AUDIX Technology Corp.
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FCC 15.407 NII
(Class II Permissive Change)
5 GHz WLAN Report

for

VoxMicro LTD.

20955 Pathfinder Rd., STE100, Diamond Bar, CA 91765 United States

Brand	**:**	**AIRETOS**
Product Name	**:**	**PCIE 802.11a/b/g/n 2.4GHz/5GHz + USB BT 4.0 card**
Model Name	**:**	**AEH-AR9462**
FCC ID	**:**	**2AE3B-AEH-AR9462**

Prepared by:	**:**	**AUDIX Technology Corporation, EMC Department**

Testing Laboratory
1724

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AUDIX Technology Corp.
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TEST REPORT CERTIFICATION
(Class II Permissive Change)

Applicant	:	VoxMicro LTD.
Product Name	:	PCIE 802.11a/b/g/n 2.4GHz/5GHz + USB BT 4.0 card
Model No.	:	AEH-AR9462
Serial No.	:	N/A
Brand	:	AIRETOS

Applicable Standards:

47 CFR FCC Rules and Regulations Part 15 Subpart C, Oct. 2015
ANSI C63.10:2013
KDB 789033 D02 General UNII Test Procedures New Rules v01r02

AUDIX Technology Corp. tested the equipment mentioned in accordance with the requirements set forth in the above standards. Test results indicate that the equipment tested is capable of demonstrating compliance with the requirements as documented within this report. ***AUDIX Technology Corp.*** does not assume responsibility for any conclusions and generalizations drawn from the test results with regard to other specimens and samples.

Date of Test: 2016. 06. 06 ~ 08 Date of Report: 2016. 06. 23

Producer: Sabrina Wang
(Sabrina Wang/Administrator)

Signatory: Ben Cheng
(Ben Cheng/Manager)

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1. REPORT HISTORY

Edition No.	Date of Rev.	Revision Summary	Report No.
0	2016. 06. 23	Original Report.	EM-F160364

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2. SUMMARY OF TEST RESULTS

Rule	Description	Results
15.207	Conducted Emission	**PASS**
15.247(d)/15.205	Radiated Band Edge and Radiated Spurious Emission	**PASS**
15.407(a)(5)/15.407(e)	Emission Bandwidth Measurement	**PASS**
15.407(a)	Maximum Output Power	**PASS**
15.203	Antenna Requirement	**PASS**

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3. GENERAL INFORMATION

3.1. Description of EUT

<table>
<tr><td>Product</td><td>PCIE 802.11a/b/g/n 2.4GHz/5GHz + USB BT 4.0 card</td></tr>
<tr><td>Model Number</td><td>AEH-AR9462</td></tr>
<tr><td>Serial Number</td><td>N/A</td></tr>
<tr><td>Brand Name</td><td>AIRETOS</td></tr>
<tr><td>Applicant</td><td>VoxMicro LTD.
20955 Pathfinder Rd., STE100, Diamond Bar, CA 91765 United States</td></tr>
<tr><td>RF Features</td><td>WLAN: 802.11a/b/g/n
Bluetooth: BT and BLE</td></tr>
<tr><td>Transmit Type</td><td>
<table>
<tr><th colspan="2">2.4 GHz</th></tr>
<tr><td>802.11b</td><td>2T2R</td></tr>
<tr><td>802.11g</td><td>2T2R</td></tr>
<tr><td>802.11n-HT20</td><td>2T2R</td></tr>
<tr><td>802.11n-HT40</td><td>2T2R</td></tr>
<tr><td>BT</td><td>1T1R</td></tr>
<tr><td>BLE</td><td>1T1R</td></tr>
</table>
<table>
<tr><th colspan="2">UNII Bands</th></tr>
<tr><td>802.11a</td><td>2T2R</td></tr>
<tr><td>802.11n-HT20</td><td>2T2R</td></tr>
<tr><td>802.11n-HT40</td><td>2T2R</td></tr>
</table>
</td></tr>
<tr><td>Device Category</td><td>☐Outdoor Access Point
☐Fixed point-to-point Access Point
☐Indoor Access Point
■Mobile and Portable client device</td></tr>
<tr><td>Date of Receipt of Sample</td><td>2016. 06. 06</td></tr>
<tr><td>Information for Class II Change Permissive:</td><td>The difference with original FCC ID: 2AE3B-AEH-AR9462 is to add antenna type.</td></tr>
</table>

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3.2. Antenna Information

No.	Antenna Part Number	Brand	Antenna Type	Frequency (MHz)	Max Gain (dBi)	Directional Gain (2T2R)(dBi)
1	WAND2DBI-SMA	OxfordTec	Omni	2.4GHz	2.0	**5.01**
				5GHz	3.0	**6.01**
Note 1. Directional gain = 10 log[($10^{2.0/20}$ +$10^{2.0/20}$)^2 /2]=5.01dBi Note 2. Directional gain = 10 log[($10^{3.0/20}$ +$10^{3.0/20}$)^2 /2]=6.01dBi						

3.3. EUT Specifications Assessed in Current Report

Mode	UNII Band	Fundamental Range (MHz)	Channel Number	Modulation	Data Rate (Mbps)
802.11a	I	5180-5240	4	OFDM Modulation (BPSK/QPSK/16QAM/64QAM)	Up to 54
	II-2A	5260-5320	4		
	II-2C	5500-5700	8		
	III	5745-5825	5		
802.11n-HT20	I	5180-5240	4	OFDM Modulation (BPSK/QPSK/16QAM/64QAM)	MCS0~15
	II-2A	5260-5320	4		
	II-2C	5500-5700	8		
	III	5745-5825	5		
802.11n-HT40	I	5190-5230	2	OFDM Modulation (BPSK/QPSK/16QAM/64QAM)	
	II-2A	5270-5310	2		
	II-2C	5510-5670	4		
	III	5755-5795	2		
Remark: UNII Band II (DFS Function, Slave/no In service monitor, no Ad-Hoc mode)					

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Channel List					
802.11a/n-HT20					
UNII Band	Channel Number	Frequency (MHz)	UNII Band	Channel Number	Frequency (MHz)
I	36	5180	II-2C	112	5560
	40	5200		116	5580
	44	5220		132	5660
	48	5240		136	5680
II-2A	52	5260		140	5700
	56	5280	III	149	5745
	60	5300		153	5765
	64	5320		157	5785
II-2C	100	5500		161	5805
	104	5520		165	5825
	108	5540			

Channel List					
802.11n-HT40					
UNII Band	Channel Number	Frequency (MHz)	UNII Band	Channel Number	Frequency (MHz)
I	38	5190	II-2C	110	5550
	46	5230		118	5590
II-2A	54	5270		134	5670
	62	5310	III	151	5755
II-2C	102	5510		159	5795

Note : Test modes are presented at section 3.5.

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3.4. Data Rate Relative to Output Power

802.11a			
Channel	Modulation	Date Rate	Power (dBm)
36	BPSK	6	**14.34**
36	QPSK	9	**14.25**
36	QPSK	12	**14.17**
36	16-QAM	18	**14.05**
36	16-QAM	24	**13.95**
36	64-QAM	36	**13.86**
36	64-QAM	48	**13.84**
36	64-QAM	54	**13.72**

802.11n-HT20			
Channel	Modulation	Date Rate	Power (dBm)
36	BPSK	MCS8	**14.00**
36	QPSK	MCS9	**13.94**
36	QPSK	MCS10	**13.88**
36	16-QAM	MCS11	**13.84**
36	16-QAM	MCS12	**13.79**
36	64-QAM	MCS13	**13.74**
36	64-QAM	MCS14	**13.68**
36	64-QAM	MCS15	**13.60**

802.11n-HT40			
Channel	Modulation	Date Rate	Power (dBm)
38	BPSK	MCS8	**12.02**
38	QPSK	MCS9	**11.87**
38	QPSK	MCS10	**11.84**
38	16-QAM	MCS11	**11.74**
38	16-QAM	MCS12	**11.68**
38	64-QAM	MCS13	**11.65**
38	64-QAM	MCS14	**11.62**
38	64-QAM	MCS15	**11.58**

Note: Above results are assessed in average power.

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3.5. Test Configuration

Mode	Duty Cycle (x)	T (ms)	Duty Cycle Factor (dB)
802.11a	1	N/A	N/A
802.11n-HT20	1	N/A	N/A
802.11n-HT40	1	N/A	N/A

Note: When duty cycle is less than 98% (0.98) that duty cycle factor 10log(1/x) is needed to add in conducted test items measured in average detector.

AC Conduction	
Test Case	Normal operation

Item		Mode	Data Rate	Test Channel
Radiated Test Case	Radiated Band Edge Note1	802.11a	6 Mbps	36/64/100
		802.11n-HT20	MCS8	
		802.11n-HT40	MCS8	38/62/102
	Radiated Spurious Emission Note1 & 2	802.11a	6 Mbps	40/52/116/157
		802.11n-HT20	MCS8	40/52/116/157
		802.11n-HT40	MCS8	46/54/110/159
Conducted Test Case	Maximum output power	802.11a	6 Mbps	36/40/48/52/60/64 100/116/140 149/157/165
		802.11n-HT20	MCS8	
		802.11n-HT40	MCS8	38/46/54/62 102/118/134/151/159

Note 1:

■Mobile Device

□Portable Device, and 3 axis were assessed. The worst scenario for Radiated Spurious Emission as follow:

- ■ Lie
- □ Side
- □ Stand

Note 2: Low, mid, and high channels were measured, only the worst channel of each modulation was presented in this report.

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3.6. Tested Supporting System List

3.6.1. Support Peripheral Unit

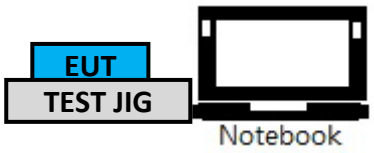
No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	Notebook PC	IBM	2652	99NXMML	ANOVNCBDC80211B
2.	Test Jig	N/A	N/A	N/A	N/A

3.6.2. Cable Lists

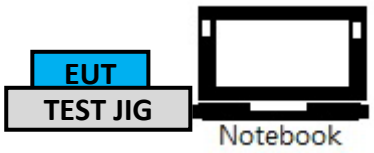
No.	Cable Description Of The Above Support Units
1.	AC Adapter: IBM, M/N 02K6747 AC Power Cord: Unshielded, Detachable, 1.8m DC Power Cord: Unshielded, Undetachable, 1.8m

3.7. Setup Configuration

3.7.1. EUT Configuration for Power Line & Radiated Emission



3.7.2. EUT Configuration for Conducted Test Items



3.8. Operating Condition of EUT

Test program “artgui” is used for enabling EUT WLAN function under continues transmitting and choosing data rate/ channel.

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3.9. Description of Test Facility

Test Firm Name	:	**AUDIX Technology Corporation** **EMC Department** No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan
Test Location & Facility	:	**No. 8 Shielded Room** **Semi Anechoic Chamber &** **Fully Anechoic Chamber** No. 53-11, Dingfu, Linkou Dist., New Taipei City 244, Taiwan
NVLAP Lab. Code	:	200077-0
TAF Accreditation No	:	1724
FCC OET Designation	:	TW1004 & TW1090

3.10. Measurement Uncertainty

Test Item	Frequency Range	Uncertainty
Conduction Test	150kHz~30MHz	±3.5dB
Radiation Test (Distance: 3m)	30MHz~1000MHz	± 3.68dB
	Above 1GHz	± 5.82dB

Remark：Uncertainty = $ku_c(y)$

Test Item	Uncertainty
Maximum output power	± 0.33dB

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4. MEASUREMENT EQUIPMENT LIST

4.1. Conducted Emission Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Test Receiver	R&S	ESR3	101774	2016. 02. 04	1 Year
2.	A.M.N.	R&S	ENV4200	825358/003	2016. 04. 21	1 Year
3.	L.I.S.N.	Kyoritsu	KNW-407	8-855-9	2015. 12. 23	1 Year
4.	Pulse Limiter	R&S	ESH3-Z2	100354	2016. 01. 17	1 Year
5.	Test Software	Audix	e3	V.6.120424	N.C.R.	N.C.R.

4.2. Radiated Emission Measurement

4.2.1. Frequency Range 30MHz~1000MHz

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	N9010A-526	MY53400071	2015. 09. 14	1 Year
2.	Test Receiver	R & S	ESCS30	100338	2015. 06. 24	1 Year
3.	Amplifier	HP	8447D	2944A06305	2016. 02. 23	1 Year
4.	Bilog Antenna	TESEQ	CBL6112D	33821	2016. 01. 30	1 Year
5.	Test Software	Audix	e3	V.6.110601	N.C.R.	N.C.R.

4.2.2. Frequency Range Above 1GHz

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Spectrum Analyzer	Agilent	E4446A	US44300366	2015. 08. 20	1 Year
2.	Amplifier	Sonoma	310N	187161	2015. 06. 17	1 Year
3.	Microwave Amplifier	Keysight	83051A	MY53010042	2015. 08. 13	1 Year
4.	5G Notch Filter	Microware Circuits	N0452502	459775	2016. 01. 28	1 Year
5.	5G Notch Filter	Microware Circuits	N0555983	459481	2016. 01. 28	1 Year
6.	5G Notch Filter	Microware Circuits	N0258771	459776	2016. 01. 28	1 Year
7.	Double-Ridged Waveguide Horn	ETS-Lindgren	3117	00135902	2016. 03. 05	1 Year
8.	Horn Antenna	EMCO	3116	2653	2015. 10. 20	1 Year
9.	Test Software	Audix	e3	V.6.110601	N.C.R.	N.C.R.

4.3. RF Conducted Measurement

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Power Meter	Anritsu	ML2495A	1145008	2015. 10. 23	1 Year
2.	Power Sensor	Anritsu	MA2411B	1126096	2015. 10. 23	1 Year

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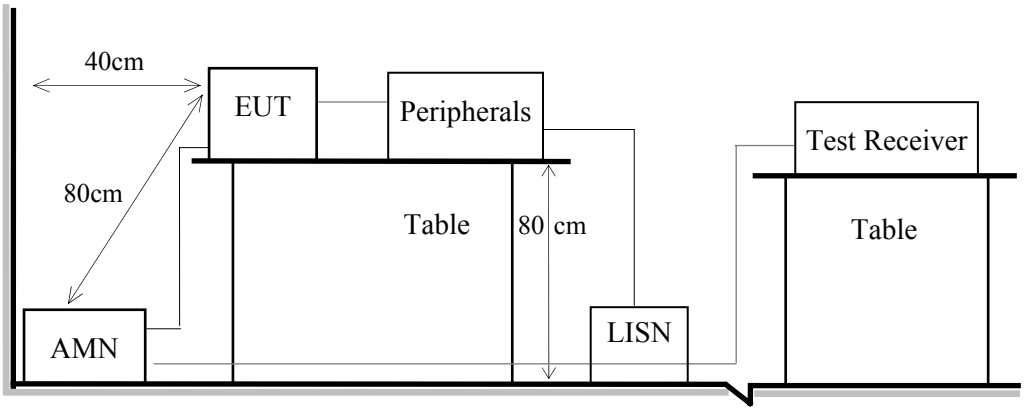
5. CONDUCTED EMISSION MEASUREMET

5.1. Block Diagram of Test Setup

Shielded Room Setup Diagram



Ground Plane

5.2. Power Line Conducted Emission Limit

Frequency	Conducted Limit	
	Quasi-Peak Level	Average Level
150kHz ~ 500kHz	66 ~ 56 dBμV	56 ~ 46 dBμV
500kHz ~ 5MHz	56 dBμV	46 dBμV
5MHz ~ 30MHz	60 dBμV	50 dBμV

Remark 1.: If the average limit is met when using a Quasi-Peak detector, the measurement using the average detector is not required.
2.: The lower limit applies to the band edges.

5.3. Test Procedure

5.3.1. To set up the EUT as indicated in ANSI C 63.10. The EUT was placed on the table which has 80 cm height to the ground and 40 cm distance to the conducting wall.

5.3.2. Power supplier of the EUT was connected to the AC mains through an Artificial Mains Network (A.M.N.).

5.3.3. The AC power supplies to all peripheral devices must be provided through line impedance stabilization network (L.I.S.N.)

5.3.4. Checking frequency range from 150 kHz to 30 MHz and record the emission which does not have 20 dB below limit.

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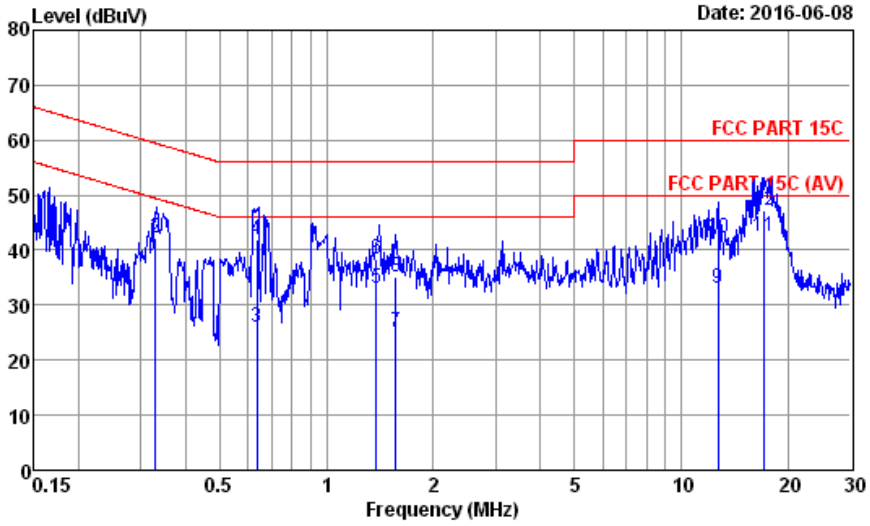
5.4. Conducted Emission Measurement Results

PASSED.

Test Date	2016/06/08	Temp./Hum.	24℃/54%
Test Voltage	AC 120V, 60Hz	Test Mode	Operation



Site no. : No.8 Shielded Room
Data no. : 4
Condition : ENV4200 100169
Phase : NEUTRAL
Limit : FCC PART 15C
Env. / Ins. : 26°C / 57% ESR3 (1774)
Engineer : Tim
EUT : AZH-AR9462
Power Rating : 120Vac / 60Hz
Test Mode : Operation

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.330	11.12	0.03	9.86	16.13	37.14	49.45	12.31	Average
2	0.330	11.12	0.03	9.86	21.20	42.21	59.45	17.24	QP
3	0.638	11.04	0.04	9.86	5.03	25.97	46.00	20.03	Average
4	0.638	11.04	0.04	9.86	20.99	41.93	56.00	14.07	QP
5	1.380	11.04	0.07	9.86	12.01	32.98	46.00	13.02	Average
6	1.380	11.04	0.07	9.86	17.41	38.38	56.00	17.62	QP
7	1.568	11.05	0.07	9.86	4.21	25.19	46.00	20.81	Average
8	1.568	11.05	0.07	9.86	14.27	35.25	56.00	20.75	QP
9	12.649	12.87	0.22	9.89	10.12	33.10	50.00	16.90	Average
10	12.649	12.87	0.22	9.89	19.12	42.10	60.00	17.90	QP
11	17.109	13.81	0.25	9.91	18.43	42.40	50.00	7.60	Average
12	17.109	13.81	0.25	9.91	23.29	47.26	60.00	12.74	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.

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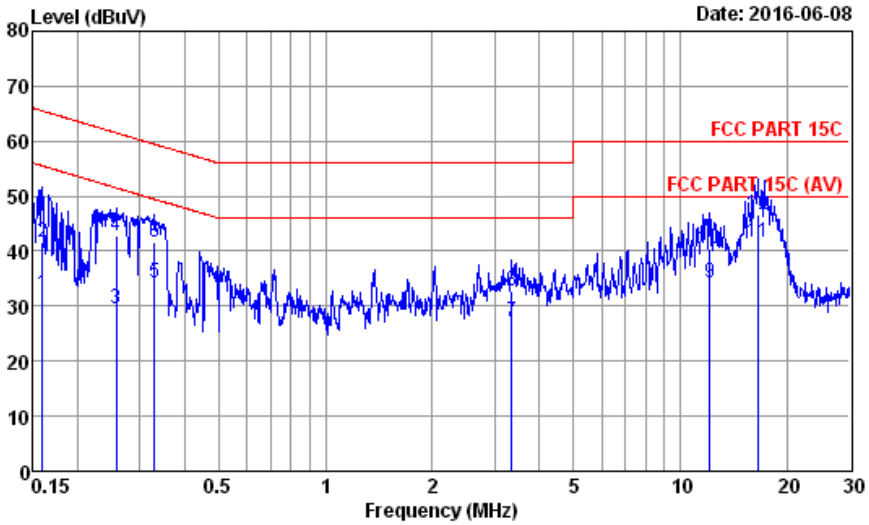
Test Date	2016/06/08	Temp./Hum.	24℃/54%
Test Voltage	AC 120V, 60Hz	Test Mode	Operation



Site no. : No.8 Shielded Room
Data no. : 3
Condition : ENV4200 100169
Phase : LINE
Limit : FCC PART 15C
Env. / Ins. : 26°C / 57% ESR3 (1774)
Engineer : Tim
EUT : AZH-AR9462
Power Rating : 120Vac / 60Hz
Test Mode : Operation

	Freq. (MHz)	AMN Factor (dB)	Cable Loss (dB)	Pulse Att. (dB)	Reading (dBμV)	Emission Level (dBμV)	Limits (dBμV)	Margin (dB)	Remark
1	0.159	10.78	0.02	9.86	11.43	32.09	55.50	23.41	Average
2	0.159	10.78	0.02	9.86	20.94	41.60	65.50	23.90	QP
3	0.258	10.70	0.02	9.86	8.83	29.41	51.51	22.10	Average
4	0.258	10.70	0.02	9.86	22.35	42.93	61.51	18.58	QP
5	0.330	10.66	0.03	9.86	13.64	34.19	49.44	15.25	Average
6	0.330	10.66	0.03	9.86	21.20	41.75	59.44	17.69	QP
7	3.346	10.68	0.10	9.87	6.40	27.05	46.00	18.95	Average
8	3.346	10.68	0.10	9.87	12.18	32.83	56.00	23.17	QP
9	12.124	11.80	0.21	9.89	12.32	34.22	50.00	15.78	Average
10	12.124	11.80	0.21	9.89	18.47	40.37	60.00	19.63	QP
11	16.486	12.64	0.25	9.91	18.75	41.55	50.00	8.45	Average
12	16.486	12.64	0.25	9.91	23.88	46.68	60.00	13.32	QP

Remarks: 1. Emission Level= AMN Factor + Cable Loss + Pulse Att. + Reading.

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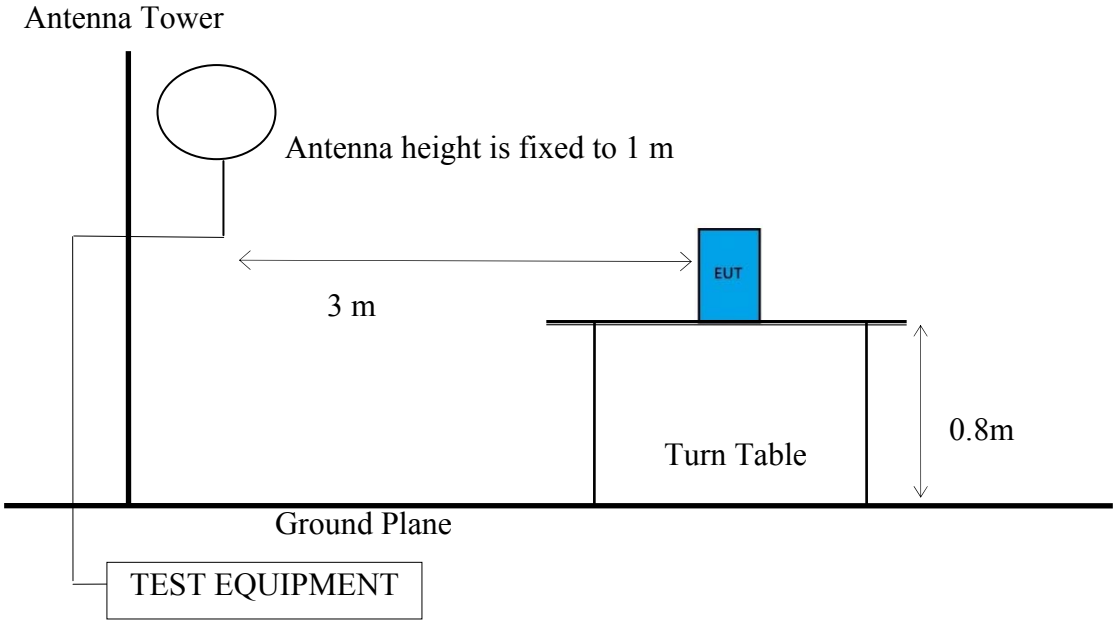
6. RADIATED EMISSION MEASUREMENT

6.1. Block Diagram of Test Setup

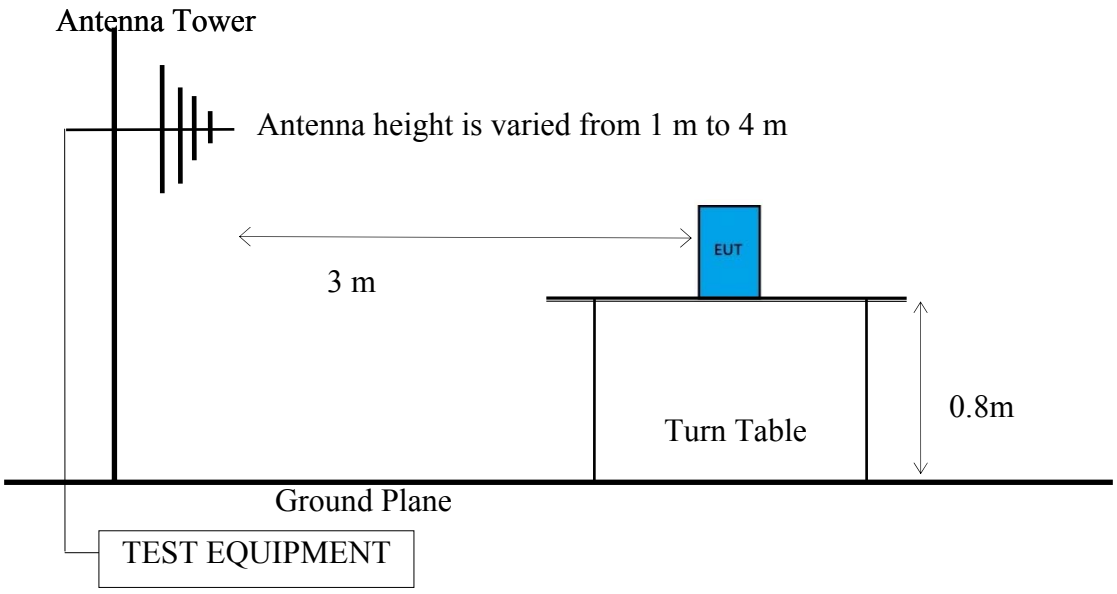
6.1.1. Block Diagram of connection between EUT and simulators

Indicated as section 3.7

6.1.2. Semi Anechoic Chamber (3m) Setup Diagram for 9kHz-30MHz



6.1.3. Semi Anechoic Chamber (3m) Setup Diagram for 30-1000 MHz



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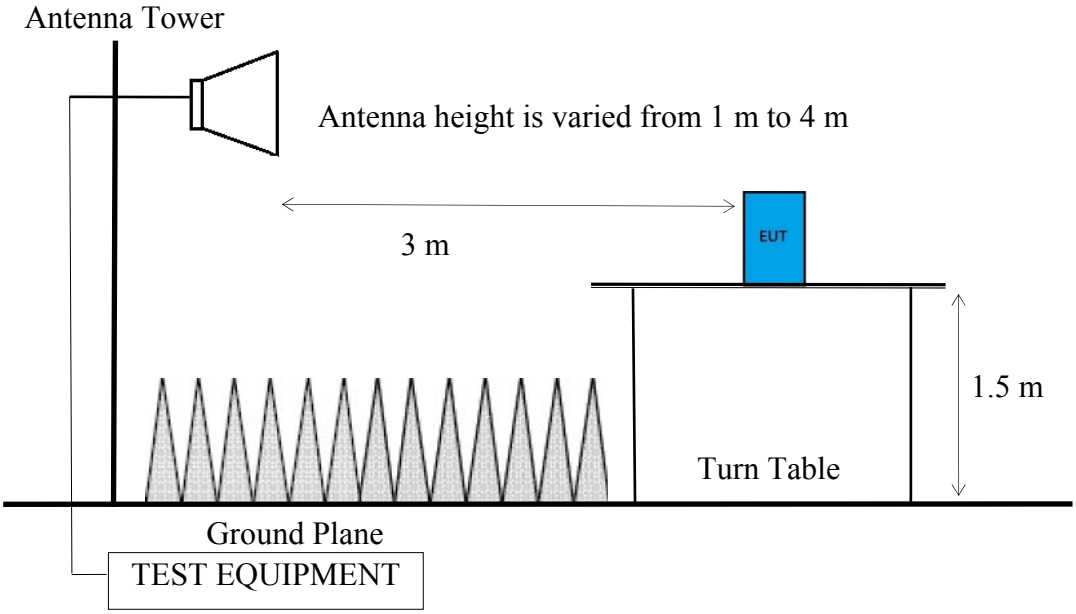
6.1.4. Fully Anechoic Chamber (3m) Setup Diagram for above 1GHz



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6.2. Radiated Emission Limits

Radiated emissions fall in restricted bands, as defined in Section 15.205 must be in compliance with the radiated emission limits specified in 15.209 as below.

6.2.1. General Limit

Frequency (MHz)	Distance (m)	Limits	
		dBμV/m	μV/m
0.009 - 0.490	300	67.6	2400/kHz
0.490 - 1.705	30	87.6	24000/kHz
1.705 - 30	30	29.5	30
30 - 88	3	40.0	100
88- 216	3	43.5	150
216- 960	3	46.0	200
Above 960	3	54.0	500
Above 1000	3	74.0 dBμV/m (Peak) 54.0 dBμV/m (Average)	

Remark：(1) dBμV/m = 20 log (μV/m)
(2) The tighter limit applies to the edge between two frequency bands.
(3) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
(4) Fundamental and emission fall within operation band are exempted from this section.
(5) Pursuant to ANSI C63.10: 6.6.4.3, if the maximized peak measured value complies with the average limit, then it is unnecessary to perform an average measurement.

6.2.2. Limit for non-restricted frequency above 1 GHz

Frequency Band (MHz)	E.I.R.P. Limit	Field Strength Limit at 3 m
5150 to 5250	-27 dBm	68.2
5250 to 5350		68.2
5470 to 5725		68.2
5725 to 5850	-17 dBm/MHz[Note 1] -27 dBm/MHz[Note 2]	78.2[Note 1] 68.2[Note 2]

Note 1: Applicable to frequency within 10MHz to band edge.
2: Applicable to frequency beyond 10 MHz out of band edge.
3: Field Strength at 3 m= E.I.R.P. + 95.2 dB

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6.3. Test Procedure

Frequency Range 9kHz~30MHz:
The EUT setup on the turn table which has 0.8 m height to the ground. The turn table rotated 360 degrees and antenna fixed to 1 m to find the maximum emission level. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2013 regulation.

(1) RBW = 9kHz with peak and average detector.
(2) Detector: average and peak (9kHz-490kHz)
Q.P. (490kHz-30MHz)

Frequency Range 30MHz ~ 40GHz:
The EUT setup on the turn find table which has 80 cm (for 30-1000 MHz) and 1.5m (for above 1GHz) height to the ground. The turn table rotated 360 degrees and antenna varied from 1 m to 4 m to find the maximum emission level. Both horizontal and vertical polarization are required. In order to find the maximum emission, all of the interface cables were manipulated according to ANSI C63.10-2013 regulation.

Frequency below 1 GHz:
Spectrum Analyzer is used for pre-testing with following setting:

(1) RBW = 120KHz
(2) VBW ≥ 3 x RBW.
(3) Detector = Peak.
(4) Sweep time = auto.
(5) Trace mode = max hold.
(6) Allow sweeps to continue until the trace stabilizes.
(7) When peak-detected value is lower than limit that the measurement using the Q.P. detector is not required. Otherwise using Q.P. for finally measurement.

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Frequency above 1GHz to 10th harmonic:
Peak Detector:
(1) RBW = 120KHz
(2) VBW ≥ 3 x RBW.
(3) Detector = Peak.
(4) Sweep time = auto.
(5) Trace mode = max hold.
(6) Allow sweeps to continue until the trace stabilizes.
(7) When peak-detected value is lower than limit that the measurement using the average detector is not required. Otherwise using average for finally measurement.

Average Detector:
■**Option 1:**
(1) RBW = 120KHz
(2) VBW ≥ 1/ T.

Modulation Type	T (ms)	1/ T (kHz)	VBW Setting
802.11a	N/A	N/A	10 Hz
802.11n-HT20	N/A	N/A	10 Hz
802.11n-HT40	N/A	N/A	10 Hz

N/A: 1/ T is not implemented when duty cycle presented in section 3.5 is ≥98 %.
(1) Detector = Peak.
(2) Sweep time = auto.
(3) Trace mode = max hold.
(4) Allow sweeps to continue until the trace stabilizes.
□**Option 2:**
Average Emission Level= Peak Emission Level+ D.C.C.F.

6.4. Measurement Result Explanation

■Peak Emission Level=Antenna Factor + Cable Loss + Meter Reading
■Average Emission Level l=Antenna Factor + Cable Loss + Meter Reading
□Average Emission Level= Peak Emission Level+ DCCF
Duty Cycle Correction Factor (DCCF)= 20log (TX_{on}/TX_{on+off}) presented in section 3.5
□EPR= Peak Emission Level-95.2dB-2.14dB

6.5. Test Results

PASSED.

Test Date	2016/06/08	Temp./Hum.	26℃/43%
Test Voltage	DC 3.3V		

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6.5.1. Emissions within Restricted Frequency Bands

6.5.1.1. Frequency 9kHz~30MHz

The emissions (9kHz~30MHz) not reported for there is no emission be found.

6.5.1.2. Frequency Below 1 GHz

Mode	802.11n-HT20	UNII Band	II-2C
		Frequency	TX 5580MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
99.84	10.90	3.22	18.89	33.01	43.50	10.49	Peak
199.75	9.27	3.98	21.57	34.82	43.50	8.68	Peak
299.66	13.12	4.65	26.98	44.75	46.00	1.25	Peak
789.51	19.92	7.13	3.72	30.77	46.00	15.23	Peak
904.94	20.61	7.58	4.96	33.15	46.00	12.85	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
99.84	10.90	3.22	18.04	32.16	43.50	11.34	Peak
222.06	10.74	4.14	20.07	34.95	46.00	11.05	Peak
263.77	12.61	4.43	16.44	33.48	46.00	12.52	Peak
298.69	13.10	4.65	22.34	40.09	46.00	5.91	Peak
898.15	20.56	7.53	4.83	32.92	46.00	13.08	Peak

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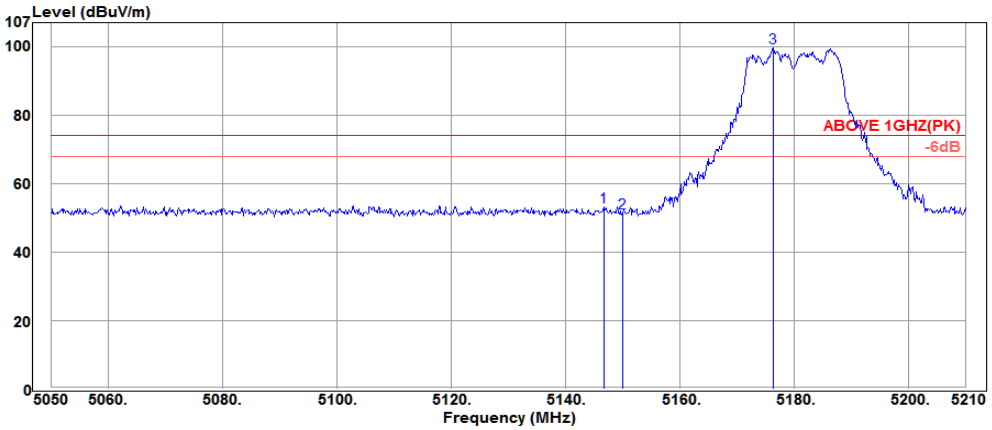
6.5.1.3. Frequency Above 1 GHz to 10th harmonics

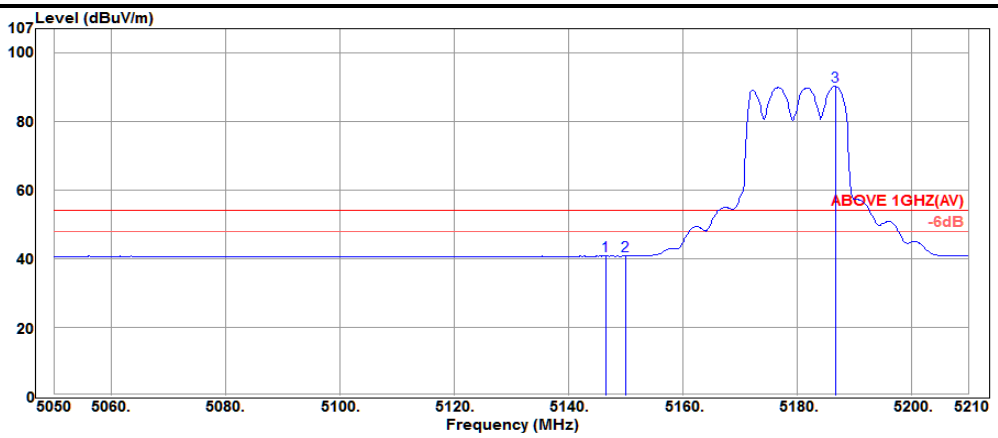
Band Edge:

Mode	802.11a	Frequency	TX 5180MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5146.64	34.45	8.84	9.89	53.18	74.00	20.82	Peak
5150.00	34.45	8.84	8.21	51.50	74.00	22.50	Peak
5176.24	34.48	8.77	56.30	99.55	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5146.48	34.45	8.84	-2.51	40.78	54.00	13.22	Average
5150.00	34.45	8.84	-2.51	40.78	54.00	13.22	Average
5186.64	34.48	8.77	46.93	90.18	---	---	Average

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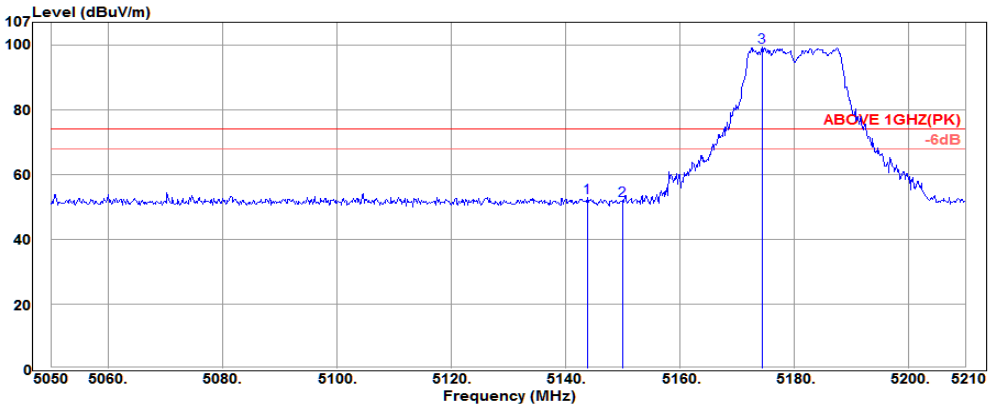
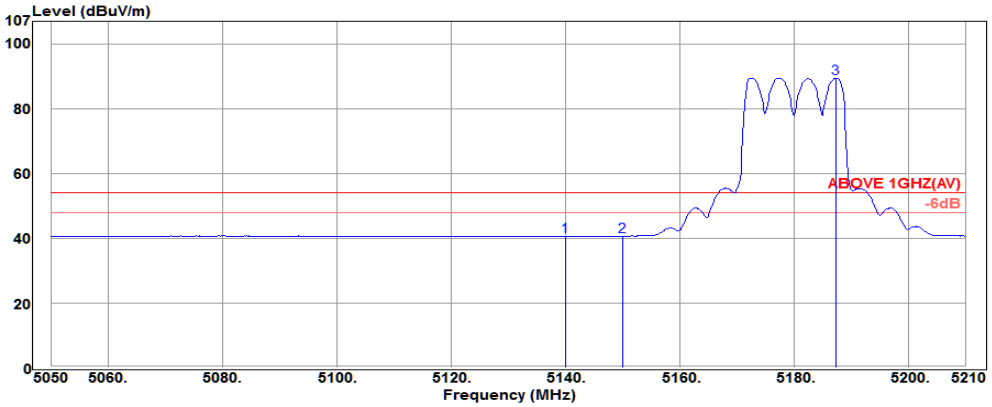
Mode	802.11a	Frequency	TX 5180MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5143.76	34.45	8.84	9.62	52.91	74.00	21.09	Peak
5150.00	34.45	8.84	8.75	52.04	74.00	21.96	Peak
5174.32	34.48	8.77	56.24	99.49	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5139.92	34.45	8.84	-2.68	40.61	54.00	13.39	Average
5150.00	34.45	8.84	-2.61	40.68	54.00	13.32	Average
5187.28	34.48	8.77	46.18	89.43	---	---	Average

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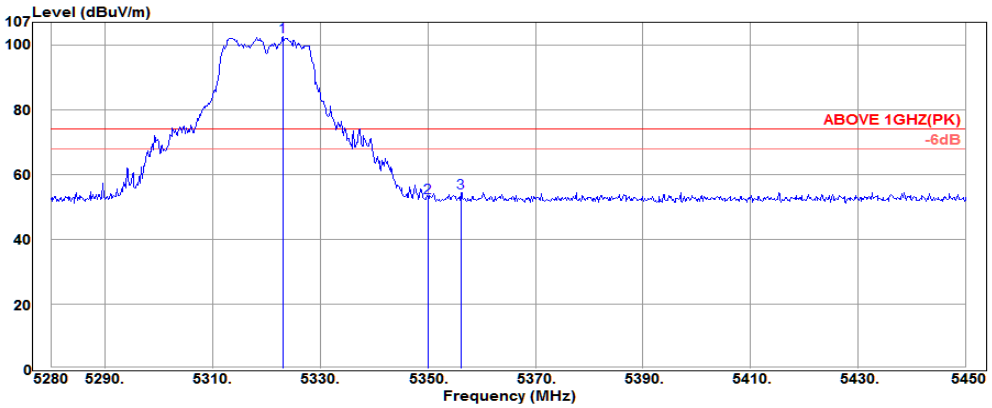
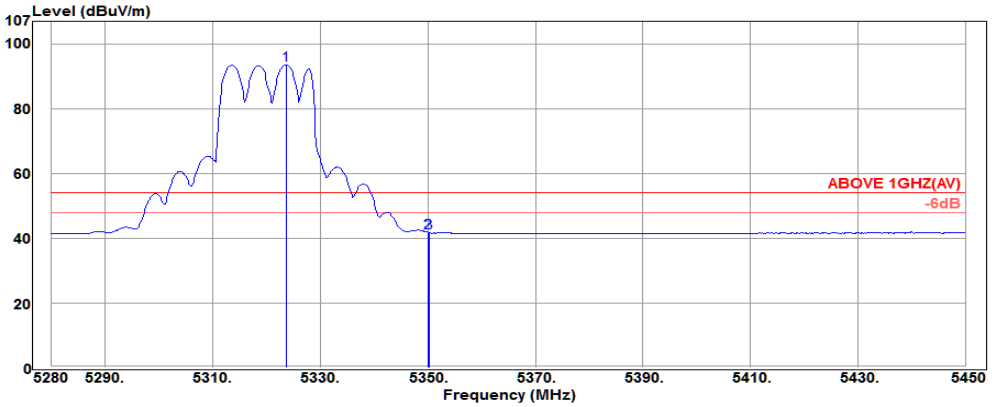
Mode	802.11a	Frequency	TX 5320MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5323.18	34.62	8.70	59.17	102.49	---	---	Peak
5350.04	34.65	8.61	9.77	53.03	74.00	20.97	Peak
5356.16	34.65	8.61	11.07	54.33	74.00	19.67	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5323.69	34.62	8.70	50.30	93.62	---	---	Average
5350.04	34.65	8.61	-1.38	41.88	54.00	12.12	Average
5350.21	34.65	8.61	-1.49	41.77	54.00	12.23	Average

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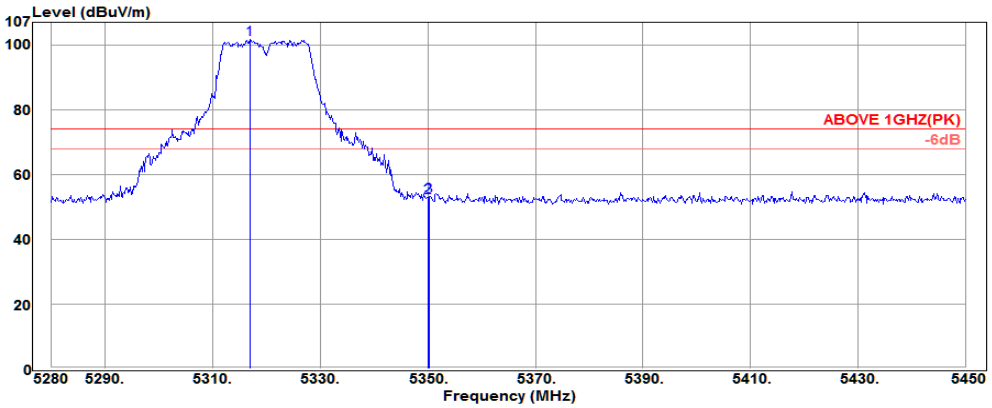
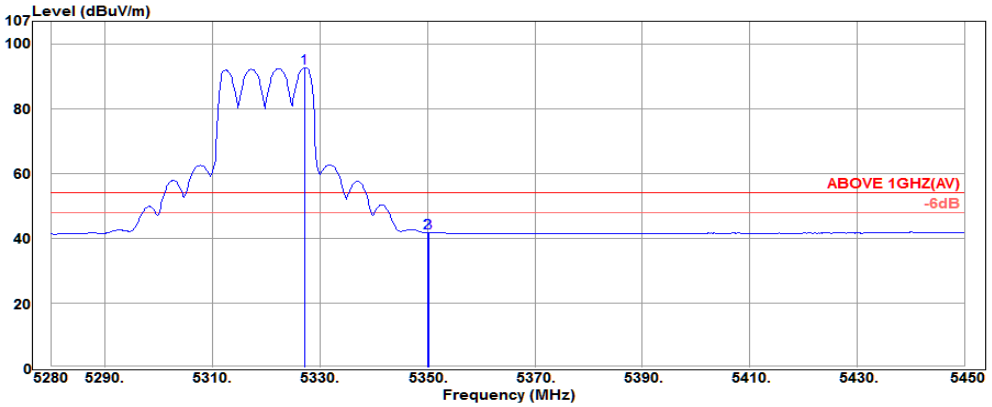
Mode	802.11a	Frequency	TX 5320MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5317.06	34.62	8.70	58.40	101.72	---	---	Peak
5350.04	34.65	8.61	9.64	52.90	74.00	21.10	Peak
5350.38	34.65	8.61	9.97	53.23	74.00	20.77	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5327.26	34.63	8.66	49.32	92.61	---	---	Average
5350.04	34.65	8.61	-1.63	41.63	54.00	12.37	Average
5350.21	34.65	8.61	-1.61	41.65	54.00	12.35	Average

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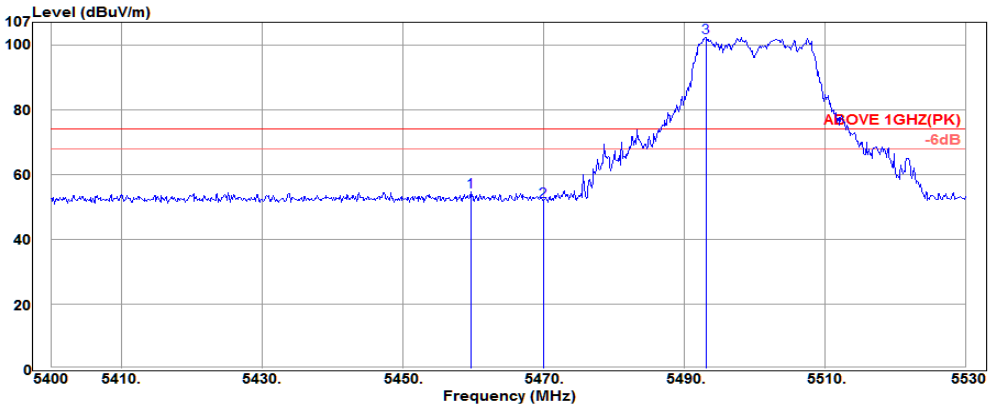
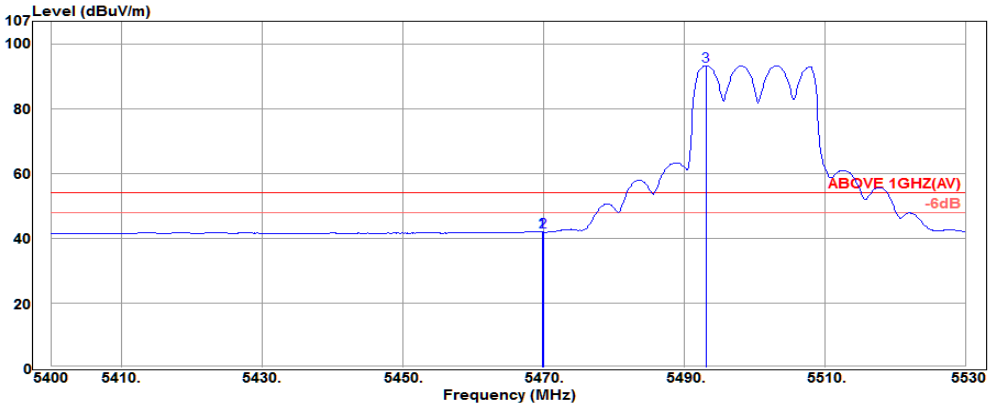
Mode	802.11a	Frequency	TX 5500MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5459.67	34.75	8.61	11.25	54.61	74.00	19.39	Peak
5469.94	34.77	8.65	8.25	51.67	74.00	22.33	Peak
5493.08	34.78	8.69	58.89	102.36	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5469.81	34.77	8.65	-1.52	41.90	54.00	12.10	Average
5469.94	34.77	8.65	-1.49	41.93	54.00	12.07	Average
5493.08	34.78	8.69	49.78	93.25	---	---	Average

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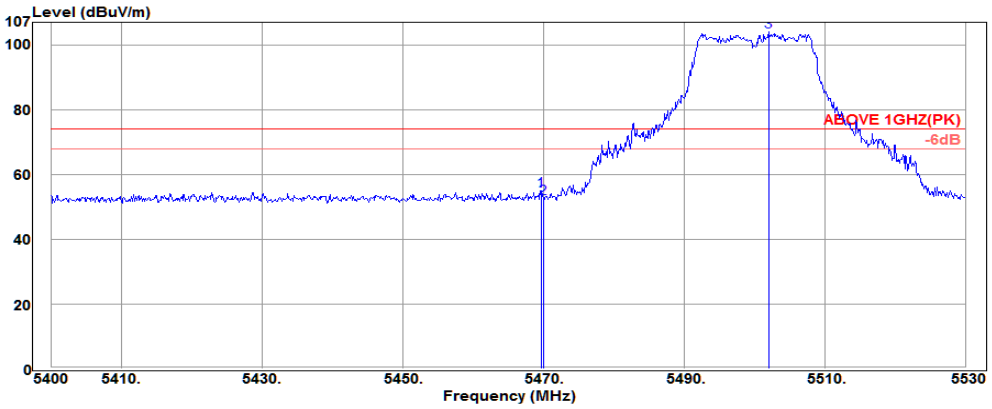
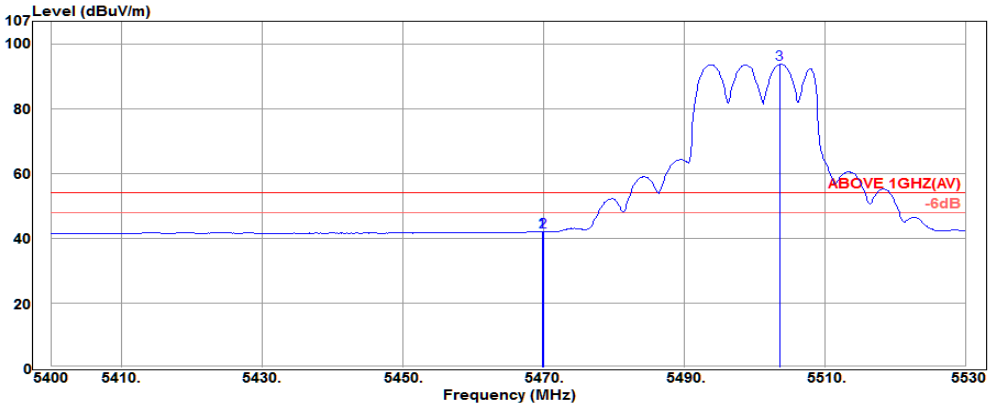
Mode	802.11a	Frequency	TX 5500MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
5469.68	34.77	8.65	11.55	54.97	74.00	19.03	Peak
5469.94	34.77	8.65	9.13	52.55	74.00	21.45	Peak
5501.92	34.80	8.73	60.42	103.95	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
5469.81	34.77	8.65	-1.34	42.08	54.00	11.92	Average
5469.94	34.77	8.65	-1.35	42.07	54.00	11.93	Average
5503.61	34.80	8.73	50.16	93.69	---	---	Average

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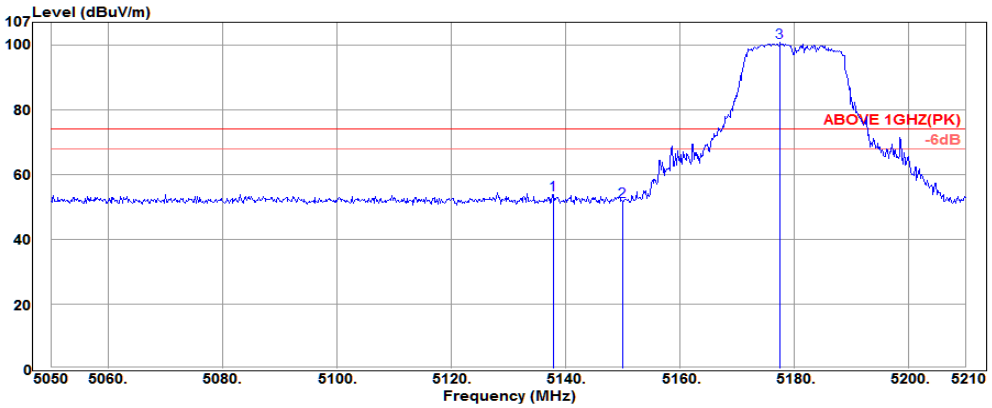
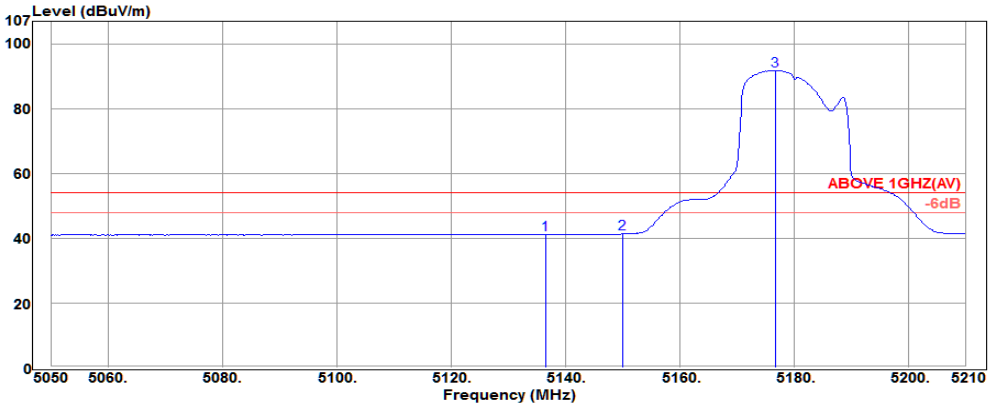
Mode	802.11n-HT20	Frequency	TX 5180MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5137.84	34.43	8.88	10.58	53.89	74.00	20.11	Peak
5150.00	34.45	8.84	8.39	51.68	74.00	22.32	Peak
5177.52	34.48	8.77	57.52	100.77	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5136.56	34.43	8.88	-2.10	41.21	54.00	12.79	Average
5150.00	34.45	8.84	-1.95	41.34	54.00	12.66	Average
5176.72	34.48	8.77	48.50	91.75	---	---	Average

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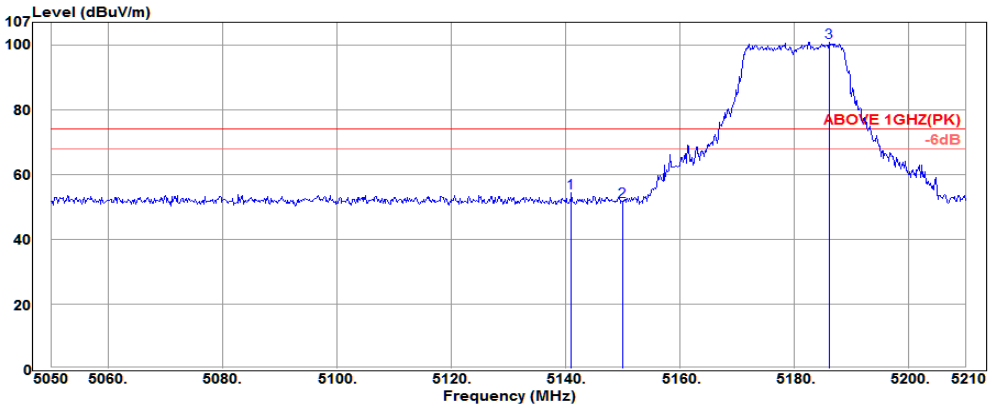
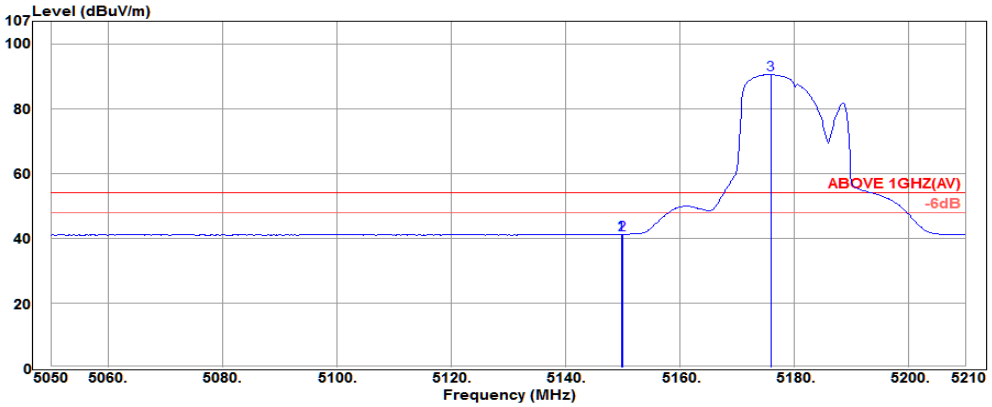
Mode	802.11n-HT20	Frequency	TX 5180MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5141.04	34.45	8.84	10.98	54.27	74.00	19.73	Peak
5150.00	34.45	8.84	8.36	51.65	74.00	22.35	Peak
5186.16	34.48	8.77	57.67	100.92	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.84	34.45	8.84	-2.09	41.20	54.00	12.80	Average
5150.00	34.45	8.84	-2.09	41.20	54.00	12.80	Average
5175.92	34.48	8.77	47.33	90.58	---	---	Average

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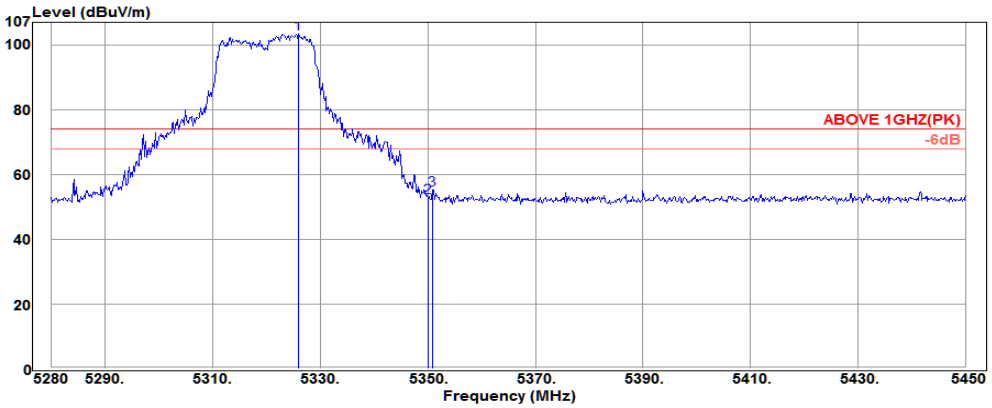
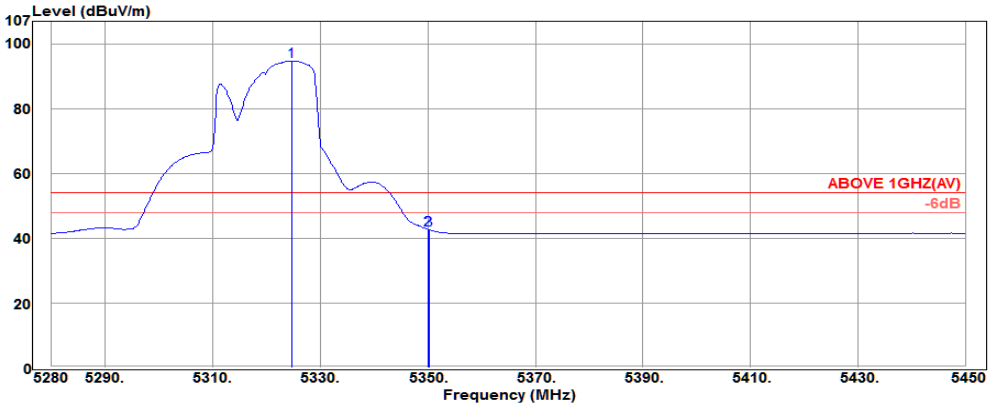
Mode	802.11n-HT20	Frequency	TX 5320MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5326.07	34.62	8.70	60.03	103.35	---	---	Peak
5350.04	34.65	8.61	9.56	52.82	74.00	21.18	Peak
5350.89	34.65	8.61	11.88	55.14	74.00	18.86	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5324.71	34.62	8.70	51.44	94.76	---	---	Average
5350.04	34.65	8.61	-0.49	42.77	54.00	11.23	Average
5350.21	34.65	8.61	-0.53	42.73	54.00	11.27	Average

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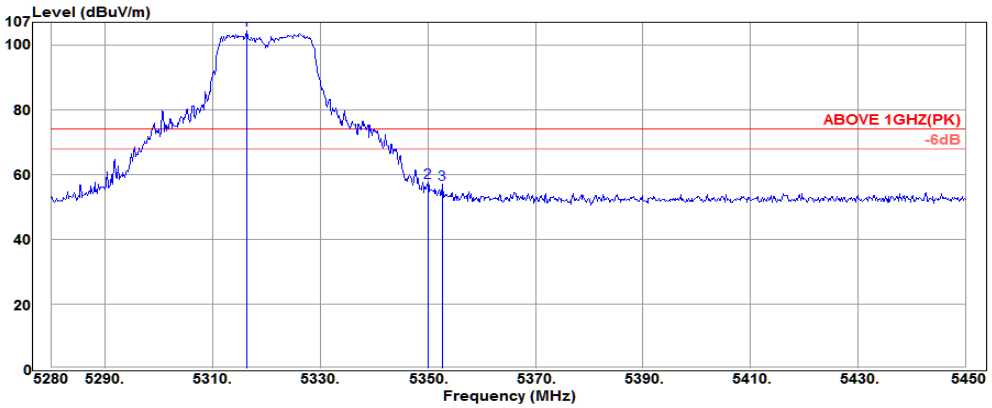
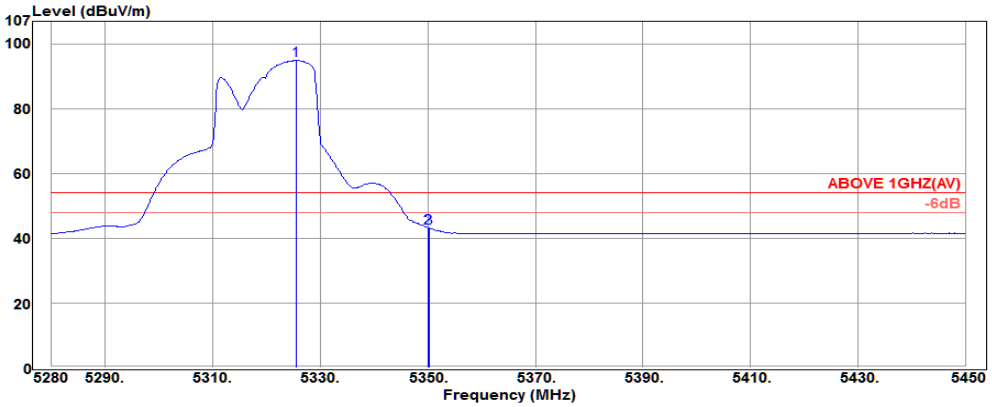
Mode	802.11n-HT20	Frequency	TX 5320MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5316.38	34.62	8.70	61.17	104.49	---	---	Peak
5350.04	34.65	8.61	14.38	57.64	74.00	16.36	Peak
5352.76	34.65	8.61	13.64	56.90	74.00	17.10	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5325.56	34.62	8.70	51.57	94.89	---	---	Average
5350.04	34.65	8.61	0.07	43.33	54.00	10.67	Average
5350.21	34.65	8.61	-0.06	43.20	54.00	10.80	Average

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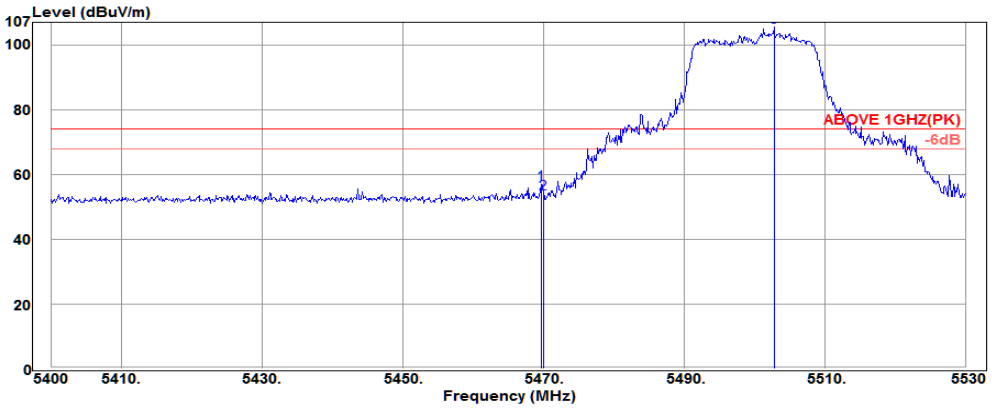
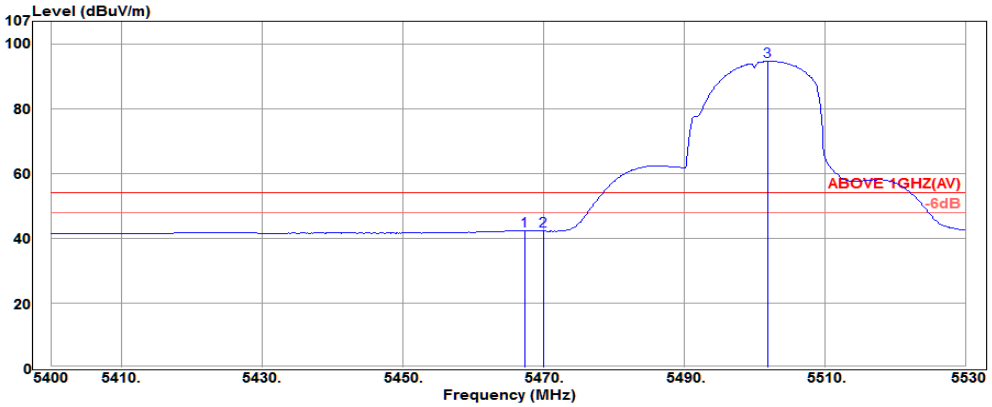
Mode	802.11n-HT20	Frequency	TX 5500MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5469.68	34.77	8.65	13.49	56.91	74.00	17.09	Peak
5469.94	34.77	8.65	10.54	53.96	74.00	20.04	Peak
5502.70	34.80	8.73	61.96	105.49	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5467.34	34.77	8.65	-1.03	42.39	54.00	11.61	Average
5469.94	34.77	8.65	-1.21	42.21	54.00	11.79	Average
5501.79	34.80	8.73	51.14	94.67	---	---	Average

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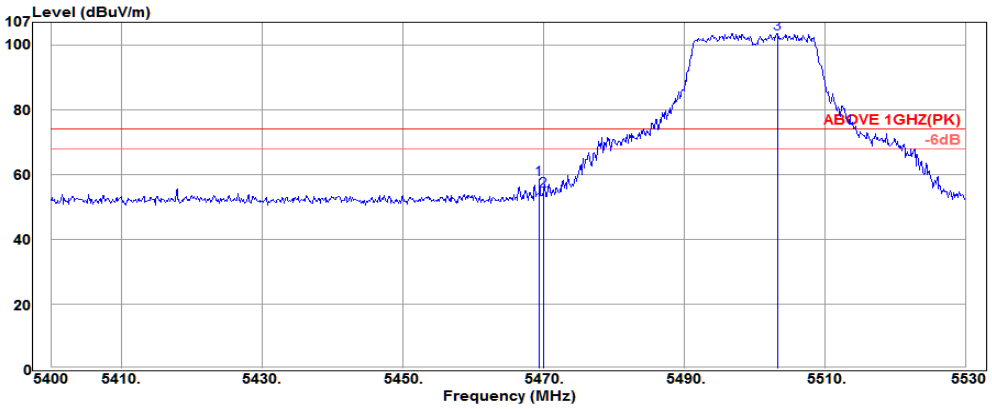
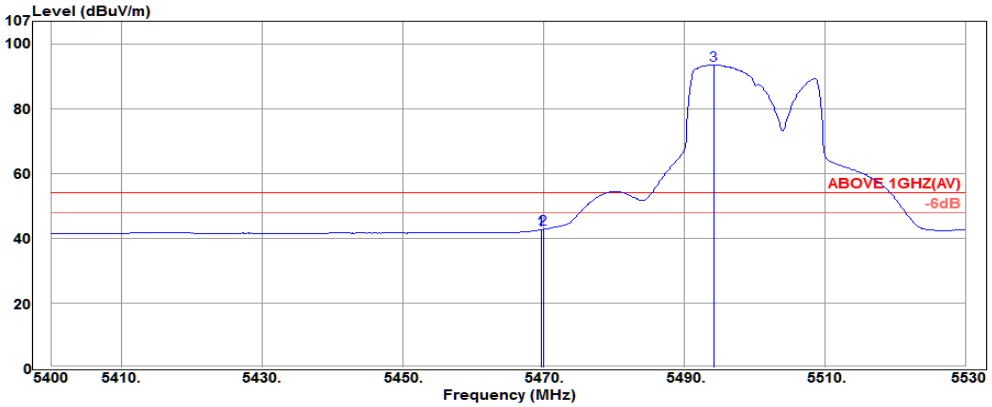
Mode	802.11n-HT20	Frequency	TX 5500MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
5469.42	34.77	8.65	15.15	58.57	74.00	15.43	Peak
5469.94	34.77	8.65	11.52	54.94	74.00	19.06	Peak
5503.22	34.80	8.73	60.08	103.61	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
5469.68	34.77	8.65	-0.77	42.65	54.00	11.35	Average
5469.94	34.77	8.65	-0.62	42.80	54.00	11.20	Average
5494.25	34.78	8.69	50.04	93.51	---	---	Average

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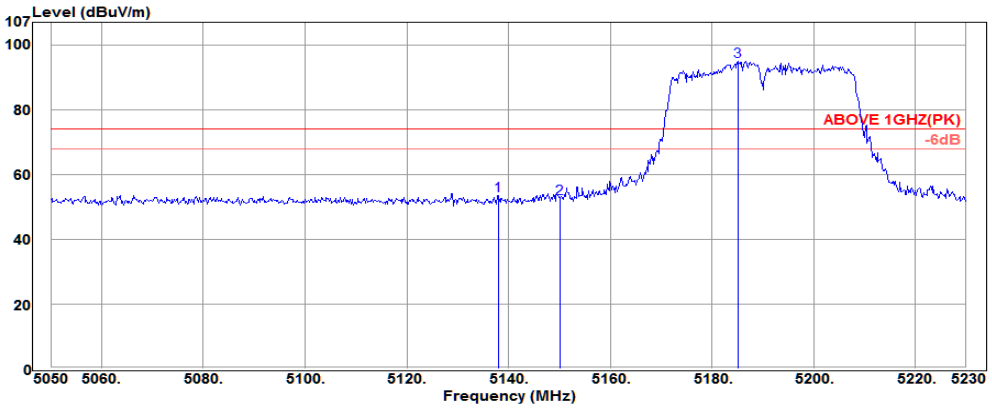
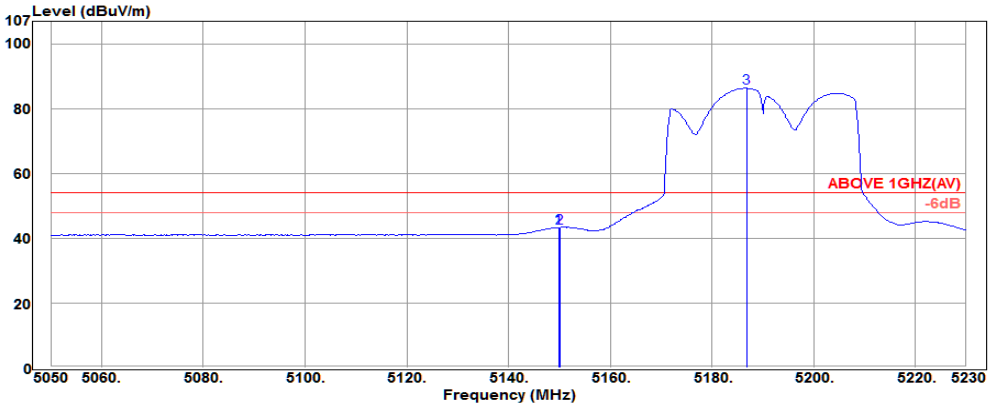
Mode	802.11n-HT40	Frequency	TX 5190MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5138.02	34.43	8.88	10.33	53.64	74.00	20.36	Peak
5150.08	34.45	8.84	9.31	52.60	74.00	21.40	Peak
5185.18	34.48	8.77	51.81	95.06	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.90	34.45	8.84	0.02	43.31	54.00	10.69	Average
5150.08	34.45	8.84	0.05	43.34	54.00	10.66	Average
5186.80	34.48	8.77	43.08	86.33	---	---	Average

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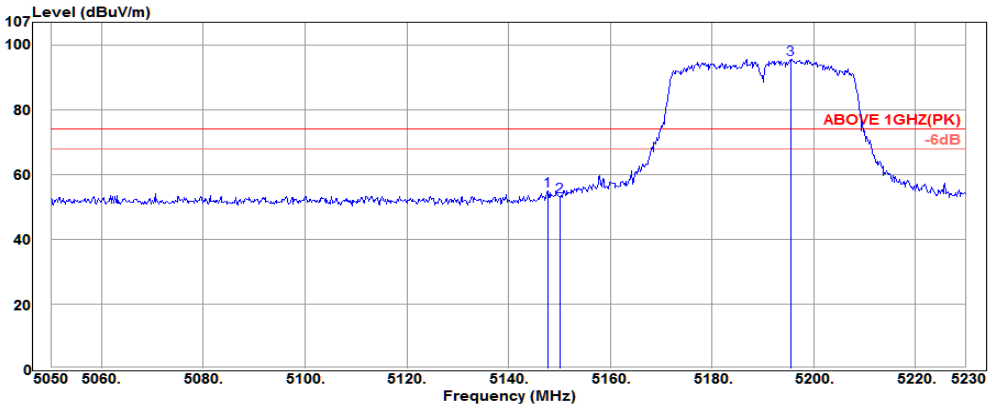
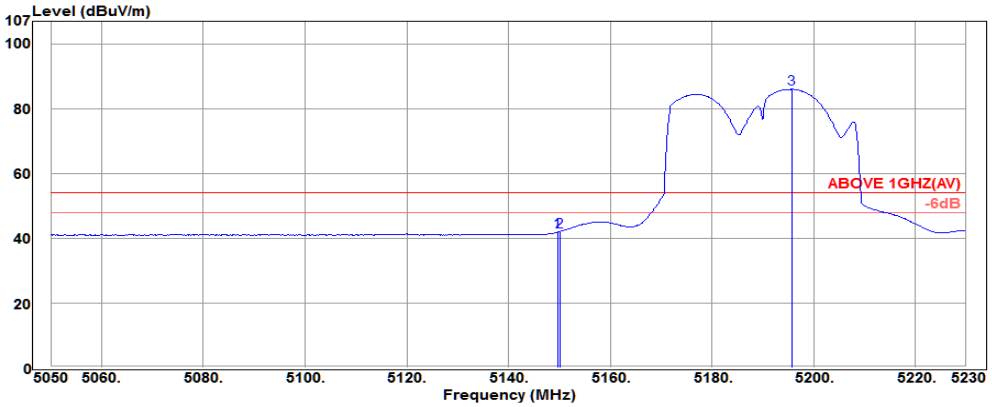
Mode	802.11n-HT40	Frequency	TX 5190MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5147.74	34.45	8.84	11.73	55.02	74.00	18.98	Peak
5150.08	34.45	8.84	9.92	53.21	74.00	20.79	Peak
5195.44	34.50	8.74	52.41	95.65	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5149.72	34.45	8.84	-1.36	41.93	54.00	12.07	Average
5150.08	34.45	8.84	-1.17	42.12	54.00	11.88	Average
5195.80	34.50	8.74	42.83	86.07	---	---	Average

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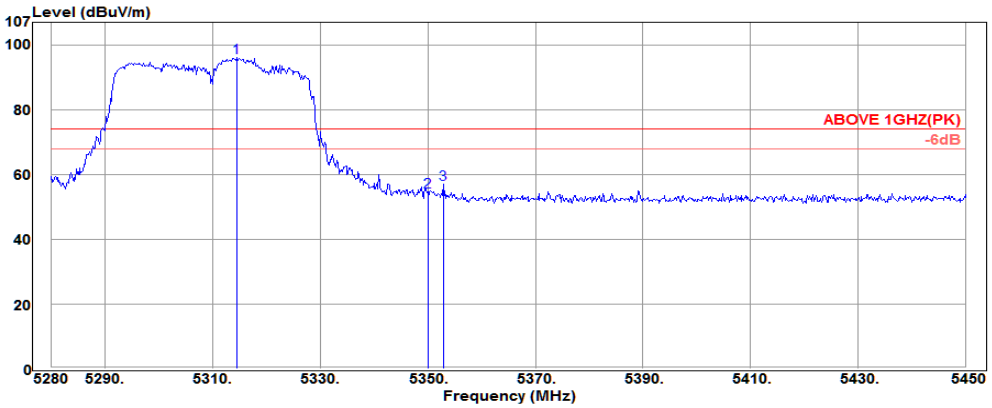
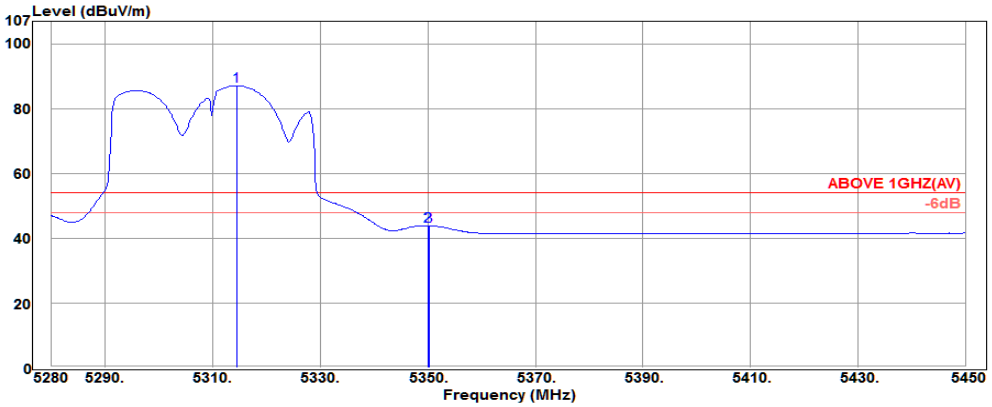
Mode	802.11n-HT40	Frequency	TX 5310MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5314.51	34.62	8.70	52.78	96.10	---	---	Peak
5350.04	34.65	8.61	11.29	54.55	74.00	19.45	Peak
5352.93	34.65	8.61	13.79	57.05	74.00	16.95	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5314.51	34.62	8.70	43.80	87.12	---	---	Average
5350.04	34.65	8.61	0.64	43.90	54.00	10.10	Average
5350.38	34.65	8.61	0.63	43.89	54.00	10.11	Average

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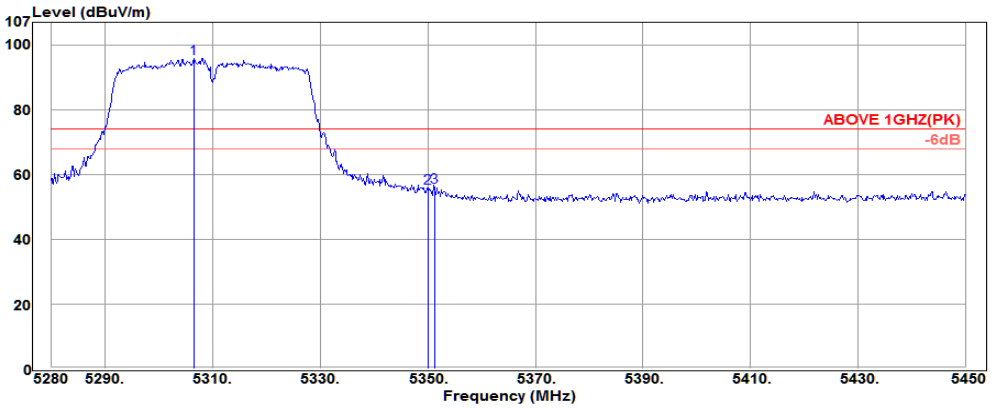
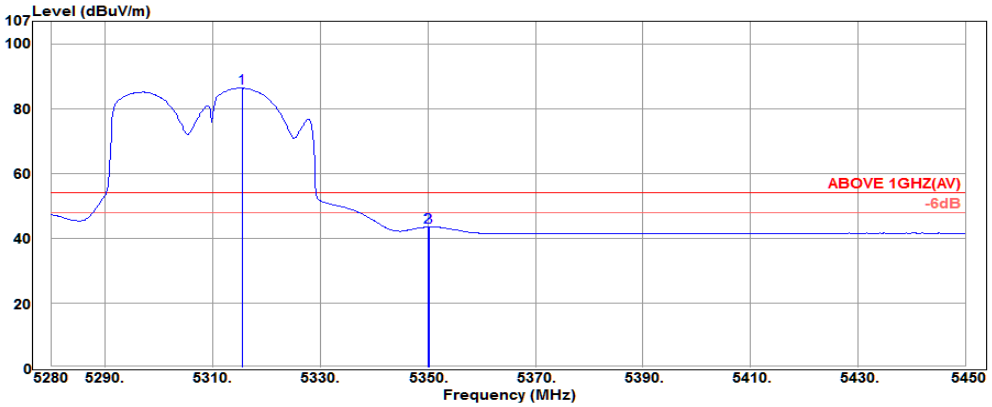
Mode	802.11n-HT40	Frequency	TX 5310MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5306.69	34.60	8.74	52.49	95.83	---	---	Peak
5350.04	34.65	8.61	12.61	55.87	74.00	18.13	Peak
5351.23	34.65	8.61	12.77	56.03	74.00	17.97	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5315.53	34.62	8.70	43.03	86.35	---	---	Average
5350.04	34.65	8.61	0.17	43.43	54.00	10.57	Average
5350.21	34.65	8.61	0.20	43.46	54.00	10.54	Average

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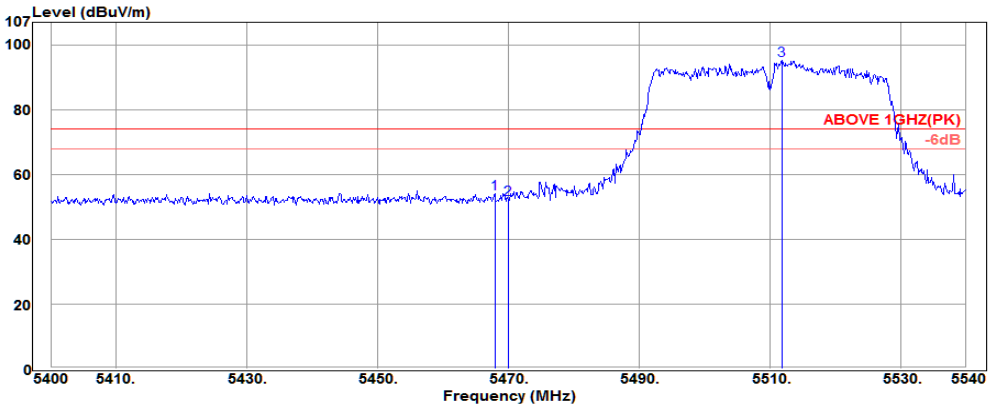
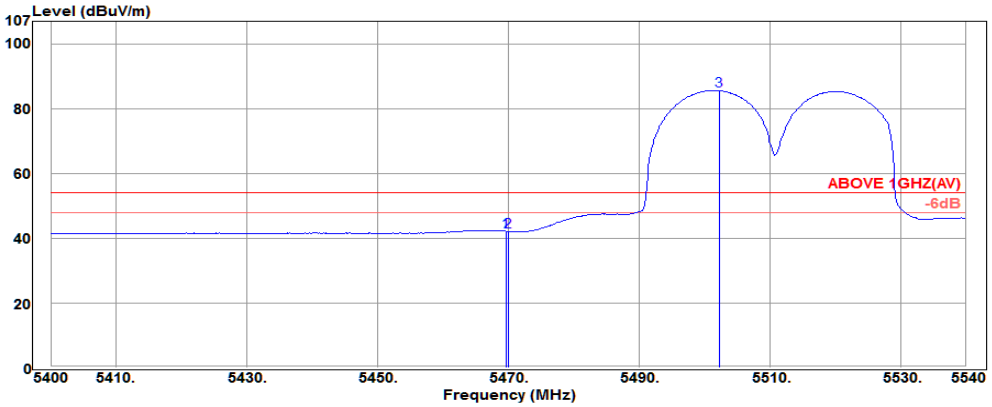
Mode	802.11n-HT40	Frequency	TX 5510MHz



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5467.90	34.77	8.65	10.78	54.20	74.00	19.80	Peak
5470.00	34.77	8.65	9.02	52.44	74.00	21.56	Peak
5511.86	34.80	8.73	51.66	95.19	---	---	Peak



Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
5469.58	34.77	8.65	-1.27	42.15	54.00	11.85	Average
5470.00	34.77	8.65	-1.32	42.10	54.00	11.90	Average
5502.20	34.80	8.73	42.12	85.65	---	---	Average

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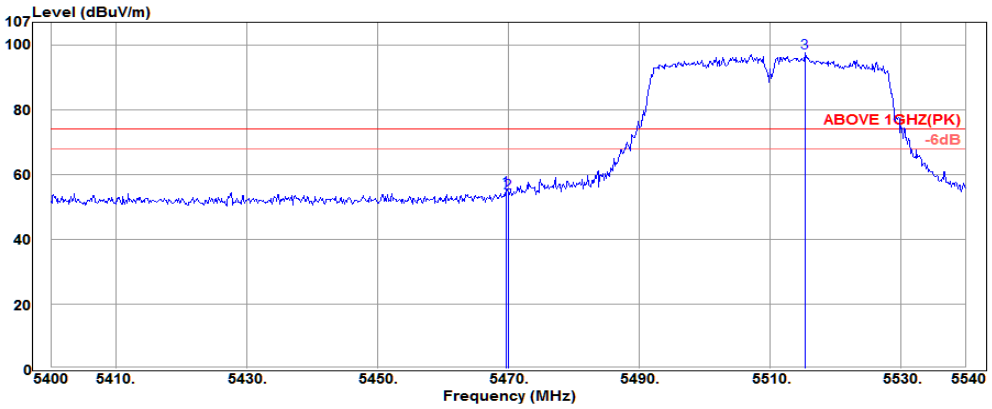
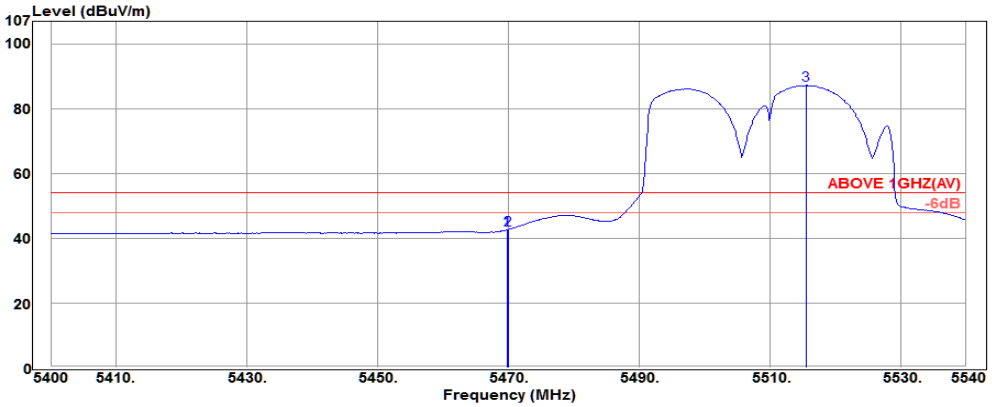
Mode	802.11n-HT40	Frequency	TX 5510MHz



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
5469.72	34.77	8.65	11.72	55.14	74.00	18.86	Peak
5470.00	34.77	8.65	10.92	54.34	74.00	19.66	Peak
5515.36	34.82	8.80	53.95	97.57	---	---	Peak



Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
5469.86	34.77	8.65	-0.75	42.67	54.00	11.33	Average
5470.00	34.77	8.65	-0.72	42.70	54.00	11.30	Average
5515.50	34.82	8.80	43.57	87.19	---	---	Average

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6.5.2. Emissions outside the frequency band:

The emissions (up to 40GHz) not reported for there is no emission be found.

Mode	802.11a	UNII Band	I
		Frequency	TX 5200MHz

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3465.00	32.81	7.21	4.97	44.99	54.00	9.01	Peak
10398.75	37.62	12.50	2.93	53.05	54.00	0.95	Peak

Mode	802.11a	UNII Band	II-2A
		Frequency	TX 5260MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3510.00	32.82	7.29	4.31	44.42	54.00	9.58	Peak
10531.75	37.71	12.56	3.50	53.77	54.00	0.23	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3510.00	32.82	7.29	7.88	47.99	54.00	6.01	Peak
10517.50	37.70	12.56	-1.47	48.79	54.00	5.21	Average
10517.50	37.70	12.56	10.53	60.79	74.00	13.21	Peak
15784.50	40.43	15.83	-10.62	45.64	54.00	8.36	Average
15784.50	40.43	15.83	-0.76	55.50	74.00	18.50	Peak

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Mode	802.11a	UNII Band	II-2C
		Frequency	TX 5580MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
3750.00	33.06	7.14	4.90	45.10	54.00	8.90	Peak
11158.75	38.03	12.75	-0.99	49.79	54.00	4.21	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
3750.00	33.06	7.14	3.15	43.35	54.00	10.65	Peak
11158.75	38.03	12.75	1.91	52.69	54.00	1.31	Peak

Mode	802.11a	UNII Band	III
		Frequency	TX 5785MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
3860.00	33.16	7.07	3.63	43.86	54.00	10.14	Peak
11576.75	38.56	12.68	2.72	53.96	54.00	0.04	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
3860.00	33.16	7.07	5.77	46.00	54.00	8.00	Peak
11572.00	38.56	12.68	-5.12	46.12	54.00	7.88	Average
11572.00	38.56	12.68	4.82	56.06	74.00	17.94	Peak

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Mode	802.11n-HT20	UNII Band	I
		Frequency	TX 5200MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3740.00	33.04	7.17	4.70	44.91	54.00	9.09	Peak
10389.25	37.61	12.49	-12.32	37.78	54.00	16.22	Average
10389.25	37.61	12.49	0.28	50.38	74.00	23.62	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3465.00	32.81	7.21	6.65	46.67	54.00	7.33	Peak
10389.25	37.61	12.49	-8.32	41.78	54.00	12.22	Average
10389.25	37.61	12.49	4.57	54.67	74.00	19.33	Peak

Mode	802.11n-HT20	UNII Band	II-2A
		Frequency	TX 5260MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3510.00	32.82	7.29	4.91	45.02	54.00	8.98	Peak
10522.25	37.70	12.56	-4.78	45.48	54.00	8.52	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3510.00	32.82	7.29	5.32	45.43	54.00	8.57	Peak
10527.00	37.70	12.56	0.16	50.42	54.00	3.58	Peak

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Mode	802.11n-HT20	UNII Band	II-2C
		Frequency	TX 5580MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3740.00	33.04	7.17	5.07	45.28	54.00	8.72	Peak
11158.75	38.03	12.75	2.49	53.27	54.00	0.73	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3750.00	33.06	7.14	2.19	42.39	54.00	11.61	Peak
11158.75	38.03	12.75	-7.62	43.16	54.00	10.84	Average
11158.75	38.03	12.75	6.44	57.22	74.00	16.78	Peak

Mode	802.11n-HT20	UNII Band	III
		Frequency	TX 5785MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3860.00	33.16	7.07	2.54	42.77	54.00	11.23	Peak
11562.50	38.54	12.68	-11.21	40.01	54.00	13.99	Average
11562.50	38.54	12.68	5.71	56.93	74.00	17.07	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3860.00	33.16	7.07	7.09	47.32	54.00	6.68	Peak
11576.75	38.56	12.68	-3.73	47.51	54.00	6.49	Average
11576.75	38.56	12.68	8.67	59.91	74.00	14.09	Peak

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Mode	802.11n-HT40	UNII Band	I
		Frequency	TX 5230MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
3485.00	32.80	7.24	3.17	43.21	54.00	10.79	Peak
10470.00	37.67	12.53	-3.51	46.69	54.00	7.31	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
3485.00	32.80	7.24	5.93	45.97	54.00	8.03	Peak
10446.25	37.66	12.53	-0.54	49.65	54.00	4.35	Peak

Mode	802.11n-HT40	UNII Band	II-2A
		Frequency	TX 5270MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
3515.00	32.82	7.29	3.76	43.87	54.00	10.13	Peak
10541.25	37.71	12.56	1.82	52.09	54.00	1.91	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Detector
3515.00	32.82	7.29	6.06	46.17	54.00	7.83	Peak
10550.75	37.71	12.57	-9.23	41.05	54.00	12.95	Average
10550.75	37.71	12.57	4.76	55.04	74.00	18.96	Peak

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Mode	802.11n-HT40	UNII Band	II-2C
		Frequency	TX 5550MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3740.00	33.04	7.17	4.61	44.82	54.00	9.18	Peak
11111.25	37.96	12.76	-0.51	50.21	54.00	3.79	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3735.00	33.04	7.17	2.88	43.09	54.00	10.91	Peak
11097.00	37.94	12.76	-10.04	40.66	54.00	13.34	Average
11097.00	37.94	12.76	4.41	55.11	74.00	18.89	Peak

Mode	802.11n-HT40	UNII Band	III
		Frequency	TX 5795MHz

Antenna at Horizontal Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3740.00	33.04	7.17	6.55	46.76	54.00	7.24	Peak
11586.25	38.57	12.67	2.22	53.46	54.00	0.54	Peak

Antenna at Vertical Polarization

Emission Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Meter Reading (dBμV)	Emission Level (dBμV/m)	Limits (dBμV/m)	Margin (dB)	Detector
3735.00	33.04	7.17	3.62	43.83	54.00	10.17	Peak
11586.25	38.57	12.67	-10.31	40.93	54.00	13.07	Average
11586.25	38.57	12.67	4.46	55.70	74.00	18.30	Peak

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7. MAXIMUM OUTPUT POWER MEASUREMENT

7.1. Block Diagram of Test Setup

7.2. Specification Limits

Frequency Band (MHz)	Category	Limit
5150 to 5250	Outdoor Access Point	1 W(30 dBm)/ Max e.i.r.p. ≤125 mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon
	Fixed point-to-point Access Point	1 W(30 dBm)
	Indoor Access Point	1 W(30 dBm)
	Mobile and Portable client device	250 mW(24 dBm)
5250 to 5350	N/A	250 mW or 11 dBm + 10 log B[Note1]
5470 to 5725		250 mW or 11 dBm + 10 log B [Note1]
5725 to 5850		1 W(30 dBm)

Note 1: B is the 26 dB emission bandwidth, which presented in section 7 and appendix A.1.

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7.3. Test Procedure

Following measurement procedure is reference to KDB 789033 D02 General UNII Test Procedures New Rules v01r02:

■**Method AVGPM (Measurement using an RF average power meter):**

EUT is connected to power sensor and record the maximum average output power and duty cycle factor is added when duty cycle presented in section 3.5 is < 98%.

□**Method AVGSA-2 (Spectrum channel power)**

(1) Set span to at least 1.5 times the OBW
(2) Set RBW = 1 MHz
(3) Set the video bandwidth (VBW) ≥ 3 MHz.
(4) Detector = RMS.
(5) Trace mode = trace average at least 100 traces
(6) Sweep = auto couple.
(7) Compute power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function with band limits set equal to the OBW band edges.
(8) Duty cycle factor is added when duty cycle presented in section 3.5 is < 98%.

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7.4. Test Results

Test Date	2016/06/06	Temp./Hum.	25℃/58%
Cable Loss	---	Test Voltage	DC 3.3V

A.1.1 Average Output Power

Modulation Type	UNII Band	Centre Frequency (MHz)	Output Power (dBm)		Total Average Output Power		Limit
			Chain 0	Chain 1	(dBm)	(W)	
802.11a	I	5180	12.45	9.81	14.34	0.027164	< 250 mW (24 dBm)
		5200	12.41	10.12	14.42	0.027669	
		5240	12.39	9.82	14.30	0.026915	
	II-2A	5260	16.57	15.40	19.03	0.079983	< 250 mW (24 dBm)
		5300	16.42	15.50	18.99	0.079250	
		5320	14.47	13.74	17.13	0.051642	
	II-2C	5500	12.32	10.10	14.36	0.027290	< 250 mW (24 dBm)
		5580	14.51	13.56	17.07	0.050933	
		5700	10.47	10.61	13.55	0.022646	
	III	5745	8.87	8.01	11.47	0.014028	< 1 W (30 dBm)
		5785	13.61	11.89	15.84	0.038371	
		5825	12.99	11.35	15.26	0.033574	

Note 1: The results have been included cable loss.

Modulation Type	UNII Band	Centre Frequency (MHz)	Output Power (dBm)		Total Average Output Power		Limit
			Chain 0	Chain 1	(dBm)	(W)	
802.11n-HT20	I	5180	12.48	8.69	14.00	0.025119	< 250 mW (24 dBm)
		5200	12.51	8.70	14.02	0.025235	
		5240	12.44	8.71	13.97	0.024946	
	II-2A	5260	15.50	10.24	16.63	0.046026	< 250 mW (24 dBm)
		5300	15.32	10.19	16.48	0.044463	
		5320	15.27	10.21	16.45	0.044157	
	II-2C	5500	12.88	9.04	14.38	0.027416	< 250 mW (24 dBm)
		5580	15.31	10.08	16.45	0.044157	
		5700	12.41	8.71	13.95	0.024831	
	III	5745	8.44	8.03	11.25	0.013335	< 1 W (30 dBm)
		5785	14.16	13.25	16.74	0.047206	
		5825	12.76	12.61	15.70	0.037154	

Note 1: The results have been included cable loss.

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Modulation Type	UNII Band	Centre Frequency (MHz)	Output Power (dBm)		Total Average Output Power		Limit
			Chain 0	Chain 1	(dBm)	(W)	
802.11n-HT40	I	5190	10.01	8.48	12.32	0.017061	< 250 mW (24 dBm)
		5230	13.29	12.71	16.02	0.039994	
	II-2A	5270	14.82	14.39	17.62	0.057810	< 250 mW (24 dBm)
		5310	10.00	8.34	12.26	0.016827	
	II-2C	5510	8.60	8.75	11.69	0.014757	< 250 mW (24 dBm)
		5590	14.12	14.89	17.53	0.056624	
		5670	12.09	11.03	14.60	0.028840	
	III	5755	7.61	6.94	10.30	0.010715	< 1 W (30 dBm)
		5795	14.46	13.62	17.07	0.050933	

Note 1: The results have been included cable loss.

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8. DEVIATION TO TEST SPECIFICATIONS

【NONE】