.20	40.55	48.54	49.43	74	-24.57	Vertical
7489.599	6.10	36.00	39.62	47.49	49.97	74	-24.03	Vertical
8527.851	6.18	36.23	38.73	46.44	50.12	74	-23.88	Vertical
9441.913	6.03	37.14	37.94	46.42	51.65	74	-22.35	Vertical
12055.600	6.48	38.95	38.30	45.80	52.93	74	-21.07	Vertical
4629.319	4.57	35.01	41.50	49.23	47.31	74	-26.69	Horizontal
6363.645	5.22	36.14	40.61	50.25	51.00	74	-23.00	Horizontal
7394.878	6.00	35.96	39.71	48.42	50.67	74	-23.33	Horizontal
9370.083	6.05	37.03	37.99	46.25	51.34	74	-22.66	Horizontal
10453.950	6.09	38.24	37.64	45.44	52.13	74	-21.87	Horizontal
11812.580	6.42	38.71	38.20	45.80	52.73	74	-21.27	Horizontal

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)	Polarization
4594.102	4.55	35.06	41.47	48.66	46.80	74	-27.20	Vertical
6696.010	5.31	36.11	40.31	48.51	49.62	74	-24.38	Vertical
7547.013	6.17	36.00	39.57	47.64	50.24	74	-23.76	Vertical
8462.975	6.18	36.19	38.78	47.98	51.57	74	-22.43	Vertical
9370.083	6.05	37.03	37.99	46.16	51.25	74	-22.75	Vertical
10480.590	6.09	38.28	37.65	46.06	52.78	74	-21.22	Vertical
4536.000	4.52	35.14	41.43	47.34	45.57	74	-28.43	Horizontal
5910.798	5.09	35.56	41.01	48.25	47.89	74	-26.11	Horizontal
7489.599	6.10	36.00	39.62	47.14	49.62	74	-24.38	Horizontal
8292.376	6.19	36.12	38.93	47.24	50.62	74	-23.38	Horizontal
9370.083	6.05	37.03	37.99	46.02	51.11	74	-22.89	Horizontal
11140.850	6.26	38.47	37.92	45.49	52.30	74	-21.70	Horizontal

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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)	Polarization
4455.890	4.47	35.06	41.37	47.94	46.10	74	-27.90	Vertical
5747.586	5.04	35.29	41.14	48.69	47.88	74	-26.12	Vertical
6544.350	5.27	36.27	40.45	47.27	48.36	74	-25.64	Vertical
7413.726	6.02	35.97	39.69	47.78	50.08	74	-23.92	Vertical
9275.160	6.08	36.93	38.08	45.98	50.91	74	-23.09	Vertical
11140.850	6.26	38.47	37.92	45.07	51.88	74	-22.12	Vertical
4455.890	4.47	35.06	41.37	48.85	47.01	74	-26.99	Horizontal
6032.401	5.13	35.74	40.89	49.44	49.42	74	-24.58	Horizontal
7566.249	6.19	36.00	39.56	47.72	50.35	74	-23.65	Horizontal
8187.502	6.20	36.08	39.03	47.82	51.07	74	-22.93	Horizontal
9538.543	6.00	37.23	37.86	46.20	51.57	74	-22.43	Horizontal
11112.520	6.25	38.48	37.91	45.20	52.02	74	-21.98	Horizontal

Test mode:		802	.11g	Test ch	annel:	Lowest	Remark		Peak
Frequency (MHz)	Lo	ble ss B)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	 nit Line BuV/m)	Over Limit (dB)	Polarization
4821.757	4.	70	34.68	41.64	48.52	46.26	74	-27.74	Vertical
6544.350	5.	27	36.27	40.45	48.29	49.38	74	-24.62	Vertical
7413.726	6.	02	35.97	39.69	48.54	50.84	74	-23.16	Vertical
8441.459	6.	18	36.18	38.80	47.09	50.65	74	-23.35	Vertical
9346.262	6.	06	37.01	38.03	46.75	51.79	74	-22.21	Vertical
11370.050	6.	31	38.43	38.02	45.58	52.30	74	-21.70	Vertical
4536.000	4.	52	35.14	41.43	47.58	45.81	74	-28.19	Horizontal
6363.645	5.	22	36.14	40.61	47.56	48.31	74	-25.69	Horizontal
7547.013	6.	17	36.00	39.57	47.83	50.43	74	-23.57	Horizontal
8292.376	6.	19	36.12	38.93	48.50	51.88	74	-22.12	Horizontal
9859.472	5.	98	37.56	37.58	45.32	51.28	74	-22.72	Horizontal
11457.210	6.	34	38.41	38.05	45.48	52.18	74	-21.82	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)	Polarization
4501.492	4.49	35.20	41.40	47.16	45.45	74	-28.55	Vertical
6478.053	5.25	36.26	40.51	47.79	48.79	74	-25.21	Vertical
7547.013	6.17	36.00	39.57	46.94	49.54	74	-24.46	Vertical
9157.857	6.11	36.79	38.19	45.28	49.99	74	-24.01	Vertical
10560.940	6.11	38.32	37.68	44.62	51.37	74	-22.63	Vertical
11574.460	6.36	38.47	38.10	45.57	52.30	74	-21.70	Vertical
4536.000	4.52	35.14	41.43	48.85	47.08	74	-26.92	Horizontal
6156.505	5.17	35.88	40.79	49.00	49.26	74	-24.74	Horizontal
7566.249	6.19	36.00	39.56	48.23	50.86	74	-23.14	Horizontal
8042.903	6.20	36.01	39.15	48.40	51.46	74	-22.54	Horizontal
9465.979	6.02	37.16	37.91	46.14	51.41	74	-22.59	Horizontal
11692.920	6.39	38.59	38.15	46.13	52.96	74	-21.04	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
4455.890	4.47	35.06	41.37	48.92	47.08	74	-26.92	Vertical
5791.646	5.06	35.37	41.10	48.74	48.07	74	-25.93	Vertical
6478.053	5.25	36.26	40.51	48.85	49.85	74	-24.15	Vertical
7643.683	6.23	36.00	39.49	47.92	50.66	74	-23.34	Vertical
9251.580	6.08	36.89	38.11	46.45	51.31	74	-22.69	Vertical
11027.980	6.23	38.49	37.88	46.41	53.25	74	-20.75	Vertical
4641.118	4.59	34.98	41.51	47.56	45.62	74	-28.38	Horizontal
5617.407	4.99	35.09	41.25	47.91	46.74	74	-27.26	Horizontal
6494.564	5.26	36.28	40.50	48.08	49.12	74	-24.88	Horizontal
8022.456	6.20	36.01	39.16	47.31	50.36	74	-23.64	Horizontal
9465.979	6.02	37.16	37.91	45.31	50.58	74	-23.42	Horizontal
11140.850	6.26	38.47	37.92	45.72	52.53	74	-21.47	Horizontal

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Test mode:		802.	.11n(HT20)	Test cha	annel:	Lowest	Remark:		Peak
Frequency (MHz)	Cab Los: (dB	s	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4724.558	4.63	3	34.84	41.57	47.89	45.79	74	-28.21	Vertical
6299.178	5.20	0	36.06	40.66	48.45	49.05	74	-24.95	Vertical
7663.165	6.23	3	36.00	39.48	47.90	50.65	74	-23.35	Vertical
8973.250	6.16	6	36.57	38.34	46.20	50.59	74	-23.41	Vertical
10723.470	6.1	5	38.39	37.75	45.39	52.18	74	-21.82	Vertical
11752.600	6.4	1	38.66	38.17	46.04	52.94	74	-21.06	Vertical
4724.558	4.63	3	34.84	41.57	49.30	47.20	74	-26.80	Horizontal
6577.752	5.2	7	36.23	40.41	48.74	49.83	74	-24.17	Horizontal
7800.936	6.22	2	36.00	39.36	48.33	51.19	74	-22.81	Horizontal
9685.345	5.99	9	37.39	37.73	45.72	51.37	74	-22.63	Horizontal
10778.210	6.17	7	38.41	37.77	45.52	52.33	74	-21.67	Horizontal
11872.880	6.4	4	38.78	38.22	46.30	53.30	74	-20.70	Horizontal

Test mode:		802	.11n(HT20)	Test cha	annel:	Middle	Remark		Peak
Frequency (MHz)	Cab Los (dB	ss	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4724.558	4.6	3	34.84	41.57	48.86	46.76	74	-27.24	Vertical
6094.137	5.1	5	35.82	40.84	48.76	48.89	74	-25.11	Vertical
7357.326	5.9	6	35.94	39.74	48.38	50.54	74	-23.46	Vertical
8996.121	6.1	6	36.59	38.32	47.07	51.50	74	-22.50	Vertical
10139.450	6.0	1	37.88	37.51	45.31	51.69	74	-22.31	Vertical
11428.080	6.3	Ω	38.42	38.04	46.28	52.99	74	-21.01	Vertical
4772.910	4.6	7	34.76	41.61	48.28	46.10	74	-27.90	Horizontal
6544.350	5.2	7	36.27	40.45	47.90	48.99	74	-25.01	Horizontal
7585.533	6.2	1	36.00	39.54	47.81	50.48	74	-23.52	Horizontal
9465.979	6.0	2	37.16	37.91	45.40	50.67	74	-23.33	Horizontal
10778.210	6.1	7	38.41	37.77	45.78	52.59	74	-21.41	Horizontal
11963.890	6.4	6	38.87	38.26	45.94	53.01	74	-20.99	Horizontal



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Test mode:		802	.11n(HT20)	Test cha	annel:	Highest	Remark:		Peak
Frequency (MHz)	Cab Los (dB	s	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4724.558	4.6	3	34.84	41.57	47.70	45.60	74	-28.40	Vertical
6187.929	5.1	8	35.92	40.76	48.06	48.40	74	-25.60	Vertical
7920.996	6.2	1	36.00	39.26	47.17	50.12	74	-23.88	Vertical
9514.293	6.0	1	37.22	37.88	45.37	50.72	74	-23.28	Vertical
10888.510	6.1	9	38.46	37.81	45.51	52.35	74	-21.65	Vertical
11903.140	6.4	4	38.80	38.24	46.07	53.07	74	-20.93	Vertical
4821.757	4.7	0	34.68	41.64	48.72	46.46	74	-27.54	Horizontal
6379.864	5.2	2	36.14	40.59	48.58	49.35	74	-24.65	Horizontal
8292.376	6.1	9	36.12	38.93	47.30	50.68	74	-23.32	Horizontal
9611.663	5.9	9	37.32	37.80	45.97	51.48	74	-22.52	Horizontal
10669.020	6.1	4	38.37	37.73	45.46	52.24	74	-21.76	Horizontal
11842.690	6.4	3	38.74	38.21	45.43	52.39	74	-21.61	Horizontal

Test mode:	80	)2.11n(HT40)	Test cha	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)	Polarization
4712.547	4.63	34.87	41.56	47.99	45.93	74	-28.07	Vertical
6315.233	5.21	36.08	40.64	49.06	49.71	74	-24.29	Vertical
7860.737	6.21	36.00	39.31	47.30	50.20	74	-23.80	Vertical
9490.104	6.02	37.18	37.89	46.03	51.34	74	-22.66	Vertical
10888.510	6.19	38.46	37.81	45.52	52.36	74	-21.64	Vertical
11872.880	6.44	38.78	38.22	46.28	53.28	74	-20.72	Vertical
4676.696	4.61	34.92	41.54	48.01	46.00	74	-28.00	Horizontal
6140.854	5.16	35.86	40.79	48.10	48.33	74	-25.67	Horizontal
7643.683	6.23	36.00	39.49	47.34	50.08	74	-23.92	Horizontal
9298.801	6.07	36.95	38.06	45.77	50.73	74	-23.27	Horizontal
10916.260	6.20	38.47	37.83	45.25	52.09	74	-21.91	Horizontal
11872.880	6.44	38.78	38.22	45.73	52.73	74	-21.27	Horizontal

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Test mode:		802	.11n(HT40)	Test cha	annel:	Middle	Rema	rk:	Peak
Frequency (MHz)	Lo	ble ss B)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line	l Limit	Polarization
4736.600	4.0	65	34.81	41.58	47.25	45.13	74	-28.87	Vertical
6125.242	5.	16	35.84	40.81	47.55	47.74	74	-26.26	Vertical
7682.696	6.5	22	36.00	39.46	46.78	49.54	74	-24.46	Vertical
8996.121	6.	16	36.59	38.32	45.78	50.21	74	-23.79	Vertical
10750.810	6.	16	38.40	37.76	44.54	51.34	74	-22.66	Vertical
11872.880	6.4	44	38.78	38.22	45.95	52.95	74	-21.05	Vertical
4785.075	4.0	68	34.73	41.61	49.34	47.14	74	-26.86	Horizontal
5971.290	5.	12	35.64	40.94	48.60	48.42	74	-25.58	Horizontal
7527.826	6.	15	36.00	39.59	47.88	50.44	74	-23.56	Horizontal
8996.121	6.	16	36.59	38.32	46.25	50.68	74	-23.32	Horizontal
10723.470	6.	15	38.39	37.75	45.84	52.63	74	-21.37	Horizontal
11903.140	6.4	44	38.80	38.24	46.12	53.12	74	-20.88	Horizontal

Test mode:		802.1	11n(HT40)	Test cha	annel:	Highest	Remark:		Peak
Frequency (MHz)	Cabl Loss (dB)	s	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
4582.422	4.55	5	35.06	41.47	48.74	46.88	74	-27.12	Vertical
5762.235	5.04	4	35.31	41.12	49.65	48.88	74	-25.12	Vertical
7301.355	5.90	0	35.92	39.79	47.58	49.61	74	-24.39	Vertical
8973.250	6.16	6	36.57	38.34	47.01	51.40	74	-22.60	Vertical
10217.170	6.03	3	37.96	37.54	45.09	51.54	74	-22.46	Vertical
11842.690	6.43	3	38.74	38.21	46.30	53.26	74	-20.74	Vertical
4490.048	4.48	8	35.15	41.40	47.44	45.67	74	-28.33	Horizontal
5776.922	5.05	5	35.34	41.12	48.50	47.77	74	-26.23	Horizontal
6816.394	5.35	5	35.99	40.22	48.29	49.41	74	-24.59	Horizontal
8292.376	6.19	9	36.12	38.93	46.70	50.08	74	-23.92	Horizontal
9636.161	5.99	9	37.34	37.76	45.73	51.30	74	-22.70	Horizontal
11486.410	6.34	4	38.40	38.06	46.40	53.08	74	-20.92	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
- 2) 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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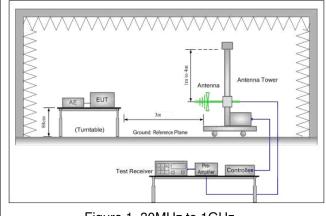


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## 5.9 Band Edge (Radiated Emission)

Test Requirement:	47 CFR Part 15C Section 1	47 CFR Part 15C Section 15.209 and 15.205									
Test Method:	ANSI C63.10 2009 and KD	ANSI C63.10 2009 and KDB558074 D01									
Test Site:	Measurement Distance: 3m	(Semi-Anechoic Chambe	r)								
Limit:	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 1CLIz	54.0 Average Value									
	Above IGHZ	Above 1GHz 74.0 Peak Value									
Test Setup:											



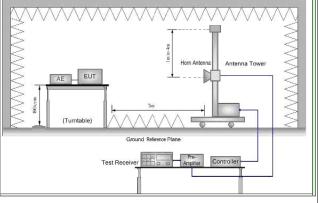


Figure 1. 30MHz to 1GHz

Figure 2. Above 1 GHz

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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 of handle-used 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.
	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); 135Mbps of rate is the worst case of 802.11n(HT40).
Instruments Used:	Refer to section 4.10 for details
Test Results:	Pass

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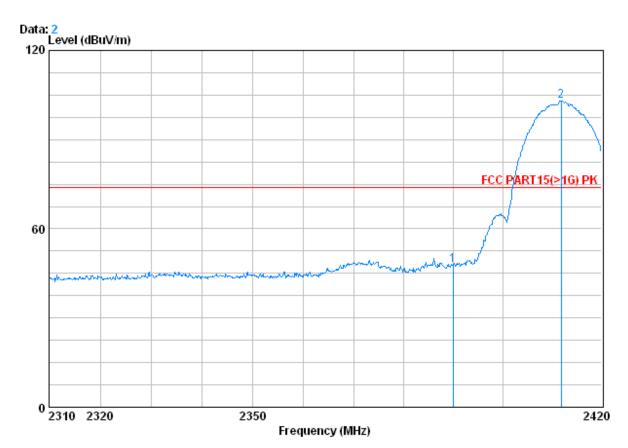


Report No.: SZEM120800473901

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#### Test plot as follows:

Test mode:	802.11b	Test channel:	Lowest	Remark:	Peak	Vertical
	00					



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

Job No. : 4739RF

Mode : b 2412 Bandedge PK

loae	: 6 2412 Bandedge PK									
		Cablei	lntenna	Preamp	Read		Limit	Over		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
										_
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		
1	2390.000	2.98	32.51	39.85	52.22	47.86	74.00	-26.14	Peak	
2 0						103.14				

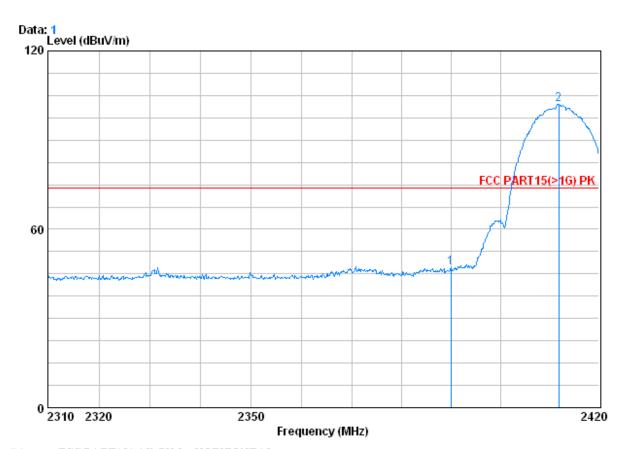
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Test mode:	802.11b	Test channel:	Lowest	Remark:	Peak	Horizontal



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

Job No. : 4739RF

Mode : 5 2412 Bandedge PK

Mode	: 0 2412 Bandedge PK									
		Cablei	Antenna	Preamp	Read		Limit	Over		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		_
1	2390.000	2.98	32.51	39.85	51.35	47.00	74.00	-27.00	Peak	
2 @	2411.860	2.99	32.54	39.86	106.38	102.05	74.00	28.05	Peak	

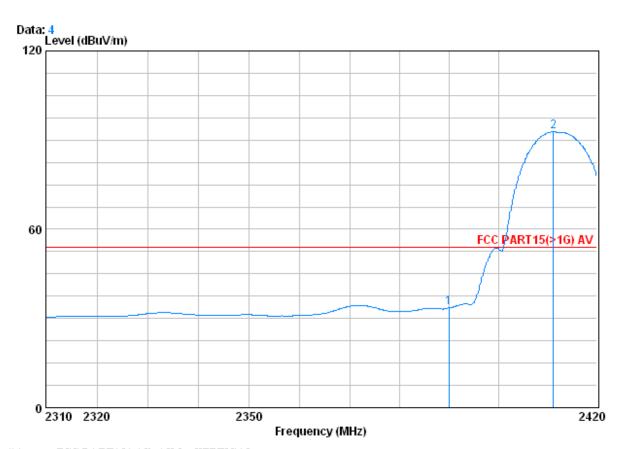
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	Test mode:	802.11b	Test channel:	Lowest	Remark:	Average	Vertical
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Condition : FCC PART15(>1G) AV 3m VERTICAL

Job No. : 4739RF

Mode : b 2412 Bandedge AV

	Ü	Cable	Antenna	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	2390.000	2.98	32.51	39.85	37.98	33.63	54.00	-20.37	Average
2 0	2411.090	2.99	32.54	39.86	97.14	92.81	54.00	38.81	Average

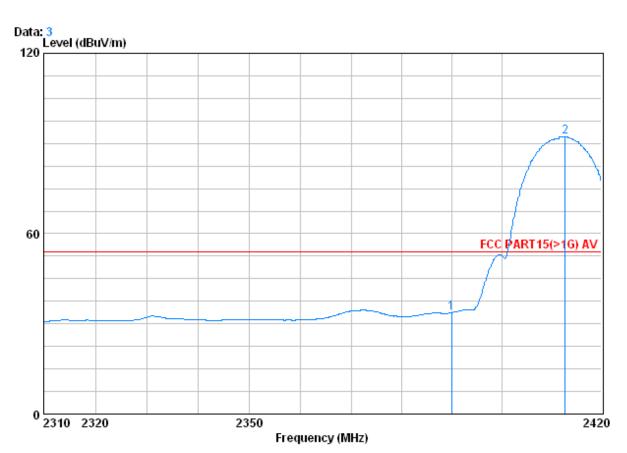
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Test mode:	802.11b	Test channel:	Lowest	Remark:	Average	Horizontal



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

Job No. : 4739RF

Mode: b 2412 Bandedge AV

	Freq			Preamp Factor	Read Level		Limit Line		Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 2 @	2390.000 2412.740								Average Average

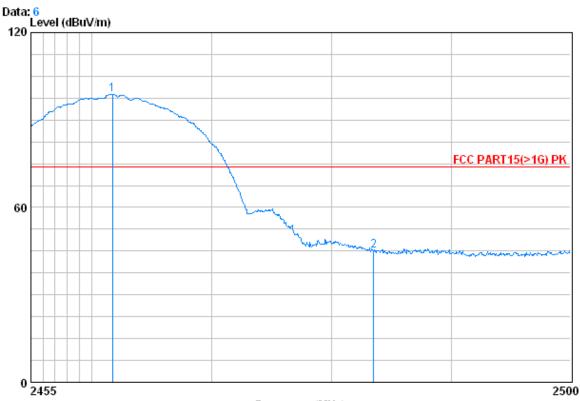
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Test mode:	802.11b	Test channel:	Highest	Remark:	Peak	Vertical



Frequency (MHz)

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

Job No. : 4739RF

Mode : b 2462 Bandedge PK

	Ü	Cablei	Antenna	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 X	2461.750	3.02	32.64	39.91	103.14	98.90	74.00	24.90	Peak
2	2483.500	3.03	32.67	39.92	49.33	45.11	74.00	-28.89	Peak

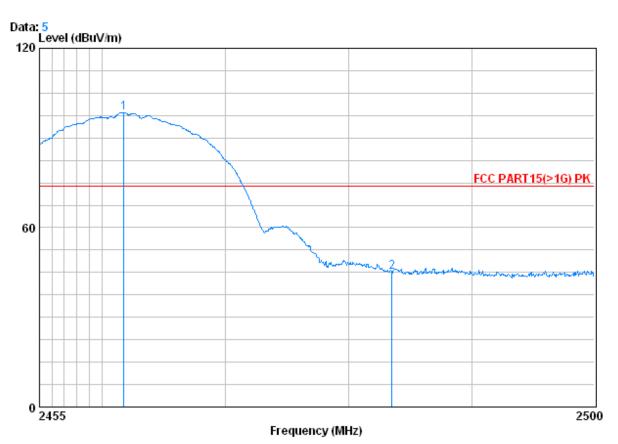
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Test mode:	802.11b	Test channel:	Highest	Remark:	Peak	Horizontal



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

Job No. : 4739RF

Mode : b 2462 Bandedge PK

		Ü	Cable	Antenna	Preamp	Read		Limit	Over	
		Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
		MHz	-45	-dB/m		-ID	dBuV/m	-ID-VI/		
		nnz	иь	QD/III	аь	авич	ивиу/ш	abuv/m	dB	
1	X	2461.795	3.02	32.64	39.91	102.75	98.51	74.00	24.51	Peak
2		2483.500	3.03	32.67	39.92	49.21	44.99	74.00	-29.01	Peak



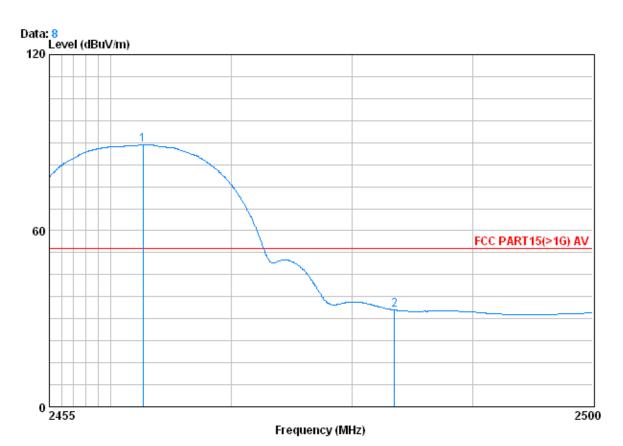
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Test mode: 802.11b Test channel:	Highest	Remark:	Average	Vertical
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Condition : FCC PART15(>1G) AV 3m VERTICAL

Job No. : 4739RF

Mode: b 2462 Bandedge AV

	_			•	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 0	2462.695	3.02	32.64	39.91	93.50	89.25	54.00	35.25	Average
2	2483.500	3.03	32.67	39.92	37.19	32.97	54.00	-21.03	Average

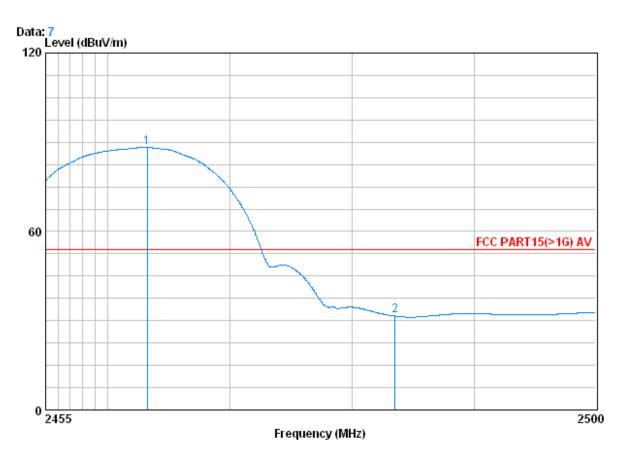
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Test mode:	802.11b	Test channel:	Highest	Remark:	Average	Horizontal



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

Job No. : 4739RF

Mode : b 2462 Bandedge AV

1000	. 0 2-02 2 41404660									
	_	Cablei	Antenna	Preamp	Read		Limit	Over		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		_
10	2463.235	3.02	32.64	39.91	92.51	88.26	54.00	34.26	Average	
2	2483.500	3.03	32.67	39.92	35.78	31.56	54.00	-22.44	Average	

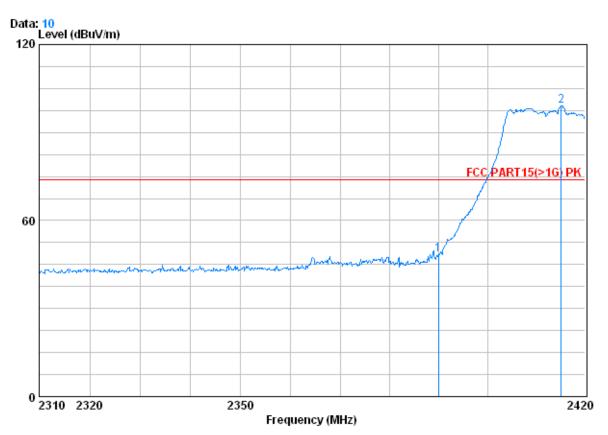
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Test mode:	802.11g	Test channel:	Lowest	Remark:	Peak	Vertical



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

Job No. : 4739RF

Mode : g 2412 Bandedge PK

	Freq			•			Limit Line		Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 2 X				39.85 39.86					

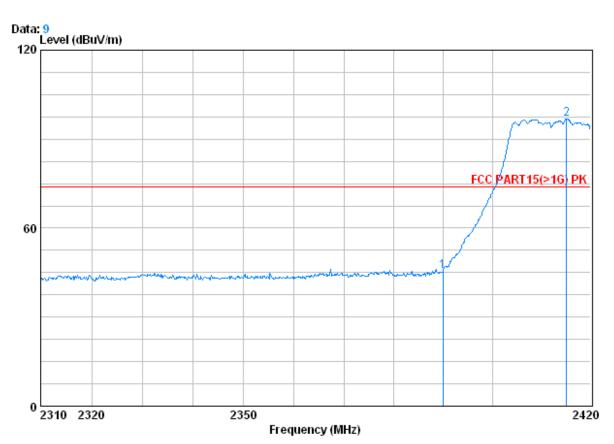
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Report No.: SZEM120800473901

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Test mode:	802.11g	Test channel:	Lowest	Remark:	Peak	Horizontal



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

Job No. : 4739RF

Mode : g 2412 Bandedge PK

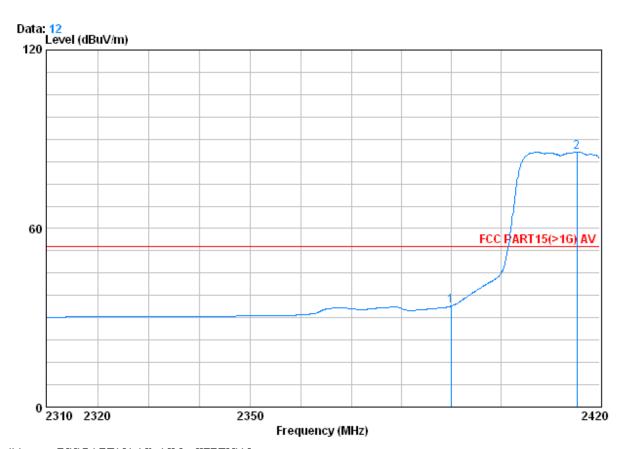
	Ü	Ü	Cablei	Antenna	Preamp	Read		Limit	Over	
		Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
		MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1		2390.000	2.98	32.51	39.85	49.94	45.59	74.00	-28.41	Peak
2 X		2415.050	2.99	32.54	39.86	101.13	96.81	74.00	22.81	Peak



Report No.: SZEM120800473901

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

Job No. : 4739RF

Mode : g 2412 Bandedge AV

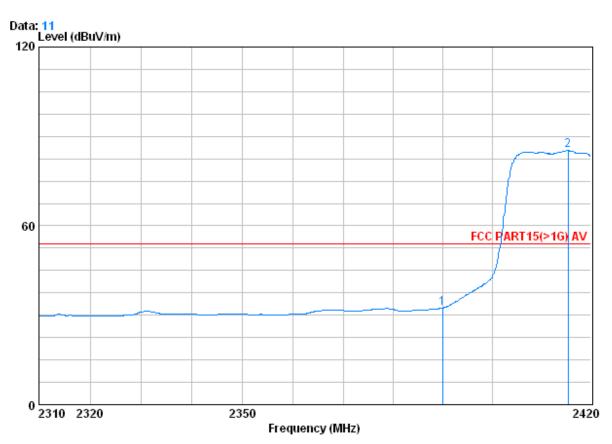
Ū	Frea			Preamp Factor	Read		Limit Line	Over Limit	Remark
	MHz	dB	dB/m			dBuV/m		dB	
1 2 @	2390.000 2415.380								Average Average

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

Job No. : 4739RF

Mode : g 2412 Bandedge AV

	· P = = = = =									
		Cablei	Antenna	Preamp	Read		Limit	Over		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		_
1	2390.000	2.98	32.51	39.85	36.78	32.43	54.00	-21.57	Average	
2 @	2415.380	2.99	32.54	39.86	89.54	85.22	54.00	31.22	Average	

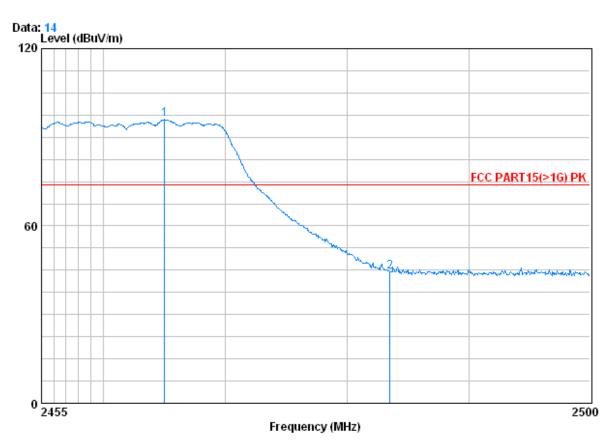
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Test mode:	802.11g	Test channel:	Highest	Remark:	Peak	Vertical



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

Job No. : 4739RF

Mode : g 2462 Bandedge PK

noue	. g 2402 Dandedge r N	Coble	)ntanna	Preamp	Read		Limit	Over		
	Freq			-		Level			Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		_
1 X	2465.035	3.02	32.64	39.91	100.23	95.98	74.00	21.98	Peak	
2	2483.500	3.03	32.67	39.92	48.76	44.54	74.00	-29.46	Peak	

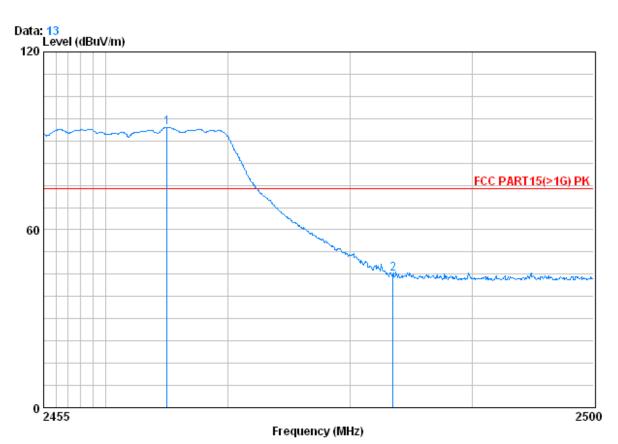
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Report No.: SZEM120800473901

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Test mode:	802.11g	Test channel:	Highest	Remark:	Peak	Horizontal
	009					



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

Job No. : 4739RF

Mode : g 2462 Bandedge PK

_	_			Preamp			Limit		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 X	2465.035	3.02	32.64	39.91	98.88	94.63	74.00	20.63	Peak
2	2483.500	3.03	32.67	39.92	49.21	44.99	74.00	-29.01	Peak

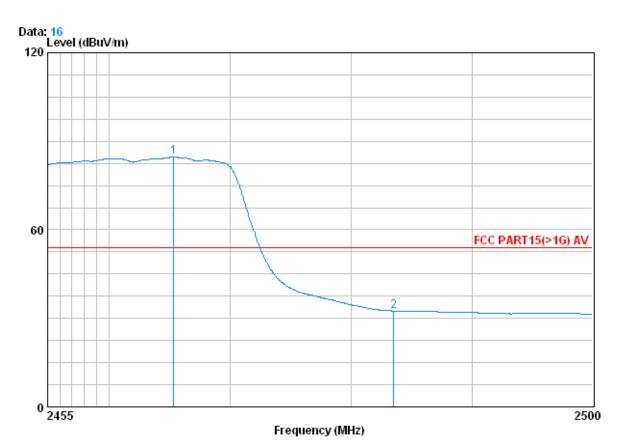
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Report No.: SZEM120800473901

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Test mode:	802.11g	Test channel:	Highest	Remark:	Average	Vertical



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

Job No. : 4739RF

Mode : g 2462 Bandedge AV

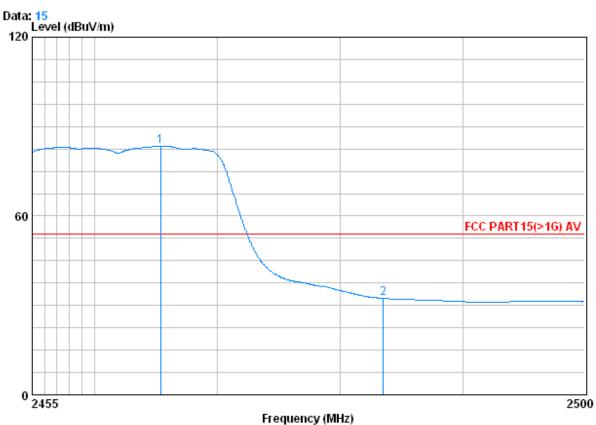
	Freq			Preamp Factor			Limit Line	Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 0	2465.350	3.02	32.64	39.91	88.85	84.60	54.00	30.60	Average
2	2483.500	3.03	32.67	39.92	36.72	32.50	54.00	-21.50	Average

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

Job No. : 4739RF

Mode : g 2462 Bandedge AV

		. 6	Cable.	Antenna	Preamp	Read		Limit	Over		
		Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
											_
		MHz	dB	dB/m	ав	aBuV	dBuV/m	dBuV/m	dB		
1	0	2465.395	3.02	32.64	39.91	87.74	83.49	54.00	29.49	Average	
2		2483.500	3.03	32.67	39.92	36.54	32.32	54.00	-21.68	Average	

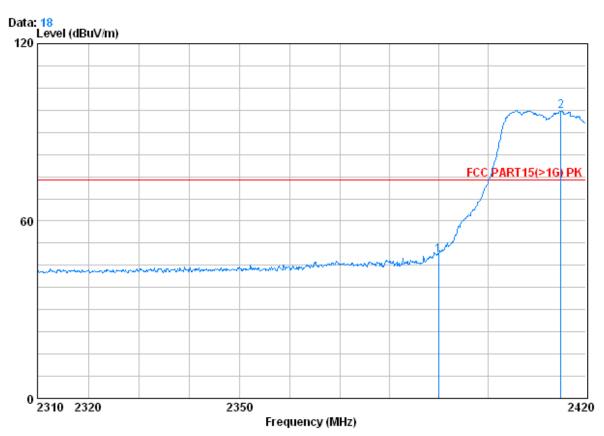




Report No.: SZEM120800473901

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Test mode:	802.11n(HT20)	Test channel:	Lowest	Remark:	Peak	Vertical
	,					



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

Job No. : 4739RF

Mode : n(T20) 2412 Bandedge PK

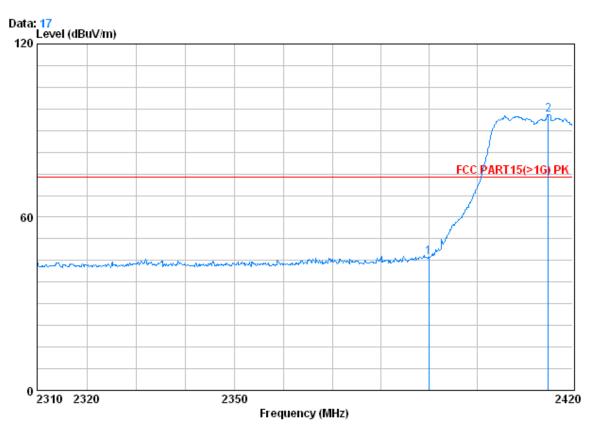
noue	: ii(120) 2412 Dandedge	LV								
		Cable	lntenna	Preamp	Read		Limit	Over		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		_
1	2390.000	2.98	32.51	39.85	52.87	48.52	74.00	-25.48	Peak	
2 X	2414.940	2.99	32.54	39.86	101.58	97.25	74.00	23.25	Peak	



Report No.: SZEM120800473901

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Test mode: 802.11n(HT20) Test channel: Lowest Remark: Peak Horizontal



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

Job No. : 4739RF

Mode: n(T20) 2412 Bandedge PK

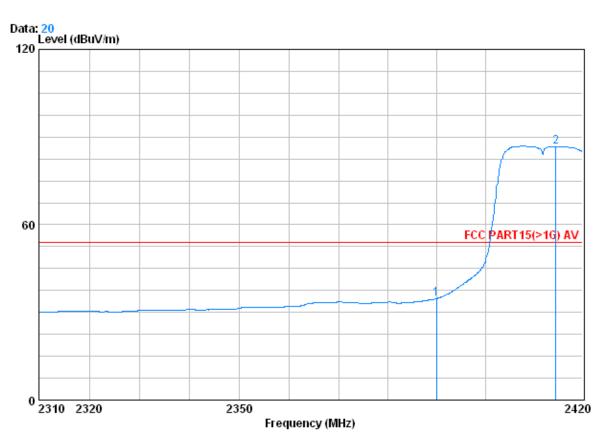
		Cable	Antenna	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	2390.000	2.98	32.51	39.85	50.33	45.98	74.00	-28.02	Peak
2 X	2414.940	2.99	32.54	39.86	99.95	95.62	74.00	21.62	Peak



Report No.: SZEM120800473901

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Test mode: 802.11n(HT20) Test channel: Lowest Remark: Average Vertical



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

Job No. : 4739RF

Mode : n(T20) 2412 Bandedge AV

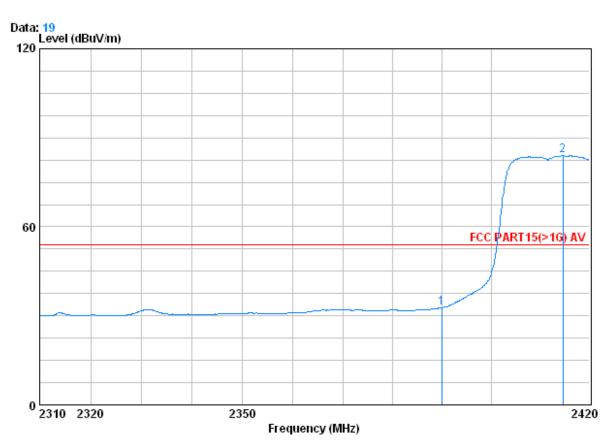
	Freq			Preamp Factor				Over Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 2 @	2390.000 2414.500								Average Average



Report No.: SZEM120800473901

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Test mode: 802.11n(HT20) Test channel: Lowest Remark: Average Horizontal



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

Job No. : 4739RF

Mode : n(T20) 2412 Bandedge AV

~~~~									
		Cablei	Antenna	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	2390.000	2.98	32.51	39.85	37.07	32.72	54.00	-21.28	Average
2 @	2414.610	2.99	32.54	39.86	88.25	83.93	54.00	29.93	Average

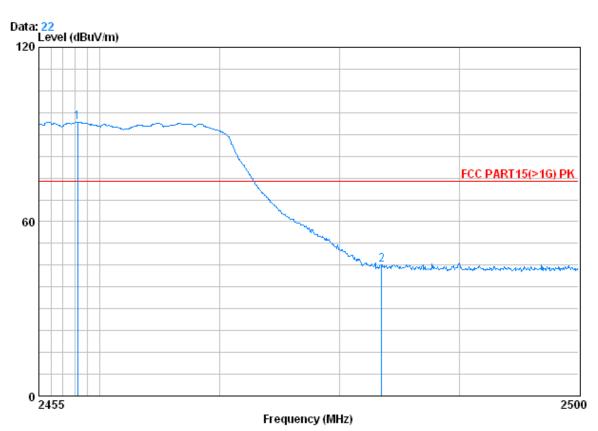
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Test mode: 802.11n(HT20) Test channel: Highest Remark: Peak Vertical



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

Job No. : 4739RF

Mode : n(T20) 2462 Bandedge PK

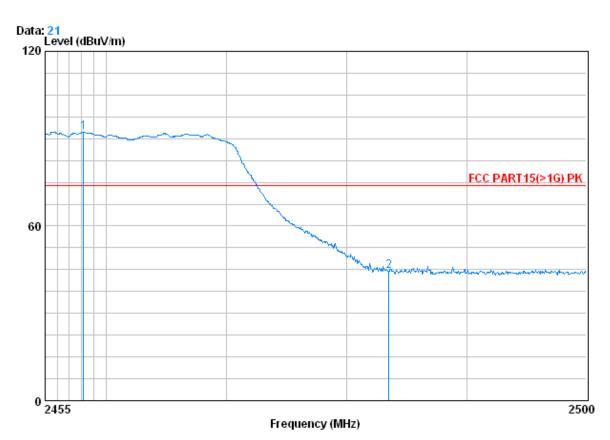
		Cablei	intenna	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 X	2458.195	3.02	32.64	39.91	98.56	94.31	74.00	20.31	Peak
2	2483.500	3.03	32.67	39.92	49.32	45.10	74.00	-28.90	Peak



Report No.: SZEM120800473901

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Test mode: 802.11n(HT20) Test channel: Highest Remark: Peak Horizontal



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

Job No. : 4739RF

Mode : n(T20) 2462 Bandedge PK

		Freq			Preamp Factor				Over Limit	Remark
		MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 X	2	458.150	3.02	32.64	39.91	96.48	92.24	74.00	18.24	Peak
2	2	483.500	3.03	32.67	39.92	48.74	44.52	74.00	-29.48	Peak

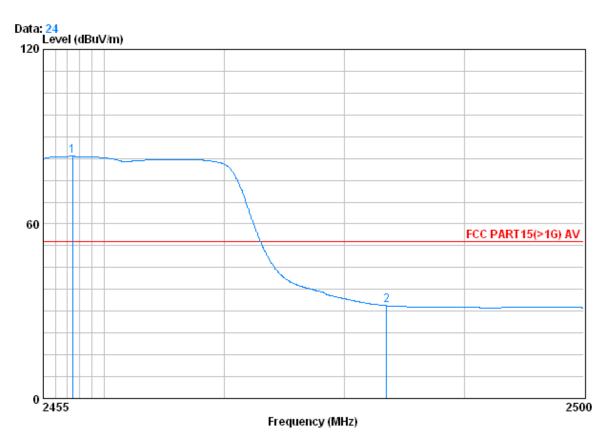
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Test mode:	802.11n(HT20)	Test channel:	Highest	Remark:	Average	Vertical
Tool mode.	002.1111(11120)	rest oriarines.	riigiiost	riomant.	rworage	Vortioai



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

Job No. : 4739RF

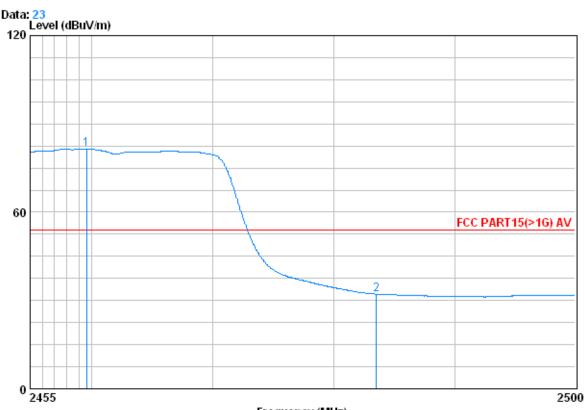
Mode : n(T20) 2462 Bandedge AV

1040	. 14(120) 2-02 Dataca6	, 117							
		Cablei	Antenna	Preamp	Read		Limit	Over	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 0	2457.430	3.02	32.64	39.91	87.48	83.23	54.00	29.23	Average
2	2483.500	3.03	32.67	39.92	36.11	31.89	54.00	-22.11	Average



Report No.: SZEM120800473901

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Frequency (MHz)

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

Job No. : 4739RF

Mode : n(T20) 2462 Bandedge AV

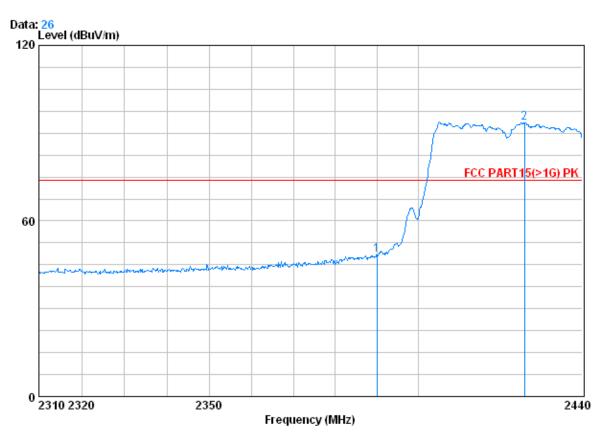
	Freq			Preamp Factor			Limit Line		Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 0	2459.635	3.02	32.64	39.91	85.70	81.45	54.00	27.45	Average
2	2483.500	3.03	32.67	39.92	36.40	32.18	54.00	-21.82	Average



Report No.: SZEM120800473901

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Test mode: 802.11n(HT40) Test channel: Lowest Remark: Peak Vertical



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

Job No. : 4739RF

Mode : n(T40) 2422 Bandedge PK

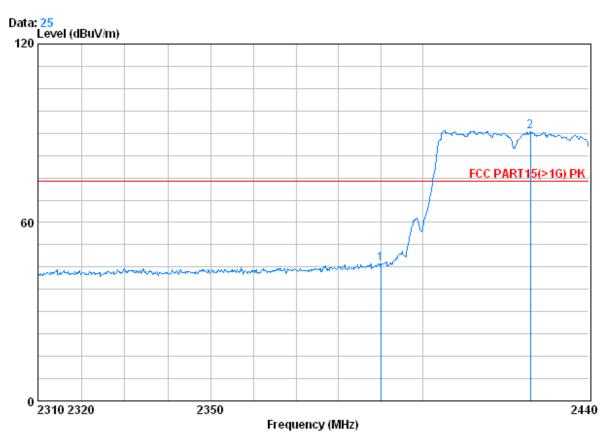
CableAnt	tenna	Preamp	Read		Limit	Over	
Loss Fa	actor	Factor	Level	Level	Line	Limit	Remark
dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
2.98	32.51	39.85	52.79	48.44	74.00	-25.56	Peak
3.00	32.58	39.88	97.93	93.63	74.00	19.63	Peak
	dB 2.98	Loss Factor  dB dB/m  2.98 32.51	Loss Factor Factor           dB         dB/m         dB           2.98         32.51         39.85	Loss Factor Factor         Level           dB         dB/m         dB         dBuV           2.98         32.51         39.85         52.79	dB dB/m dB dBuV dBuV/m  2.98 32.51 39.85 52.79 48.44	Loss Factor Factor         Level         Level         Line           dB         dB/m         dB         dBuV         dBuV/m         dBuV/m           2.98         32.51         39.85         52.79         48.44         74.00	Loss Factor Factor Level Level Line Limit



Report No.: SZEM120800473901

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Test mode: 802.11n(HT40) Test channel: Lowest Remark: Peak Horizontal



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

Job No. : 4739RF

Mode : n(T40) 2422 Bandedge PK

1040	. 14 1 -0) 2 -22 Danaca6										
		Cablei	CableAntenna		Read		Limit	Over	Over		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark		
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		_	
1	2390.000	2.98	32.51	39.85	50.57	46.22	74.00	-27.78	Peak		
2 X	2425.830	3.00	32.58	39.88	94.94	90.64	74.00	16.64	Peak		

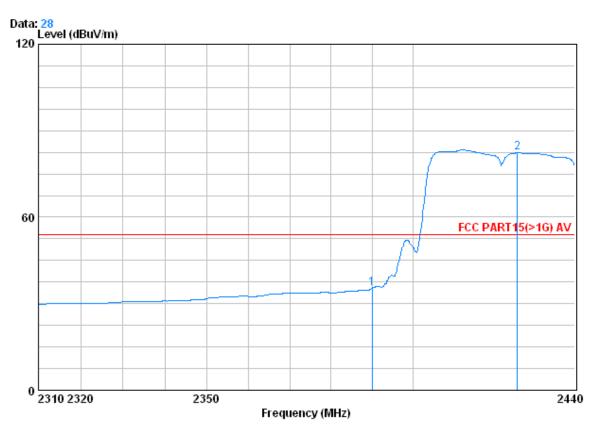




Report No.: SZEM120800473901

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Test mode: 802.11n(HT40) Test channel: Lowest Remark: Average Vertical



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

Job No. : 4739RF

Mode : n(T40) 2422 Bandedge AV

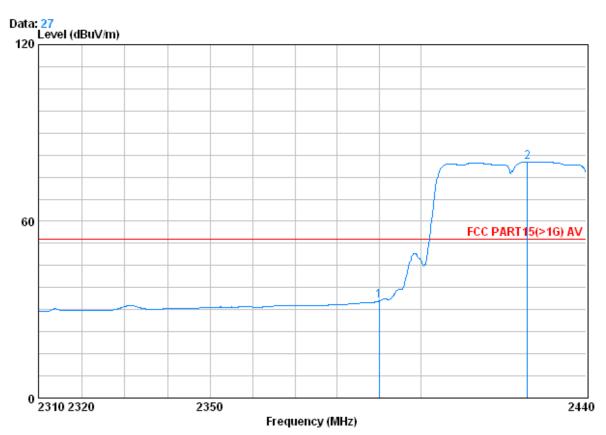
		/0.								
			CableAntenna		Preamp Read			Limit	Over	
		Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
		MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1		2390.000	2.98	32.51	39.85	39.71	35.36	54.00	-18.64	Average
_										
2	0	2425.700	3.00	32.58	39.88	86.56	82.26	54.00	28.26	Average



Report No.: SZEM120800473901

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Test mode: 802.11n(HT40) Test channel: Lowest Remark: Average Horizontal



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

Job No. : 4739RF

Mode : n(T40) 2422 Bandedge AV

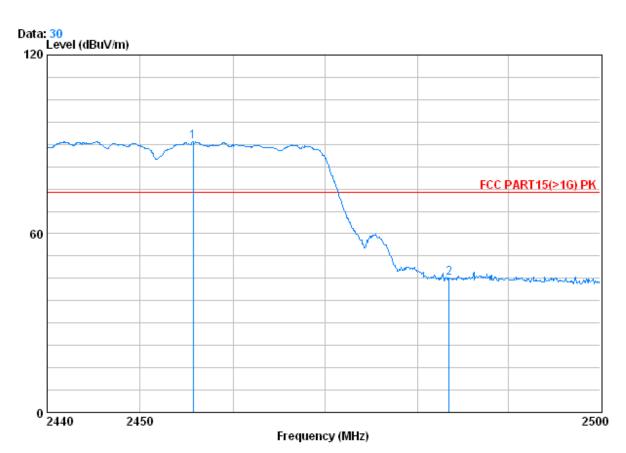
1046	. II( 140) 2422 Danaeage	, A. V								
		Cable	CableAntenna		Read		Limit	Over		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		_
1	2390.000	2.98	32.51	39.85	37.34	32.99	54.00	-21.01	Average	
2 0	2425.700	3.00	32.58	39.88	84.53	80.23	54.00	26.23	Average	



Report No.: SZEM120800473901

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Test mode:	802.11n(HT40)	Test channel:	Highest	Remark:	Peak	Vertical
	,					



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

Job No. : 4739RF

Mode : n(T40) 2452 Bandedge PK

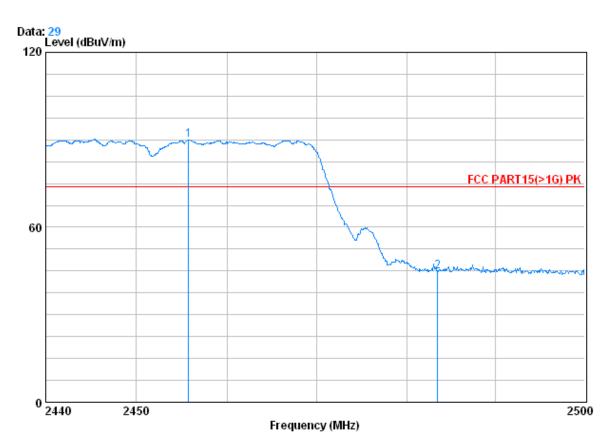
Vloae	: n(140) 2402 Bandedge	PK								
		Cable.	CableAntenna		Read		Limit	Over		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	${\tt dBuV/m}$	dBuV/m	dB		
1 X	2455.720	3.01	32.64	39.91	95.22	90.96	74.00	16.96	Peak	
2	2483.500	3.03	32.67	39.92	49.35	45.13	74.00	-28.87	Peak	



Report No.: SZEM120800473901

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Test mode: 802.11n(HT40) Test channel: Highest Remark: Peak Horizontal



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

Job No. : 4739RF

Mode : n(T40) 2452 Bandedge PK

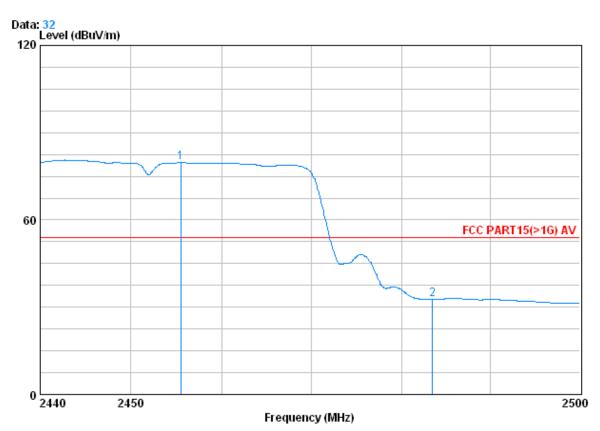
	Freq	CableAntenna Loss Factor		•					Remark
	MHz	dB	dB/m	——dB	dBuV	dBuV/m	dBuV/m	dB	
1 X	2455.780	3.01	32.64	39.91	94.11	89.86	74.00	15.86	Peak
2	2483.500	3.03	32.67	39.92	49.07	44.85	74.00	-29.15	Peak



Report No.: SZEM120800473901

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Test mode:	802.11n(HT40)	Test channel:	Highest	Remark:	Average	Vertical
Tool mode.	002.1111(11140)	rest oriarines.	riigiiost	riomant.	rworage	Vortioai



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

Job No. : 4739RF

Mode : n(T40) 2452 Bandedge AV

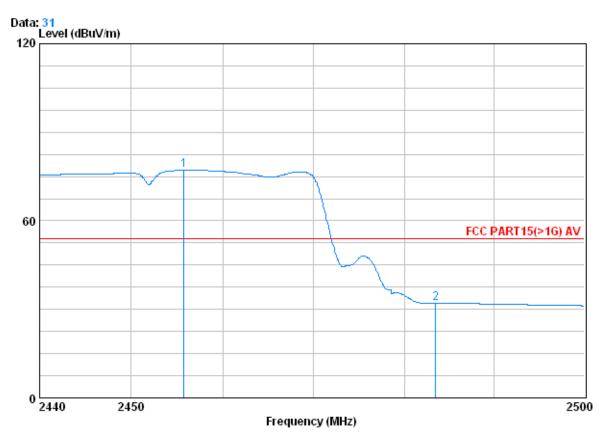
1040	. 11(1-0)2-02 Dataca6	, 114								
		Cablei	lntenna	Preamp	Read		Limit	Over		
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark	
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB		_
1 0	2455.480	3.01	32.64	39.91	83.93	79.68	54.00	25.68	Average	
_	0.400 500		00 60		0.6.00	00 65	F4 00	04 00		
2	2483.500	3.03	32.67	39.92	36.89	32.67	54.00	-21.33	Average	



Report No.: SZEM120800473901

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Test mode:	802.11n(HT40)	Test channel:	Highest	Remark:	Average	Horizontal
------------	---------------	---------------	---------	---------	---------	------------



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

Job No. : 4739RF

Mode : n(T40) 2452 Bandedge AV

	` '	Freq			Preamp Factor	Read Level		Limit Line		Remark
	-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1 X 2										Average Average

#### 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

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