

Report No.: SZEM140900546601

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FCC REPORT

Application No: SZEM1409005466RF

Applicant: Create New Technology (HK) Limited

Manufacturer: Create New Technology (HK) Limited

Product Name: TVpad

Model No.(EUT): M418

FCC ID: RPSTVPM418X

Standards: 47 CFR Part 15, Subpart C (2013)

Date of Receipt: 2014-10-14

Date of Test: 2014-10-22 to 2014-10-27

Date of Issue: 2014-11-12

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 Version

Revision Record							
Version Chapter Date Modifier Remark							
00		2014-11-12		Original			

Authorized for issue by:		
Tested By	Back Huang) /Project Engineer	2014-10-27 Date
Prepared By	Sade Luo . (Sade Luo) /Clerk	2014-11-12 Date
Checked By	Emen-Li	2014-11-13
	(Emen Li) /Reviewer	Date



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3 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15, Subpart C Section 15.203/15.247 (c)	ANSI C63.10 2009	PASS
AC Power Line Conducted Emission	47 CFR Part 15, Subpart C Section 15.207	ANSI C63.10 2009	PASS
Conducted Peak Output Power	47 CFR Part 15, Subpart C Section 15.247 (b)(3)	KDB558074 D01 v03r02	PASS
6dB Occupied Bandwidth	47 CFR Part 15, Subpart C Section 15.247 (a)(2)	KDB558074 D01 v03r02	PASS
Power Spectral Density	47 CFR Part 15, Subpart C Section 15.247 (e)	KDB558074 D01 v03r02	PASS
Band-edge for RF Conducted Emissions	47 CFR Part 15, Subpart C Section 15.247(d)	KDB558074 D01 v03r02	PASS
RF Conducted Spurious Emissions	47 CFR Part 15, Subpart C Section 15.247(d)	KDB558074 D01 v03r02	PASS
Radiated Spurious Emissions	47 CFR Part 15, Subpart C Section 15.205/15.209	ANSI C63.10 2009	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15, Subpart C Section 15.205/15.209	ANSI C63.10 2009	PASS

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5 General Information

5.1 Client Information

Applicant:	Create New Technology (HK) Limited		
Address of Applicant:	UNIT 04, 7/F, BRIGHT WAY TOWER, NO.33 MONG KOK ROAD, KOWLOON, HK		
Manufacturer:	Create New Technology (HK) Limited		
Address of Manufacturer:	UNIT 04, 7/F, BRIGHT WAY TOWER, NO.33 MONG KOK ROAD, KOWLOON, HK		

5.2 General Description of EUT

Product Name:	TVpad		
Model No.:	M418		
Operation Frequency:	IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz		
	IEEE 802.11n(HT40): 2422MHz to 2452MHz		
Channel Numbers:	IEEE 802.11b/g, IEEE 802.11n HT20: 11 Channels		
	IEEE 802.11n HT40: 7 Channels		
Channel Separation:	5MHz		
	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK)		
Type of Modulation:	IEEE for 802.11g: OFDM(64QAM, 16QAM, QPSK, BPSK)		
	IEEE for 802.11n(T20 and T40) : OFDM		
	(64QAM, 16QAM, QPSK,BPSK)		
Sample Type:	Fixed production		
Test Power Grade:	IEEE for 802.11b: 46		
rest rower Grade.	IEEE 802.11b/g/n(HT20)/n(HT40): 45		
Test Software of EUT:	Realtek MP Tool		
Antenna Type and Gain:	Type : Integral antenna		
	Gain : 2dBi		
Adapter:	MODEL:MU10-Q050200-A1		
	INPUT:100-240V~50/60Hz 0.3A		
	OUTPUT:5.0V 2.0A		
DC Cable:	102cm		
AV Cable:	102cm		

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Operation Frequency each of channel(802.11b/g/n HT20)										
Channel	Fre	equency	Channe	I Frequency	Channel	Fre	quency	Chan	nel	Frequency
1	24	412MHz	4	2427MHz	7	244	42MHz	10)	2457MHz
2	24	117MHz	5	2432MHz	8	244	17MHz 1			2462MHz
3	24	122MHz	6	2437MHz	9	245	2452MHz			
Operation F	requ	ency each	of channe	el(802.11n HT40)					
Channe		Frequ	ency	Channel	Frequen	су	Chan	nel	F	requency
1		2422	MHz	4	2437MHz 7		7			2452MHz
2		2427	ИНz	5	2442MF	łz				
3 24		2432	MHz	6	2447MH	······································				

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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5.3 Test Environment and Mode

Operating Environment:	Operating Environment:						
Temperature:	20.0 °C						
Humidity:	50% RH						
Atmospheric Pressure:	1005 mbar						
Test mode:							
AC adapter supply+TX mode:	The EUT transmitted the continuous modulation test signal at the specific channel(s)						

5.4 Description of Support Units

The EUT has been tested independent unit.

5.5 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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5.6 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.

5.7 Deviation from Standards

None.

5.8 Abnormalities from Standard Conditions

None.

5.9 Other Information Requested by the Customer

None.



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5.10Equipment 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	2015-06-10		
2	LISN	Rohde & Schwarz	ENV216	SEL0152	2015-10-24		
3	LISN	ETS-LINDGREN	3816/2	SEL0021	2015-05-16		
4	8 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T8-02	SEL0162	2015-08-30		
5	4 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T4-02	SEL0163	2015-08-30		
6	2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN- T2-02	SEL0164	2015-08-30		
7	EMI Test Receiver	Rohde & Schwarz	ESCI	SEL0022	2015-05-16		
8	Coaxial Cable	SGS	N/A	SEL0025	2015-05-29		
9	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2015-10-24		
10	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B	SEL0103	2015-10-24		
11	Barometer	Chang Chun	DYM3	SEL0088	2015-05-16		



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	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	2015-06-10		
2	EMI Test Receiver	Agilent Technologies	N9038A	SEL0312	2015-09-16		
3	EMI Test software	AUDIX	E3	SEL0050	N/A		
4	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2015-10-24		
5	Double-ridged horn (1-18GHz)	ETS-LINDGREN	3117	SEL0006	2015-10-24		
6	Horn Antenna (18-26GHz)	ETS-LINDGREN	3160	SEL0076	2015-10-24		
7	Pre-amplifier (0.1-1300MHz)	Agilent Technologies	8447D	SEL0053	2015-05-16		
8	Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	SEL0168	2015-10-24		
9	Coaxial cable	SGS	N/A	SEL0027	2015-05-29		
10	Coaxial cable	SGS	N/A	SEL0189	2015-05-29		
11	Coaxial cable	SGS	N/A	SEL0121	2015-05-29		
12	Coaxial cable	SGS	N/A	SEL0178	2015-05-29		
13	Band filter	Amindeon	82346	SEL0094	2015-05-16		
14	Barometer	Chang Chun	DYM3	SEL0088	2015-05-16		
15	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2015-10-24		
16	Humidity/ Temperature Indicator	Shanhai Qixiang	ZJ1-2B	SEL0103	2015-10-24		
17	Signal Generator (10M-27GHz)	Rohde & Schwarz	SMR27	SEL0067	2015-05-16		
18	Signal Generator	Rohde & Schwarz	SMY01	SEL0155	2015-10-24		
19	Loop Antenna	Beijing Daze	ZN30401	SEL0203	2015-06-04		



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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	2015-10-24
2	Humidity/ Temperature Indicator	HYGRO	ZJ1-2B	SEL0033	2015-10-24
3	Spectrum Analyzer	Rohde & Schwarz	FSP	SEL0154	2015-10-24
4	Coaxial cable	SGS	N/A	SEL0178	2015-05-29
5	Coaxial cable	SGS	N/A	SEL0179	2015-05-29
6	Barometer	ChangChun	DYM3	SEL0088	2015-05-16
7	Signal Generator	Rohde & Schwarz	SML03	SEL0068	2015-05-16
8	Band filter	amideon	82346	SEL0094	2015-05-16
9	POWER METER	R&S	NRVS	SEL0144	2015-10-24
10	Attenuator	Beijin feihang taida	TST-2-6dB	SEL0205	2015-05-16
11	Power Divider(splitter)	Agilent Technologies	11636B	SEL0130	2015-10-24

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





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6 Test results and Measurement Data

6.1 Antenna Requirement

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

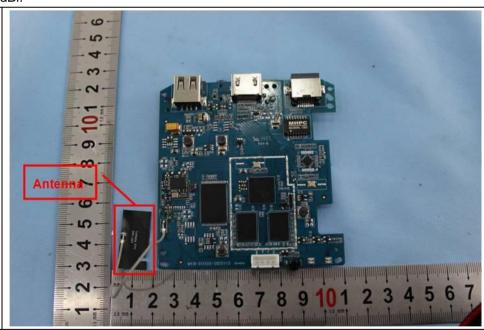
15.203 requirement:

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 2dBi.



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6.2 Conducted Emissions

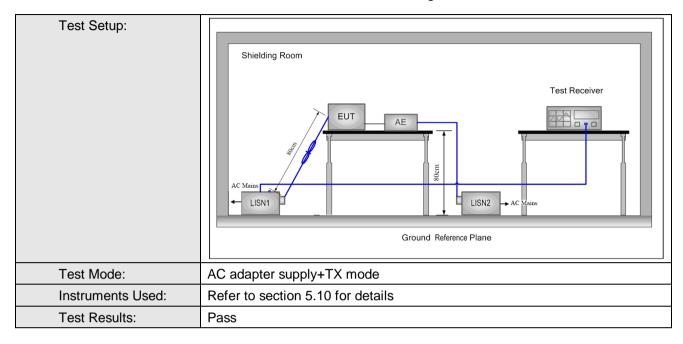
Test Requirement:	47 CFR Part 15C Section 15.207				
Test Method:	ANSI C63.10: 2009				
Test Frequency Range:	150kHz to 30MHz				
Limit:	Limit (dBuV)				
	Frequency range (MHz)	Quasi-peak	Average		
	0.15-0.5	66 to 56*	56 to 46*		
	0.5-5	56	46		
	5-30	60	50		
	* Decreases with the logarithm	n of the frequency.			
Test Procedure:	 The mains terminal disturbance voltage test was conducted in a shielded room. The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2009 on conducted measurement. 				

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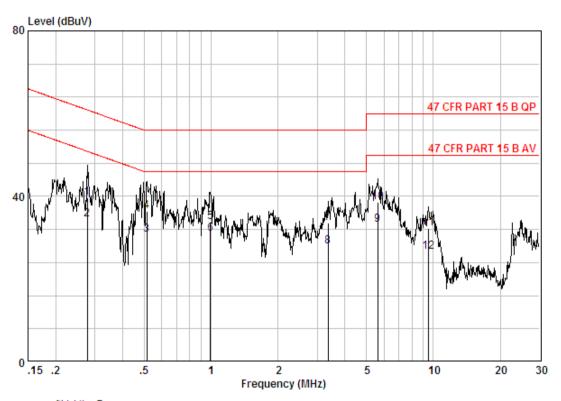
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Measurement Data

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.

Live Line:



Site : Shielding Room

Condition : 47 CFR PART 15 B QP CE LINE

Job No. : 5466RF

Mode : AC adapter +TX mode

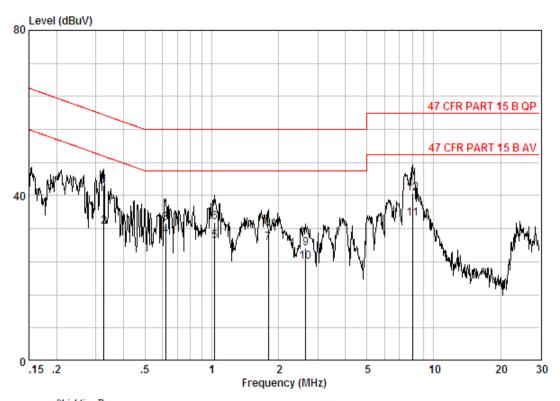
	adapter - 1711	1000						
		Cable	LISN	Read		Limit	Over	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
	0.27734	0.01	9.70	30.04	39.75	60.90	-21.14	QP
	0.27734	0.01	9.70	24.81	34.52	50.90	-16.38	Average
@	0.51278	0.01	9.80	20.84	30.65	46.00	-15.35	Average
	0.51278	0.01	9.80	26.50	36.31	56.00	-19.69	QP
	0.99440	0.02	9.80	23.97	33.79	56.00	-22.21	QP
@	0.99440	0.02	9.80	21.13	30.95	46.00	-15.05	Average
	3.364	0.02	9.86	23.78	33.65	56.00	-22.35	QP
	3.364	0.02	9.86	18.02	27.89	46.00	-18.11	Average
	5.623	0.01	9.94	23.27	33.22	50.00	-16.78	Average
	5.623	0.01	9.94	28.66	38.61	60.00	-21.39	QP
	9.502	0.01	10.00	22.26	32.27	60.00	-27.73	QP
	9.502	0.01	10.00	16.56	26.57	50.00	-23.43	Average
	@ @	Freq MHz 0.27734 0.27734 0.51278 0.51278 0.51278 0.99440 0.99440 3.364 3.364 3.364 5.623 5.623 9.502	Cable Freq Loss MHz dB 0.27734 0.01 0.27734 0.01 0.51278 0.01 0.51278 0.01 0.51278 0.01 0.99440 0.02 0.99440 0.02 3.364 0.02 3.364 0.02 3.364 0.02 5.623 0.01 5.623 0.01 9.502 0.01	Cable LISN Freq Loss Factor MHz dB dB 0.27734 0.01 9.70 0.27734 0.01 9.70 0.51278 0.01 9.80 0.51278 0.01 9.80 0.51278 0.01 9.80 0.99440 0.02 9.80 0.99440 0.02 9.80 3.364 0.02 9.86 3.364 0.02 9.86 5.623 0.01 9.94 5.623 0.01 9.94 9.502 0.01 10.00	Cable LISN Read Loss Factor Level MHz dB dB dB dBuV 0.27734 0.01 9.70 30.04 0.27734 0.01 9.70 24.81 0.51278 0.01 9.80 20.84 0.51278 0.01 9.80 26.50 0.99440 0.02 9.80 23.97 0.99440 0.02 9.80 23.97 0.99440 0.02 9.80 23.78 3.364 0.02 9.86 23.78 3.364 0.02 9.86 18.02 5.623 0.01 9.94 23.27 5.623 0.01 9.94 28.66 9.502 0.01 10.00 22.26	Cable LISN Read Level Level MHz dB dB dB dBuV dBuV 0.27734 0.01 9.70 30.04 39.75 0.27734 0.01 9.70 24.81 34.52 0.51278 0.01 9.80 20.84 30.65 0.51278 0.01 9.80 20.84 30.65 0.51278 0.01 9.80 26.50 36.31 0.99440 0.02 9.80 23.97 33.79 0.99440 0.02 9.80 23.97 33.79 0.99440 0.02 9.80 21.13 30.95 3.364 0.02 9.86 23.78 33.65 3.364 0.02 9.86 23.78 33.65 3.364 0.02 9.86 18.02 27.89 5.623 0.01 9.94 23.27 33.22 5.623 0.01 9.94 28.66 38.61 9.502 0.01 10.00 22.26 32.27	Cable LISN Read Limit Freq Loss Factor Level Level Line MHz dB dB dB dBuV dBuV dBuV dBuV 0.27734 0.01 9.70 30.04 39.75 60.90 0.27734 0.01 9.70 24.81 34.52 50.90 0.51278 0.01 9.80 20.84 30.65 46.00 0.51278 0.01 9.80 20.84 30.65 46.00 0.51278 0.01 9.80 26.50 36.31 56.00 0.99440 0.02 9.80 23.97 33.79 56.00 0.99440 0.02 9.80 23.97 33.79 56.00 3.364 0.02 9.80 21.13 30.95 46.00 3.364 0.02 9.86 23.78 33.65 56.00 3.364 0.02 9.86 18.02 27.89 46.00 5.623 0.01 9.94 23.27 33.22 50.00 5.623 0.01 9.94 28.66 38.61 60.00 9.502 0.01 10.00 22.26 32.27 60.00	Cable LISN Read Limit Over Freq Loss Factor Level Level Line Limit MHz dB dB dBuV dBuV dBuV dBuV dBuV dB 0.27734 0.01 9.70 30.04 39.75 60.90 -21.14 0.27734 0.01 9.70 24.81 34.52 50.90 -16.38 0.51278 0.01 9.80 20.84 30.65 46.00 -15.35 0.51278 0.01 9.80 20.84 30.65 46.00 -15.35 0.51278 0.01 9.80 26.50 36.31 56.00 -19.69 0.99440 0.02 9.80 23.97 33.79 56.00 -22.21 0.99440 0.02 9.80 23.97 33.79 56.00 -22.21 0.99440 0.02 9.80 21.13 30.95 46.00 -15.05 3.364 0.02 9.86 23.78 33.65 56.00 -22.35 3.364 0.02 9.86 18.02 27.89 46.00 -18.11 5.623 0.01 9.94 23.27 33.22 50.00 -16.78 5.623 0.01 9.94 28.66 38.61 60.00 -21.39 9.502 0.01 10.00 22.26 32.27 60.00 -27.73



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Neutral Line:



Site : Shielding Room

Condition : 47 CFR PART 15 B QP CE NEUTRAL

Job No. : 5466RF

Mode : AC adapter +TX mode

	Freq	Cable Loss	LISN Factor	Read Level		Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.32685	0.01	9.73	32.81	42.55	59.53	-16.98	QP
2	0.32685	0.01	9.73	22.72	32.46	49.53	-17.07	Average
3	0.62054	0.02	9.80	23.53	33.35	56.00	-22.65	QP
4	0.62054	0.02	9.80	20.39	30.20	46.00	-15.80	Average
5	1.032	0.02	9.80	19.26	29.08	46.00	-16.92	Average
6	1.032	0.02	9.80	23.67	33.49	56.00	-22.51	QP
7	1.800	0.02	9.80	18.71	28.53	46.00	-17.47	Average
8	1.800	0.02	9.80	22.14	31.96	56.00	-24.04	QP
9	2.650	0.02	9.83	17.44	27.29	56.00	-28.71	QP
10	2.650	0.02	9.83	14.18	24.03	46.00	-21.97	Average
11 @	8.020	0.01	10.00	24.52	34.53	50.00	-15.47	Average
12	8.020	0.01	10.00	30.60	40.61	60.00	-19.39	OP

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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6.3 Conducted Peak Output Power

Test Requirement:	47 CFR Part 15C Section 15.247 (b)(3)			
Test Method:	KDB558074 D01 v03r02			
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 5.10 for details			
Exploratory Test Mode:	AC adapter supply+TX mode			
Limit:	30dBm			
Test Results:	Pass			



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Pre-scan under all rate at lowest channel 1								
Mode	802.11b							
Data Rate	1Mbps	2Mbps	5.5Mbps	11Mbps				
Power (dBm)	16.08	15.87	15.64	15.31				
Mode		802.11g						
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power (dBm)	15.97	15.82	15.77	15.74	15.68	15.65	15.62	15.47
Mode				802.11	n(HT20)			
Data Rate	6.5Mbps	13Mbps	19.5Mbps	26Mbps	39Mbps	52Mbps	58.5Mbps	65Mbps
Power (dBm)	15.52	15.34	15.28	15.12	15.03	14.88	14.79	14.68
Mode	802.11n(HT40)							
Data Rate	13.5Mbps	27Mbps	40.5Mbps	54Mbps	81Mbps	108Mbps	121.5Mbps	135Mbps
Power (dBm)	15.49	11.56	11.42	11.41	11.37	11.25	11.22	11.15

Through Pre-scan, 1Mbps of rate is the worst case of 802.11b; 6Mbps of rate is the worst case of 802.11g; 6Mbps of rate is the worst case of 802.11n(HT20); 6Mbps of rate is the worst case of 802.11n(HT40).



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Measurement Data

Measurement Data	802.11b mo	de				
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result			
Lowest	16.08	30.00	Pass			
Middle	16.54	30.00	Pass			
Highest	16.90	30.00	Pass			
	802.11g mo	de				
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result			
Lowest	15.97	30.00	Pass			
Middle	16.28	30.00	Pass			
Highest	16.36	30.00	Pass			
	802.11n(HT20)	mode				
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result			
Lowest	15.52	30.00	Pass			
Middle	16.00	30.00	Pass			
Highest	16.28	30.00	Pass			
	802.11n(HT40)mode					
Test channel	Peak Output Power (dBm)	Limit (dBm)	Result			
Lowest	15.49	30.00	Pass			
Middle	15.69	30.00	Pass			
Highest	15.62	30.00	Pass			

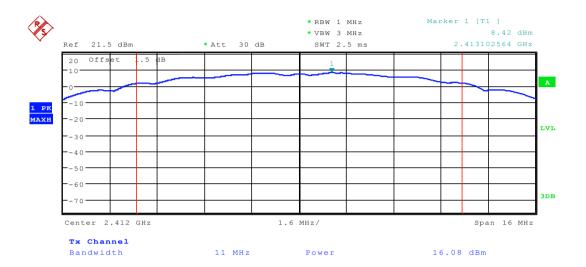


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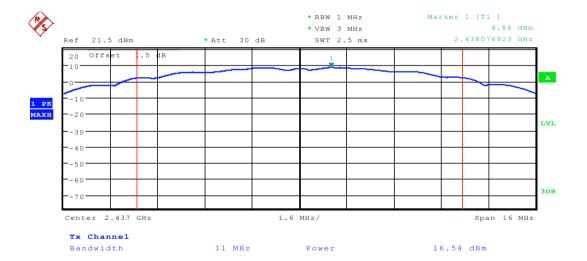
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Test plot as follows:

Test mode: 802.11b Test channel: Lowest



Test mode: 802.11b Test channel: Middle

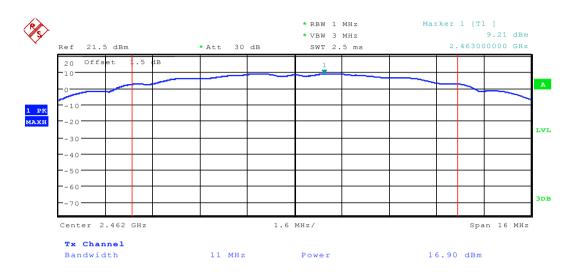




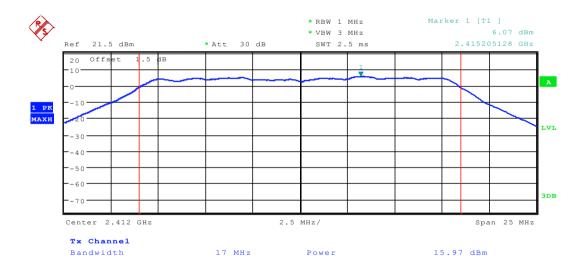
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Test mode: 802.11b Test channel: Highest



Test mode:	802.11g	Test channel:	Lowest
1000 111000.	002.119	i cot oriaririor.	2011001



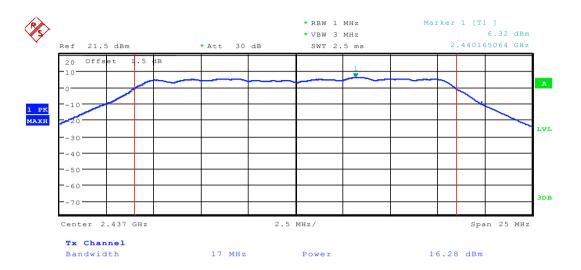




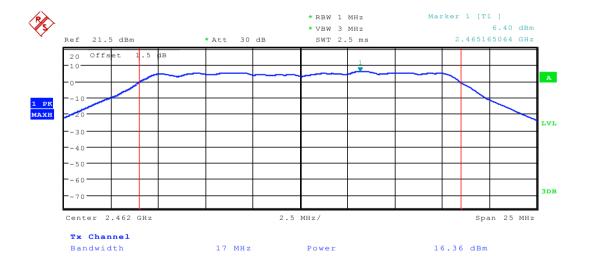
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Test mode: 802.11g Test channel: Middle



T ()	902.11%	T ()	1 12 1 4
l est mode:	802.11g	Lest channel:	Highest



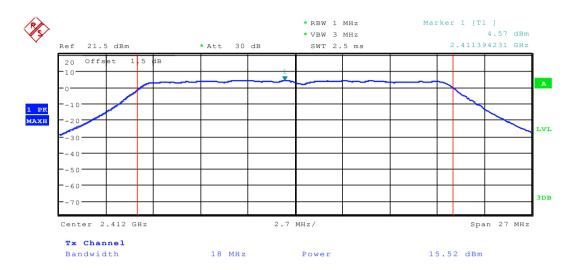
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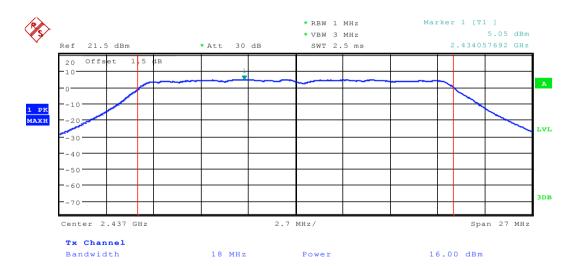
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Test mode: 802.11n(HT20) Test channel: Lowest



Tost mode:	802.11n(HT20)	Test channel:	Middle
l est mode:	802.11n(HT20)	Test channel:	ivildale



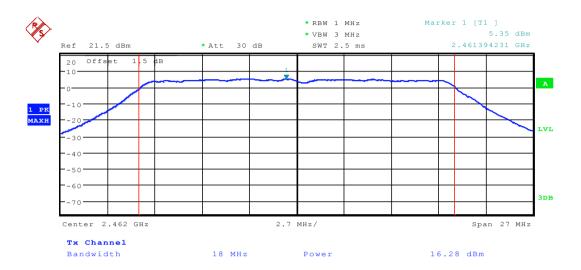
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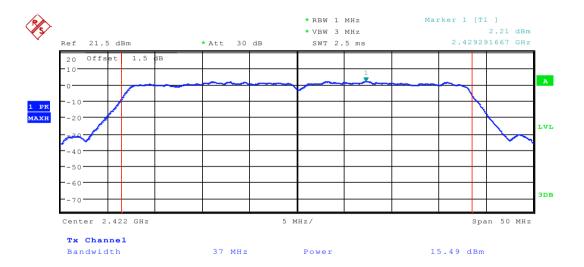
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Test mode: 802.11n(HT20) Test channel: Highest



Test mode:	802.11n(HT40)	Test channel:	Lowest
	00=::::(::::0)		



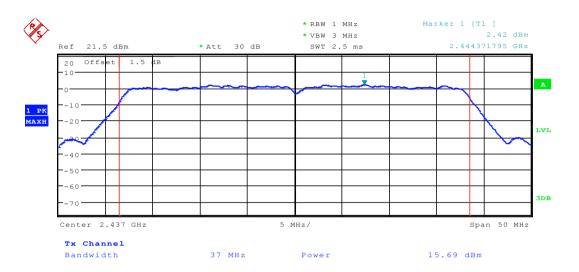
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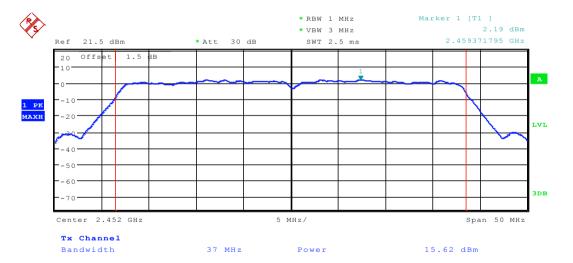
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Test mode: 802.11n(HT40) Test channel: Middle





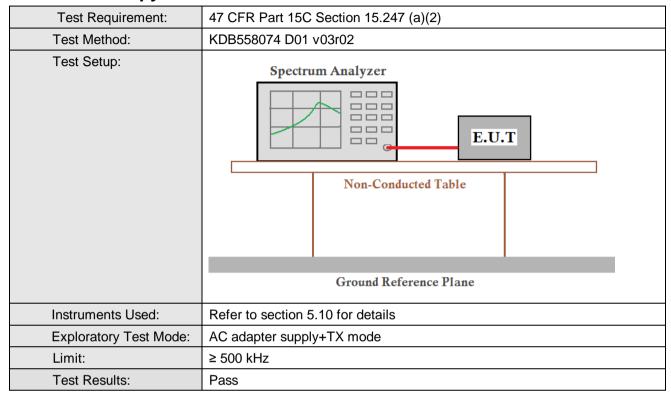




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6.4 6dB Occupy Bandwidth



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Measurement Data

Wieasurement Data							
	802.11b mode						
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
Lowest	10.096	≥500	Pass				
Middle	10.000	≥500	Pass				
Highest	10.096	≥500	Pass				
	802.11g mode						
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
Lowest	16.587	≥500	Pass				
Middle	16.587	≥500	Pass				
Highest	16.587	≥500	Pass				
	802.11n(HT20) mode						
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
Lowest	17.837	≥500	Pass				
Middle	17.837	≥500	Pass				
Highest	17.837	≥500	Pass				
	802.11n(HT40) mode						
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
Lowest	36.458	≥500	Pass				
Middle	36.442	≥500	Pass				
Highest	36.346	≥500	Pass				

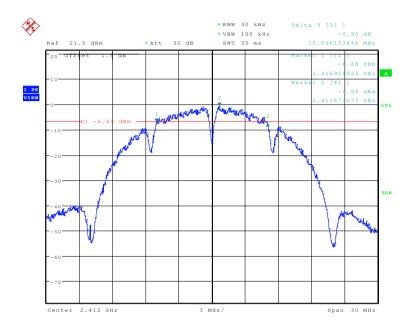


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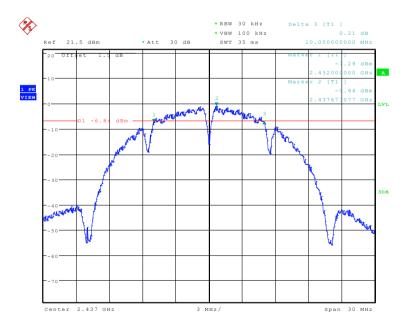
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Test plot as follows:

Test mode: 802.11b Test channel: Lowest



Test mode: 802.11b Test channel: Middle

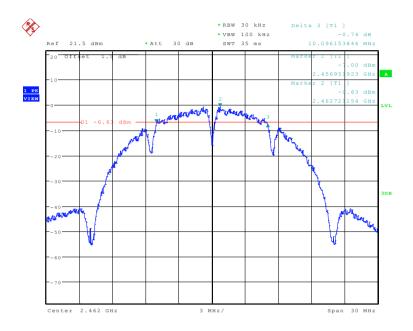




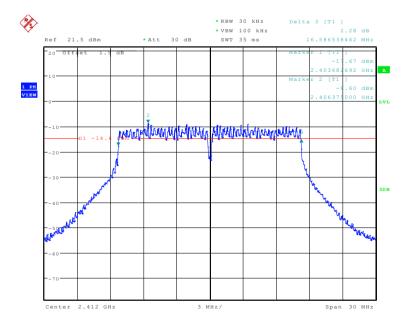
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Test mode: 802.11b Test channel: Highest



Test mode: 802.11g Test channel: Lowest

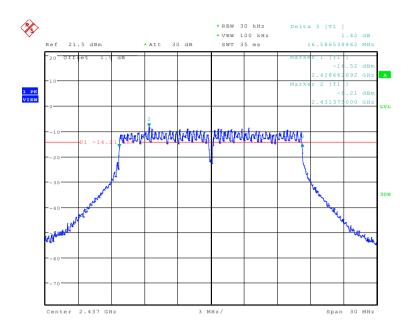




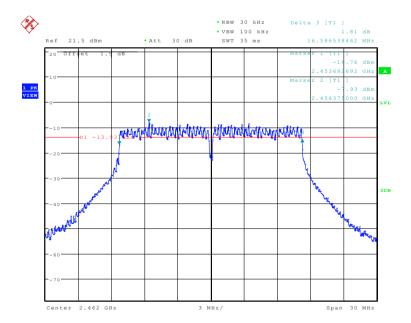
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Test mode: 802.11g Test channel: Middle





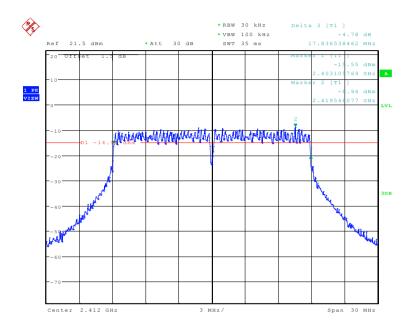




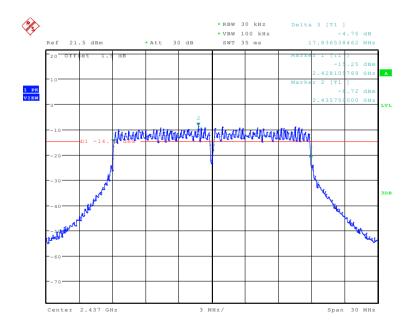
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Test mode: 802.11n(HT20) Test channel: Lowest



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



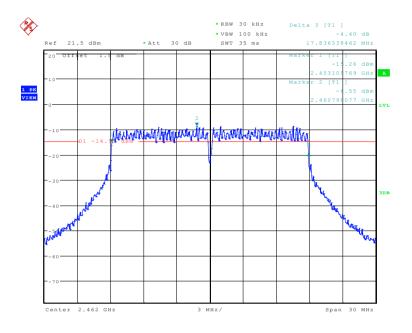




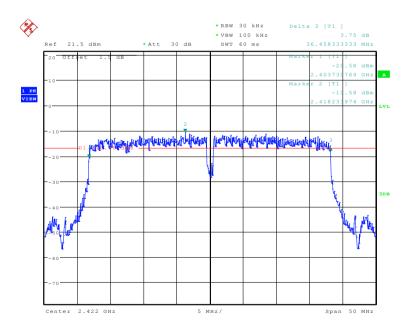
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Test mode: 802.11n(HT20) Test channel: Highest



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

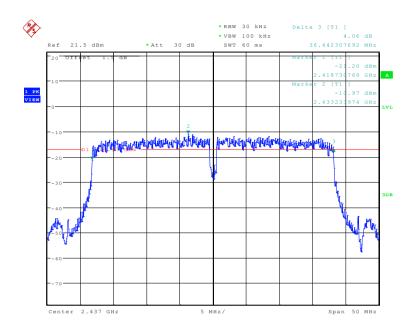




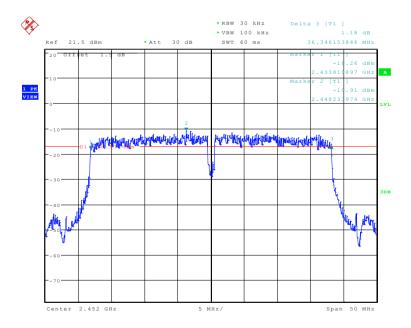
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Test mode: 802.11n(HT40) Test channel: Middle



Test mode:	802.11n(HT40)	Test channel:	Highest
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6.5 Power Spectral Density

Test Requirement:	47 CFR Part 15C Section 15.247 (e)		
Test Method:	KDB558074 D01 v03r02		
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 5.10 for details		
Exploratory Test Mode:	AC adapter supply+TX mode		
Limit:	≤8.00dBm/3kHz		
Test Results:	Pass		



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Measurement Data

802.11b mode					
Test channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result		
Lowest	-17.62	≤8.00	Pass		
Middle	-17.30	≤8.00	Pass		
Highest	-17.04	≤8.00	Pass		
802.11g mode					
Test channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result		
Lowest	-19.42	≤8.00	Pass		
Middle	-19.48	≤8.00	Pass		
Highest	-19.15	≤8.00	Pass		
802.11n (HT20) mode					
Test channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result		
Lowest	-19.80	≤8.00	Pass		
Middle	-19.63	≤8.00	Pass		
Highest	-19.14	≤8.00	Pass		
802.11n(HT40) mode					
Test channel	Power Spectral Density (dBm/3kHz)	Limit (dBm/3kHz)	Result		
Lowest	-21.92	≤8.00	Pass		
Middle	-21.61	≤8.00	Pass		
Highest	-21.31	≤8.00	Pass		

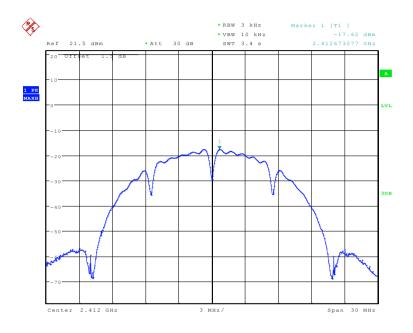


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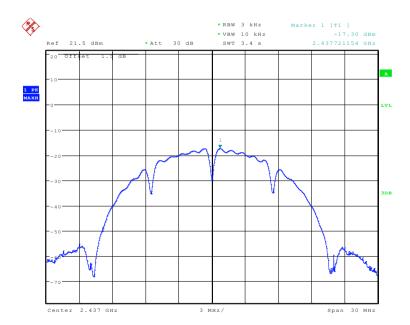
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Test plot as follows:

Test mode: 802.11b Test channel: Lowest



Test mode: 802.11b Test channel: Middle

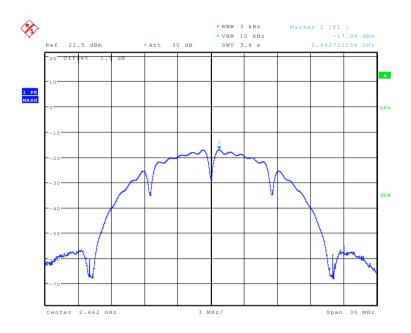




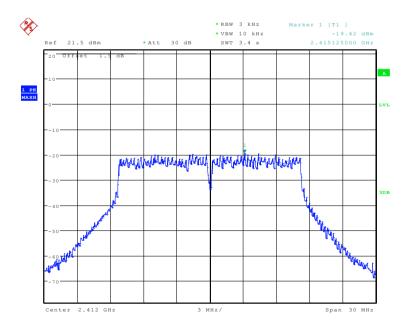
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Test mode: 802.11b Test channel: Highest





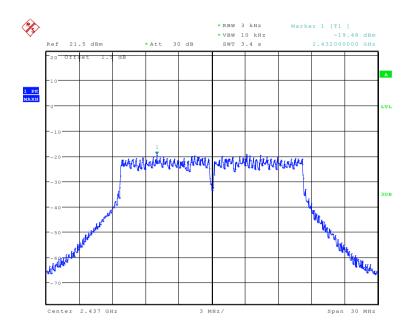




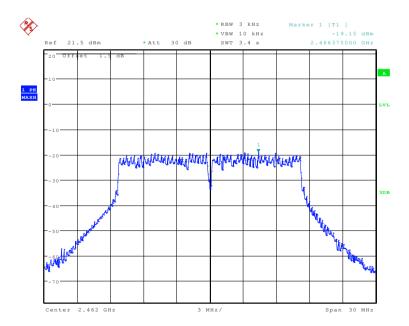
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Test mode: 802.11g Test channel: Middle



Test mode: 802.11g Test channel: Highest

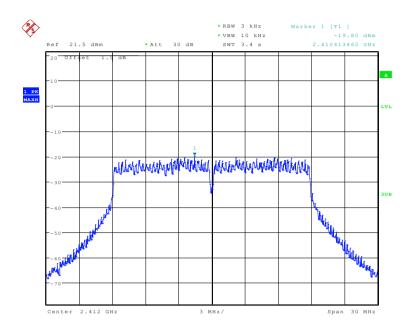




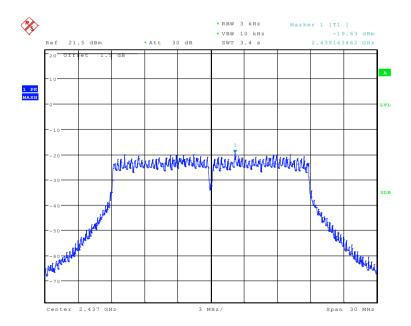
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Test mode: 802.11n (HT20) Test channel: Lowest







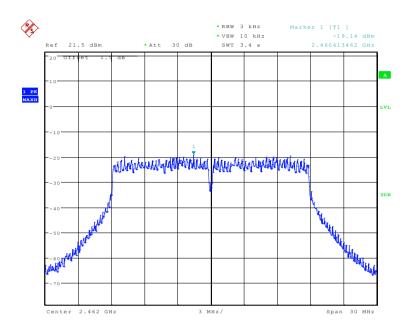
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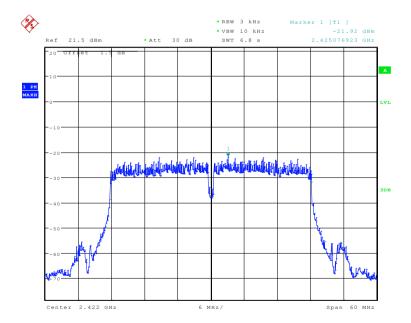
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Test mode: 802.11n (HT20) Test channel: Highest







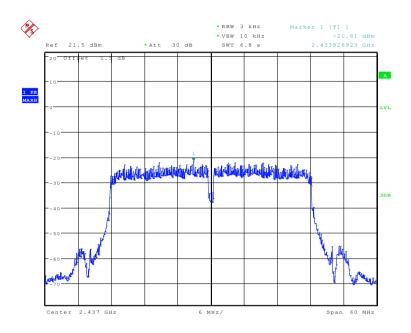
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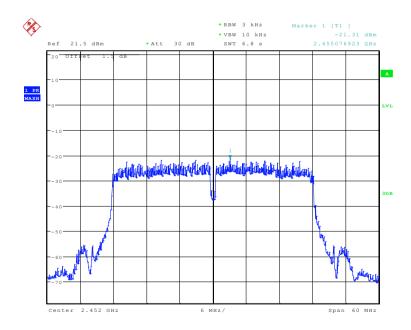
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Test mode: 802.11n (HT40) Test channel: Middle



Test mode:	802.11n (HT40)	Test channel:	Highest
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6.6 Band-edge for RF Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)				
Test Method:	KDB558074 D01 v03r02				
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:	AC adapter supply+TX mode				
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 5.10 for details				
Test Results:	Pass				

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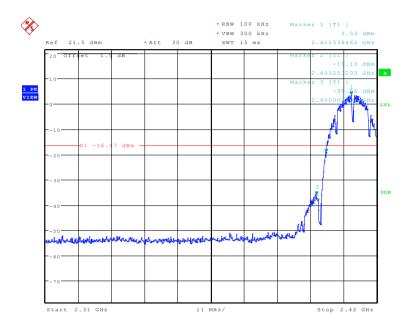


Report No.: SZEM140900546601

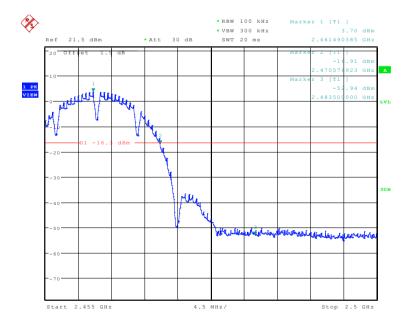
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Test plot as follows:

Test mode: 802.11b Test channel: Lowest





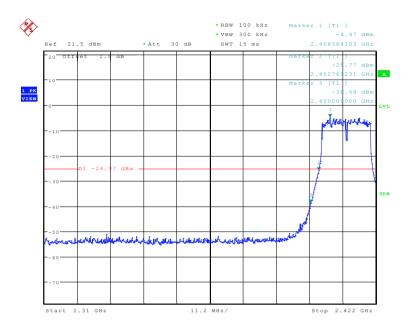




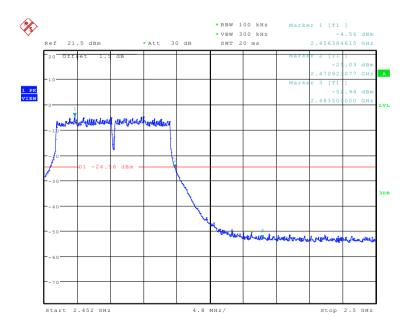
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Test mode: 802.11g Test channel: Lowest



Test mode: 802.11g Test channel: Highest



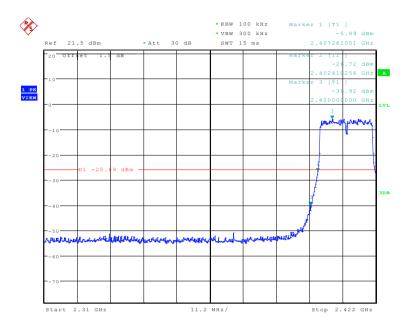
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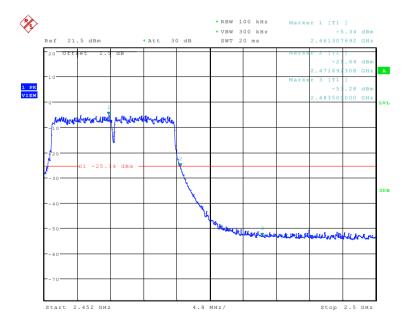
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Test mode: 802.11n (HT20) Test channel: Lowest



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



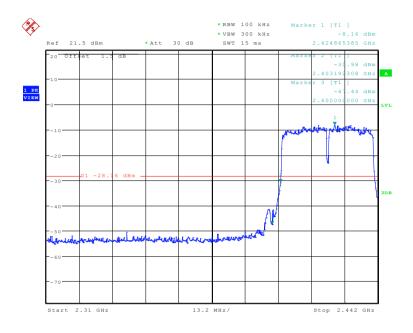
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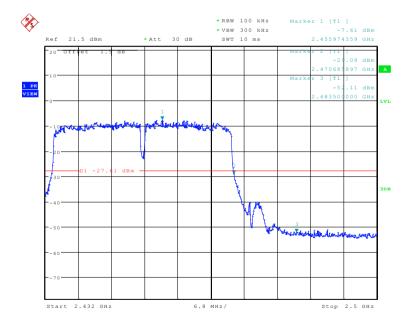
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Test mode: 802.11n (HT40) Test channel: Lowest



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



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6.7 RF Conducted Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.247 (d)			
Test Method:	KDB558074 D01 v03r02			
Test Setup:	Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane Remark:			
Exploratory Test Mode:	Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.			
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 5.10 for details			
Test Results:	Pass			

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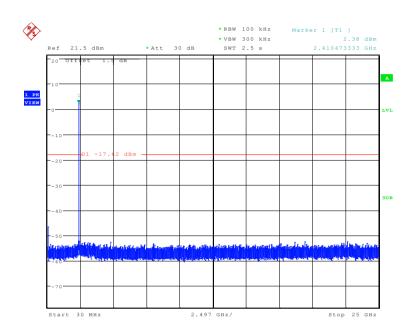


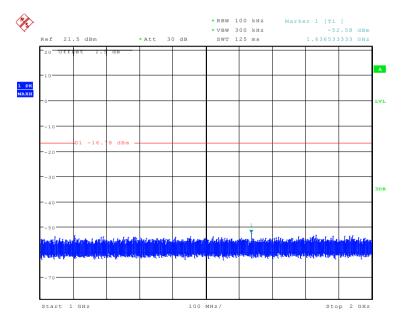
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Test plot as follows:

Test mode: 802.11b Test channel: Lowest



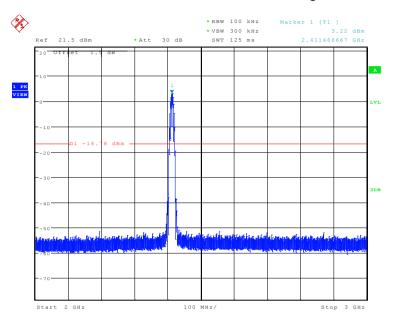


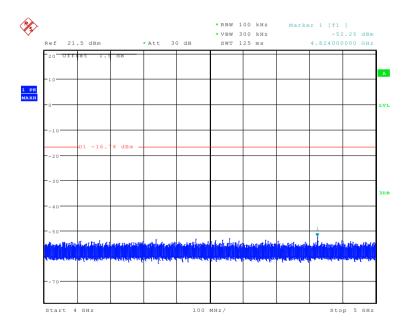
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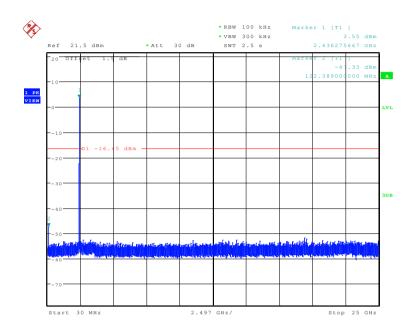


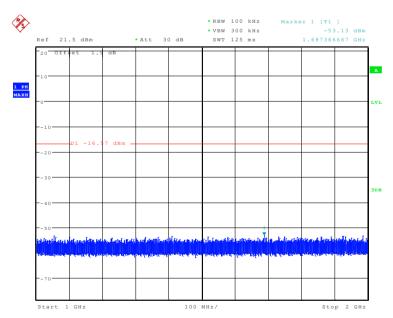


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Test mode: 802.11b Test channel: Middle

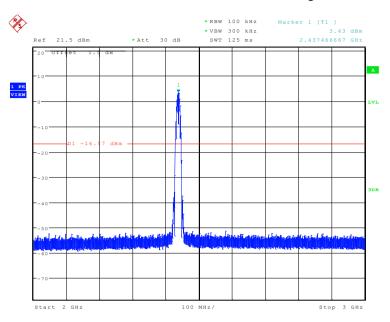


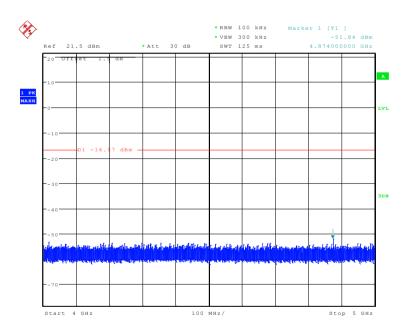




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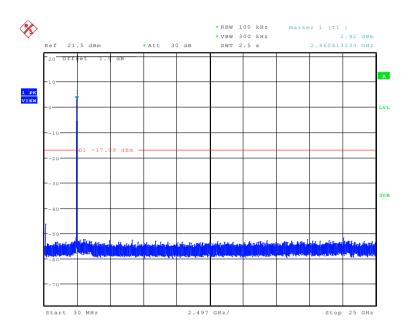


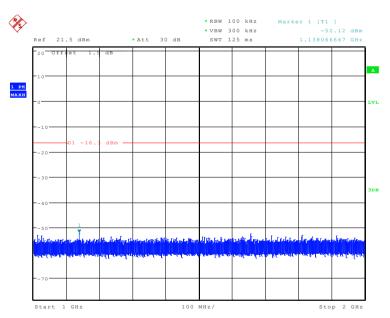


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Test mode: 802.11b Test channel: Highest



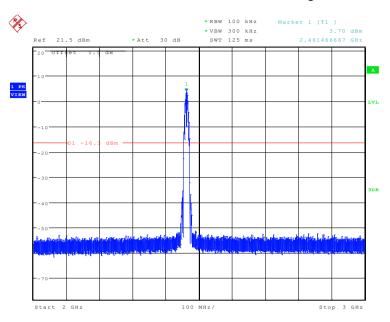


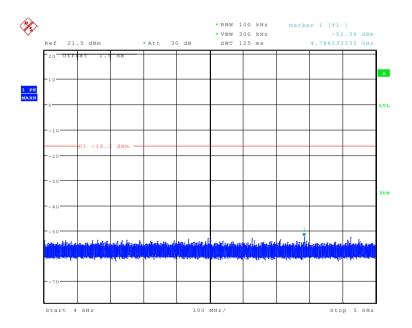
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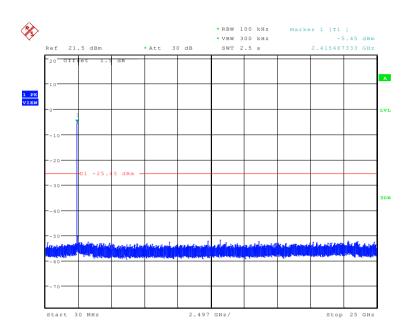


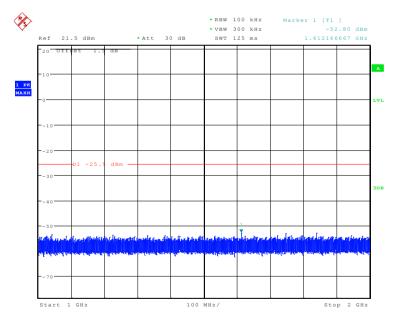


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Test mode: 802.11g Test channel: Lowest



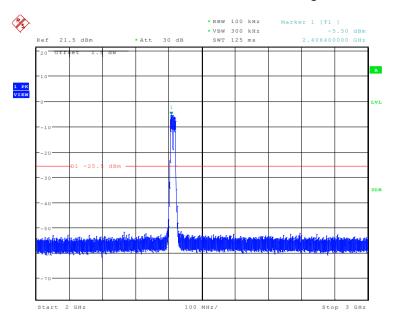


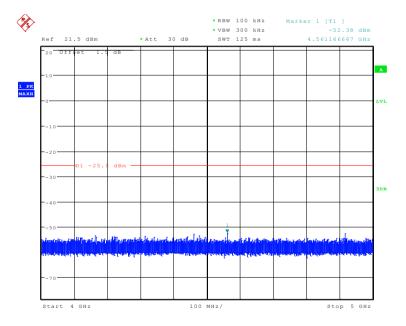
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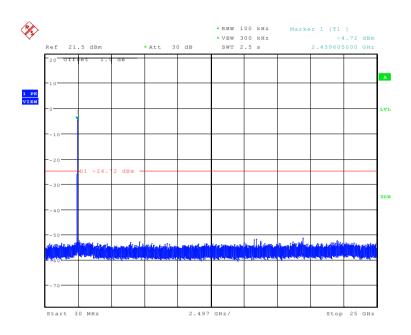


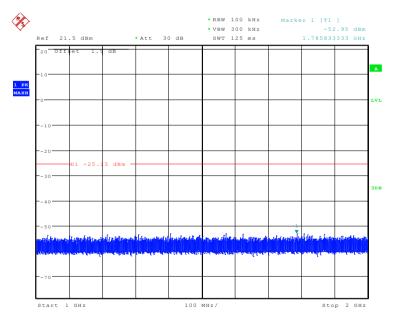


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Test mode: 802.11g Test channel: Middle

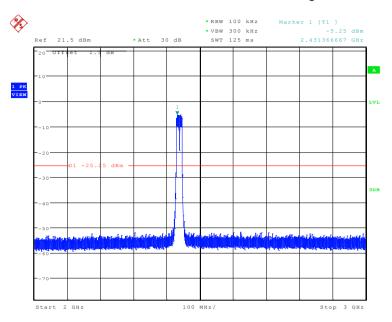


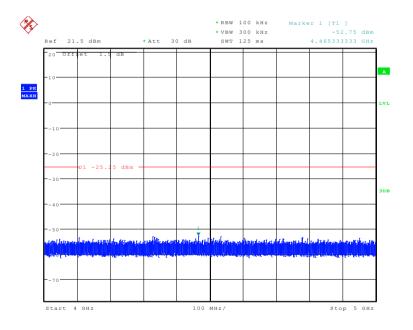




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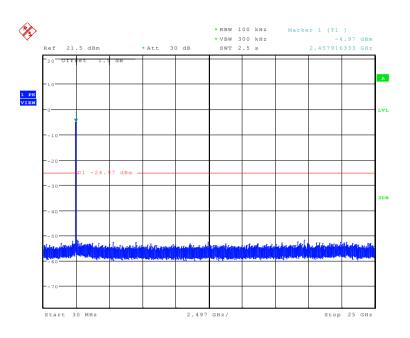


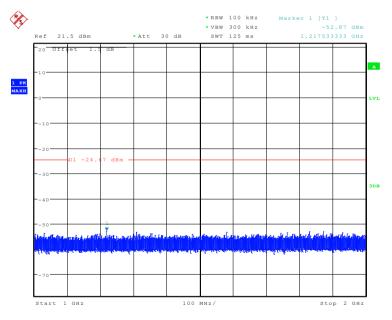


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Test mode: 802.11g Test channel: Highest

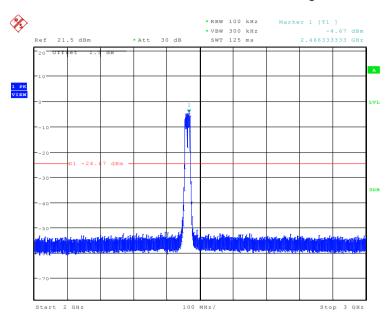


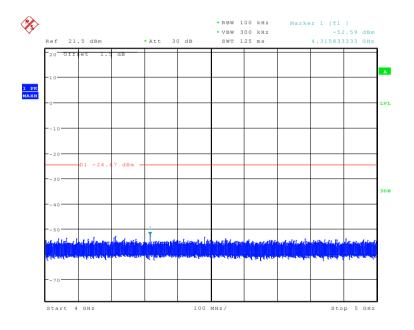




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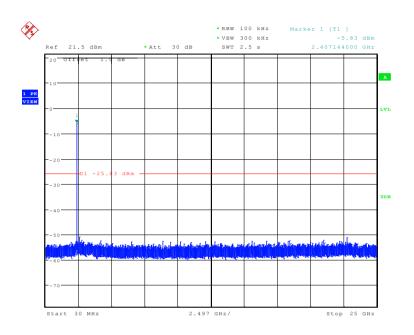


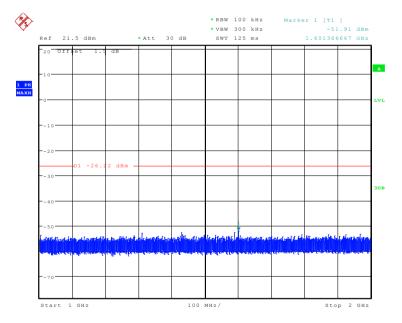


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Test mode: 802.11n (HT20) Test channel: Lowest



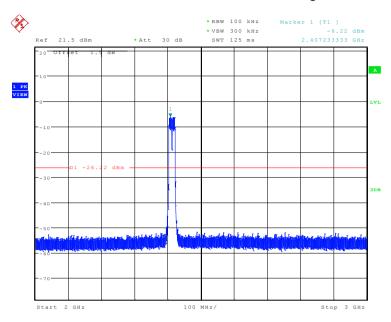


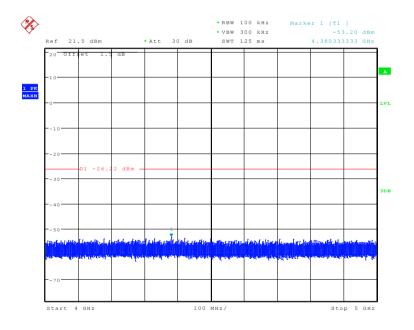
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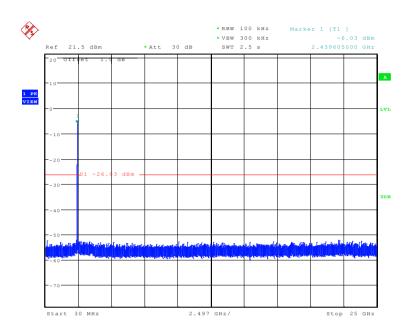


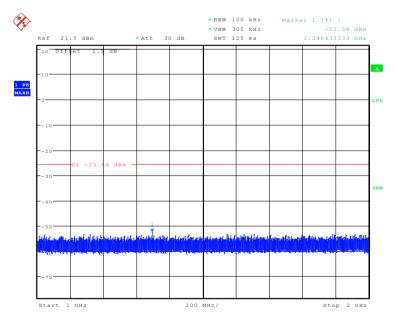


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Test mode: 802.11n (HT20) Test channel: Middle



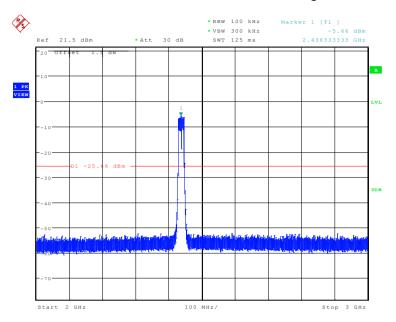


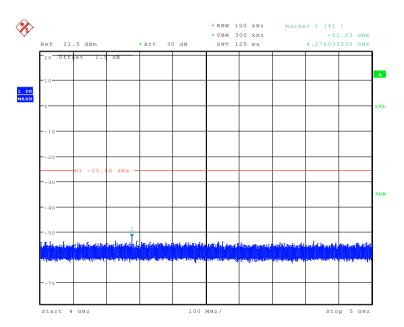
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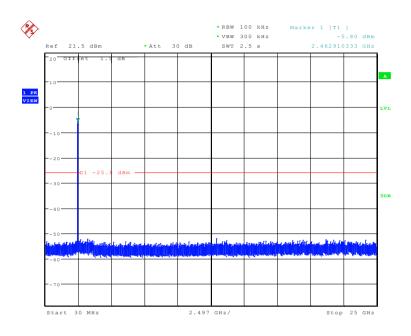


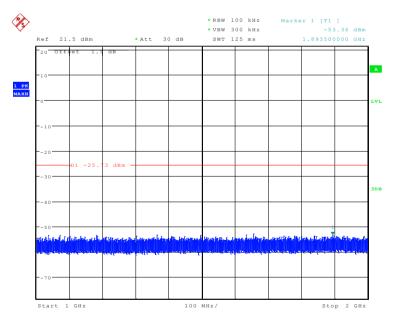


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Test mode: 802.11n (HT20) Test channel: Highest

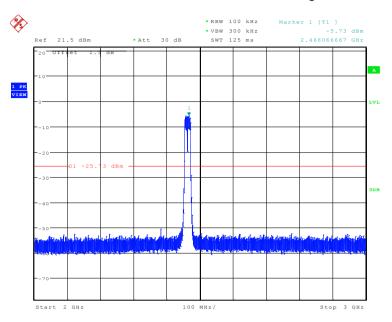


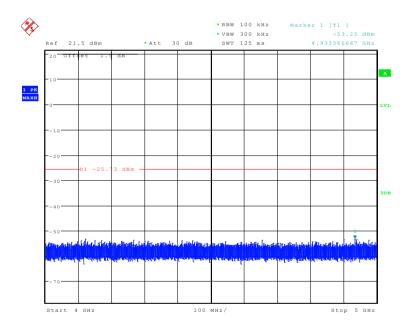




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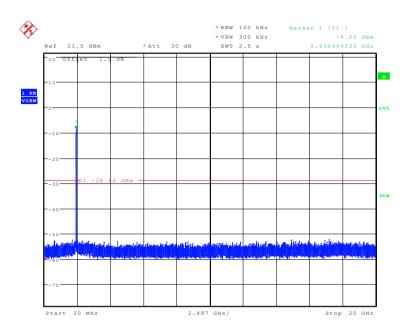


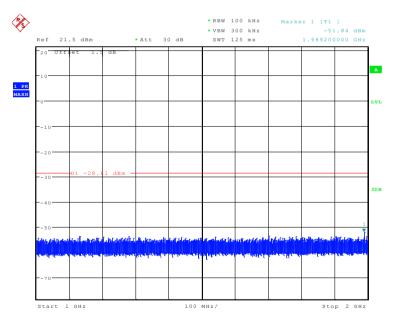


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Test mode: 802.11n (HT40) Test channel: Lowest



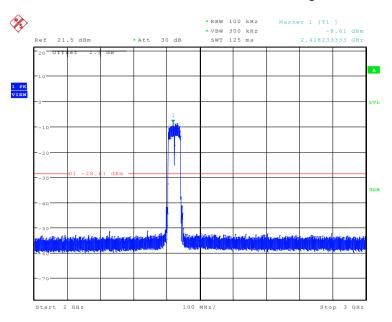


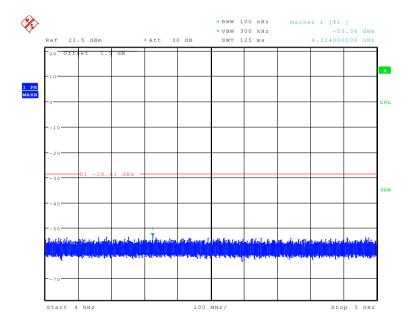
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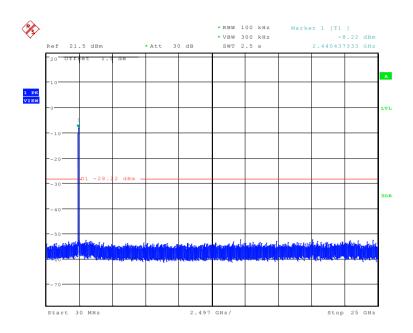


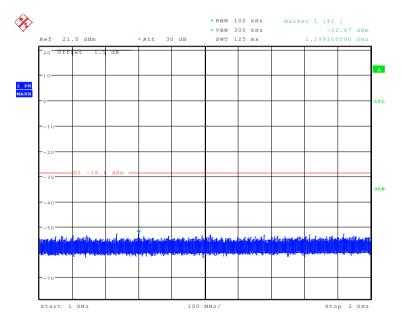


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Test mode: 802.11n (HT40) Test channel: Middle



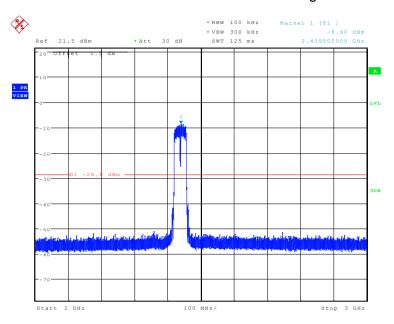


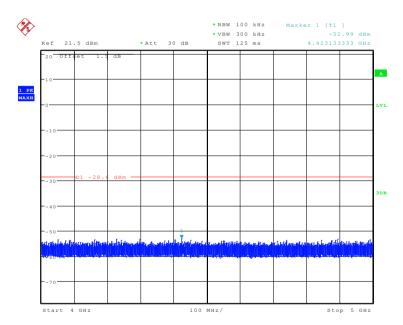
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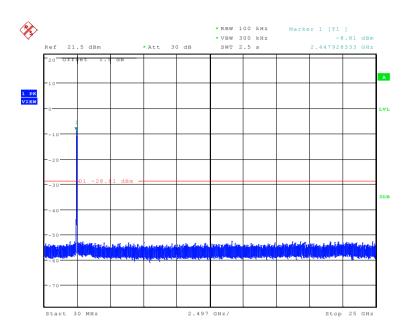


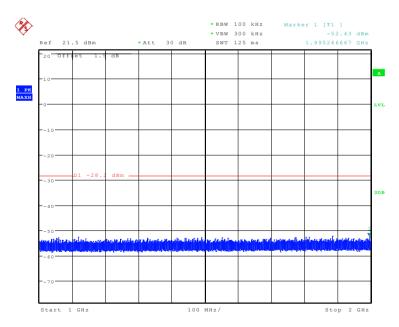


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Test mode: 802.11n (HT40) Test channel: Highest



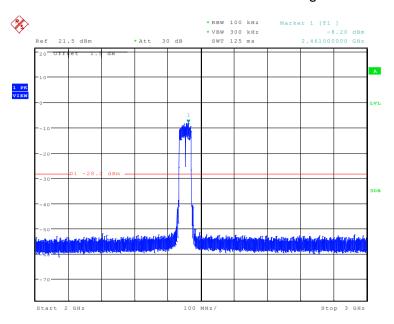


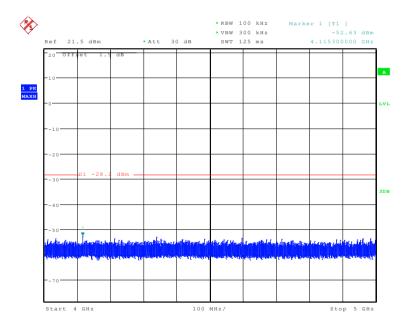
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Remark:

Pretest 9kHz to 25GHz, find the highest point when testing, so only the worst data were shown in the test report. Per FCC Part 15.33 (a) and 15.31 (o) ,The amplitude of spurious emissions from intentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this part.



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6.8 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-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 1GHz	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.						

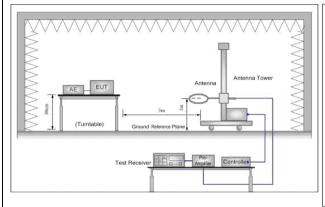
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Test Setup:



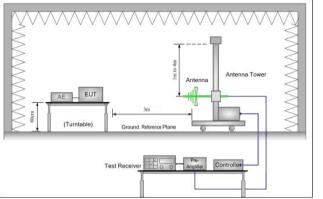


Figure 1. Below 30MHz

Figure 2. 30MHz to 1GHz

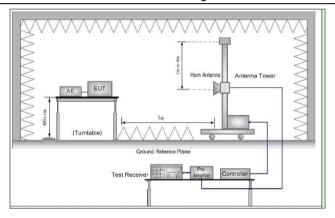


Figure 3. Above 1 GHz

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 are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case.
	i. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	AC adapter supply+TX mode
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass

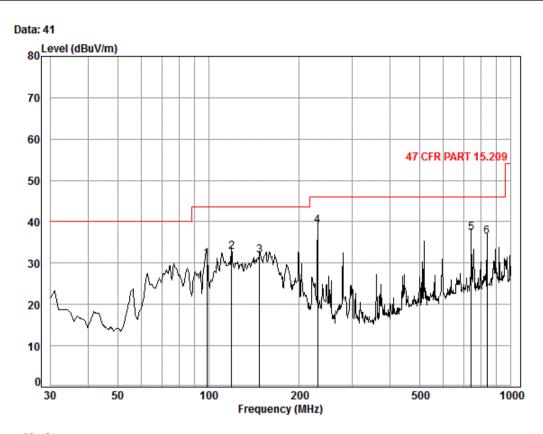


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6.8.1 Radiated emission below 1GHz

30MHz~1GHz (QP)		
Test mode:	AC adapter supply+TX mode	Vertical



Condition: 47 CFR PART 15.209 3m 3142C VERTICAL

Job No. : 5466RF

Test mode: AC adapter supply+TX mode

				_					
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	98.83	1.19	9.05	27.20	48.02	31.06	43.50	-12.44	
2	119.44	1.25	7.94	27.07	50.69	32.81	43.50	-10.69	
3	147.40	1.31	8.77	26.92	48.69	31.85	43.50	-11.65	
4	230.10	1.57	11.66	26.59	52.34	38.98	46.00	-7.02	
5	742.26	3.03	21.67	27.36	39.98	37.32	46.00	-8.68	
6	836.24	3.35	22.40	27.09	37.67	36.33	46.00	-9.67	

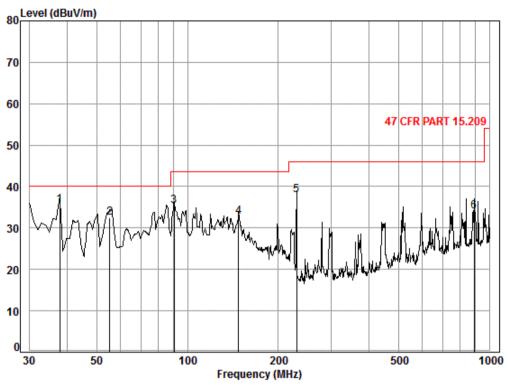


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Test mode:	AC adapter supply+TX mode	Horizontal
------------	---------------------------	------------

Data: 42



Condition: 47 CFR PART 15.209 3m 3142C HORIZONTAL

Job No. : 5466RF

Test mode: AC adapter supply+TX mode

-5-	mouc. Ac	uuupe	c. Jup	Pry	mouc				
		Cable	Ant	Preamp	Read		Limit	0ver	
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB	
1	37.81	0.60	14.19	27.33	48.14	35.60	40.00	-4.40	
2	55.22	0.80	7.88	27.28	51.05	32.45	40.00	-7.55	
3	90.22	1.10	8.71	27.21	52.73	35.33	43.50	-8.17	
4	147.40	1.31	8.77	26.92	49.58	32.74	43.50	-10.76	
5	230.10	1.57	11.67	26.59	51.37	38.02	46.00	-7.98	
6	890.73	3.56	23.13	26.82	34.15	34.02	46.00	-11.98	

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6.8.2 Transmitter emission above 1GHz

Test mode:	802.	11b	Test cha	nnel:	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
3663.017	6.87	33.05	38.81	48.43	49.54	74	-24.46	S Vertical
4829.044	6.47	34.73	39.25	56.49	58.44	74	-15.56	S Vertical
5999.562	8.08	36.30	39.18	49.51	54.71	74	-19.29	Vertical
7410.787	9.19	35.42	39.05	47.78	53.34	74	-20.66	S Vertical
9532.438	10.03	37.18	37.98	42.14	51.37	74	-22.63	3 Vertical
11389.270	10.37	38.15	38.41	43.47	53.58	74	-20.42	2 Vertical
3427.149	7.11	32.81	38.71	48.43	49.64	74	-24.36	6 Horizontal
4824.000	6.46	34.72	39.24	49.22	51.16	74	-22.84	Horizontal
5999.562	8.08	36.30	39.18	50.21	55.41	74	-18.59	Horizontal
7236.000	8.96	35.60	39.06	47.65	53.15	74	-20.85	Horizontal
9648.000	9.97	37.45	37.91	41.58	51.09	74	-22.91	Horizontal
11258.190	10.34	38.13	38.35	42.67	52.79	74	-21.21	Horizontal

Test mode:	80)2.11b	Test cha	annel:	Lowest	Remark:	Remark: Ave	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Readin Level (dBµV)	Level	Limit (dBμV/m)	Over Limit (dB)	Polarization
3663.017	6.87	33.05	38.81	29.65	30.76	54	-23.2	4 Vertical
4829.044	6.47	34.73	39.25	50.61	52.56	54	-1.44	Vertical
5999.562	8.08	36.30	39.18	30.25	35.45	54	-18.5	5 Vertical
7410.787	9.19	35.42	39.05	28.66	34.22	54	-19.78	8 Vertical
9532.438	10.03	37.18	37.98	23.64	32.87	54	-21.13	3 Vertical
11389.270	10.37	38.15	38.41	25.25	35.36	54	-18.6	4 Vertical
3427.149	7.11	32.81	38.71	32.56	33.77	54	-20.23	3 Horizontal
4824.000	6.46	34.72	39.24	33.15	35.09	54	-18.9	1 Horizontal
5999.562	8.08	36.30	39.18	32.83	38.03	54	-15.9 [°]	7 Horizontal
7236.000	8.96	35.60	39.06	30.25	35.75	54	-18.2	5 Horizontal
9648.000	9.97	37.45	37.91	24.32	33.83	54	-20.1	7 Horizontal
11258.190	10.34	38.13	38.35	25.64	35.76	54	-18.2	4 Horizontal

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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
3537.998	6.95	32.93	38.76	47.72	48.84	74	-25.16	Vertical
4874.000	6.57	34.77	39.26	55.99	58.07	74	-15.93	Vertical
6034.386	8.07	36.26	39.18	48.84	53.99	74	-20.01	Vertical
7311.000	9.06	35.52	39.06	43.63	49.15	74	-24.85	Vertical
9748.000	9.91	37.76	37.85	41.48	51.30	74	-22.70	Vertical
11455.380	10.38	38.19	38.45	42.24	52.36	74	-21.64	Vertical
3705.664	6.85	33.08	38.83	50.47	51.57	74	-22.43	Horizontal
4874.000	6.57	34.77	39.26	49.19	51.27	74	-22.73	Horizontal
5999.562	8.08	36.30	39.18	50.43	55.63	74	-18.37	Horizontal
7311.000	9.06	35.52	39.06	47.37	52.89	74	-21.11	Horizontal
9748.000	9.91	37.76	37.85	42.33	52.15	74	-21.85	Horizontal
11389.270	10.37	38.15	38.41	43.49	53.60	74	-20.40	Horizontal

Test mode:	802	.11b	Test ch	annel:	Middle	Remark	:	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB _µ V)	Emission Level (dB _µ V/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization
3537.998	6.95	32.93	38.76	28.56	29.68	54	-24.32	Vertical
4874.000	6.57	34.77	39.26	49.51	51.59	54	-2.41	Vertical
6034.386	8.07	36.26	39.18	29.25	34.40	54	-19.60	Vertical
7311.000	9.06	35.52	39.06	24.87	30.39	54	-23.61	Vertical
9748.000	9.91	37.76	37.85	22.79	32.61	54	-21.39	Vertical
11455.380	10.38	38.19	38.45	24.13	34.25	54	-19.75	Vertical
3705.664	6.85	33.08	38.83	31.26	32.36	54	-21.64	Horizontal
4874.000	6.57	34.77	39.26	30.26	32.34	54	-21.66	Horizontal
5999.562	8.08	36.30	39.18	31.23	36.43	54	-17.57	Horizontal
7311.000	9.06	35.52	39.06	28.23	33.75	54	-20.25	Horizontal
9748.000	9.91	37.76	37.85	23.86	33.68	54	-20.32	Horizontal
11389.270	10.37	38.15	38.41	25.00	35.11	54	-18.89	Horizontal

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Test mode:	802	.11b	Test cha	ınnel:	Highest	Remark:	F	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
3814.467	6.79	33.18	38.88	50.87	51.96	74	-22.04	Vertical
4924.000	6.68	34.82	39.28	56.98	59.20	74	-14.80	Vertical
5982.226	8.05	36.27	39.19	50.00	55.13	74	-18.87	Vertical
7386.000	9.16	35.44	39.05	44.88	50.43	74	-23.57	Vertical
9848.000	9.85	38.06	37.79	41.39	51.51	74	-22.49	Vertical
11389.270	10.37	38.15	38.41	42.74	52.85	74	-21.15	Vertical
3705.664	6.85	33.08	38.83	49.47	50.57	74	-23.43	Horizontal
4924.000	6.68	34.82	39.28	48.15	50.37	74	-23.63	Horizontal
6034.386	8.07	36.26	39.18	50.09	55.24	74	-18.76	Horizontal
7386.000	9.16	35.44	39.05	47.99	53.54	74	-20.46	Horizontal
9848.000	9.85	38.06	37.79	41.61	51.73	74	-22.27	Horizontal
11307.170	10.35	38.14	38.37	42.83	52.95	74	-21.05	Horizontal

Test mode:	802.	11b	Test cha	innel:	Highest	Remark:	,	Average	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBµV)	Level	Limit (dBμV/m)	Over Limit (dB)		
3814.467	6.79	33.18	38.88	31.26	32.35	54	-21.65	5 Vertical	
4924.000	6.68	34.82	39.28	51.09	52.31	54	-1.69	Vertical	
5982.226	8.05	36.27	39.19	32.16	37.29	54	-16.71	Vertical	
7386.000	9.16	35.44	39.05	25.63	31.18	54	-22.82	2 Vertical	
9848.000	9.85	38.06	37.79	22.65	32.77	54	-21.23	3 Vertical	
11389.270	10.37	38.15	38.41	23.64	33.75	54	-20.25	5 Vertical	
3705.664	6.85	33.08	38.83	30.21	31.31	54	-22.69	Horizontal	
4924.000	6.68	34.82	39.28	29.66	31.88	54	-22.12	2 Horizontal	
6034.386	8.07	36.26	39.18	31.28	36.43	54	-17.57	' Horizontal	
7386.000	9.16	35.44	39.05	28.65	34.20	54	-19.80) Horizontal	
9848.000	9.85	38.06	37.79	23.56	33.68	54	-20.32	2 Horizontal	
11307.170	10.35	38.14	38.37	23.67	33.79	54	-20.21	Horizontal	

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Test mode:	802	2.11g	Test cha	nnel:	Lowest	Remark:	F	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
3631.354	6.89	33.02	38.80	48.91	50.02	74	-23.98	Vertical
4824.000	6.46	34.72	39.24	49.65	51.59	74	-22.41	Vertical
6034.386	8.07	36.26	39.18	49.80	54.95	74	-19.05	Vertical
7236.000	8.96	35.60	39.06	49.38	54.88	74	-19.12	Vertical
9648.000	9.97	37.45	37.91	45.45	54.96	74	-19.04	Vertical
11521.870	10.40	38.24	38.48	45.69	55.85	74	-18.15	Vertical
3589.562	6.92	32.99	38.78	48.63	49.76	74	-24.24	Horizontal
4824.000	6.46	34.72	39.24	48.97	50.91	74	-23.09	Horizontal
5982.226	8.05	36.27	39.19	50.51	55.64	74	-18.36	Horizontal
7236.000	8.96	35.60	39.06	49.49	54.99	74	-19.01	Horizontal
9648.000	9.97	37.45	37.91	45.82	55.33	74	-18.67	Horizontal
11723.670	10.49	38.43	38.57	46.75	57.10	74	-16.90	Horizontal

Test mode:	802.	11g	Test cha	innel:	Lowest	Remark:		Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB _µ V)	Level	Limit (dB _µ V/m)	Over Limit (dB)	
3631.354	6.89	33.02	38.80	30.66	31.77	54	-22.23	3 Vertical
4824.000	6.46	34.72	39.24	30.50	32.44	54	-21.56	S Vertical
6034.386	8.07	36.26	39.18	30.56	35.71	54	-18.29	Vertical
7236.000	9.35	35.54	39.03	31.25	37.11	54	-16.89	Vertical
9648.000	10.02	37.20	37.97	27.25	36.50	54	-17.50) Vertical
11521.870	10.40	38.24	38.48	26.89	37.05	54	-16.95	5 Vertical
3589.562	6.92	32.99	38.78	29.64	30.77	54	-23.23	B Horizontal
4824.000	6.46	34.72	39.24	29.68	31.62	54	-22.38	B Horizontal
5982.226	8.05	36.27	39.19	31.58	36.71	54	-17.29	Horizontal
7236.000	8.96	35.60	39.06	31.05	36.55	54	-17.45	5 Horizontal
9648.000	9.97	37.45	37.91	26.98	36.49	54	-17.51	Horizontal
11723.670	10.49	38.43	38.57	27.67	38.02	54	-15.98	B Horizontal

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Test mode:	802.	11g	Test cha	innel:	Middle	Remark:	F	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
3599.965	6.91	33.00	38.79	48.47	49.59	74	-24.41	Vertical
4874.000	6.57	34.77	39.26	48.74	50.82	74	-23.18	Vertical
5947.702	8.00	36.20	39.19	50.75	55.76	74	-18.24	Vertical
7311.000	9.06	35.52	39.06	49.13	54.65	74	-19.35	Vertical
9748.000	9.91	37.76	37.85	46.10	55.92	74	-18.08	Vertical
11455.380	10.38	38.19	38.45	46.14	56.26	74	-17.74	Vertical
3705.664	6.85	33.08	38.83	49.71	50.81	74	-23.19	Horizontal
4874.000	6.57	34.77	39.26	48.84	50.92	74	-23.08	Horizontal
5973.576	8.04	36.25	39.19	49.29	54.39	74	-19.61	Horizontal
7311.000	9.06	35.52	39.06	48.20	53.72	74	-20.28	Horizontal
9748.000	9.91	37.76	37.85	45.32	55.14	74	-18.86	Horizontal
11455.380	10.38	38.19	38.45	45.19	55.31	74	-18.69	Horizontal

Test mode:	802	.11g	Test cha	nnel:	Middle	Remark:	Α	verage
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Readin Level (dBµV)	Level	Limit (dBμV/m)	Over Limit (dB)	Polarization
3599.965	6.91	33.00	38.79	30.55	31.67	54	-22.33	Vertical
4874.000	6.57	34.77	39.26	29.88	31.96	54	-22.04	Vertical
5947.702	8.00	36.20	39.19	31.26	36.27	54	-17.73	Vertical
7311.000	9.06	35.52	39.06	31.20	36.72	54	-17.28	Vertical
9748.000	9.91	37.76	37.85	27.86	37.68	54	-16.32	Vertical
11455.380	10.38	38.19	38.45	27.69	37.81	54	-16.19	Vertical
3705.664	6.85	33.08	38.83	30.52	31.62	54	-22.38	Horizontal
4874.000	6.57	34.77	39.26	30.31	32.39	54	-21.61	Horizontal
5973.576	8.04	36.25	39.19	30.42	35.52	54	-18.48	Horizontal
7311.000	9.06	35.52	39.06	29.68	35.20	54	-18.80	Horizontal
9748.000	9.91	37.76	37.85	27.23	37.05	54	-16.95	Horizontal
11455.380	10.38	38.19	38.45	26.88	37.00	54	-17.00	Horizontal



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Test mode:	802	2.11g	Test cha	nnel:	Highest	Remark:	F	eak
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
3387.708	7.18	32.75	38.69	49.98	51.22	74	-22.78	Vertical
4924.000	6.68	34.82	39.28	49.25	51.47	74	-22.53	Vertical
5982.226	8.05	36.27	39.19	50.88	56.01	74	-17.99	Vertical
7386.000	9.16	35.44	39.05	49.23	54.78	74	-19.22	Vertical
9848.000	9.85	38.06	37.79	45.67	55.79	74	-18.21	Vertical
12208.390	10.93	38.96	38.88	47.25	58.26	74	-15.74	Vertical
3610.398	6.90	33.01	38.79	48.75	49.87	74	-24.13	Horizontal
4924.000	6.68	34.82	39.28	48.80	51.02	74	-22.98	Horizontal
5999.562	8.08	36.30	39.18	49.51	54.71	74	-19.29	Horizontal
7386.000	9.16	35.44	39.05	49.19	54.74	74	-19.26	Horizontal
9848.000	9.85	38.06	37.79	45.34	55.46	74	-18.54	Horizontal
11757.650	10.50	38.46	38.59	46.03	56.40	74	-17.60	Horizontal

Test mode:	802.	11g	Test cha	ınnel:	Highest	Remark:	,	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBµV)	Level	Limit (dBμV/m)	Over Limit (dB)	Polarization
3387.708	7.18	32.75	38.69	30.58	31.82	54	-22.18	Vertical
4924.000	6.68	34.82	39.28	30.55	32.77	54	-21.23	Vertical
5982.226	8.05	36.27	39.19	31.26	36.39	54	-17.61	Vertical
7386.000	9.16	35.44	39.05	30.68	36.23	54	-17.77	Vertical
9848.000	9.85	38.06	37.79	27.26	37.38	54	-16.62	Vertical
12208.390	10.93	38.96	38.88	28.35	39.36	54	-14.64	Vertical
3610.398	6.90	33.01	38.79	29.65	30.77	54	-23.23	Horizontal
4924.000	6.68	34.82	39.28	29.69	31.91	54	-22.09	Horizontal
5999.562	8.08	36.30	39.18	30.67	35.87	54	-18.13	Horizontal
7386.000	9.16	35.44	39.05	31.25	36.80	54	-17.20	Horizontal
9848.000	9.85	38.06	37.79	26.58	36.70	54	-17.30	Horizontal
11757.650	10.50	38.46	38.59	27.57	37.94	54	-16.06	Horizontal

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Test mode:	802.11	n (HT20)	Test cha	nnel:	Lowest	Remark:	F	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
3417.246	7.13	32.80	38.70	47.83	49.06	74	-24.94	Vertical
4824.000	6.46	34.72	39.24	49.75	51.69	74	-22.31	Vertical
6051.874	8.07	36.24	39.18	50.40	55.53	74	-18.47	Vertical
7236.000	8.96	35.60	39.06	49.31	54.81	74	-19.19	Vertical
9648.000	9.97	37.45	37.91	45.68	55.19	74	-18.81	Vertical
11689.790	10.47	38.39	38.56	46.42	56.72	74	-17.28	Vertical
3579.190	6.92	32.98	38.78	48.70	49.82	74	-24.18	Horizontal
4824.000	6.46	34.72	39.24	49.16	51.10	74	-22.90	Horizontal
6087.002	8.06	36.20	39.17	50.18	55.27	74	-18.73	Horizontal
7236.000	8.96	35.60	39.06	49.34	54.84	74	-19.16	Horizontal
9648.000	9.97	37.45	37.91	46.10	55.61	74	-18.39	Horizontal
12243.770	10.98	39.01	38.91	46.40	57.48	74	-16.52	Horizontal

Test mode:	802.11	n (HT20)	Test cha	nnel:	Lowest	Remark:		Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB _µ V)	Level	Limit (dB _µ V/m)	Over Limit (dB)	Polarization
3417.246	7.13	32.80	38.70	28.68	29.91	54	-24.09	Vertical
4824.000	6.46	34.72	39.24	30.56	32.50	54	-21.50	Vertical
6051.874	8.07	36.24	39.18	31.59	36.72	54	-17.28	Vertical
7236.000	8.96	35.60	39.06	30.98	36.48	54	-17.52	. Vertical
9648.000	9.97	37.45	37.91	26.98	36.49	54	-17.51	Vertical
11689.790	10.47	38.39	38.56	27.65	37.95	54	-16.05	Vertical
3579.190	6.92	32.98	38.78	30.21	31.33	54	-22.67	' Horizontal
4824.000	6.46	34.72	39.24	30.65	32.59	54	-21.41	Horizontal
6087.002	8.06	36.20	39.17	31.58	36.67	54	-17.33	Horizontal
7236.000	8.96	35.60	39.06	31.25	36.75	54	-17.25	Horizontal
9648.000	9.97	37.45	37.91	27.69	37.20	54	-16.80	Horizontal
12243.770	10.98	39.01	38.91	28.23	39.31	54	-14.69	Horizontal

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Test mode:	802.11	n (HT20)	Test cha	innel:	Middle	Remark:	F	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
3579.190	6.92	32.98	38.78	47.97	49.09	74	-24.91	Vertical
4874.000	6.57	34.77	39.26	48.80	50.88	74	-23.12	Vertical
5999.562	8.08	36.30	39.18	50.04	55.24	74	-18.76	Vertical
7311.000	9.06	35.52	39.06	49.24	54.76	74	-19.24	Vertical
9748.000	9.91	37.76	37.85	45.19	55.01	74	-18.99	Vertical
11258.190	10.34	38.13	38.35	45.69	55.81	74	-18.19	Vertical
3477.098	7.01	32.87	38.73	48.72	49.87	74	-24.13	Horizontal
4874.000	6.57	34.77	39.26	48.84	50.92	74	-23.08	Horizontal
5811.590	7.79	35.93	39.20	50.43	54.95	74	-19.05	Horizontal
7311.000	9.06	35.52	39.06	49.36	54.88	74	-19.12	Horizontal
9748.000	9.91	37.76	37.85	45.71	55.53	74	-18.47	Horizontal
11193.220	10.32	38.12	38.32	47.53	57.65	74	-16.35	Horizontal

Test mode:	802.11	n (HT20)	Test channel: Middle R		Remark:	A	Average	
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB _µ V)	Level	Limit (dB _µ V/m)	Over Limit (dB)	Polarization
3579.190	6.92	32.98	38.78	29.12	30.24	54	-23.76	Vertical
4874.000	6.57	34.77	39.26	29.69	31.77	54	-22.23	Vertical
5999.562	8.08	36.30	39.18	31.66	36.86	54	-17.14	Vertical
7311.000	9.06	35.52	39.06	30.89	36.41	54	-17.59	Vertical
9748.000	9.91	37.76	37.85	26.89	36.71	54	-17.29	Vertical
11258.190	10.34	38.13	38.35	27.69	37.81	54	-16.19	Vertical
3477.098	7.01	32.87	38.73	29.68	30.83	54	-23.17	Horizontal
4874.000	6.57	34.77	39.26	29.79	31.87	54	-22.13	Horizontal
5811.590	7.79	35.93	39.20	31.52	36.04	54	-17.96	Horizontal
7311.000	9.06	35.52	39.06	30.68	36.20	54	-17.80	Horizontal
9748.000	9.91	37.76	37.85	27.36	37.18	54	-16.82	Horizontal
11193.220	10.32	38.12	38.32	29.15	39.27	54	-14.73	Horizontal

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Test mode:	802.11n	(HT20)	Test cha	ınnel:	Highest	Remark:	F	'eak
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
3759.672	6.82	33.12	38.85	51.65	52.74	74	-21.26	Vertical
4924.000	6.68	34.82	39.28	49.90	52.12	74	-21.88	Vertical
6069.413	8.06	36.22	39.18	50.57	55.67	74	-18.33	Vertical
7386.000	9.16	35.44	39.05	49.19	54.74	74	-19.26	Vertical
9848.000	9.85	38.06	37.79	45.44	55.56	74	-18.44	Vertical
11860.170	10.55	38.56	38.64	46.47	56.94	74	-17.06	Vertical
3558.534	6.94	32.96	38.77	49.33	50.46	74	-23.54	Horizontal
4924.000	6.68	34.82	39.28	48.68	50.90	74	-23.10	Horizontal
6087.002	8.06	36.20	39.17	49.49	54.58	74	-19.42	Horizontal
7386.000	9.16	35.44	39.05	48.59	54.14	74	-19.86	Horizontal
9848.000	9.85	38.06	37.79	45.09	55.21	74	-18.79	Horizontal
11225.660	10.33	38.12	38.33	45.43	55.55	74	-18.45	Horizontal

Test mode:	802.11	In (HT20)	Test cha	nnel:	Highest	Remark:		Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBµV)	Level	Limit (dBμV/m)	Over Limit (dB)	Polarization
3759.672	6.82	33.12	38.85	32.85	33.94	54	-20.06	Vertical
4924.000	6.68	34.82	39.28	30.65	32.87	54	-21.13	Vertical
6069.413	8.06	36.22	39.18	31.60	36.70	54	-17.30	Vertical
7386.000	9.16	35.44	39.05	30.69	36.24	54	-17.76	Vertical
9848.000	9.85	38.06	37.79	26.98	37.10	54	-16.90	Vertical
11860.170	10.55	38.56	38.64	27.90	38.37	54	-15.63	Vertical
3558.534	6.94	32.96	38.77	30.67	31.80	54	-22.20	Horizontal
4924.000	6.68	34.82	39.28	29.69	31.91	54	-22.09	Horizontal
6087.002	8.06	36.20	39.17	30.89	35.98	54	-18.02	Horizontal
7386.000	9.16	35.44	39.05	30.12	35.67	54	-18.33	Horizontal
9848.000	9.85	38.06	37.79	26.23	36.35	54	-17.65	Horizontal
11225.660	10.33	38.12	38.33	26.31	36.43	54	-17.57	Horizontal

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Test mode:	802.11	In (HT40)	Test cha	innel:	Lowest	Remark:	F	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
3417.246	7.13	32.80	38.70	48.03	49.26	74	-24.74	Vertical
4844.000	6.51	34.74	39.25	48.63	50.63	74	-23.37	Vertical
5982.226	8.05	36.27	39.19	49.78	54.91	74	-19.09	Vertical
7266.000	9.00	35.57	39.06	49.12	54.63	74	-19.37	Vertical
9688.000	9.94	37.57	37.88	45.70	55.33	74	-18.67	Vertical
11723.670	10.49	38.43	38.57	46.11	56.46	74	-17.54	Vertical
3427.149	7.11	32.81	38.71	48.25	49.46	74	-24.54	Horizontal
4844.000	6.51	34.74	39.25	49.03	51.03	74	-22.97	Horizontal
5964.939	8.03	36.23	39.19	50.38	55.45	74	-18.55	Horizontal
7266.000	9.00	35.57	39.06	49.28	54.79	74	-19.21	Horizontal
9688.000	9.94	37.57	37.88	46.58	56.21	74	-17.79	Horizontal
11894.540	10.56	38.60	38.65	46.92	57.43	74	-16.57	Horizontal

Test mode:	802.11	In (HT40)	Test cha	nnel:	Lowest	Remark:	A	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB _µ V)	Level	Limit (dBμV/m)	Over Limit (dB)	Polarization
3417.246	7.13	32.80	38.70	29.64	30.87	54	-23.13	Vertical
4844.000	6.51	34.74	39.25	29.87	31.87	54	-22.13	Vertical
5982.226	8.05	36.27	39.19	30.55	35.68	54	-18.32	Vertical
7266.000	9.00	35.57	39.06	30.58	36.09	54	-17.91	Vertical
9688.000	9.94	37.57	37.88	26.98	36.61	54	-17.39	Vertical
11723.670	10.49	38.43	38.57	28.11	38.46	54	-15.54	Vertical
3427.149	7.11	32.81	38.71	29.64	30.85	54	-23.15	Horizontal
4844.000	6.51	34.74	39.25	30.61	32.61	54	-21.39	Horizontal
5964.939	8.03	36.23	39.19	31.24	36.31	54	-17.69	Horizontal
7266.000	9.00	35.57	39.06	30.68	36.19	54	-17.81	Horizontal
9688.000	9.94	37.57	37.88	27.65	37.28	54	-16.72	Horizontal
11894.540	10.56	38.60	38.65	27.85	38.36	54	-15.64	Horizontal

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Test mode:	802.11	In (HT40)	Test cha	innel:	Middle	Remark:	F	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
3437.081	7.09	32.82	38.71	48.10	49.30	74	-24.70	Vertical
4874.000	6.57	34.77	39.26	48.84	50.92	74	-23.08	Vertical
6051.874	8.07	36.24	39.18	49.34	54.47	74	-19.53	Vertical
7311.000	9.06	35.52	39.06	48.53	54.05	74	-19.95	Vertical
9748.000	9.91	37.76	37.85	45.61	55.43	74	-18.57	Vertical
11791.720	10.52	38.49	38.60	46.73	57.14	74	-16.86	Vertical
3477.098	7.01	32.87	38.73	47.79	48.94	74	-25.06	Horizontal
4874.000	6.57	34.77	39.26	48.04	50.12	74	-23.88	Horizontal
5999.562	8.08	36.30	39.18	49.95	55.15	74	-18.85	Horizontal
7311.000	9.06	35.52	39.06	48.55	54.07	74	-19.93	Horizontal
9748.000	9.91	37.76	37.85	44.99	54.81	74	-19.19	Horizontal
12102.870	10.77	38.83	38.79	46.07	56.88	74	-17.12	Horizontal

Test mode:	802.11	n (HT40)	Test cha	ınnel:	Middle	Remark:		Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBµV)	Level	Limit (dB _µ V/m)	Over Limit (dB)	Polarization
3437.081	7.09	32.82	38.71	29.61	30.81	54	-23.19	Vertical
4874.000	6.57	34.77	39.26	29.69	31.77	54	-22.23	Vertical
6051.874	8.07	36.24	39.18	30.65	35.78	54	-18.22	Vertical
7311.000	9.06	35.52	39.06	29.87	35.39	54	-18.61	Vertical
9748.000	9.91	37.76	37.85	26.98	36.80	54	-17.20	Vertical
11791.720	10.52	38.49	38.60	28.12	38.53	54	-15.47	Vertical
3477.098	7.01	32.87	38.73	28.69	29.84	54	-24.16	Horizontal
4874.000	6.57	34.77	39.26	29.66	31.74	54	-22.26	Horizontal
5999.562	8.08	36.30	39.18	30.63	35.83	54	-18.17	Horizontal
7311.000	9.06	35.52	39.06	29.58	35.10	54	-18.90	Horizontal
9748.000	9.91	37.76	37.85	26.58	36.40	54	-17.60	Horizontal
12102.870	10.77	38.83	38.79	27.65	38.46	54	-15.54	Horizontal

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Test mode:	802.11	In (HT40)	Test cha	ınnel:	Highest	Remark:	F	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
3348.720	7.26	32.65	38.67	47.85	49.09	74	-24.91	Vertical
4904.000	6.64	34.81	39.27	48.13	50.31	74	-23.69	Vertical
6034.386	8.07	36.26	39.18	49.68	54.83	74	-19.17	Vertical
7356.000	9.12	35.47	39.05	49.25	54.79	74	-19.21	Vertical
9808.000	9.88	37.94	37.81	45.31	55.32	74	-18.68	Vertical
11588.750	10.43	38.29	38.51	46.52	56.73	74	-17.27	Vertical
3377.918	7.20	32.72	38.69	48.76	49.99	74	-24.01	Horizontal
4904.000	6.64	34.81	39.27	49.17	51.35	74	-22.65	Horizontal
5999.562	8.08	36.30	39.18	50.40	55.60	74	-18.40	Horizontal
7356.000	9.12	35.47	39.05	49.56	55.10	74	-18.90	Horizontal
9808.000	9.88	37.94	37.81	45.89	55.90	74	-18.10	Horizontal
11689.790	10.47	38.39	38.56	46.67	56.97	74	-17.03	Horizontal

Test mode:	802.11	n (HT40)	Test cha	ınnel:	Highest	Remark:	,	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dBµV)	Level	Limit (dBμV/m)	Over Limit (dB)	Polarization
3348.720	7.26	32.65	38.67	28.95	30.19	54	-23.81	Vertical
4904.000	6.64	34.81	39.27	29.57	31.75	54	-22.25	Vertical
6034.386	8.07	36.26	39.18	30.59	35.74	54	-18.26	Vertical
7356.000	9.12	35.47	39.05	30.81	36.35	54	-17.65	Vertical
9808.000	9.88	37.94	37.81	26.95	36.96	54	-17.04	Vertical
11588.750	10.43	38.29	38.51	27.88	38.09	54	-15.91	Vertical
3377.918	7.20	32.72	38.69	29.65	30.88	54	-23.12	Horizontal
4904.000	6.64	34.81	39.27	30.57	32.75	54	-21.25	Horizontal
5999.562	8.08	36.30	39.18	31.25	36.45	54	-17.55	Horizontal
7356.000	9.12	35.47	39.05	30.98	36.52	54	-17.48	Horizontal
9808.000	9.88	37.94	37.81	26.87	36.88	54	-17.12	Horizontal
11689.790	10.47	38.39	38.56	27.90	38.20	54	-15.80	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) 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. The amplitude of spurious emissions from the radiator which are attenuated more than 20dB below the limit need not be reported.

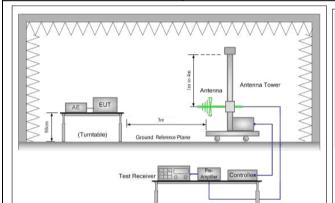


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6.9 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15C Section 1	5.209 and 15.205	
Test Method:	ANSI C63.10 2009		
Test Site:	Measurement Distance: 3m	n (Semi-Anechoic Chambe	er)
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 1GHz	54.0	Average Value
	74.0		Peak Value
Test Setup:		_	



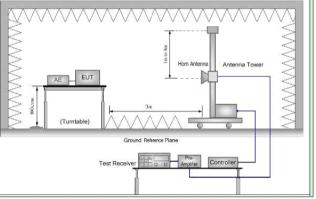


Figure 1. 30MHz to 1GHz

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 are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it is worse case.			
	 Repeat above procedures until all frequencies measured was complete. 			
Exploratory Test Mode:	AC adapter supply+TX mode			
Instruments Used:	Refer to section 5.10 for details			
Test Results:	Pass			



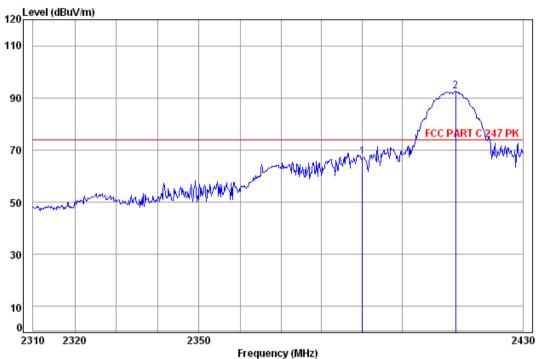
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Test plot as follows:

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





Site : chamber

Condition: FCC PART C 247 PK 3m Vertical

Job No: : 5466RF

Mode: : 2412 B Band edge

	Freq						Limit Line	
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 pp	2390.00 2413.20							



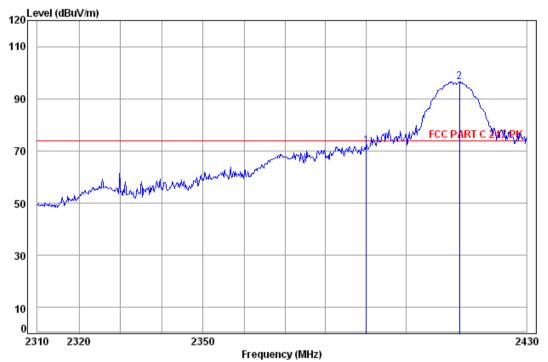


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Test mod	le: 802.11b	Test channel:	Lowest	Remark:	Peak	Horizontal
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Site : chamber

Condition: FCC PART C 247 PK 3m Horizontal

Job No: : 5466RF

Mode: : 2412 B Band edge

	Freq						Limit Line	
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 pp	2390.00 2413.20							

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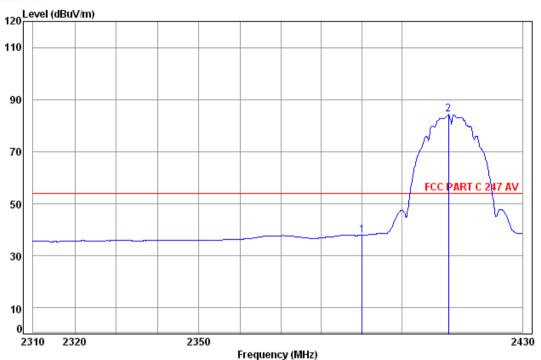


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Test mode:	802.11b	Test channel:	Lowest	Remark:	Average	Vertical
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Site : chamber

Condition: FCC PART C 247 AV 3m Vertical

Job No: : 5466RF

Mode: : 2412 B Band edge

				Preamp Factor			Freq	
dB	dBuV/m	dBuV/m	dBuV	dB	dB/m	dB	MHz	-
							2390.00 2411.49	1 2 pp

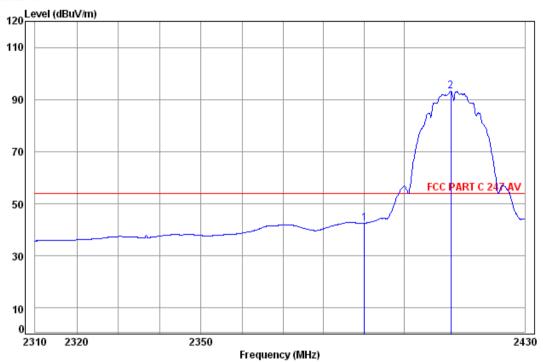


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Test mode:	802.11b	Test channel:	Lowest	Remark:	Average	Horizontal	ı
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Site : chamber

Condition: FCC PART C 247 AV 3m Horizontal

Job No: : 5466RF

Mode: : 2412 B Band edge

Cable Ant Preamp Read Limit 0ver Loss Factor Factor Freq Level Level Line Limit MHz dBuV dBuV/m dBuV/m dΒ dB/m 2390.00 4.90 32.35 38.46 43.82 42.61 54.00 -11.39 4.93 32.41 38.46 94.23 93.11 54.00 39.11 2 pp 2411.49

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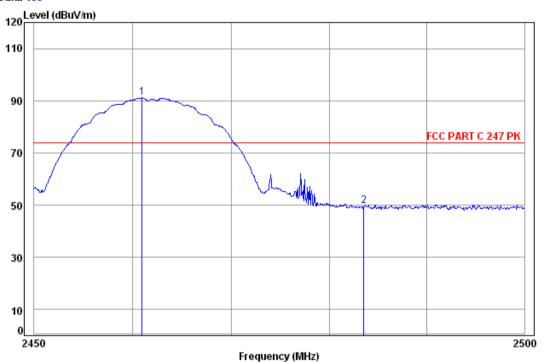


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Test mode: 802.1	1b Test channel:	Highest	Remark:	Peak	Vertical	l
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Data: 153



Site : chamber

Condition: FCC PART C 247 PK 3m Vertical

Job No: : 5466RF

Mode: : 2462 B Band edge

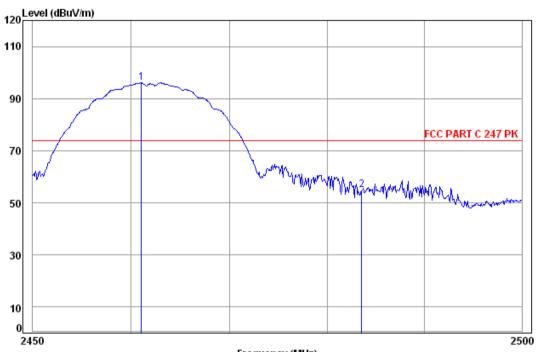
	Freq			Preamp Factor				
_	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
	2460.91							
2	2483.50	5.03	32.44	38.47	50.81	49.81	74.00	-24.19



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Data: 155



Frequency (MHz)

Site : chamber

Condition: FCC PART C 247 PK 3m Horizontal

Job No: : 5466RF

Mode: : 2462 B Band edge

Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Level Line Limit MHz dΒ dB/m dBuV dBuV/m dBuV/m 2461.01 5.00 32.43 38.46 97.07 96.04 74.00 22.04 2483.50 5.03 32.44 38.47 55.77 54.77 74.00 - 19.23

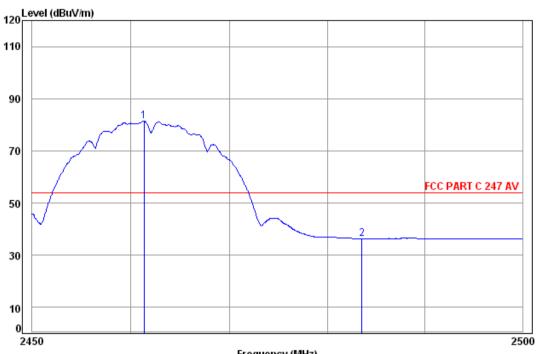


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Test mode:	802.11b	Test channel:	Highest	Remark:	Average	Vertical
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Data: 154



Frequency (MHz)

Site : chamber

Condition: FCC PART C 247 AV 3m Vertical

Job No: : 5466RF

Mode: : 2462 B Band edge

	Freq			Preamp Factor				
_	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
	2461.31 2483.50							

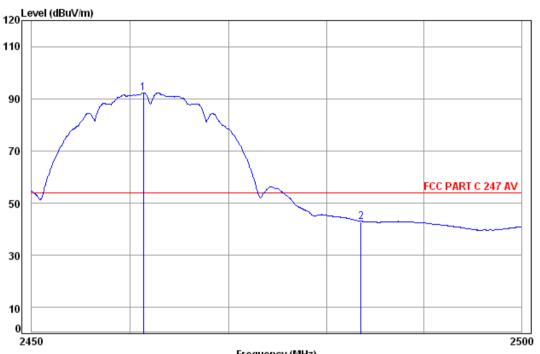


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Te	est mode:	802.11b	Test channel:	Highest	Remark:	Average	Horizontal	
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Frequency (MHz)

Site : chamber

Condition: FCC PART C 247 AV 3m Horizontal

Job No: : 5466RF

Mode: : 2462 B Band edge

	Freq			Preamp Factor				
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 рр	2461.31	5.00	32.43	38.46	93.38	92.35	54.00	38.35
2	2483.50	5.03	32.44	38.47	43.81	42.81	54.00	-11.19

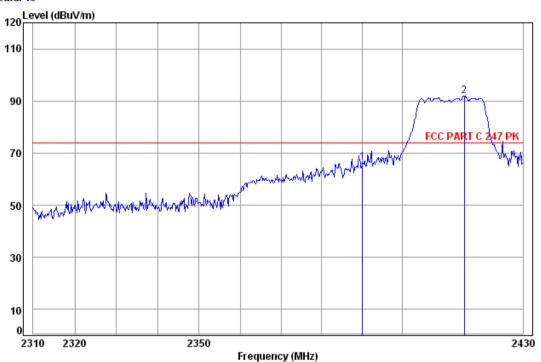


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Test mode: 802.11g	Test channel:	Lowest	Remark:	Peak	Vertical	
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Site : chamber

Condition: FCC PART C 247 PK 3m Vertical

Job No: : 5466RF

Mode: : 2412 G Band edge

		Cable	Ant	Preamp	Read		Limit	0∨er
	Freq	Loss	Factor	Factor	Le∨el	Level	Line	Limit
_								
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	2390.00	4.90	32.35	38.46	67.62	66.41	74.00	-7.59
2 pp	2415.28	4.94	32.42	38.46	93.11	92.01	74.00	18.01

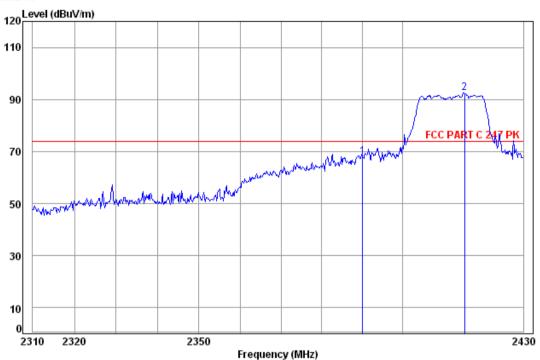


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Test mode: 802.11g Test channel: Lowest Remark: F	Peak	Horizontal
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Data: 15



Site : chamber

Condition: FCC PART C 247 PK 3m Horizontal

Job No: : 5466RF

Mode: : 2412 G Band edge

	Freq			Preamp Factor				
_	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 pp	2390.00 2415.28							

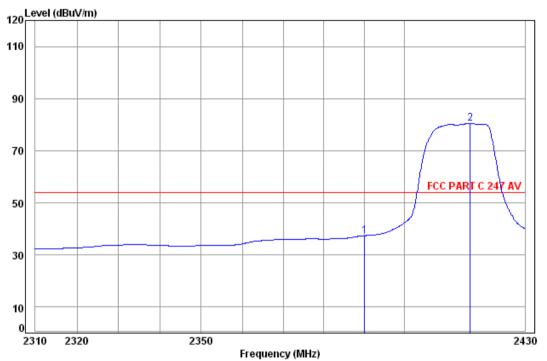


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Test mode:	802.11g	Test channel:	Lowest	Remark:	Average	Vertical
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Site : chamber

Condition: FCC PART C 247 AV 3m Vertical

Job No: : 5466RF

Mode: : 2412 G Band edge

Cable Ant Preamp Read Limit 0∨er Loss Factor Factor Level Le∨el Line Limit MHz dB/m dBuV dBuV/m dBuV/m 2390.00 38.65 1 4.90 32.35 38.46 37.44 54.00 -16.56 2416.26 4.94 32.42 38.46 81.58 80.48 54.00 26.48



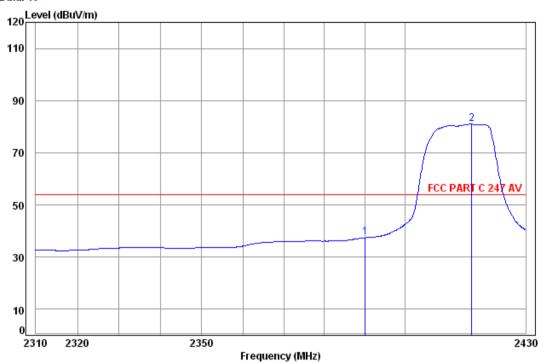


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Test mode:	802.11g	Test channel:	Lowest	Remark:	Average	Horizontal
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Data: 16



Site : chamber

Condition: FCC PART C 247 AV 3m Horizontal

Job No: : 5466RF

1

Mode: : 2412 G Band edge

Cable Limit 0ver Ant Preamp Read Le∨el Loss Factor Factor Level Line Limit Freq MHz dΒ dB/m dΒ dBuV dBuV/m dBuV/m 2390.00 4.90 32.35 38.46 38.66 37.45 54.00 - 16.55 2 pp 2416.50 4.94 32.42 38.46 82.05 80.95 54.00 26.95

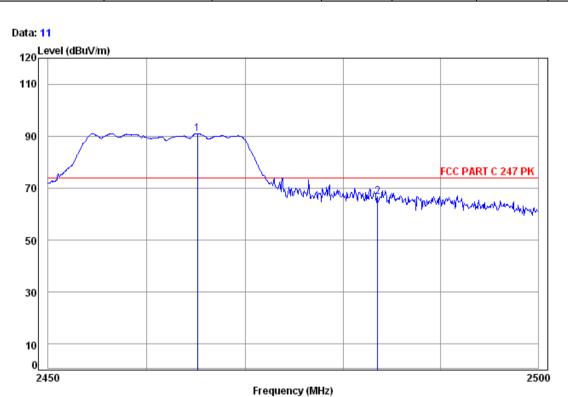
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Test mode: 802.1	g Test channel:	Highest	Remark:	Peak	Vertical	
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Site : chamber

Condition: FCC PART C 247 PK 3m Vertical

Job No: : 5466RF

Mode: : 2462 G Band edge

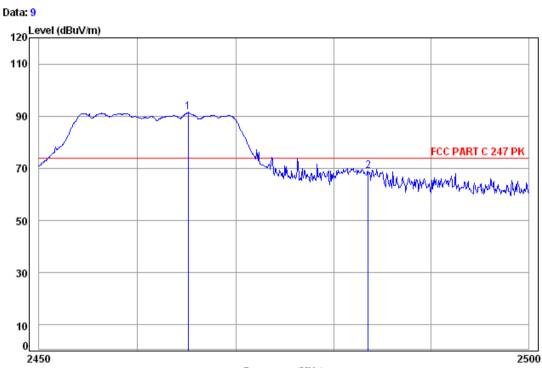
Cable Ant Preamp Read limit Over Freq Loss Factor Factor Level Level Line Limit MHz dΒ dBuV dBuV/m dBuV/m dB/m dΒ 2465.14 5.00 32.43 38.46 92.08 91.05 74.00 17.05 2483.50 5.03 32.44 38.47 67.76 66.76 74.00 -7.24



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Test mode:	802.11g	Test channel:	Highest	Remark:	Peak	Horizontal
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Frequency (MHz)

Site : chamber

Condition: FCC PART C 247 PK 3m Horizontal

Job No: : 5466RF

Mode: : 2462 G Band edge

ouc.	. 240	2 3 54	114 646	_				
		Cable	Ant	Preamp	Read		Limit	0∨er
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
_	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
			,			,	,	
1 рр	2465.14	5.00	32.43	38.46	92.42	91.39	74.00	17.39
2	2483 50							

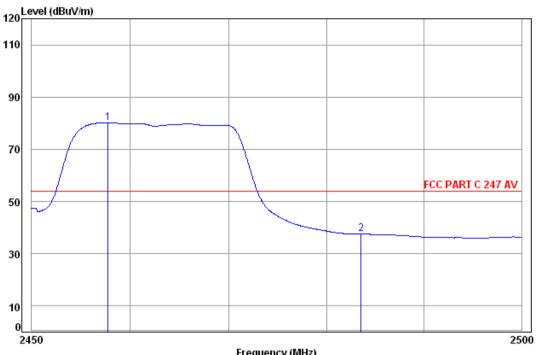


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Test mode:	802.11g	Test channel:	Highest	Remark:	Average	Vertical
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Data: 12



Frequency (MHz)

Site : chamber

Condition: FCC PART C 247 AV 3m Vertical

Job No: : 5466RF

Mode: : 2462 G Band edge

Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Level Line Limit MHz dΒ dB/m dBuV dBuV/m dBuV/m 4.99 38.46 81.20 80.16 54.00 26.16 2457.73 32.43 1 pp 2483.50 5.03 32.44 38.47 38.52 37.52 54.00 -16.48

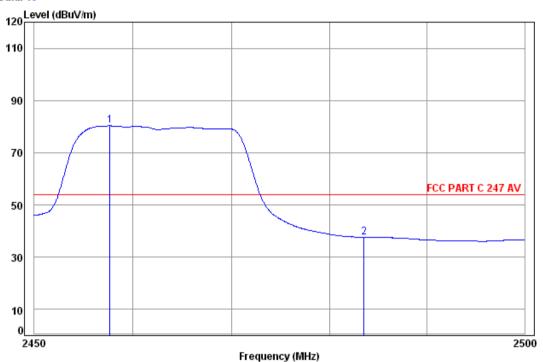


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Test mode: 802.11g Test channel: Highest Rema	k: Average Horizontal
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Site : chamber

Condition: FCC PART C 247 AV 3m Horizontal

Job No: : 5466RF

Mode: : 2462 G Band edge

	Freq			Preamp Factor				
_	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
	2457.63 2483.50							

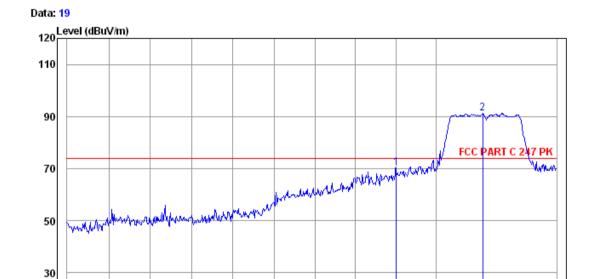


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2430

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

Site : chamber

2310

10

Condition: FCC PART C 247 PK 3m Vertical

Job No: : 5466RF

Mode: : 2412 N20 Band edge

2320

Cable Ant Preamp Limit 0ver Read Freq Loss Factor Factor Level Level Line Limit MHz dBuV dBuV/m dBuV/m dB dB/m dΒ 2390.00 4.90 32.35 38.46 71.57 70.36 74.00 -3.64 2 pp 2411.49 4.93 32.41 38.46 92.26 91.14 74.00 17.14

2350

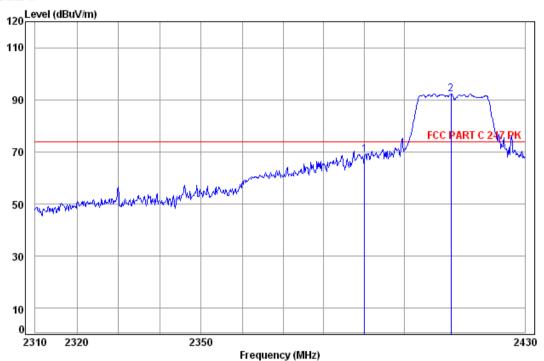


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rest mode: 802.11h (H120) rest channel: Lowest Remark: Peak Horizontal	Test mode:	802.11n (HT20)	Test channel:	Lowest	Remark:	Peak	Horizontal
------------------------------------------------------------------------------------	------------	----------------	---------------	--------	---------	------	------------

Data: 17



Site : chamber

Condition: FCC PART C 247 PK 3m Horizontal

Job No: : 5466RF

Mode: : 2412 N20 Band edge

	Freq						Limit Line	
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 pp	2390.00 2411.49							

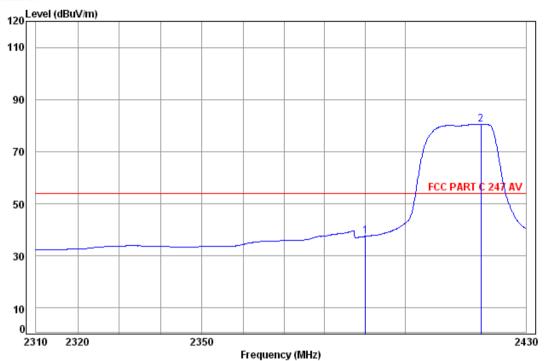


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Test mode: 802.11n (HT20) Test channel:	Lowest	Remark:	Average	Vertical	l
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Site : chamber

Condition: FCC PART C 247 AV 3m Vertical

Job No: : 5466RF

Mode: : 2412 N20 Band edge

	Freq			Preamp Factor				0∨er Limit
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 pp	2390.00 2418.70							

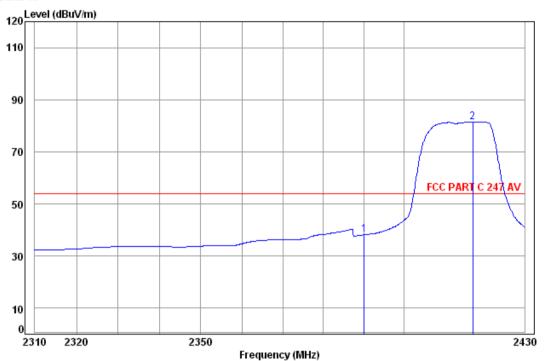


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Test mode:	802.11n (HT20)	Test channel:	Lowest	Remark:	Average	Horizontal
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Site : chamber

Condition: FCC PART C 247 AV 3m Horizontal

Job No: : 5466RF

Mode: : 2412 N20 Band edge

	Freq			Preamp Factor				
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 2 pp	2390.00 2416.99							

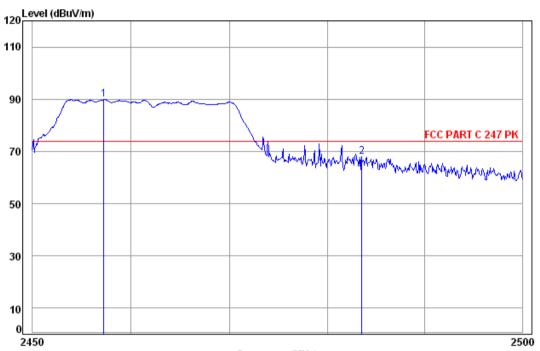


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Test mode:	802.11n (HT20)	Test channel:	Highest	Remark:	Peak	Vertical
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Data: 21



Frequency (MHz)

Site : chamber

Condition: FCC PART C 247 PK 3m Vertical

Job No: : 5466RF

1 pp

Mode: : 2462 N20 Band edge

				Preamp Factor			Freq
dB	dBuV/m	dBuV/m	dBuV	dB	dB/m	dB	MHz
							2457.24 2483.50



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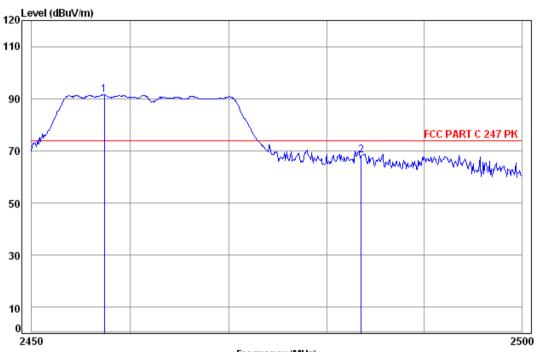


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Test mode:	802.11n (HT20)	Test channel:	Highest	Remark:	Peak	Horizontal	
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Data: 23



Frequency (MHz)

Site : chamber

Condition: FCC PART C 247 PK 3m Horizontal

Job No: : 5466RF

1 2

Mode: : 2462 N20 Band edge

	Freq			Preamp Factor				
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
рр	2457.34 2483.50							

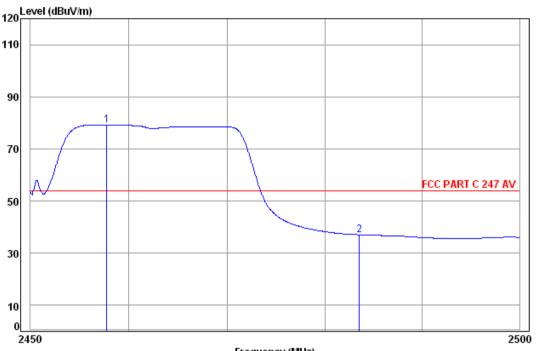


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Test mode:	802.11n (HT20)	Test channel:	Highest	Remark:	Average	Vertical
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Data: 22



Frequency (MHz)

Site : chamber

Condition: FCC PART C 247 AV 3m Vertical

Job No: : 5466RF

Mode: : 2462 N20 Band edge

	Freq			Preamp Factor				
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
	2457.73 2483.50							

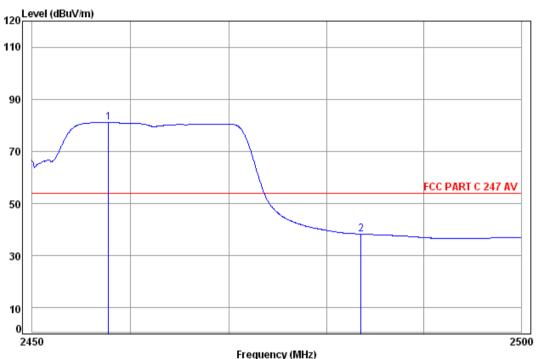


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Test mode:	802.11n (HT20)	Test channel:	Highest	Remark:	Average	Horizontal	I
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Data: 24



Site : chamber

Condition: FCC PART C 247 AV 3m Horizontal

Job No: : 5466RF

Mode: : 2462 N20 Band edge

Cable Ant Preamp Read Limit 0ver Loss Factor Factor Limit Freq Level Level Line MHz dΒ dBuV dBuV/m dBuV/m dB/m dΒ 4.99 32.43 38.46 82.05 2457.73 81.01 54.00 27.01 2483.50 5.03 32.44 38.47 39.28 38.28 54.00 -15.72

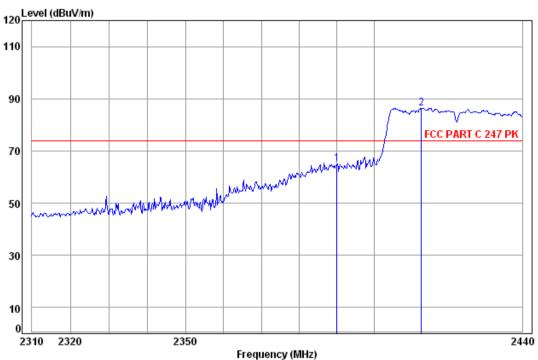


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Test mode: 802.11n (HT40)	Test channel:	Lowest	Remark:	Peak	Vertical	
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Site : chamber

Condition: FCC PART C 247 PK 3m Vertical

: 5466RF Job No:

1

Mode: : 2422 N40 Band edge

Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Level Limit Freq Line MHz dBuV dBuV/m dBuV/m dB dB/m 2390.00 4.90 32.35 38.46 66.26 65.05 74.00 -8.95 2 pp 2412.64 4.93 32.41 38.46 87.55 86.43 74.00 12.43

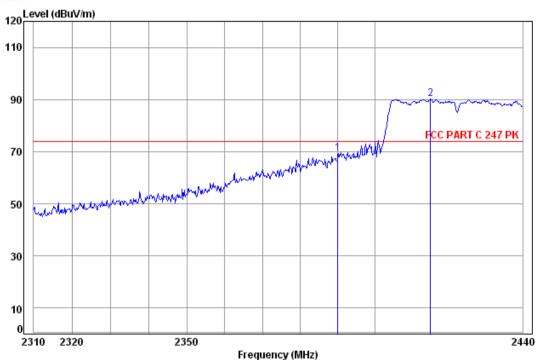


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Test mode:	802.11n (HT40)	Test channel:	Lowest	Remark:	Peak	Horizontal





Site : chamber

Condition: FCC PART C 247 PK 3m Horizontal

Job No: : 5466RF

1

Mode: : 2422 N40 Band edge

Cable Ant Preamp Limit 0ver Read Loss Factor Factor Limit Frea Level Level Line MHz dBuV dBuV/m dBuV/m dB dB/m dB dB 2390.00 4.90 32.35 38.46 70.65 69.44 74.00 -4.56 38.46 2 pp 2415.01 4.94 32.42 91.21 90.11 74.00

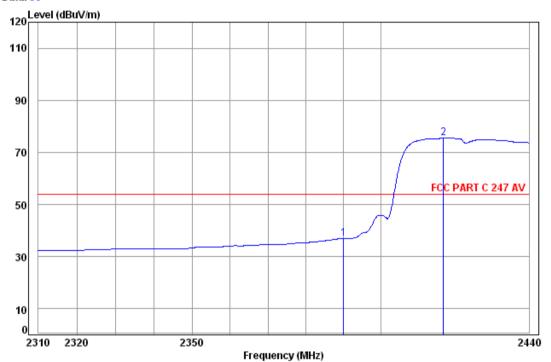


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Test mode	: 802.11n (HT40)	Test channel:	Lowest	Remark:	Average	Vertical
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Site : chamber

Condition: FCC PART C 247 AV 3m Vertical

Job No: : 5466RF

1

Mode: : 2422 N40 Band edge

	Freq			Preamp Factor				
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
	2390.00	4.90	32.35	38.46	38.18	36.97	54.00	- 17.03
pp	2416.87	4.94	32.42	38.46	76.51	75.41	54.00	21.41

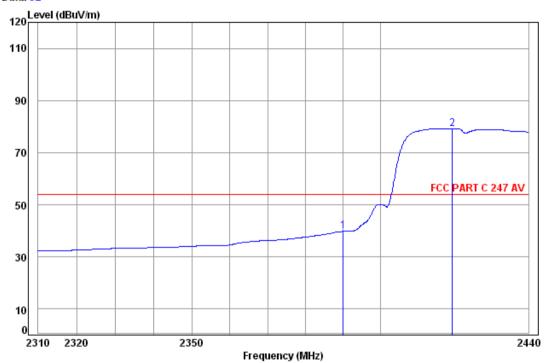


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Test mode:	802.11n (HT40)	Test channel:	Lowest	Remark:	Average	Horizontal	l
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Data: 32



Site : chamber

Condition: FCC PART C 247 AV 3m Horizontal

Job No: : 5466RF

Mode: : 2422 N40 Band edge

Cable Ant Preamp Read Limit 0ver Loss Factor Factor Frea Level Level Line Limit dBuV dBuV/m dBuV/m MHz dΒ dB/m dΒ 4.90 32.35 2390.00 38.46 40.98 39.77 54.00 - 14.23 2 pp 2419.38 4.94 32.42 38.46 80.27 79.17 54.00 25.17

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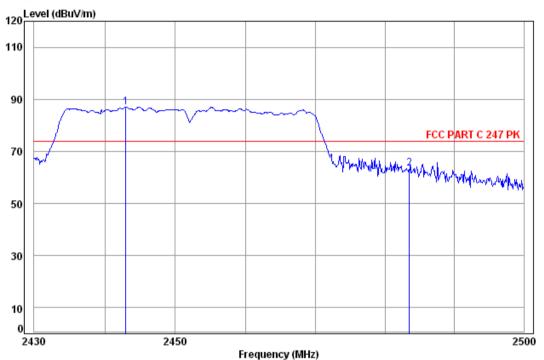


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rest mode. 602.1111 (11140) rest onarmor. riighest Romant. reak Vertical		Test mode:	802.11n (HT40)	Test channel:	Highest	Remark:	Peak	Vertical
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Site : chamber

Condition: FCC PART C 247 PK 3m Vertical

Job No: : 5466RF

Mode: : 2452 N40 Band edge

	Freq			Preamp Factor				
_	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 рр	2442.94	4.97	32.43	38.46	88.01	86.95	74.00	12.95
2	2483 50	5 03	32 44	38 47	64 50	63 50	74 00	- 10 50

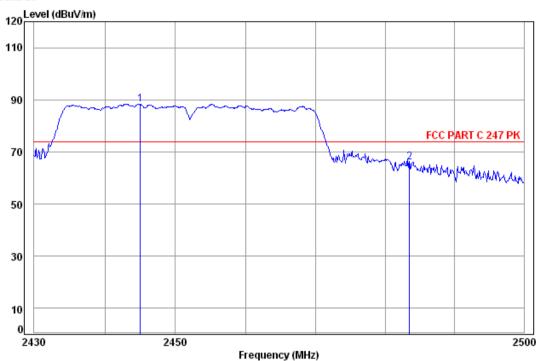


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Test mode:	802.11n (HT40)	Test channel:	Highest	Remark:	Peak	Horizontal





Site : chamber

Condition: FCC PART C 247 PK 3m Horizontal

Job No: : 5466RF

Mode: : 2452 N40 Band edge

	Freq						Limit Line	
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	2445.02 2483.50						74.00 74.00	

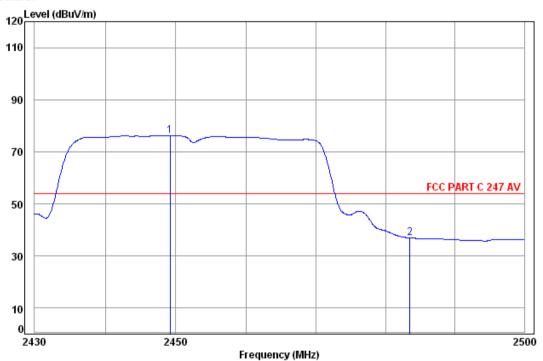


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Test mode:	802.11n (HT40)	Test channel:	Highest	Remark:	Average	Vertical	l
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Data: 28



Site : chamber

Condition: FCC PART C 247 AV 3m Vertical

Job No: : 5466RF

Mode: : 2452 N40 Band edge

Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Limit Freq Le∨el Line MHz dΒ dB/m dΒ dBuV dBuV/m dBuV/m 2449.19 4.98 32.43 38.46 77.**1**5 76.10 54.00 22.10 2483.50 5.03 32.44 38.47 37.89 36.89 54.00 -17.11



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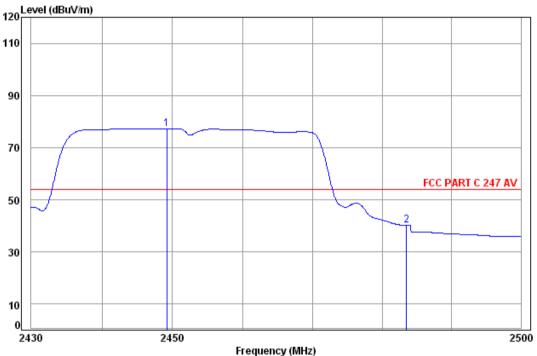


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Test mode:	802.11n (HT40)	Test channel:	Highest	Remark:	Average	Horizontal	l
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Site : chamber

Condition: FCC PART C 247 AV 3m Horizontal

Job No: : 5466RF

Mode: : 2452 N40 Band edge

				Preamp Factor			Freq	
dB	dBuV/m	dBuV/m	dBuV	dB	dB/m	dB	MHz	-
							2449.19 2483.50	рр

Note:

1 2

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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