

Report No.: SZEM141100618205

No. 1 Workshop, M-10, Middle section, Science & Technology Park, Nanshan

District, Shenzhen, Guangdong, China 518057

Telephone: +86 (0) 755 2601 2053 Fax: +86 (0) 755 2671 0594

Email: ee.shenzhen@sgs.com Page: 1 of 52

# **FCC REPORT**

Application No: SZEM1411006182CR
Applicant: NVIDIA Corporation
Manufacturer: NVIDIA Corporation
Factory: MEGAFORCE CORP
Product Name: Development Platform

Model No.(EUT): P1860
Trade Mark: NVIDIA

FCC ID: VOB-P1860

Standards: 47 CFR Part 15, Subpart E (2014)

**Date of Receipt:** 2014-11-13

**Date of Test:** 2015-02-09 to 2015-02-15

**Date of Issue:** 2015-03-25

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		2015-03-25		Original	

Authorized for issue by:		
Tested By	Chros Thong	2015-02-15
	(Chris Zhong) /Project Engineer	Date
Prepared By	Vivi Zhou	2015-03-25
	(Vivi Zhou) /Clerk	Date
Checked By	Owen 2hon	2015-03-25
	(Owen Zhou) /Reviewer	Date



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# 3 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15 Section 15.203	ANSI C63.10: 2009	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Section 15.207	ANSI C63.10: 2009	PASS
Duty Cycle	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	ANSI C63.10: 2009	ı
Conducted Peak Output Power	47 CFR Part 15 Section 15.407(a)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS
6dB Occupied Bandwidth	47 CFR Part 15 Section 15.407(a)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS
26 dB Emission Bandwidth & 99% Occupied Bandwidth	47 CFR Part 15 Section 15.407(a)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS
Power Spectral Density	47 CFR Part 15 Section 15.407(a)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS
Radiated Spurious Emissions	47 CFR Part 15 Section 15.407(a)	FCC KDB 789033 D02 General UNIT Test Procedures New Rules v01	PASS
Restricted bands around fundamental frequency (Radiated Emission)	cy 4/ CFR Part 15 FCC KDB 789033 D02 General UNI		PASS





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### 5 General Information

#### 5.1 Client Information

Applicant:	NVIDIA Corporation	
Address of Applicant:	2701 San Tomas Expressway, Santa Clara, CA 95050, USA	
Manufacturer:	NVIDIA Corporation	
Address of Manufacturer:	2701 San Tomas Expressway, Santa Clara, CA 95050, USA	
Factory:	MEGAFORCE CORP	
Address of Factory:	2035 OTOOLE AVE, San Jose CA 95131-1301, USA	

# 5.2 General Description of EUT

Product Name:	Development Platform	
Model No.:	P1860	
Trade Mark:	NVIDIA	
Operation Frequency:	IEEE 802.11a/ n(HT20/40): 5150MHz to 5250MHz IEEE 802.11a/ n(HT20/40): 5725MHz to 5850MHz	
Type of Modulation:	IEEE for 802.11a: OFDM(BPSK/QPSK/16QAM/64QAM) IEEE for 802.11n : OFDM(BPSK/QPSK/16QAM/64QAM)	
Sample Type:	Mobile production	
Product Description:	Development Platform	
Antenna Type:	Integral	
Antenna Gain:	4dBi	
Number of transmitter chains	1	
Power Supply:	Input: AC100-240V 50/60Hz 1.2A Output: DC12V 6.25A MAX	
EUT Cables & Ports:	AC cable:140cm unshielded DC cable:120cm unshielded with 2 ferrite core. USB cable: 150cm shielded	



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Operation Frequency of channel				
Ba	Band I (5.15-5.25GHz)		Band IV(5.725-5.85 GHz)	
Channel	Frequency	Channel	Frequency	
36	5180MHz	149	5745MHz	
38	5190MHz	151	5755MHz	
40	5200MHz	153	5765MHz	
42	5210MHz	155	5775MHz	
44	5220MHz	157	5785MHz	
46	5230MHz	159	5795MHz	
48	5240MHz	161	5805MHz	
		165	5825MHz	

#### 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 802.11a/n(HT20):

Channel	Frequency	Channel	Frequency
36	5180MHz	149	5745
40	5200MHz	157	5785
48	5240MHz	165	5825

#### For 802.11 n(HT40):

Channel	Frequency	Channel	Frequency
38	5190MHz	151	5755
46	5230MHz	159	5795



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#### 5.3 Test Environment and Mode

Operating Environment:	Operating Environment:			
Temperature:	24.0 °C			
Humidity:	52 % RH			
Atmospheric Pressure:	1020 mbar			
Test mode:				
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.			

# 5.4 Description of Support Units

The EUT has been tested with associated equipment below.

Description	Manufacturer Model No.	
PC	DELL(Linux operating	PP18L
	system)	



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#### Cable:

No.	Description	Lengh	Screen
C1	Keyboard cable	150cm	Unshielded
C2	Mouse cable	120cm	Unshielded
C3	HDD USB cable	15cm	Unshielded
C7	Earphone	120cm	Unshielded
C9	HDMI cable	150cm	Unshielded
C10	Laptop DC cable	50cm	Unshielded with 1 ferrite core
C11	MITSUBISHI Television AC cable	120cm	Unshielded
C13	PC AC cable	120cm	Unshielded

Support units			
No.	Description	Manufacturer	Model No.
E-1	MITSUBISHI Television	MITSUBISHI	AX025
E-3	Removable hard disk	Supply by client	N/A
E-5	PC	Lenovo	T430u
E-6	Headphone	Supply by client	Unshielded
E-7	Keyboard	DELL	SK-8115
E-8	Mouse	Lenovo	MO28UOL
E-10	PC adapter	Lenovo	92P1158
E-11	USB stick	SanDisk	4G

#### 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 10m Semi-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.: G-823, R-4188, 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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# 5.10 Equipment 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 Meteorological Industry Factory	ZJ1-2B	SEL0103	2015-10-24		
11	Barometer	Chang Chun Meteorological Industry Factory	DYM3	SEL0088	2015-05-16		



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Test Equipment		RE in Chamber				
Chamber   ETS-LINDGREN   N/A   SEL0017   2015-06-06-06-06-06-06-06-06-06-06-06-06-06-	Item	Test Equipment	Manufacturer	Model No.	-	Cal.Due date (yyyy-mm-dd)
2	1		ETS-LINDGREN	N/A	SEL0017	2015-06-10
4         BiConiLog Antenna (26-3000MHz)         ETS-LINDGREN         3142C         SEL0015         2015-10-2015-10-2015-10-10-10-10-10-10-10-10-10-10-10-10-10-	2	EMI Test Receiver		N9038A	SEL0312	2015-09-16
Coaxial cable   SGS   N/A   SEL012   SEL0018   2015-05-05-05-05-05-05-05-05-05-05-05-05-05	3	EMI Test software	AUDIX	E3	SEL0050	N/A
S	4	_	ETS-LINDGREN	3142C	SEL0015	2015-10-24
6         (18-26GHz)         ETS-LINDGREN         3160         SEL0076         2015-10-10-10-10-10-10-10-10-10-10-10-10-10-	5	_	ETS-LINDGREN	3117	SEL0006	2015-10-24
7         (0.1-1300MHz)         Technologies         8447D         SEL0053         2015-05-05-05-05-05-05-05-05-05-05-05-05-05	6		ETS-LINDGREN	3160	SEL0076	2015-10-24
8         PIE-AIT IIII (0.1-26.5GHz)         Directions Systems Inc.         PAP-0126         SEL0168         2015-10-10-10-10-10-10-10-10-10-10-10-10-10-	7	·		8447D	SEL0053	2015-05-16
10         Coaxial cable         SGS         N/A         SEL0189         2015-05-10-10-10-10-10-10-10-10-10-10-10-10-10-	8	-	Directions Systems	PAP-0126	SEL0168	2015-10-24
11         Coaxial cable         SGS         N/A         SEL0121         2015-05-05-05-05-05-05-05-05-05-05-05-05-05	9	Coaxial cable	SGS	N/A	SEL0027	2015-05-29
12         Coaxial cable         SGS         N/A         SEL0178         2015-05-10-10-10-10-10-10-10-10-10-10-10-10-10-	10	Coaxial cable	SGS	N/A	SEL0189	2015-05-29
13         Band filter         Amindeon         82346         SEL0094         2015-05-1           14         Barometer         Chang Chun Meteorological Industry Factory         DYM3         SEL0088         2015-05-1           15         DC Power Supply         Zhao Xin         RXN-305D         SEL0117         2015-10-2           16         Humidity/Temperature Indicator         Shanhai Qixiang Meteorological Industry Factory         ZJ1-2B         SEL0103         2015-10-2           17         Signal Generator (10M-27GHz)         Rohde & Schwarz         SMR27         SEL0067         2015-05-1           18         Signal Generator         Rohde & Schwarz         SMY01         SEL0155         2015-10-2           19         Loop Antenna         Beijing Daze         ZN30401         SEL0203         2015-06-0           20         Horn Antenna(26.5GHz-40GHz)         A.H.Systems, inc.         SAS-573         SEL0349         2016-03-40GHz)	11	Coaxial cable	SGS	N/A	SEL0121	2015-05-29
14         Barometer         Chang Chun Meteorological Industry Factory         DYM3         SEL0088         2015-05-1           15         DC Power Supply         Zhao Xin         RXN-305D         SEL0117         2015-10-2           16         Humidity/ Temperature Indicator         Shanhai Qixiang Meteorological Industry Factory         ZJ1-2B         SEL0103         2015-10-2           17         Signal Generator (10M-27GHz)         Rohde & Schwarz         SMR27         SEL0067         2015-05-1           18         Signal Generator         Rohde & Schwarz         SMY01         SEL0155         2015-10-2           19         Loop Antenna         Beijing Daze         ZN30401         SEL0203         2015-06-0           19         Horn Antenna(26.5GHz- 40GHz)         A.H.Systems, inc.         SAS-573         SEL0349         2016-03-0	12	Coaxial cable	SGS	N/A	SEL0178	2015-05-29
Barometer Meteorological Industry Factory  DC Power Supply Zhao Xin RXN-305D SEL0117 2015-10-2  Humidity/ Temperature Indicator Shanhai Qixiang Meteorological Industry Factory  Signal Generator (10M-27GHz) Rohde & Schwarz SMR27 SEL0067 2015-05-1  Signal Generator Rohde & Schwarz SMY01 SEL0155 2015-10-2  Signal Generator Rohde & Schwarz SMY01 SEL0203 2015-06-0  Horn Antenna Beijing Daze ZN30401 SEL0203 2015-06-0  Antenna (26.5GHz-40GHz) A.H.Systems, inc. SAS-573 SEL0349 2016-03-	13	Band filter	Amindeon	82346	SEL0094	2015-05-16
16 Humidity/ Temperature Indicator Meteorological Industry Factory  17 Signal Generator (10M-27GHz)  18 Signal Generator Rohde & Schwarz SMR27 SEL0105 2015-10-2  19 Loop Antenna Beijing Daze ZN30401 SEL0203 2015-06-0  Horn Antenna(26.5GHz-40GHz)  A.H.Systems, inc. SAS-573 SEL0349 2016-03-	14	Barometer	Meteorological	DYM3	SEL0088	2015-05-16
Temperature Indicator Temperature Indicator  Meteorological Industry Factory  To Signal Generator (10M-27GHz)  Rohde & Schwarz  SMR27  SEL0103  2015-10-2  SEL0103  2015-10-2  SEL0103  2015-10-2  SEL0103  SEL0103  SEL0103  SEL0103  SEL0103  SEL0103  SEL0103  SEL0103  SEL0103  Antenna(26.5GHz-40GHz)  A.H.Systems, inc.  SAS-573  SEL0349  SEL0103  SEL0103	15	DC Power Supply	Zhao Xin	RXN-305D	SEL0117	2015-10-24
18         Signal Generator         Rohde & Schwarz         SMR27         SEL0067         2015-05-1           19         Loop Antenna         Beijing Daze         ZN30401         SEL0203         2015-06-0           Horn         Antenna(26.5GHz-40GHz)         A.H.Systems, inc.         SAS-573         SEL0349         2016-03-0	16		Meteorological	ZJ1-2B	SEL0103	2015-10-24
19         Loop Antenna         Beijing Daze         ZN30401         SEL0155         2015-10-2           40GHz         Horn Antenna(26.5GHz-40GHz)         A.H.Systems, inc.         SAS-573         SEL0349         2016-03-	17	· ·	Rohde & Schwarz	SMR27	SEL0067	2015-05-16
Horn 20 Antenna (26.5GHz- A.H.Systems, inc. SAS-573 SEL0349 2016-03-40GHz)	18	Signal Generator	Rohde & Schwarz	SMY01	SEL0155	2015-10-24
20 Antenna(26.5GHz- A.H.Systems, inc. SAS-573 SEL0349 2016-03-40GHz)	19	Loop Antenna	Beijing Daze	ZN30401	SEL0203	2015-06-04
	20	Antenna(26.5GHz-	A.H.Systems, inc.	SAS-573	SEL0349	2016-03-20
	21		•		SEL0350	2016-03-20
22 Spectrum Analyzer Rohde & Schwarz FSU43 SEL0270 2015-07-2	22	Spectrum Analyzer	Rohde & Schwarz	FSU43	SEL0270	2015-07-28



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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 Meteorological Industry Factory	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	
12	Spectrum Analyzer	Rohde & Schwarz	FSU43	SEL0270	2015-07-28	

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



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#### 6 Test results and Measurement Data

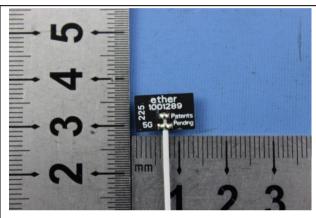
# 6.1 Antenna Requirement

**Standard requirement:** 47 CFR Part 15C Section 15.203

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.

#### **EUT Antenna:**





The antenna is integrated antenna and no consideration of replacement. The best case gain of the antenna is 4dBi.





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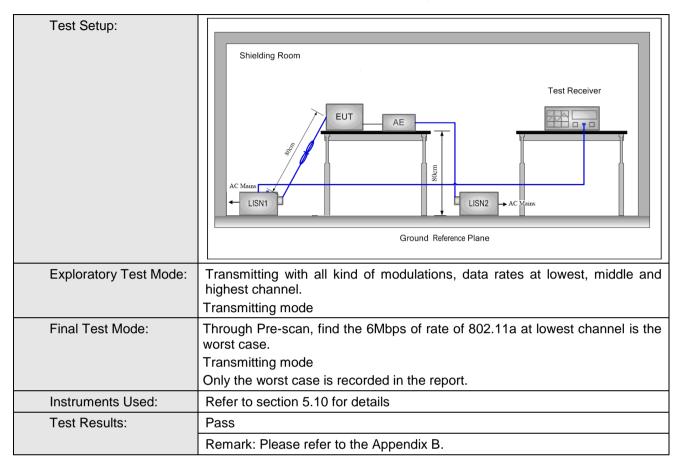
#### 6.2 Conducted Emissions

Test Requirement:	47 CFR Part 15C Section 15.207				
Test Method:	ANSI C63.10: 2009				
Test Frequency Range:	150kHz to 30MHz				
Limit:	Fragues average (MILIT)	Limit (c	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 logarithr	* Decreases with the logarithm of the frequency.			
Test Procedure:	The mains terminal disturb room.	oance voltage test was	conducted in a shie	lded	
	2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a $50\Omega/50\mu H + 5\Omega$ 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.				
	3) 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.				
	<ul> <li>4) 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.</li> <li>5) In order to find the maximum emission, the relative positions of equipment</li> </ul>			The bund f the SNs was ts of 2.	
	and all of the interface C63.10: 2009 on conductor		nged according to A	ANSI	



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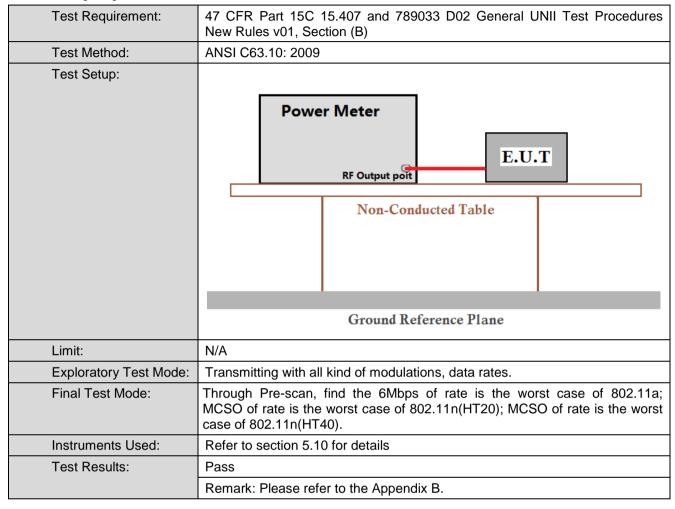




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# 6.3 Duty Cycle





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#### **Measurement Data**

	802.11a mode					
Test channel	On time	Period	Duty Cycle			
36	100	100	1			
	802.11n(HT20) mode					
Test channel	On time	Period	Duty Cycle			
36	100	100	1			
	802.11n(HT40) mode					
Test channel	On time	Period	Duty Cycle			
38	100	100	1			



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# **6.4 Conducted Output Power**

Test Requirement:	47 CFR Part 15C Section 15.407 (a)		
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v01 Section E,		
	3, a		
Test Setup:	Spectrum Analyzer		
	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:	Transmitting with all kind of modulations, data rates.		
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40).		
	Only the worst case is recorded in the report.		
Limit:	For 5.15GHz~5.25GHz band:24dBm		
	For 5.725GHz~5.85GHz band:30dBm		
Test Results:	Pass		
	Remark: 1. Please refer to the Attachment B.		
	2. Conducted output power= measurement power+10log(1/x)		
	X is duty cycle=1, so $10\log(1/1)=0$		
	Conducted output power= measurement power		

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Measurement Data of band I(5150-5250MHz)

	neasurement Bata of Sana (6100 0250m12)					
	802.11a mode					
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result			
36	6.20	24.00	Pass			
40	6.27	24.00	Pass			
48	5.77	24.00	Pass			
	802.11n(HT20) mod	е				
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result			
36	6.01	24.00	Pass			
40	6.05	24.00	Pass			
48	5.59	24.00	Pass			
	802.11n(HT40) mode					
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result			
38	4.34	24.00	Pass			
46	3.78	24.00	Pass			

Measurement Data of band IV(5725-5850MHz)

modeur official Bata of N	icasarcinent Bata of Bana 14(3725-3030M112)					
	802.11a mode					
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result			
149	5.28	30.00	Pass			
157	6.00	30.00	Pass			
165	6.07	30.00	Pass			
	802.11n(HT20) mod	le				
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result			
149	5.31	30.00	Pass			
157	6.04	30.00	Pass			
165	5.81	30.00	Pass			
802.11n(HT40) mode						
Test channel	Conducted Output Power (dBm)	Limit (dBm)	Result			
151	4.68	30.00	Pass			
159	4.85	30.00	Pass			

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## 6.5 26dB Emission Bandwidth and 99% Occupied Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.407 (a)		
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v01 Section C, 1 and Section D		
Test Setup:	Spectrum Analyzer  E.U.T  Non-Conducted Table  Ground Reference Plane		
Instruments Used:	Refer to section 5.10 for details		
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.		
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40).  Only the worst case is recorded in the report.		
Limit:	No restriction limits		
Test Results:	Pass		
Remark: Please refer to the Appendix B.			



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Measurement Data of band I(5150-5250MHz)

	802.11a mode				
Test channel	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)			
36	19.808	16.442			
40	19.567	16.442			
48	19.519	16.442			
	802.11n(HT20) mode				
Test channel	26dB Occupy Bandwidth (MHz)	99% Occupied Bandwidth (MHz)			
36	19.856	17.452			
40	19.904	17.452			
48	19.808 17.452				
	802.11n(HT40) mode				
Test channel	26dB Occupy Bandwidth (MHz)	99% Occupied Bandwidth (MHz)			
38	41.106	36.538			
46	41.106	36.538			

Measurement Data of band IV(5725-5850MHz)

	802.11a mode				
Test channel	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)			
149	19.519	16.442			
157	19.712	16.442			
165	19.615	16.442			
	802.11n(HT20) mode				
Test channel	26dB Occupy Bandwidth (MHz)	99% Occupied Bandwidth (MHz)			
149	19.808	17.452			
157	19.856	17.452			
165	19.760 17.452				
	802.11n(HT40) mode				
Test channel	26dB Occupy Bandwidth (MHz)	99% Occupied Bandwidth (MHz)			
151	41.026	36.458			
159	41.186	36.538			

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# 6.6 6dB Occupy Bandwidth

Test Requirement:	47 CFR Part 15C Section 15.407 (e)					
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01 KDB789033 D02 General UNII Test Procedures New Rules v01 Section C, 2					
Test Setup:	Spectrum Analyzer  E.U.T  Non-Conducted Table  Ground Reference Plane					
Instruments Used:	Refer to section 5.10 for details.					
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.					
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40).  Only the worst case is recorded in the report.					
Limit:	≥ 500 kHz					
Test Results:	Pass					
	Remark: Please refer to the Appendix B.					



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Measurement Data of band IV(5725-5850MHz)

	802.11a mode								
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result						
149	16.442	≥500	Pass						
157	16.490	≥500	Pass						
165	16.490	≥500	Pass						
	802.11n(HT20) mode								
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result						
149	17.019	≥500	Pass						
157	17.067	≥500	Pass						
165	17.067	≥500	Pass						
	802.11n(HT40) mode		•						
Test channel	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result						
151	36.619	≥500	Pass						
159	36.603	≥500	Pass						





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# 6.7 Power Spectral Density

Test Requirement:	47 CFR Part 15C Section 15.407 (a)						
Test Method:	KDB662911 D01 Multiple Transmitter Output v02r01						
	KDB789033 D02 General UNII Test Procedures New Rules v01, Section F						
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:	Transmitting with all kind of modulations, data rates.						
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40).  Only the worst case is recorded in the report.						
Limit:	≤11.00dBm/MHz for Operation in the band I(5150MHz-5250MHz)of device						
	≤30.00dBm/500KHz for Operation in the band IV(5725MHz-5850MHz)of device						
Test Results:	Pass						
	Remark: Please refer to the Appendix B.						

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Measurement Data of Band I (5150-5250MHz)

	802.11a mode									
Test channel	Power Spectral Density (dBm/MHz)	Limit (11dBm/MHz)	Result							
36	4.32	≤11.00/MHz	Pass							
40	4.07	≤11.00/MHz	Pass							
48	4.08	≤11.00/MHz	Pass							
	802.11n(HT20) mode									
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result							
36	4.37	≤11.00/MHz	Pass							
40	4.25	≤11.00/MHz	Pass							
48	4.32	≤11.00/MHz	Pass							
	802.11n(HT40) mode									
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result							
38	-0.15	≤11.00/MHz	Pass							
46	-0.78	≤11.00/MHz	Pass							

Measurement Data of Band IV (5725-5850MHz)

	802.11a mode									
Test channel	Power Spectral Density (dBm/MHz)	Limit (30dBm/MHz)	Result							
149	4.08	≤30dBm	Pass							
157	4.44	≤30dBm	Pass							
165	4.59	≤30dBm	Pass							
	802.11n(HT20) mode									
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result							
149	3.48	≤30dBm	Pass							
157	4.03	≤30dBm	Pass							
165	3.97	≤30dBm	Pass							
	802.11n(HT40) mode									
Test channel	Power Spectral Density (dBm)	Limit (dBm)	Result							
151	0.24	≤30dBm	Pass							
159	0.39	≤30dBm	Pass							



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# 6.8 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15C Section 15.407 (b) and 15.205 and 15.209								
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 IGHZ	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 lim applicable to the equipment under test. This peak limit applies to the tot emission level radiated by the device.									

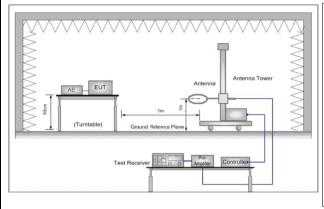
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#### Test Setup:



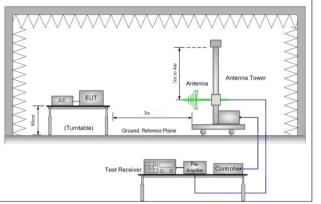


Figure 1. Below 30MHz

Figure 2. 30MHz to 1GHz

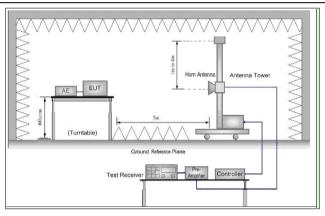


Figure 3. Above 1 GHz

#### 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 method as specified and then reported in a data sheet.
- g. Test the EUT in the lowest channel ,the middle channel ,the Highest



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	channel h. Repeat above procedures until all frequencies measured was complete.
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40).  Only the worst case is recorded in the report.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass



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#### 6.8.1Transmitter emission above 1GHz

Test mode:	8	302.11a	Test ch	annel:	36	Remark	:	Peak
Frequency (MHz)	Cable Loss (dB)	Factor	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1547.199	4.20	26.30	34.70	48.40	44.20	74	-29.80	Vertical
3186.869	5.50	32.10	35.10	45.40	47.90	74	-26.10	Vertical
6414.166	8.00	34.90	33.70	43.90	53.10	74	-20.90	Vertical
7541.114	8.80	36.10	34.00	45.00	55.90	74	-18.10	Vertical
10360.000	11.40	37.40	31.60	40.00	57.20	74	-16.80	Vertical
15540.000	15.40	41.10	32.60	36.10	60.00	74	-14.00	Vertical
1813.786	5.00	26.90	34.90	47.60	44.60	74	-29.40	Horizontal
3159.355	5.40	32.10	35.20	46.40	48.70	74	-25.30	Horizontal
6874.906	8.40	35.40	33.80	43.90	53.90	74	-20.10	Horizontal
9613.357	11.10	37.20	32.50	43.30	59.10	74	-14.90	Horizontal
10360.000	11.40	37.40	31.60	44.80	62.00	74	-12.00	Horizontal
15540.000	15.40	41.10	32.60	38.50	62.40	74	-11.60	Horizontal

Test mode:	802	802.11a		annel:	36	Remark		Average
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
1547.199	4.20	26.30	34.70	33.30	29.10	54	-24.90	Vertical
3186.869	5.50	32.10	35.10	33.00	35.50	54	-18.50	Vertical
6414.166	8.00	34.90	33.70	32.10	41.30	54	-12.70	Vertical
7541.114	8.80	36.10	34.00	32.40	43.30	54	-10.70	Vertical
10360.000	11.40	37.40	31.60	28.00	45.20	54	-8.80	Vertical
15540.000	15.40	41.10	32.60	23.70	47.60	54	-6.40	Vertical
1813.786	5.00	26.90	34.90	31.70	28.70	54	-25.30	Horizontal
3159.355	5.40	32.10	35.20	33.20	35.50	54	-18.50	Horizontal
6874.906	8.40	35.40	33.80	31.50	41.50	54	-12.50	Horizontal
9613.357	11.10	37.20	32.50	29.60	45.40	54	-8.60	Horizontal
10360.000	11.40	37.40	31.60	29.00	46.20	54	-7.80	Horizontal
15540.000	15.40	41.10	32.60	23.90	47.80	54	-6.20	Horizontal



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Test mode:	802	11a	Test ch	annel:	40	Remark	:	Peak
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1547.395	4.20	26.30	34.70	49.00	44.80	74	-29.20	Vertical
3186.521	5.50	32.00	35.10	44.10	46.50	74	-27.50	Vertical
6415.236	8.00	34.90	33.60	42.80	52.10	74	-21.90	Vertical
7541.896	8.80	36.10	34.00	45.40	56.30	74	-17.70	Vertical
10400.000	11.40	37.40	31.60	40.10	57.30	74	-16.70	Vertical
15600.000	15.60	41.10	32.60	36.10	60.20	74	-13.80	Vertical
1812.759	5.00	26.90	34.80	49.40	46.50	74	-27.50	Horizontal
3158.652	5.50	32.10	35.20	47.10	49.50	74	-24.50	Horizontal
6874.526	8.50	35.40	33.80	43.70	53.80	74	-20.20	Horizontal
9613.652	11.10	37.20	32.50	42.40	58.20	74	-15.80	Horizontal
10400.000	11.40	37.40	31.60	44.30	61.50	74	-12.50	Horizontal
15600.000	15.60	41.10	32.60	38.00	62.10	74	-11.90	Horizontal

Test mode:	802	.11a	Test ch	annel:	40	Remark	-	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1547.395	4.20	26.30	34.70	34.40	30.20	54	-23.80	Vertical
3186.521	5.50	32.00	35.10	32.80	35.20	54	-18.80	Vertical
6415.236	8.00	34.90	33.60	31.60	40.90	54	-13.10	Vertical
7541.896	8.80	36.10	34.00	33.00	43.90	54	-10.10	Vertical
10400.000	11.40	37.40	31.60	27.90	45.10	54	-8.90	Vertical
15600.000	15.60	41.10	32.60	22.80	46.90	54	-7.10	Vertical
1812.759	5.00	26.90	34.80	32.70	29.80	54	-24.20	Horizontal
3158.652	5.50	32.10	35.20	33.70	36.10	54	-17.90	Horizontal
6874.526	8.50	35.40	33.80	31.30	41.40	54	-12.60	Horizontal
9613.652	11.10	37.20	32.50	29.10	44.90	54	-9.10	Horizontal
10400.000	11.40	37.40	31.60	29.00	46.20	54	-7.80	Horizontal
15600.000	15.60	41.10	32.60	23.50	47.60	54	-6.40	Horizontal



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Test mode:	802	802.11a		annel:	48	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
1654.256	4.70	26.40	34.80	48.00	44.30	74	-29.70	Vertical
3845.269	5.60	33.30	35.50	44.80	48.20	74	-25.80	Vertical
6545.287	8.20	35.40	33.60	43.30	53.30	74	-20.70	Vertical
7542.225	8.80	36.10	34.00	45.30	56.20	74	-17.80	Vertical
10480.000	11.40	37.40	31.60	39.10	56.30	74	-17.70	Vertical
15720.000	16.00	41.10	32.60	35.70	60.20	74	-13.80	Vertical
1814.526	5.00	26.90	34.80	47.70	44.80	74	-29.20	Horizontal
3256.235	5.60	32.00	34.90	46.50	49.20	74	-24.80	Horizontal
6956.325	8.40	35.50	33.90	44.10	54.10	74	-19.90	Horizontal
9254.236	10.40	37.10	33.00	43.70	58.20	74	-15.80	Horizontal
10480.000	11.40	37.40	31.60	44.00	61.20	74	-12.80	Horizontal
15720.000	16.00	41.10	32.60	37.40	61.90	74	-12.10	Horizontal

Test mode:	802	.11a	Test ch	annel:	48	48 Remark:		Average
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
1654.256	4.70	26.40	34.80	33.00	29.30	54	-24.70	Vertical
3845.269	5.60	33.30	35.50	32.70	36.10	54	-17.90	Vertical
6545.287	8.20	35.40	33.60	32.50	42.50	54	-11.50	Vertical
7542.225	8.80	36.10	34.00	32.70	43.60	54	-10.40	Vertical
10480.000	11.40	37.40	31.60	27.30	44.50	54	-9.50	Vertical
15720.000	16.00	41.10	32.60	23.20	47.70	54	-6.30	Vertical
1814.526	5.00	26.90	34.80	31.80	28.90	54	-25.10	Horizontal
3256.235	5.60	32.00	34.90	33.40	36.10	54	-17.90	Horizontal
6956.325	8.40	35.50	33.90	31.60	41.60	54	-12.40	Horizontal
9254.236	10.40	37.10	33.00	30.30	44.80	54	-9.20	Horizontal
10480.000	11.40	37.40	31.60	28.40	45.60	54	-8.40	Horizontal
15720.000	16.00	41.10	32.60	22.80	47.30	54	-6.70	Horizontal



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Test mode:	802	.11a	Test ch	annel:	el: 149 Remark:		:	Peak
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1547.202	4.20	26.30	34.70	48.50	44.30	74	-29.70	Vertical
3186.689	5.50	32.00	35.10	45.40	47.80	74	-26.20	Vertical
6414.521	8.00	34.90	33.60	43.90	53.20	74	-20.80	Vertical
7449.568	8.70	35.80	34.00	44.40	54.90	74	-19.10	Vertical
11490.000	12.30	37.60	31.60	37.90	56.20	74	-17.80	Vertical
17400.000	17.20	43.30	31.00	30.30	59.80	74	-14.20	Vertical
1813.665	5.00	26.90	34.80	48.30	45.40	74	-28.60	Horizontal
3159.655	5.50	32.10	35.20	46.20	48.60	74	-25.40	Horizontal
6845.741	8.50	35.30	33.80	43.80	53.80	74	-20.20	Horizontal
9613.542	11.10	37.20	32.50	42.80	58.60	74	-15.40	Horizontal
11490.000	12.30	37.60	31.60	42.90	61.20	74	-12.80	Horizontal
17235.000	17.10	42.90	30.30	32.70	62.40	74	-11.60	Horizontal

Test mode:	802	2.11a	Test ch	annel:	149	Remark	:	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1547.202	4.20	26.30	34.70	33.40	29.20	54	-24.80	Vertical
3186.689	5.50	32.00	35.10	33.00	35.40	54	-18.60	Vertical
6414.521	8.00	34.90	33.60	32.10	41.40	54	-12.60	Vertical
7449.568	8.70	35.80	34.00	32.30	42.80	54	-11.20	Vertical
11490.000	12.30	37.60	31.60	26.20	44.50	54	-9.50	Vertical
17400.000	17.20	43.30	31.00	17.70	47.20	54	-6.80	Vertical
1813.665	5.00	26.90	34.80	31.80	28.90	54	-25.10	Horizontal
3159.655	5.50	32.10	35.20	33.00	35.40	54	-18.60	Horizontal
6845.741	8.50	35.30	33.80	31.40	41.40	54	-12.60	Horizontal
9613.542	11.10	37.20	32.50	29.50	45.30	54	-8.70	Horizontal
11490.000	12.30	37.60	31.60	27.20	45.50	54	-8.50	Horizontal
17235.000	17.10	42.90	30.30	19.10	48.80	54	-5.20	Horizontal



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Test mode:	802	.11a	Test ch	annel:	157	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
1548.192	4.20	26.30	34.70	47.40	43.20	74	-30.80	Vertical
3188.256	5.50	32.00	35.10	45.40	47.80	74	-26.20	Vertical
6414.166	8.00	34.90	33.60	43.50	52.80	74	-21.20	Vertical
7542.122	8.80	36.10	34.00	43.90	54.80	74	-19.20	Vertical
11600.000	12.40	37.70	31.60	38.40	56.90	74	-17.10	Vertical
17400.000	17.20	43.30	31.00	29.40	58.90	74	-15.10	Vertical
1813.254	5.00	26.90	34.80	47.10	44.20	74	-29.80	Horizontal
3155.251	5.40	32.10	35.20	45.60	47.90	74	-26.10	Horizontal
6994.112	8.30	35.60	34.00	44.20	54.10	74	-19.90	Horizontal
9612.502	11.10	37.20	32.50	42.80	58.60	74	-15.40	Horizontal
11600.000	12.40	37.70	31.60	42.70	61.20	74	-12.80	Horizontal
17400.000	17.20	43.30	31.00	32.30	61.80	74	-12.20	Horizontal

Test mode:	802	.11a	Test ch	annel:	157	Remark	:	Average
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
1548.192	4.20	26.30	34.70	33.70	29.50	54	-24.50	Vertical
3188.256	5.50	32.00	35.10	33.20	35.60	54	-18.40	Vertical
6414.166	8.00	34.90	33.60	32.00	41.30	54	-12.70	Vertical
7542.122	8.80	36.10	34.00	32.00	42.90	54	-11.10	Vertical
11600.000	12.40	37.70	31.60	26.30	44.80	54	-9.20	Vertical
17400.000	17.20	43.30	31.00	16.30	45.80	54	-8.20	Vertical
1813.254	5.00	26.90	34.80	31.80	28.90	54	-25.10	Horizontal
3155.251	5.40	32.10	35.20	32.80	35.10	54	-18.90	Horizontal
6994.112	8.30	35.60	34.00	31.70	41.60	54	-12.40	Horizontal
9612.502	11.10	37.20	32.50	29.30	45.10	54	-8.90	Horizontal
11600.000	12.40	37.70	31.60	26.80	45.30	54	-8.70	Horizontal
17400.000	17.20	43.30	31.00	17.60	47.10	54	-6.90	Horizontal





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Test mode:	802	2.11a	Test ch	annel:	165	Remark	:	Peak
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization
1574.652	4.30	26.40	34.80	48.40	44.30	74	-29.70	Vertical
3521.120	5.30	32.30	35.40	45.00	47.20	74	-26.80	Vertical
6992.111	8.30	35.60	34.00	44.30	54.20	74	-19.80	Vertical
8542.126	9.60	36.60	33.70	42.70	55.20	74	-18.80	Vertical
11650.000	12.50	37.60	31.70	38.70	57.10	74	-16.90	Vertical
17475.000	17.30	43.40	31.30	30.20	59.60	74	-14.40	Vertical
1812.225	5.00	26.90	34.90	47.20	44.20	74	-29.80	Horizontal
3255.241	5.60	32.00	34.90	45.80	48.50	74	-25.50	Horizontal
6954.251	8.40	35.50	33.90	43.80	53.80	74	-20.20	Horizontal
9856.231	11.20	37.30	32.10	42.20	58.60	74	-15.40	Horizontal
11650.000	12.50	37.60	31.70	43.70	62.10	74	-11.90	Horizontal
17475.000	17.30	43.40	31.30	33.10	62.50	74	-11.50	Horizontal

Test mode:	802	.11a	Test ch	annel:	165	Remark	:	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBμV/m)	Over Limit (dB)	Polarization
1574.652	4.30	26.40	34.80	33.90	29.80	54	-24.20	Vertical
3521.120	5.30	32.30	35.40	32.70	34.90	54	-19.10	Vertical
6992.111	8.30	35.60	34.00	32.60	42.50	54	-11.50	Vertical
8542.126	9.60	36.60	33.70	30.40	42.90	54	-11.10	Vertical
11650.000	12.50	37.60	31.70	26.70	45.10	54	-8.90	Vertical
17475.000	17.30	43.40	31.30	17.80	47.20	54	-6.80	Vertical
1812.225	5.00	26.90	34.90	31.90	28.90	54	-25.10	Horizontal
3255.241	5.60	32.00	34.90	32.50	35.20	54	-18.80	Horizontal
6954.251	8.40	35.50	33.90	31.20	41.20	54	-12.80	Horizontal
9856.231	11.20	37.30	32.10	28.70	45.10	54	-8.90	Horizontal
11650.000	12.50	37.60	31.70	27.90	46.30	54	-7.70	Horizontal
17475.000	17.30	43.40	31.30	18.50	47.90	54	-6.10	Horizontal



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Test mode:	et mode: 802.11n(HT20) Test channel: 36 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
1568.258	4.30	26.40	34.80	48.20	44.10	74	-29.90	Vertical
3255.236	5.60	32.00	34.90	44.50	47.20	74	-26.80	Vertical
6636.332	8.40	35.40	33.70	43.70	53.80	74	-20.20	Vertical
7695.236	9.20	36.30	33.80	43.10	54.80	74	-19.20	Vertical
10360.000	11.30	37.40	31.70	39.20	56.20	74	-17.80	Vertical
15540.000	15.40	41.00	32.60	35.50	59.30	74	-14.70	Vertical
1845.255	5.00	27.10	34.80	46.90	44.20	74	-29.80	Horizontal
3669.352	5.40	32.60	35.50	46.70	49.20	74	-24.80	Horizontal
7254.254	8.70	35.80	33.80	41.80	52.50	74	-21.50	Horizontal
9532.236	11.00	37.20	32.80	43.20	58.60	74	-15.40	Horizontal
10360.000	11.30	37.40	31.70	45.20	62.20	74	-11.80	Horizontal
15540.000	15.40	41.00	32.60	38.70	62.50	74	-11.50	Horizontal

Test mode:		802.	.11n(HT20)	Test ch	est channel: 36 Remark:		:	Average	
Frequency (MHz)	Cab Los (dB	SS	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1658.258	4.7	0	26.40	34.80	33.00	29.30	54	-24.70	Vertical
3255.236	5.6	0	32.00	34.90	32.50	35.20	54	-18.80	Vertical
6636.332	8.4	0	35.40	33.70	32.00	42.10	54	-11.90	Vertical
7695.236	9.2	0	36.30	33.80	31.10	42.80	54	-11.20	Vertical
10360.000	11.3	30	37.40	31.70	27.80	44.80	54	-9.20	Vertical
15540.000	15.4	40	41.00	32.60	23.10	46.90	54	-7.10	Vertical
1845.255	5.0	0	27.10	34.80	31.60	28.90	54	-25.10	Horizontal
3669.352	5.4	0	32.60	35.50	32.60	35.10	54	-18.90	Horizontal
7254.254	8.7	0	35.80	33.80	30.20	40.90	54	-13.10	Horizontal
9532.236	11.0	00	37.20	32.80	29.70	45.10	54	-8.90	Horizontal
10360.000	11.3	30	37.40	31.70	29.10	46.10	54	-7.90	Horizontal
15540.000	15.4	40	41.00	32.60	24.10	47.90	54	-6.10	Horizontal



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Test mode:	80	2.11n(HT20)	Test ch	annel:	40	Remark:		Peak
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1554.258	4.20	26.40	34.70	48.20	44.10	74	-29.90	Vertical
3188.259	5.50	32.00	35.10	45.10	47.50	74	-26.50	Vertical
6415.286	8.00	34.90	33.60	43.60	52.90	74	-21.10	Vertical
7656.325	9.10	36.30	33.90	44.10	55.60	74	-18.40	Vertical
10400.000	11.40	37.40	31.60	39.60	56.80	74	-17.20	Vertical
15600.000	15.60	41.10	32.60	35.50	59.60	74	-14.40	Vertical
1845.256	5.00	27.10	34.80	47.50	44.80	74	-29.20	Horizontal
3655.258	5.40	32.60	35.50	46.40	48.90	74	-25.10	Horizontal
6988.552	8.30	35.60	34.00	44.30	54.20	74	-19.80	Horizontal
9854.211	11.20	37.30	32.10	42.20	58.60	74	-15.40	Horizontal
10400.000	11.40	37.40	31.60	44.90	62.10	74	-11.90	Horizontal
15600.000	15.60	41.10	32.60	38.00	62.10	74	-11.90	Horizontal

Test mode:	8	302.11n(HT	20)   1	Γest ch	annel:	40	Remark:		Average
Frequency (MHz)	Cabl loss (dB)	factors	fa	eamp actor dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1554.258	4.20	26.40	34	4.70	33.30	29.20	54	-24.80	Vertical
3188.259	5.50	32.00	3	5.10	32.70	35.10	54	-18.90	Vertical
6415.286	8.00	34.90	33	3.60	31.50	40.80	54	-13.20	Vertical
7656.325	9.10	36.30	33	3.90	32.30	43.80	54	-10.20	Vertical
10400.000	11.4	0 37.40	3	1.60	27.70	44.90	54	-9.10	Vertical
15600.000	15.6	0 41.10	32	2.60	22.70	46.80	54	-7.20	Vertical
1845.256	5.00	27.10	34	4.80	31.60	28.90	54	-25.10	Horizontal
3655.258	5.40	32.60	3	5.50	33.10	35.60	54	-18.40	Horizontal
6988.552	8.30	35.60	34	4.00	32.20	42.10	54	-11.90	Horizontal
9854.211	11.2	0 37.30	32	2.10	28.50	44.90	54	-9.10	Horizontal
10400.000	11.4	0 37.40	3	1.60	29.10	46.30	54	-7.70	Horizontal
15600.000	15.6	0 41.10	32	2.60	23.40	47.50	54	-6.50	Horizontal



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Test mode:	8	02.11n(HT20)	Test ch	annel:	48	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
1565.220	4.30	26.40	34.80	48.20	44.10	74	-29.90	Vertical
3212.111	5.50	32.00	35.00	45.00	47.50	74	-26.50	Vertical
6889.552	8.40	35.40	33.90	43.70	53.60	74	-20.40	Vertical
8523.236	9.50	36.50	33.80	43.00	55.20	74	-18.80	Vertical
10480.000	11.40	37.40	31.60	40.40	57.60	74	-16.40	Vertical
15720.000	16.00	41.10	32.60	36.70	61.20	74	-12.80	Vertical
1814.252	5.00	26.90	34.80	47.40	44.50	74	-29.50	Horizontal
3255.252	5.60	32.00	34.90	45.90	48.60	74	-25.40	Horizontal
6956.236	8.40	35.50	33.90	43.80	53.80	74	-20.20	Horizontal
9523.233	11.00	37.20	32.80	43.10	58.50	74	-15.50	Horizontal
10480.000	11.40	37.40	31.60	44.60	61.80	74	-12.20	Horizontal
15720.000	16.00	41.10	32.60	37.60	62.10	74	-11.90	Horizontal

Test mode:	8	802.	.11n(HT20)	Test ch	nannel: 48		Remark	:	Average
Frequency (MHz)	Cab Los (dB	s	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1565.220	4.30	0	26.40	34.80	33.40	29.30	54	-24.70	Vertical
3212.111	5.50	0	32.00	35.00	32.60	35.10	54	-18.90	Vertical
6889.552	8.40	0	35.40	33.90	32.30	42.20	54	-11.80	Vertical
8523.236	9.50	0	36.50	33.80	30.40	42.60	54	-11.40	Vertical
10480.000	11.4	10	37.40	31.60	29.60	46.80	54	-7.20	Vertical
15720.000	16.0	00	41.10	32.60	22.70	47.20	54	-6.80	Vertical
1814.252	5.00	0	26.90	34.80	31.70	28.80	54	-25.20	Horizontal
3255.252	5.60	0	32.00	34.90	32.70	35.40	54	-18.60	Horizontal
6956.236	8.40	0	35.50	33.90	31.30	41.30	54	-12.70	Horizontal
9525.233	11.0	00	37.20	32.80	28.80	44.20	54	-9.80	Horizontal
10480.000	11.4	10	37.40	31.60	28.80	46.00	54	-8.00	Horizontal
15720.000	16.0	00	41.10	32.60	23.00	47.50	54	-6.50	Horizontal



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Test mode:	80	2.11n(HT20)	Test ch	nannel: 149		Remark:		Peak
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1602.236	4.40	26.40	34.80	48.90	44.90	74	-29.10	Vertical
3251.121	5.60	32.00	34.90	45.10	47.80	74	-26.20	Vertical
6552.255	8.20	35.40	33.60	43.20	53.20	74	-20.80	Vertical
7669.326	9.10	36.30	33.90	45.30	56.80	74	-17.20	Vertical
11490.000	12.30	37.60	31.60	39.90	58.20	74	-15.80	Vertical
17235.000	17.10	42.90	30.30	30.50	60.20	74	-13.80	Vertical
1845.540	5.00	27.10	34.80	47.80	45.10	74	-28.90	Horizontal
3569.666	5.40	32.30	35.50	46.00	48.20	74	-25.80	Horizontal
6874.569	8.50	35.40	33.80	42.50	52.60	74	-21.40	Horizontal
9885.254	11.20	37.30	32.20	43.30	59.60	74	-14.40	Horizontal
11490.000	12.30	37.60	31.60	43.50	61.80	74	-12.20	Horizontal
17235.000	17.10	42.90	30.30	32.40	62.10	74	-11.90	Horizontal

Test mode:	8	302.1	1n(HT20)	Test ch	annel:	149	Remark		Average
Frequency (MHz)	Cabl loss (dB)	5	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1602.236	4.40	)	26.40	34.80	33.80	29.80	54	-24.20	Vertical
3251.121	5.60	)	32.00	34.90	32.50	35.20	54	-18.80	Vertical
6552.255	8.20	)	35.40	33.60	31.80	41.80	54	-12.20	Vertical
7669.326	9.10	)	36.30	33.90	32.30	43.80	54	-10.20	Vertical
11490.000	12.3	0	37.60	31.60	27.80	46.10	54	-7.90	Vertical
17235.000	17.1	0	42.90	30.30	17.50	47.20	54	-6.80	Vertical
1845.540	5.00	)	27.10	34.80	31.80	29.10	54	-24.90	Horizontal
3569.666	5.40	)	32.30	35.50	33.00	35.20	54	-18.80	Horizontal
6874.569	8.50	)	35.40	33.80	31.70	41.80	54	-12.20	Horizontal
9885.254	11.2	0	37.30	32.20	29.50	45.80	54	-8.20	Horizontal
11490.000	12.3	0	37.60	31.60	27.40	45.70	54	-8.30	Horizontal
17235.000	17.1	0	42.90	30.30	17.80	47.50	54	-6.50	Horizontal



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Test mode:	80	)2.11n(HT20)	Test ch	annel:	157 Rem		:	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
1588.696	4.40	26.40	34.80	48.80	44.80	74	-29.20	Vertical
3255.285	5.60	32.00	34.90	46.80	49.50	74	-24.50	Vertical
6521.254	8.10	35.30	33.60	43.00	52.80	74	-21.20	Vertical
7569.326	8.90	36.10	33.90	44.30	55.40	74	-18.60	Vertical
11600.000	12.40	37.70	31.60	38.60	57.10	74	-16.90	Vertical
17400.000	17.20	43.30	31.00	29.80	59.30	74	-14.70	Vertical
1835.125	5.00	27.10	34.80	46.90	44.20	74	-29.80	Horizontal
3459.585	5.30	32.10	35.30	46.50	48.60	74	-25.40	Horizontal
6855.235	8.50	35.30	33.80	43.80	53.80	74	-20.20	Horizontal
9963.332	11.20	37.40	32.20	43.10	59.50	74	-14.50	Horizontal
11600.000	12.40	37.70	31.60	43.00	61.50	74	-12.50	Horizontal
17400.000	17.20	43.30	31.00	33.00	62.50	74	-11.50	Horizontal

Test mode:	80	2.11n(HT20) Test chan		annel:	157	Remark	:	Average
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
1588.696	4.40	26.40	34.80	33.60	29.60	54	-24.40	Vertical
3255.285	5.60	32.00	34.90	33.40	36.10	54	-17.90	Vertical
6521.254	8.10	35.30	33.60	31.40	41.20	54	-12.80	Vertical
7569.326	8.90	36.10	33.90	32.00	43.10	54	-10.90	Vertical
11600.000	12.40	37.70	31.60	26.80	45.30	54	-8.70	Vertical
17400.000	17.20	43.30	31.00	17.30	46.80	54	-7.20	Vertical
1835.125	5.00	27.10	34.80	31.20	28.50	54	-25.50	Horizontal
3459.585	5.30	32.10	35.20	33.00	35.20	54	-18.80	Horizontal
6855.235	8.50	35.30	33.80	32.10	42.10	54	-11.90	Horizontal
9963.332	11.20	37.40	32.20	28.80	45.20	54	-8.80	Horizontal
11600.000	12.40	37.70	31.60	26.70	45.20	54	-8.80	Horizontal
17400.000	17.20	43.30	31.00	18.00	47.50	54	-6.50	Horizontal



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Test mode:	802	2.11n(HT20)	Test ch	annel:	165	Remark	:	Peak
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1555.254	4.20	26.40	34.70	47.90	43.80	74	-30.20	Vertical
3556.652	5.30	32.30	35.40	44.60	46.80	74	-27.20	Vertical
6525.326	8.20	35.30	33.60	44.20	54.10	74	-19.90	Vertical
7565.652	8.90	36.10	33.90	43.70	54.80	74	-19.20	Vertical
11650.000	12.50	37.60	31.70	38.40	56.80	74	-17.20	Vertical
17475.000	17.30	43.40	31.30	29.20	58.60	74	-15.40	Vertical
1913.236	4.90	27.50	34.80	46.60	44.20	74	-29.80	Horizontal
3225.236	5.60	32.00	35.00	45.60	48.20	74	-25.80	Horizontal
6956.325	8.40	35.50	33.90	44.10	54.10	74	-19.90	Horizontal
9885.265	11.20	37.30	32.20	43.20	59.50	74	-14.50	Horizontal
11650.000	12.50	37.60	31.70	42.80	61.20	74	-12.80	Horizontal
17400.000	17.20	43.30	31.00	33.00	62.50	74	-11.50	Horizontal

Test mode:	802	.11n(HT20)	Test ch	annel:	165	Remark	:	Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1555.254	4.20	26.40	34.70	32.70	28.60	54	-25.40	Vertical
3556.652	5.30	32.30	35.40	33.00	35.20	54	-18.80	Vertical
6525.326	8.20	35.30	33.60	32.20	42.10	54	-11.90	Vertical
7565.652	8.90	36.10	33.90	31.50	42.60	54	-11.40	Vertical
11650.000	12.50	37.60	31.70	26.40	44.80	54	-9.20	Vertical
17475.000	17.30	43.40	31.30	19.10	48.50	54	-5.50	Vertical
1913.236	4.90	27.50	34.80	31.00	28.60	54	-25.40	Horizontal
3225.236	5.60	32.00	35.00	32.50	35.10	54	-18.90	Horizontal
6956.325	8.40	35.50	33.90	31.80	41.80	54	-12.20	Horizontal
9885.265	11.20	37.30	32.20	28.80	45.10	54	-8.90	Horizontal
11650.000	12.50	37.60	31.70	27.40	45.80	54	-8.20	Horizontal
17400.000	17.20	43.30	31.00	18.00	47.50	54	-6.50	Horizontal



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Test mode:		802.	.11n(HT40)	Test ch	annel:	38	Remark	:	Peak
Frequency (MHz)	Cab Los (dB	s	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1648.458	4.70	0	26.40	34.80	47.20	43.50	74	-30.50	Vertical
3584.258	5.40	0	32.40	35.50	44.80	47.10	74	-26.90	Vertical
6885.233	8.40	0	35.40	33.90	42.40	52.30	74	-21.70	Vertical
7688.257	9.20	0	36.30	33.80	44.20	55.90	74	-18.10	Vertical
10380.000	11.4	10	37.40	31.60	39.60	56.80	74	-17.20	Vertical
15570.000	15.5	0	41.10	32.60	34.60	58.60	74	-15.40	Vertical
1856.249	5.00	0	27.20	34.80	46.80	44.20	74	-29.80	Horizontal
3255.254	5.60	0	32.00	34.90	45.40	48.10	74	-25.90	Horizontal
6849.562	8.50	0	35.30	33.80	43.20	53.20	74	-20.80	Horizontal
9889.659	11.2	20	37.30	32.20	41.90	58.20	74	-15.80	Horizontal
10380.000	11.4	10	37.40	31.60	44.00	61.20	74	-12.80	Horizontal
15570.000	15.5	0	41.10	32.60	37.80	61.80	74	-12.20	Horizontal

Test mode:		802	.11n(HT40)	Test ch	annel:	38	Remark	:	Average
Frequency (MHz)	Cab Los (dE	SS	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1648.458	4.7	0	26.40	34.80	32.10	28.40	54	-25.60	Vertical
3584.258	5.4	.0	32.40	35.50	32.90	35.20	54	-18.80	Vertical
6885.233	8.4	.0	35.40	33.90	30.90	40.80	54	-13.20	Vertical
7688.257	9.2	:0	36.30	33.80	31.20	42.90	54	-11.10	Vertical
10380.000	11.4	40	37.40	31.60	27.40	44.60	54	-9.40	Vertical
15570.000	15.5	50	41.10	32.60	24.10	48.10	54	-5.90	Vertical
1856.249	5.0	0	27.20	34.80	31.70	29.10	54	-24.90	Horizontal
3255.254	5.6	0	32.00	34.90	32.40	35.10	54	-18.90	Horizontal
6849.562	8.5	0	35.30	33.80	31.20	41.20	54	-12.80	Horizontal
9889.659	11.2	20	37.30	32.20	28.50	44.80	54	-9.20	Horizontal
10380.000	11.4	40	37.40	31.60	28.60	45.80	54	-8.20	Horizontal
15570.000	15.5	50	41.10	32.60	22.80	46.80	54	-7.20	Horizontal



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Test mode:		802.	.11n(HT40)	Test ch	annel:	46	Remark	:	Peak
Frequency (MHz)	Cab los: (dB	S	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1658.259	4.7	0	26.40	34.80	46.90	43.20	74	-30.80	Vertical
3569.236	5.4	0	32.30	35.50	44.00	46.20	74	-27.80	Vertical
6996.521	8.3	0	35.60	34.00	42.90	52.80	74	-21.20	Vertical
7845.214	9.1	0	36.20	34.00	42.90	54.20	74	-19.80	Vertical
10460.000	11.4	10	37.40	31.60	39.10	56.30	74	-17.70	Vertical
15690.000	15.9	90	41.00	32.60	34.30	58.60	74	-15.40	Vertical
1815.299	5.0	0	26.90	34.80	45.40	42.50	74	-31.50	Horizontal
3552.215	5.3	0	32.30	35.40	45.30	47.50	74	-26.50	Horizontal
7211.125	8.6	0	35.80	33.80	43.60	54.20	74	-19.80	Horizontal
9856.632	11.2	20	37.30	32.10	42.00	58.40	74	-15.60	Horizontal
10460.000	11.4	10	37.40	31.60	44.00	61.20	74	-12.80	Horizontal
15690.000	15.9	90	41.00	32.60	37.50	61.80	74	-12.20	Horizontal

Test mode:		802	.11n(HT40)	Test ch	annel:	46	Remark	:	Average
Frequency (MHz)	Cab los (dE	S	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1658.259	4.7	0	26.40	34.80	31.80	28.10	54	-25.90	Vertical
3569.236	5.4	0	32.30	35.50	32.30	34.50	54	-19.50	Vertical
6996.521	8.3	0	35.60	34.00	32.90	42.80	54	-11.20	Vertical
7845.214	9.1	0	36.20	34.00	31.30	42.60	54	-11.40	Vertical
10460.000	11.4	40	37.40	31.60	27.00	44.20	54	-9.80	Vertical
15690.000	15.9	90	41.00	32.60	22.50	46.80	54	-7.20	Vertical
1815.299	5.0	0	26.90	34.80	31.00	28.10	54	-25.90	Horizontal
3552.215	5.3	0	32.30	35.40	32.60	34.80	54	-19.20	Horizontal
7211.125	8.6	0	35.80	33.80	31.50	42.10	54	-11.90	Horizontal
9856.632	11.2	20	37.30	32.10	28.50	44.90	54	-9.10	Horizontal
10460.000	11.4	40	37.40	31.60	28.40	45.60	54	-8.40	Horizontal
15690.000	15.9	90	41.00	32.60	22.50	46.80	54	-7.20	Horizontal



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Test mode:	80	2.11n(HT40)	Test ch	annel:	151 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
1558.241	4.30	26.40	34.70	47.80	43.80	74	-30.20	Vertical
3458.269	5.40	32.10	35.30	45.00	47.20	74	-26.80	Vertical
6414.221	8.00	34.90	33.60	43.50	52.80	74	-21.20	Vertical
7648.521	9.10	36.30	33.90	43.30	54.80	74	-19.20	Vertical
11510.000	12.30	37.70	31.60	36.80	55.20	74	-18.80	Vertical
17265.000	17.10	43.00	30.40	28.90	58.60	74	-15.40	Vertical
1812.256	5.00	26.90	34.90	47.20	44.20	74	-29.80	Horizontal
3255.214	5.60	32.00	34.90	45.50	48.20	74	-25.80	Horizontal
6974.523	8.30	35.50	34.00	43.40	53.20	74	-20.80	Horizontal
9648.254	11.10	37.20	32.40	42.30	58.20	74	-15.80	Horizontal
11510.000	12.30	37.70	31.60	42.10	60.50	74	-13.50	Horizontal
17265.000	17.10	43.00	30.40	31.80	61.50	74	-12.50	Horizontal

Test mode:		802	.11n(HT40)	Test ch	annel:	151	Remark	:	Average
Frequency (MHz)	_	ble ss B)	Antenna Factor (dB/m)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
1558.241	4.3	30	26.40	34.70	32.60	28.60	54	-25.40	Vertical
3458.269	5.4	40	32.10	35.30	32.90	35.10	54	-18.90	Vertical
6414.221	8.0	00	34.90	33.60	31.00	40.30	54	-13.70	Vertical
7648.521	9.	10	36.30	33.90	31.00	42.50	54	-11.50	Vertical
11510.000	12.	.30	37.70	31.60	24.80	43.20	54	-10.80	Vertical
17265.000	17.	.10	43.00	30.40	16.00	45.70	54	-8.30	Vertical
1812.256	5.0	00	26.90	34.90	31.30	28.30	54	-25.70	Horizontal
3255.214	5.6	60	32.00	34.90	32.50	35.20	54	-18.80	Horizontal
6974.523	8.3	30	35.50	34.00	31.50	41.30	54	-12.70	Horizontal
9648.254	11.	.10	37.20	32.40	29.20	45.10	54	-8.90	Horizontal
11510.000	12.	.30	37.70	31.60	27.40	45.80	54	-8.20	Horizontal
17265.000	17.	.10	43.00	30.40	16.50	46.20	54	-7.80	Horizontal



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Test mode:	80	2.11n(HT40)	Test ch	annel:	159 Remark:		:	Peak
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1658.254	4.70	26.40	34.80	47.80	44.10	74	-29.90	Vertical
3255.252	5.60	32.00	34.90	43.50	46.20	74	-27.80	Vertical
6585.569	8.30	35.40	33.60	41.70	51.80	74	-22.20	Vertical
7698.554	9.20	36.30	33.80	43.10	54.80	74	-19.20	Vertical
11590.000	12.40	37.70	31.60	37.60	56.10	74	-17.90	Vertical
17385.000	17.20	43.30	30.90	29.00	58.60	74	-15.40	Vertical
1758.287	5.10	26.40	34.90	46.60	43.20	74	-30.80	Horizontal
3586.239	5.40	32.40	35.50	45.50	47.80	74	-26.20	Horizontal
6985.265	8.30	35.60	34.00	42.90	52.80	74	-21.20	Horizontal
9856.236	11.20	37.30	32.10	41.80	58.20	74	-15.80	Horizontal
11590.000	12.40	37.70	31.60	41.70	60.20	74	-13.80	Horizontal
17385.000	17.20	43.30	30.90	31.60	61.20	74	-12.80	Horizontal

Test mode:	802	.11n(HT40)	Test ch	annel:	159	Remark		Average
Frequency (MHz)	Cable loss (dB)	Antenna factors (dB/m)	Preamp factor (dB)	Reading Level (dB <sub>µ</sub> V)	Emission Level (dBµV/m)	Limit (dBµV/m)	Over Limit (dB)	Polarization
1658.254	4.70	26.40	34.80	32.20	28.50	54	-25.50	Vertical
3255.252	5.60	32.00	34.90	32.40	35.10	54	-18.90	Vertical
6585.569	8.30	35.40	33.60	30.10	40.20	54	-13.80	Vertical
7698.554	9.20	36.30	33.80	30.80	42.50	54	-11.50	Vertical
11590.000	12.40	37.70	31.60	25.80	44.30	54	-9.70	Vertical
17385.000	17.20	43.30	30.90	15.60	45.20	54	-8.80	Vertical
1758.287	5.10	26.40	34.90	31.60	28.20	54	-25.80	Horizontal
3586.239	5.40	32.40	35.50	31.90	34.20	54	-19.80	Horizontal
6985.265	8.30	35.60	34.00	30.60	40.50	54	-13.50	Horizontal
9856.236	11.20	37.30	32.10	28.10	44.50	54	-9.50	Horizontal
11590.000	12.40	37.70	31.60	26.60	45.10	54	-8.90	Horizontal
17385.000	17.20	43.30	30.90	16.90	46.50	54	-7.50	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 edge

Test Requirement:	47 CFR Part 15C Section 15.407
Test Method:	ANSI C63.10: 2009
Test Site:	Measurement Distance: 3m (Semi-Anechoic Chamber)
Limit:	<ul> <li>(1) For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.</li> <li>(2) For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for</li> </ul>
	frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.
Test Setup:	

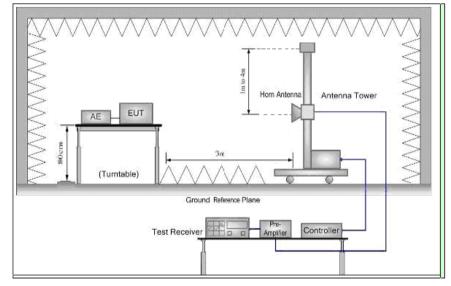


Figure 1.



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Test Procedure:	<ul> <li>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.</li> <li>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.</li> <li>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.</li> <li>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.</li> <li>e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>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</li> <li>g. Test the EUT in the lowest channel , the Highest channel</li> <li>h. Repeat above procedures until all frequencies measured was complete.</li> </ul>				
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates.				
	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCSO of rate is the worst case of 802.11n(HT20); MCSO of rate is the worst case of 802.11n(HT40).  Only the worst case is recorded in the report.				
Instruments Used:	Refer to section 5.10 for details				
Test Results:	Pass				
	Remark: Please refer to the Appendix B.				



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# **Photographs**

Test model No.: P1860

# 7.1 Conducted Emission Test Setup

Front View









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Right view

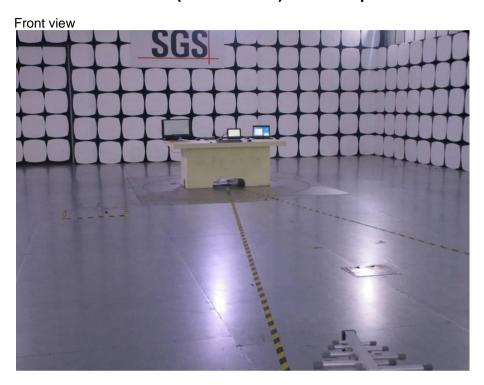


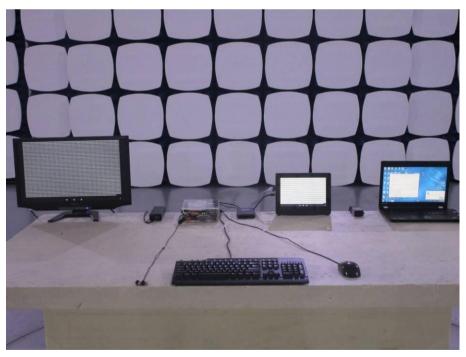


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## 7.2 Radiated Disturbance(30MHz-1GHz) Test Setup







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#### Back view



#### Left view

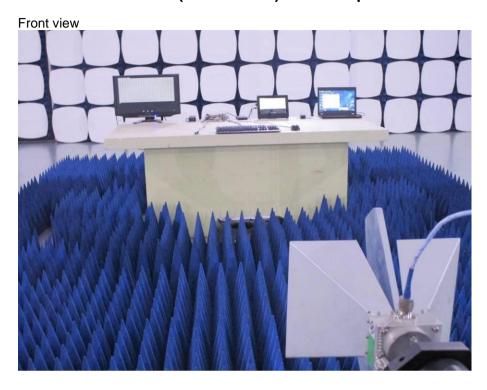


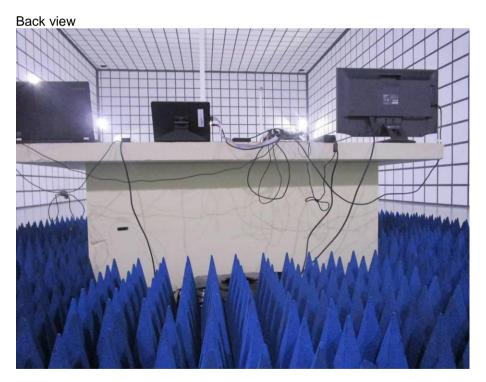


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## 7.3 Radiated Disturbance(above 1GHz) Test Setup







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## 7.4 EUT Constructional Details

Refer to Appendix A for Photographs of EUT Constructional Details SZEM1411006182CR.



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# Appendix B

RF Conducted Test Data



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3.		
	3.6.1 Radiated emission below 1GHz	29
3.	.7 RESTRICTED BANDS AROUND FUNDAMENTAL FREQUENCY	33-50



Report No.: SZEM141100618205

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## 3 Test Data

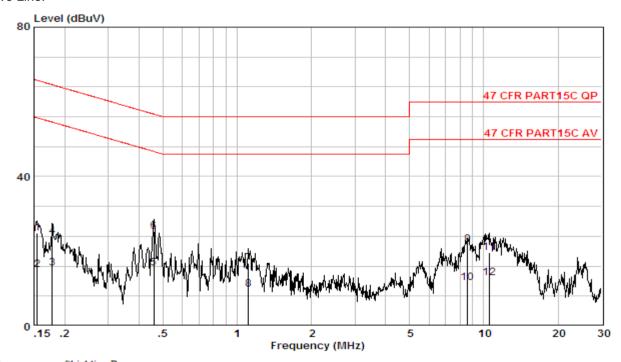
## 3.1 Conducted Emissions

#### **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 PART15C QP CE LINE

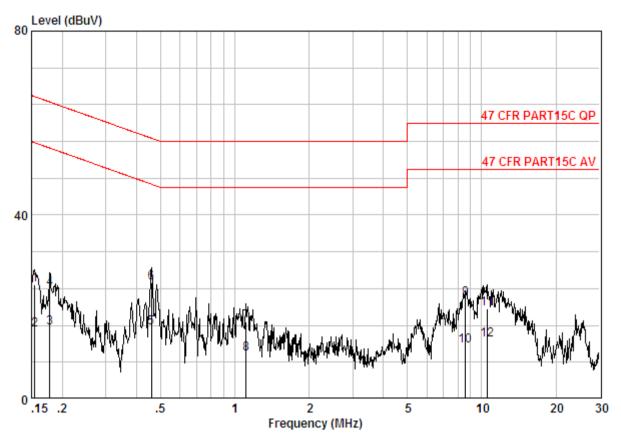
Job.No : 6182CR Mode : TX mode

		Cable	LISN	Read		Limit	Over	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15485	0.02	9.70	15.04	24.76	65.74	-40.98	QP
2	0.15485	0.02	9.70	5.35	15.07	55.74	-40.67	Average
3	0.17772	0.02	9.70	5.78	15.50	54.59	-39.09	Average
4	0.17772	0.02	9.70	14.16	23.88	64.59	-40.71	QP
5 @	0.45878	0.01	9.80	5.68	15.49	46.71	-31.22	Average
6 @	0.45878	0.01	9.80	15.54	25.35	56.71	-31.36	QP
7	1.111	0.02	9.80	7.00	16.82	56.00	-39.18	QP
8	1.111	0.02	9.80	-0.03	9.79	46.00	-36.21	Average
9	8.592	0.01	9.90	11.95	21.86	60.00	-38.14	QP
10	8.592	0.01	9.90	1.56	11.47	50.00	-38.53	Average
11	10.508	0.01	9.92	9.62	19.56	60.00	-40.44	QP
12	10.508	0.01	9.92	3.00	12.93	50.00	-37.07	Average



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Site : Shielding Room

Condition : 47 CFR PART15C QP CE LINE

Job.No : 6182CR Mode : TX mode

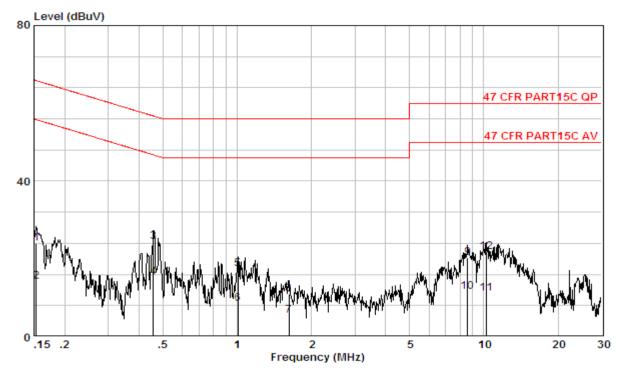
	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15485	0.02	9.70	15.04	24.76	65.74	-40.98	QP
2	0.15485	0.02	9.70	5.35	15.07	55.74	-40.67	Average
3	0.17772	0.02	9.70	5.78	15.50	54.59	-39.09	Average
4	0.17772	0.02	9.70	14.16	23.88	64.59	-40.71	QP
5 @	0.45878	0.01	9.80	5.68	15.49	46.71	-31.22	Average
6 @	0.45878	0.01	9.80	15.54	25.35	56.71	-31.36	QP
7	1.111	0.02	9.80	7.00	16.82	56.00	-39.18	QP
8	1.111	0.02	9.80	-0.03	9.79	46.00	-36.21	Average
9	8.592	0.01	9.90	11.95	21.86	60.00	-38.14	QP
10	8.592	0.01	9.90	1.56	11.47	50.00	-38.53	Average
11	10.508	0.01	9.92	9.62	19.56	60.00	-40.44	QP
12	10.508	0.01	9.92	3.00	12.93	50.00	-37.07	Average



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#### Neutral Line:



Site : Shielding Room

Condition : 47 CFR PART15C QP CE NEUTRAL

Job.No : 6182CR Mode : TX mode

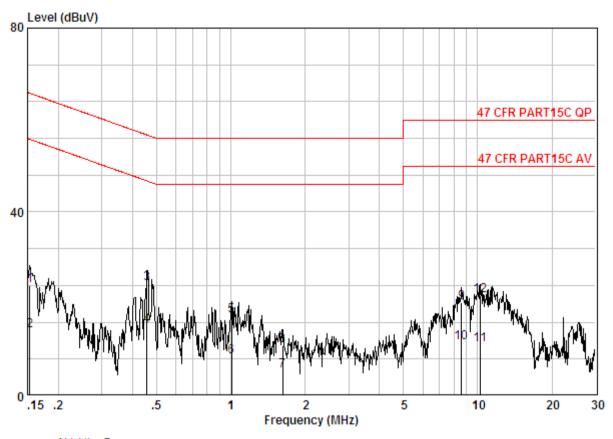
			Cable	LISN	Read		Limit	Over	
		Freq	Loss	Factor	Level	Level	Line	Limit	Remark
		MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1		0.15321	0.02	9.70	14.29	24.01	65.82	-41.81	QP
2		0.15321	0.02	9.70	4.51	14.23	55.82	-41.59	Average
3		0.45636	0.01	9.80	14.54	24.35	56.76	-32.41	QP
4	@	0.45636	0.01	9.80	5.36	15.17	46.76	-31.59	Average
5		1.005	0.02	9.80	7.62	17.44	56.00	-38.56	QP
6		1.005	0.02	9.80	-1.28	8.54	46.00	-37.46	Average
7		1.619	0.02	9.80	-4.43	5.39	46.00	-40.61	Average
8		1.619	0.02	9.80	1.14	10.96	56.00	-45.04	QP
9		8.592	0.01	10.00	10.27	20.28	60.00	-39.72	QP
10		8.592	0.01	10.00	1.53	11.54	50.00	-38.46	Average
11		10.233	0.01	10.00	1.11	11.12	50.00	-38.88	Average
12		10.233	0.01	10.00	11.68	21.69	60.00	-38.31	QP





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Site : Shielding Room

Condition : 47 CFR PART15C QP CE NEUTRAL

Job.No : 6182CR Mode : TX mode

	Freq	Cable Loss	LISN Factor	Read Level	Level	Limit Line	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1 2	0.15321 0.15321	0.02			24.01 14.23			QP Average
3	0.45636	0.01	9.80	14.54	24.35	56.76	-32.41	QP
4 @ 5	0.45636 1.005	0.01	9.80					Average QP
6 7	1.005 1.619	0.02						Average Average
8 9	1.619 8.592	0.02	9.80 10.00				-45.04 -39.72	~
10 11	8.592 10.233	0.01		1.53	11.54	50.00	-38.46	Average Average
12	10.233	0.01	10.00	11.68	21.69		-38.31	_

#### 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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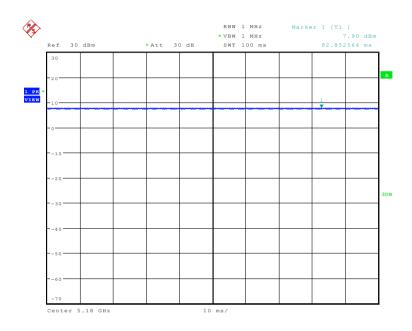
Report No.: SZEM141100618205

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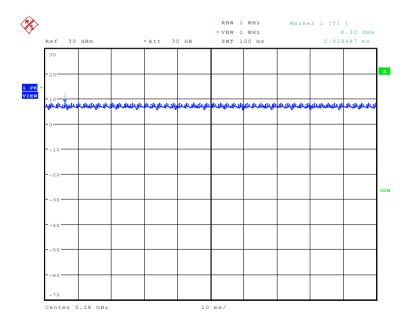
# 3.2 Duty Cycle

## Test plot as follows:

Test mode: 802.11a



Test mode: 802.11n(HT20)



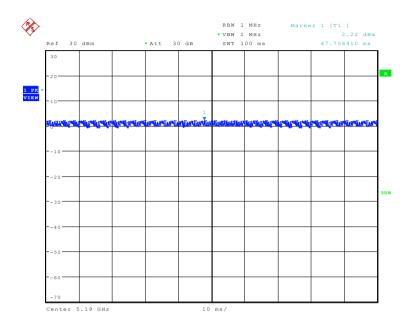
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Test mode: 802.11n(HT40)



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Report No.: SZEM141100618205

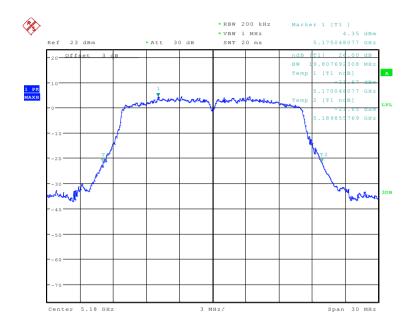
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# 3.3 26dB Emission Bandwidth and 99% Occupied Bandwidth

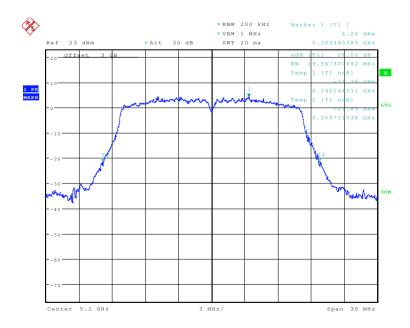
#### 3.3.1 26dB Emission Bandwidth

Test plot as follows:

rest mode.	Test mode:	802.11a	Test channel:	36
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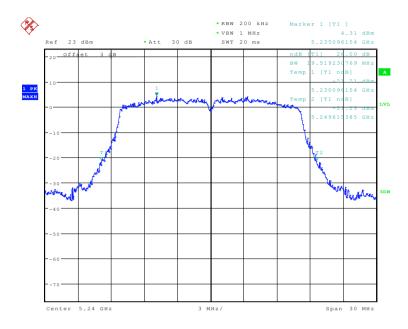


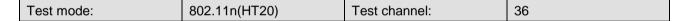


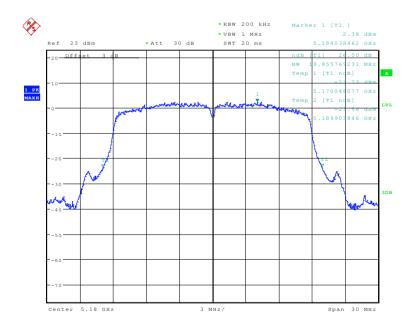
Report No.: SZEM141100618205

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Test mode: 802.11a Test channel: 48







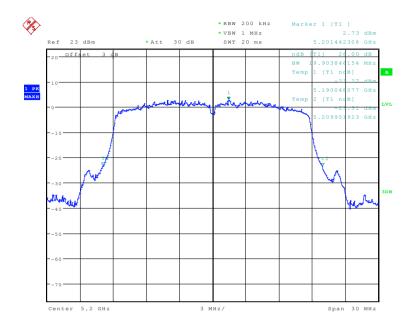
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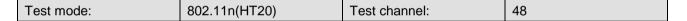


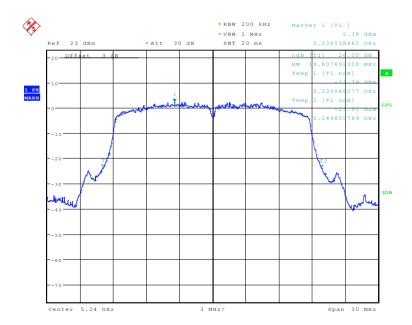
Report No.: SZEM141100618205

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Test mode: 802.11n(HT20) Test channel: 40







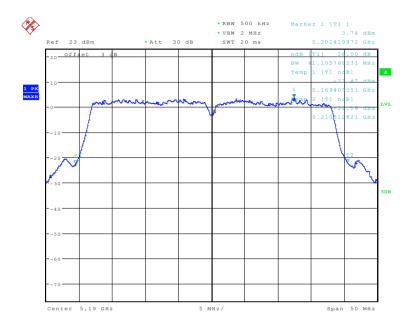
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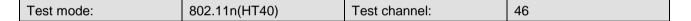


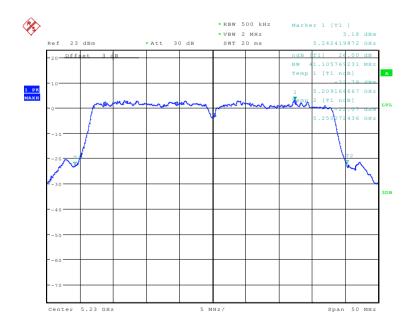
Report No.: SZEM141100618205

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Test mode: 802.11n(HT40) Test channel: 38







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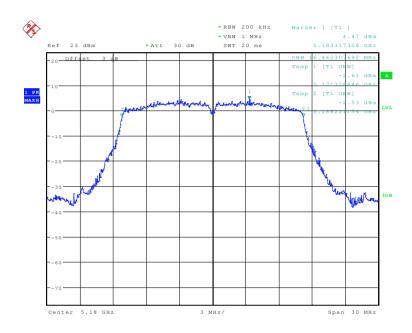
Report No.: SZEM141100618205

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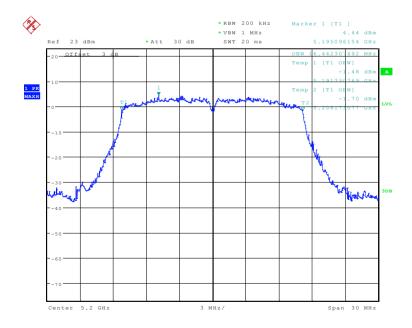
## 3.3.2 99% Occupied Bandwidth

## Test plot as follows:

Test mode: 802.11a	Test channel:	36
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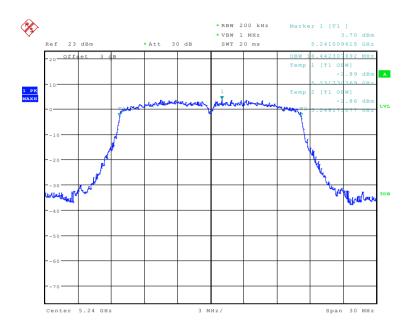


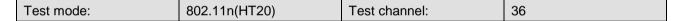


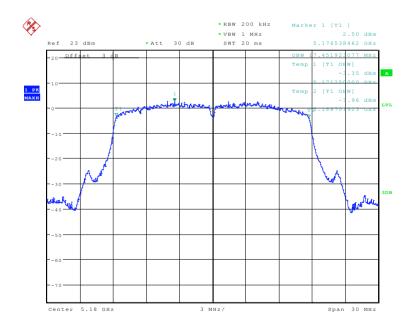
Report No.: SZEM141100618205

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Test mode: 802.11a Test channel: 48







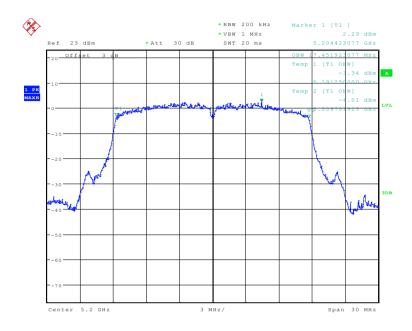
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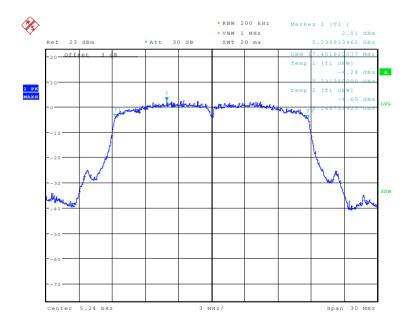
Report No.: SZEM141100618205

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Test mode: 802.11n(HT20) Test channel: 40





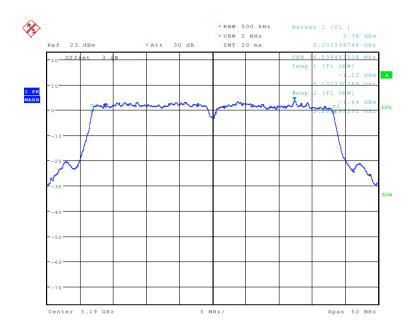


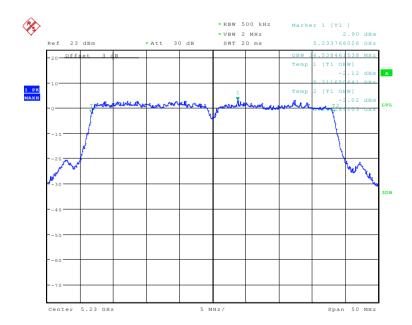


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Test mode: 802.11n(HT40) Test channel: 38





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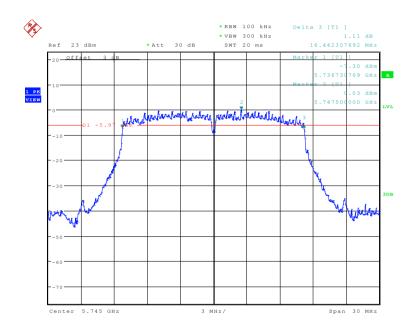


Report No.: SZEM141100618205

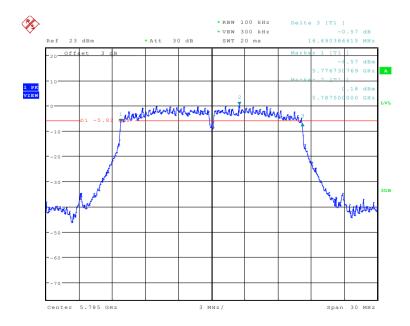
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## 3.4 6dB Emission Bandwidth

Test plot as follows:



Test mode:	802.11a	Test channel:	157

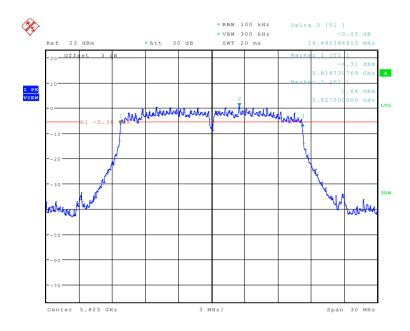




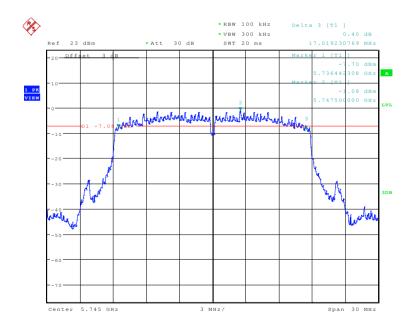
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Test mode: 802.11a Test channel: 165







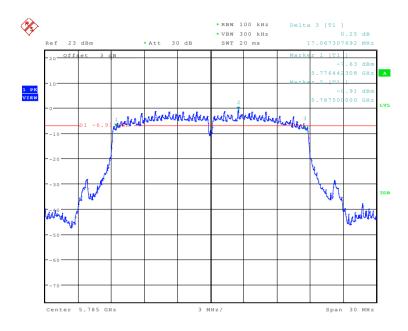
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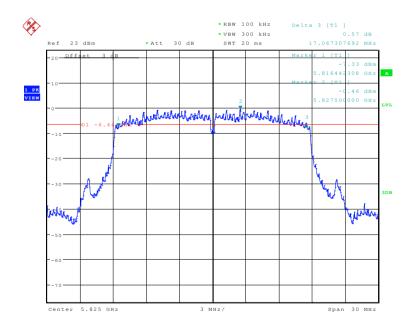
Report No.: SZEM141100618205

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Test mode: 802.11n(HT20) Test channel: 157







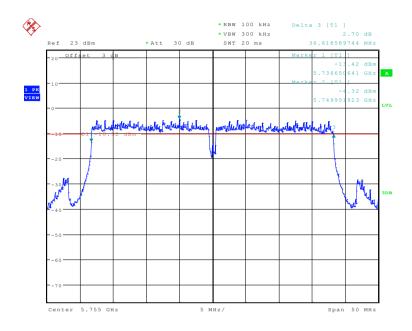
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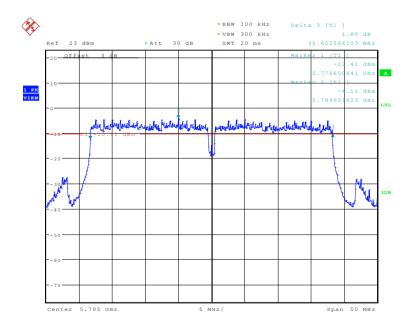
Report No.: SZEM141100618205

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Test mode: 802.11n(HT40) Test channel: 151







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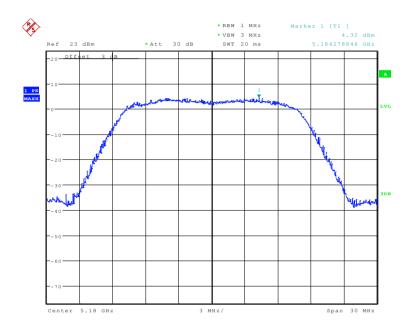
Report No.: SZEM141100618205

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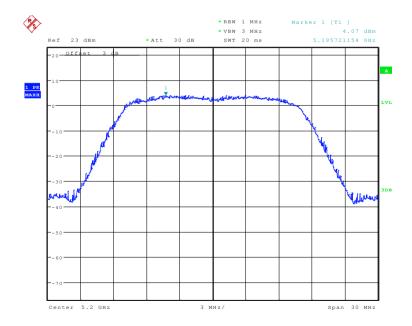
## 3.5 Power Spectral Density

Test plot as follows:

Test mode:	802.11a	Test channel:	36
Tool Inode.	002.114	i cot oriaririor.	00



Test mode: 802.11a Test channel: 40



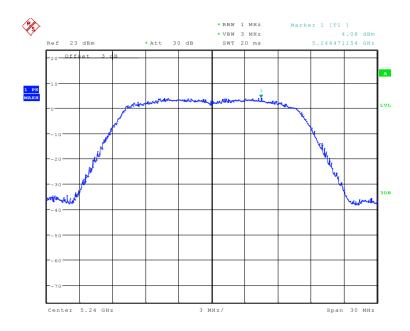
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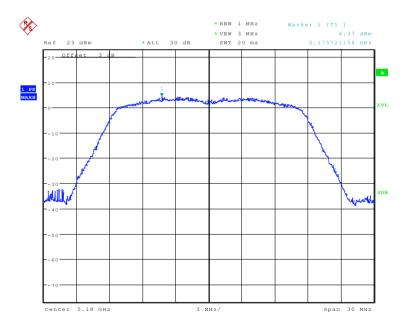
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Test mode: 802.11a Test channel: 48



1000 11000.	Test mode:	802.11n(HT20)	Test channel:	36	
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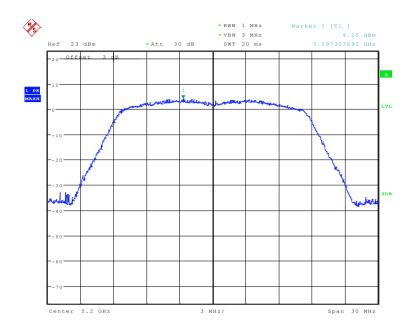
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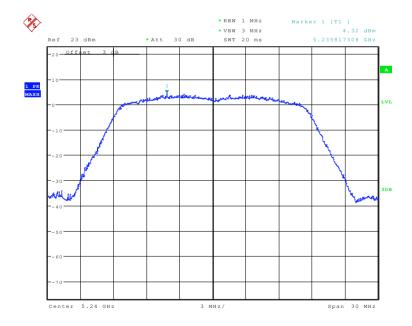
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Test mode: 802.11n(HT20) Test channel: 40







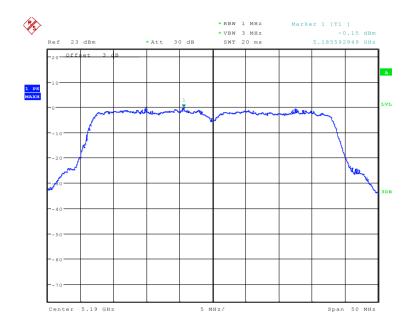
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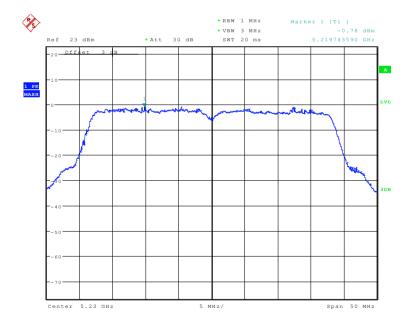
Report No.: SZEM141100618205

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Test mode: 802.11n(HT40) Test channel: 38







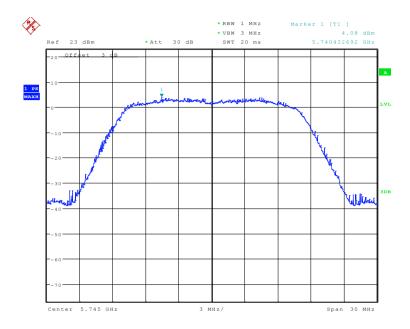
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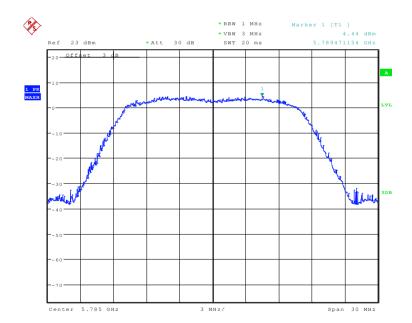
Report No.: SZEM141100618205

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Test mode: 802.11a Test channel: 149







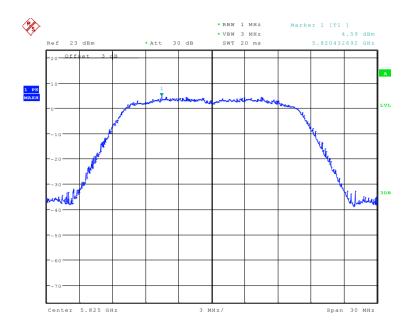
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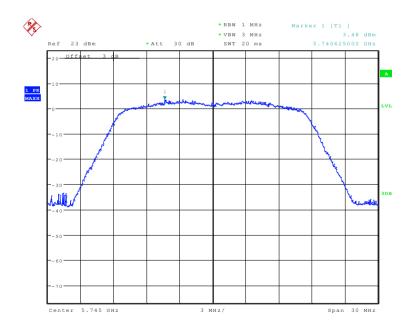
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Test mode: 802.11a Test channel: 165







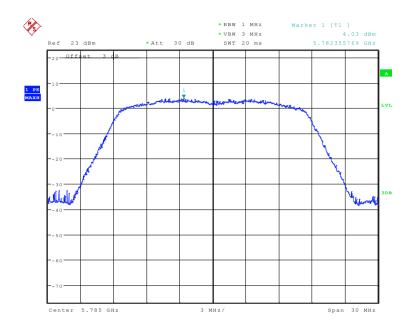
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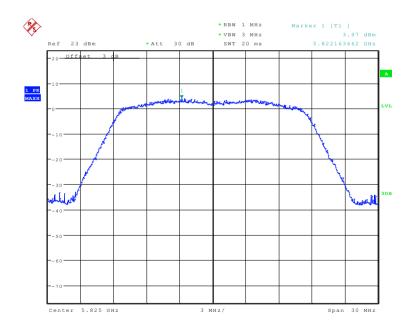
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Test mode: 802.11n(HT20) Test channel: 157







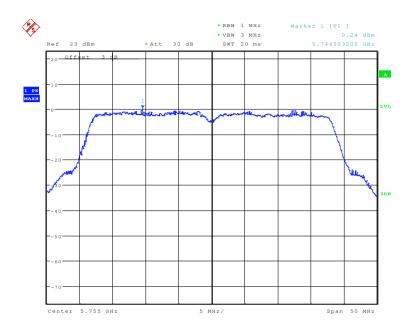
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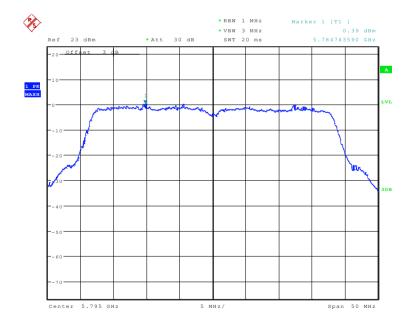
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Test mode: 802.11n(HT40) Test channel: 151







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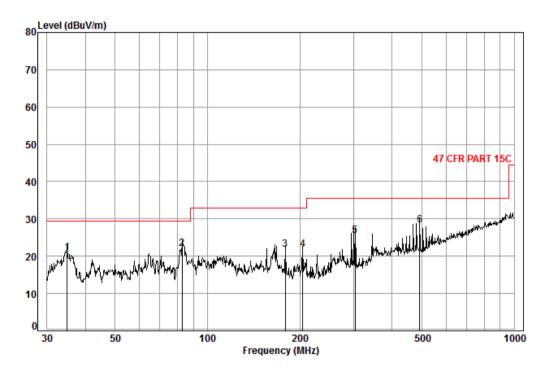
Report No.: SZEM141100618205

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# 3.6 Radiated Spurious Emissions

### 3.6.1 Radiated emission below 1GHz

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



Condition: 47 CFR PART 15C 10m Vertical

Job No. : 6182CR Test Mode: TX mode

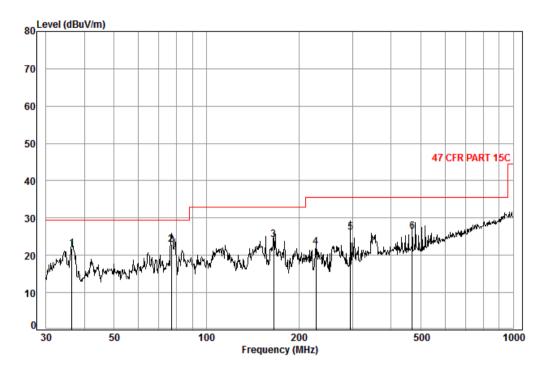
		Cable	Ant	Preamp	Read		Limit	Over
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MU-					dD: 1//m	dD, 1/1/m	dB
	MHz	dB	ub/m	dB	abuv	ubuv/m	ubuv/m	uв
1	34.88	6.70	11.68	32.65	35.17	20.90	29.50	-8.60
2	82.65	7.13	7.99	32.64	39.62	22.10	29.50	-7.40
3	179.39	7.50	11.76	32.60	35.16	21.82	33.00	-11.18
4	204.24	7.62	9.91	32.59	36.80	21.74	33.00	-11.26
5	303.54	8.06	13.16	32.55	36.92	25.59	35.60	-10.01
6 рр	492.47	8.56	17.27	32.59	35.06	28.30	35.60	-7.30

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Condition: 47 CFR PART 15C 10m Vertical

Job No. : 6182CR Test Mode: TX mode

	Freq			Preamp Factor				
_	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	36.38	6.73	11.74	32.65	35.99	21.81	29.50	-7.69
2 pp	76.78	7.04	8.74	32.64	39.74	22.88	29.50	-6.62
3	165.49	7.50	12.84	32.61	36.43	24.16	33.00	-8.84
4	227.69	7.74	10.71	32.58	36.45	22.32	35.60	-13.28
5	295.15	8.04	12.97	32.55	37.79	26.25	35.60	-9.35
6	468.88	8.47	16.92	32.57	33.64	26.46	35.60	-9.14

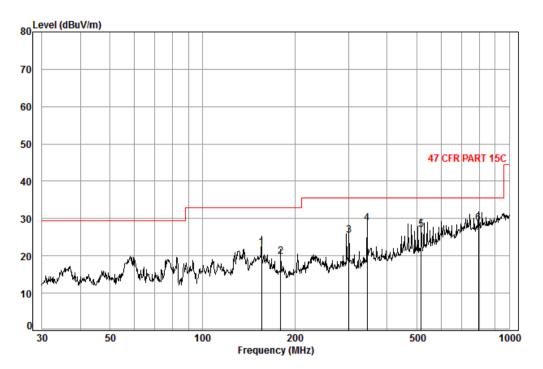
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Test mode: Transmitting mode Horizontal



Condition: 47 CFR PART 15C 10m Horizontal

Job No. : 6182CR Test Mode: TX mode

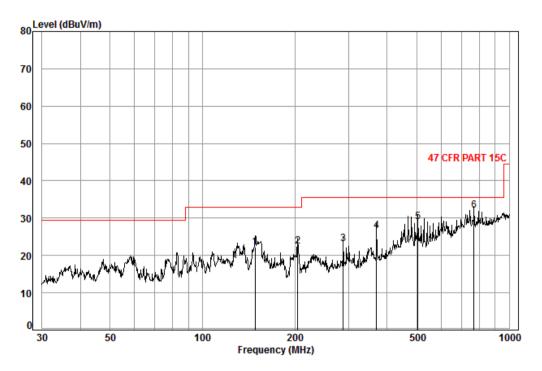
	Freq			Preamp Factor				
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	155.91	7.48	13.16	32.61	34.18	22.21	33.00	-10.79
2	180.02	7.50	11.71	32.60	33.14	19.75	33.00	-13.25
3	300.37	8.05	13.08	32.55	36.82	25.40	35.60	-10.20
4 pp	344.39	8.22	14.16	32.54	39.00	28.84	35.60	-6.76
5	517.25	8.69	17.61	32.60	33.26	26.96	35.60	-8.64
6	793.40	9.28	22.20	32.38	29.63	28.73	35.60	-6.87

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Condition: 47 CFR PART 15C 10m Horizontal

Job No. : 6182CR Test Mode: TX mode

		Cable	Ant	Preamp	Read		Limit	0ver
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	148.44	7.44	13.09	32.62	34.30	22.21	33.00	-10.79
2	204.24	7.62	9.91	32.59	37.62	22.56	33.00	-10.44
3	287.99	8.02	12.81	32.55	34.77	23.05	35.60	-12.55
4	369.40	8.30	14.69	32.54	36.10	26.55	35.60	-9.05
5	504.71	8.63	17.41	32.59	35.55	29.00	35.60	-6.60
6 pp	768.75	9.22	21.91	32.44	33.35	32.04	35.60	-3.56

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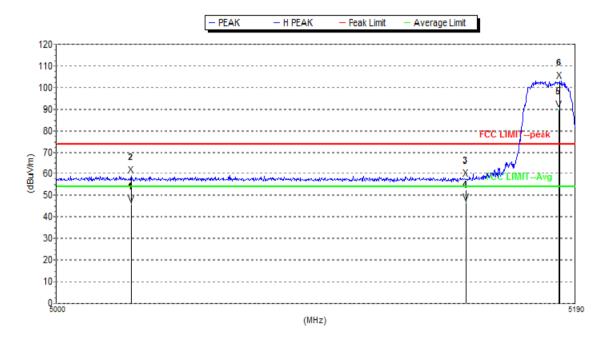
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## 3.7 Restricted bands around fundamental frequency

### Test plot as follows:

802.11a:



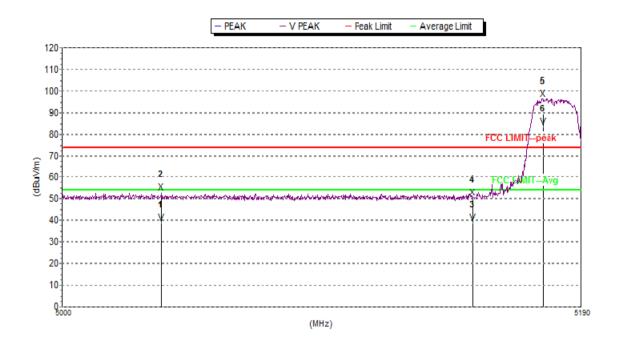
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5027.170	59.3	74.0	14.7	34.4	35.3	6.8	Н
2	5149.720	57.6	74.0	16.4	34.1	35.2	6.8	Н
3 F	5184.300	103.3	74.0	-29.3	34.1	35.1	6.8	Н
Avg								
1	5027.170	45.9	54.0	8.1	34.4	35.3	6.8	Н
2	5149.720	46.6	54.0	7.4	34.1	35.2	6.8	Н
3 F	5184.3	89.9	54.0	-35.9	34.1	35.1	6.8	Н

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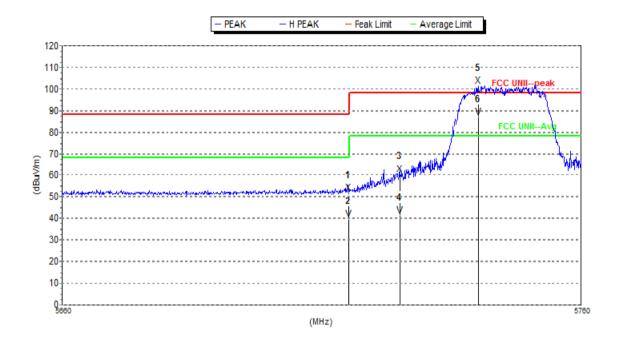
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5035.910	52.8	74.0	21.2	34.4	35.3	6.8	V
2	5150.000	50.4	74.0	23.6	34.1	35.2	6.8	V
3 F	5175.750	96.5	74.0	-22.5	34.1	35.1	6.8	V
Avg								
1	5035.910	38.8	54.0	15.2	34.4	35.3	6.8	V
2	5150.000	38.9	54.0	15.1	34.1	35.2	6.8	V
3 F	5175.750	83.4	54.0	-29.4	34.1	35.1	6.8	V

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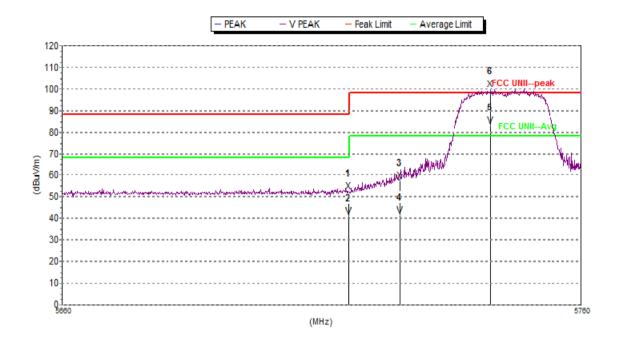
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	51.6	88.2	36.6	34.3	34.6	7.2	Н
2	5725.000	60.8	98.2	37.4	34.2	34.6	7.2	Н
3 F	5740.100	101.6	98.2	-3.4	34.2	34.6	7.2	Н
Avg								
1	5715.000	39.9	68.2	28.3	34.3	34.6	7.2	Н
2	5725.000	41.3	78.2	36.9	34.2	34.6	7.2	Н
3 F	5740.100	87.0	78.2	-8.8	34.2	34.6	7.2	Н

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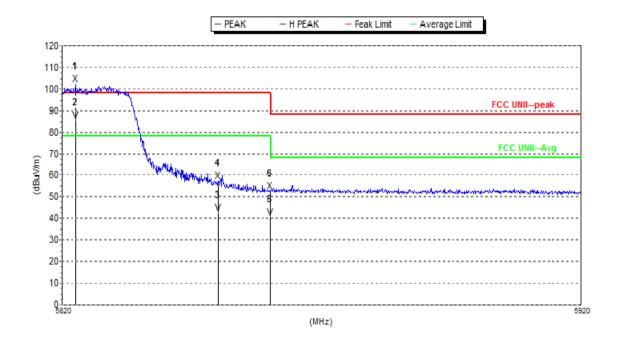
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	52.4	88.2	35.8	34.3	34.6	7.2	V
2	5725.000	57.3	98.2	40.9	34.2	34.6	7.2	V
3 F	5742.500	100.1	98.2	-1.9	34.2	34.6	7.2	V
Avg								
1	5715.000	41.0	68.2	27.2	34.3	34.6	7.2	V
2	5725.000	41.3	78.2	36.9	34.2	34.6	7.2	V
3 F	5742.500	83.1	78.2	-4.9	34.2	34.6	7.2	V

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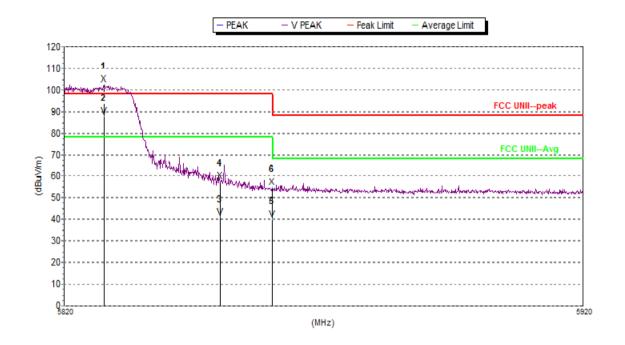
Mk.	Freq.(MHz)	Level	Limit	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L.	Pol.
		(dBuV/m)	(dBuV/m)				(dB)	
Peak:								
1 F	5822.700	102.3	98.2	-4.1	34.3	34.6	7.4	Н
2	5850.000	57.5	98.2	40.7	34.4	34.5	7.4	Н
3	5860.000	52.5	98.2	45.7	34.5	34.5	7.4	Н
Avg								
1 F	5822.700	85.4	78.2	-7.2	34.3	34.6	7.4	Н
2	5850.000	42.7	78.2	35.5	34.4	34.5	7.4	Н
3	5860.000	40.7	78.2	37.5	34.5	34.5	7.4	Н

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Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:		(dbd v/III)	(dBdV/III)				(db)	
reak.								
1 F	5827.800	102.9	98.2	-4.7	34.4	34.6	7.4	V
2	5850.000	57.7	98.2	40.5	34.4	34.5	7.4	V
3	5860.000	55.0	98.2	43.2	34.5	34.5	7.4	V
Avg								
1 F	5827.800	87.9	78.2	-9.7	34.4	34.6	7.4	V
2	5850.000	40.9	78.2	37.3	34.4	34.5	7.4	V
3	5860.000	40.2	78.2	38.0	34.5	34.5	7.4	V

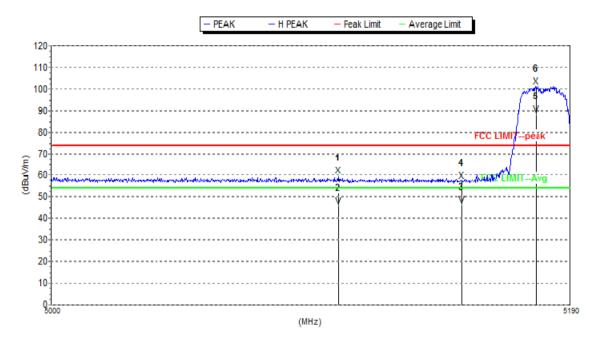
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### 802.11n(HT20):



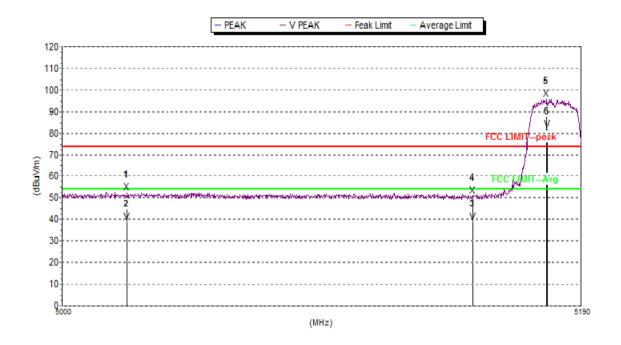
Mk.	Frog (MUz)	Level	Limit	Margin(dD)	Ant.F.(dB/m)	Amp C (dP)	Cbl.L.	Pol.
IVIK.	Freq.(MHz)	(dBuV/m)	(dBuV/m)	Margin(dB)	Ant.F.(ub/iii)	Amp.G.(dB)	(dB)	POI.
Peak:								
1	5104.310	59.6	74.0	14.4	34.2	35.2	6.8	Н
2	5150.000	57.5	74.0	16.5	34.1	35.2	6.8	Н
3 F	5177.270	101.3	74.0	-27.3	34.1	35.1	6.8	Н
Avg								
1	5104.310	45.8	54.0	8.2	34.2	35.2	6.8	Н
2	5150.000	46.2	54.0	7.8	34.1	35.2	6.8	Н
3 F	5177.270	88.1	54.0	-34.1	34.1	35.1	6.8	Н

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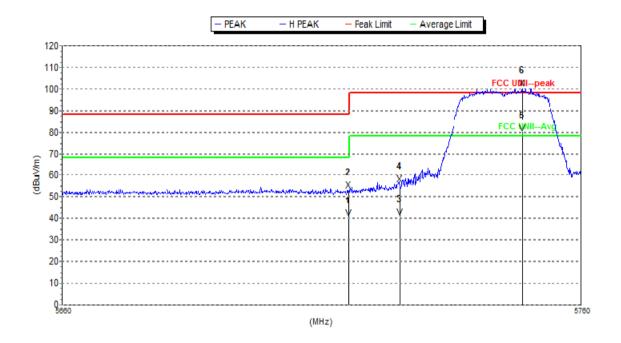
Mk.	Erog (MHz)	Level	Limit	Margin(dR)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L.	Pol.
IVIK.	Freq.(MHz)	(dBuV/m)	(dBuV/m)	Margin(dB)	Ant.F.(ub/m)	Amp.G.(ub)	(dB)	POI.
Peak:								
1	5023.560	52.7	74.0	21.3	34.5	35.3	6.8	V
2	5150.000	50.8	74.0	23.2	34.1	35.2	6.8	V
3 F	5177.080	95.9	74.0	-21.9	34.1	35.1	6.8	V
Avg								
1	5023.560	39.1	54.0	14.9	34.5	35.3	6.8	V
2	5150.000	38.9	54.0	15.1	34.1	35.2	6.8	V
3 F	5177.08	81.7	54.0	-27.7	34.1	35.1	6.8	V

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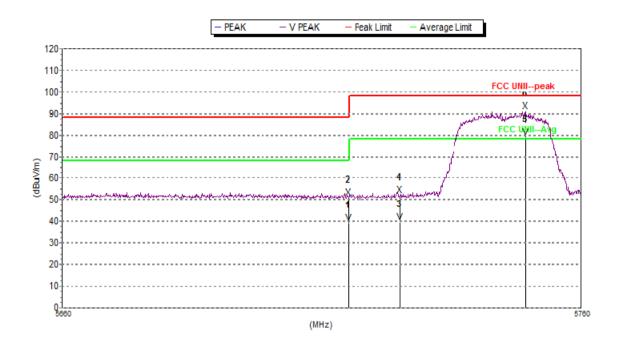
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	52.8	88.2	35.4	34.3	34.6	7.2	Н
2	5725.000	55.8	98.2	42.4	34.2	34.6	7.2	Н
3 F	5748.600	100.2	98.2	-2.0	34.2	34.6	7.2	Н
Avg								
1	5715.000	40.0	68.2	28.2	34.3	34.6	7.2	I
2	5725.000	40.4	78.2	37.8	34.2	34.6	7.2	Н
3 F	5748.600	79.5	78.2	-1.3	34.2	34.6	7.2	Н

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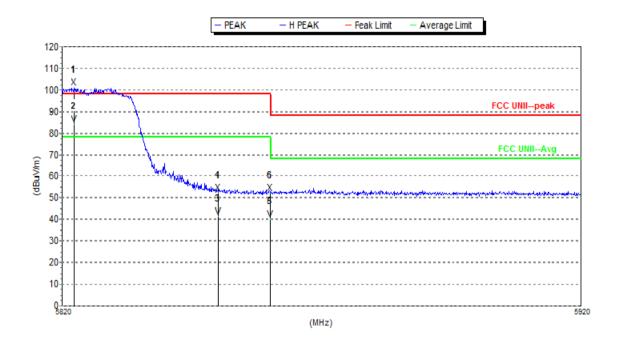
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	50.9	88.2	37.3	34.3	34.6	7.2	V
2	5725.000	52.1	98.2	46.1	34.2	34.6	7.2	V
3	5749.200	91.2	98.2	7.0	34.2	34.6	7.2	V
Avg								
1	5715.000	39.4	68.2	28.8	34.3	34.6	7.2	V
2	5725.000	39.8	78.2	38.4	34.2	34.6	7.2	V
3 F	5749.200	79.2	78.2	-1.0	34.2	34.6	7.2	V

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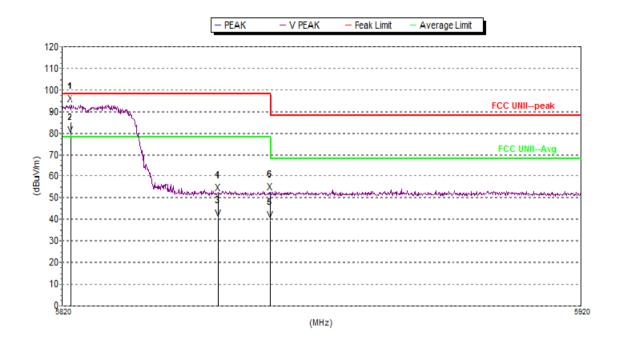
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1 F	5822.500	101.2	98.2	-3.0	34.3	34.6	7.4	Н
2	5850.000	52.1	98.2	46.1	34.4	34.5	7.4	Н
3	5860.000	52.0	98.2	46.2	34.5	34.5	7.4	Н
Avg								
1 F	5822.500	84.1	78.2	-5.9	34.3	34.6	7.4	Н
2	5850.000	41.3	78.2	36.9	34.4	34.5	7.4	Н
3	5860.000	40.2	78.2	38.0	34.5	34.5	7.4	Н

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Mk.	Freq.(MHz)	Level	Limit	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L.	Pol.
IVIK.	r req.(ivii iz)	(dBuV/m)	(dBuV/m)	Margin(ub)	Ant.r.(ub/m)	Amp.G.(db)	(dB)	FOI.
Peak:								
1	5821.700	93.5	98.2	4.7	34.3	34.6	7.4	V
2	5850.000	52.2	98.2	46.0	34.4	34.5	7.4	V
3	5860.000	52.4	98.2	45.8	34.5	34.5	7.4	V
Avg								
1 F	5821.700	79.1	78.2	-0.9	34.3	34.6	7.4	V
2	5850.000	40.4	78.2	37.8	34.4	34.5	7.4	V
3	5860.000	39.9	78.2	38.3	34.5	34.5	7.4	V

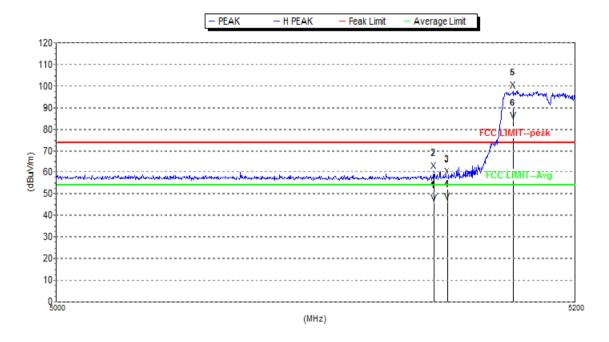
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### 802.11n(HT40):



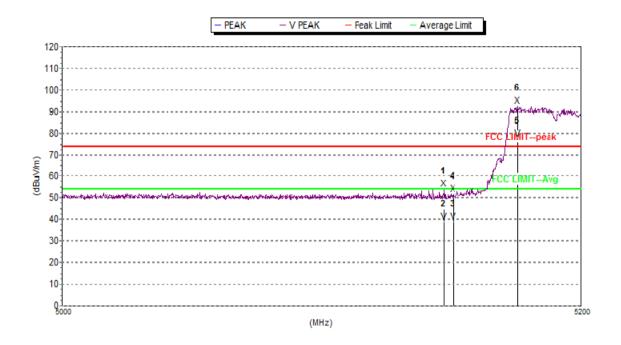
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5144.800	60.6	74.0	13.4	34.1	35.2	6.8	Н
2	5150.000	57.7	74.0	16.3	34.1	35.2	6.8	Н
3 F	5175.600	98.0	74.0	-24.0	34.1	35.1	6.8	Н
Avg								
1	5144.800	45.9	54.0	8.1	34.1	35.2	6.8	Н
2	5150.000	46.1	54.0	7.9	34.1	35.2	6.8	Н
3 F	5175.600	84.0	54.0	-30.0	34.1	35.1	6.8	Н

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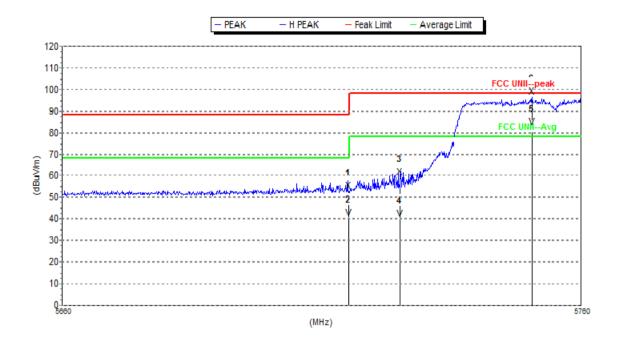
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5146.400	54.0	74.0	20.0	34.1	35.2	6.8	٧
2	5150.000	51.9	74.0	22.1	34.1	35.2	6.8	٧
3 F	5175.000	92.6	74.0	-18.6	34.1	35.1	6.8	V
Avg								
1	5146.400	38.8	54.0	15.2	34.1	35.2	6.8	٧
2	5150.000	39.0	54.0	15.0	34.1	35.2	6.8	V
3 F	5175.000	77.3	54.0	-23.3	34.1	35.1	6.8	٧

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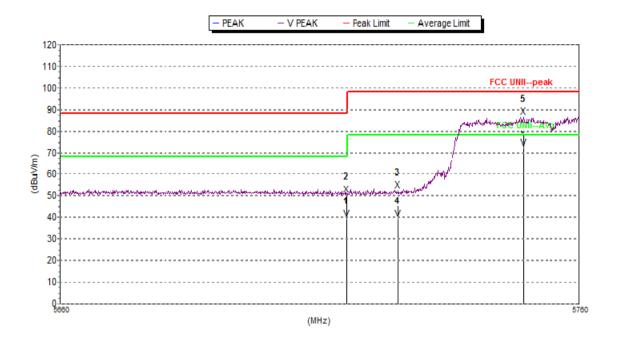
Mk.	Freq.(MHz)	Level	Limit	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L.	Pol.
IVIK.	r req.(ivii iz)	(dBuV/m)	(dBuV/m)	Margin(ub)	Ant.r.(ub/m)	Amp.G.(db)	(dB)	FOI.
Peak:								
1	5715.000	52.9	88.2	35.3	34.3	34.6	7.2	Н
2	5725.000	59.5	98.2	38.7	34.2	34.6	7.2	Н
3	5750.400	96.6	98.2	1.6	34.2	34.6	7.2	Н
Avg								
1	5715.000	40.6	68.2	27.6	34.3	34.6	7.2	Н
2	5725.000	40.3	78.2	37.9	34.2	34.6	7.2	Н
3 F	5750.400	82.7	78.2	-4.5	34.2	34.6	7.2	Н

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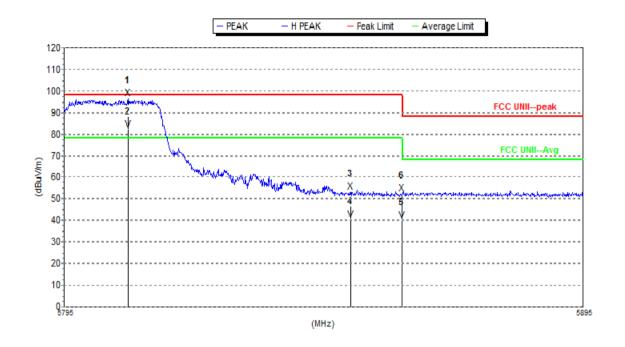
Mk.	Freq.(MHz)	Level (dBuV/m)	Limit (dBuV/m)	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L. (dB)	Pol.
Peak:								
1	5715.000	50.6	88.2	37.6	34.3	34.6	7.2	V
2	5725.000	52.6	98.2	45.6	34.2	34.6	7.2	٧
3	5749.200	86.8	98.2	11.4	34.2	34.6	7.2	٧
Avg								
1	5715.000	39.3	68.2	28.9	34.3	34.6	7.2	٧
2	5725.000	39.5	78.2	38.7	34.2	34.6	7.2	V
3	5749.200	72.3	78.2	5.9	34.2	34.6	7.2	٧

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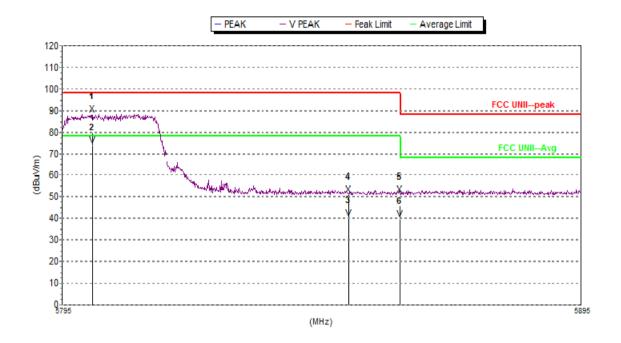
Mk.	Freq.(MHz)	Level	Limit	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L.	Pol.
		(dBuV/m)	(dBuV/m)				(dB)	
Peak:								
1	5807.300	96.8	98.2	1.4	34.3	34.6	7.3	Н
2	5850.000	53.4	98.2	44.8	34.4	34.5	7.4	Н
3	5860.000	52.4	98.2	45.8	34.5	34.5	7.4	Н
Avg								
1 F	5807.300	82.1	78.2	-3.9	34.3	34.6	7.3	Н
2	5850.000	40.5	78.2	37.7	34.4	34.5	7.4	Н
3	5860.000	40.0	78.2	38.2	34.5	34.5	7.4	Н

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Mk.	Freq.(MHz)	Level	Limit	Margin(dB)	Ant.F.(dB/m)	Amp.G.(dB)	Cbl.L.	Pol.
		(dBuV/m)	(dBuV/m)				(dB)	
Peak:								
1	5800.900	88.4	98.2	9.8	34.3	34.6	7.3	V
2	5850.000	51.1	98.2	47.1	34.4	34.5	7.4	V
3	5860.000	50.9	98.2	47.3	34.5	34.5	7.4	V
Avg								
1	5800.900	73.9	78.2	4.3	34.3	34.6	7.3	V
2	5850.000	40.1	78.2	38.1	34.4	34.5	7.4	V
3	5860.000	39.9	78.2	38.3	34.5	34.5	7.4	V

#### Note:

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

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

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