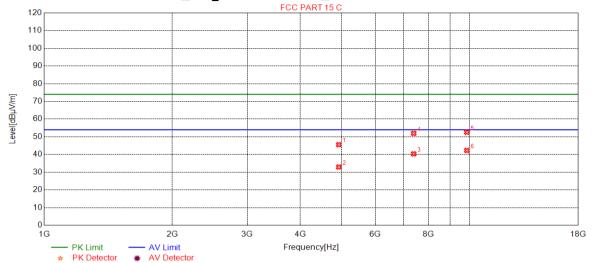


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#### 4.9.2.1.15 802.11N20\_ Highest Channel\_ Vertical



Susp	Suspected List							
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Date #
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
1	4924.0000	45.56	7.64	74.00	28.44	150	28	Vertical
2	4924.0000	32.93	7.64	54.00	21.07	150	88	Vertical
3	7386.0000	40.37	14.54	54.00	13.63	150	233	Vertical
4	7386.0000	51.95	14.54	74.00	22.05	150	100	Vertical
5	9848.0000	52.55	18.80	74.00	21.45	150	23	Vertical
6	9848.0000	42.28	18.80	54.00	11.72	150	216	Vertical

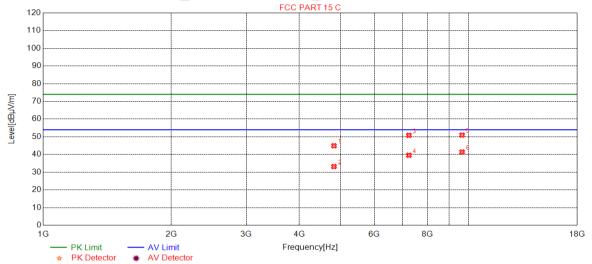




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#### 4.9.2.1.16 802.11N20\_Lowest Channel\_ Horizontal



Susp	Suspected List							
NO.	Freq.	Level	Factor	Limit	Margin	Height	Angle	Polarity
140.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	lolarity
1	4824.0000	44.95	7.37	74.00	29.05	150	40	Horizontal
2	4824.0000	33.19	7.37	54.00	20.81	150	308	Horizontal
3	7236.0000	50.84	14.07	74.00	23.16	150	89	Horizontal
4	7236.0000	39.57	14.07	54.00	14.43	150	175	Horizontal
5	9648.0000	50.96	17.97	74.00	23.04	150	272	Horizontal
6	9648.0000	41.39	17.97	54.00	12.61	150	16	Horizontal



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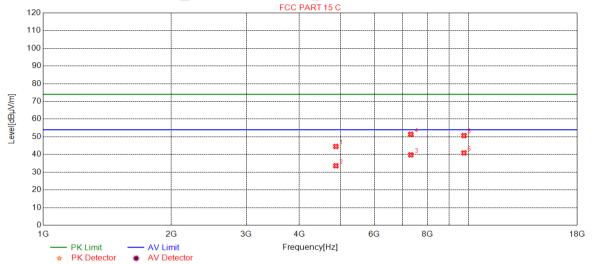
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#### 4.9.2.1.17 802.11N20\_ Middle Channel\_ Horizontal



Susp	Suspected List							
NO.	Freq.	Level	Factor	Limit	Margin	Height	Angle	Polarity
140.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	lolanty
1	4874.0000	44.55	7.50	74.00	29.45	150	117	Horizontal
2	4874.0000	33.61	7.50	54.00	20.39	150	230	Horizontal
3	7311.0000	39.80	14.29	54.00	14.20	150	319	Horizontal
4	7311.0000	51.39	14.29	74.00	22.61	150	206	Horizontal
5	9748.0000	50.71	18.25	74.00	23.29	150	272	Horizontal
6	9748.0000	40.91	18.25	54.00	13.09	150	342	Horizontal



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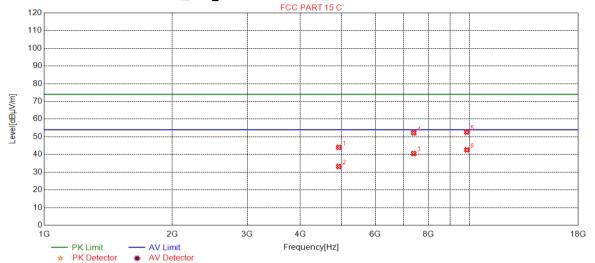
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#### 4.9.2.1.18 802.11N20\_ Highest Channel\_ Horizontal



Susp	Suspected List							
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Datasii
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
1	4924.0000	44.05	7.64	74.00	29.95	150	198	Horizontal
2	4924.0000	33.23	7.64	54.00	20.77	150	102	Horizontal
3	7386.0000	40.57	14.54	54.00	13.43	150	271	Horizontal
4	7386.0000	52.25	14.54	74.00	21.75	150	210	Horizontal
5	9848.0000	52.60	18.80	74.00	21.40	150	16	Horizontal
6	9848.0000	42.62	18.80	54.00	11.38	150	208	Horizontal



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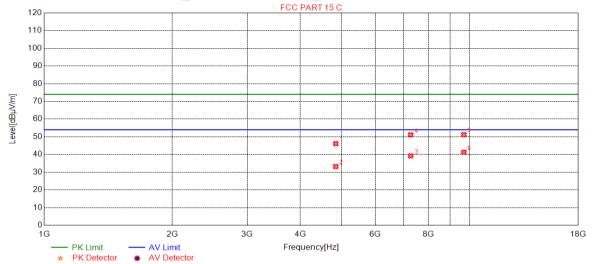
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#### 4.9.2.1.19 **802.11N40\_Lowest Channel\_ Vertical**



Susp	Suspected List							
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dolority
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
1	4844.0000	46.16	7.42	74.00	27.84	150	52	Vertical
2	4844.0000	33.20	7.42	54.00	20.80	150	113	Vertical
3	7266.0000	39.23	14.15	54.00	14.77	150	101	Vertical
4	7266.0000	51.14	14.15	74.00	22.86	150	198	Vertical
5	9688.0000	51.25	18.05	74.00	22.75	150	131	Vertical
6	9688.0000	41.29	18.05	54.00	12.71	150	110	Vertical



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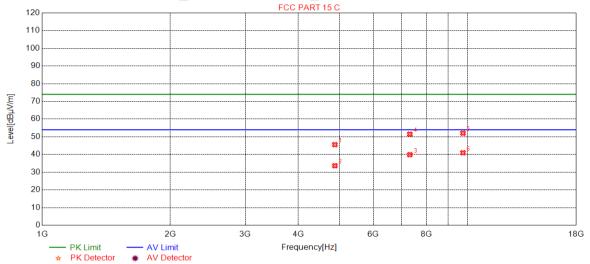
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#### 4.9.2.1.20 **802.11N40\_ Middle Channel\_ Vertical**



Susp	Suspected List							
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Date 3
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
1	4874.0000	45.57	7.50	74.00	28.43	150	100	Vertical
2	4874.0000	33.65	7.50	54.00	20.35	150	294	Vertical
3	7311.0000	39.91	14.29	54.00	14.09	150	306	Vertical
4	7311.0000	51.49	14.29	74.00	22.51	150	64	Vertical
5	9748.0000	52.04	18.25	74.00	21.96	150	67	Vertical
6	9748.0000	40.98	18.25	54.00	13.02	150	217	Vertical



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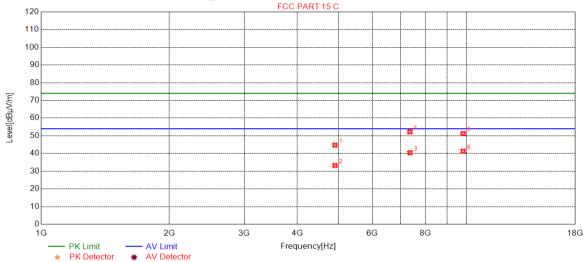
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### 4.9.2.1.21 **802.11N40\_ Highest Channel\_ Vertical**



Susp	Suspected List							
NO.	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dolority
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
1	4904.0000	44.75	7.58	74.00	29.25	150	52	Vertical
2	4904.0000	33.23	7.58	54.00	20.77	150	40	Vertical
3	7356.0000	40.47	14.44	54.00	13.53	150	148	Vertical
4	7356.0000	52.26	14.44	74.00	21.74	150	245	Vertical
5	9808.0000	51.29	18.49	74.00	22.71	150	152	Vertical
6	9808.0000	41.31	18.49	54.00	12.69	150	238	Vertical

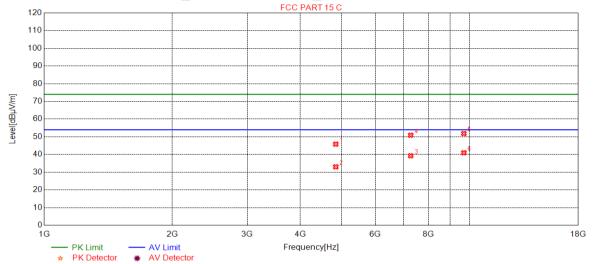




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#### 4.9.2.1.22 802.11N40\_Lowest Channel\_ Horizontal



Susp	Suspected List							
NO.	Freq.	Level	Factor	Limit	Margin	Height	Angle	Polarity
140.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	lolarity
1	4844.0000	45.86	7.42	74.00	28.14	150	223	Horizontal
2	4844.0000	33.03	7.42	54.00	20.97	150	175	Horizontal
3	7266.0000	39.29	14.15	54.00	14.71	150	151	Horizontal
4	7266.0000	50.91	14.15	74.00	23.09	150	102	Horizontal
5	9688.0000	51.87	18.05	74.00	22.13	150	16	Horizontal
6	9688.0000	40.98	18.05	54.00	13.02	150	123	Horizontal

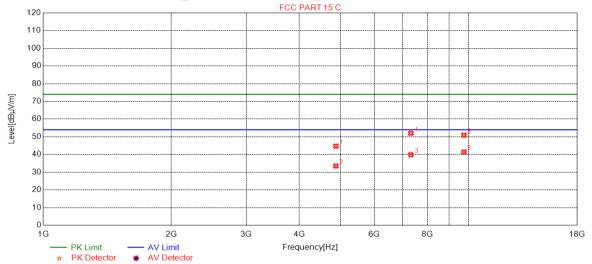




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#### 4.9.2.1.23 802.11N40\_ Middle Channel\_ Horizontal



Susp	Suspected List							
NO.	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dolority
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity
1	4874.0000	44.70	7.50	74.00	29.30	150	308	Horizontal
2	4874.0000	33.52	7.50	54.00	20.48	150	18	Horizontal
3	7311.0000	39.86	14.29	54.00	14.14	150	175	Horizontal
4	7311.0000	52.00	14.29	74.00	22.00	150	321	Horizontal
5	9748.0000	50.89	18.25	74.00	23.11	150	208	Horizontal
6	9748.0000	41.42	18.25	54.00	12.58	150	16	Horizontal



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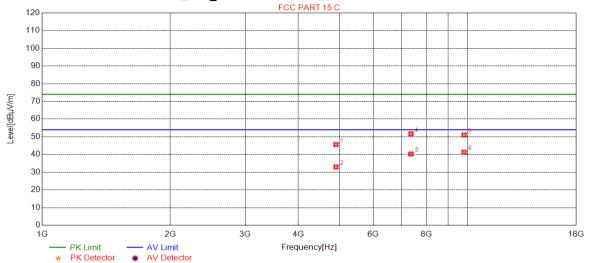
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#### 4.9.2.1.24 802.11N40\_ Highest Channel\_ Horizontal



Susp	Suspected List							
NO.	Freq.	Level	Factor	Limit	Margin	Height	Angle	Polarity
110.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	1 Glarity
1	4904.0000	45.65	7.58	74.00	28.35	150	61	Horizontal
2	4904.0000	32.98	7.58	54.00	21.02	150	332	Horizontal
3	7356.0000	40.29	14.44	54.00	13.71	150	344	Horizontal
4	7356.0000	51.72	14.44	74.00	22.28	150	344	Horizontal
5	9808.0000	51.05	18.49	74.00	22.95	150	252	Horizontal
6	9808.0000	41.30	18.49	54.00	12.70	150	273	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 between 9KHz to 30MHz and 18GHz to 25GHz was very low, and the above harmonics were the highest point could be found when testing, 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.
- 4) All Modes have been tested, but only the worst case data displayed in this report.



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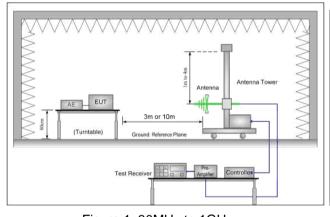
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### 4.10 Restricted bands around fundamental frequency

Test Requirement:	47 CFR Part 15C Section	7 CFR Part 15C Section 15.209 and 15.205								
Test Method:	ANSI C63.10: 2013 Sect	ANSI C63.10: 2013 Section 11.12								
Test Site:	Measurement Distance:	Measurement Distance: 3m or 10m (Semi-Anechoic Chamber)								
	Frequency	Limit (dBuV/m @3m)	Remark							
	30MHz-88MHz	40.0	Quasi-peak Value							
	88MHz-216MHz	43.5	Quasi-peak Value							
Limit:	216MHz-960MHz	46.0	Quasi-peak Value							
	960MHz-1GHz	54.0	Quasi-peak Value							
	Above 1GHz	54.0	Average Value							
	Above IGHZ	74.0	Peak Value							
Test Setup:										



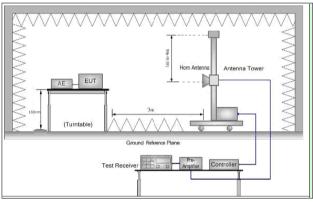


Figure 1. 30MHz to 1GHz

Figure 2. Above 1 GHz



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meters above the ground at a 3 or 10 meter semi-anechoic camb. The table was rotated 360 degrees to determine the position of th highest radiation.  b. For above 1GHz, the EUT was placed on the top of a rotating table 1 meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the higher radiation.  c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna 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. Be horizontal and vertical polarizations of the antenna are set to make the measurement.  Test Procedure:  e. For each suspected emission, the EUT was arranged to its worst case and then the antenna was turned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees find the maximum reading.  f. The test-receiver system was set to Peak Detect Function at Specified Bandwidth with Maximum Hold Mode.  g. Place a marker at the end of the restricted band closest to the transman frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for eapower and modulation for lowest and highest channel  h. Test the EUT in the lowest channel, the Highest channel  i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode,And found the X axis positioning which it worse case.  j. Repeat above procedures until all frequencies measured we complete.  Exploratory Test Mode:  Transmitting with all kind of modulations, data rates.  Charge + Transmitting mode.  Pretest the EUT at Charge +Transmitting mode.  Through Pre-scan, find the  1Mbps of rate is the worst case of 802.11B;  6Mbps of rate is the worst case of 802.11N(HT40).  Only the worst case is recorded in the report.							
meters above the ground at a 3 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the higher radiation.  c. The EUT was set 3 or 10 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antent 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. Be 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 meter and the rotatable table was turned from 0 degrees to 360 degrees find the maximum reading.  f. The test-receiver system was set to Peak Detect Function as Specified Bandwidth with Maximum Hold Mode.  g. Place a marker at the end of the restricted band closest to the transman frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for ear power and modulation for lowest and highest channel  h. Test the EUT in the lowest channel, the Highest channel  i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode,And found the X axis positioning which it worse case.  j. Repeat above procedures until all frequencies measured with worse case.  j. Repeat above procedures until all frequencies measured with complete.  Exploratory Test Mode:  Transmitting with all kind of modulations, data rates.  Charge + Transmitting mode.  Pretest the EUT at Charge + Transmitting mode.  Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B;  6Mbps of rate is the worst case of 802.11B;  6Mbps of rate is the worst case of 802.11N(HT20);  13.5Mbps of rate is the worst case of 802.11N(HT20).  Only the worst case is recorded in the report.		a. For below 1GHz, the EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 or 10 meter semi-anechoic camber. The table was rotated 360 degrees to determine the position of the highest radiation.					
antenna, which was mounted on the top of a variable-height antent 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. Be 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 care and then the antenna was tuned to heights from 1 meter to 4 meter and the rotatable table was turned from 0 degrees to 360 degrees find the maximum reading.  f. The test-receiver system was set to Peak Detect Function as Specified Bandwidth with Maximum Hold Mode.  g. Place a marker at the end of the restricted band closest to the transmare frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for earn power and modulation for lowest and highest channel.  h. Test the EUT in the lowest channel, the Highest channel.  i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it worse case.  j. Repeat above procedures until all frequencies measured we complete.  Transmitting with all kind of modulations, data rates.  Charge + Transmitting mode.  Pretest the EUT at Charge + Transmitting mode.  Through Pre-scan, find the  1Mbps of rate is the worst case of 802.11B;  6Mbps of rate is the worst case of 802.11N(HT20);  13.5Mbps of rate is the worst case of 802.11N(HT40).  Only the worst case is recorded in the report.		b. For above 1GHz, 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.					
ground to determine the maximum value of the field strength. Bo 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 care and then the antenna was tuned to heights from 1 meter to 4 meter and the rotatable table was turned from 0 degrees to 360 degrees find the maximum reading.  f. The test-receiver system was set to Peak Detect Function at Specified Bandwidth with Maximum Hold Mode.  g. Place a marker at the end of the restricted band closest to the transmare frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for ear power and modulation for lowest and highest channel  h. Test the EUT in the lowest channel, the Highest channel  i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it worse case.  j. Repeat above procedures until all frequencies measured we complete.  Exploratory Test Mode:  Transmitting with all kind of modulations, data rates.  Charge + Transmitting mode.  Pretest the EUT at Charge + Transmitting mode.  Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11N(HT20); 13.5Mbps of rate is the worst case of 802.11N(HT20).  Only the worst case is recorded in the report.		antenna, which was mounted on the top of a variable-height antenna					
and then the antenna was tuned to heights from 1 meter to 4 meter and the rotatable table was turned from 0 degrees to 360 degrees find the maximum reading.  f. The test-receiver system was set to Peak Detect Function at Specified Bandwidth with Maximum Hold Mode.  g. Place a marker at the end of the restricted band closest to the transn frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for ear power and modulation for lowest and highest channel  h. Test the EUT in the lowest channel, the Highest channel  i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it worse case.  j. Repeat above procedures until all frequencies measured we complete.  Exploratory Test Mode:  Transmitting with all kind of modulations, data rates.  Charge + Transmitting mode.  Through Pre-scan, find the  1Mbps of rate is the worst case of 802.11B;  6Mbps of rate is the worst case of 802.11G;  6.5Mbps of rate is the worst case of 802.11N(HT20);  13.5Mbps of rate is the worst case of 802.11N(HT40).  Only the worst case is recorded in the report.		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.					
Specified Bandwidth with Maximum Hold Mode.  g. Place a marker at the end of the restricted band closest to the transn frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for ear power and modulation for lowest and highest channel  h. Test the EUT in the lowest channel, the Highest channel  i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it worse case.  j. Repeat above procedures until all frequencies measured was complete.  Exploratory Test Mode:  Transmitting with all kind of modulations, data rates.  Charge + Transmitting mode.  Pretest the EUT at Charge +Transmitting mode.  Through Pre-scan, find the  1Mbps of rate is the worst case of 802.11B;  6Mbps of rate is the worst case of 802.11G;  6.5Mbps of rate is the worst case of 802.11N(HT20);  13.5Mbps of rate is the worst case of 802.11N(HT40).  Only the worst case is recorded in the report.	Test Procedure:	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.					
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  h. Test the EUT in the lowest channel, the Highest channel  i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it worse case.  j. Repeat above procedures until all frequencies measured with complete.  Exploratory Test Mode:  Transmitting with all kind of modulations, data rates.  Charge + Transmitting mode.  Pretest the EUT at Charge +Transmitting mode.  Through Pre-scan, find the  1Mbps of rate is the worst case of 802.11B;  6Mbps of rate is the worst case of 802.11N(HT20);  13.5Mbps of rate is the worst case of 802.11N(HT20).  Only the worst case is recorded in the report.							
i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it worse case.  j. Repeat above procedures until all frequencies measured was complete.  Transmitting with all kind of modulations, data rates. Charge + Transmitting mode.  Pretest the EUT at Charge +Transmitting mode. Through Pre-scan, find the 1 Mbps of rate is the worst case of 802.11B; 6 Mbps of rate is the worst case of 802.11G; 6.5 Mbps of rate is the worst case of 802.11N(HT20); 13.5 Mbps of rate is the worst case of 802.11N(HT40). Only the worst case is recorded in the report.		frequency to show compliance. Also measure any emissions in the restricted bands. Save the spectrum analyzer plot. Repeat for each					
i. The radiation measurements are performed in X, Y, Z axis positioning for Transmitting mode, And found the X axis positioning which it worse case.  j. Repeat above procedures until all frequencies measured was complete.  Transmitting with all kind of modulations, data rates. Charge + Transmitting mode.  Pretest the EUT at Charge +Transmitting mode. Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G; 6.5Mbps of rate is the worst case of 802.11N(HT20); 13.5Mbps of rate is the worst case of 802.11N(HT40). Only the worst case is recorded in the report.		h. Test the EUT in the lowest channel, the Highest channel					
complete.  Exploratory Test Mode:  Transmitting with all kind of modulations, data rates. Charge + Transmitting mode.  Pretest the EUT at Charge +Transmitting mode. Through Pre-scan, find the 1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G; 6.5Mbps of rate is the worst case of 802.11N(HT20); 13.5Mbps of rate is the worst case of 802.11N(HT40). Only the worst case is recorded in the report.		for Transmitting mode, And found the X axis positioning which it is					
Exploratory Test Mode:  Charge + Transmitting mode.  Pretest the EUT at Charge +Transmitting mode.  Through Pre-scan, find the  1Mbps of rate is the worst case of 802.11B;  6Mbps of rate is the worst case of 802.11G;  6.5Mbps of rate is the worst case of 802.11N(HT20);  13.5Mbps of rate is the worst case of 802.11N(HT40).  Only the worst case is recorded in the report.		1.					
Charge + Transmitting mode.  Pretest the EUT at Charge +Transmitting mode.  Through Pre-scan, find the  1Mbps of rate is the worst case of 802.11B;  6Mbps of rate is the worst case of 802.11G;  6.5Mbps of rate is the worst case of 802.11N(HT20);  13.5Mbps of rate is the worst case of 802.11N(HT40).  Only the worst case is recorded in the report.	Exploratory Tost Modo:	Transmitting with all kind of modulations, data rates.					
Through Pre-scan, find the  1Mbps of rate is the worst case of 802.11B;  6Mbps of rate is the worst case of 802.11G;  6.5Mbps of rate is the worst case of 802.11N(HT20);  13.5Mbps of rate is the worst case of 802.11N(HT40).  Only the worst case is recorded in the report.	Exploratory rest Mode.	Charge + Transmitting mode.					
1Mbps of rate is the worst case of 802.11B; 6Mbps of rate is the worst case of 802.11G; 6.5Mbps of rate is the worst case of 802.11N(HT20); 13.5Mbps of rate is the worst case of 802.11N(HT40). Only the worst case is recorded in the report.		Pretest the EUT at Charge +Transmitting mode.					
Final Test Mode:  6Mbps of rate is the worst case of 802.11G; 6.5Mbps of rate is the worst case of 802.11N(HT20); 13.5Mbps of rate is the worst case of 802.11N(HT40). Only the worst case is recorded in the report.		Through Pre-scan, find the					
6.5Mbps of rate is the worst case of 802.11N(HT20); 13.5Mbps of rate is the worst case of 802.11N(HT40). Only the worst case is recorded in the report.		1Mbps of rate is the worst case of 802.11B;					
13.5Mbps of rate is the worst case of 802.11N(HT40).  Only the worst case is recorded in the report.	Final Test Mode:	6Mbps of rate is the worst case of 802.11G;					
Only the worst case is recorded in the report.		6.5Mbps of rate is the worst case of 802.11N(HT20);					
		13.5Mbps of rate is the worst case of 802.11N(HT40).					
Instruments Used: Refer to section 5.10 for details							
	Instruments Used:	Refer to section 5.10 for details					
Test Results: Pass	Test Results:	Pass					



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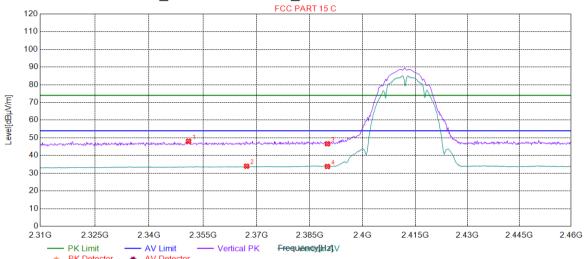
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#### Test plot as follows:

#### 4.10.1 ANT1

#### 802.11B\_Lowest Channel\_ Vertical 4.10.1.1



Susp	Suspected List										
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Delevity			
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity			
1	2350.9910	48.05	1.07	74.00	25.95	150	75	Vertical			
2	2367.2072	33.97	1.15	54.00	20.03	150	177	Vertical			
3	2390.0000	46.64	1.25	74.00	27.36	150	137	Vertical			
4	2390.0000	33.80	1.25	54.00	20.20	150	12	Vertical			

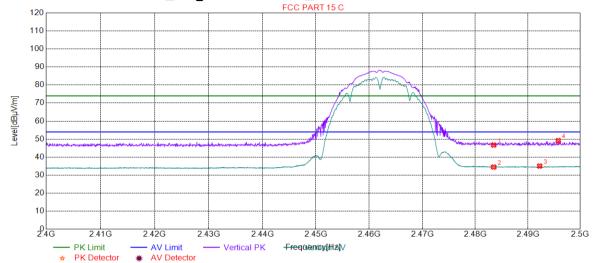




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### 4.10.1.2 802.11B\_ Highest Channel\_ Vertical



Suspected List										
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dalasitus		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2483.5000	46.70	1.52	74.00	27.30	150	61	Vertical		
2	2483.5000	34.50	1.52	54.00	19.50	150	339	Vertical		
3	2492.2461	35.05	1.55	54.00	18.95	150	92	Vertical		
4	2495.7979	49.17	1.56	74.00	24.83	150	177	Vertical		



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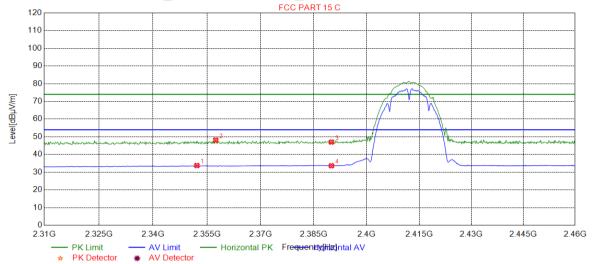
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#### 4.10.1.3 802.11B\_Lowest Channel\_ Horizontal



Susp	Suspected List										
NO.	Freq.	Level	Factor	Limit	Margin	Height	Angle	Polarity			
110.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	rolanty			
1	2352.1922	33.76	1.08	54.00	20.24	150	51	Horizontal			
2	2357.4474	48.15	1.10	74.00	25.85	150	17	Horizontal			
3	2390.0000	47.02	1.25	74.00	26.98	150	23	Horizontal			
4	2390.0000	33.64	1.25	54.00	20.36	150	26	Horizontal			

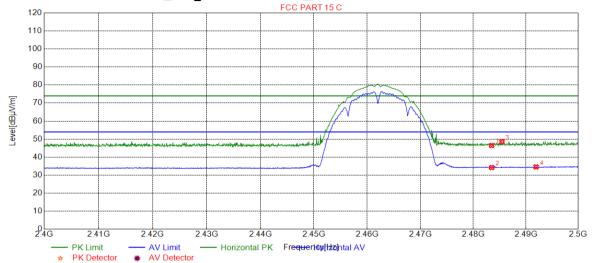




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### 4.10.1.4 802.11B\_ Highest Channel\_ Horizontal



Susp	Suspected List									
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Data		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2483.5000	46.46	1.52	74.00	27.54	150	48	Horizontal		
2	2483.5000	34.25	1.52	54.00	19.75	150	147	Horizontal		
3	2485.4427	48.58	1.53	74.00	25.42	150	185	Horizontal		
4	2491.9460	34.57	1.55	54.00	19.43	150	14	Horizontal		

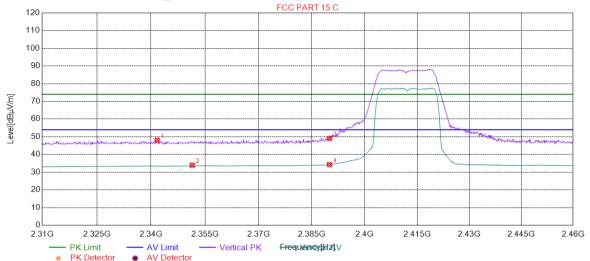




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### 4.10.1.5 802.11G\_Lowest Channel\_ Vertical



Susp	Suspected List									
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dalasitus		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2341.6817	48.07	1.03	74.00	25.93	150	80	Vertical		
2	2351.4414	33.97	1.08	54.00	20.03	150	21	Vertical		
3	2390.0000	49.11	1.25	74.00	24.89	150	42	Vertical		
4	2390.0000	34.28	1.25	54.00	19.72	150	180	Vertical		



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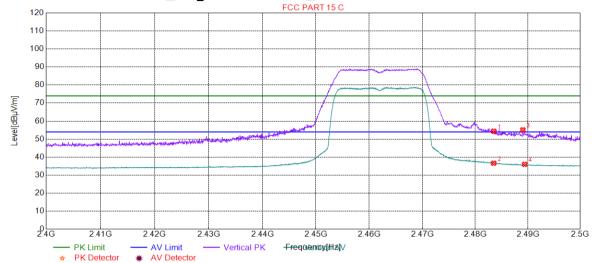
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### 4.10.1.6 802.11G\_ Highest Channel\_ Vertical



Susp	Suspected List									
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Daladi		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2483.5000	54.42	1.52	74.00	19.58	150	31	Vertical		
2	2483.5000	36.64	1.52	54.00	17.36	150	31	Vertical		
3	2489.0445	55.13	1.54	74.00	18.87	150	346	Vertical		
4	2489.3947	36.01	1.54	54.00	17.99	150	290	Vertical		



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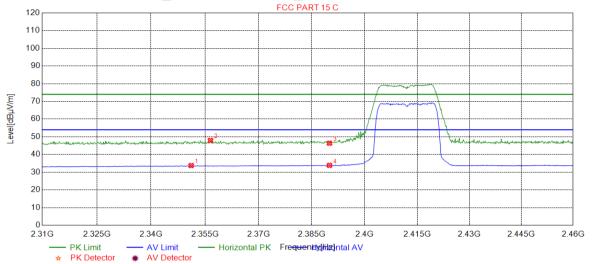
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#### 4.10.1.7 802.11G\_Lowest Channel\_ Horizontal



Susp	Suspected List									
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Data		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2351.1411	33.76	1.08	54.00	20.24	150	116	Horizontal		
2	2356.5465	47.95	1.10	74.00	26.05	150	263	Horizontal		
3	2390.0000	46.39	1.25	74.00	27.61	150	14	Horizontal		
4	2390.0000	33.87	1.25	54.00	20.13	150	266	Horizontal		

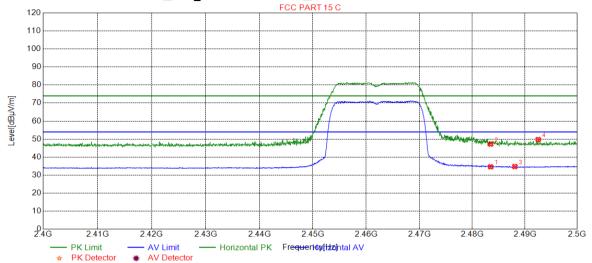




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#### 4.10.1.8 802.11G\_ Highest Channel\_ Horizontal



Susp	Suspected List									
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dolovitu		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2483.5000	34.63	1.52	54.00	19.37	150	247	Horizontal		
2	2483.5000	47.22	1.52	74.00	26.78	150	106	Horizontal		
3	2488.0940	34.78	1.54	54.00	19.22	150	244	Horizontal		
4	2492.5463	49.77	1.55	74.00	24.23	150	244	Horizontal		

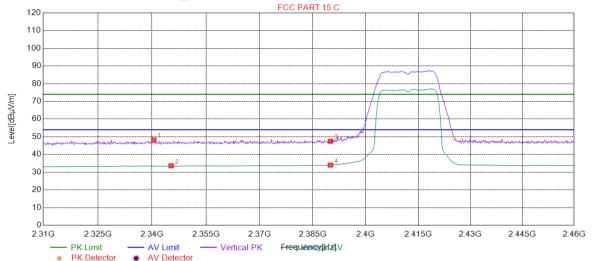




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### 4.10.1.9 802.11N20\_Lowest Channel\_ Vertical



Susp	Suspected List									
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dalasitu		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2340.4805	48.22	1.03	74.00	25.78	150	292	Vertical		
2	2345.2853	33.60	1.05	54.00	20.40	150	231	Vertical		
3	2390.0000	47.47	1.25	74.00	26.53	150	176	Vertical		
4	2390.0000	34.02	1.25	54.00	19.98	150	198	Vertical		



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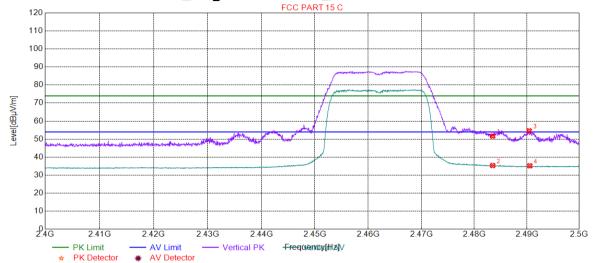
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#### 4.10.1.10 802.11N20\_ Highest Channel\_ Vertical



Susp	Suspected List										
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Daladi			
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity			
1	2483.5000	51.70	1.52	74.00	22.30	150	324	Vertical			
2	2483.5000	35.36	1.52	54.00	18.64	150	108	Vertical			
3	2490.4452	54.60	1.54	74.00	19.40	150	319	Vertical			
4	2490.5453	35.19	1.54	54.00	18.81	150	100	Vertical			



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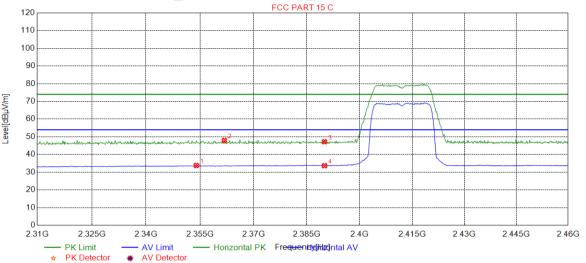
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#### 4.10.1.11 802.11N20\_Lowest Channel\_ Horizontal



Susp	Suspected List									
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dolovitu		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2353.9940	33.78	1.09	54.00	20.22	150	168	Horizontal		
2	2361.8018	47.98	1.12	74.00	26.02	150	96	Horizontal		
3	2390.0000	47.23	1.25	74.00	26.77	150	278	Horizontal		
4	2390.0000	33.67	1.25	54.00	20.33	150	219	Horizontal		

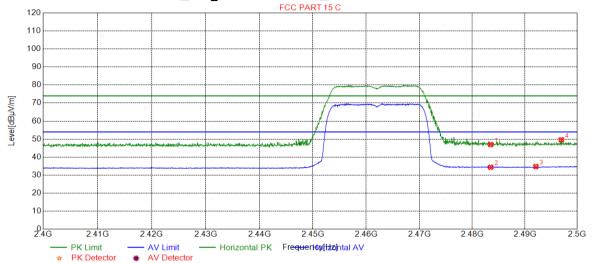




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#### 4.10.1.12 802.11N20\_ Highest Channel\_ Horizontal



Susp	Suspected List									
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dalasita		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2483.5000	46.98	1.52	74.00	27.02	150	247	Horizontal		
2	2483.5000	34.40	1.52	54.00	19.60	150	14	Horizontal		
3	2492.0960	34.78	1.55	54.00	19.22	150	262	Horizontal		
4	2496.9485	49.65	1.56	74.00	24.35	150	14	Horizontal		

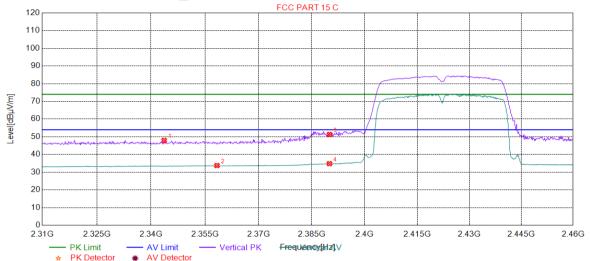




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### 4.10.1.13 802.11N40\_Lowest Channel\_ Vertical



Susp	Suspected List									
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Dalasitus		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2343.6336	47.94	1.04	74.00	26.06	150	231	Vertical		
2	2358.3483	33.75	1.11	54.00	20.25	150	52	Vertical		
3	2390.0000	51.34	1.25	74.00	22.66	150	146	Vertical		
4	2390.0000	34.83	1.25	54.00	19.17	150	319	Vertical		

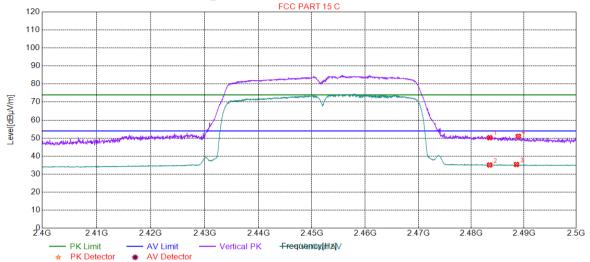




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### 4.10.1.14 802.11N40\_ Highest Channel\_ Vertical



Susp	Suspected List									
NO	Freq.	Level	Factor	Limit	Margin	Height	Angle	Daladi		
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity		
1	2483.5000	50.24	1.52	74.00	23.76	150	2	Vertical		
2	2483.5000	35.10	1.52	54.00	18.90	150	100	Vertical		
3	2488.5943	35.38	1.54	54.00	18.62	150	293	Vertical		
4	2488.9445	50.97	1.54	74.00	23.03	150	2	Vertical		



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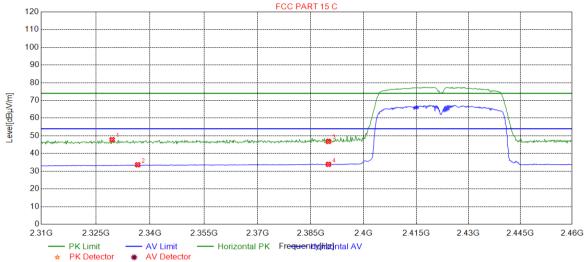
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#### 4.10.1.15 802.11N40\_Lowest Channel\_ Horizontal



Susp	Suspected List								
	Freq.	Level	Factor	Limit	Margin	Height	Angle	D 1 ''	
NO.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	Polarity	
1	2329.5195	47.82	0.98	74.00	26.18	150	22	Horizontal	
2	2336.5766	33.62	1.01	54.00	20.38	150	240	Horizontal	
3	2390.0000	46.85	1.25	74.00	27.15	150	62	Horizontal	
4	2390.0000	33.88	1.25	54.00	20.12	150	243	Horizontal	



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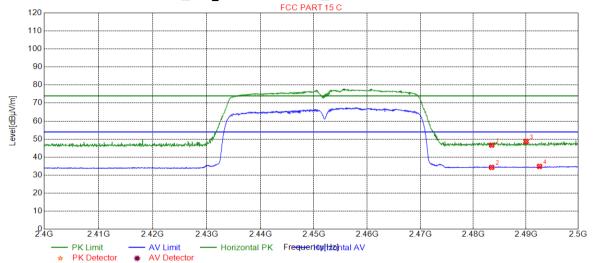
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#### 4.10.1.16 802.11N40\_ Highest Channel\_ Horizontal



Suspected List								
NO.	Freq.	Level	Factor	Limit	Margin	Height	Angle	Polarity
140.	[MHz]	[dBµV/m]	[dB]	[dBµV/m]	[dB]	[cm]	[°]	rolanty
1	2483.5000	46.67	1.52	74.00	27.33	150	166	Horizontal
2	2483.5000	34.32	1.52	54.00	19.68	150	98	Horizontal
3	2490.0450	48.74	1.54	74.00	25.26	150	56	Horizontal
4	2492.5963	34.86	1.55	54.00	19.14	150	94	Horizontal

#### Remark:

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

All Modes have been tested, but only the worst case data displayed in this report.



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### 5 Measurement Uncertainty (95% confidence levels, k=2)

No.	Item	Measurement Uncertainty		
1	Total RF power, conducted	±0.75dB		
2	RF power density, conducted	±2.84dB		
3	Spurious emissions, conducted	±0.75dB		
4	Dedicted Courieus emission test	±4.5dB (30MHz-1GHz)		
4	Radiated Spurious emission test	±4.8dB (1GHz-25GHz)		
5	Conduct emission test	±3.12 dB (9KHz- 30MHz)		
6	Temperature test	±1°C		
7	Humidity test	±3%		
8	DC and low frequency voltages	±0.5%		



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### 6 Equipment List

Conducted Emission								
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal.Duedate			
rest Equipment	Manufacturer	Woder No.	inventory No.	(yyyy-mm-dd)	(yyyy-mm-dd)			
Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2017/5/10	2020/5/9			
LISN	Rohde & Schwarz	ENV216	SEM007-01	2018/9/2	2019/9/2			
LISN	ETS-LINDGREN	Feb-16	SEM007-02	2018/4/2	2019/4/1			
Measurement Software	AUDIX	e3 V5.4.1221d	N/A	N/A	N/A			
Coaxial Cable	SGS	N/A	SEM024-01	2018/7/12	2019/7/11			
2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T2-02	EMC0122	2019/2/11	2020/2/10			
EMI Test Receiver	Rohde & Schwarz	ESCI	SEM004-02	2018/4/2	2019/4/1			

RF conducted test								
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal.Duedate			
rest Equipment	Wallulacturei	Woder No.	inventory No.	(yyyy-mm-dd)	(yyyy-mm-dd)			
DC Power Supply	Agilent Technologies Inc	66311B	W009-09	2018/9/15	2019/9/15			
Signal Analyzer	Rohde & Schwarz	FSV	W025-05	2018/3/13	2019/3/12			
Coaxial Cable	SGS	N/A	SEM031-01	2018/7/13	2019/7/12			
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A			
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2018/9/2	2019/9/2			
Temperature Chamber	GIANT FORCE	ICT-150-40-CP-AR	W027-03	2018/11/27	2019/11/27			
Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2018/9/2	2019/9/2			

RE in Chamber								
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal.Due date			
rest Equipment	Manufacturer	wiodei No.	inventory No.	(yyyy-mm-dd)	(yyyy-mm-dd)			
3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEM001-01	2017/8/5	2020/8/4			
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A			
Coaxial Cable	SGS	N/A	SEM025-01	2018/7/12	2019/7/11			
MXE EMI Receiver (20Hz- 8.4GHz)	Agilent Technologies	N9038A	SEM004-05	2018/9/2	2019/9/2			
BiConiLog Antenna (26- 3000MHz)	ETS-LINDGREN	3142C	SEM003-01	2017/6/27	2020/6/26			
Pre-amplifier (0.1-1.3GHz)	Agilent Technologies	8447D	SEM005-01	2018/4/2	2019/4/1			

RE in Chamber								
Test Equipment	Manufacturer	Model No.	Inventory No	Cal. date	Cal.Due date			
Test Equipment	wanufacturer	woder no.	Inventory No.	(yyyy-mm-dd)	(yyyy-mm-dd)			
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018/3/13	2021/3/12			
Measurement Software	AUDIX	e3V8.2014-6-27	N/A	N/A	N/A			
Coaxial Cable	SGS	N/A	SEM026-01	2018/7/12	2019/7/11			
EXA Signal Analyzer (10Hz- 26.5GHz)	Agilent Technologies Inc	N9010A	SEM004-09	2018/4/13	2019/4/12			
BiConiLog Antenna (26- 3000MHz)	ETS-Lindgren	3142C	SEM003-01	2017/6/27	2020/6/26			
Horn Antenna (0.8-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2018/4/13	2021/4/12			
Pre-amplifier(0.1-1.3GHz)	HP	8447D	SEM005-02	2018/9/2	2019/9/2			
Low Noise Amplifier(100MHz-18GHz)	Black Diamond Series	BDLNA-0118- 352810	SEM005-05	2018/9/27	2019/9/27			
Pre-amplifier(18-26GHz)	Rohde & Schwarz	CH14-H052	SEM005-17	2018/4/2	2019/4/1			
Band filter	N/A	N/A	SEM023-01	N/A	N/A			



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#### 7 **Photographs - EUT Constructional Details**

Refer to Appendix A - Photographs of EUT Constructional Details for ZR/2019/10012.

The End

