

Report No.: HKES160500092603

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

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FCC REPORT

Application No: HKES1605000926IT

Applicant: Pismo Labs Technology Limited

Product Name: Peplink/ Pepwave/ Pismo Labs wireless product

Model No.(EUT): AP One Rugged

Add Model No.: Pismo AC6, Device Connector, Device Connector Rugged

FCC ID: U8G-P1AC6

Standards: 47 CFR Part 15, Subpart E (2015)

Date of Receipt: 2016-05-23

Date of Test: 2016-05-25 to 2016-05-27

Date of Issue: 2016-06-22

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		2016-06-22		Original		

Authorized for issue by:		
	Hank yan.	2016-05-27
Tested By	(Hank Yan) /Project Engineer	Date
	Joyce Shi	2016-06-22
Prepared By	(Joyce Shi) /Clerk	Date
	Eric Fu	2016-06-22
Checked By	(Eric Fu) /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: 2013	PASS
AC Power Line Conducted Emission	47 CFR Part 15 Section 15.407(b)	ANSI C63.10: 2013	PASS
Conducted Output Power	47 CFR Part 15 Section 15.407(a)	ANSI C63.10: 2013	PASS
6dB Occupied Bandwidth	47 CFR Part 15 Section 15.407(e)	ANSI C63.10: 2013	PASS
26 dB Emission Bandwidth & 99% Occupied Bandwidth	47 CFR Part 15 Section 15.407(a)	ANSI C63.10: 2013	PASS
Power Spectral Density	47 CFR Part 15 Section 15.407(a)	ANSI C63.10: 2013	PASS
Radiated Spurious Emissions	47 CFR Part 15 Section 15.407(b)	ANSI C63.10: 2013	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15 Section 15.407(b)	ANSI C63.10: 2013	PASS
Frequency Stability	47 CFR Part 15 Section 15.407(g)	ANSI C63.10: 2013	PASS
Automatically Discontinue Transmission Requirement	47 CFR Part 15 Section 15.407 (c)	ANSI C63.10: 2013	PASS

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5 General Information

5.1 Client Information

Applicant:	Pismo Labs Technology Limited
Address of Applicant:	FLAT/RM A5, 5/F HK SPINNERS IND BLDG PHASE 6, 481 CASTLE PEAK ROAD, CHEUNG SHA WAN, HONG KONG

5.2 General Description of EUT

Product Name:	Peplink/ Pepwave/ Pismo Labs wireless product					
Model No.:	AP One Rugged					
Operation Frequency:	Band	Mode	Frequency Range(MHz)	Number of channels		
	UNII Band I	IEEE 802.11a	5180-5240	4		
		IEEE 802.11n/ac 20MHz	5180-5240	4		
		IEEE 802.11n/ac 40MHz	5190-5230	2		
		IEEE 802.11ac 80MHz	5210	1		
	UNII Band III	IEEE 802.11a	5745-5825	5		
		IEEE 802.11n/ac 20MHz	5745-5825	5		
		IEEE 802.11n/ac 40MHz	5755-5795	2		
		IEEE 802.11ac 80MHz	5775	1		
Type of Modulation:	IEEE 802.11n: C	DFDM(BPSK/QPSK/16QAM DFDM(BPSK/QPSK/16QAM OFDM (BPSK/QPSK/16QA	I/64QAM))		
Antenna Type:	Dedicated Anten	ina				
Antenna Gain:	Band I: 5.5dBi, E	Band III: 6dBi				
AC Adaptor:	I.T.E Power Sup	ply:				
	Model:MU24-Y120200-A1					
	Input: AC 100-240V, 50/60Hz, 0.7A					
	Output: DC 12V, 2A					
	Or DC 12V-36V					

Remark:

Model No.: AP One Rugged, Pismo AC6, Device Connector, Device Connector Rugged

Only the model AP One Rugged was tested, since the circuit design, PCB layout, electrical components used, internal wiring and functions were identical for the above models, only different on model names for the marketing requirement.

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Note:

In FCC 15.31, for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table, and the selected channel to perform the test as below:

Frequency Range of Operation Operating Frequency Range (in each Band)	Number of Measurement Frequencies Required	Location of Measurement Frequency in Band of Operation
1 MHz or less	1	centre
1 MHz to 10 MHz	2	1 near high end, 1 near low end
Greater than 10 MHz	3	1 near high end, 1 near centre

For UNII Band I:

Mode	Channel	Frequency(MHz)
IEEE 802.11a/n/ac 20MHz	The Lowest channel	5180
	The Middle channel	5200
	The Highest channel	5240
IEEE 802.11n/ac 40MHz	The Lowest channel	5190
	The Highest channel	5230
IEEE 802.11ac 80MHz	One channel	5210

For UNII Band III:

Mode	Channel	Frequency(MHz)
IEEE 802.11a/n/ac 20MHz	The Lowest channel	5745
	The Middle channel	5785
	The Highest channel	5825
IEEE 802.11n/ac 40MHz	The Lowest channel	5755
	The Highest channel	5795
IEEE 802.11ac 80MHz	One channel	5775

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5.3 Test Environment and Mode

Operating Environment:					
Temperature:	25.0 °C				
Humidity:	55% 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 independent unit.

5.5 Test Location

All tests were performed at:

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

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

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

No tests were sub-contracted.

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5.6 Test Facility

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

• CNAS (No. CNAS L2929)

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

A2LA (Certificate No. 3816.01)

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

VCCI

The 10m Semi-anechoic chamber and Shielded Room 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 and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

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. date (yyyy-mm- dd)	Cal.Due date (yyyy-mm-dd)
1	Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2016-05-13	2017-05-13
2	LISN	Rohde & Schwarz	ENV216	SEM007-01	2015-10-09	2016-10-09
3	LISN	ETS- LINDGREN	3816/2	SEM007-02	2016-04-25	2017-04-25
4	8 Line ISN	Fischer Custom Communication s Inc.	FCC- TLISN-T8- 02	EMC0120	2015-08-30	2016-08-30
5	4 Line ISN	Fischer Custom Communication s Inc.	FCC- TLISN-T4- 02	EMC0121	2015-08-30	2016-08-30
6	2 Line ISN	Fischer Custom Communication s Inc.	FCC- TLISN-T2- 02	EMC0122	2015-08-30	2016-08-30
7	EMI Test Receiver	Rohde & Schwarz	ESCI	SEM004-02	2016-04-25	2017-04-25
8	DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2015-10-09	2016-10-09



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	RE in Chamber					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy-mm-dd)	Cal.Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2016-05-13	2017-05-13
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEM004-04	2016-04-25	2017-04-25
3	BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-02	2014-11-15	2017-11-15
4	Amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2015-10-09	2016-10-09
5	Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2015-06-14	2018-06-14
6	Low Noise Amplifier	Black Diamond Series	BDLNA- 0118- 352810	SEM005-05	2015-10-09	2016-10-09
7	Band filter	Amindeon	Asi 3314	SEM023-01	N/A	N/A

	RE in Chamber					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy-mm-dd)	Cal.Due date (yyyy-mm-dd)
1	3m Semi-Anechoic Chamber	AUDIX	N/A	SEL0198	2016-05-13	2017-05-13
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	2016-05-13	2017-05-13
3	EMI Test software	AUDIX	E3	SEL0201	N/A	N/A
4	Coaxial cable	SGS	N/A	SEL0202	2016-05-13	2017-05-13
5	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	2015-11-15	2016-11-15
6	Amplifier (0.1-1300MHz)	HP	8447D	SEL0153	2015-10-09	2016-10-09
7	Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEL0311	2015-06-14	2016-06-14
8	Horn Antenna (18-26GHz)	ETS-Lindgren	3160	SEM003-12	2014-11-24	2017-11-24
9	Low Noise Amplifier	Black Diamond Series	BDLNA- 0118- 352810	SEL0319	2015-10-09	2016-10-09
10	Band filter	Amindeon	Asi 3314	SEL0094	2016-05-13	2017-05-13





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	RF connected test					
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy-mm-dd)	Cal.Due date (yyyy-mm-dd)
1	DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2015-10-09	2016-10-09
2	Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2015-10-17	2016-10-17
3	Barometer	ChangChun	DYM3	SEM002-01	2016-05-13	2017-05-13
4	Signal Generator	Rohde & Schwarz	SML03	SEM006-02	2016-04-25	2017-04-25
5	Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2015-10-09	2016-10-09





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6 Test results and Measurement Data

6.1 Antenna Requirement

Standard requirement

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

15.203 requirement:

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

EUT Antenna:



The antenna is integrated antenna and no consideration of replacement. The Max. antenna gain is 5.5dBi for Band I, the Max. antenna gain is 6dBi for band III, and directional gain is 10.27dBi for band II.

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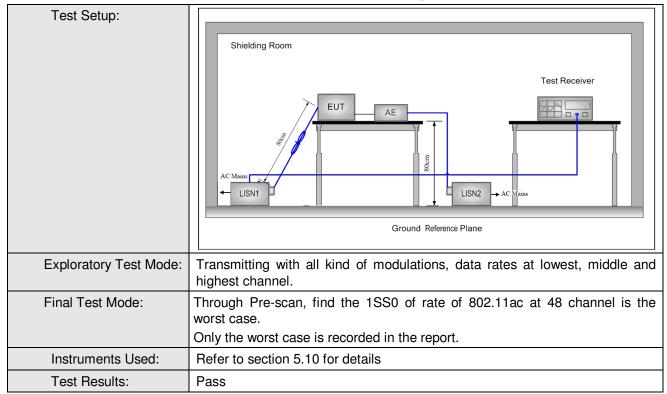
6.2 Conducted Emissions

Test Requirement:	47 CFR Part 15 Section 15.407(b)							
Test Method:	ANSI C63.10: 2013, section 6.2							
Test Frequency Range:	150kHz to 30MHz							
Limit:	Eroguanay rango (MHz) Limit (dBuV)							
	Frequency range (MHZ)	Frequency range (MHz) Quasi-peak						
	0.15-0.5	66 to 56*	56 to 46*					
	0.5-5	56	46					
	5-30	60	50					
	* Decreases with the logarithm	n of the frequency.		-				
Test Procedure:								





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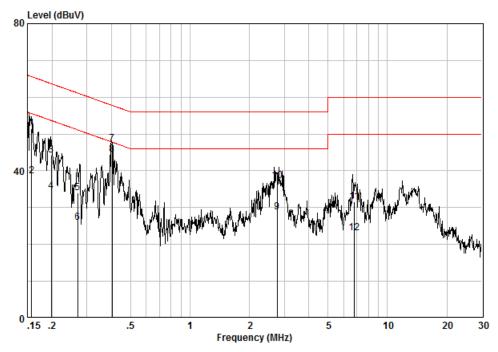
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Measurement Data

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

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

Live Line:



Site : Shielding Room Condition : CE LINE Job.No : 0926IT Test Mode : TX mode

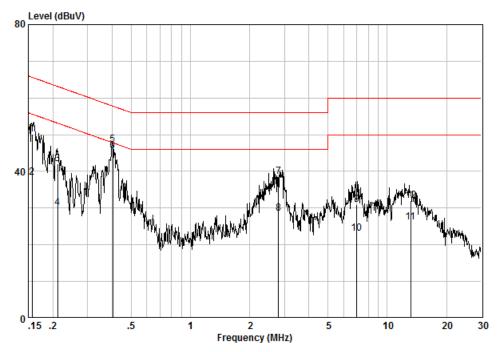
		Cable	LISN	Read		Limit	Over	
	Freq	Loss	Factor	Level	Level	Line	Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dBuV	dB	
1	0.15723	0.02	9.59	41.76	51.37	65.61	-14.24	QP
2	0.15723	0.02	9.59	28.98	38.59	55.61	-17.02	AVERAGE
3	0.19817	0.02	9.60	34.70	44.32	63.69	-19.37	QP
4	0.19817	0.02	9.60	24.81	34.43	53.69	-19.26	AVERAGE
5	0.26900	0.01	9.60	24.38	33.99	61.15	-27.16	QP
6	0.26900	0.01	9.60	16.32	25.93	51.15	-25.22	AVERAGE
7	0.40220	0.01	9.60	37.59	47.20	57.81	-10.61	QP
8	0.40220	0.01	9.60	34.78	44.39	47.81	-3.42	AVERAGE
9	2.762	0.02	9.62	19.12	28.76	46.00	-17.24	AVERAGE
10	2.776	0.02	9.62	27.65	37.29	56.00	-18.71	QP
11	6.820	0.01	9.68	21.95	31.63	60.00	-28.37	QP
12	6.820	0.01	9.68	13.42	23.11	50.00	-26.89	AVERAGE



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Neutral Line:



Site : Shielding Room Condition : CE NEUTRAL Job.No : 0926IT Test Mode : TX mode

		Freq	Cable Loss	LISN Factor			Limit Line	Over Limit	Remark
		MHz	dB	——dB	dBuV	dBuV	dBuV	——dB	
1		0.15700	0.02	9.61	40.41	50.04	65.62	-15.58	QP
2		0.15700	0.02	9.61	28.74	38.37	55.62	-17.25	AVERAGE
3		0.21114	0.02	9.62	32.52	42.15	63.16	-21.01	QP
4		0.21114	0.02	9.62	20.44	30.08	53.16	-23.09	AVERAGE
5		0.40230	0.01	9.62	37.68	47.31	57.81	-10.49	QP
6	@	0.40230	0.01	9.62	35.84	45.47	47.81	-2.34	AVERAGE
7		2.803	0.02	9.67	28.83	38.52	56.00	-17.48	QP
8		2.803	0.02	9.67	18.76	28.45	46.00	-17.55	AVERAGE
9		6.998	0.01	9.74	21.24	30.99	60.00	-29.01	QP
10		6.998	0.01	9.74	13.42	23.17	50.00	-26.84	AVERAGE
11		13.124	0.01	9.86	16.25	26.13	50.00	-23.87	AVERAGE
12		13,124	0.01	9.86	22.18	32.06	60.00	-27.94	OP

Notes:

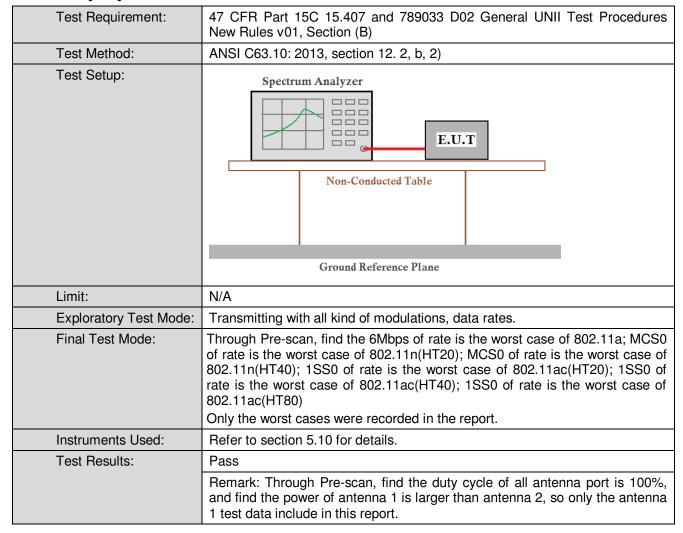
- 1. The following Quasi-Peak and Average measurements were performed on the EUT:
- 2. Final Test Level =Receiver Reading + LISN Factor + Cable Loss.



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6.3 Duty Cycle



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Measurement Data

Band I

802.11a mode										
Test channel	On time	Period	Duty Cycle(%)							
36	100	100	100							
	802.11n(HT20) mode									
Test channel	On time	Period	Duty Cycle							
36	100 100		100							
	802.11n(HT40) mode									
Test channel	On time	Period	Duty Cycle							
38	100 100 10		100							

Band IV

	24.14.1									
	802.11a mode									
Test channel	On time	Period	Duty Cycle(%)							
149	100	100	100							
	802.11n(HT20) mode									
Test channel	On time	Period	Duty Cycle							
149	100	100	100							
	802.11n(HT40) mode									
Test channel	On time	Period	Duty Cycle							
151	151 100		100							

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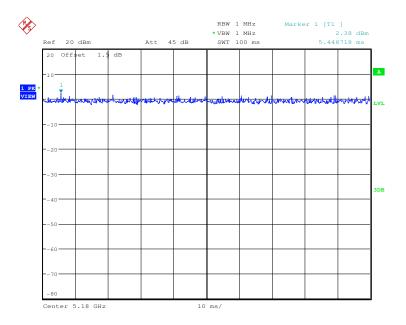




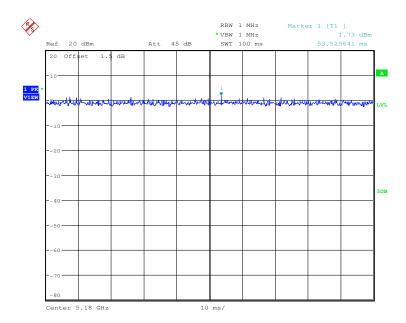
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Band I

Test mode:	802.11a
------------	---------



Test mode: 802.11n(HT20)



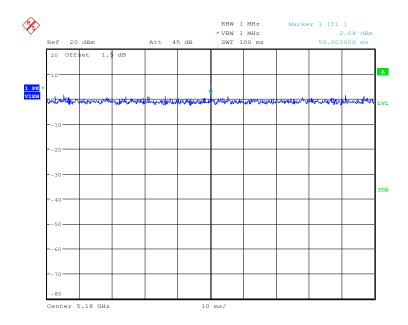
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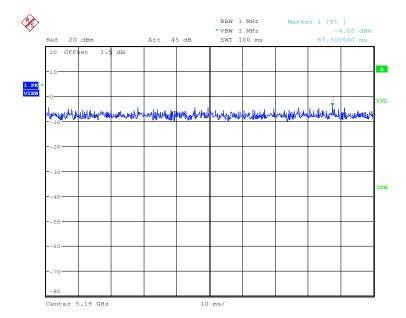


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Test mode: 802.11ac20



Test mode: 802.11n(HT40)



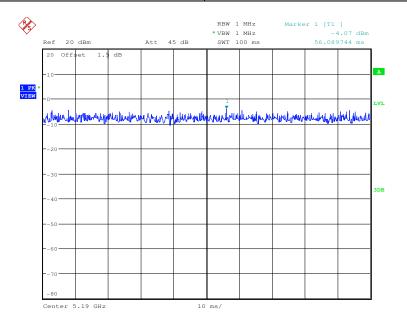
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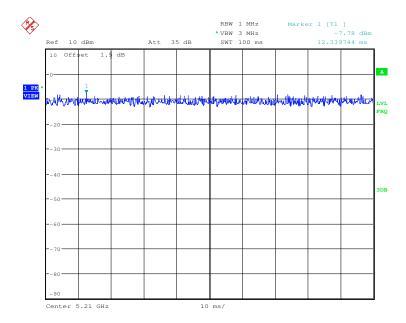


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Test mode: 802.11ac40



Test mode: 802.11ac80



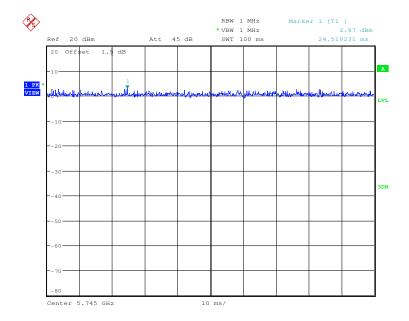
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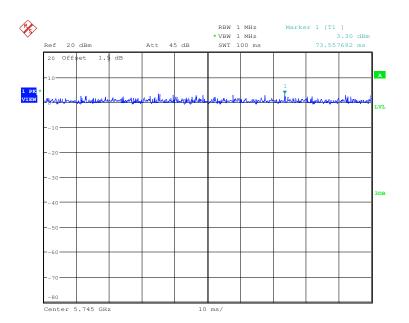
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Band III



Test mode: 802.11n(HT20)

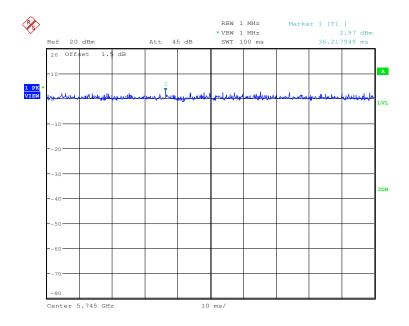




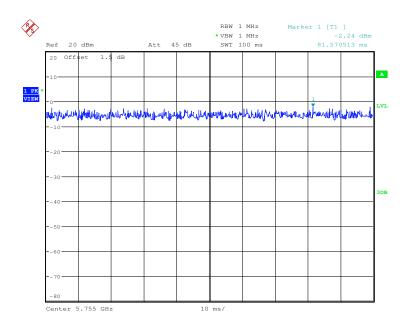


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Test mode: 802.11ac20



Test mode: 802.11n(HT40)



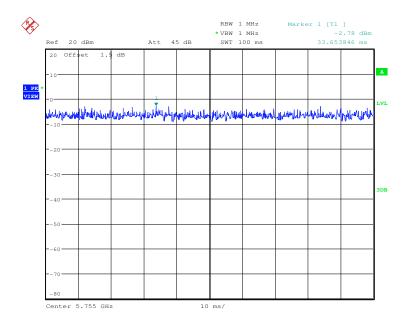
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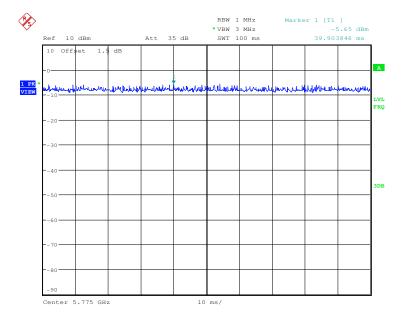


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Test mode: 802.11ac40



Test mode: 802.11ac80



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6.4 Conducted Output Power

Test Requirement:	47 CFR Part 15 S	ection 15.407(a)					
Test Method:	ANSI C63.10: 2013, Section 12.3.3.1						
Test Setup:	Pov	Non-Conducted Table Ground Reference Plane					
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; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report.						
Limit:	Frequency Band	Limit					
	Frequency Band Limit 5150-5250MHz Antenna gain below 6dBi: 30dBm (802.11 a) Antenna gain greater than 6dBi: Not exceed 30dBm – 4.27 (directional gain-6) = 25.73dBm (802.11 n & 802.11ac)						
	Antenna gain below 6dBi: 30dBm (802.11 a) Antenna gain greater than 6dBi: Not exceed 30dBm -4.77 (directional gain-6) = 3 (802.11 n & 802.11ac)						
	Directional gain = $G_{ANT MAX}$ + 10 log(N_{ANT}/N_{SS}) dBi = 5.5 + 4.77 = 10.27 (N_{SS} = 1, where NSS is the number of spatial streams) (N_{ANT} = 3, where NANT is the number of outputs)						
Test Results:	Pass						



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Pre-scan	under all rate)						
Mode				802	.11a			
Data Rate	6Mbps	9Mbps	12Mbps	18Mbps	24Mbps	36Mbps	48Mbps	54Mbps
Power (dBm)	9.47	9.23	9.35	9.42	9.38	9.32	9.30	9.25
Mode					n(HT20)			
Data Rate	MCS0 6.5Mbps	MCS1 13Mbps	MCS2 19.5Mbps	MCS3 26Mbps	MCS4 39Mbps	MCS5 52Mbps	MCS6 58.5Mbps	MCS7 65Mbps
Power (dBm)	12.54	12.45	12.51	12.50	12.49	12.38	12.47	12.43
Mode				802.11	n(HT20)			
Data Rate	MCS8 13Mbps	MCS9 26Mbps	MCS10 39Mbps	MCS11 52Mbps	MCS12 78Mbps	MCS13 104Mbps	MCS14 117Mbps	MCS15 130Mbps
Power (dBm)	12.52	12.51	12.45	12.41	12.39	12.42	12.40	12.51
Mode				802.11	n(HT20)			
Data Rate	MCS16 19.5Mbps	MCS17 39Mbps	MCS18 58.5Mbps	MCS19 78Mbps	MCS20 117Mbps	MCS21 156Mbps	MCS22 175.5Mbps	MCS23 195Mbps
Power (dBm)	12.51	12.41	12.49	12.37	12.35	12.42	12.40	12.51
Mode				802.11	n(HT40)			
Data Rate	MCS0 13.5Mbps	MCS1 27Mbps	MCS2 40.5Mbps	MCS3 54Mbps	MCS4 81Mbps	MCS5 105Mbps	MCS6 121.5Mbps	MCS7 135Mbps
Power (dBm)	10.59	10.35	10.41	10.51	10.42	10.38	10.47	10.36
Mode				802.11	n(HT40)			
Data Rate	MCS8 27Mbps	MCS9 54Mbps	MCS10 81Mbps	MCS11 108Mbps	MCS12 162Mbps	MCS13 216Mbps	MCS14 243Mbps	MCS15 270Mbps
Power (dBm)	10.51	10.55	10.45	10.41	10.49	10.41	10.37	10.41
				802.11	n(HT40)			
Data Rate	MCS16 40.5Mbps	MCS17 81Mbps	MCS18 121.5Mbps	MCS19 162Mbps	MCS20 243Mbps	MCS21 324Mbps	MCS22 364.5Mbps	MCS23 405Mbps
Power (dBm)	10.51	10.50	10.49	10.42	10.46	10.42	10.47	10.42

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					ı agc.	27 01 /		
Pre-scan	under all rate							
Mode				802.11ac	(HT20)			
Data Rate	1SS0 6.5Mbps	1SS1 13Mbps	1SS2 19.5Mbps	1SS3 26Mbps	1SS4 39Mbps	1SS5 52Mbps	1SS6 58.5Mbps	1SS7 78Mbps
Power (dBm)	12.53	12.30	12.38	12.41	12.40	12.39	12.51	12.47
Mode				802.11ad	(HT20)			
Data Rate	1SS8 78Mbps	2SS0 13Mbps	2SS1 26Mbps	2SS2 39Mbps	2SS3 52Mbps	2SS4 78Mbps	2SS5 104Mbps	2SS6 117Mbps
Power (dBm)	12.51	12.41	12.39	12.35	12.40	12.42	12.49	12.40
Mode				802.11ad	(HT20)			
Data Rate	2SS7 130Mbps	2SS8 156Mbps	3SS0 19.5Mbps	3SS1 39Mbps	3SS2 58.5Mbps	3SS3 78Mbps	3SS4 117Mbps	3SS5 156Mbps
Power (dBm)	12.51	12.51	12.43	12.36	12.37	12.41	12.45	12.34
Mode				802.11ad	(HT20)			
Data Rate	3SS6 175.5Mbps	3SS7 195Mbps	3SS8 234Mbps	3SS9 260Mbps				
Power (dBm)	12.29	12.39	12.41	12.47				
Mode				802.11ad	(HT40)			
Data Rate	1SS0 13.5Mbps	1SS1 27Mbps	1SS2 40.5Mbps	1SS3 54Mbps	1SS4 81Mbps	1SS5 100Mbps	1SS6 121.5Mbps	1SS7 135Mbps
Power (dBm)	11.08	10.95	10.87	10.97	10.99	11.00	11.02	11.06
Mode		1		802.11ac	(HT40)		1	•
Data Rate	1SS8 162Mbps	1SS9 180Mbps	2SS0 27Mbps	2SS1 54Mbps	2SS2 81Mbps	2SS3 108Mbps	2SS4 162Mbps	2SS5 216Mbps
Power (dBm)	10.98	10.95	10.93	11.00	11.03	11.06	11.02	11.01
				802.11ad	(HT40)			
Data Rate	2SS6 243Mbps	2SS7 270Mbps	2SS8 324Mbps	2SS9 360Mbps	3SS0 40.5Mbps	3SS1 821Mbps	3SS2 121.5Mbps	3SS3 162Mbps
Power (dBm)	10.94	10.98	10.98	11.03	11.05	10.82	10.92	10.96
				802.11ad	(HT40)			
Data Rate	2SS4 243Mbps	2SS5 324Mbps	2SS6 364.5Mbps	2SS7 405Mbps	3SS8 486Mbps	3SS9 540Mbps		
Power (dBm)	11.01	11.05	11.01	11.00	10.89	10.93		



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Pre-sca	Pre-scan under all rate							
Mode	802.11ac(HT80)							
Data Rate	1SS0 29.3Mbps	1SS1 58.5Mbps	1SS2 87.8Mbps	1SS3 117Mbps	1SS4 175.5Mbps	1SS5 234Mbps	1SS6 263.3Mbps	1SS7 292.5Mbps
Power (dBm)	8.60	8.57	8.43	8.32	8.59	8.28	8.39	8.35
Mode	802.11ac(HT80)							
Data Rate	1SS8 351Mbps	1SS9 13Mbps	2SS0 58.6Mbps	2SS1 117Mbps	2SS2 175.6Mbps	2SS3 234Mbps	2SS4 351Mbps	2SS5 468Mbps
Power (dBm)	8.47	8.39	8.41	8.38	8.35	8.54	8.51	8.55
Mode	802.11ac(HT80)							
Data Rate	2SS6 526.6Mbps	2SS7 585Mbps	2SS8 702Mbps	2SS9 780Mbps	3SS0 87.9Mbps	3SS1 175.5Mbps	3SS2 263.4Mbps	3SS3 351Mbps
Power (dBm)	8.47	8.49	8.38	8.51	8.55	8.52	8.58	8.38
Mode	802.11ac(HT80)							
Data Rate	3SS4 562.5Mbps	3SS5 702Mbps	3SS6 789.9Mbps	3SS7 877.5Mbps	3SS8 1053 Mbps	3SS9 1170 Mbps		
Power (dBm)	8.43	8.28	8.54	8.29	8.38	8.47		

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Measurement Data:

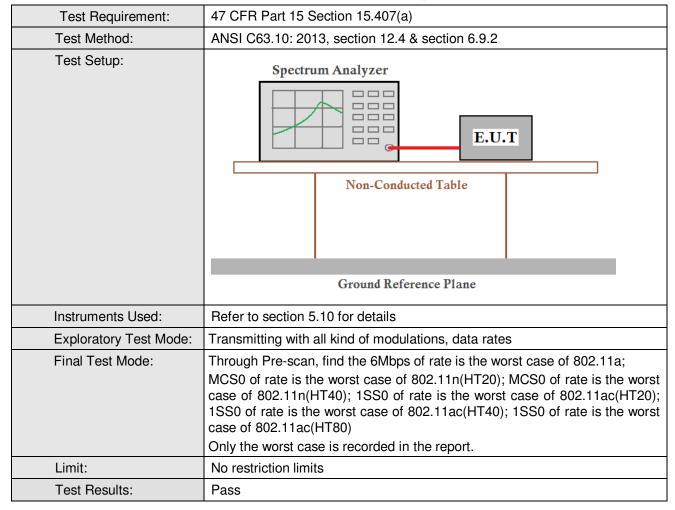
easurement Data:							
			802.1	la mode			
Conducted Output Power (dRm)					Line (ID)	Result	
Frequency (MHz)	Ant.1			Ant.3	Limit (dBm)		
5180	7.00 5.86 6.03		30	Pass			
5200	7.25			6.50	30	Pass	
5240	7.37		6.70 7		30	Pass	
5745	9.47		59	6.76	30	Pass	
5785	8.96		82	6.95	30	Pass	
5825	7.82		91	8.00	30	Pass	
3323	1			n20 mode	00 1 000		
	Condu	icted Outr				Result	
Frequency (MHz)	Conducted Output Power (dBm) Ant.1 Ant.2 Ant.3 Total		Limit (dBm)	ricoan			
5180	6.90	5.77	6.05	11.04	25.73	Pass	
5200	7.03	6.20	6.53	11.37	25.73	Pass	
5240	7.17	6.66	7.04	11.73	25.73	Pass	
5745	9.35	6.58	6.81	12.54	25.23	Pass	
	8.79						
5785	7.55	5.58 4.52	7.01 7.97	12.10 11.70	25.23 25.23	Pass	
5825	7.55	4.52	1			Pass	
	0	-110-1		c 20 mode		Danie	
Frequency (MHz)		cted Outp			Limit (dBm)	Resul	
	Ant.1	Ant.2	Ant.3	Total	, ,		
5180	7.00	5.82	6.23	11.15	25.73	Pass	
5200	7.14	6.21	6.34	11.35	25.73	Pass	
5240	7.27	6.65	6.93	11.73	25.73	Pass	
5745	9.41	6.48	6.73	12.53	25.23	Pass	
5785	8.81	5.73	6.90	12.11	25.23	Pass	
5825	7.69	4.55	7.94	11.75	25.23	Pass	
			802.11	n40 mode			
Frequency (MHz)	Condu	cted Outp	out Powe	r (dBm)	Limit (dBm)	Resul	
r requericy (Miriz)	Ant.1	Ant.2	Ant.3	Total	Limit (dBin)		
5190	5.69	4.80	4.99	9.95	25.73	Pass	
5230	5.90	5.13	5.28	10.22	25.73	Pass	
5755	7.81	4.86	5.50	11.02	25.23	Pass	
5795	7.25	4.00	5.62	10.59	25.23	Pass	
			802.11a	c 40 mode			
Fraguesa (MIII-)	Condu	cted Outp	out Powe	r (dBm)	Limet (alDine)	Resul	
Frequency (MHz)	Ant.1	Ant.2	Ant.3	Total	Limit (dBm)		
5190	5.78	4.77	5.10	10.00	25.73	Pass	
5230	6.03	5.21	5.67	10.42	25.73	Pass	
5755	7.88	5.02	5.46	11.08	25.23	Pass	
5795	7.27	3.95	5.53	10.56	25.23	Pass	
				c 80 mode		1 . 230	
Conducted Output Power (dRm) Result							
Frequency (MHz)	Ant.1	Ant.2	Ant.3	Total	Limit (dBm)	i icoui	
5210	3.68	3.70	4.09	8.60	25.73	Pass	
5775	2.90	3.49	4.09	8.28	25.23	Pass	
5775	2.90	3.49	4.07	0.20	20.20	rass	



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6.5 26dB Emission Bandwidth and 99% Occupied Bandwidth



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Measurement Data:

802.11a mode							
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)					
5180	23.707	16.980					
5200	23.843	16.980					
5240	23.718	16.980					
	802.11 n20 mode						
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)					
5180	25.128	18.090					
5200	24.276	18.090					
5240	25.316	18.090					
	802.11ac 20 mode						
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)					
5180	24.356	18.060					
5220	24.548	18.090					
5240	24.295	18.090					
	802.11 n40 mode						
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)					
5190	45.256	36.360					
5230	45.520	36.360					
802.11ac 40 mode							
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)					
5190	45.749	36.420					
5230	45.760	36.360					
802.11ac 80 mode							
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)					
5210	92.115	76.346					

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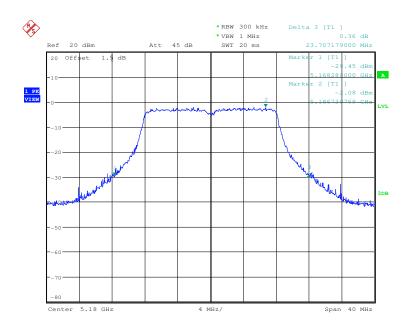




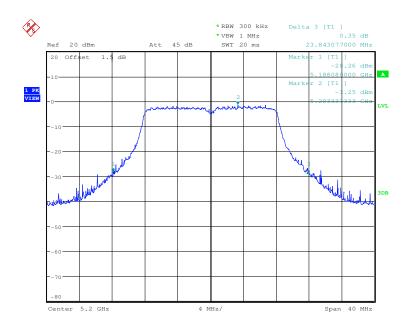
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26dB Emission Bandwidth Test plot as follows:

Test mode:	802.11a	Frequency(MHz):	5180
------------	---------	-----------------	------



Test mode:	802.11a	Frequency(MHz):	5200
------------	---------	-----------------	------

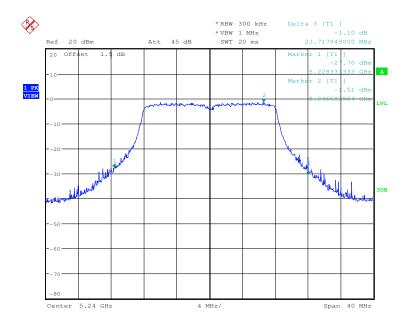




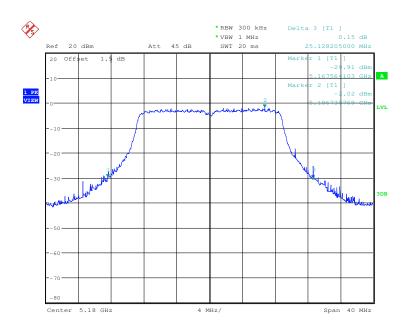
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Test mode: 802.11a Frequency(MHz): 5240





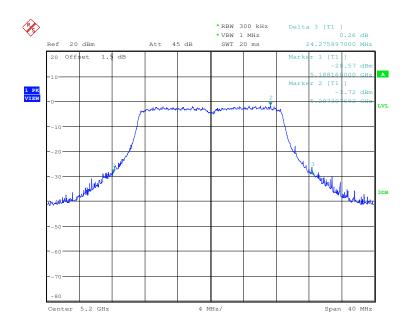




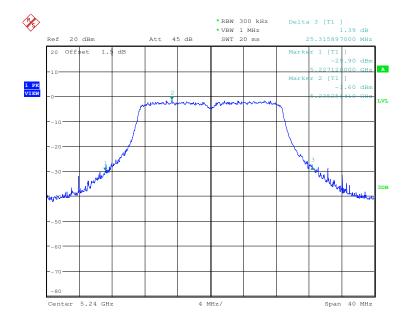


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Test mode: 802.11 n20 Frequency(MHz): 5200





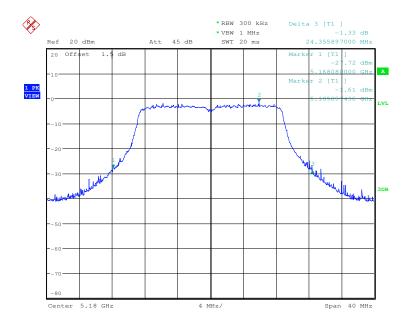




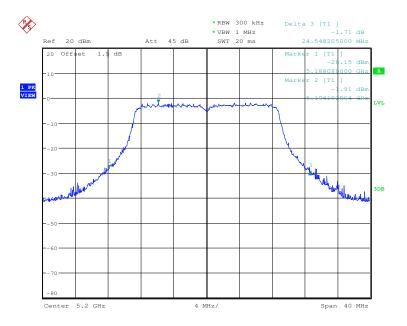
Report No.: HKES160500092603

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Test mode: 802.11 ac20 Frequency(MHz): 5180



Test mode:	802.11 ac20	Frequency(MHz):	5200

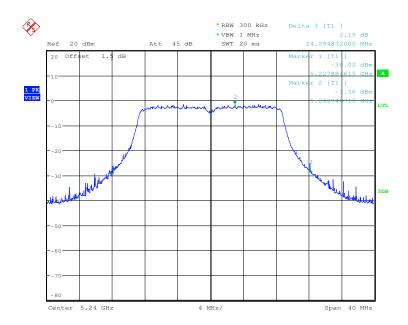




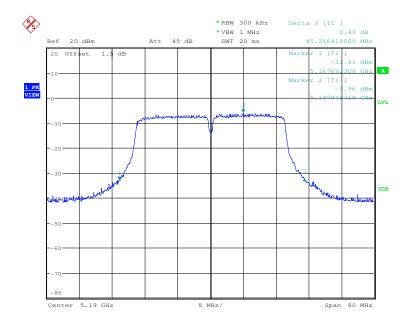
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Test mode: 802.11 ac20 Frequency(MHz): 5240





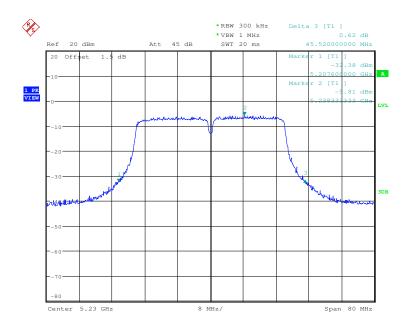




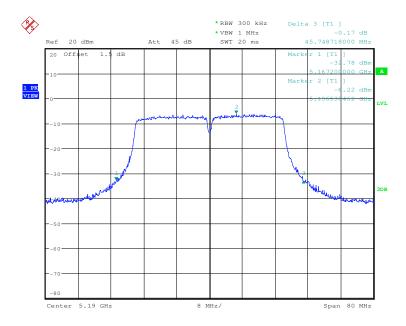
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Test mode: 802.11 n40 Frequency(MHz): 5230





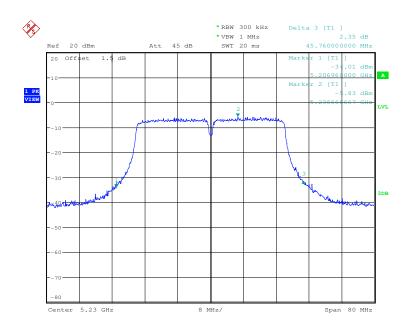




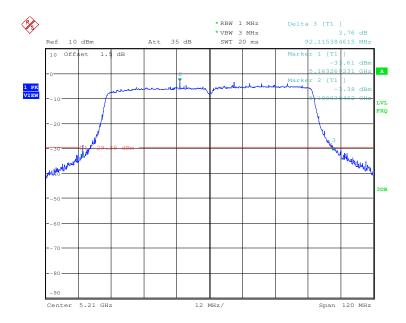
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Test mode: 802.11 ac40 Frequency(MHz): 5230







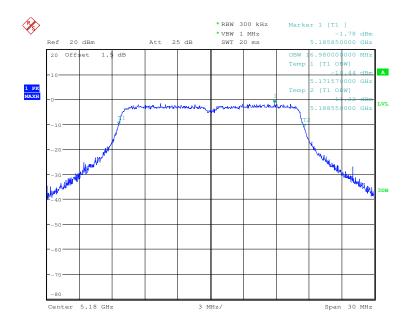


Report No.: HKES160500092603

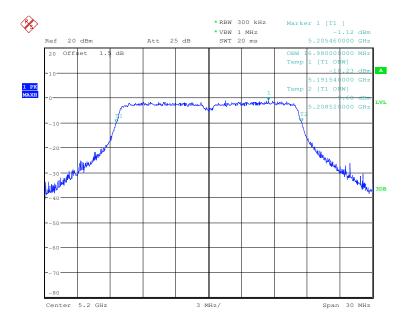
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99% occupied bandwidth Test plot as follows:

Test mode: 802.11a Frequency(MHz): 5180





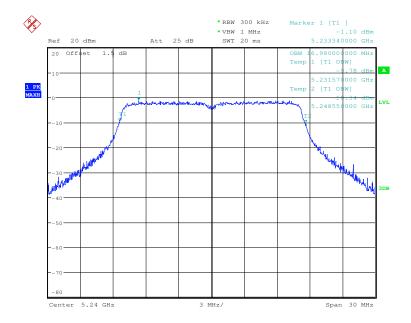




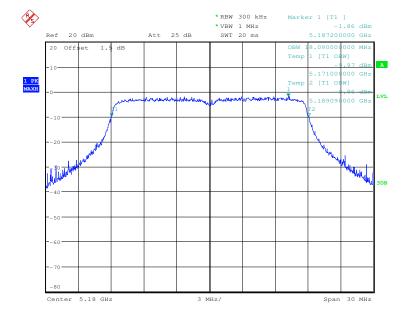
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Test mode: 802.11a Frequency(MHz): 5240







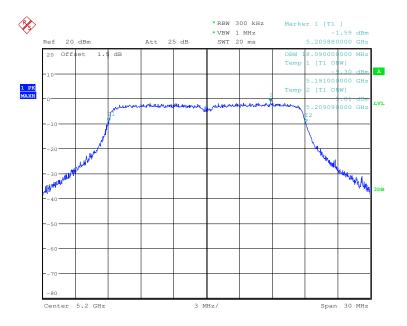
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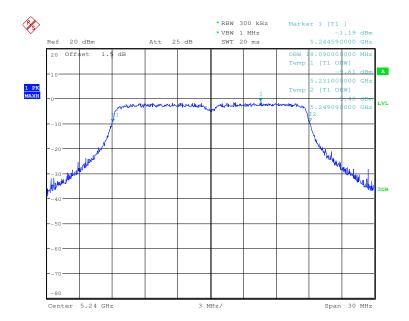
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Test mode: 802.11 n20 Frequency(MHz): 5200





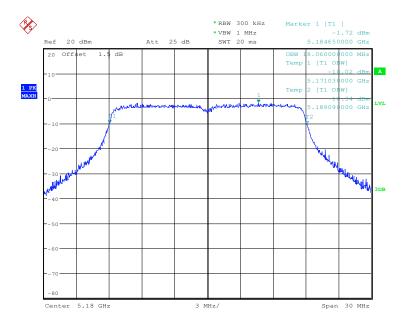




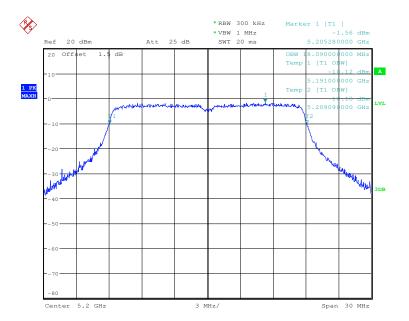
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Test mode: 802.11 ac20 Frequency(MHz): 5180





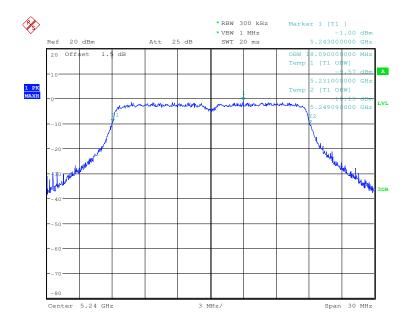




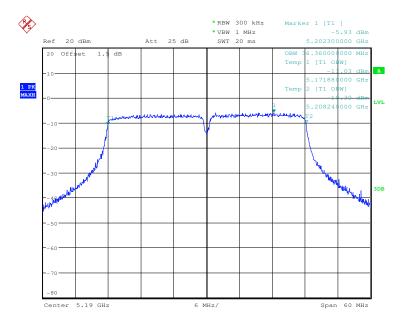
Report No.: HKES160500092603

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Test mode: 802.11 ac20 Frequency(MHz): 5240







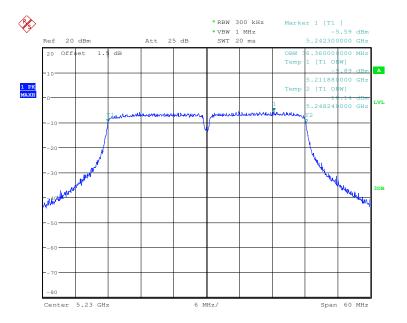
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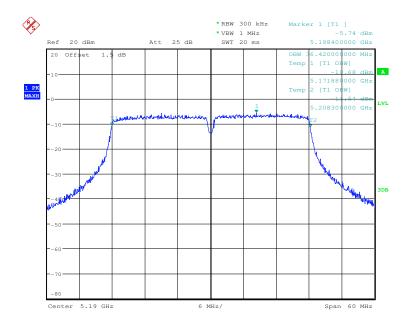
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Test mode: 802.11 n40 Frequency(MHz): 5230





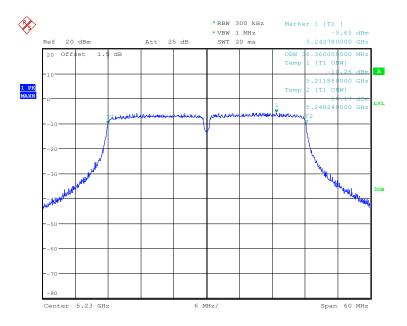




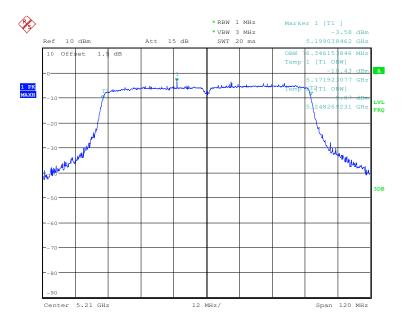
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Test mode: 802.11 ac40 Frequency(MHz): 5230







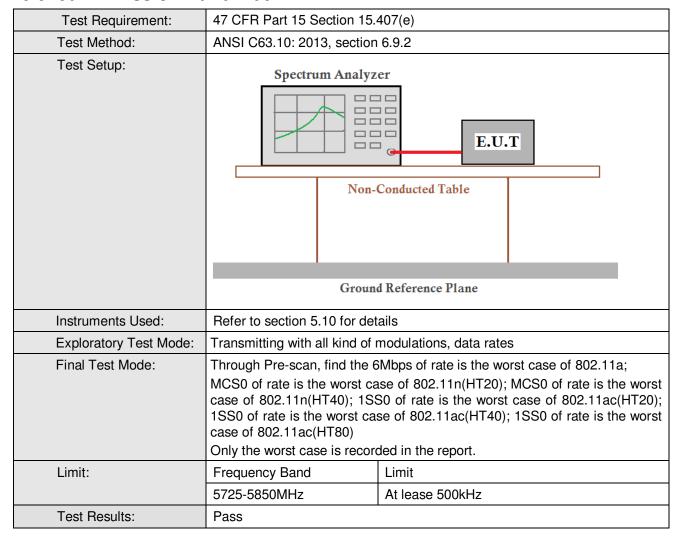
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6.6 6dB Emission Bandwidth



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Measurement Data:

802.11a mode							
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
5745	16.410	≥500	Pass				
5785	16.410	≥500	Pass				
5825	16.410	≥500	Pass				
	802.11 n20 mode						
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
5745	17.670	≥500	Pass				
5785	17.640	≥500	Pass				
5825	17.670	≥500	Pass				
	802.11ac 20 mode						
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
5745	17.640	≥500	Pass				
5785	17.640	≥500	Pass				
5825	17.670	≥500	Pass				
	802.11 n40 mode						
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
5755	36.420	≥500	Pass				
5795	36.240	≥500	Pass				
	802.11ac 40 mode						
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
5755	36.480	≥500	Pass				
5795	36.420	≥500	Pass				
802.11ac 80 mode							
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result				
5775	76.731	≥500	Pass				

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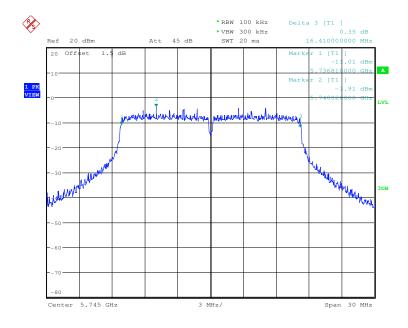




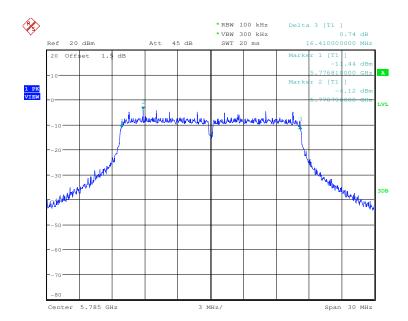
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Test plot as follows:

Test mode: 802.11a Frequency(MHz): 5745





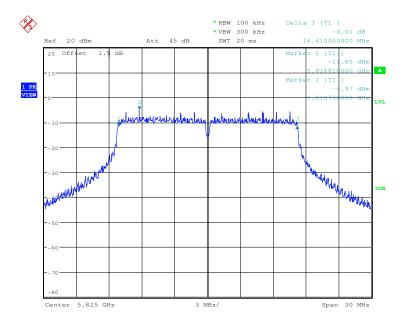




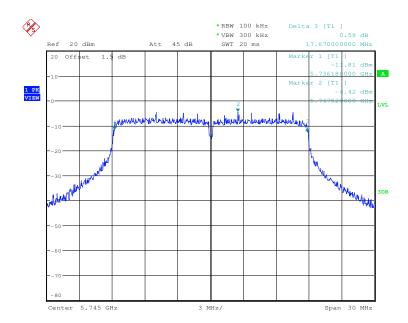
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Test mode: 802.11a Frequency(MHz): 5825





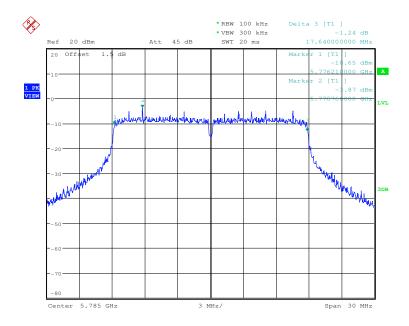




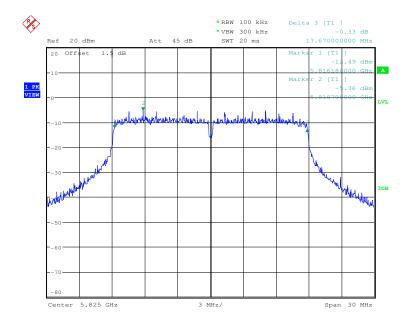
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Test mode: 802.11 n20 Frequency(MHz): 5785







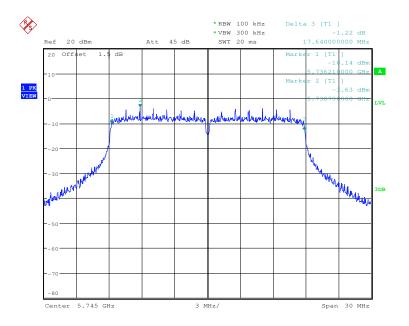
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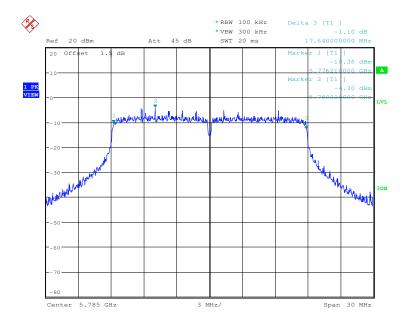
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Test mode: 802.11 ac20 Frequency(MHz): 5745







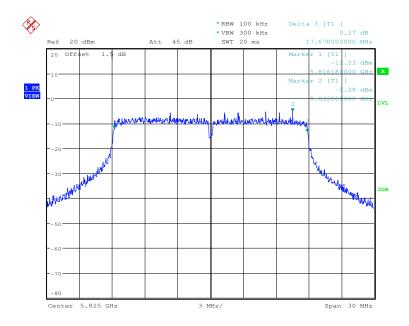
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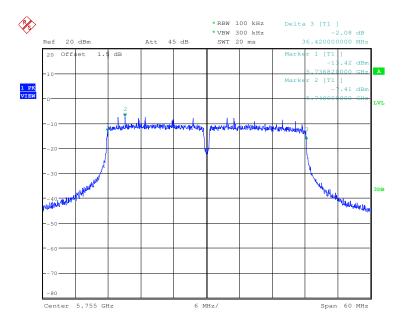
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Test mode: 802.11 ac20 Frequency(MHz): 5825





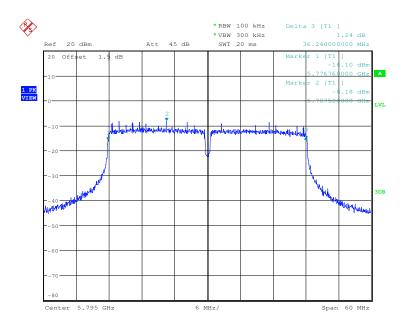




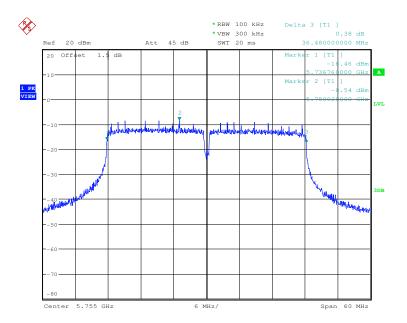


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Test mode: 802.11 n40 Frequency(MHz): 5795







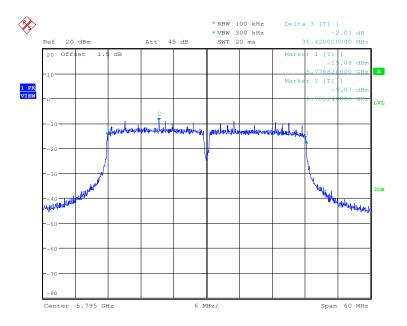
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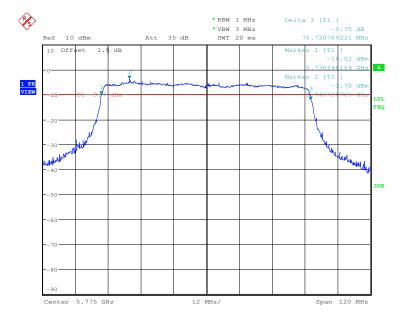
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Test mode: 802.11 ac40 Frequency(MHz): 5795









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6.7 Power Spectral Density

Test Requirement:	47 CFR Part 15 Sec	ction 15.407(a)	
Test Method:	ANSI C63.10: 2013, section 12.6, b		
Test Setup:	Spectrum A. Remark:		
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; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report.		
Limit:	Frequency Band	Limit	
	5150-5250MHz	Antenna gain below 6dBi: 17dBm (802.11 a) Antenna gain greater than 6dBi: The power spectral density less than 17dBm/1MHz – 4.27(directional gain-6) = 12.73dBm(802.11 n & 802.11 ac)	
	5725-5850MHz	Antenna gain below 6dBi: 30dBm (802.11 a) Antenna gain greater than 6dBi: The power spectral density less than 30dBm/500kHz – 4.77(directional gain-6) = 25.23dBm(802.11 n & 802.11 ac)	
	Directional gain = $G_{ANT MAX} + 10 log(N_{ANT}/N_{SS}) dBi = 5.5 + 4.77 = 10.27$ ($N_{SS} = 1$, where NSS is the number of spatial streams) ($N_{ANT} = 3$, where NANT is the number of outputs)		
Test Results:	Pass		



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Measurement Data:

Measurement Data:						
			802.11a			
Frequency (MHz)	P	ower Spec	ctral Dens		Limit	Result
r requericy (wir iz)	Ant.1	An	ıt.2	Ant.3		riesuit
5180	-4.01	-5.07		-4.90	≤17dBm/1MHz	Pass
5200	-3.86	-4.71		-4.47	≤17dBm/1MHz	Pass
5240	-3.72	-4.38		-4.25	≤17dBm/1MHz	Pass
5745	-3.93	-6.	.35	-6.15	≤30dBm/500kHz	Pass
5785	-4.41	-6.	.92	-6.22	≤30dBm/500kHz	Pass
5825	-5.16	-7.68		-5.28	≤30dBm/500kHz	Pass
			802.11 n2	20 mode		
(NALL_)	P	Power Spectral Density			Lineit	D II
Frequency (MHz)	Ant.1	Ant.2	Ant.3	Total	Limit	Result
5180	-4.32	-5.57	-5.29	-0.26	≤12.73dBm/1MHz	Pass
5200	-4.45	-5.24	-4.70	-0.01	≤12.73dBm/1MHz	Pass
5240	-4.18	-4.66	-4.31	0.39	≤12.73dBm/1MHz	Pass
5745	-3.74	-6.67	-6.64	-0.68	≤25.23dBm/500kHz	Pass
5785	-4.38	-7.47	-6.28	-1.08	≤25.23dBm/500kHz	Pass
5825	-5.34	-8.37	-5.54	-1.44	≤25.23dBm/500kHz	Pass
		3	302.11ac	20 mode		
- (111)	P	ower Spec				5
Frequency (MHz)	Ant.1	Ant.2	Ant.3	Total	Limit	Result
5180	-4.60	-5.53	-5.05	027	≤12.73dBm/1MHz	Pass
5200	-4.14	-4.85	-5.11	0.09	≤12.73dBm/1MHz	Pass
5240	-4.05	-4.72	-4.36	0.40	≤12.73dBm/1MHz	Pass
5745	-3.38	-6.18	-6.73	-0.39	≤25.23dBm/500kHz	Pass
5785	-4.86	-7.55	-6.00	-1.22	≤25.23dBm/500kHz	Pass
5825	-5.45	-8.59	-5.40	-1.47	≤25.23dBm/500kHz	Pass
			802.11 n ²			
	P	ower Spec				
Frequency (MHz)	Ant.1	Ant.2	Ant.3	Total	Limit	Result
5190	-8.44	-9.42	-8.95	-4.14	≤12.73dBm/1MHz	Pass
5230	-8.16	-8.54	-8.94	-3.76	≤12.73dBm/1MHz	Pass
5755	-8.48	-11.47	-10.71	-5.25	≤25.23dBm/500kHz	Pass
5795	-8.51	-11.48	-10.14	-5.10	≤25.23dBm/500kHz	Pass
3.00	1 0.01		302.11ac		=20:20dB11//0001412	1 400
	P	ower Spec				
Frequency (MHz)	Ant.1	Ant.2	Ant.3	Total	Limit	Result
5190	-8.50	-9.55	-8.81	-4.16	≤12.73dBm/1MHz	Pass
5230	-8.26	-8.86	-8.22	-3.66	≤12.73dBm/1MHz	Pass
5755	-8.52	-11.17	-10.78	-5.22	≤25.23dBm/500kHz	Pass
5795	-9.17	-12.02	-10.85	-5.74	≤25.23dBm/500kHz	Pass
0,00	3.17		L	1		1 400
	802.11ac 80 mode Power Spectral Density					
Frequency (MHz)	Ant.1	Ant.2	Ant.3	Total	Limit	Result
5210	-12.78	-12.93	-12.06	-7.80	≤12.73dBm/1MHz	Pass
5775	-13.26	-12.48	-12.00	-7.85	≤25.23dBm/500kHz	Pass
3113	-13.20	-14.40	-14.41	-7.00	⊒EJ.EJUDITI/JUUKEZ	гаээ

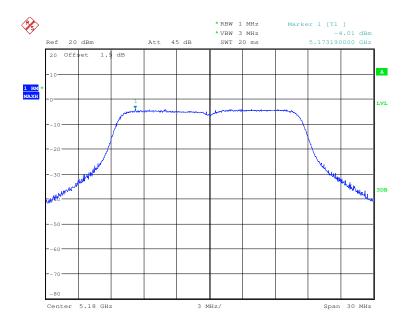


Report No.: HKES160500092603

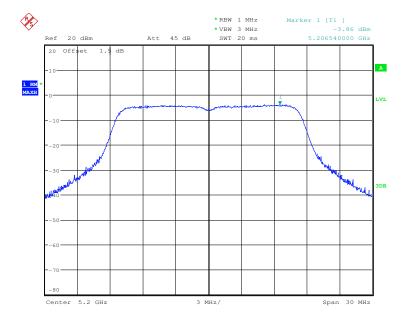
Page: 57 of 223

Antenna 1

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode: 802.11a Frequency(MHz): 5200

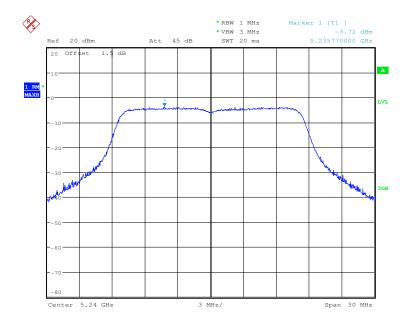




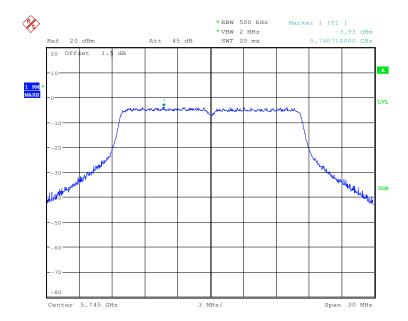
Report No.: HKES160500092603

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Test mode: 802.11a Frequency(MHz): 5240





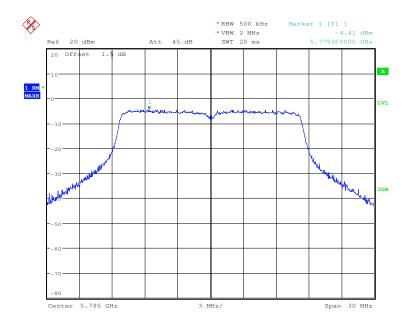




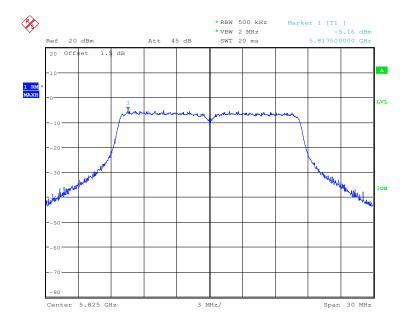
Report No.: HKES160500092603

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Test mode: 802.11a Frequency(MHz): 5785







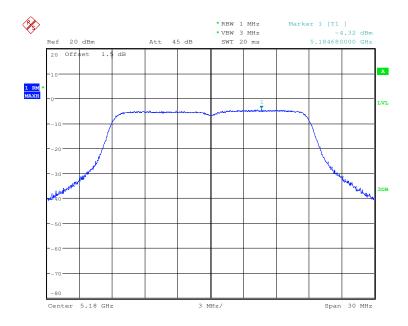
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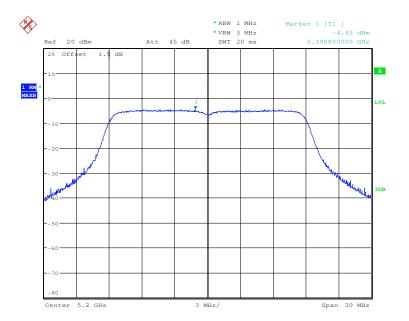
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Test mode: 802.11 n20 Frequency(MHz): 5180



Test mode: 802.11 n20 Frequency(MHz): 5200



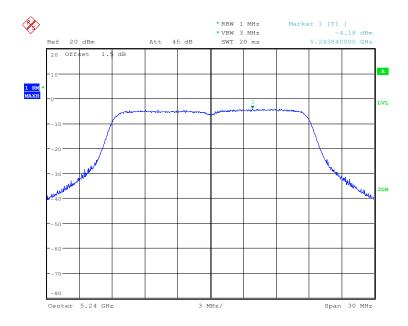
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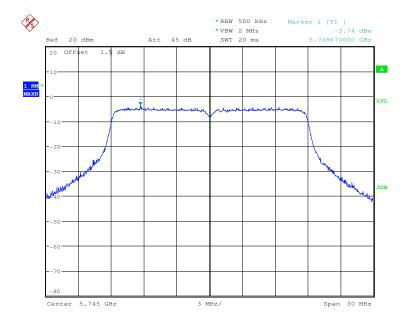
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Test mode: 802.11 n20 Frequency(MHz): 5240







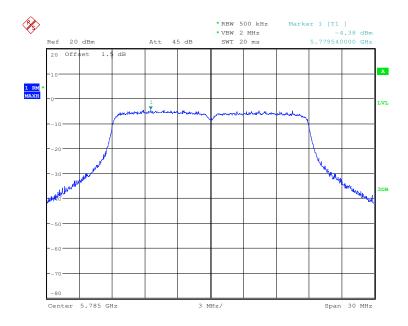
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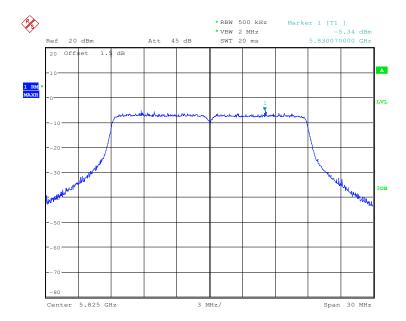
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Test mode: 802.11 n20 Frequency(MHz): 5785





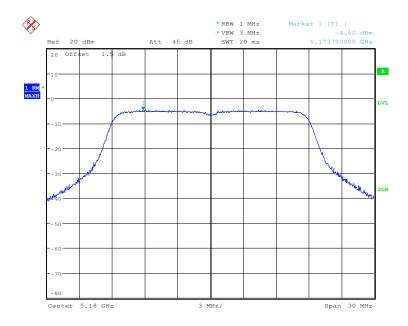




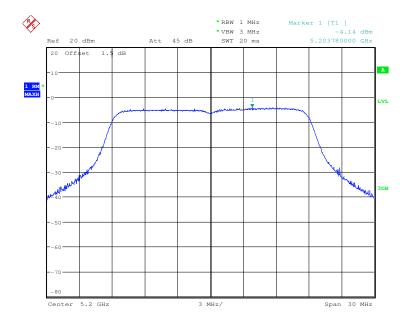
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Test mode: 802.11 ac20 Frequency(MHz): 5180



Test mode: 802.11 ac20 Frequency(MHz): 5200



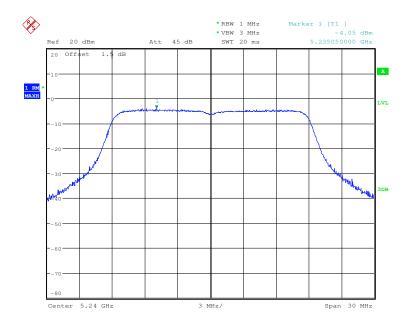
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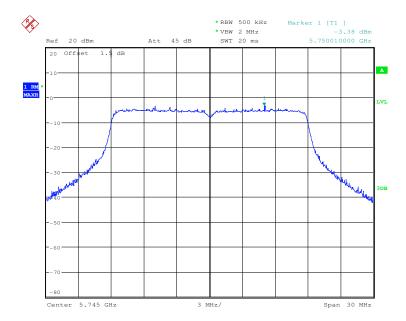
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Test mode: 802.11 ac20 Frequency(MHz): 5240





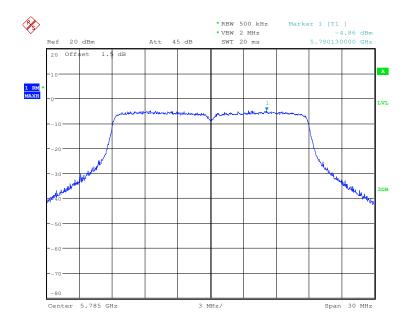




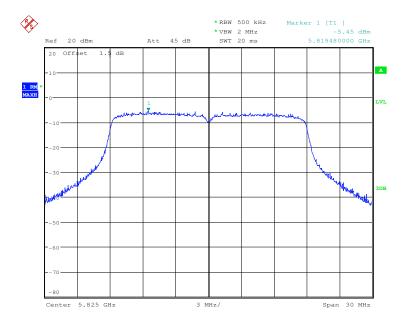
Report No.: HKES160500092603

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Test mode: 802.11 ac20 Frequency(MHz): 5785





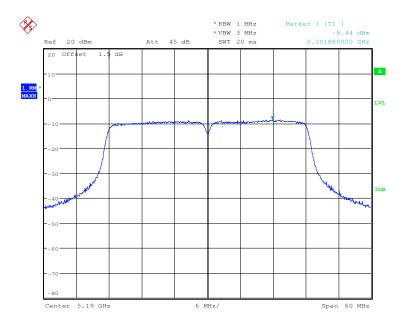




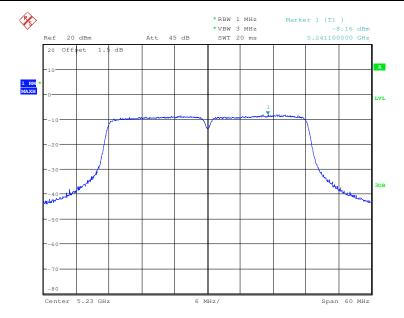
Report No.: HKES160500092603

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Test mode: 802.11 n40 Frequency(MHz): 5190





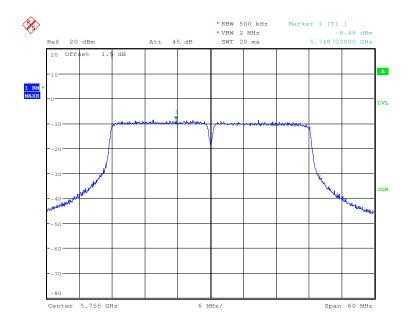




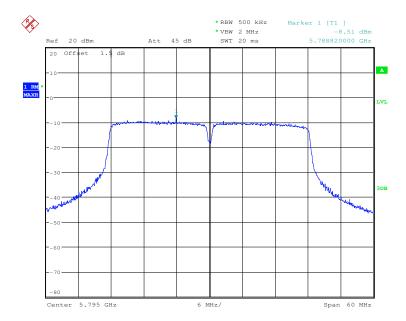
Report No.: HKES160500092603

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Test mode: 802.11 n40 Frequency(MHz): 5755





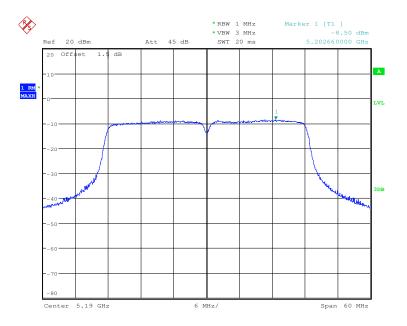




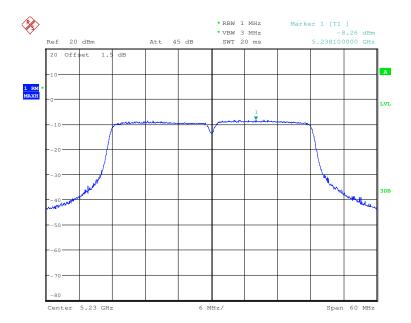
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Test mode: 802.11 ac40 Frequency(MHz): 5190





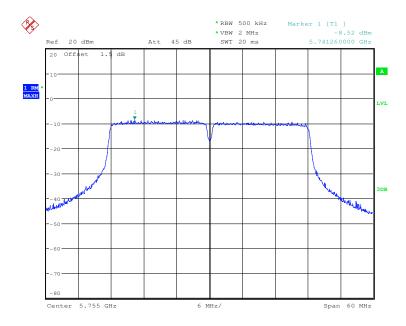




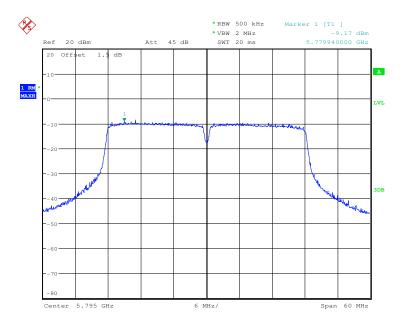
Report No.: HKES160500092603

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Test mode: 802.11 ac40 Frequency(MHz): 5755







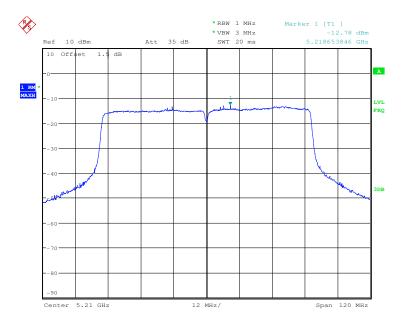
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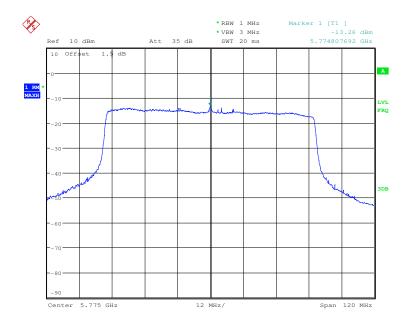
Report No.: HKES160500092603

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Test mode: 802.11 ac80 Frequency(MHz): 5210







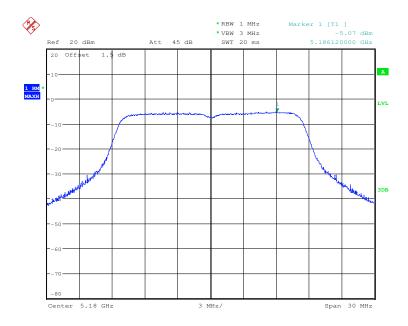


Report No.: HKES160500092603

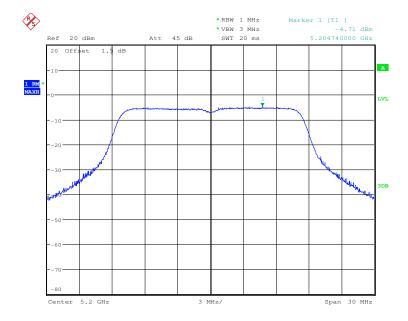
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Antenna 2

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode: 802.11a Frequency(MHz): 5200

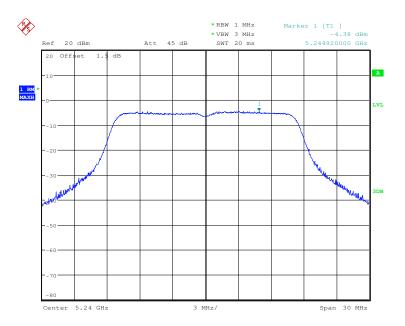




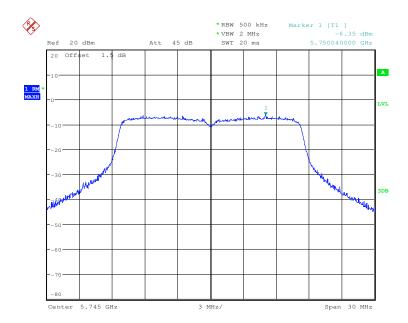
Report No.: HKES160500092603

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Test mode: 802.11a Frequency(MHz): 5240





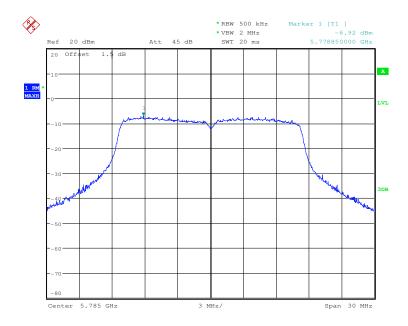




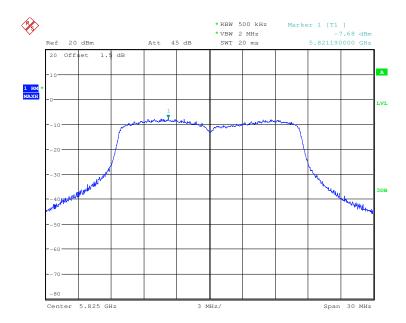
Report No.: HKES160500092603

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Test mode: 802.11a Frequency(MHz): 5785



Test mode: 802.11a Frequency(MHz): 5825

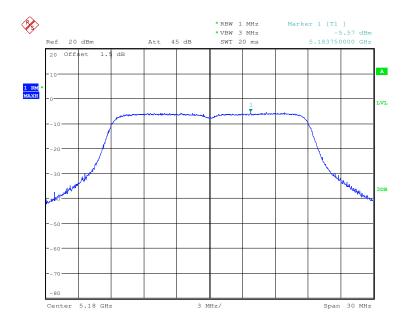




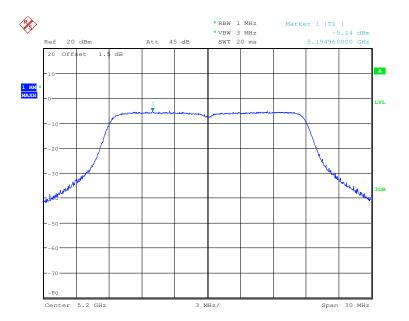
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Test mode: 802.11 n20 Frequency(MHz): 5180







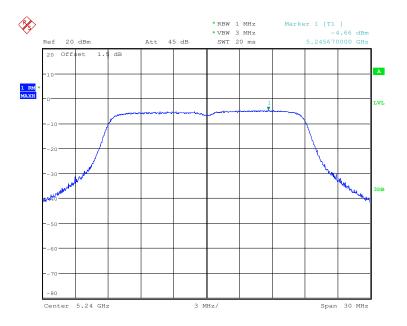
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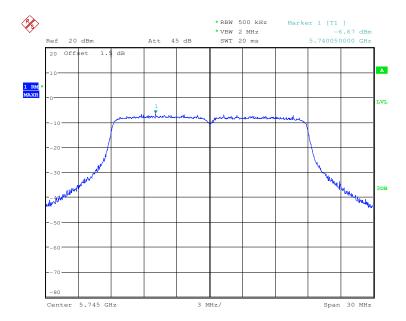
Report No.: HKES160500092603

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Test mode: 802.11 n20 Frequency(MHz): 5240





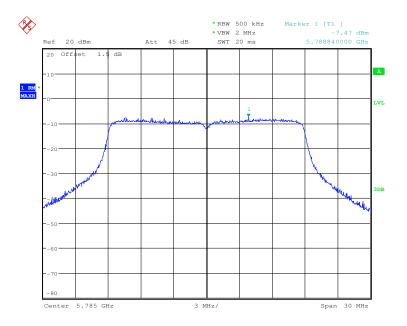




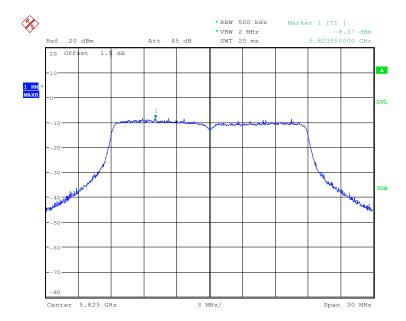
Report No.: HKES160500092603

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Test mode: 802.11 n20 Frequency(MHz): 5785





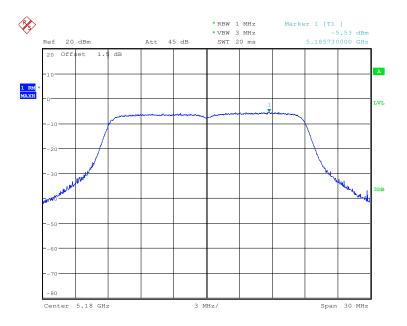




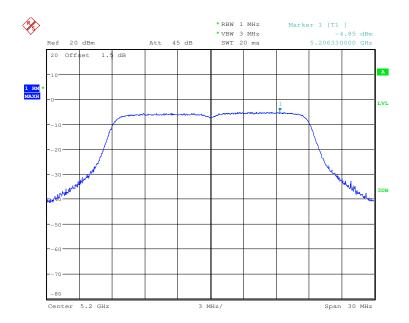
Report No.: HKES160500092603

Page: 77 of 223

Test mode: 802.11 ac20 Frequency(MHz): 5180





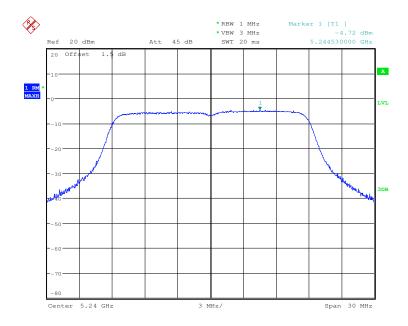




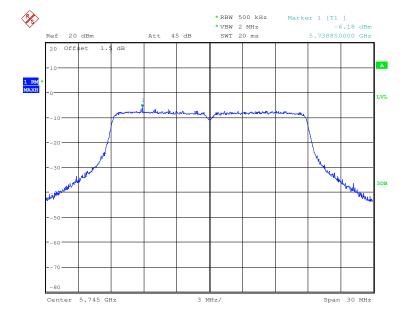
Report No.: HKES160500092603

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Test mode: 802.11 ac20 Frequency(MHz): 5240





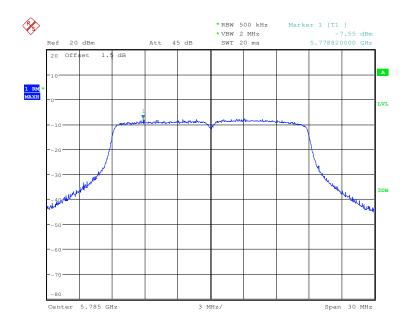




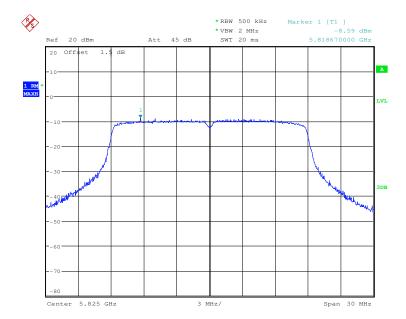
Report No.: HKES160500092603

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Test mode: 802.11 ac20 Frequency(MHz): 5785







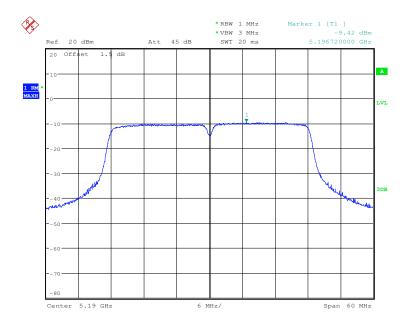
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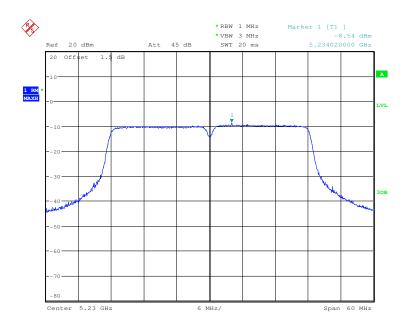
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Test mode: 802.11 n40 Frequency(MHz): 5190





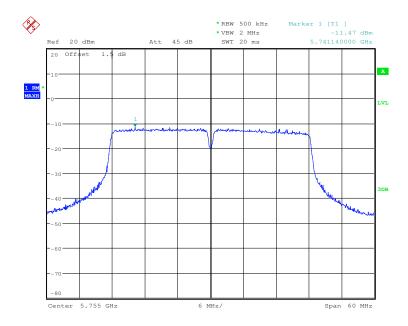




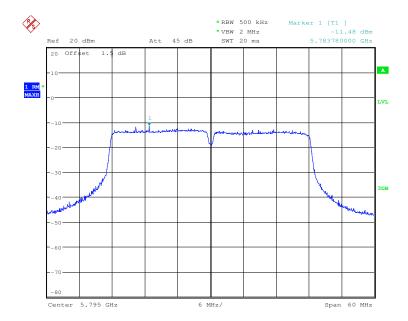
Report No.: HKES160500092603

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Test mode: 802.11 n40 Frequency(MHz): 5755





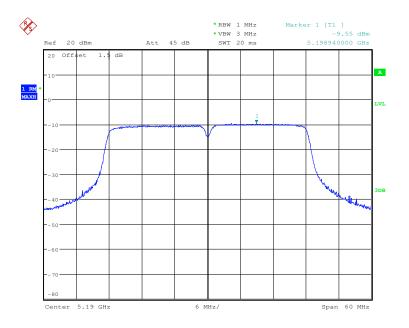




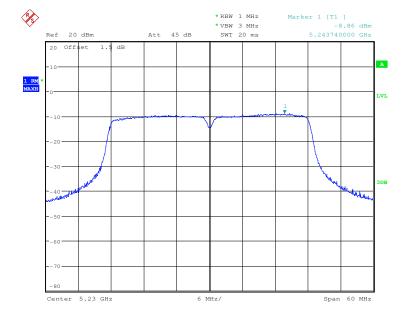
Report No.: HKES160500092603

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Test mode: 802.11 ac40 Frequency(MHz): 5190







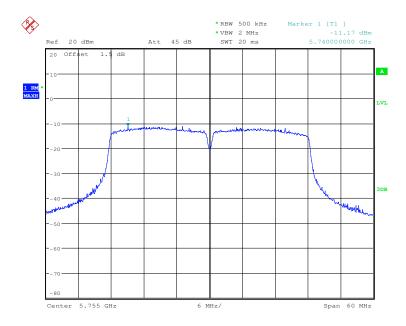
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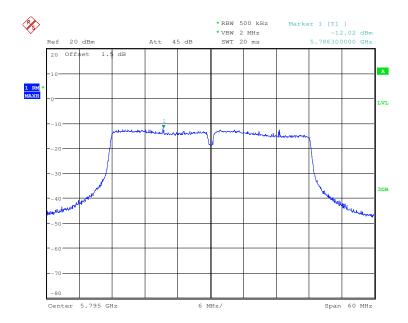
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Test mode: 802.11 ac40 Frequency(MHz): 5755





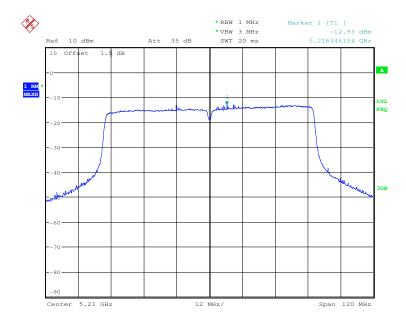




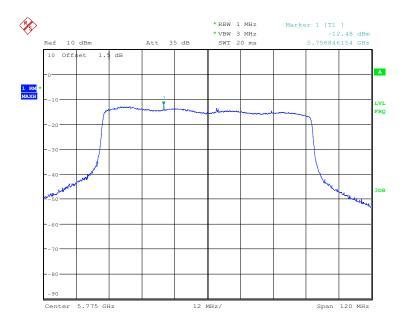
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Test mode: 802.11 ac80 Frequency(MHz): 5210







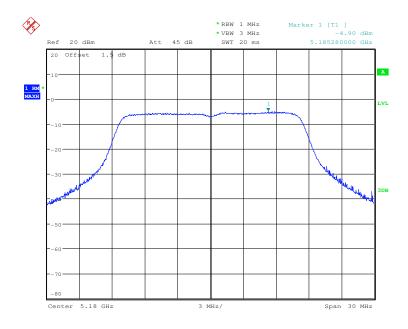


Report No.: HKES160500092603

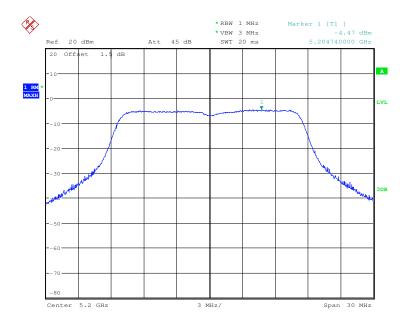
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Antenna 3

Test mode:	802.11a	Frequency(MHz):	5180
	00=		0.00



Test mode: 802.11a Frequency(MHz): 5200

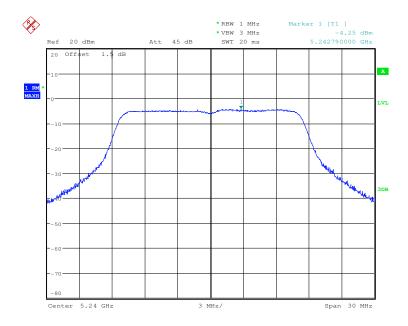




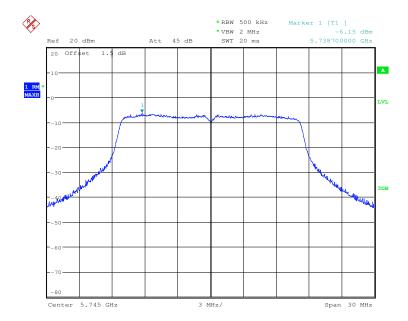
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Test mode: 802.11a Frequency(MHz): 5240





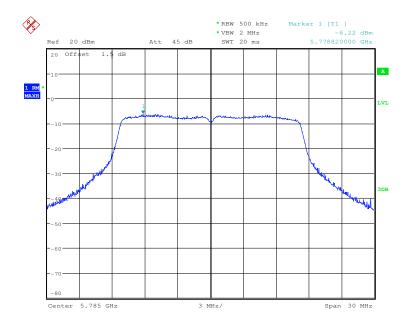




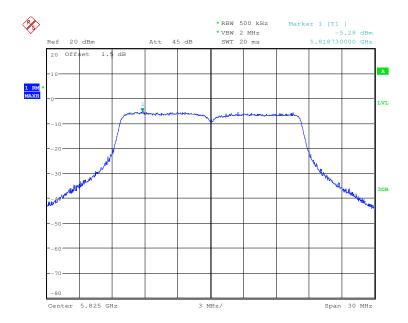
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Test mode: 802.11a Frequency(MHz): 5785





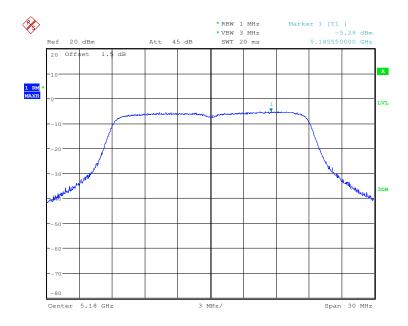




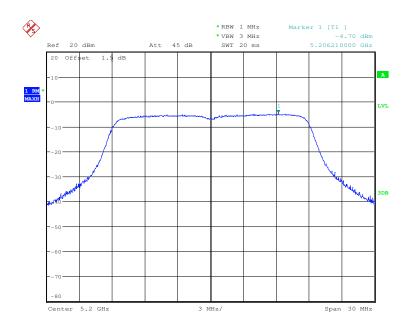
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Test mode: 802.11 n20 Frequency(MHz): 5180



Test m	ode:	802.11 n20	Frequency(MHz):	5200
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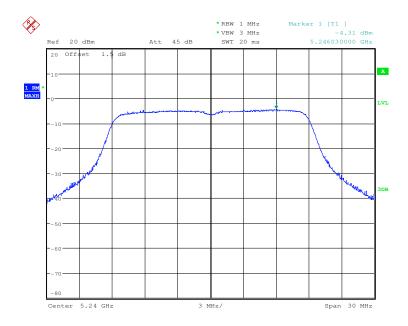




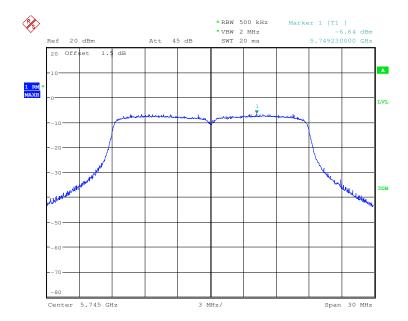
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Test mode: 802.11 n20 Frequency(MHz): 5240





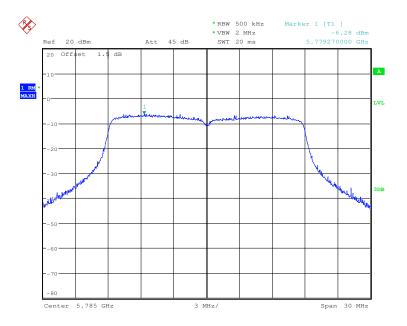




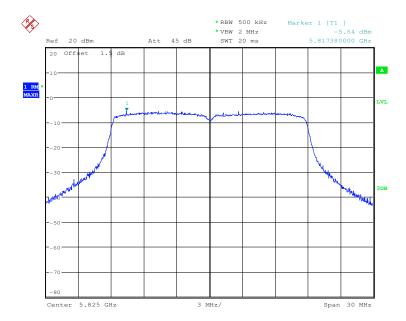
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Test mode: 802.11 n20 Frequency(MHz): 5785





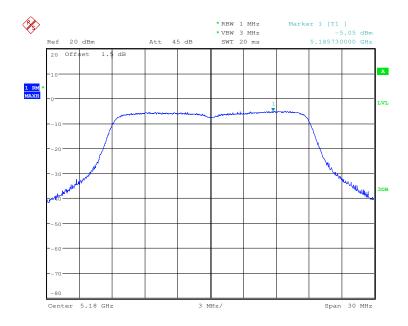




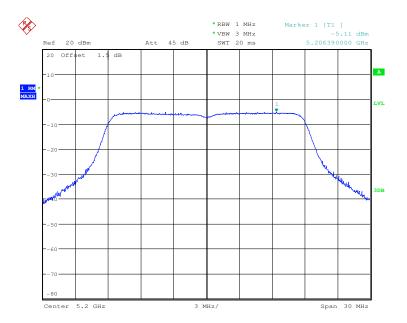
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Test mode: 802.11 ac20 Frequency(MHz): 5180



Test mode: 802.11 ac20 Frequency(MHz): 5200



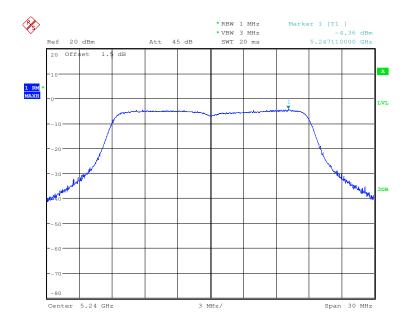
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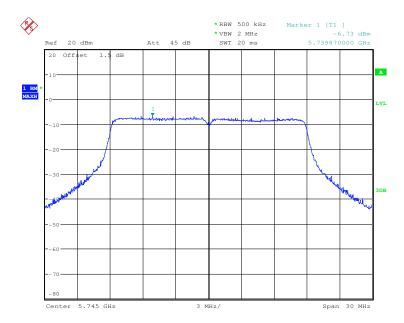
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Test mode: 802.11 ac20 Frequency(MHz): 5240



Test mode: 802.11 ac20 Frequency(MHz): 5745

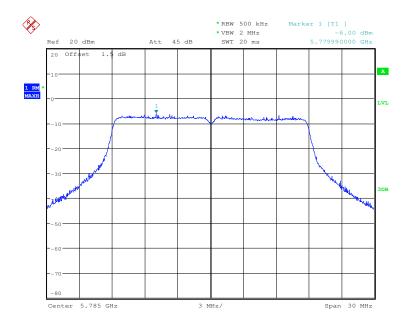




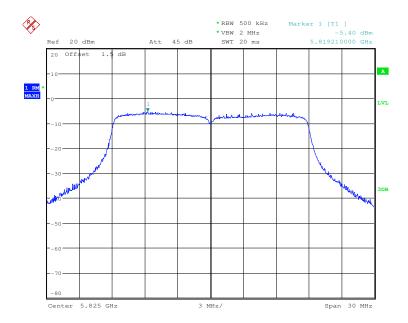
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Test mode: 802.11 ac20 Frequency(MHz): 5785





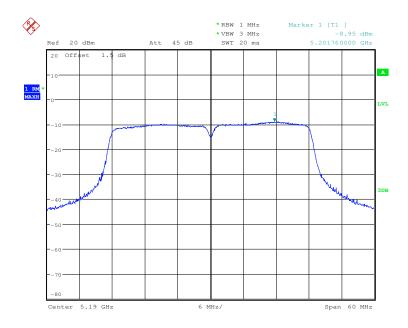




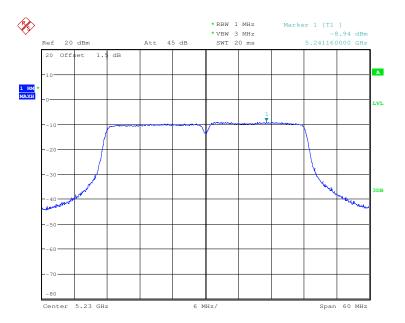
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Test mode: 802.11 n40 Frequency(MHz): 5190



Test mode: 802.11 n40 Frequency(MHz): 5230

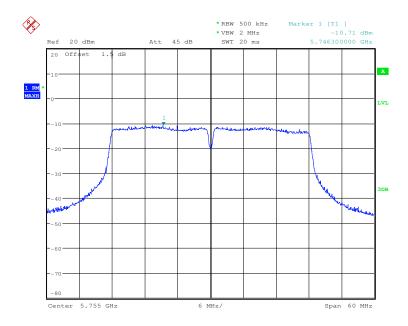




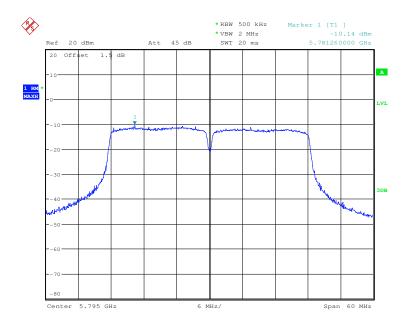
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Test mode: 802.11 n40 Frequency(MHz): 5755



Test mode: 802.11 n40 Frequency(MHz): 5795

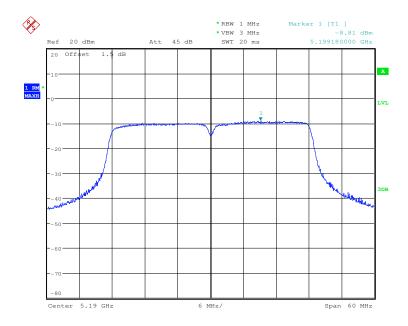




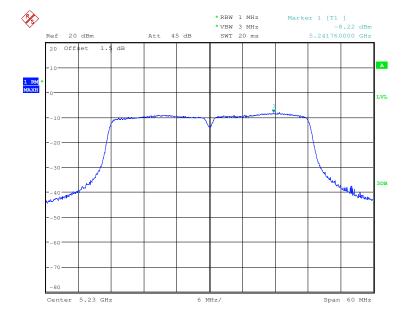
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Test mode: 802.11 ac40 Frequency(MHz): 5190







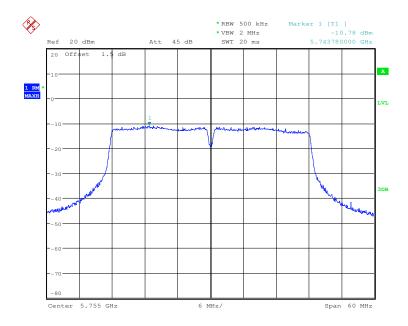
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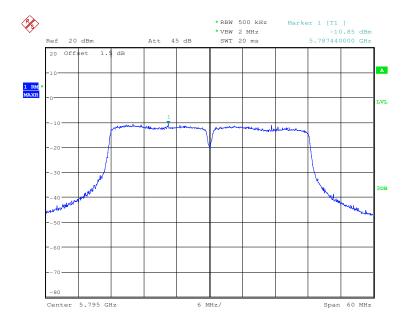
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Test mode: 802.11 ac40 Frequency(MHz): 5755







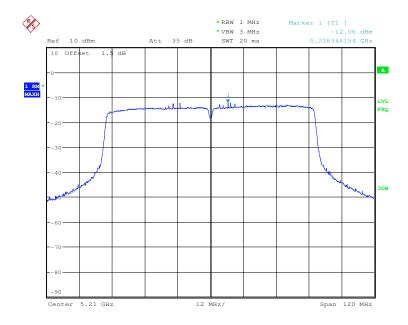
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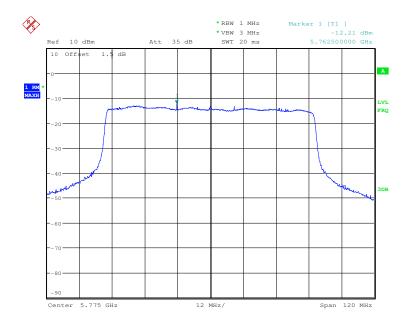
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Test mode: 802.11 ac80 Frequency(MHz): 5210



Test mode: 802.11 ac80 Frequency(MHz): 5775



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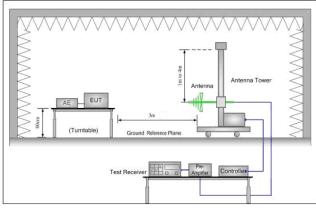


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6.8 Radiated Spurious Emissions

Test Requirement:	47 CFR Part 15 Section 15.407(b)
Test Method:	ANSI C63.10: 2013, section 12.7.5, 12.7.6, 12.7.7.3
Test Site:	Measurement Distance: 3m (Fully-Anechoic Chamber)
Test Setup:	



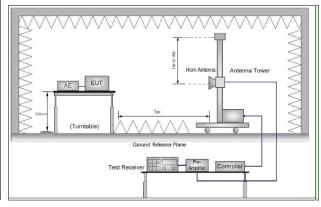


Figure 1. 30MHz to 1GHz

Figure 2. Above 1 GHz

Test Procedure:

- a. For below 1GHz test, 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. For above 1GHz test, the EUT was placed on the top of a rotating table 1.5 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.
- c. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- d. 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.
- e. 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.
- f. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.
- g. Test the EUT in the outermost channels.

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;

MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80)

For below 1GHz, after Pre-scan, find the 1Mbps of rate of 802.11a at lowest channel is the worst case for 5G WIFI and 1Mbps of rate of 802.11b at lowest



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	channel is the worst case for 2.4G WIFI, so the final test was carried out at simultaneous transmission operations under the worst case of 2.4G & 5G WIFI.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass

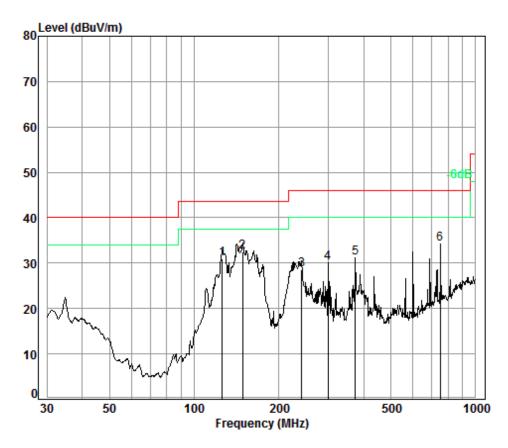


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6.8.1 Radiated emission below 1GHz

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



Condition: 3m HORIZONTAL

Job No. : 0926IT Test mode: TX mode

	Freq	Cable Loss		Preamp Factor				Over Limit
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	125.89	1.27		25.86				
2 pp	148.44	1.31	9.30	25.83	47.73	32.51	43.50	-10.99
3	240.83	1.63	8.97	25.74	43.69	28.55	46.00	-17.45
4	299.32	1.90	11.13	25.70	42.68	30.01	46.00	-15.99
5	374.62	2.13	12.68	25.67	41.97	31.11	46.00	-14.89
6	750.11	3.06	18.40	25.76	38.58	34.28	46.00	-11.72

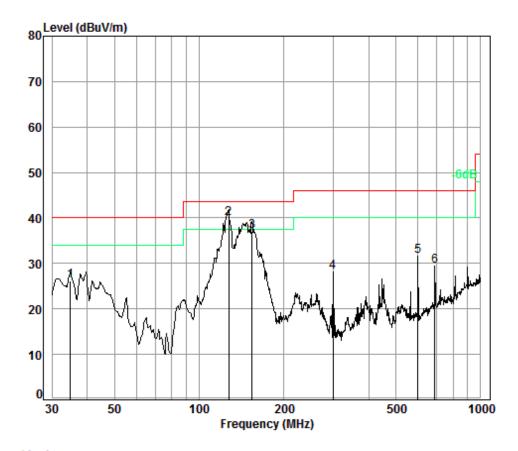




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Test mode:	Transmitting mode	Horizontal
------------	-------------------	------------



Condition: 3m VERTICAL

Job No. : 0926IT Test mode: TX mode

	Freq			Preamp Factor				
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	34.88	0.60	17.28	25.99	34.31	26.20	40.00	-13.80
2 pp	127.22	1.27	7.28	25.86	57.20	39.89	43.50	-3.61
3	154.28	1.33	9.85	25.82	51.80	37.16	43.50	-6.34
4	299.32	1.90	11.13	25.70	40.74	28.07	46.00	-17.93
5	599.32	2.70	15.32	25.60	39.22	31.64	46.00	-14.36
6	687.15	2.88	17.83	25.69	34.37	29.39	46.00	-16.61



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6.8.2Transmitter emission above 1GHz

Test plot as follows:

Test mod	e:		802.11a	Freque	ncy(MHz):	5180	Rema	rk:		Peak
Frequency (MHz)	Ante Fac (dB		Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t	Polarization
7093.172	35.	49	10.64	37.69	43.31	51.75	74	-22.2	5	Vertical
9007.715	37.	00	11.80	37.18	40.17	51.79	74	-22.2	1	Vertical
10360.000	37.	80	12.98	35.96	38.27	52.37	74	-21.6	3	Vertical
12751.430	37.	98	14.86	37.89	36.08	51.03	74	-22.9	7	Vertical
15540.000	40.	94	17.07	38.92	33.59	52.68	74	-21.3	2	Vertical
17864.510	44.	06	21.66	36.94	24.41	53.19	74	-20.8	1	Vertical
7678.832	36.	04	10.89	37.44	42.17	51.66	74	-22.3	4	Horizontal
9007.715	37.	00	11.80	37.18	40.26	51.88	74	-22.1	2	Horizontal
10360.000	37.	80	12.98	35.96	36.59	50.69	74	-23.3	1	Horizontal
12775.540	37.	99	14.93	37.91	37.11	52.12	74	-21.8	8	Horizontal
15540.000	40.	94	17.07	38.92	34.60	53.69	74	-20.3	1	Horizontal
17563.380	43.	63	20.64	36.98	25.43	52.72	74	-21.2	8	Horizontal

Test mod	e:		802.11a	Freque	ency(MHz):	5220	Rema	rk:		Peak	
Frequency (MHz)	Ante Fac (dB/	tor	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	t	Polarization	
7664.340	36.0	03	10.88	37.44	41.95	51.42	74	-22.5	8	Vertical	
8990.716	37.0	00	11.79	37.19	39.99	51.59	74	-22.4	1	Vertical	
10440.000	37.	10	13.04	35.99	36.09	50.24	74	-23.7	6	Vertical	
12751.430	37.9	98	14.86	37.89	37.36	52.31	74	-21.6	9	Vertical	
15660.000	41.0	06	17.18	38.73	32.85	52.36	74	-21.6	4	Vertical	
17696.580	43.8	80	21.09	36.96	25.55	53.48	74	-20.5	2	Vertical	
7093.172	35.4	49	10.64	37.69	43.52	51.96	74	-22.0	4	Horizontal	
8344.312	36.4	40	11.61	37.27	42.39	53.13	74	-20.8	7	Horizontal	
10440.000	37.	10	13.04	35.99	34.75	48.90	74	-25.1	0	Horizontal	
12751.430	37.9	98	14.86	37.89	37.28	52.23	74	-21.7	7	Horizontal	
15660.000	41.0	06	17.18	38.73	33.54	53.05	74	-20.9	5	Horizontal	
17864.510	44.0	06	21.66	36.94	25.00	53.78	74	-20.2	2	Horizontal	



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Test mod	e:		802.11a	Freque	ncy(MHz):	5240	Rema	rk: Peak		Peak
Frequency (MHz)	Ante Fac (dB/	tor	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t	Polarization
7678.832	36.	04	10.89	37.44	42.45	51.94	74	-22.0	6	Vertical
9007.715	37.	00	11.80	37.18	38.86	50.48	74	-23.5	2	Vertical
10480.000	37.	10	13.07	36.00	36.20	50.37	74	-23.6	3	Vertical
12751.430	37.	98	14.86	37.89	37.71	52.66	74	-21.3	4	Vertical
15720.000	41.	12	17.24	38.63	33.84	53.57	74	-20.4	.3	Vertical
17864.510	44.	06	21.66	36.94	24.74	53.52	74	-20.4	.8	Vertical
7678.832	36.	04	10.89	37.44	41.95	51.44	74	-22.5	6	Horizontal
8990.716	37.	00	11.79	37.19	38.74	50.34	74	-23.6	6	Horizontal
10480.000	37.	10	13.07	36.00	34.41	48.58	74	-25.4	2	Horizontal
12775.540	37.	99	14.93	37.91	38.55	53.56	74	-20.4	4	Horizontal
15720.000	41.	12	17.24	38.63	33.83	53.56	74	-20.4	4	Horizontal
17932.130	44.	23	21.89	36.93	24.22	53.41	74	-20.5	9	Horizontal

Test mod	e:		802.11a	Freque	ncy(MHz):	5745	Rema	rk:	k: Peak	
Frequency (MHz)	Ante Fac (dB	ctor	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t	Polarization
7664.340	36.	03	10.88	37.44	42.29	51.76	74	-22.2	4	Vertical
9659.786	37.	10	12.53	36.28	39.74	53.09	74	-20.9	1	Vertical
11490.000	37.	45	14.01	36.68	34.47	49.25	74	-24.7	5	Vertical
13105.510	38.	21	15.58	38.29	37.22	52.72	74	-21.2	8	Vertical
14761.680	40.	34	16.47	39.76	35.50	52.55	74	-21.4	5	Vertical
17235.000	43.	05	19.50	37.03	28.37	53.89	74	-20.1	1	Vertical
7664.340	36.	03	10.88	37.44	42.93	52.40	74	-21.6	0	Horizontal
9899.929	37.	20	12.66	35.96	39.17	53.07	74	-20.9	3	Horizontal
11490.000	37.	45	14.01	36.68	35.62	50.40	74	-23.6	0	Horizontal
13192.440	38.	29	15.60	38.42	35.98	51.45	74	-22.5	5	Horizontal
15157.260	40.	66	16.70	39.53	34.58	52.41	74	-21.5	9	Horizontal
17235.000	43.	05	19.50	37.03	28.07	53.59	74	-20.4	.1	Horizontal



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Test mod	e:		802.11a	Freque	ncy(MHz):	5785	Rema	rk:		Peak
Frequency (MHz)	Ante Fac (dB/	tor	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t	Polarization
7751.699	36.	80	10.93	37.41	38.14	47.74	74	-26.2	26	Vertical
9659.786	37.	10	12.53	36.28	40.37	53.72	74	-20.2	8	Vertical
11570.000	37.	49	14.09	36.75	34.67	49.50	74	-24.5	0	Vertical
13192.440	38.	29	15.60	38.42	37.40	52.87	74	-21.1	3	Vertical
15243.400	40.	72	16.78	39.39	35.49	53.60	74	-20.4	0	Vertical
17355.000	43.	23	19.92	37.01	27.78	53.92	74	-20.0	8	Vertical
7678.832	36.	04	10.89	37.44	41.96	51.45	74	-22.5	5	Horizontal
9659.786	37.	10	12.53	36.28	40.35	53.70	74	-20.3	0	Horizontal
11570.000	37.	49	14.09	36.75	34.47	49.30	74	-24.7	0	Horizontal
13167.540	38.	27	15.59	38.38	35.84	51.32	74	-22.6	8	Horizontal
15128.660	40.	63	16.67	39.58	34.38	52.10	74	-21.9	0	Horizontal
17355.000	43.	23	19.92	37.01	27.37	53.51	74	-20.4	.9	Horizontal

Test mod	t mode: 802.11a		802.11a	Freque	Frequency(MHz):		Rema	rk:		Peak
Frequency (MHz)	Anter Fact (dB/ı	tor	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t	Polarization
7106.583	35.5	51	10.64	37.68	42.34	50.81	74	-23.1	9	Vertical
8344.312	36.4	10	11.61	37.27	42.19	52.93	74	-21.0	7	Vertical
10107.780	37.1	14	12.79	35.87	39.09	53.15	74	-20.8	5	Vertical
11650.000	37.5	50	14.18	36.83	34.58	49.43	74	-24.5	57	Vertical
15740.830	41.1	14	17.26	38.60	32.41	52.21	74	-21.7	'9	Vertical
17475.000	43.4	1 5	20.33	36.99	26.15	52.94	74	-21.0	16	Vertical
7678.832	36.0)4	10.89	37.44	41.34	50.83	74	-23.1	7	Horizontal
8990.716	37.0	00	11.79	37.19	40.51	52.11	74	-21.8	9	Horizontal
9993.873	37.2	29	12.71	35.84	39.35	53.51	74	-20.4	.9	Horizontal
11650.000	37.5	50	14.18	36.83	34.56	49.41	74	-24.5	9	Horizontal
14512.850	40.0)1	16.40	39.72	36.00	52.69	74	-21.3	31	Horizontal
17475.000	43.4	15	20.33	36.99	26.50	53.29	74	-20.7	'1	Horizontal



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Test mod	e:	80	02.11 n20	Freque	ency(MHz):	5180	Rema	rk:		Peak
Frequency (MHz)	Anten Facto (dB/r	or	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t	Polarization
7678.832	36.0	4	10.89	37.44	43.41	52.90	74	-21.1	0	Vertical
9007.715	37.0	0	11.80	37.18	39.79	51.41	74	-22.5	59	Vertical
10360.000	37.0	8	12.98	35.96	37.18	51.28	74	-22.7	'2	Vertical
12751.430	37.9	8	14.86	37.89	38.20	53.15	74	-20.8	35	Vertical
15540.000	40.9	4	17.07	38.92	34.37	53.46	74	-20.5	54	Vertical
17797.150	43.9	0	21.44	36.95	23.75	52.14	74	-21.8	36	Vertical
7214.789	35.5	9	10.68	37.63	40.98	49.62	74	-24.3	88	Horizontal
9007.715	37.0	0	11.80	37.18	40.26	51.88	74	-22.1	2	Horizontal
10360.000	37.0	8	12.98	35.96	36.59	50.69	74	-23.3	31	Horizontal
13179.990	38.2	8.	15.60	38.40	36.20	51.68	74	-22.3	32	Horizontal
15540.000	40.9	4	17.07	38.92	34.60	53.69	74	-20.3	31	Horizontal
17864.510	44.0	6	21.66	36.94	24.37	53.15	74	-20.8	35	Horizontal

Test mode	e:	802.11 n20	Freque	ency(MHz):	5220	Rema	rk:	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 (dE	Polarization
7678.832	36.04	10.89	37.44	41.83	51.32	74	-22.68	Vertical
8889.395	36.94	11.80	37.20	34.76	46.30	74	-27.70	Vertical
10440.000	37.10	13.04	35.99	35.11	49.26	74	-24.74	Vertical
12751.430	37.98	14.86	37.89	36.78	51.73	74	-22.27	Vertical
15660.000	41.06	17.18	38.73	33.71	53.22	74	-20.78	Vertical
17864.510	44.06	21.66	36.94	24.22	53.00	74	-21.00	Vertical
7093.172	35.49	10.64	37.69	41.86	50.30	74	-23.70	Horizontal
9007.715	37.00	11.80	37.18	39.70	51.32	74	-22.68	Horizontal
10440.000	37.10	13.04	35.99	35.44	49.59	74	-24.41	Horizontal
13217.380	38.32	15.61	38.46	37.18	52.65	74	-21.35	Horizontal
15660.000	41.06	17.18	38.73	34.04	53.55	74	-20.45	Horizontal
17864.510	44.06	21.66	36.94	24.04	52.82	74	-21.18	Horizontal

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Test mod	e:	80	02.11 n20	Freque	ency(MHz):	5240	Rema	rk:		Peak
Frequency (MHz)	Anten Facto (dB/n	or	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t	Polarization
7678.832	36.0	4	10.89	37.44	42.20	51.69	74	-22.3	1	Vertical
9659.786	37.1	0	12.53	36.28	40.42	53.77	74	-20.2	3	Vertical
10480.000	37.1	0	13.07	36.00	35.28	49.45	74	-24.5	5	Vertical
12775.540	37.9	9	14.93	37.91	37.61	52.62	74	-21.3	8	Vertical
15720.000	41.1	2	17.24	38.63	33.72	53.45	74	-20.5	5	Vertical
17830.800	43.9	8	21.55	36.94	25.21	53.80	74	-20.2	0	Vertical
7093.172	35.4	9	10.64	37.69	43.05	51.49	74	-22.5	1	Horizontal
8990.716	37.0	0	11.79	37.19	40.29	51.89	74	-22.1	1	Horizontal
10480.000	37.1	0	13.07	36.00	35.28	49.45	74	-24.5	5	Horizontal
12751.430	37.9	8	14.86	37.89	36.72	51.67	74	-22.3	3	Horizontal
15720.000	41.1	2	17.24	38.63	34.16	53.89	74	-20.1	1	Horizontal
17464.130	43.4	3	20.30	36.99	26.72	53.46	74	-20.5	4	Horizontal

Test mod	e:	802.11 n20	Freque	ency(MHz):	5745	Rema	rk:	Peak
Frequency (MHz)	Antenr Facto (dB/m	r Loss	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7113.298	35.51	10.64	37.68	41.64	50.11	74	-23.89	9 Vertical
8328.564	36.40	11.58	37.27	42.37	53.08	74	-20.9	2 Vertical
9975.013	37.28	12.70	35.86	39.45	53.57	74	-20.4	3 Vertical
11490.000	37.45	14.01	36.68	35.36	50.14	74	-23.8	6 Vertical
14901.760	40.45	16.51	39.78	35.27	52.45	74	-21.5	5 Vertical
17235.000	43.05	19.50	37.03	27.62	53.14	74	-20.8	6 Vertical
7113.298	35.51	10.64	37.68	41.64	50.11	74	-23.89	9 Horizontal
8328.564	36.40	11.58	37.27	42.37	53.08	74	-20.9	2 Horizontal
9975.013	37.28	12.70	35.86	39.45	53.57	74	-20.4	3 Horizontal
11490.000	37.45	14.01	36.68	35.36	50.14	74	-23.8	6 Horizontal
14901.760	40.45	16.51	39.78	35.27	52.45	74	-21.5	5 Horizontal
17235.000	43.05	19.50	37.03	27.62	53.14	74	-20.8	6 Horizontal



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Test mod	e:	80	02.11 n20	Freque	ency(MHz):	5785	Rema	rk:	Peak
Frequency (MHz)	Ante Fac (dB/	tor	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t Polarization
7093.172	35.	49	10.64	37.69	42.42	50.86	74	-23.1	4 Vertical
8990.716	37.	00	11.79	37.19	39.21	50.81	74	-23.1	9 Vertical
11570.000	37.	49	14.09	36.75	34.20	49.03	74	-24.9	7 Vertical
13192.440	38.	29	15.60	38.42	36.29	51.76	74	-22.2	4 Vertical
15157.260	40.	66	16.70	39.53	35.20	53.03	74	-20.9	7 Vertical
17355.000	43.	23	19.92	37.01	27.06	53.20	74	-20.8	0 Vertical
7174.020	35.	57	10.67	37.65	39.39	47.98	74	-26.0	2 Horizontal
9007.715	37.	00	11.80	37.18	40.72	52.34	74	-21.6	6 Horizontal
11570.000	37.	49	14.09	36.75	34.07	48.90	74	-25.1	0 Horizontal
13192.440	38.	29	15.60	38.42	37.48	52.95	74	-21.0	5 Horizontal
15157.260	40.	66	16.70	39.53	35.24	53.07	74	-20.9	3 Horizontal
17355.000	43.	23	19.92	37.01	27.24	53.38	74	-20.6	2 Horizontal

Test mod	e:	802.11 n20	Freque	ency(MHz):	5825	Rema	rk:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7678.832	36.04	10.89	37.44	42.02	51.51	74	-22.49	9 Vertical
9659.786	37.10	12.53	36.28	40.32	53.67	74	-20.3	3 Vertical
11650.000	37.50	14.18	36.83	33.76	48.61	74	-25.3	9 Vertical
13192.440	38.29	15.60	38.42	37.37	52.84	74	-21.10	6 Vertical
15157.260	40.66	16.70	39.53	35.39	53.22	74	-20.78	8 Vertical
17475.000	43.45	20.33	36.99	26.21	53.00	74	-21.0	0 Vertical
7678.832	36.04	10.89	37.44	41.99	51.48	74	-22.5	2 Horizontal
8990.716	37.00	11.79	37.19	39.11	50.71	74	-23.29	9 Horizontal
11650.000	37.50	14.18	36.83	32.78	47.63	74	-26.3	7 Horizontal
13192.440	38.29	15.60	38.42	36.77	52.24	74	-21.70	6 Horizontal
15128.660	40.63	16.67	39.58	34.38	52.10	74	-21.9	0 Horizontal
17475.000	43.45	20.33	36.99	27.14	53.93	74	-20.0	7 Horizontal



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Test mod	e: 8	02.11 ac20	Freque	ency(MHz):	5180	Rema	rk:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7079.786	35.48	10.63	37.69	43.82	52.24	74	-21.7	6 Vertical
8328.564	36.40	11.58	37.27	42.16	52.87	74	-21.13	3 Vertical
10360.000	37.08	12.98	35.96	38.06	52.16	74	-21.8	4 Vertical
12775.540	37.99	14.93	37.91	38.66	53.67	74	-20.3	3 Vertical
15540.000	40.94	17.07	38.92	32.98	52.07	74	-21.9	3 Vertical
17898.290	44.15	21.78	36.93	24.10	53.10	74	-20.9	0 Vertical
7678.832	36.04	10.89	37.44	42.20	51.69	74	-22.3	1 Horizontal
9007.715	37.00	11.80	37.18	39.46	51.08	74	-22.9	2 Horizontal
10360.000	37.08	12.98	35.96	37.54	51.64	74	-22.3	6 Horizontal
12751.430	37.98	14.86	37.89	38.43	53.38	74	-20.6	2 Horizontal
15540.000	40.94	17.07	38.92	33.68	52.77	74	-21.2	3 Horizontal
17629.850	43.73	20.87	36.97	25.69	53.32	74	-20.6	8 Horizontal

Test mod	e: 8	02.11 ac20	Freque	ency(MHz):	5220	Rema	rk:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	
7678.832	36.04	10.89	37.44	41.83	51.32	74	-22.68	8 Vertical
8889.395	36.94	11.80	37.20	34.76	46.30	74	-27.70	O Vertical
10440.000	37.10	13.04	35.99	35.11	49.26	74	-24.7	4 Vertical
12751.430	37.98	14.86	37.89	36.78	51.73	74	-22.2	7 Vertical
15660.000	41.06	17.18	38.73	33.71	53.22	74	-20.78	8 Vertical
17864.510	44.06	21.66	36.94	24.22	53.00	74	-21.00	O Vertical
7093.172	35.49	10.64	37.69	41.86	50.30	74	-23.70	O Horizontal
9007.715	37.00	11.80	37.18	39.70	51.32	74	-22.68	B Horizontal
10440.000	37.10	13.04	35.99	35.44	49.59	74	-24.4	1 Horizontal
13217.380	38.32	15.61	38.46	37.18	52.65	74	-21.3	5 Horizontal
15660.000	41.06	17.18	38.73	34.04	53.55	74	-20.4	5 Horizontal
17864.510	44.06	21.66	36.94	24.04	52.82	74	-21.18	B Horizontal



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Test mod	e: 8	02.11 ac20	Freque	ency(MHz):	5240	Rema	rk:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	
7678.832	36.04	10.89	37.44	42.45	51.94	74	-22.06	6 Vertical
9007.715	37.00	11.80	37.18	38.86	50.48	74	-23.52	2 Vertical
10480.000	37.10	13.07	36.00	36.20	50.37	74	-23.63	3 Vertical
12751.430	37.98	14.86	37.89	37.71	52.66	74	-21.34	4 Vertical
15720.000	41.12	17.24	38.63	33.84	53.57	74	-20.43	3 Vertical
17864.510	44.06	21.66	36.94	24.74	53.52	74	-20.48	3 Vertical
7678.832	36.04	10.89	37.44	41.95	51.44	74	-22.56	6 Horizontal
8990.716	37.00	11.79	37.19	38.74	50.34	74	-23.66	6 Horizontal
10480.000	37.10	13.07	36.00	34.41	48.58	74	-25.42	2 Horizontal
12775.540	37.99	14.93	37.91	38.55	53.56	74	-20.44	4 Horizontal
15720.000	41.12	17.24	38.63	33.83	53.56	74	-20.44	4 Horizontal
17932.130	44.23	21.89	36.93	24.22	53.41	74	-20.59	9 Horizontal

Test mod	e:	802.11 ac20	Freque	ency(MHz):	5745	Rema	rk:	Peak
Frequency (MHz)	Antenr Facto (dB/m	r Loss	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7678.832	36.04	10.89	37.44	41.91	51.40	74	-22.60	0 Vertical
8328.564	36.40	11.58	37.27	41.98	52.69	74	-21.3 ⁻	1 Vertical
10012.770	37.28	12.72	35.83	38.73	52.90	74	-21.10	0 Vertical
11490.000	37.45	14.01	36.68	35.00	49.78	74	-24.22	2 Vertical
14678.270	40.22	16.45	39.75	35.92	52.84	74	-21.10	6 Vertical
17235.000	43.05	19.50	37.03	27.88	53.40	74	-20.60	0 Vertical
7053.090	35.45	10.62	37.71	43.17	51.53	74	-22.4	7 Horizontal
8328.564	36.40	11.58	37.27	42.30	53.01	74	-20.99	9 Horizontal
9937.399	37.24	12.68	35.91	39.10	53.11	74	-20.89	9 Horizontal
11490.000	37.45	14.01	36.68	36.02	50.80	74	-23.20	0 Horizontal
14845.570	40.42	16.50	39.77	35.61	52.76	74	-21.24	4 Horizontal
17235.000	43.05	19.50	37.03	27.71	53.23	74	-20.7	7 Horizontal



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Test mod	e:	80	2.11 ac20	Freque	ency(MHz):	5785	Rema	rk:	Peak
Frequency (MHz)	Ante Fac (dB/	tor	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t Polarization
7093.172	35.	49	10.64	37.69	42.42	50.86	74	-23.1	4 Vertical
8990.716	37.	00	11.79	37.19	39.21	50.81	74	-23.1	9 Vertical
11570.000	37.	49	14.09	36.75	35.20	50.03	74	-23.9	7 Vertical
13192.440	38.	29	15.60	38.42	37.29	52.76	74	-21.2	4 Vertical
15157.260	40.	66	16.70	39.53	35.20	53.03	74	-20.9	7 Vertical
17355.000	43.	23	19.92	37.01	27.06	53.20	74	-20.8	0 Vertical
7106.583	35.	51	10.64	37.68	42.03	50.50	74	-23.5	0 Horizontal
9007.715	37.	00	11.80	37.18	40.72	52.34	74	-21.6	6 Horizontal
11570.000	37.	49	14.09	36.75	34.07	48.90	74	-25.1	0 Horizontal
13192.440	38.	29	15.60	38.42	36.48	51.95	74	-22.0	5 Horizontal
15157.260	40.	66	16.70	39.53	34.24	52.07	74	-21.9	3 Horizontal
17355.000	43.	23	19.92	37.01	27.24	53.38	74	-20.6	2 Horizontal

Test mod	e: 8	02.11 ac20	Freque	ency(MHz):	5825	Rema	rk:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	
7678.832	36.04	10.89	37.44	42.02	51.51	74	-22.49	9 Vertical
9659.786	37.10	12.53	36.28	40.32	53.67	74	-20.33	3 Vertical
11650.000	37.50	14.18	36.83	33.76	48.61	74	-25.39	9 Vertical
13192.440	38.29	15.60	38.42	37.37	52.84	74	-21.10	6 Vertical
15157.260	40.66	16.70	39.53	35.39	53.22	74	-20.78	8 Vertical
17475.000	43.45	20.33	36.99	26.21	53.00	74	-21.00	O Vertical
7678.832	36.04	10.89	37.44	41.99	51.48	74	-22.5	2 Horizontal
8990.716	37.00	11.79	37.19	39.11	50.71	74	-23.29	9 Horizontal
11650.000	37.50	14.18	36.83	32.78	47.63	74	-26.3	7 Horizontal
13192.440	38.29	15.60	38.42	36.77	52.24	74	-21.70	6 Horizontal
15128.660	40.63	16.67	39.58	34.38	52.10	74	-21.90) Horizontal
17475.000	43.45	20.33	36.99	27.14	53.93	74	-20.0	7 Horizontal



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Test mod	e:	80	02.11 n40	Freque	ency(MHz):	5190	Rema	rk:	Peak	
Frequency (MHz)	Anten Facto (dB/r	or	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t	Polarization
7678.832	36.0	4	10.89	37.44	43.03	52.52	74	-21.4	8	Vertical
9007.715	37.0	0	11.80	37.18	39.66	51.28	74	-22.7	2	Vertical
10380.000	37.0	9	13.00	35.97	37.32	51.44	74	-22.5	6	Vertical
12775.540	37.9	9	14.93	37.91	37.55	52.56	74	-21.4	4	Vertical
15570.000	40.9	7	17.09	38.87	33.84	53.03	74	-20.9	7	Vertical
17797.150	43.9	0	21.44	36.95	25.50	53.89	74	-20.1	1	Vertical
7678.832	36.0	4	10.89	37.44	42.21	51.70	74	-22.3	0	Horizontal
9007.715	37.0	0	11.80	37.18	39.58	51.20	74	-22.8	08	Horizontal
10380.000	37.0	9	13.00	35.97	36.25	50.37	74	-23.6	3	Horizontal
12751.430	37.9	8	14.86	37.89	37.22	52.17	74	-21.8	3	Horizontal
15570.000	40.9	7	17.09	38.87	33.77	52.96	74	-21.0)4	Horizontal
17932.130	44.2	3	21.89	36.93	23.14	52.33	74	-21.6	57	Horizontal

Test mod	e: 8	02.11 n40	Freque	ency(MHz):	5230	Rema	rk:		Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t	Polarization
7187.584	35.59	10.67	37.65	38.93	47.54	74	-26.4	6	Vertical
9007.715	37.00	11.80	37.18	39.76	51.38	74	-22.6	2	Vertical
10460.000	37.10	13.06	36.00	35.31	49.47	74	-24.5	3	Vertical
13117.890	38.22	15.58	38.31	36.12	51.61	74	-22.3	9	Vertical
15690.000	41.09	17.21	38.68	33.70	53.32	74	-20.6	8	Vertical
17730.040	43.83	21.21	36.96	25.45	53.53	74	-20.4	.7	Vertical
7093.172	35.49	10.64	37.69	42.72	51.16	74	-22.8	4	Horizontal
8344.312	36.40	11.61	37.27	41.68	52.42	74	-21.5	8	Horizontal
10460.000	37.10	13.06	36.00	34.33	48.49	74	-25.5	1	Horizontal
13192.440	38.29	15.60	38.42	36.63	52.10	74	-21.9	0	Horizontal
15690.000	41.09	17.21	38.68	33.55	53.17	74	-20.8	3	Horizontal
17864.510	44.06	21.66	36.94	23.85	52.63	74	-21.3	7	Horizontal

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Test mod	e:	80	02.11 n40	Freque	ency(MHz):	5755	Rema	rk:	Peak	
Frequency (MHz)	Anten Facto (dB/n	or	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t	Polarization
7678.832	36.0	4	10.89	37.44	40.64	50.13	74	-23.8	7	Vertical
9659.786	37.1	0	12.53	36.28	38.23	51.58	74	-22.4	2	Vertical
11510.000	37.4	6	14.03	36.70	36.49	51.28	74	-22.7	2	Vertical
13167.540	38.2	7	15.59	38.38	36.35	51.83	74	-22.1	7	Vertical
15157.260	40.6	6	16.70	39.53	34.20	52.03	74	-21.9	7	Vertical
17265.000	43.1	0	19.60	37.02	27.53	53.21	74	-20.7	6	Vertical
7133.481	35.5	3	10.65	37.67	41.32	49.83	74	-24.1	7	Horizontal
8990.716	37.0	0	11.79	37.19	39.04	50.64	74	-23.3	6	Horizontal
11510.000	37.4	6	14.03	36.70	33.68	48.47	74	-25.5	S	Horizontal
13192.440	38.2	9	15.60	38.42	35.85	51.32	74	-22.6	8	Horizontal
14929.940	40.4	7	16.52	39.78	36.22	53.43	74	-20.5	7	Horizontal
17265.000	43.1	0	19.60	37.02	27.49	53.17	74	-20.8	3	Horizontal

Test mod	e:	302.11 n40	Freque	ency(MHz):	5795	Rema	rk:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	
7093.172	35.49	10.64	37.69	42.58	51.02	74	-22.98	8 Vertical
9007.715	37.00	11.80	37.18	39.10	50.72	74	-23.28	8 Vertical
11590.000	37.50	14.12	36.77	33.16	48.01	74	-25.99	9 Vertical
13192.440	38.29	15.60	38.42	37.15	52.62	74	-21.38	3 Vertical
15214.630	40.71	16.75	39.44	35.15	53.17	74	-20.83	3 Vertical
17385.000	43.28	20.02	37.01	27.42	53.71	74	-20.29	9 Vertical
7678.832	36.04	10.89	37.44	42.17	51.66	74	-22.34	4 Horizontal
9659.786	37.10	12.53	36.28	40.20	53.55	74	-20.45	5 Horizontal
11590.000	37.50	14.12	36.77	32.75	47.60	74	-26.40) Horizontal
13117.890	38.22	15.58	38.31	36.01	51.50	74	-22.50) Horizontal
15157.260	40.66	16.70	39.53	35.10	52.93	74	-21.07	7 Horizontal
17385.000	43.28	20.02	37.01	26.61	52.90	74	-21.10) Horizontal



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Test mod	e:	80	2.11 ac40	Freque	ency(MHz):	5190	Rema	rk:	Peak
Frequency (MHz)	Ante Fac (dB/	tor	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t Polarization
7678.832	36.0	04	10.89	37.44	43.03	52.52	74	-21.4	8 Vertical
9007.715	37.0	00	11.80	37.18	39.66	51.28	74	-22.7	2 Vertical
10380.000	37.0	09	13.00	35.97	36.32	50.44	74	-23.5	6 Vertical
12775.540	37.9	99	14.93	37.91	38.55	53.56	74	-20.4	4 Vertical
15570.000	40.9	97	17.09	38.87	33.84	53.03	74	-20.9	7 Vertical
17797.150	43.9	90	21.44	36.95	25.50	53.89	74	-20.1	1 Vertical
7093.172	35.4	49	10.64	37.69	41.92	50.36	74	-23.6	4 Horizontal
9007.715	37.0	00	11.80	37.18	39.58	51.20	74	-22.8	0 Horizontal
10380.000	37.0	09	13.00	35.97	36.25	50.37	74	-23.6	3 Horizontal
12751.430	37.9	98	14.86	37.89	38.22	53.17	74	-20.8	3 Horizontal
15570.000	40.9	97	17.09	38.87	33.77	52.96	74	-21.0	4 Horizontal
17932.130	44.2	23	21.89	36.93	24.14	53.33	74	-20.6	7 Horizontal

Test mod	e:	802.11 ac40	Freque	ency(MHz):	5230	Rema	rk:	Peak
Frequency (MHz)	Antenn Factor (dB/m)	Loss	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7093.172	35.49	10.64	37.69	42.99	51.43	74	-22.5	7 Vertical
9007.715	37.00	11.80	37.18	39.76	51.38	74	-22.6	2 Vertical
10460.000	37.10	13.06	36.00	35.31	49.47	74	-24.5	3 Vertical
13117.890	38.22	15.58	38.31	36.12	51.61	74	-22.3	9 Vertical
15690.000	41.09	17.21	38.68	33.70	53.32	74	-20.6	8 Vertical
17830.800	43.98	21.55	36.94	24.59	53.18	74	-20.8	2 Vertical
7026.495	35.43	10.61	37.72	43.43	51.75	74	-22.2	5 Horizontal
9007.715	37.00	11.80	37.18	38.61	50.23	74	-23.7	7 Horizontal
10460.000	37.10	13.06	36.00	35.33	49.49	74	-24.5	1 Horizontal
13192.440	38.29	15.60	38.42	36.63	52.10	74	-21.9	0 Horizontal
15690.000	41.09	17.21	38.68	33.55	53.17	74	-20.8	3 Horizontal
17864.510	44.06	21.66	36.94	24.85	53.63	74	-20.3	7 Horizontal



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Test mod	e: 8	02.11 ac40	Freque	ency(MHz):	5755	Rema	rk:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB)	t Polarization
7678.832	36.04	10.89	37.44	42.64	52.13	74	-21.8	7 Vertical
9659.786	37.10	12.53	36.28	40.23	53.58	74	-20.4	2 Vertical
11510.000	37.46	14.03	36.70	34.49	49.28	74	-24.7	'2 Vertical
13267.410	38.37	15.62	38.54	35.80	51.25	74	-22.7	75 Vertical
15417.140	40.82	16.95	39.11	33.63	52.29	74	-21.7	'1 Vertical
17265.000	43.10	19.60	37.02	27.53	53.21	74	-20.7	'9 Vertical
7106.583	35.51	10.64	37.68	41.67	50.14	74	-23.8	6 Horizontal
8990.716	37.00	11.79	37.19	39.04	50.64	74	-23.3	6 Horizontal
11510.000	37.46	14.03	36.70	33.68	48.47	74	-25.5	3 Horizontal
12751.430	37.98	14.86	37.89	37.92	52.87	74	-21.1	3 Horizontal
14929.940	40.47	16.52	39.78	35.22	52.43	74	-21.5	7 Horizontal
17265.000	43.10	19.60	37.02	27.49	53.17	74	-20.8	33 Horizontal

Test mod	e: 8	02.11 ac40	Freque	ency(MHz):	5795	Rema	rk:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	
7678.832	36.04	10.89	37.44	41.50	50.99	74	-23.0 ⁻	1 Vertical
9659.786	37.10	12.53	36.28	40.11	53.46	74	-20.54	4 Vertical
11590.000	37.50	14.12	36.77	35.16	50.01	74	-23.99	9 Vertical
13117.890	38.22	15.58	38.31	37.06	52.55	74	-21.4	5 Vertical
15800.410	41.20	17.31	38.51	33.34	53.34	74	-20.66	6 Vertical
17385.000	43.28	20.02	37.01	27.42	53.71	74	-20.29	9 Vertical
7079.786	35.48	10.63	37.69	42.54	50.96	74	-23.04	4 Horizontal
8990.716	37.00	11.79	37.19	39.80	51.40	74	-22.60) Horizontal
11590.000	37.50	14.12	36.77	35.75	50.60	74	-23.40) Horizontal
13192.440	38.29	15.60	38.42	36.75	52.22	74	-21.78	B Horizontal
15157.260	40.66	16.70	39.53	35.10	52.93	74	-21.07	7 Horizontal
17385.000	43.28	20.02	37.01	26.61	52.90	74	-21.10) Horizontal



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Test mod	e: 8	02.11 ac80	Freque	ency(MHz):	5210	Rema	rk:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	
7664.340	36.03	10.88	37.44	41.60	51.07	74	-22.93	3 Vertical
8990.716	37.00	11.79	37.19	39.58	51.18	74	-22.82	2 Vertical
10420.000	37.10	13.03	35.98	34.24	48.39	74	-25.6 ⁻	1 Vertical
12751.430	37.98	14.86	37.89	37.42	52.37	74	-21.63	3 Vertical
15630.000	41.03	17.15	38.78	33.71	53.11	74	-20.89	9 Vertical
17830.800	43.98	21.55	36.94	25.08	53.67	74	-20.33	3 Vertical
7086.476	35.49	10.63	37.69	41.65	50.08	74	-23.92	2 Horizontal
9007.715	37.00	11.80	37.18	39.11	50.73	74	-23.2	7 Horizontal
10420.000	37.10	13.03	35.98	34.88	49.03	74	-24.9	7 Horizontal
12775.540	37.99	14.93	37.91	37.39	52.40	74	-21.60) Horizontal
15630.000	41.03	17.15	38.78	33.45	52.85	74	-21.1	5 Horizontal
17763.560	43.86	21.32	36.95	25.35	53.58	74	-20.42	2 Horizontal

Test mod	e: 8	02.11 ac80	Freque	ency(MHz):	5775	Rema	rk:	Peak
Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
7678.832	36.04	10.89	37.44	42.40	51.89	74	-22.1	1 Vertical
9007.715	37.00	11.80	37.18	38.95	50.57	74	-23.4	3 Vertical
11550.000	37.48	14.07	36.74	34.09	48.90	74	-25.1	0 Vertical
13167.540	38.27	15.59	38.38	36.38	51.86	74	-22.1	4 Vertical
15740.830	41.14	17.26	38.60	33.37	53.17	74	-20.8	3 Vertical
17325.000	43.19	19.81	37.01	27.80	53.79	74	-20.2	1 Vertical
7099.874	35.50	10.64	37.69	40.82	49.27	74	-24.73	3 Horizontal
9007.715	37.00	11.80	37.18	38.75	50.37	74	-23.6	3 Horizontal
11550.000	37.48	14.07	36.74	34.85	49.66	74	-24.3	4 Horizontal
13217.380	38.32	15.61	38.46	36.22	51.69	74	-22.3	1 Horizontal
15800.410	41.20	17.31	38.51	32.72	52.72	74	-21.28	8 Horizontal
17325.000	43.19	19.81	37.01	26.80	52.79	74	-21.2	1 Horizontal



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As the worst case are 5240MHz of 802.11n(20) for 5G WIFI and 2452MHz of 802.11n(40) for 2.4G WIFI, so simultaneous transmission operations under the worst case of 2.4G & 5G WIFI were recorded in the below table.

Test mod	e:		2.11 n20 & 02.11n40	Freq	uency(MHz):	5240 & 2452	Rema	rk:	:: Peak	
Frequency (MHz)	Fac	enna ctor 3/m)	Cable Loss (dB)	Preamp Factor (dB)	Read Level (dBuV)	Level (dBuV/m)	Limit Line (dBuV/m)	Ove Limi (dB	it	Polarization
7678.854	36.	.04	10.89	37.44	42.25	51.74	74	-22.2	26	Vertical
9659.779	37.	.10	12.53	36.28	40.43	53.78	74	-20.2	22	Vertical
10480.063	37.	.10	13.07	36.00	35.31	49.48	74	-24.5	52	Vertical
12775.535	37.	.99	14.93	37.91	37.78	52.79	74	-21.2	21	Vertical
15720.028	41.	.12	17.24	38.63	33.77	53.50	74	-20.5	50	Vertical
17830.803	43.	.98	21.55	36.94	25.25	53.84	74	-20.1	6	Vertical
7093.175	35.	.49	10.64	37.69	43.11	51.55	74	-22.4	l 5	Horizontal
8990.711	37.	.00	11.79	37.19	40.32	51.92	74	-22.0	8	Horizontal
10480.056	37.	.10	13.07	36.00	35.35	49.52	74	-24.4	18	Horizontal
12751.429	37.	.98	14.86	37.89	36.47	51.42	74	-22.5	58	Horizontal
15720.039	41.	.12	17.24	38.63	34.21	53.94	74	-20.0)6	Horizontal
17464.127	43.	.43	20.30	36.99	26.75	53.49	74	-20.5	51	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.
- 3) As shown in this section, for frequencies above 1GHz, the field strength limits are based on average limits. However, the peak field strength of any emission shall not exceed the maximum permitted average limits specified above by more than 20 dB under any condition of modulation. So, only the peak measurements were shown in the report.

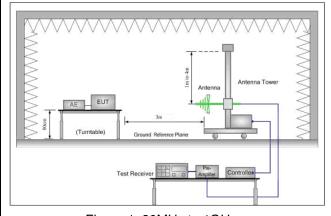


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6.9 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15 Section 15.4	47 CFR Part 15 Section 15.407(b)							
Test Method:	ANSI C63.10: 2013, section	ANSI C63.10: 2013, section 12.7.6, 12.7.7.3							
Test Site:	Measurement Distance: 3n	Measurement Distance: 3m							
Limit:	Frequency	Limit (dBuV/m)	Remark						
	30MHz-88MHz	40.0	Quasi-peak Value						
	88MHz-216MHz	43.5	Quasi-peak Value						
	216MHz-960MHz	46.0	Quasi-peak Value						
	960MHz-1GHz	54.5	Quasi-peak Value						
	Above 1CUz	54.0	Average Value						
	Above 1GHz	74.0	Peak Value						
Test Setup:									



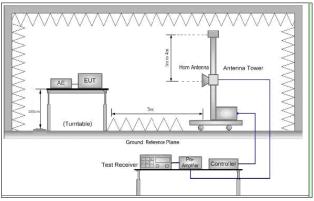


Figure 1. 30MHz to 1GHz

Figure 2. Above 1 GHz

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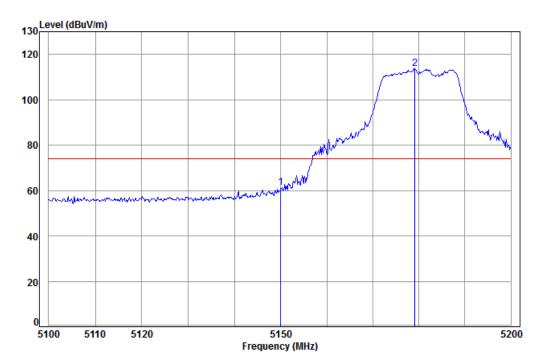
the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and then the antenna was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel g. Test the EUT in the outermost channels. 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; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT20);					
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; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report. Instruments Used: Refer to section 5.10 for details	Test Procedure:	 the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. Place a marker at the end of the restricted band closest to the transmit frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each power and modulation for lowest and highest channel 			
Final Test Mode: Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report. Instruments Used: Refer to section 5.10 for details	E				
MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report. Instruments Used: Refer to section 5.10 for details		ransmitting with all kind of modulations, data rates.			
	Final Test Mode:	MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80)			
Test Results: Pass	Instruments Used:	Refer to section 5.10 for details			
	Test Results:	Pass			





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Test plot as follows:



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5180 Band edge

: A20

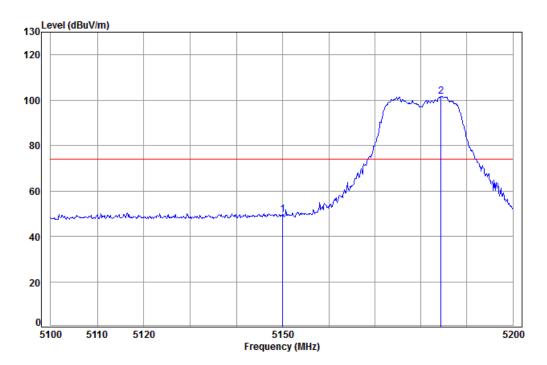
Cable Ant Preamp Limit 0ver Read Freq Loss Factor Factor Level Level Line Limit dB dΒ dBuV dBuV/m dBuV/m MHz dB/m 5150.00 8.08 34.07 38.82 57.94 61.27 74.00 -12.73 8.09 34.03 38.82 110.38 113.68 74.00 39.68 5179.14





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Test mode: 802.11a Frequency(MHz): 5180 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5180 Band edge

: A20

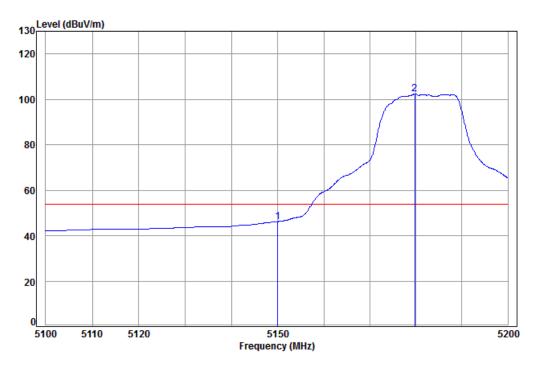
Ant Preamp Limit Cable Read 0ver Freq Loss Factor Factor Level Level Limit line dBuV dBuV/m dBuV/m MHz dB dB/m dB 38.82 46.08 49.41 74.00 -24.59 5150.00 8.08 34.07 5184.37 8.09 34.02 38.82 98.51 101.80 74.00 27.80





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Test mode: 802.11a Frequency(MHz): 5180 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5180 Band edge

: A20

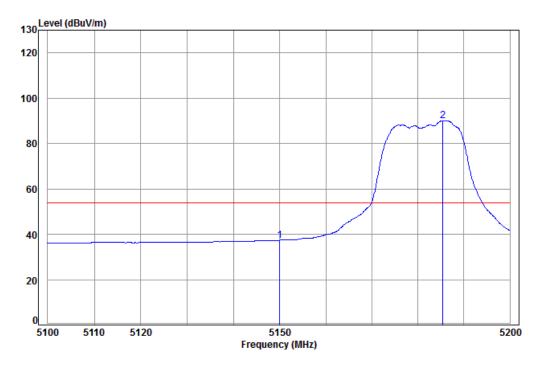
Cable Ant Preamp Read limit 0ver Freq Loss Factor Factor Level Level Limit Line MHz dB dBuV dBuV/m dBuV/m dB/m 5150.00 8.08 34.07 38.82 42.87 46.20 54.00 -7.80 2 pp 5179.74 8.09 34.03 38.82 99.01 102.31 54.00 48.31





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Test mode: 802.11a Frequency(MHz): 5180 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5180 Band edge

: A20

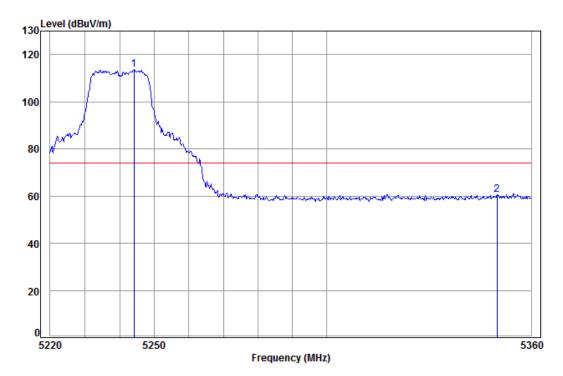
Ant Preamp Cable Read Limit 0ver Freq Loss Factor Factor Level Level Limit Line dBuV dBuV/m dBuV/m MHz dB dB/m dB 5150.00 34.07 38.82 34.03 37.36 54.00 -16.64 8.08 5185.38 8.10 34.02 38.82 86.67 89.97 54.00 35.97





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Test mode: 802.11a Frequency(MHz): 5240 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5240 Band edge

: A20

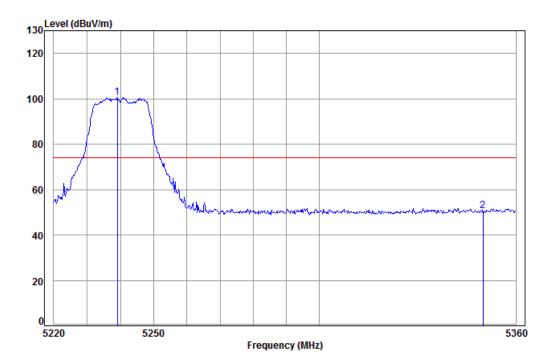
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit MHz dΒ dB/m dΒ dBuV dBuV/m dBuV/m 1 pp 5244.10 8.13 34.09 38.83 110.33 113.72 74.00 39.72 8.18 34.30 38.85 57.03 60.66 74.00 -13.34





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Test mode: 802.11a Frequency(MHz): 5240 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5240 Band edge

: A20

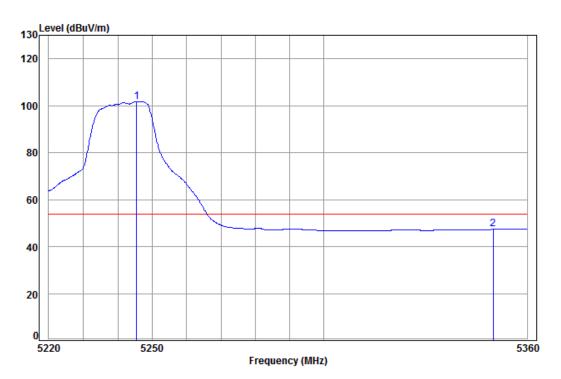
	Freq			Preamp Factor				
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
	5239.10 5350.00							





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Test mode: 802.11a	Frequency(MHz):	5240	Remark:	Average	Vertical
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Condition: 3m Vertical Job No: : 0926IT

Mode: : 5240 Band edge

: A20

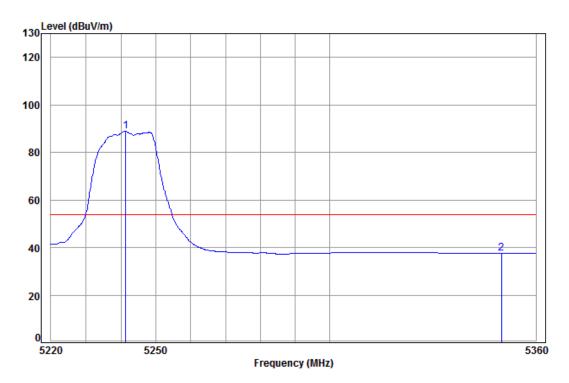
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Line Limit Level MHz dBuV dBuV/m dBuV/m dΒ dB/m dB dB 1 pp 5245.48 8.13 34.09 38.83 98.38 101.77 54.00 47.77 8.18 34.30 38.85 43.71 47.34 54.00 5350.00 -6.66





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Test mode: 802.11a Frequency(MHz): 5240 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5240 Band edge

: A20

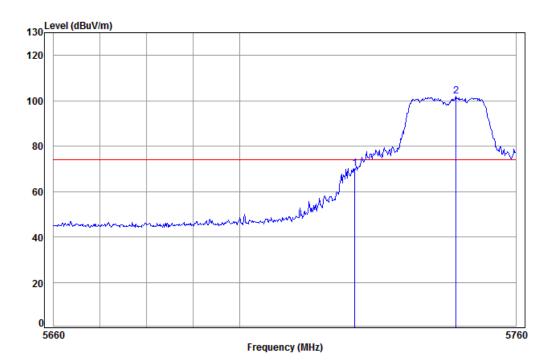
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Line Limit Level MHz dB dB/m dBuV dBuV/m dBuV/m 85.46 88.83 5241.32 8.12 34.08 38.83 54.00 34.83 1 pp 5350.00 8.18 34.30 38.85 34.01 37.64 54.00 -16.36





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Test mode:	802.11a	Frequency(MHz):	5745	Remark:	Peak	Vertical
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Condition: 3m Vertical Job No: : 0926IT

Mode: : 5745 Band edge

: A20

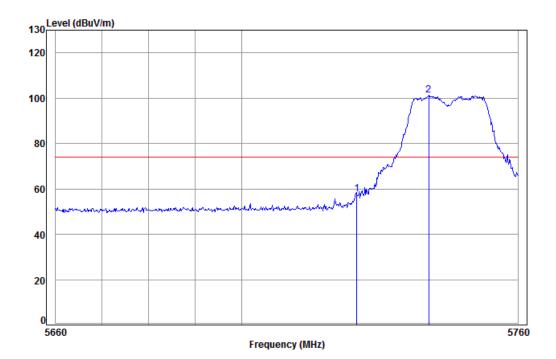
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Freq Level Level Line Limit MHz dΒ dB/m dΒ dBuV dBuV/m dBuV/m 8.48 5725.000 34.24 38.92 66.40 70.20 74.00 -3.80 2 pp 5747.001 8.50 34.23 38.92 98.10 101.91 74.00 27.91





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Test mode: 802.11a Frequency(MHz): 5745 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5745 Band edge

: A20

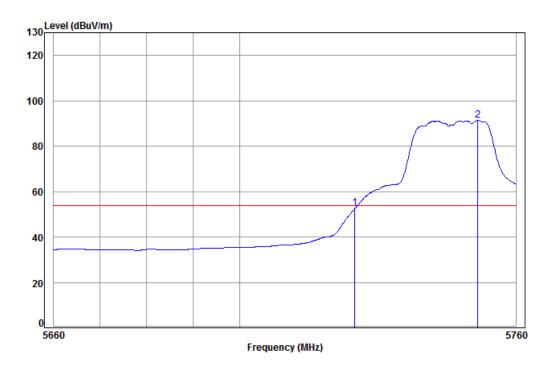
Ant Preamp Over Cable Read Limit Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dBuV dBuV/m dBuV/m 5725.000 8.48 34.24 38.92 54.01 57.81 74.00 -16.19 2 pp 5740.563 8.50 34.23 38.92 97.35 101.16 74.00 27.16





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Test mode:	802.11a	Frequency(MHz):	5745	Remark:	Average	Vertical
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Condition: 3m Vertical Job No: : 0926IT

Mode: : 5745 Band edge

: A20

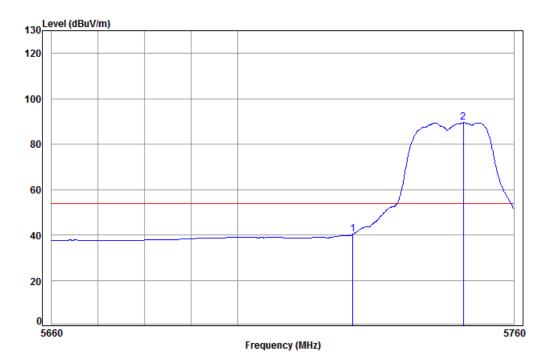
Ant Preamp Read Limit Loss Factor Factor Level Level Limit MHz dBuV dBuV/m dBuV/m dB dB/m dΒ 5725,000 8.48 34.24 38.92 48.80 52.60 54.00 -1.40 2 pp 5751.734 8.51 34.22 38.92 87.53 91.34 54.00 37.34





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Test mode: 802.11a Frequency(MHz): 5745 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5745 Band edge

: A20

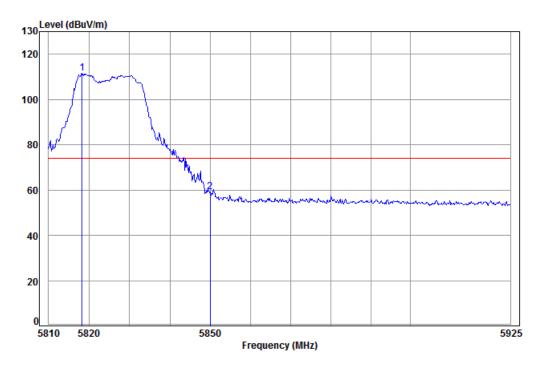
Cable Ant Preamp Limit 0ver Read Freq Loss Factor Factor Level Level Line Limit MHzdB dB/m dΒ dBuV dBuV/m dBuV/m 5725.000 8.48 34.24 38.92 36.56 40.36 54.00 -13.64 2 pp 5749.015 8.50 34.23 38.92 85.64 89.45 54.00 35.45





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Test mode: 802.11a Frequency(MHz): 5825 Remark: Peak Vertical



Condition: 3m Vertical

Job No: : 0926IT

Mode: : 5825 Band edge

: A20

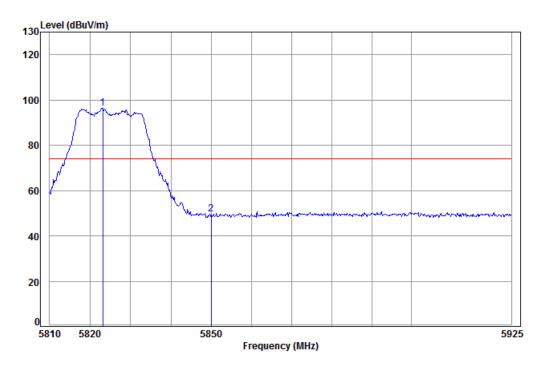
Cable Ant Preamp 0ver Read Limit Loss Factor Factor Level Level Line Limit Freq MHz dB dB/m dB dBuV dBuV/m dBuV/m 8.57 34.25 38.93 107.70 111.59 74.00 37.59 1 pp 5818.32 8.60 34.33 38.94 55.29 59.28 74.00 -14.72 5850.00





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Test mode: 802.11a Frequency(MHz): 5825 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5825 Band edge

: A20

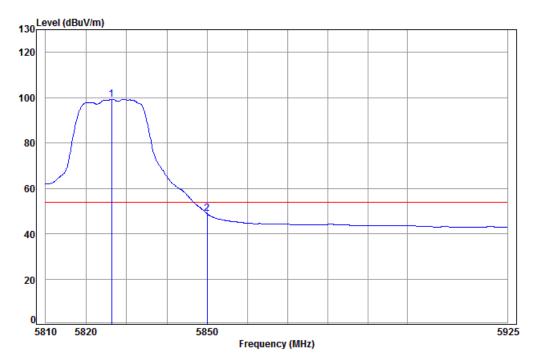
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Limit Freq Level Level Line MHz dB/m dBuV dBuV/m dBuV/m dB dB 5823.11 8.58 34.26 38.93 92.31 96.22 74.00 22.22 1 pp 5850.00 8.60 34.33 38.94 45.60 49.59 74.00 -24.41





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Test mode: 802.11a Frequency(MHz): 5825 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5825 Band edge

: A20

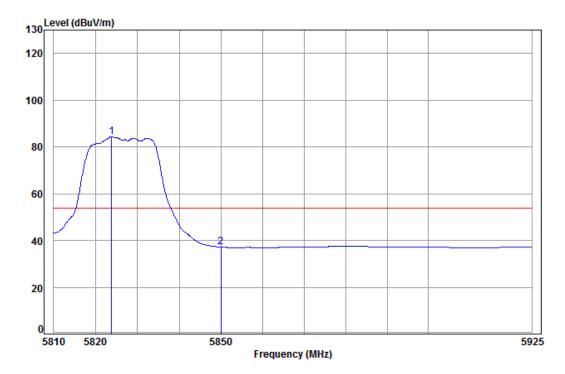
Cable Ant Preamp 0ver Read Limit Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 38.93 95.35 99.27 54.00 45.27 5826.31 8.58 34.27 5850.00 8.60 34.33 38.94 44.82 48.81 54.00 -5.19





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Test mode: 802.11a Frequency(MHz): 5825 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5825 Band edge

: A20

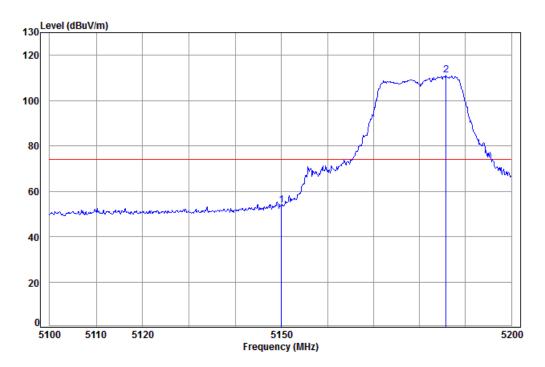
Cable Ant Preamp Read Limit 0ver Frea Loss Factor Factor Level Level Line Limit MHz dB/m dBuV dBuV/m dBuV/m 8.58 34.26 38.93 80.35 84.26 5823.80 54.00 30.26 1 pp 5850.00 8.60 34.33 38.94 33.16 37.15 54.00 -16.85





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Test mode: 802.11 n20 Frequency(MHz): 5180 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5180 Band edge

: N20

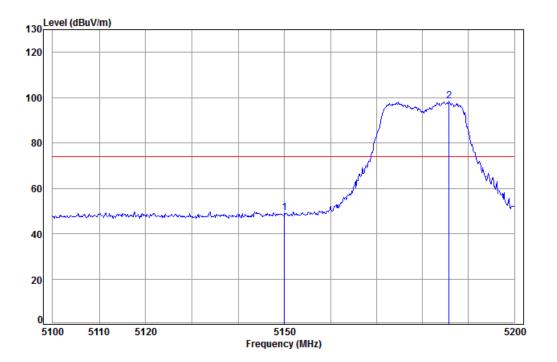
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Level Limit Freq Line MHz dB dB/m dB dBuV dBuV/m dBuV/m 5150.00 8.08 34.07 38.82 50.50 53.83 74.00 -20.17 2 pp 5185.78 8.10 34.02 38.82 107.82 111.12 74.00 37.12





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Test mode: 802.11 n20 Frequency(MHz): 5180 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5180 Band edge

: N20

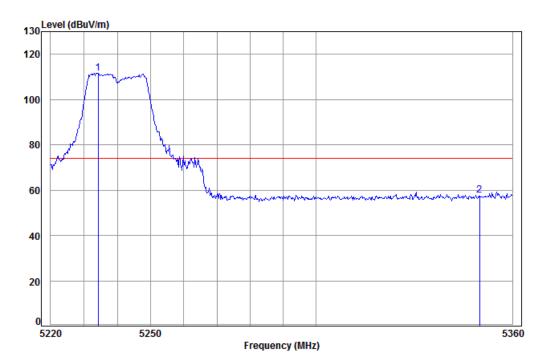
Cable Ant Preamp 0ver Read Limit Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 8.08 38.82 45.92 49.25 74.00 -24.75 5150.00 34.07 2 pp 5185.78 8.10 34.02 38.82 95.00 98.30 74.00 24.30





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Test mode: 802.11 n20 Frequency(MHz): 5240 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5240 Band edge

: N20

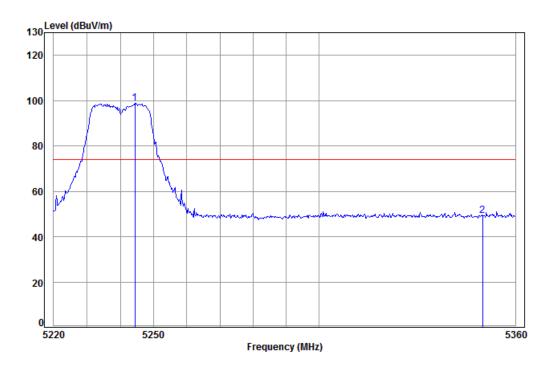
Ant Preamp Cable Read Limit 0ver Loss Factor Factor Level Level Line Limit Frea dBuV dBuV/m dBuV/m MHz dB dB/m dB 1 pp 5234.25 8.12 34.07 38.83 108.35 111.71 74.00 37.71 5350.00 8.18 34.30 38.85 54.17 57.80 74.00 -16.20





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Test mode: 802.11 n20 Frequency(MHz): 5240 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5240 Band edge

: N20

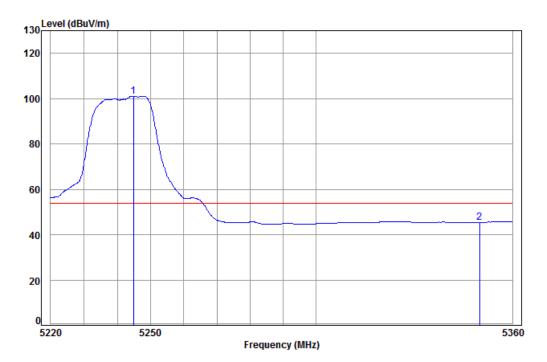
Cable Ant Preamp 0ver Read Limit Freq Loss Factor Factor Level Level Line Limit MHz dBuV dBuV/m dBuV/m dB dB/m dB 1 pp 5244.37 8.13 34.09 38.83 95.47 98.86 74.00 24.86 8.18 34.30 38.85 45.64 49.27 74.00 -24.73 5350.00





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Test mode: 802.11 n20 Frequency(MHz): 5240 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5240 Band edge

: N20

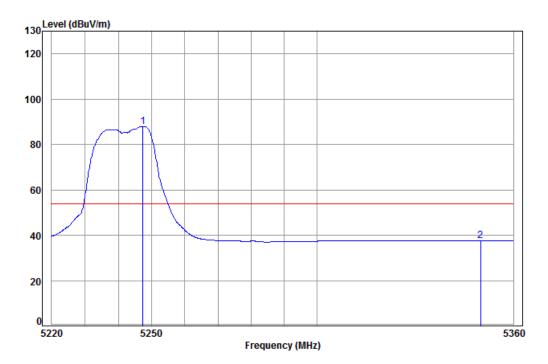
Cable Ant Preamp 0ver Read Limit Freq Loss Factor Factor Level Level Line Limit MHz dBuV dBuV/m dBuV/m dB dB/m dB 1 pp 5244.93 8.13 34.09 38.83 97.74 101.13 54.00 47.13 8.18 34.30 38.85 41.81 45.44 54.00 -8.56 5350.00





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Test mode: 802.11 n20 Frequency(MHz): 5240 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5240 Band edge

: N20

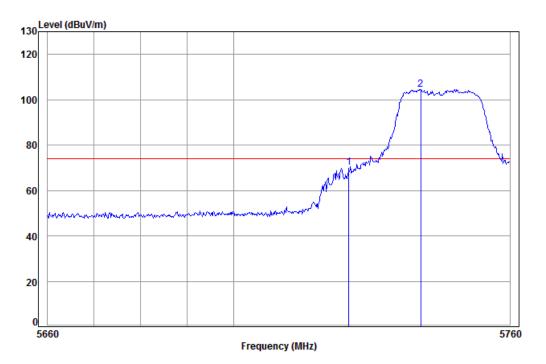
Cable Ant Preamp 0ver Read Limit Freq Loss Factor Factor Level Level Line Limit dB dB dBuV dBuV/m dBuV/m MHz dB/m 1 pp 5247.43 8.13 34.10 38.84 84.62 88.01 54.00 34.01 8.18 34.30 38.85 33.92 37.55 54.00 -16.45 5350.00





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Test mode: 802.11 n20 Frequency(MHz): 5745 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5745 Band edge

: N20

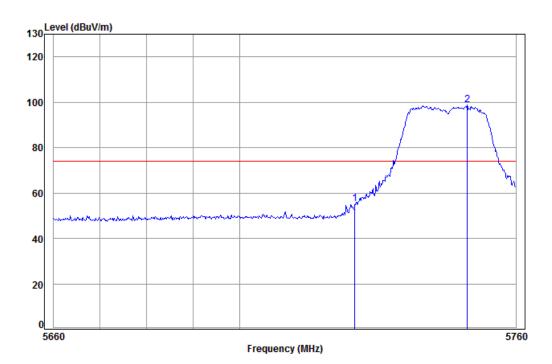
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Freq Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 8.48 38.92 66.34 70.14 74.00 -3.86 5725.000 34.24 2 pp 5740.563 8.50 34.23 38.92 100.58 104.39 74.00 30.39





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Test mode: 802.11 n20 Frequency(MHz): 5745 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5745 Band edge

: N20

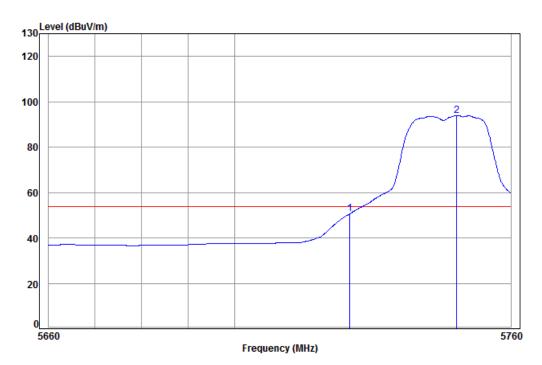
Ant Preamp Read Cable Limit 0ver Loss Factor Factor Limit Freq Level Level line MHz dB dBuV dBuV/m dBuV/m 5725.000 8.48 34.24 38.92 51.30 55.10 74.00 -18.90 2 pp 5749.417 8.50 34.22 38.92 95.12 98.92 74.00 24.92





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Test mode: 802.11 n20 Frequency(MHz): 5745 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5745 Band edge

: N20

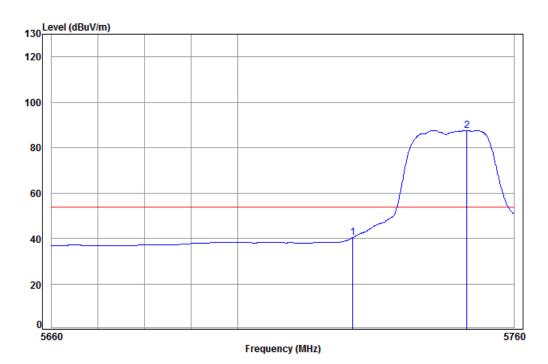
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dΒ dBuV dBuV/m dBuV/m 5725.000 8.48 34.24 38.92 46.89 50.69 54.00 -3.31 2 pp 5748.209 8.50 34.23 38.92 90.08 93.89 54.00 39.89





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Test mode:	802.11 n20	Frequency(MHz):	5745	Remark:	Average	Horizontal
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Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5745 Band edge

: N20

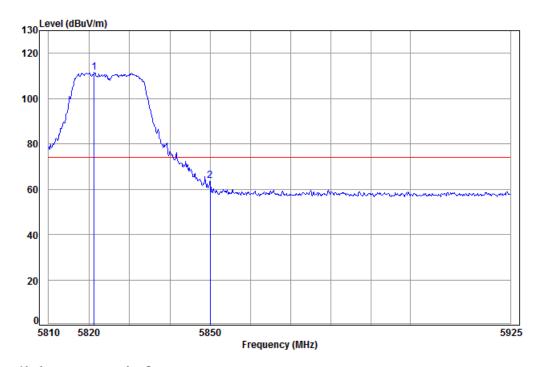
Ant Preamp Read Cable 1 Limit 0ver Loss Factor Factor Level Level Limit Freq Line MHz dB dBuV dBuV/m dBuV/m 5725.000 8.48 34.24 38.92 36.65 40.45 54.00 -13.55 2 pp 5749.820 8.51 34.22 38.92 83.85 87.66 54.00 33.66





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Test mode: 802.11 n20 Frequency(MHz): 5825 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5825 Band edge

: N20

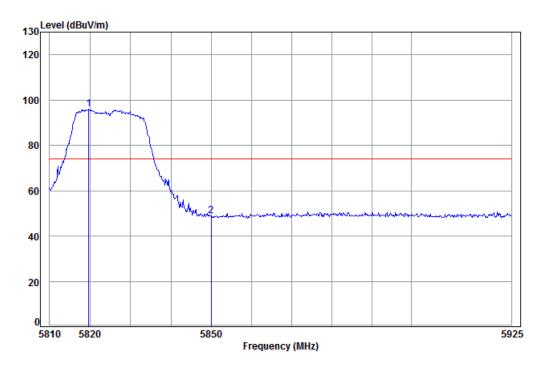
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Level Limit Freq Line MHz dB dB/m dB dBuV dBuV/m dBuV/m 38.93 107.58 111.48 74.00 37.48 5821.29 8.58 34.25 1 pp 5850.00 8.60 34.33 38.94 59.70 63.69 74.00 -10.31





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Test mode: 802.11 n20 Frequency(MHz): 5825 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5825 Band edge

: N20

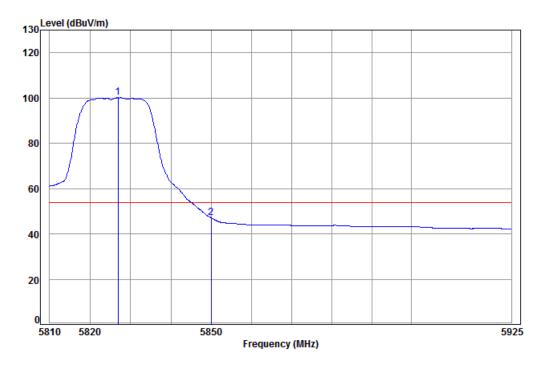
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 5819.69 8.57 34.25 38.93 91.96 95.85 74.00 21.85 1 pp 8.60 34.33 38.94 44.75 48.74 74.00 -25.26 5850.00





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Test mode: 802.11 n20 Frequency(MHz): 5825 Remark: Average Vertical



Condition: 3m Vertical

Job No: : 0926IT

Mode: : 5825 Band edge

: N20

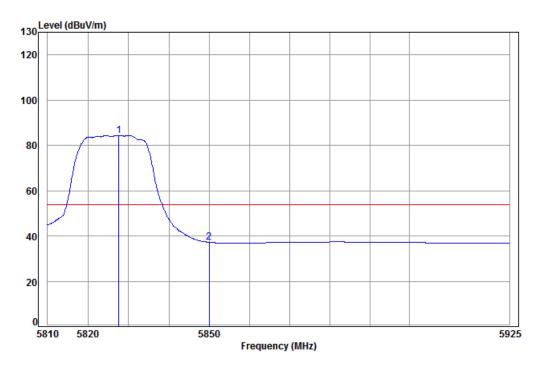
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Limit Freq Level Level Line MHz dB/m dBuV dBuV/m dBuV/m dB dB 5826.88 8.58 34.27 38.93 96.25 100.17 54.00 46.17 1 pp 5850.00 8.60 34.33 38.94 43.11 47.10 54.00 -6.90





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Test mode: 802.11 n20 Frequency(MHz): 5825 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5825 Band edge

: N20

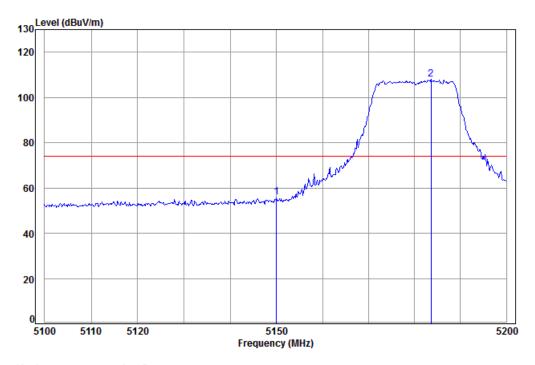
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 5827.56 8.58 34.27 38.93 80.54 84.46 54.00 30.46 1 pp 5850.00 34.33 38.94 33.22 37.21 54.00 -16.79





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Test mode: 802.11 ac20 Frequency(MHz): 5180 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5180 Band edge

: AC20

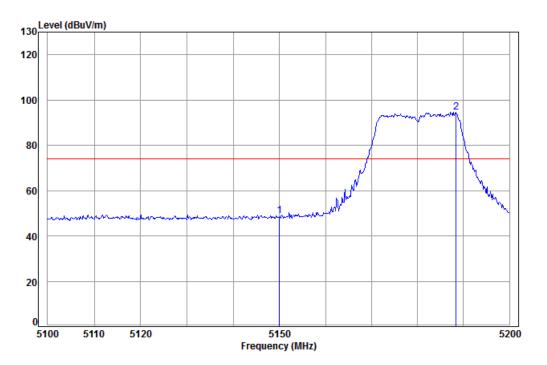
Cable Ant Preamp Limit 0ver Read Freq Loss Factor Factor Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 5150.00 8.08 34.07 38.82 52.49 55.82 74.00 -18.18 8.09 34.02 38.82 104.63 107.92 74.00 33.92 2 pp 5183.57





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Test mode: 802.11 ac20 Frequency(MHz): 5180 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5180 Band edge

: AC20

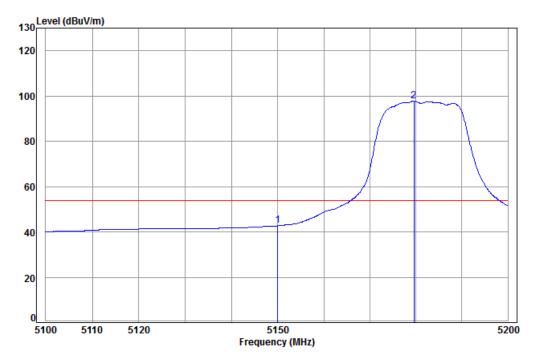
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Freq Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 5150.00 8.08 34.07 38.82 45.72 49.05 74.00 -24.95 2 pp 5188.40 8.10 34.02 38.82 91.19 94.49 74.00 20.49





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Test mode: 802.11 ac20 Frequency(MHz): 5180 Remark: Average Vertical



Condition: 3m Vertical

Job No: : 0926IT

Mode: : 5180 Band edge

: AC20

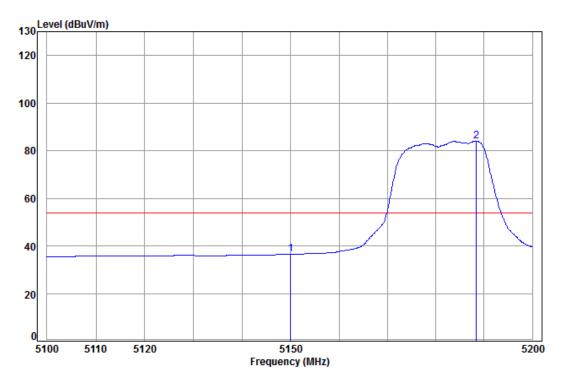
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Freq Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 5150.00 8.08 34.07 38.82 39.38 42.71 54.00 -11.29 2 pp 5179.54 8.09 34.03 38.82 94.37 97.67 54.00 43.67





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Test mode: 802.11 ac20 Frequency(MHz): 5180 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5180 Band edge

: AC20

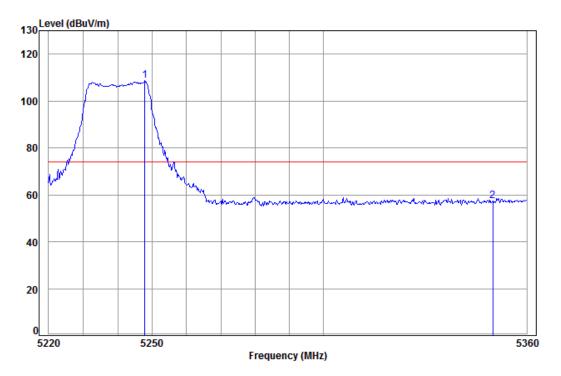
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Level Limit Frea Line dBuV dBuV/m dBuV/m MHz dB dB/m dΒ 38.82 33.14 36.47 54.00 -17.53 5150.00 8.08 34.07 8.10 34.02 38.82 80.72 84.02 54.00 30.02 2 pp 5188.40





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Test mode: 802.11 ac20 Frequency(MHz): 5240 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5240 Band edge

: AC20

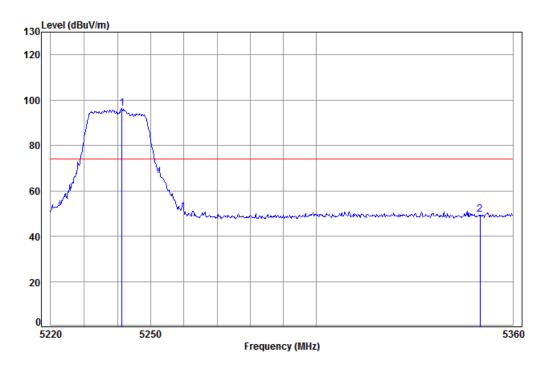
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 38.84 105.38 108.77 74.00 34.77 5247.84 8.13 34.10 8.18 34.30 38.85 53.84 57.47 74.00 -16.53 5350.00





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Test mode: 802.11 ac20 Frequency(MHz): 5240 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5240 Band edge

: AC20

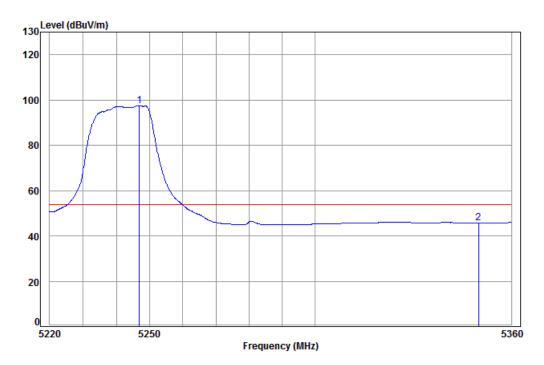
Cable Ant Preamp Read Limit 0ver Frea Loss Factor Factor Level Level Limit Line dBuV dBuV/m dBuV/m MHz dB dB/m dB 8.12 34.08 38.83 92.86 96.23 74.00 22.23 5241.32 5350.00 8.18 34.30 38.85 45.98 49.61 74.00 -24.39





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Test mode: 802.11 ac20 Frequency(MHz): 5240 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5240 Band edge

: AC20

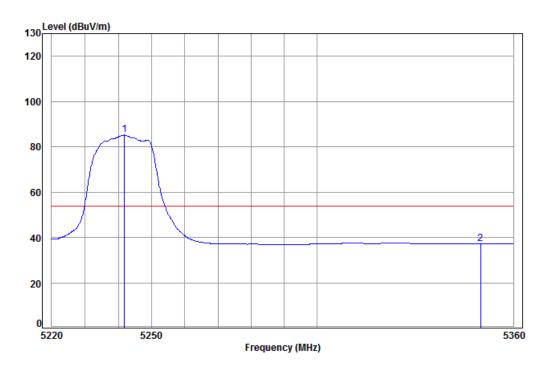
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Limit Freq Level Level Line MHz dBuV dBuV/m dBuV/m dB dB/m dB 5246.87 8.13 34.10 38.83 94.01 97.41 54.00 43.41 1 pp 5350.00 8.18 34.30 38.85 42.17 45.80 54.00 -8.20





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Test mode: 802.11 ac20 Frequency(MHz): 5240 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5240 Band edge

: AC20

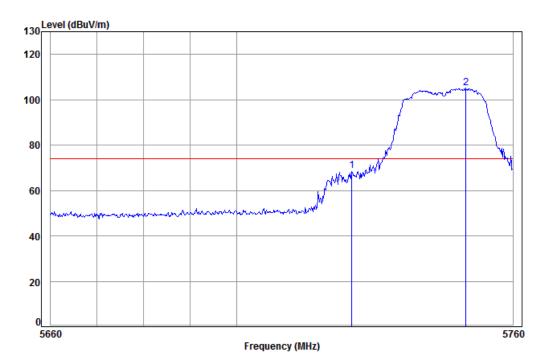
Cable Ant Preamp Limit 0ver Read Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m dΒ 1 pp 5241.88 8.12 34.09 38.83 81.81 85.19 54.00 31.19 5350.00 8.18 34.30 38.85 33.60 37.23 54.00 -16.77





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Test mode: 802.11 ac20 Frequency(MHz): 5745 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5745 Band edge

: AC20

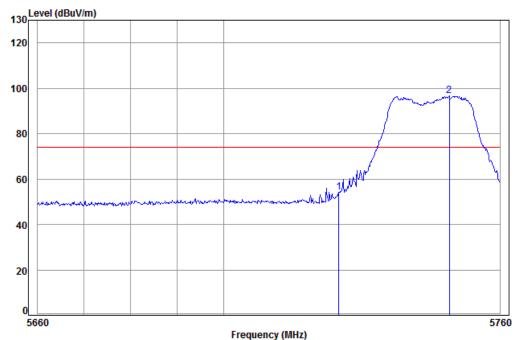
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Freq Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 8.48 38.92 64.97 68.77 74.00 -5.23 5725.000 34.24 2 pp 5749.820 8.51 34.22 38.92 101.33 105.14 74.00 31.14





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Test mode: 802.11 ac20 Frequency(MHz): 5745 Remark: Peak Horizontal



•

Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5745 Band edge

: AC20

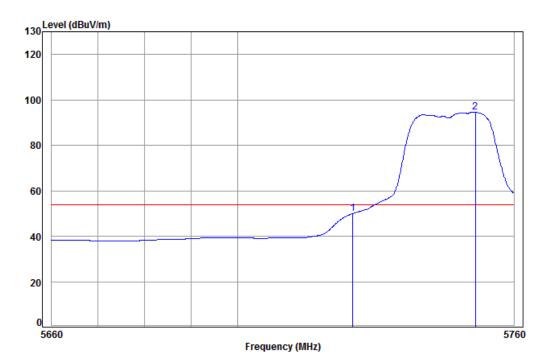
		Cable	Ant	Preamp	Read		Limit	0ver
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	——dB
	5725.000 5749.015							





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Test mode: 802.11 ac20 Frequency(MHz): 5745 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5745 Band edge

: AC20

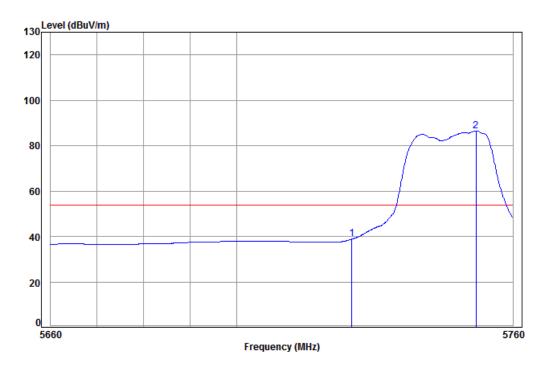
Cable Ant Preamp 0ver Read Limit Freq Loss Factor Factor limit Level Level Line MHz dB dB/m dBuV dBuV/m dBuV/m 5725.000 8.48 34.24 38.92 46.21 50.01 54.00 -3.99 2 pp 5751.633 8.51 34.22 38.92 90.94 94.75 54.00 40.75





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Test mode: 802.11 ac20 Frequency(MHz): 5745 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5745 Band edge

: AC20

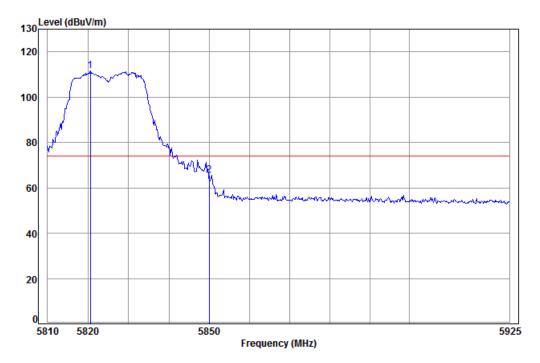
Ant Preamp Cable 1 Read Limit 0ver Freq Loss Factor Factor Limit Level Level Line MHz dB dBuV dBuV/m dBuV/m 5725.000 8.48 34.24 38.92 35.03 38.83 54.00 -15.17 2 pp 5751.936 8.51 34.22 38.92 82.58 86.39 54.00 32.39





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Test mode: 802.11 ac20 Frequency(MHz): 5825 Remark: Peak Vertical



Condition: 3m Vertical

Job No: : 0926IT

Mode: : 5825 Band edge

: AC20

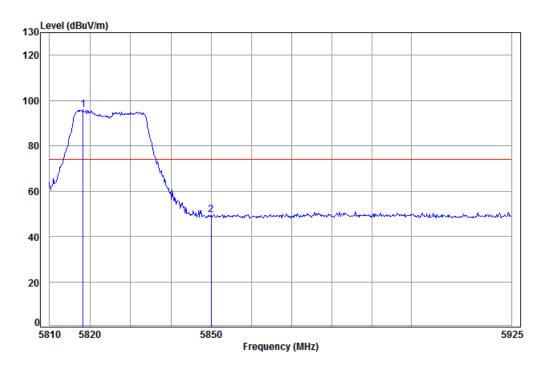
Cable Ant Preamp Read Limit 0ver Frea Loss Factor Factor Level Level Limit Line dBuV dBuV/m dBuV/m MHz dB dB/m dB 8.58 34.25 38.93 107.59 111.49 74.00 37.49 5820.60 5850.00 8.60 34.33 38.94 61.69 65.68 74.00 -8.32





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Test mode: 802.11 ac20 Frequency(MHz): 5825 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5825 Band edge

: AC20

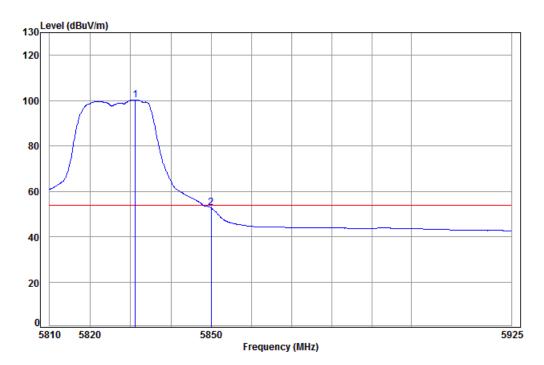
Ant Preamp Cable Read Limit 0ver Loss Factor Factor Level Level Line Limit Freq MHz dB dB/m dB dBuV dBuV/m dBuV/m 38.93 92.19 1 pp 5818.32 8.57 34.25 96.08 74.00 22.08 8.60 34.33 38.94 45.74 49.73 74.00 -24.27 5850.00





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Test mode: 802.11 ac20 Frequency(MHz): 5825 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5825 Band edge

: AC20

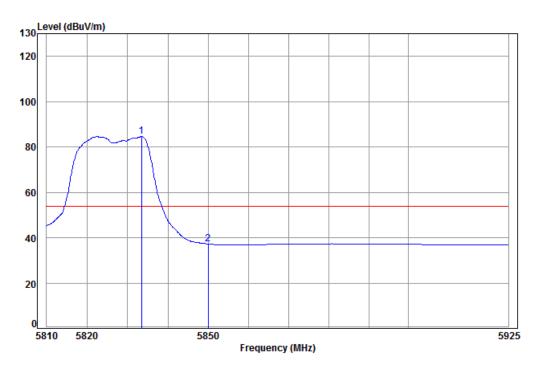
Ant Preamp Cable Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 1 pp 5831.22 8.59 34.28 38.93 96.39 100.33 54.00 46.33 5850.00 8.60 34.33 38.94 48.62 52.61 54.00





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Test mode: 802.11 ac20 Frequency(MHz): 5825 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5825 Band edge

: AC20

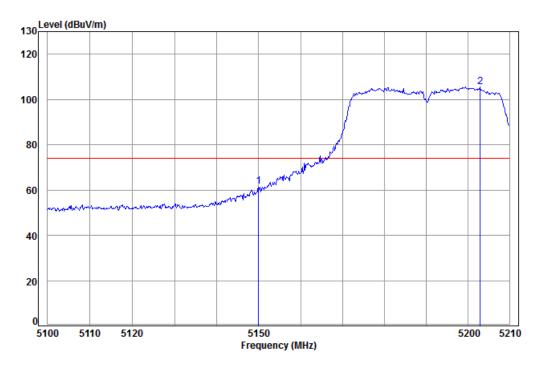
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Level Line Limit Freq MHz dB dB/m dB dBuV dBuV/m dBuV/m 8.59 34.28 38.93 80.60 84.54 54.00 30.54 1 pp 5833.51 8.60 34.33 38.94 33.26 37.25 54.00 -16.75 5850.00





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Test mode: 802.11 n40 Frequency(MHz): 5190 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5190 Band edge

: N40

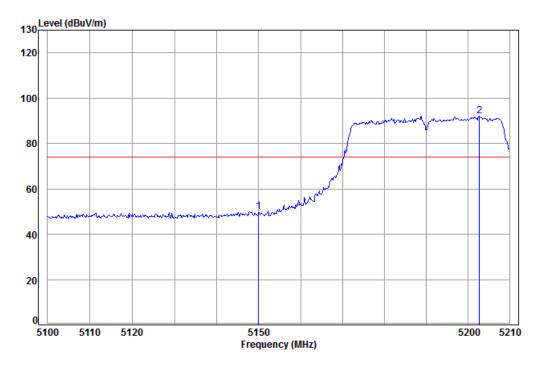
Ant Preamp Cable Read Limit Over Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 34.07 38.82 58.30 61.63 74.00 -12.37 5150.00 8.08 34.01 38.83 102.44 105.72 74.00 31.72 5203.00 8.10





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Test mode: 802.11 n40 Frequency(MHz): 5190 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5190 Band edge

: N40

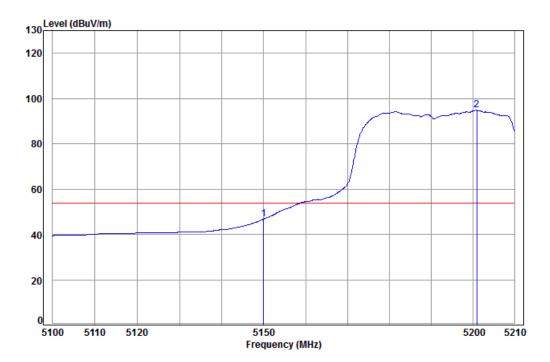
Ant Preamp Cable Read Limit 0ver Freq Loss Factor Factor Level Level Limit Line dBuV dBuV/m dBuV/m MHz dB dB/m dB 5150.00 8.08 34.07 38.82 46.68 50.01 74.00 -23.99 2 pp 5202.78 8.10 34.01 38.83 88.72 92.00 74.00 18.00





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Test mode: 802.11 n40 Frequency(MHz): 5190 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5190 Band edge

: N40

1 2 pp

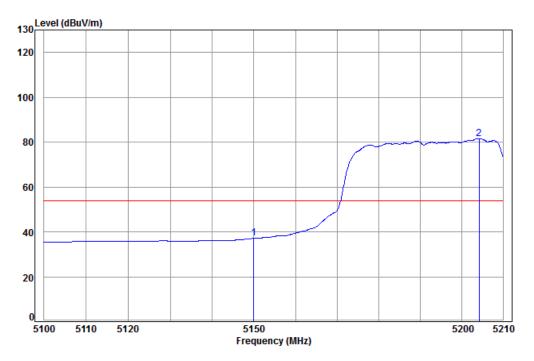
Cable Ant Preamp 0ver Read Limit Loss Factor Factor Level Level Line Limit Frea dBuV dBuV/m dBuV/m MHz dB dB/m dB dΒ 5150.00 8.08 34.07 38.82 43.47 46.80 54.00 -7.20 5201.00 8.10 34.00 38.83 91.53 94.80 54.00 40.80





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Test mode: 802.11 n40 Frequency(MHz): 5190 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5190 Band edge

: N40

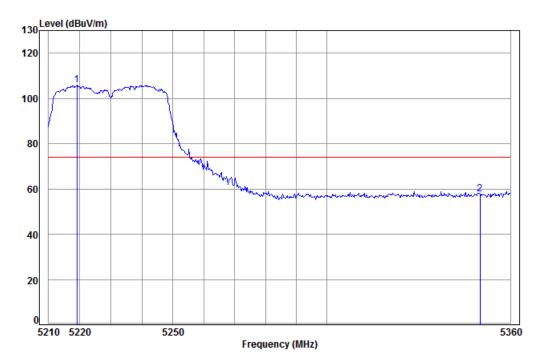
Cable Ant Preamp Limit 0ver Read Loss Factor Factor Freq Level Level Line Limit MHz dB dB/m dΒ dBuV dBuV/m dBuV/m 8.08 34.07 38.82 33.77 37.10 54.00 -16.90 5150.00 8.11 34.01 38.83 78.11 81.40 54.00 27.40 2 pp 5204.22





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Test mode: 802.11 n40 Frequency(MHz): 5230 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5230 Band edge

: N40

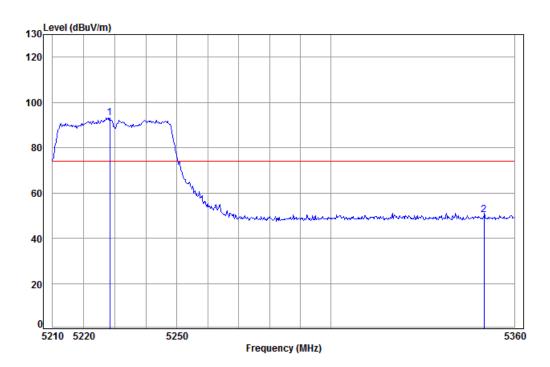
Cable Ant Preamp Limit 0ver Read Freq Loss Factor Factor Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 5219.03 8.11 34.04 38.83 102.42 105.74 74.00 31.74 1 pp 8.18 34.30 38.85 54.03 57.66 74.00 -16.34





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Test mode: 802.11 n40 Frequency(MHz): 5230 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5230 Band edge

: N40

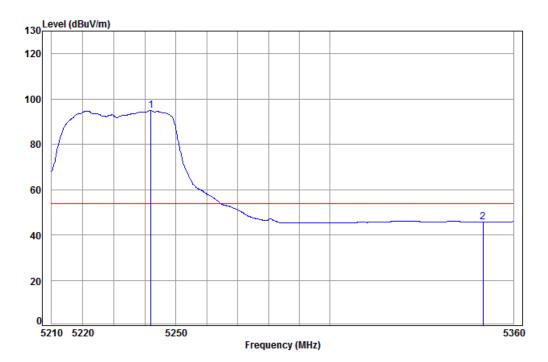
	Freq			Preamp Factor				
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
	5228.37 5350.00							





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Test mode: 802.11 n40 Frequency(MHz): 5230 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5230 Band edge

: N40

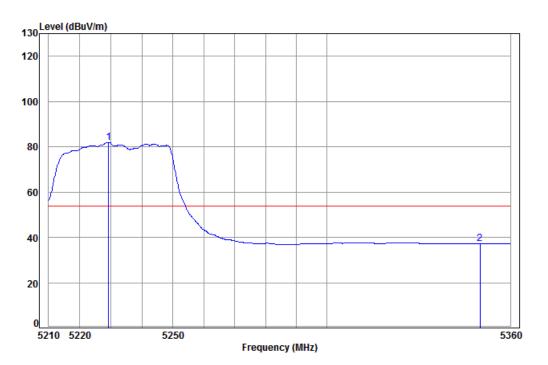
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Freq Level Level Line Limit MHz dBuV dBuV/m dBuV/m dB dB/m dB 5241.89 8.12 34.09 38.83 91.44 94.82 54.00 40.82 1 pp 8.18 34.30 38.85 42.19 45.82 54.00 -8.18 5350.00





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Test mode: 802.11 n40 Frequency(MHz): 5230 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5230 Band edge

: N40

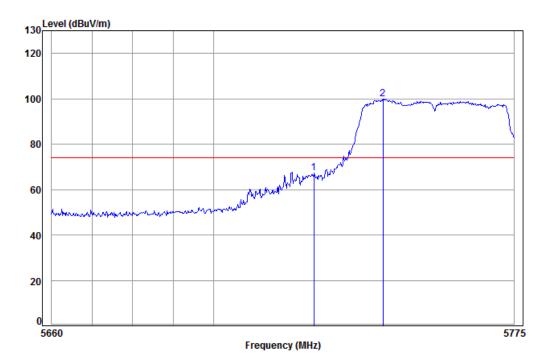
Cable Ant Preamp Limit 0ver Read Freq Loss Factor Factor Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dΒ dΒ 1 pp 5229.26 8.12 34.06 38.83 78.56 81.91 54.00 27.91 5350.00 8.18 34.30 38.85 33.66 37.29 54.00 -16.71





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Test mode: 802.11 n40 Frequency(MHz): 5755 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5755 Band edge

: N40

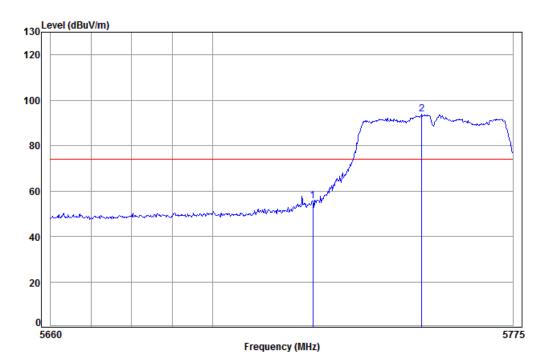
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Freq Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m dB 5725.000 8.48 34.24 38.92 63.40 67.20 74.00 -6.80 2 pp 5742.220 8.50 34.23 38.92 96.21 100.02 74.00 26.02





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Test mode: 802.11 n40 Frequency(MHz): 5755 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5755 Band edge

: N40

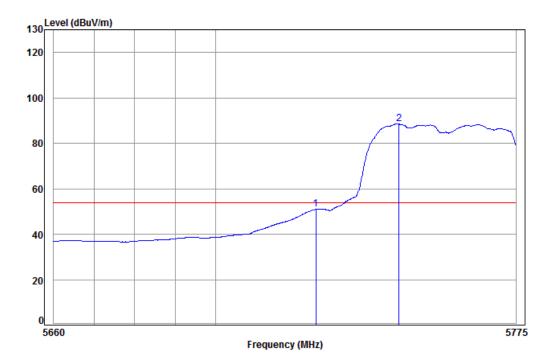
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit MHz dBuV dBuV/m dBuV/m dB dB/m dB 5725.000 8.48 34.24 38.92 51.73 55.53 74.00 -18.47 2 pp 5752.162 8.51 34.22 38.92 90.03 93.84 74.00 19.84





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Test mode: 802.11 n40 Frequency(MHz): 5755 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5755 Band edge

: N40

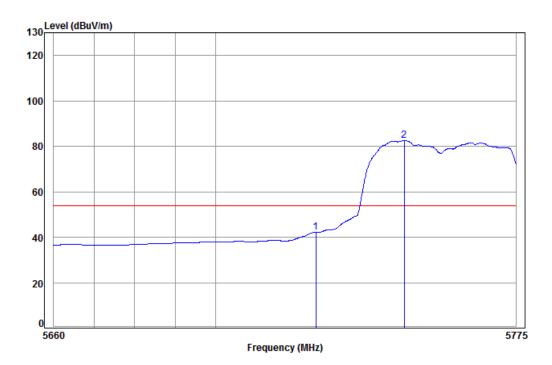
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Level Line Limit Freq dB dBuV dBuV/m dBuV/m MHz dB/m dB 5725.000 8.48 34.24 38.92 47.17 50.97 54.00 -3.03 2 pp 5745.686 8.50 34.23 38.92 84.76 88.57 54.00 34.57





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Test mode: 802.11 n40 Frequency(MHz): 5755 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5755 Band edge

: N40

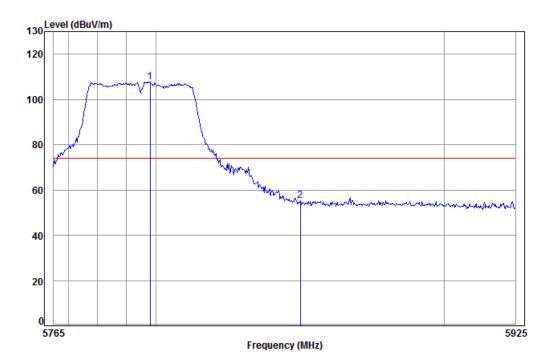
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 8.48 5725.000 34.24 38.92 38.45 42.25 54.00 -11.75 8.50 34.23 38.92 78.72 82.53 54.00 28.53 2 pp 5747.073





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Test mode: 802.11 n40 Frequency(MHz): 5795 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5795 Band edge

: N40

5850.00

1 pp

Cable Ant Preamp Limit 0ver Read Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dΒ dBuV dBuV/m dBuV/m 5798.08 8.55 34.20 38.93 103.85 107.67 74.00 33.67

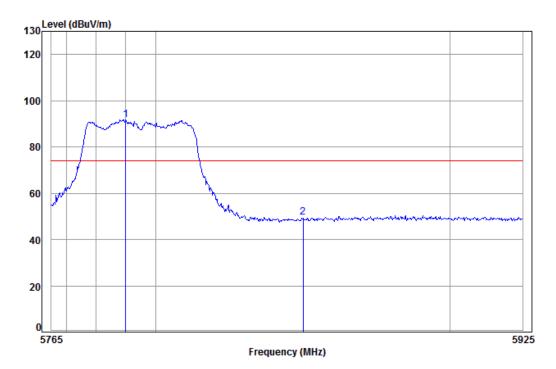
8.60 34.33 38.94 51.33 55.32 74.00 -18.68





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Test mode: 802.11 n40 Frequency(MHz): 5795 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5795 Band edge

: N40

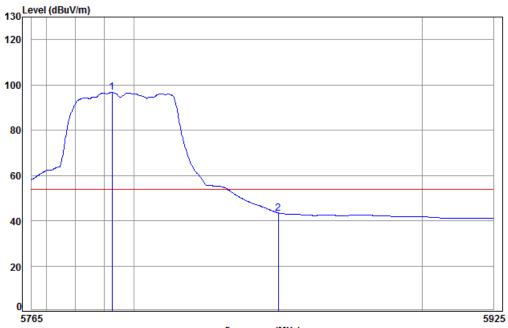
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit dB dB/m dΒ dBuV dBuV/m dBuV/m 5789.99 8.55 34.20 38.93 87.90 91.72 74.00 17.72 5850.00 8.60 34.33 38.94 45.57 49.56 74.00 -24.44





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Test mode: 802.11 n40 Frequency(MHz): 5795 Remark: Average Vertical



Frequency (MHz)

Condition: 3m Vertical Job No: : 0926IT

Mode: : 5795 Band edge

: N40

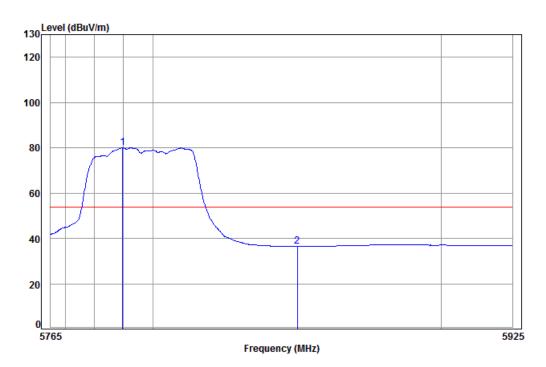
Ant Preamp Cable Read Limit 0ver Loss Factor Factor Freq Level Level line limit MHz dB dB/m dBuV dBuV/m dBuV/m 5792.53 8.55 34.20 38.93 92.85 96.67 54.00 42.67 5850.00 8.60 34.33 38.94 39.40 43.39 54.00 -10.61





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Test mode: 802.11 n40 Frequency(MHz): 5795 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5795 Band edge

: N40

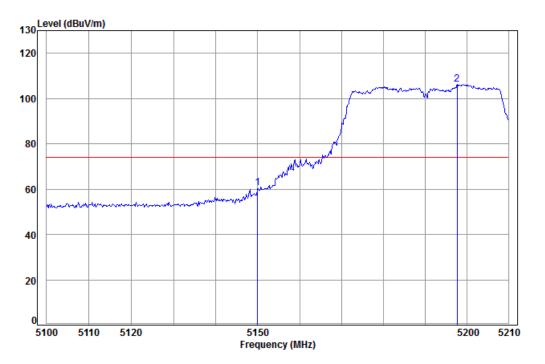
				Preamp Factor			Freq	
dB	dBuV/m	dBuV/m	dBuV	dB	dB/m	dB	MHz	_
							5789.67 5850.00	1 pp





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Test mode: 802.11 ac40 Frequency(MHz): 5190 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5190 Band edge

: AC40

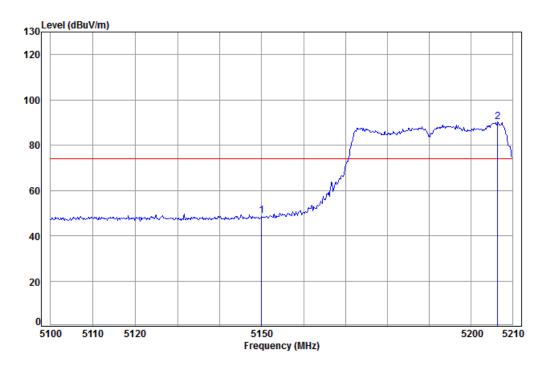
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Freq Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 5150.00 8.08 34.07 38.82 57.21 60.54 74.00 -13.46 2 pp 5197.67 8.10 34.00 38.83 103.04 106.31 74.00 32.31





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Test mode: 802.11 ac40 Frequency(MHz): 5190 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5190 Band edge

: AC40

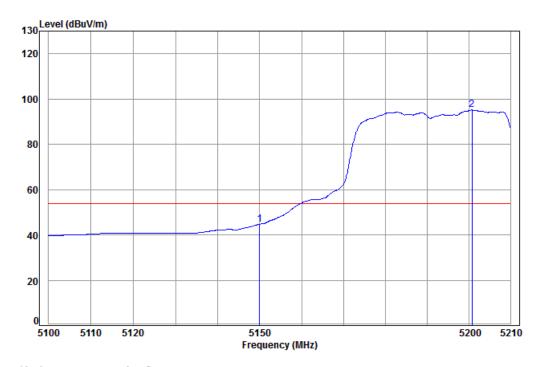
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Level Limit Freq Line MHz dB dB/m dB dBuV dBuV/m dBuV/m 38.82 45.71 49.04 74.00 -24.96 5150.00 8.08 34.07 5206.44 8.11 34.01 38.83 87.13 90.42 74.00 16.42





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Test mode: 802.11 ac40 Frequency(MHz): 5190 Remark: Average Vertical



Condition: 3m Vertical

Job No: : 0926IT

Mode: : 5190 Band edge

: AC40

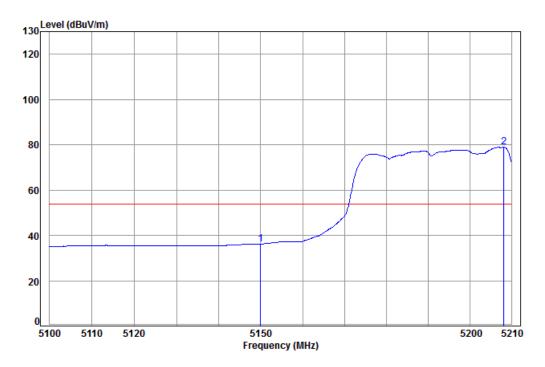
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Limit Freq Level Level Line MHz dB/m dBuV dBuV/m dBuV/m dB dB 5150.00 8.08 34.07 38.82 41.40 44.73 54.00 -9.27 2 pp 5200.78 8.10 34.00 38.83 91.87 95.14 54.00 41.14





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Test mode: 802.11 ac40 Frequency(MHz): 5190 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5190 Band edge

: AC40

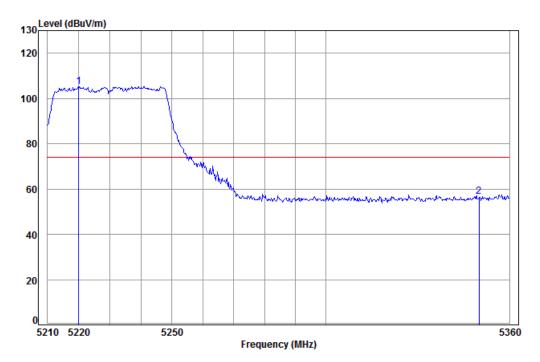
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit MHz dBuV dBuV/m dBuV/m dB dB/m dB 38.82 32.96 5150.00 8.08 34.07 36.29 54.00 -17.71 5208.22 8.11 34.02 38.83 75.61 78.91 54.00 24.91





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Test mode: 802.11 ac40 Frequency(MHz): 5230 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5230 Band edge

: AC40

1 pp

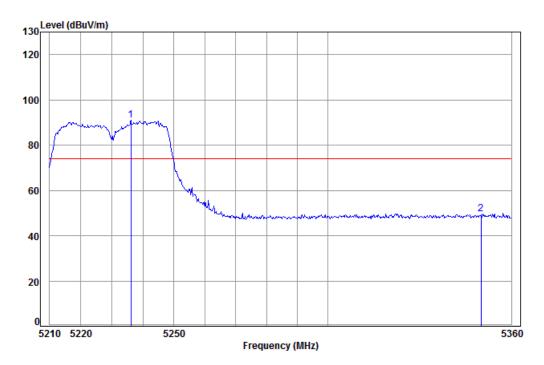
Cable Ant Preamp 0ver Read Limit Loss Factor Factor Level Level Line Limit Freq MHz dB dB/m dB dBuV dBuV/m dBuV/m 8.11 34.04 38.83 101.97 105.29 74.00 31.29 5219.92 8.18 34.30 38.85 53.02 56.65 74.00 -17.35 5350.00





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Test mode: 802.11 ac40 Frequency(MHz): 5230 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5230 Band edge

: AC40

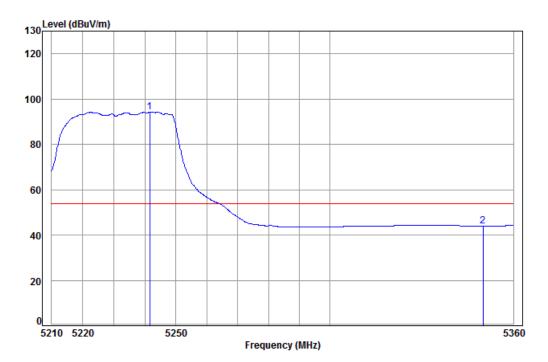
Cable Ant Preamp Read Limit 0ver Loss Factor Factor Level Level Limit Freq Line MHz dB dB/m dB dBuV dBuV/m dBuV/m 1 pp 5236.09 8.12 34.07 38.83 87.73 91.09 74.00 17.09 5350.00 8.18 34.30 38.85 45.81 49.44 74.00 -24.56





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Test mode: 802.11 ac40 Frequency(MHz): 5230 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5230 Band edge

: AC40

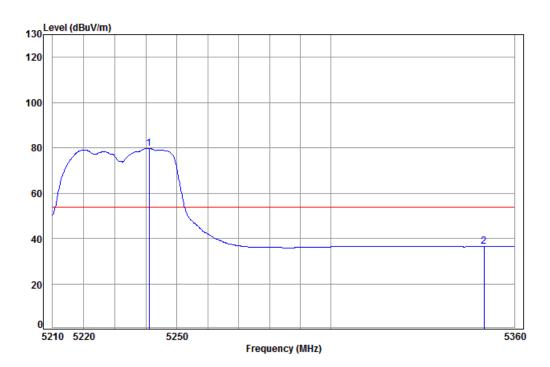
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 5241.59 8.12 34.08 38.83 90.83 94.20 54.00 40.20 8.18 34.30 38.85 40.38 44.01 54.00 -9.99 5350.00





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Test mode: 802.11 ac40 Frequency(MHz): 5230 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5230 Band edge

: AC40

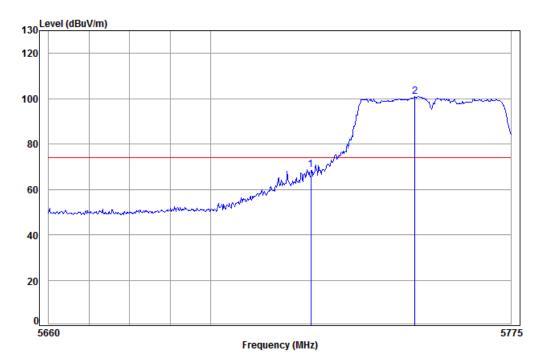
Ant Preamp 0ver Cable Read Limit Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 8.12 34.08 38.83 76.50 79.87 54.00 25.87 1 pp 5241.00 5350.00 8.18 34.30 38.85 32.84 36.47 54.00 -17.53





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Test mode: 802.11 ac40 Frequency(MHz): 5755 Remark: Peak Vertical



Condition: 3m Vertical

Job No: : 0926IT

Mode: : 5755 Band edge

: AC40

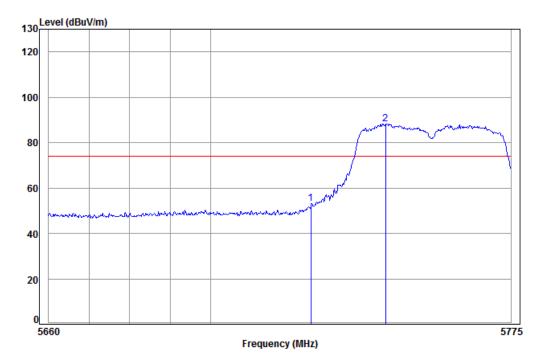
Cable Ant Preamp Limit 0ver Read Freq Loss Factor Factor Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 5725.000 8.48 34.24 38.92 64.87 68.67 74.00 -5.33 8.51 34.22 38.92 97.11 100.92 74.00 26.92 2 pp 5751.005





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Test mode: 802.11 ac40 Frequency(MHz): 5755 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5755 Band edge

: AC40

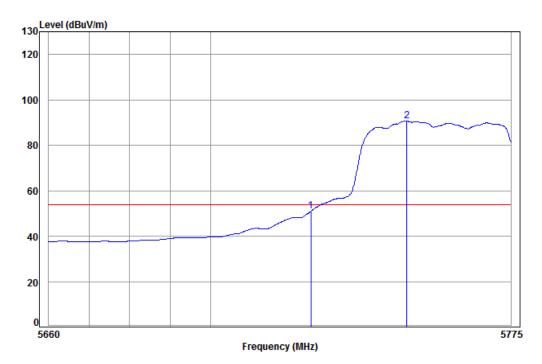
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit MHz dB dB/m dB dBuV dBuV/m dBuV/m 5725.000 8.48 38.92 49.51 53.31 74.00 -20.69 34.24 2 pp 5743.606 8.50 34.23 38.92 84.53 88.34 74.00 14.34





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Test mode: 802.11 ac40 Frequency(MHz): 5755 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5755 Band edge

: AC40

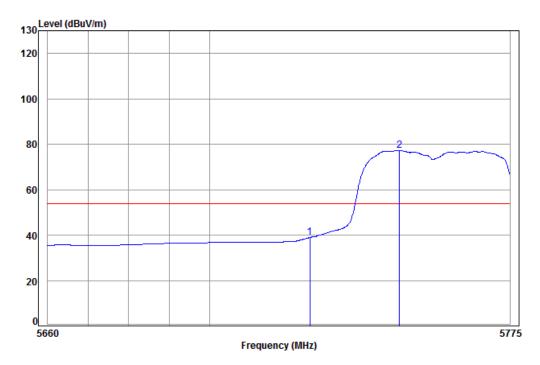
Ant Preamp Cable Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 5725.000 8.48 34.24 38.92 47.25 51.05 54.00 -2.95 2 pp 5748.923 8.50 34.23 38.92 86.93 90.74 54.00 36.74





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Test mode: 802.11 ac40 Frequency(MHz): 5755 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5755 Band edge

: AC40

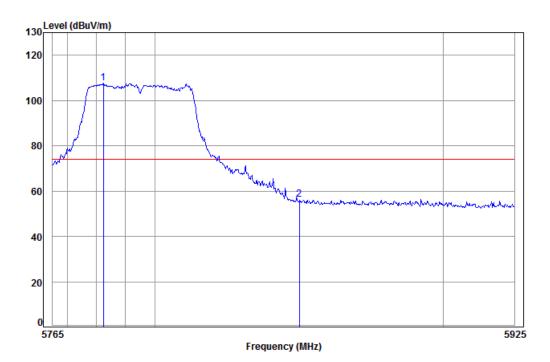
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit MHz dB dΒ dBuV dBuV/m dBuV/m dB/m 5725.000 8.48 34.24 38.92 35.17 38.97 54.00 -15.03 2 pp 5747.304 8.50 34.23 38.92 73.50 77.31 54.00 23.31





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Test mode: 802.11 ac40 Frequency(MHz): 5795 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5795 Band edge

: AC40

1 pp

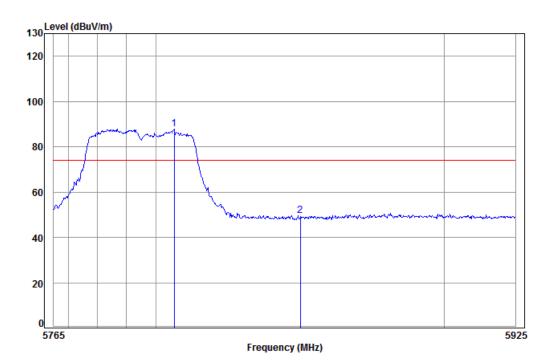
Ant Preamp Cable Read Limit 0ver Loss Factor Factor Level Level Line Limit Freq MHz dB dB/m dB dBuV dBuV/m dBuV/m 8.54 34.21 38.93 103.85 107.67 74.00 33.67 5782.39 5850.00 8.60 34.33 38.94 52.26 56.25 74.00 -17.75





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Test mode: 802.11 ac40 Frequency(MHz): 5795 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5795 Band edge

: AC40

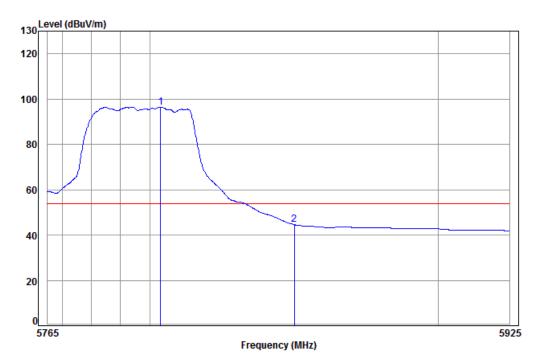
	Freq			Preamp Factor				
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp	5806.34 5850.00							





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Test mode: 802.11 ac40 Frequency(MHz): 5795 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5795 Band edge

: AC40

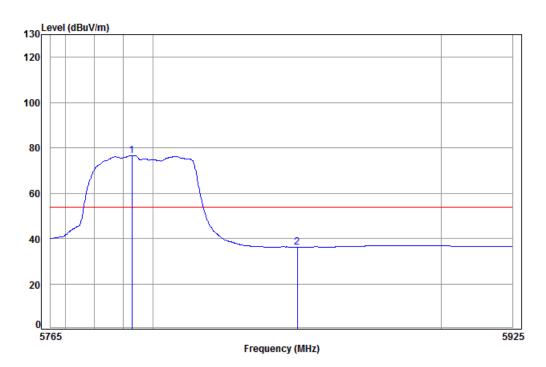
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 5803.80 8.56 34.21 38.93 92.59 96.43 54.00 42.43 1 pp 8.60 34.33 38.94 40.55 44.54 54.00 -9.46 5850.00





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Test mode: 802.11 ac40 Frequency(MHz): 5795 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5795 Band edge

: AC40

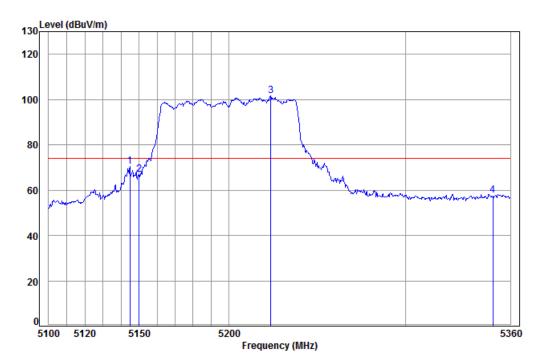
	Freq			Preamp Factor				
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1 pp 2	5792.84 5850.00							





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Test mode: 802.11 ac80 Frequency(MHz): 5210 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5210 Band edge

: AC80

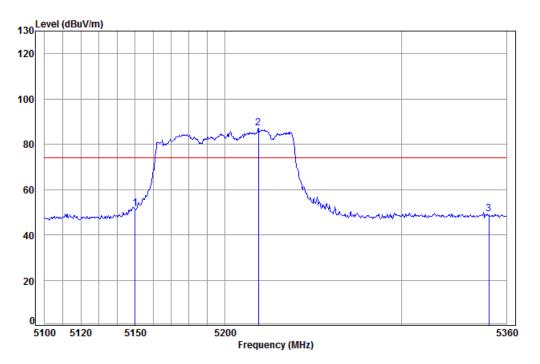
	Freq			Preamp Factor				
-	MHz	dB	dB/m	——dB	dBuV	dBuV/m	dBuV/m	——dB
1	5144.83	8.07	34.08	38.82	67.27	70.60	74.00	-3.40
2	5150.00	8.08	34.07	38.82	63.69	67.02	74.00	-6.98
3 рр	5223.45	8.11	34.05	38.83	98.33	101.66	74.00	27.66
4	5350.00	8.18	34.30	38.85	54.16	57.79	74.00	-16.21





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Test mode: 802.11 ac80 Frequency(MHz): 5210 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5210 Band edge

: AC80

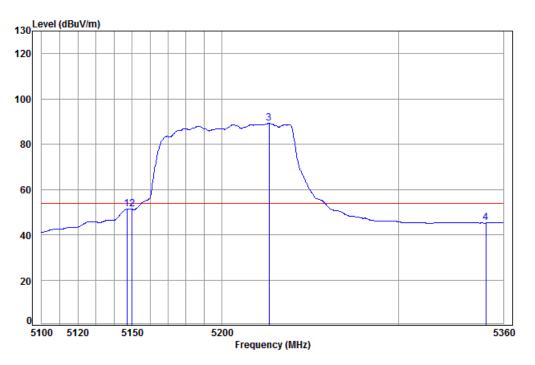
	Freq			Preamp Factor				
-	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5150.00	8.08	34.07	38.82	48.48	51.81	74.00	-22.19
2 pp	5218.77	8.11	34.04	38.83	83.89	87.21	74.00	13.21
3	5350.00	8.18	34.30	38.85	45.77	49.40	74.00	-24.60





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Test mode: 802.11 ac80 Frequency(MHz): 5210 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5210 Band edge

: AC80

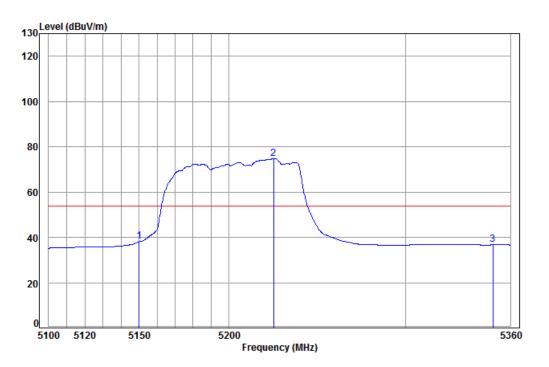
		Cable	Ant	Preamp	Read		Limit	0ver
	Freq	Loss	Factor	Factor	Level	Level	Line	Limit
_								
	MHz	dB	dB/m	dB	dBuV	dBuV/m	dBuV/m	dB
1	5147.13	8.08	34.08	38.82	48.10	51.44	54.00	-2.56
2	5150.00	8.08	34.07	38.82	47.98	51.31	54.00	-2.69
3 рр	5226.56	8.12	34.05	38.83	85.81	89.15	54.00	35.15
4	5350.00	8.18	34.30	38.85	41.54	45.17	54.00	-8.83





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Test mode: 802.1	11 ac80 Frequency(MHz):	5210 Remark:	Average	Horizontal
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Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5210 Band edge

: AC80

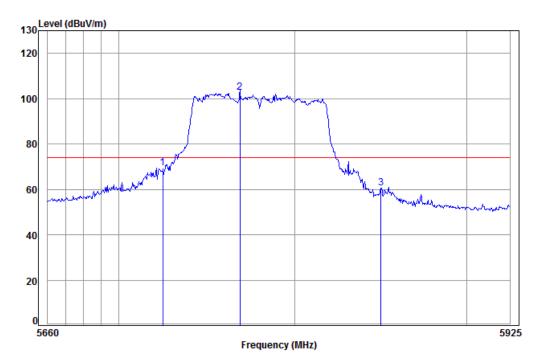
	Freq			Preamp Factor				
-	MHz	dB	dB/m	——dB	dBuV	dBuV/m	dBuV/m	——dB
1	5150.00	8.08	34.07	38.82	34.79	38.12	54.00	-15.88
2 pp	5225.01	8.12	34.05	38.83	71.56	74.90	54.00	20.90
3	5350.00	8.18	34.30	38.85	33.05	36.68	54.00	-17.32





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Test mode: 802.11 ac80 Frequency(MHz): 5775 Remark: Peak Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5775 Band edge

: AC80

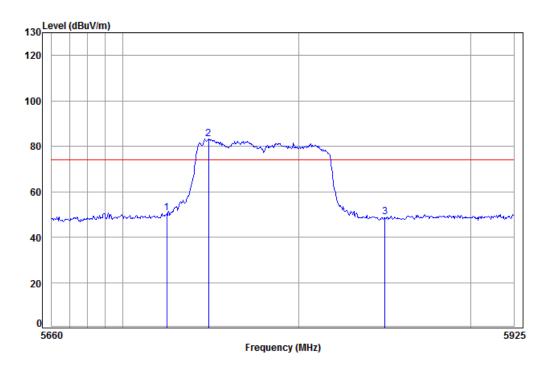
Cable Ant Preamp Limit 0ver Read Freq Loss Factor Factor Level Level Line Limit dBuV dBuV/m dBuV/m MHz dB dB/m dB 5725.000 8.48 34.24 38.92 65.60 69.40 74.00 34.22 38.92 99.00 102.82 74.00 28.82 2 pp 5768.769 8.52 5850.000 8.60 34.33 38.94 56.75 60.74 74.00 -13.26





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Test mode: 802.11 ac80 Frequency(MHz): 5775 Remark: Peak Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5775 Band edge

: AC80

			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		5725.000	8.48	34.24	38.92	46.90	50.70	74.00	-23.30
2	pp	5748.743	8.50	34.23	38.92	79.35	83.16	74.00	9.16
3		5850.000	8.60	34.33	38.94	45.05	49.04	74.00	-24.96

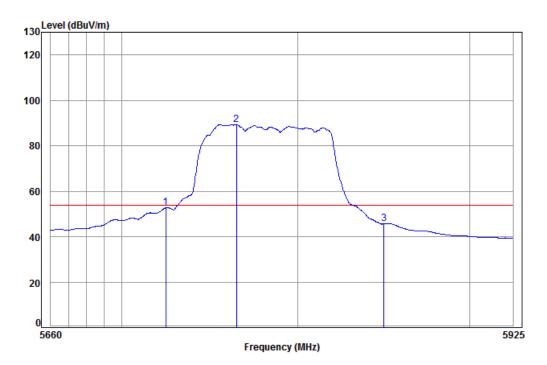
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Test mode: 802.11 ac80 Frequency(MHz): 5775 Remark: Average Vertical



Condition: 3m Vertical Job No: : 0926IT

Mode: : 5775 Band edge

: AC80

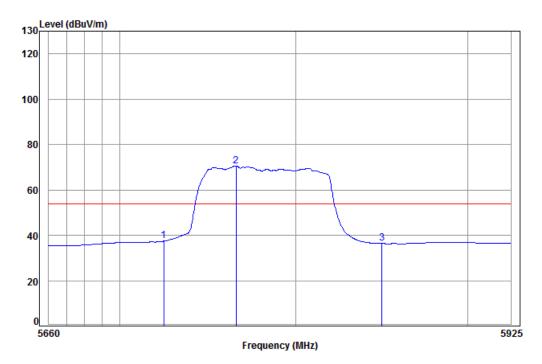
Cable Ant Preamp Read Limit 0ver Freq Loss Factor Factor Level Level Line Limit dB/m MHz dB dBuV dBuV/m dBuV/m dΒ 5725.000 8.48 34.24 38.92 48.95 52.75 54.00 -1.25 38.92 85.50 89.32 54.00 2 pp 5765.075 8.52 34.22 35.32 5850.000 34.33 38.94 41.71 45.70 54.00





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Test mode: 802.11 ac80 Frequency(MHz): 5775 Remark: Average Horizontal



Condition: 3m Horizontal

Job No: : 0926IT

Mode: : 5775 Band edge

: AC80

			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		5725.000	8.48	34.24	38.92	33.63	37.43	54.00	-16.57
2	pp	5766.130	8.52	34.22	38.92	66.73	70.55	54.00	16.55
3		5850.000	8.60	34.33	38.94	32.38	36.37	54.00	-17.63

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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6.10 Frequency Stability

Test Requirement:	47 CFR Part 15 Section 15.407(g)				
Test Method:	ANSI C63.10: 2013, section 6.8				
Test Setup:	Spectrum Analyzer EUT AC/DC Power supply				
Limit:	The frequency tolerance shall be maintained within the band of operation frequency over a temperature variation of -5 degrees to 45 degrees C at normal supply voltage, and for a variation in the primary supply voltage from 85% to 115% of the rated supply voltage at a temperature of 25 degrees C.				
Test Procedure:	 a. The EUT was placed inside the environmental test chamber and powered by nominal AC/DC voltage. b. Turn the EUT on and couple its output to a spectrum analyzer. c. Turn the EUT off and set the chamber to the highest temperature specified. d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize. e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature. f. The test chamber was allowed to stabilize at +25 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record. 				
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; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); 1SS0 of rate is the worst case of 802.11ac(HT20); 1SS0 of rate is the worst case of 802.11ac(HT40); 1SS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report.				



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Test plot as follows:

	Test mode:	802.11a	Frequency(MHz):	5180
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5180.0043	4300	Pass
35		5180.0062	6200	Pass
25	120	5179.9954	-4600	Pass
15	120	5179.9933	-6700	Pass
5		5180.0057	5700	Pass
-5		5180.0082	8200	Pass
	138	5179.9993	-700	Pass
25	120	5180.0056	5600	Pass
	102	5179.9979	-2100	Pass

Test mode:	802.11a	Frequency(MHz):	5200
------------	---------	-----------------	------

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5200.0085	8500	Pass
35		5200.0043	4300	Pass
25	120	5200.0063	6300	Pass
15	120	5200.0075	7500	Pass
5		5199.9928	-7200	Pass
-5		5199.9996	-4000	Pass
	138	5199.9971	-2900	Pass
25	120	5200.0028	2800	Pass
	102	5200.0095	9500	Pass

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Test mode: 802.11a Frequency(MHz): 5240

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5240.0079	7900	Pass
35		5240.0023	2300	Pass
25	120	5240.0064	6400	Pass
15	120	5239.9959	-4100	Pass
5		5239.9981	-1900	Pass
-5		5239.9974	-2600	Pass
	138	5240.0069	6900	Pass
25	120	5240.0039	3900	Pass
	102	5239.9928	-7200	Pass

Test mode: 802.11a	Frequency(MHz):	5745
--------------------	-----------------	------

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5745.0079	7900	Pass
35		5745.0088	8800	Pass
25	120	5745.0054	5400	Pass
15	120	5745.0039	3900	Pass
5		5744.9928	-7200	Pass
-5		5744.9971	-2900	Pass
	138	5745.0029	2900	Pass
25	120	5745.0038	3800	Pass
	102	5745.0051	5100	Pass



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Test mode: 802.11a Frequency(MHz): 5785

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5785.0078	7800	Pass
35		5785.0094	9400	Pass
25	120	5785.0027	2700	Pass
15	120	5785.0049	4900	Pass
5		5785.0082	8200	Pass
-5		5785.0091	9100	Pass
	138	5785.0029	2900	Pass
25	120	5785.0030	3000	Pass
	102	5784.9918	-8200	Pass

Test mode:	802.11a	Frequency(MHz):	5825

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5825.0038	3800	Pass
35		5825.0073	7300	Pass
25	120	5825.0047	4700	Pass
15	120	5824.9969	-3100	Pass
5		5824.9929	-7100	Pass
-5		5824.9918	-8200	Pass
	138	5825.0039	3900	Pass
25	120	5825.0092	9200	Pass
	102	5825.0028	2800	Pass



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Test mode: 802.11n(HT20) Frequency(MHz): 5180

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5180.0089	8900	Pass
35		5180.0029	2900	Pass
25	120	5179.9939	-6100	Pass
15	120	5179.9937	-6300	Pass
5		5180.0073	7300	Pass
-5		5180.0062	6200	Pass
	138	5180.0036	3600	Pass
25	120	5179.9963	-3700	Pass
	102	5179.9981	-1900	Pass

Test mode: 802.11n(HT20) Frequency(MHz):	5200
--	------

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5200.0027	2700	Pass
35		5200.0083	8300	Pass
25	120	5200.0082	8200	Pass
15	120	5200.0092	9200	Pass
5		5200.0063	6300	Pass
-5		5200.0058	5800	Pass
	138	5199.9938	-6200	Pass
25	120	5199.9925	-7500	Pass
	102	5200.0067	6700	Pass



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Test mode: 802.11n(HT20) Frequency(MHz): 5240

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5240.0053	5300	Pass
35		5240.0029	2900	Pass
25	120	5240.0017	1700	Pass
15	120	5240.0073	7300	Pass
5		5240.0082	8200	Pass
-5		5240.0090	9000	Pass
	138	5240.0037	3700	Pass
25	120	5239.9994	-6000	Pass
	102	5239.9958	-4200	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5745
------------	---------------	-----------------	------

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5745.0027	2700	Pass
35		5745.0058	5800	Pass
25	120	5745.0082	8200	Pass
15	120	5745.0063	6300	Pass
5		5745.0092	9200	Pass
-5		5745.0071	7100	Pass
	138	5745.0027	2700	Pass
25	120	5744.9938	-6200	Pass
	102	5745.0021	-4200	Pass



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Test mode: 802.11n(HT20) Frequency(MHz): 5785

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5785.0028	2800	Pass
35		5785.0067	6700	Pass
25	120	5785.0073	7300	Pass
15	120	5784.9992	-800	Pass
5		5784.9967	-3300	Pass
-5		5784.9963	-3700	Pass
	138	5785.0068	6800	Pass
25	120	5785.0028	2800	Pass
	102	5785.0029	2900	Pass

Test mode:	802.11n(HT20)	Frequency(MHz):	5825
------------	---------------	-----------------	------

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5824.9989	-1100	Pass
35		5824.9928	-7200	Pass
25	120	5824.9938	-6200	Pass
15	120	5824.9919	-8100	Pass
5		5825.0029	2900	Pass
-5		5825.0032	3200	Pass
	138	5825.0093	9300	Pass
25	120	5824.9928	-7200	Pass
	102	5825.0038	3800	Pass



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Test mode: 802.11n(HT40) Frequency(MHz): 5190

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5190.0028	2800	Pass
35		5190.0091	9100	Pass
25	120	5190.0038	3800	Pass
15	120	5190.0069	6900	Pass
5		5190.0073	7300	Pass
-5		5190.0022	2200	Pass
	138	5189.9932	-6800	Pass
25	120	5189.9938	-6200	Pass
	102	5190.0041	4100	Pass

Test mode:	802.11n(HT40)	Frequency(MHz):	5230

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5230.0025	2500	Pass
35		5230.0054	5400	Pass
25	120	5230.0039	3900	Pass
15	120	5229.9928	-7200	Pass
5		5229.9973	-2700	Pass
-5		5229.9929	-7100	Pass
	138	5230.0026	2600	Pass
25	120	5230.0031	3100	Pass
	102	5229.9939	-6100	Pass



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Test mode: 802.11n(HT40) Frequency(MHz): 5755

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5755.0078	7800	Pass
35		5755.0028	2800	Pass
25	120	5755.0047	4700	Pass
15	120	5755.0091	9100	Pass
5		5755.0029	2900	Pass
-5		5755.0032	3200	Pass
	138	5755.0029	2900	Pass
25	120	5755.0027	2700	Pass
	102	5755.0091	9100	Pass

Test mode: 802.11n(HT40)	Frequency(MHz):	5795
--------------------------	-----------------	------

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5794.9928	-7200	Pass
35		5794.9918	-8200	Pass
25	120	5795.0092	9200	Pass
15	120	5795.0036	3600	Pass
5		5795.0091	9100	Pass
-5		5795.0020	2000	Pass
	138	5795.0022	2200	Pass
25	120	5794.9937	-6300	Pass
	102	5794.9963	-3700	Pass



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Test mode: 802.11ac(HT20) Frequency(MHz): 5180

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5180.0037	3700	Pass
35		5180.0072	7200	Pass
25	120	5179.9973	-2700	Pass
15	120	5179.9927	-7300	Pass
5		5180.0029	2900	Pass
-5		5180.0011	1100	Pass
	138	5180.0028	2800	Pass
25	120	5179.9982	-1800	Pass
	102	5179.9918	-8200	Pass

Test mode:	802.11ac(HT20)	Frequency(MHz):	5200
------------	----------------	-----------------	------

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5200.0091	9100	Pass
35		5200.0027	2700	Pass
25	120	5200.0038	3800	Pass
15	120	5200.0011	1100	Pass
5		5200.0027	2700	Pass
-5		5200.0035	3500	Pass
	138	5199.9982	-1800	Pass
25	120	5199.9967	-3300	Pass
	102	5200.0021	2100	Pass



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Test mode: 802.11ac(HT20) Frequency(MHz): 5240

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5240.0078	7800	Pass
35		5240.0021	2100	Pass
25	120	5240.0077	7700	Pass
15	120	5240.0082	8200	Pass
5		5240.0081	8100	Pass
-5		5240.0081	8100	Pass
	138	5240.0028	2800	Pass
25	120	5239.9948	-5200	Pass
	102	5239.9929	-7100	Pass

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	Test mode:	802.11ac(HT20)	Frequency(MHz):	5745
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5745.0067	6700	Pass
35		5745.0021	2100	Pass
25	120	5745.0028	2800	Pass
15	120	5745.0091	9100	Pass
5		5745.0027	2700	Pass
-5		5745.0037	3700	Pass
	138	5745.0043	4300	Pass
25	120	5744.9989	-1100	Pass
	102	5745.0071	7100	Pass

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Test mode: 802.11ac(HT20) Frequency(MHz): 5785

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5785.0092	9200	Pass
35		5785.0018	1800	Pass
25	100	5785.0042	4200	Pass
15	120	5784.9991	-900	Pass
5		5784.9945	-5500	Pass
-5		5784.9927	-7300	Pass
	138	5785.0076	7600	Pass
25	120	5785.0021	2100	Pass
	102	5785.0028	2800	Pass

1 est 1110de. 002.11 ac(11120) 11 eque 11 cy (11112). 3023	Test mode:	802.11ac(HT20)	Frequency(MHz):	5825
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5824.9929	-7100	Pass
35		5824.9918	-8200	Pass
25	120	5824.9972	-2800	Pass
15	120	5824.9937	-6300	Pass
5		5825.0088	8800	Pass
-5		5825.0091	9100	Pass
	138	5825.0036	3600	Pass
25	120	5824.9965	-3500	Pass
	102	5825.0021	2100	Pass



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Test mode: 802.11ac(HT40) Frequency(MHz): 5190

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5190.0088	8800	Pass
35		5190.0091	9100	Pass
25	120	5190.0028	2800	Pass
15	120	5190.0039	3900	Pass
5		5190.0073	7300	Pass
-5		5190.0021	2100	Pass
	138	5189.9931	-6900	Pass
25	120	5189.9956	-4400	Pass
	102	5190.0032	3200	Pass

est mode: 802.11ac(HT40)	Frequency(MHz):	5230
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Temperature (℃)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5230.0076	7600	Pass
35		5230.0028	2800	Pass
25	120	5230.0048	4800	Pass
15	120	5229.9991	-9000	Pass
5		5229.9927	-7300	Pass
-5		5229.9965	-3500	Pass
	138	5230.0012	1200	Pass
25	120	5230.0055	5500	Pass
	102	5229.9927	-7300	Pass



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Test mode: 802.11ac(HT40) Frequency(MHz): 5755

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5755.0032	3200	Pass
35		5755.0028	2800	Pass
25	120	5755.0018	1800	Pass
15	120	5755.0071	7100	Pass
5		5755.0078	7800	Pass
-5		5755.0021	2100	Pass
	138	5755.0027	2700	Pass
25	120	5755.0044	4400	Pass
	102	5755.0031	3100	Pass

Test mode: 802.11ac	(HT40) Frequency(MHz):	5795
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5794.9928	-7200	Pass
35	120	5794.9978	-2200	Pass
25		5795.0078	7800	Pass
15		5795.0097	9700	Pass
5		5795.0022	2200	Pass
-5		5795.0026	2600	Pass
	138	5795.0071	7100	Pass
25	120	5794.9954	-4600	Pass
	102	5794.9972	-2800	Pass



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Test mode: 802.11ac(HT80) Frequency(MHz): 5210

Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5210.0038	3800	Pass
35		5210.0028	2800	Pass
25	120	5210.0077	7700	Pass
15	120	5210.0087	8700	Pass
5		5210.0065	6500	Pass
-5		5210.0028	2800	Pass
	138	5210.0091	9100	Pass
25	120	5210.0037	3700	Pass
	102	5210.0062	6200	Pass

Test mode:	802.11ac(HT80)	Frequency(MHz):	5775
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Temperature (°C)	Voltage(VAC)	Measurement Frequency(MHz)	Delta Frequency(Hz)	Result
45		5774.9928	-7200	Pass
35	120	5774.9991	-9000	Pass
25		5775.0027	2700	Pass
15		5775.0063	6300	Pass
5		5775.0037	3700	Pass
-5		5775.0049	4900	Pass
	138	5775.0021	2100	Pass
25	120	5774.9955	-4500	Pass
	102	5774.9968	-3200	Pass



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6.11 Automatically Discontinue Transmission Requirement

Test Requirement:	47 CFR Part 15 Section 15.407 (c)
Declaration from applicant	WIFI chip (QCA9880) support automatically discontinue transmission in case of either absence of information to transmit or operational failure, if the chip detect absence of information to transmit or operational failure, it will be automatically shut off.



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7 Photographs - EUT Test Setup

Test model No.: AP One Rugged

7.1 Conducted Emission



7.2 Radiated Emission







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7.3 Radiated Spurious Emission



8 Photographs - EUT Constructional Details

Refer to Appendix A - Photographs of EUT Constructional Details for HKES1605000926IT.