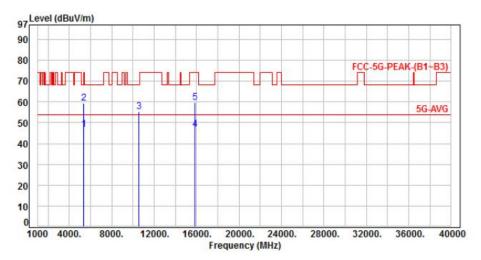
Power	:	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode	:	Mode 6, Band 2, CH54	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5350.00	5.07	41.69	46.76	54.00	-7.24	Average	220	317	Р
2	5350.00	5.07	54.46	59.53	74.00	-14.47	Peak	220	317	P
3	10540.00	11.78	43.39	55.17	68.20	-13.03	Peak	105	180	P
4	15810.00	13.56	33.17	46.73	54.00	-7.27	Average	131	112	P
5	15810.00	13.56	46.28	59.84	74.00	-14.16	Peak	131	112	P

Factor=Antenna Factor + cable loss - Amplifier Factor

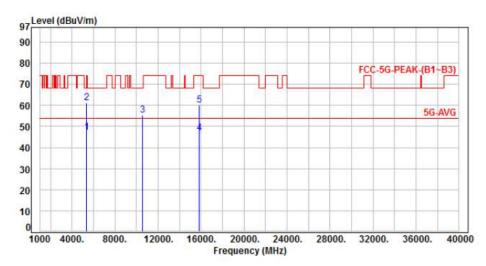
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Power	:	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode	:	Mode 6, Band 2, CH54	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5350.00	5.07	42.02	47.09	54.00	-6.91	Average	100	5	P
2	5350.00	5.07	56.09	61.16	74.00	-12.84	Peak	100	5	P
3	10540.00	11.78	43.56	55.34	68.20	-12.86	Peak	100	325	P
4	15810.00	13.56	33.15	46.71	54.00	-7.29	Average	121	290	P
5	15810.00	13.56	46.40	59.96	74.00	-14.04	Peak	121	290	P

Factor=Antenna Factor + cable loss - Amplifier Factor

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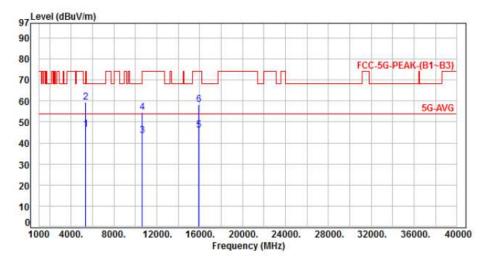
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Test Mode

Power : AC 120V / 60Hz Pol/Phase : VERTICAL

Mode 6, Band 2, CH62



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	(dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5350.00	5.07	41.58	46.65	54.00	-7.35	Average	225	324	Р
2	5350.00	5.07	54.42	59.49	74.00	-14.51	Peak	225	324	P
3	10620.00	11.95	31.51	43.46	54.00	-10.54	Average	106	149	P
4	10620.00	11.95	42.62	54.57	74.00	-19.43	Peak	106	149	P
5	15930.00	13.52	32.49	46.01	54.00	-7.99	Average	100	303	P
6	15930.00	13.52	44.91	58.43	74.00	-15.57	Peak	100	303	P

Note: Level=Reading+Factor Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

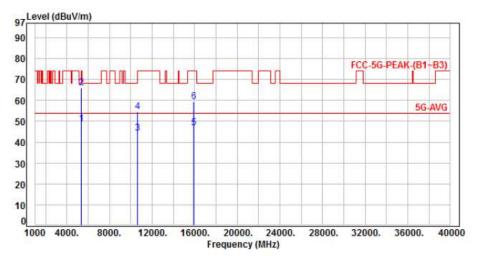
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Power	:	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode	:	Mode 6, Band 2, CH62	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (d8)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5350.00	5.07	43.50	48.57	54.00	-5.43	Average	100	11	Р
2	5350.00	5.07	61.00	66.07	74.00	-7.93	Peak	100	11	P
3	10620.00	11.95	32.15	44.10	54.00	-9.90	Average	100	318	P
4	10620.00	11.95	42.73	54.68	74.00	-19.32	Peak	100	318	P
5	15930.00	13.52	33.48	47.00	54.00	-7.00	Average	109	260	P
6	15930.00	13.52	45.81	59.33	74.00	-14.67	Peak	109	260	P

Factor=Antenna Factor + cable loss - Amplifier Factor

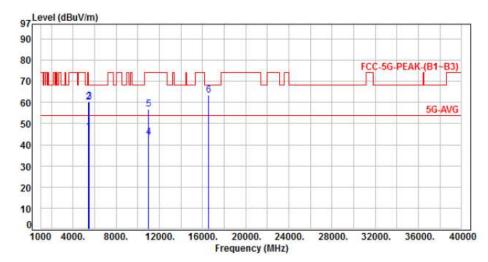
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Power	:	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode	:	Mode 6. Band 3. CH102	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5460.00	5.33	40.62	45.95	54.00	-8.05	Average	100	251	Р
2	5460.00	5.33	54.86	60.19	74.00	-13.81	Peak	100	251	P
3	5470.00	5.31	55.02	60.33	68.20	-7.87	Peak	100	251	P
4	11020.00	12.54	30.94	43.48	54.00	-10.52	Average	100	154	P
5	11020.00	12.54	44.19	56.73	74.00	-17.27	Peak	100	154	P
6	16530.00	15.26	48.01	63.27	68.20	-4.93	Peak	100	300	P

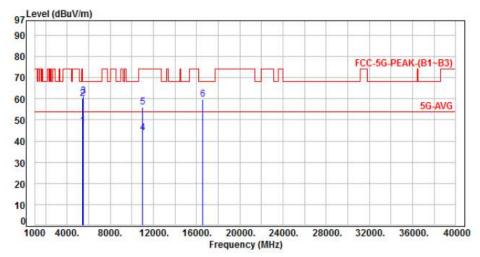
Factor=Antenna Factor + cable loss - Amplifier Factor

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Power	:	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode	:	Mode 6, Band 3, CH102	:	



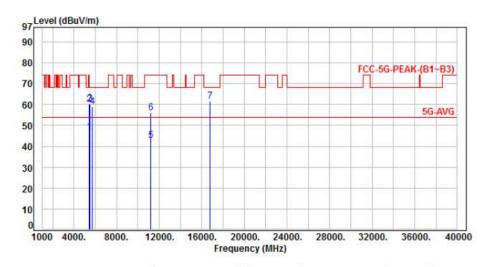
No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5460.00	5.33	41.84	47.17	54.00	-6.83	Average	100	283	Р
2	5460.00	5.33	54.78	60.11	74.00	-13.89	Peak	100	283	P
3	5470.00	5.31	55.81	61.12	68.20	-7.08	Peak	100	283	P
4	11020.00	12.54	31.36	43.90	54.00	-10.10	Average	100	356	P
5	11020.00	12.54	43.58	56.12	74.00	-17.88	Peak	100	356	P
6	16530.00	15.26	44.52	59.78	68.20	-8.42	Peak	100	132	P

Factor=Antenna Factor + cable loss - Amplifier Factor

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FCC ID. : 2AEUPBHACP021

Power	:	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode	:	Mode 6, Band 3, CH118	:	



		ding Level uV) (dBuV/m		Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
160.00 5	.33 41	.38 46.71	54.00	-7.29	Average	100	95	P
160.00 5	.33 54	.87 60.20	74.00	-13.80	Peak	100	95	P
170.00 5	.31 55	.31 60.62	68.20	-7.58	Peak	100	95	P
725.00 5	.19 53	.74 58.93	68.20	-9.27	Peak	100	221	P
180.00 12	.71 29	.96 42.67	54.00	-11.33	Average	100	115	P
180.00 12	.71 43	.37 56.08	74.00	-17.92	Peak	100	115	P
770.00 16	.72 44	.93 61.65	68.20	-6.55	Peak	100	156	P
7	70.00 5 25.00 5 80.00 12 80.00 12	70.00 5.31 55 25.00 5.19 53 80.00 12.71 29 80.00 12.71 43	70.00 5.31 55.31 60.62 25.00 5.19 53.74 58.93 80.00 12.71 29.96 42.67 80.00 12.71 43.37 56.08	70.00 5.31 55.31 60.62 68.20 25.00 5.19 53.74 58.93 68.20 80.00 12.71 29.96 42.67 54.00 80.00 12.71 43.37 56.08 74.00	70.00 5.31 55.31 60.62 68.20 -7.58 25.00 5.19 53.74 58.93 68.20 -9.27 80.00 12.71 29.96 42.67 54.00 -11.33 80.00 12.71 43.37 56.08 74.00 -17.92	70.00 5.31 55.31 60.62 68.20 -7.58 Peak 25.00 5.19 53.74 58.93 68.20 -9.27 Peak 80.00 12.71 29.96 42.67 54.00 -11.33 Average 80.00 12.71 43.37 56.08 74.00 -17.92 Peak	70.00 5.31 55.31 60.62 68.20 -7.58 Peak 100 25.00 5.19 53.74 58.93 68.20 -9.27 Peak 100 80.00 12.71 29.96 42.67 54.00 -11.33 Average 100 80.00 12.71 43.37 56.08 74.00 -17.92 Peak 100	70.00 5.31 55.31 60.62 68.20 -7.58 Peak 100 95 25.00 5.19 53.74 58.93 68.20 -9.27 Peak 100 221 80.00 12.71 29.96 42.67 54.00 -11.33 Average 100 115 80.00 12.71 43.37 56.08 74.00 -17.92 Peak 100 115

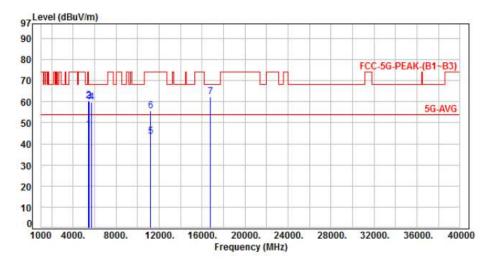
Factor=Antenna Factor + cable loss - Amplifier Factor

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Power	:	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode	•	Mode 6. Band 3. CH118	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5460.00	5.33	41.40	46.73	54.00	-7.27	Average	100	223	Р
2	5460.00	5.33	55.07	60.40	74.00	-13.60	Peak	100	223	P
3	5470.00	5.31	54.72	60.03	68.20	-8.17	Peak	100	223	P
4	5725.00	5.19	54.44	59.63	68.20	-8.57	Peak	100	158	P
5	11180.00	12.71	30.64	43.35	54.00	-10.65	Average	100	350	P
6	11180.00	12.71	43.15	55.86	74.00	-18.14	Peak	100	350	P
7	16770.00	16.72	45.43	62.15	68.20	-6.05	Peak	100	341	P

Note: Level=Reading+Factor

Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

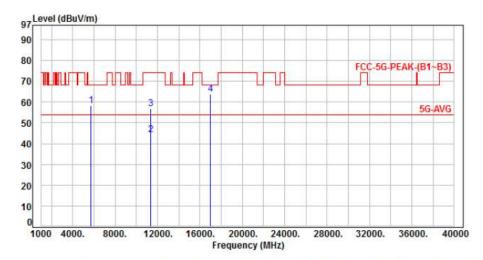
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Power	:	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode	:	Mode 6. Band 3. CH134	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5725.00	5.19	53.19	58.38	68.20	-9.82	Peak	100	238	Р
2	11340.00	12.86	31.42	44.28	54.00	-9.72	Average	100	134	P
3	11340.00	12.86	44.05	56.91	74.00	-17.09	Peak	100	134	P
4	17010.00	18.13	45.49	63.62	68.20	-4.58	Peak	100	293	P

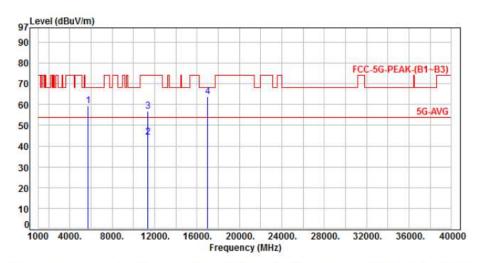
Factor=Antenna Factor + cable loss - Amplifier Factor

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FCC ID. : 2AEUPBHACP021

Power : AC 120V / 60Hz Pol/Phase : HORIZONTAL
Test Mode : Mode 6, Band 3, CH134 :



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5725.00	5.19	54.19	59.38	68.20	-8.82	Peak	100	149	P
2	11340.00	12.86	31.34	44.20	54.00	-9.80	Average	100	273	P
3	11340.00	12.86	44.12	56.98	74.00	-17.02	Peak	100	273	P
4	17010.00	18.13	45.55	63.68	68.20	-4.52	Peak	100	253	P

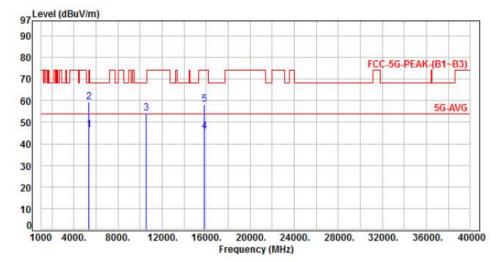
Note: Level=Reading+Factor Margin=Level-Limit

Factor=Antenna Factor + cable loss - Amplifier Factor

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FCC ID. : 2AEUPBHACP021

Power	:	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode	:	Mode 7, Band 2, CH58	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5350.00	5.07	41.50	46.57	54.00	-7.43	Average	222	233	P
2	5350.00	5.07	54.20	59.27	74.00	-14.73	Peak	222	233	P
3	10580.00	11.86	42.49	54.35	68.20	-13.85	Peak	106	173	P
4	15870.00	13.58	32.29	45.87	54.00	-8.13	Average	100	316	P
5	15870.00	13.58	44.68	58.26	74.00	-15.74	Peak	100	316	P

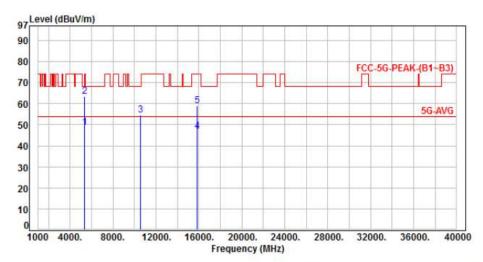
Factor=Antenna Factor + cable loss - Amplifier Factor

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Power	:	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode	:	Mode 7, Band 2, CH58	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5350.00	5.07	43.76	48.83	54.00	-5.17	Average	100	5	P
2	5350.00	5.07	58.50	63.57	74.00	-10.43	Peak	100	5	P
3	10580.00	11.86	42.59	54.45	68.20	-13.75	Peak	100	341	P
4	15870.00	13.58	33.41	46.99	54.00	-7.01	Average	116	273	P
5	15870.00	13.58	45.61	59.19	74.00	-14.81	Peak	116	273	P

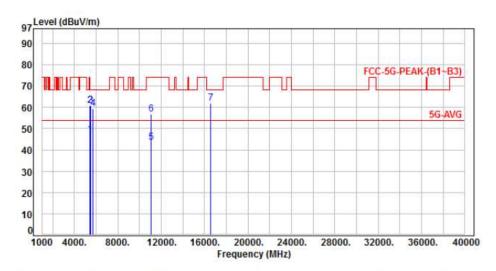
Factor=Antenna Factor + cable loss - Amplifier Factor

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Power	:	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode	:	Mode 7, Band 3, CH106	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5460.00	5.33	41.72	47.05	54.00	-6.95	Average	100	121	P
2	5460.00	5.33	55.60	60.93	74.00	-13.07	Peak	100	121	P
3	5470.00	5.31	55.49	60.80	68.20	-7.40	Peak	100	121	P
4	5725.00	5.19	54.13	59.32	68.20	-8.88	Peak	100	146	P
5	11060.00	12.60	30.77	43.37	54.00	-10.63	Average	100	157	P
6	11060.00	12.60	44.22	56.82	74.00	-17.18	Peak	100	157	P
7	16590.00	15.62	46.41	62.03	68.20	-6.17	Peak	100	100	P

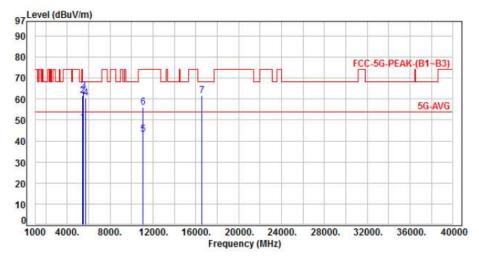
Factor=Antenna Factor + cable loss - Amplifier Factor

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Power	:	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode	:	Mode 7, Band 3, CH106	:	



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5460.00	5.33	43.20	48.53	54.00	-5.47	Average	100	8	Р
2	5460.00	5.33	56.10	61.43	74.00	-12.57	Peak	100	8	P
3	5470.00	5.31	58.59	63.90	68.20	-4.30	Peak	100	8	P
4	5725.00	5.19	55.21	60.40	68.20	-7.80	Peak	100	274	P
5	11060.00	12.60	30.54	43.14	54.00	-10.86	Average	100	130	P
6	11060.00	12.60	43.59	56.19	74.00	-17.81	Peak	100	130	P
7	16590.00	15.62	46.14	61.76	68.20	-6.44	Peak	100	188	P
7										

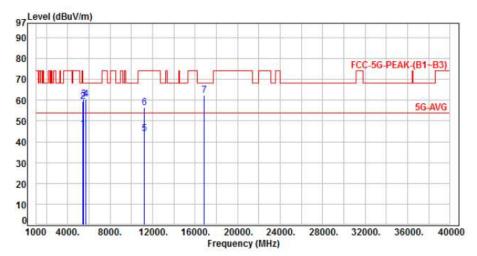
Factor=Antenna Factor + cable loss - Amplifier Factor

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Power	:	AC 120V / 60Hz	Pol/Phase :	VERTICAL
Test Mode	:	Mode 7. Band 3. CH122	:	



N	o.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F	
												-
	1	5460.00	5.33	40.78	46.11	54.00	-7.89	Average	100	310	P	
	2	5460.00	5.33	53.91	59.24	74.00	-14.76	Peak	100	310	P	
	3	5470.00	5.31	55.18	60.49	68.20	-7.71	Peak	100	310	P	
	4	5725.00	5.19	55.37	60.56	68.20	-7.64	Peak	100	155	P	
	5	11220.00	12.73	31.19	43.92	54.00	-10.08	Average	100	233	P	
	6	11220.00	12.73	43.82	56.55	74.00	-17.45	Peak	100	233	P	
	7	16830.00	17.18	45.19	62.37	68.20	-5.83	Peak	100	249	P	

Factor=Antenna Factor + cable loss - Amplifier Factor

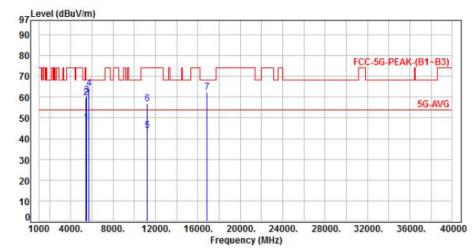
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Power	:	AC 120V / 60Hz	Pol/Phase :	HORIZONTAL
Test Mode		Mode 7 Band 3 CH122		



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg)	P/F
1	5460.00	5.33	42.07	47.40	54.00	-6.60	Average	100	263	Р
2	5460.00	5.33	54.54	59.87	74.00	-14.13	Peak	100	263	P
3	5470.00	5.31	55.71	61.02	68.20	-7.18	Peak	100	263	P
4	5725.00	5.19	59.00	64.19	68.20	-4.01	Peak	100	135	P
5	11220.00	12.73	31.12	43.85	54.00	-10.15	Average	100	105	P
6	11220.00	12.73	44.14	56.87	74.00	-17.13	Peak	100	105	P
7	16830.00	17.18	44.98	62.16	68.20	-6.04	Peak	100	227	P

Factor=Antenna Factor + cable loss - Amplifier Factor

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6.7. Restricted Bands of Operation

Only spurious emissions are permitted in any of the frequency bands listed below:

MHz	MHz	MHz	GHz
0.09000 - 0.11000	16.42000 - 16.42300	399.9 – 410.0	4.500 – 5.150
0.49500 - 0.505**	16.69475 – 16.69525	608.0 - 614.0	5.350 - 5.460
2.17350 - 2.19050	16.80425 - 16.80475	960.0 – 1240.0	7.250 – 7.750
4.12500 – 4.12800	25.50000 – 25.67000	1300.0 – 1427.0	8.025 - 8.500
4.17725 – 4.17775	37.50000 - 38.25000	1435.0 – 1626.5	9.000 - 9.200
4.20725 – 4.20775	73.00000 – 74.60000	1645.5 – 1646.5	9.300 - 9.500
6.21500 - 6.21800	74.80000 – 75.20000	1660.0 – 1710.0	10.600 – 12.700
6.26775 - 6.26825	108.00000 - 121.94000	1718.8 – 1722.2	13.250 – 13.400
6.31175 – 6.31225	123.00000 - 138.00000	2200.0 – 2300.0	14.470 – 14.500
8.29100 - 8.29400	149.90000 - 150.05000	2310.0 – 2390.0	15.350 – 16.200
8.36200 - 8.36600	156.52475 – 156.52525	2483.5 – 2500.0	17.700 – 21.400
8.37625 - 8.38675	156.70000 - 156.90000	2655.0 - 2900.0	22.010 – 23.120
8.41425 – 8.41475	162.01250 - 167.17000	3260.0 - 3267.0	23.600 – 24.000
12.29000 – 12.29300	167.72000 - 173.20000	3332.0 - 3339.0	31.200 – 31.800
12.51975 – 12.52025	240.00000 - 285.00000	3345.8 - 3358.0	36.430 – 36.500
12.57675 – 12.57725	322.00000 - 335.40000	3600.0 - 4400.0	Above 38.6
13.36000 – 13.41000			

^{**:} Until February 1, 1999, this restricted band shall be 0.490-0.510 MHz

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7. On Time, Duty Cycle and Measurement methods

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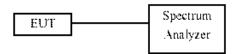
7.1. Test Limit

None; for reporting purposes only.

7.2. Test Procedure

KDB 789033 Zero-Span Spectrum Analyzer Method.

7.3. Test Setup Layout



7.4. Test Result and Data

(Non-Beamforming)

Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
802.11a,6M	2.07	2.14	96.64%
802.11ac VHT20	5.07	5.10	99.41%
802.11ac VHT40	2.48	2.53	98.10%
802.11ac VHT80	1.16	1.22	94.93%

(Beamforming)

Modulation Type	On Time (ms)	Period Time (ms)	Duty Cycle (%)
802.11ac VHT20	1.86	2.20	84.29%
802.11ac VHT40	1.73	1.99	86.65%
802.11ac VHT80	1.58	1.74	91.24%

7.5. Measurement Methods

26 dB and 6dB Emission BW	KDB 789033 D02 v01, Section C
99% Occupied BW	KDB 789033 D02 v01, Section D
Conducted Output Dower	KDB 789033 D02 v01, Section E.2.d and E.3.b
Conducted Output Power	(Method PM-G)
Power Spectral Density	KDB 789033 D02 v01, Section F
Unwanted emissions in restricted bands	KDB 789033 D02 v01, Sections G and H
Unwanted emissions in non-restricted bands	KDB 789033 D02 v01, Sections G and H

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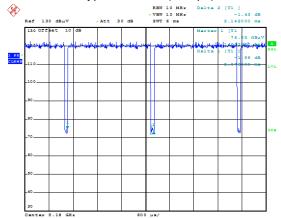
: Nov. 12, 2019



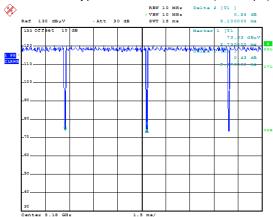


(Non-Beamforming)

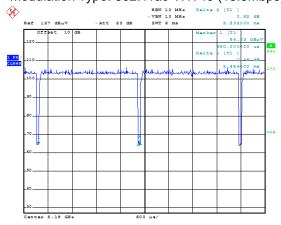
Modulation Type: 802.11a (6Mbps)



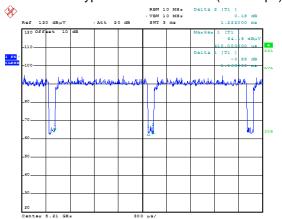
Modulation Type: 802.11ac VHT20 (6.5Mbps)



Modulation Type: 802.11ac VHT40 (13.5Mbps)



Modulation Type: 802.11ac VHT80 (29.3Mbps)

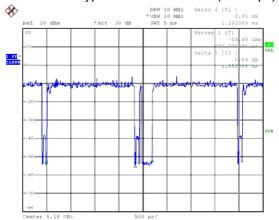


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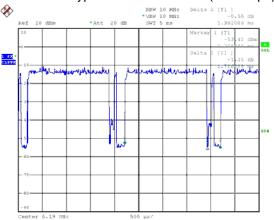
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(Beamforming)

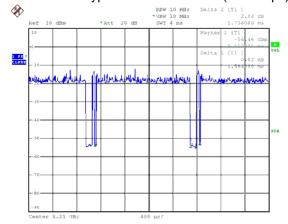
Modulation Type: 802.11ac VHT20 (6.5Mbps)



Modulation Type: 802.11ac VHT40 (13.5Mbps)



Modulation Type: 802.11ac VHT80 (29.3Mbps)



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8. 26dB Bandwidth & 99% Occupied Bandwidth

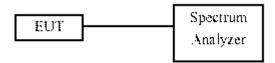
8.1. Test Limit

None; for reporting purposes only.

8.2. Test Procedure

Reference to 789033 D02 General UNII Test Procedures New Rules v01: The transmitter output is connected to a spectrum analyzer with the RBW = approximately 1% of the emission bandwidth, the VBW $>= 3 \times RBW$, peak detector and max hold.

8.3. Test Setup Layout



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8.4. Test Result and Data (26dB Bandwidth)

(Non-Beamforming)

In the 5.3G Band

Modulation Type	Channel	Frequency	26dB Bandwidth(MHz)		
	0.100.	(MHz)	ANT A	ANT B	
	52	5260	21.90	21.65	
11a	60	5300	22.20	21.65	
	64	5320	22.25	21.65	
	52	5260	23.40	23.25	
11ac VHT20	60	5300	23.60	23.10	
	64	5320	23.55	23.10	
11 oo \/ IT40	54	5270	46.30	46.70	
11ac VHT40	62	5310	45.70	46.50	
11ac VHT80	58	5290	90.24	89.12	

In the 5.5G Band

Modulation Type	Channel	Frequency	26dB Bandwidth(MHz)		
7.		(MHz)	ANT A	ANT B	
	100	5500	22.25	21.55	
11a	120	5600	21.95	21.50	
	140	5700	22.10	21.65	
	100	5500	23.55	23.20	
11ac VHT20	120	5600	23.30	23.10	
	140	5700	23.40	22.90	
	102	5510	46.30	46.20	
11ac VHT40	118	5590	46.20	46.60	
	134	5670	46.00	46.40	
11ac VHT80	106	5530	89.92	88.96	
TIAC VITTOU	122	5610	90.56	88.64	

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(Beamforming)

In the 5.3G Band

Modulation Type	Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
			ANT A	ANT B
11ac VHT20	52	5260	23.50	23.10
	60	5300	23.75	23.00
	64	5320	23.65	23.20
11ac VHT40	54	5270	46.30	46.50
	62	5310	46.30	46.80
11ac VHT80	58	5290	90.08	89.44

In the 5.5G Band

Modulation Type	Channel	Frequency (MHz)	26dB Bandwidth(MHz)	
			ANT A	ANT B
11ac VHT20	100	5500	23.55	22.95
	120	5600	23.35	22.90
	140	5700	23.65	23.15
11ac VHT40	102	5510	46.20	46.70
	118	5590	46.10	46.90
	134	5670	46.40	46.50
11ac VHT80	106	5530	90.24	88.80
	122	5610	89.12	89.28

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8.5. Test Result and Data (99% Occupied Bandwidth)

(Non-Beamforming)

In the 5.3G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth (MHz)	
			ANT A	ANT B
	36	5180	16.85	16.80
11a	44	5220	19.35	18.95
	48	5240	19.60	19.30
11ac VHT20	36	5180	18.00	17.90
	44	5220	20.50	20.05
	48	5240	20.45	20.35
11ac VHT40	38	5190	36.90	37.10
	46	5230	37.20	37.40
11ac VHT80	42	5210	76.32	76.32

In the 5.5G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)	
			ANT A	ANT B
11a	100	5500	16.85	16.70
	120	5600	16.80	16.80
	140	5700	16.85	16.80
11ac VHT20	100	5500	18.00	17.95
	120	5600	17.95	17.85
	140	5700	17.95	17.95
11ac VHT40	102	5510	37.00	37.00
	118	5590	36.80	37.00
	134	5670	36.90	37.10
11ac VHT80	106	5530	76.32	76.16
	122	5610	76.16	76.16

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(Beamforming)

In the 5.3G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth (MHz)	
			ANT A	ANT B
11ac VHT20	52	5260	18.00	18.00
	60	5300	18.00	17.95
	64	5320	17.95	17.95
11ac VHT40	54	5270	36.90	36.90
	62	5310	37.10	37.10
11ac VHT80	58	5290	76.16	76.32

In the 5.5G Band

Modulation Type	Channel	Frequency (MHz)	99% Bandwidth(MHz)	
			ANT A	ANT B
11ac VHT20	100	5500	18.00	17.90
	120	5600	17.95	17.90
	140	5700	18.00	17.90
11ac VHT40	102	5510	36.90	36.90
	118	5590	36.90	37.00
	134	5670	36.90	37.10
11ac VHT80	106	5530	76.16	76.32
	122	5610	76.16	76.16

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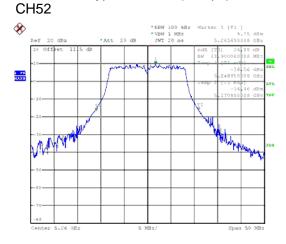
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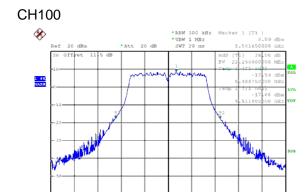
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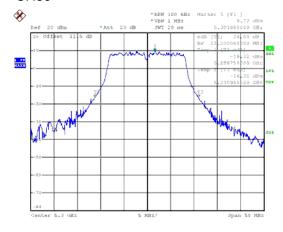
26dB Bandwidth ANT A (Non-Beamforming) Modulation Type: 802.11a (6Mbps)



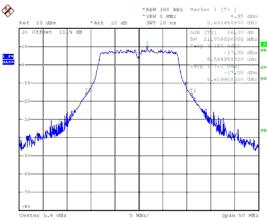


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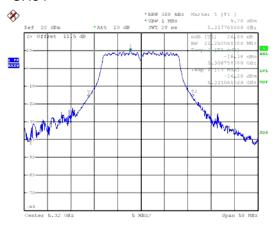
CH60



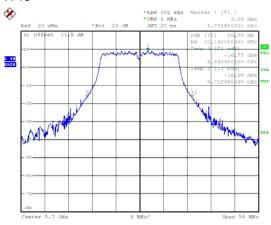
CH120



CH64



CH140



CERPASS TECHNOLOGY CORP.

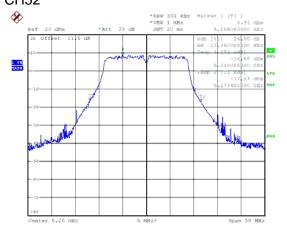
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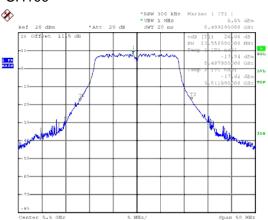




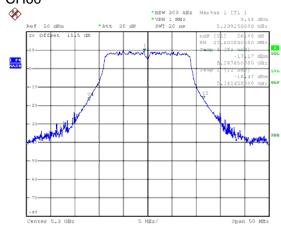
ANT A (Non-Beamforming) Modulation Type: 802.11ac VHT20 (6.5Mbps) CH52



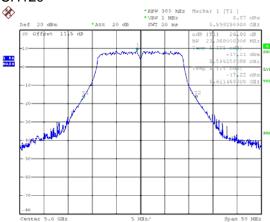
CH100



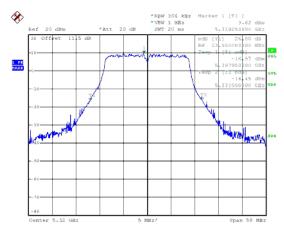
CH60



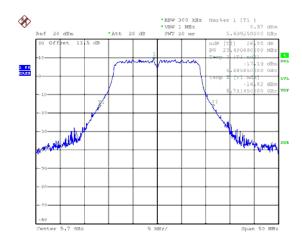
CH120



CH64



CH140



CERPASS TECHNOLOGY CORP.

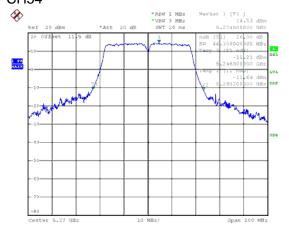
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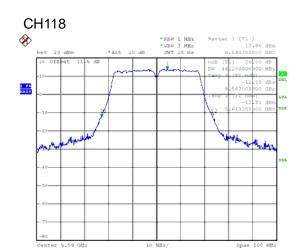
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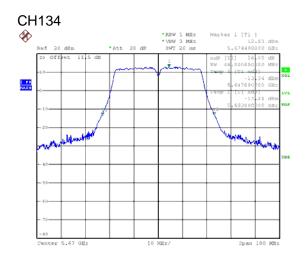


ANT A (Non-Beamforming) Modulation Type: 802.11ac VHT40 (13.5Mbps) CH54

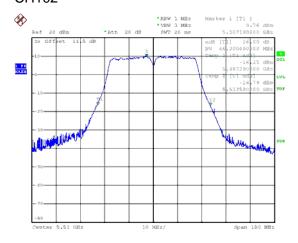




CH62 1 PK



CH102

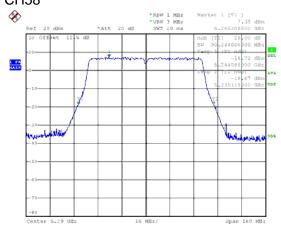


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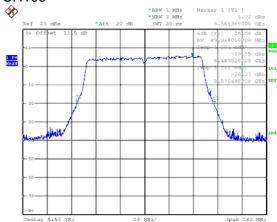
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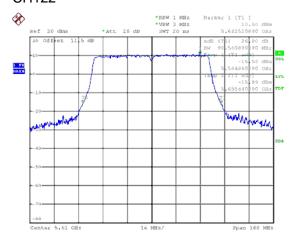
ANT A (Non-Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



CH122



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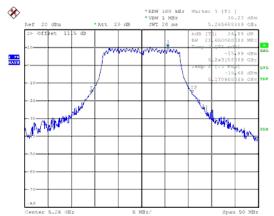
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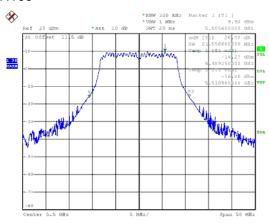


ANT B(Non-Beamforming) Modulation Type: 802.11a (6Mbps)

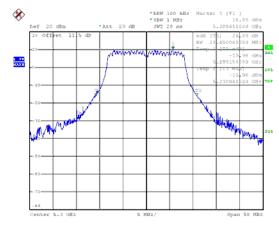




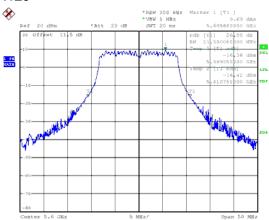
CH100



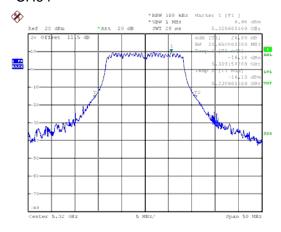
CH60



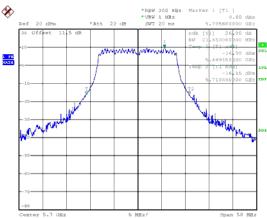
CH120



CH64



CH140



CERPASS TECHNOLOGY CORP.

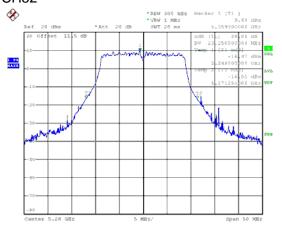
T-FD-510-0 Ver 1.2

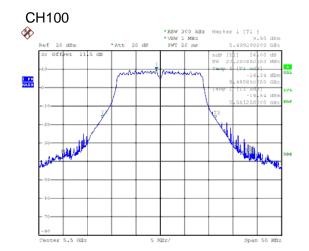
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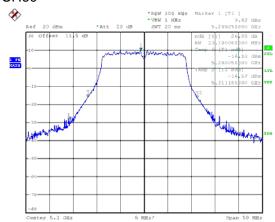


ANT B (Non-Beamforming) Modulation Type: 802.11ac VHT20 (6.5Mbps) CH52

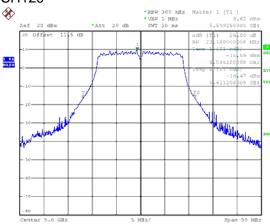




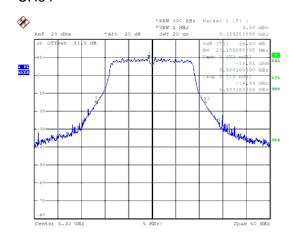
CH60



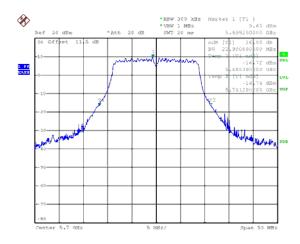




CH64



CH140



CERPASS TECHNOLOGY CORP.

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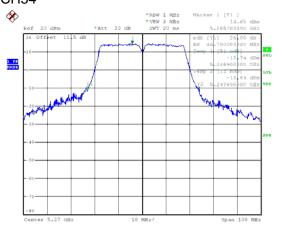
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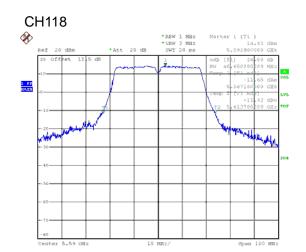


CERPASS TECHNOLOGY CORP.

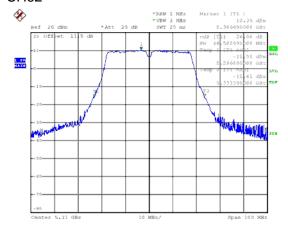
Report No.: TEFE1908104-212

ANT B (Non-Beamforming) Modulation Type: 802.11ac VHT40 (13.5Mbps) CH54

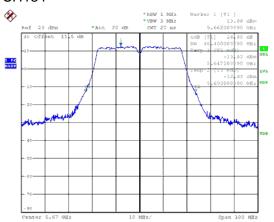




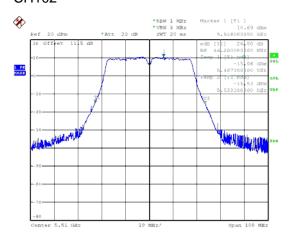
CH62



CH134



CH102

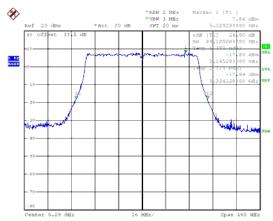


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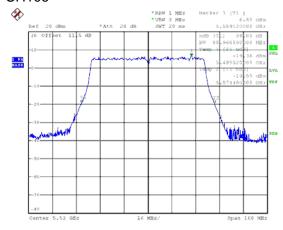
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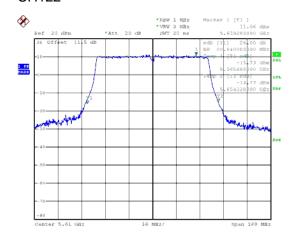
ANT B (Non-Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



CH122

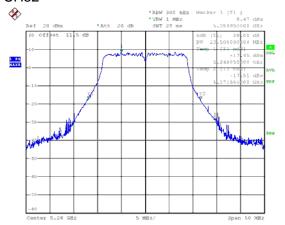


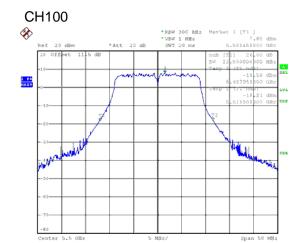
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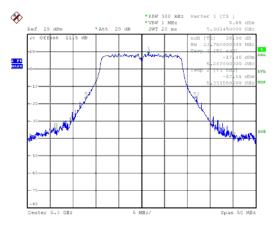


ANT A (Beamforming) Modulation Type: 802.11ac VHT20 (6.5Mbps) CH52

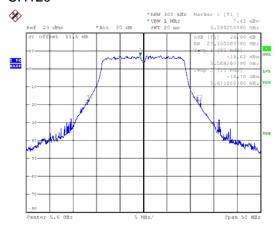




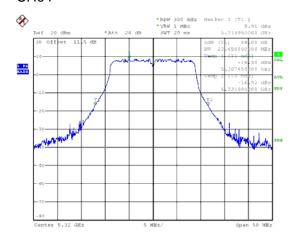
CH60



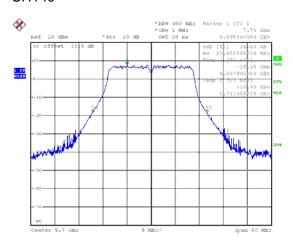
CH120



CH64



CH140



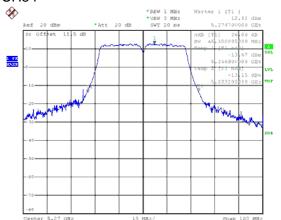
CERPASS TECHNOLOGY CORP.

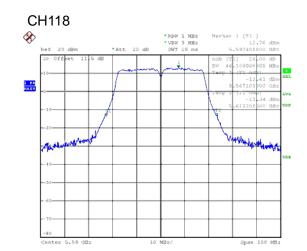
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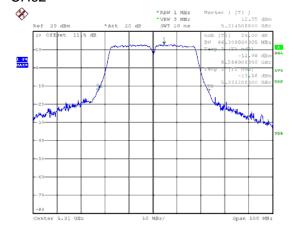


ANT A (Beamforming) Modulation Type: 802.11ac VHT40 (13.5Mbps) CH54

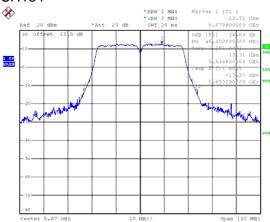




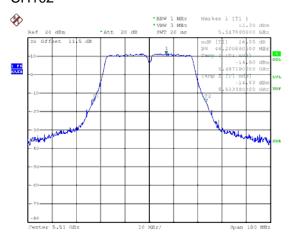
CH62



CH134



CH102

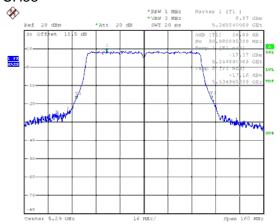


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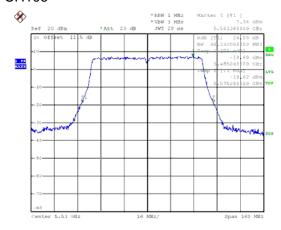
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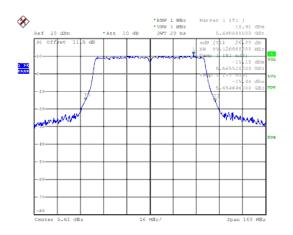
ANT A (Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



CH122



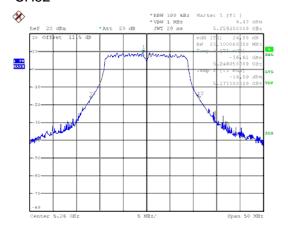
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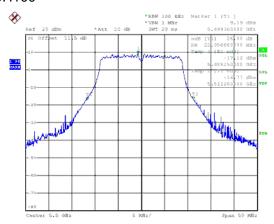




ANT B(Beamforming)
Modulation Type: 802.11ac VHT20 (6.5Mbps) CH52

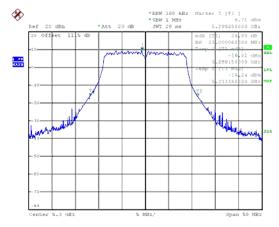


CH100

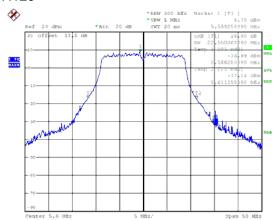


Report No.: TEFE1908104-212

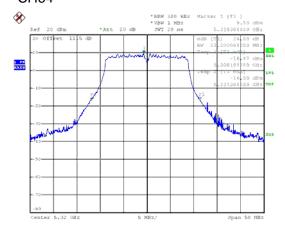
CH60



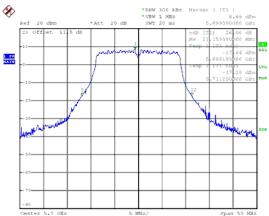
CH120



CH64



CH140



CERPASS TECHNOLOGY CORP.

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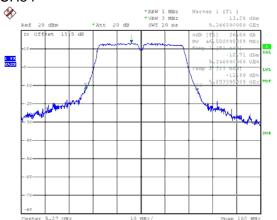
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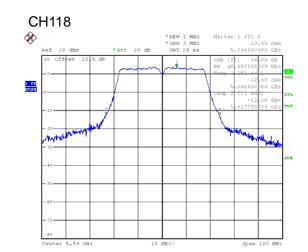


CERPASS TECHNOLOGY CORP.

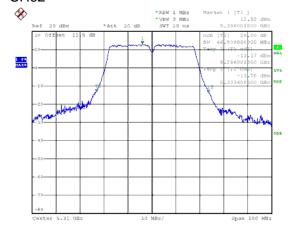
Report No.: TEFE1908104-212

ANT B (Beamforming) Modulation Type: 802.11ac VHT40 (13.5Mbps) CH54

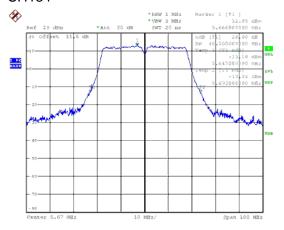




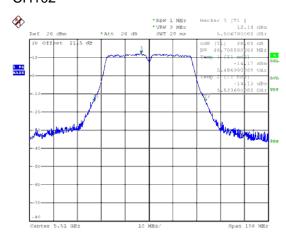
CH62



CH134



CH102

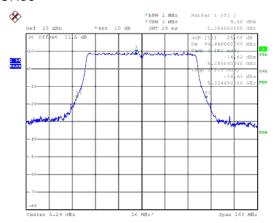


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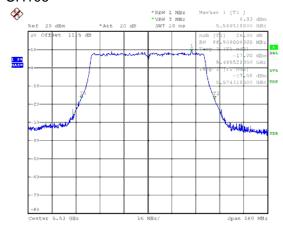
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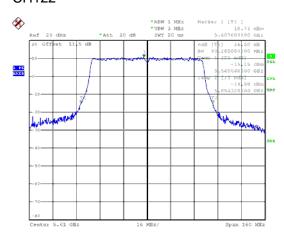
ANT B (Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



CH122



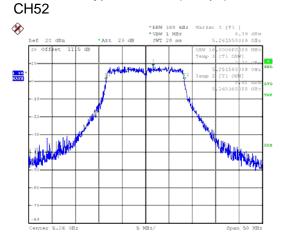
T-FD-510-0 Ver 1.2

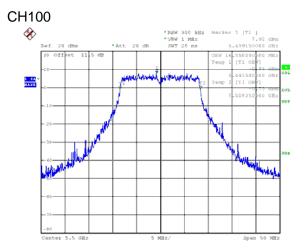
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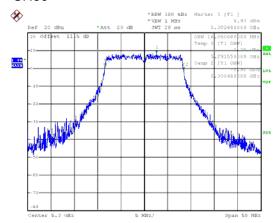


99% Occupied Bandwidth ANT A (Non-Beamforming) Modulation Type: 802.11a (6Mbps)

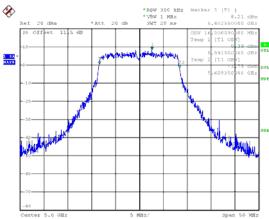




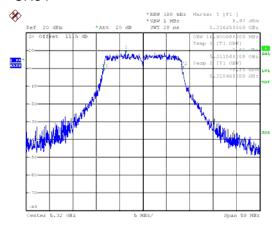
CH60



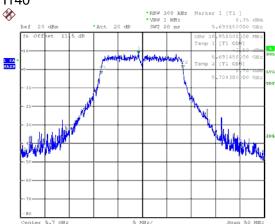
CH120



CH64



CH140



CERPASS TECHNOLOGY CORP.

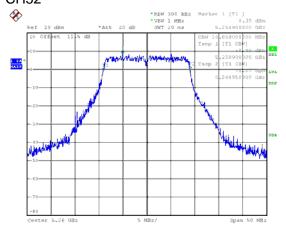
T-FD-510-0 Ver 1.2

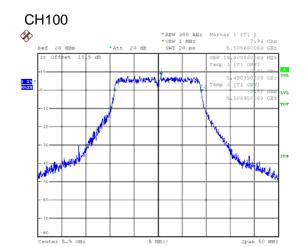
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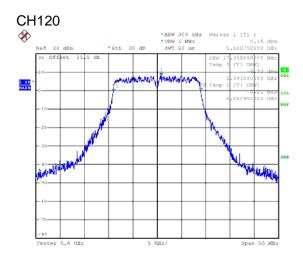


ANT A (Non-Beamforming) Modulation Type: 802.11ac VHT20 (6.5Mbps) CH52

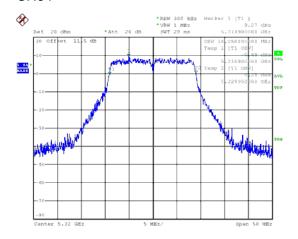




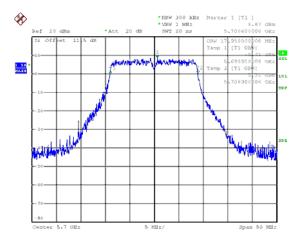
CH60 1 SA



CH64



CH140



CERPASS TECHNOLOGY CORP.

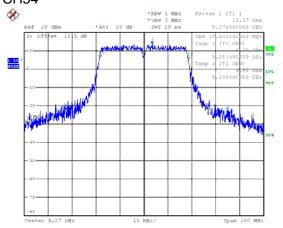
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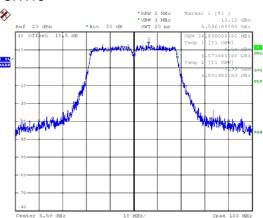


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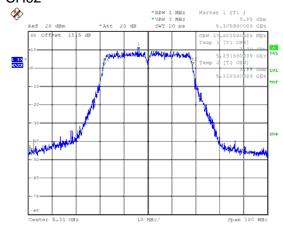
ANT A (Non-Beamforming) Modulation Type: 802.11ac VHT40 (13.5Mbps) CH54



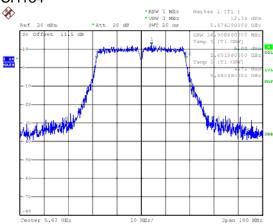
CH118



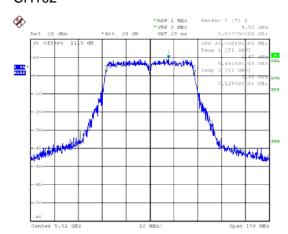
CH62



CH134



CH102



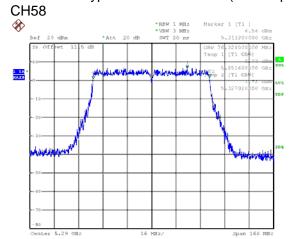
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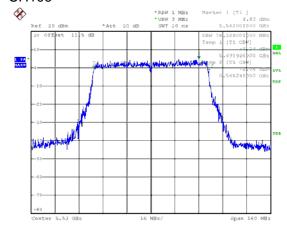


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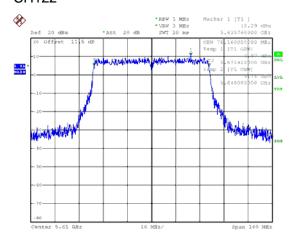
ANT A (Non-Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps)



CH106



CH122



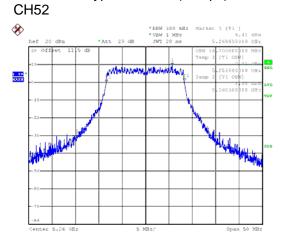
T-FD-510-0 Ver 1.2

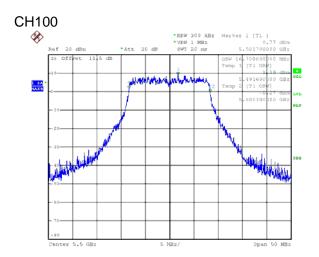
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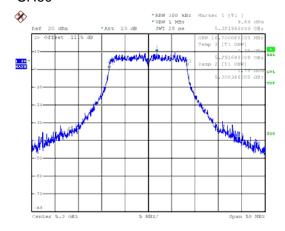


ANT B(Non-Beamforming) Modulation Type: 802.11a (6Mbps)

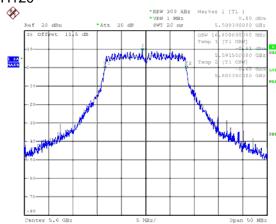




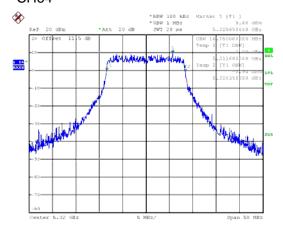
CH60



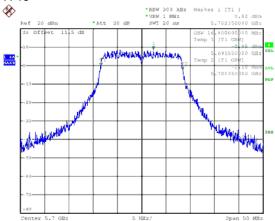




CH64



CH140



CERPASS TECHNOLOGY CORP.

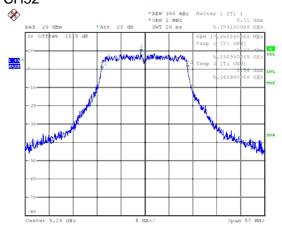
T-FD-510-0 Ver 1.2

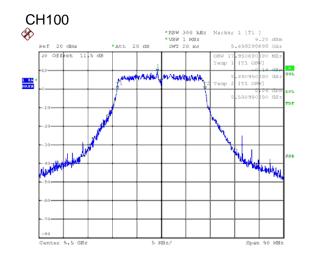
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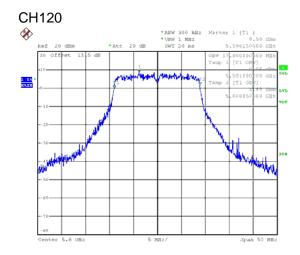


ANT B (Non-Beamforming) Modulation Type: 802.11ac VHT20 (6.5Mbps) CH52

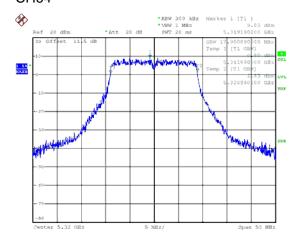




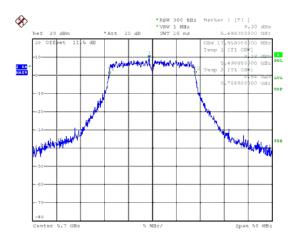
CH60 1 SA



CH64



CH140



CERPASS TECHNOLOGY CORP.

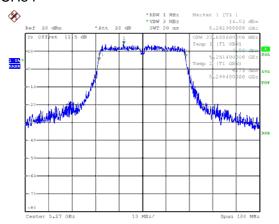
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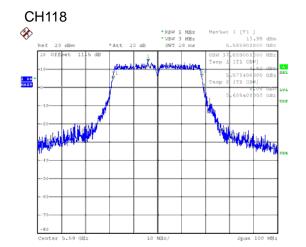
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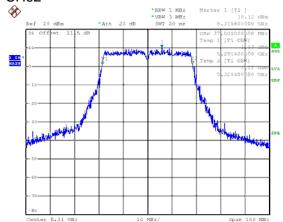


ANT B (Non-Beamforming) Modulation Type: 802.11ac VHT40 (13.5Mbps) CH54

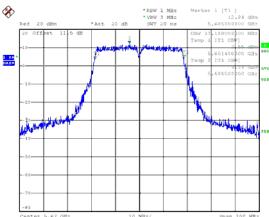




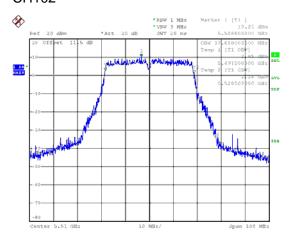
CH62



CH134



CH102

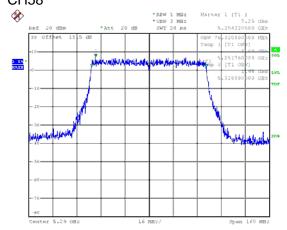


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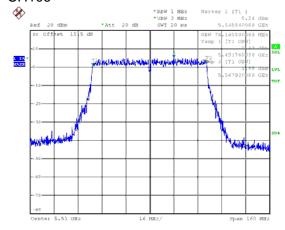
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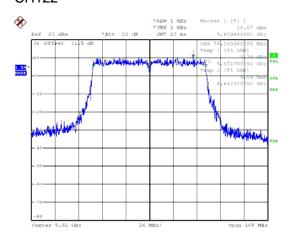
ANT B (Non-Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



CH122



CERPASS TECHNOLOGY CORP.

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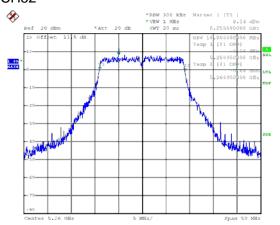
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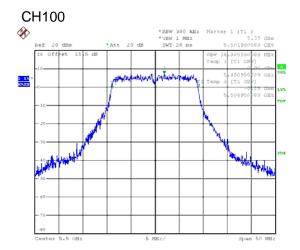




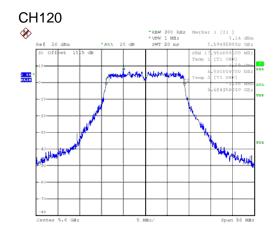
99% Occupied Bandwidth ANT A (Beamforming)

Modulation Type: 802.11ac VHT20 (6.5Mbps) CH52

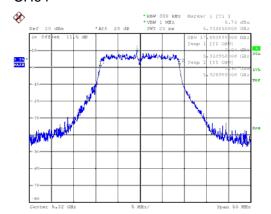




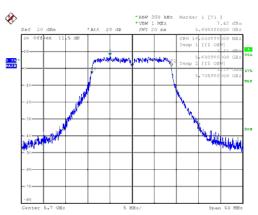
CH60







CH140



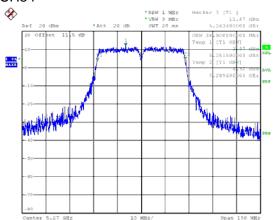
CERPASS TECHNOLOGY CORP.

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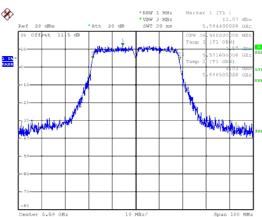
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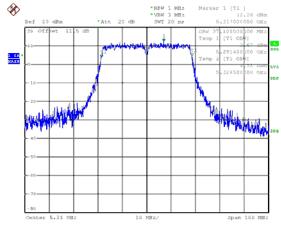
ANT A (Beamforming) Modulation Type: 802.11ac VHT40 (13.5Mbps) CH54



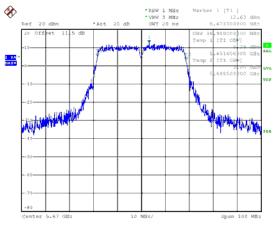
CH118



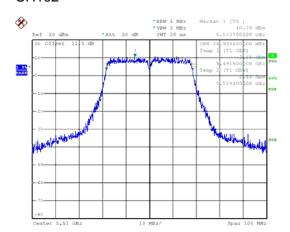
CH62



CH134



CH102

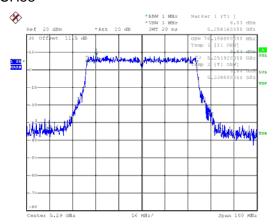


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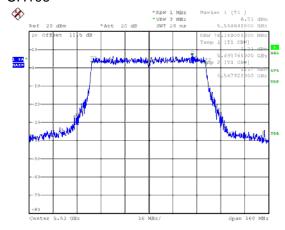
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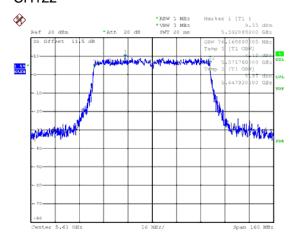
ANT A (Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



CH122



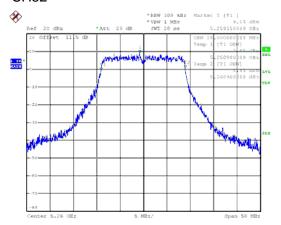
T-FD-510-0 Ver 1.2

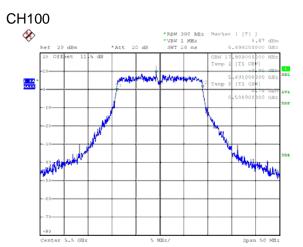
Issued date : Nov. 12, 2019 Page No. : 131 of 161



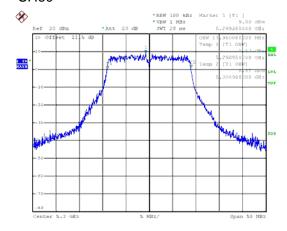


ANT B(Beamforming)
Modulation Type: 802.11ac VHT20 (6.5Mbps) CH52

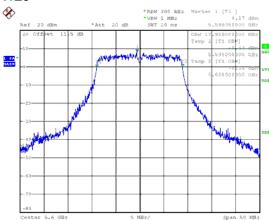




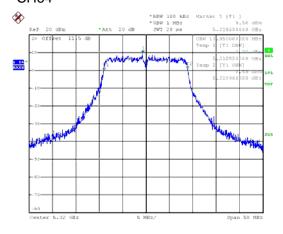
CH60



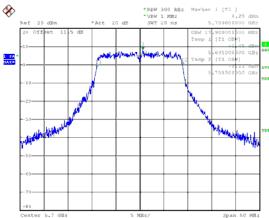
CH120



CH64



CH140



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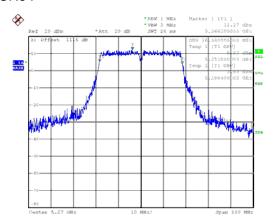
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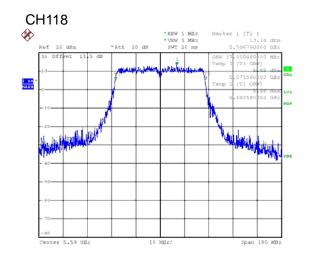
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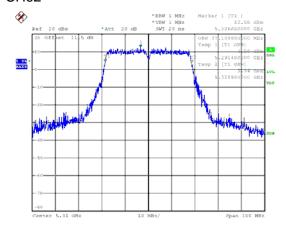


ANT B (Beamforming) Modulation Type: 802.11ac VHT40 (13.5Mbps) CH54

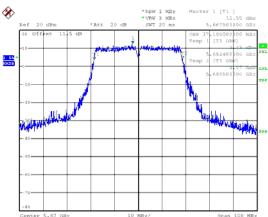




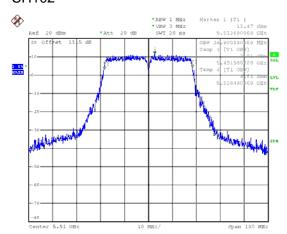
CH62



CH134



CH102

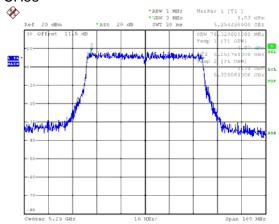


T-FD-510-0 Ver 1.2

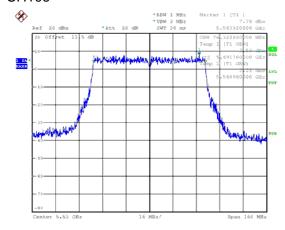
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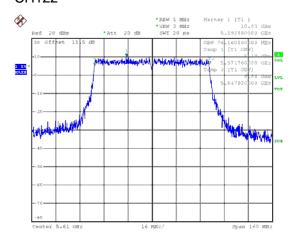
ANT B (Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



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9. Average Power

9.1. Test Limit

Output Power:

Frequ	uency	Band	Limit
	5.15	-5.25GHz	
	Oper	ating Mode	
		Outdoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30degrees as measured from the horizon must not exceed125 mW (21 dBm).
		Indoor access point	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
		Fixed point-to-point access points	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi.
		client devices	The maximum conducted output power over the frequency band of operation shall not exceed 250 mW (24dBm) provided the maximum antenna gain does not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

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:2AEUPBHACP021

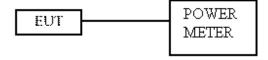
Fred	quency Band	Limit
	5.25-5.35 GHz	The maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW (24dBm) or 11 dBm 10 log B, where B is the 26 dB emission bandwidth in megahertz. If transmitting antennas of directional gain greater than 6
	5.470-5.725 GHz	dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.
	5.725~5.85 GHz	The maximum conducted output power over the frequency band of operation shall not exceed 1 W (30dBm). If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. However, fixed point-to-point U-NII devices operating in this band may employ transmitting antennas with directional gain greater than 6 dBi without any corresponding reduction in transmitter conducted power.

9.2. Test Procedure

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 11 dB (including 10 dB pad and 1 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

9.3. Test Setup Layout



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9.4. Test Result and Data

(Non-Beamforming) In the 5.3G Band

Modulation	Data Rate	Setting	Channel	Frequency (MHz)	Measured value of each antenna port (dBm)		Total power	Total power	FCC Limit
Mode	Data Nate	Octung	Onamici		ANT A	ANT B	(dBm)	(mW)	(dBm)
11a	6 Mbps	18	52	5260	17.46	17.72	20.60	114.875	24.00
11a	6 Mbps	18	60	5300	17.55	17.74	20.66	116.315	24.00
11a	6 Mbps	18	64	5320	17.86	17.74	20.81	120.523	24.00
11n HT20	MCS 0	18	52	5260	17.42	17.76	20.60	114.911	24.00
11n HT20	MCS 0	18.5	60	5300	18.01	18.12	21.08	128.105	24.00
11n HT20	MCS 0	18.5	64	5320	18.26	18.22	21.25	133.363	24.00
11n HT40	MCS 0	20.5	54	5270	20.43	20.50	23.48	222.610	24.00
11n HT40	MCS 0	16	62	5310	16.48	16.69	19.60	91.129	24.00
11ac VHT20	MCS0-NSS1	18	52	5260	17.46	17.81	20.65	116.113	24.00
11ac VHT20	MCS0-NSS1	18.5	60	5300	18.04	18.17	21.12	129.294	24.00
11ac VHT20	MCS0-NSS1	18.5	64	5320	18.32	18.24	21.29	134.601	24.00
11ac VHT40	MCS0-NSS1	20	54	5270	20.49	20.55	23.53	225.445	24.00
11ac VHT40	MCS0-NSS1	16	62	5310	16.77	16.66	19.73	93.878	24.00
11ac VHT80	MCS0-NSS1	16	58	5290	16.44	16.11	19.29	84.887	24.00

In the 5.5G Band

Modulation Mode	Data Rate	Setting	Channel	Frequency (MHz)			Total power (dBm)	Total power (mW)	FCC Limit (dBm)
					ANT A	ANT B	(==::,	(*****)	(
11a	6 Mbps	16.5	100	5500	15.74	16.41	19.10	81.250	24.00
11a	6 Mbps	16.5	120	5600	15.73	16.13	18.94	78.431	24.00
11a	6 Mbps	17.5	140	5700	16.84	16.81	19.84	96.279	24.00
11n HT20	MCS 0	17	100	5500	16.21	16.82	19.54	89.867	24.00
11n HT20	MCS 0	17	120	5600	16.24	16.66	19.47	88.417	24.00
11n HT20	MCS 0	18	140	5700	17.13	17.40	20.28	106.596	24.00
11n HT40	MCS 0	15	102	5510	14.81	15.64	18.26	66.913	24.00
11n HT40	MCS 0	19	118	5590	18.69	19.40	22.07	161.057	24.00
11n HT40	MCS 0	18	134	5670	18.04	18.21	21.14	129.901	24.00
11ac VHT20	MCS0-NSS1	17	100	5500	16.23	16.87	19.57	90.617	24.00
11ac VHT20	MCS0-NSS1	17	120	5600	16.29	16.70	19.51	89.333	24.00
11ac VHT20	MCS0-NSS1	18	140	5700	17.16	17.44	20.31	107.462	24.00
11ac VHT40	MCS0-NSS1	15	102	5510	15.13	15.49	18.32	67.983	24.00
11ac VHT40	MCS0-NSS1	19	118	5590	18.71	19.43	22.10	162.002	24.00
11ac VHT40	MCS0-NSS1	18	134	5670	18.04	18.87	21.49	140.770	24.00
11ac VHT80	MCS0-NSS1	14	106	5530	13.65	14.09	16.89	48.819	24.00
11ac VHT80	MCS0-NSS1	19	122	5610	18.40	19.49	21.99	158.103	24.00

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(Beamforming) In the 5.3G Band

Modulation	Data Rate	Setting	Channel	Frequency	Measured value of each antenna port (dBm)		Total power	Total power	FCC Limit
Mode	Data Nate	Octarig		(MHz)	ANT A	ANT B	(dBm)	(mW)	(dBm)
11ac VHT20	MCS0-NSS1	18	52	5260	17.73	18.18	20.97	125.058	22.80
11ac VHT20	MCS0-NSS1	18.5	60	5300	18.36	18.52	21.45	139.670	22.80
11ac VHT20	MCS0-NSS1	18.5	64	5320	18.55	18.61	21.59	144.225	22.80
11ac VHT40	MCS0-NSS1	19	54	5270	19.64	19.83	22.75	188.206	22.80
11ac VHT40	MCS0-NSS1	19	62	5310	19.56	19.57	22.58	180.938	22.80
11ac VHT80	MCS0-NSS1	19	58	5290	19.62	19.71	22.68	185.163	22.80

In the 5.5G Band

Modulation	Data Rate	Setting	Channel	Frequency	Measure of each a port (antenna	Total power	Total power	FCC Limit
Mode	Data Nato	Coung		(MHz)	ANT A	ANT B	(dBm)	(mW)	(dBm)
11ac VHT20	MCS0-NSS1	17	100	5500	16.52	17.23	19.90	97.719	22.22
11ac VHT20	MCS0-NSS1	16.5	120	5600	16.11	16.62	19.38	86.752	22.22
11ac VHT20	MCS0-NSS1	17.5	140	5700	17.04	17.23	20.15	103.427	22.22
11ac VHT40	MCS0-NSS1	17	102	5510	17.10	17.66	20.40	109.631	22.22
11ac VHT40	MCS0-NSS1	18.5	118	5590	18.67	19.07	21.88	154.344	22.22
11ac VHT40	MCS0-NSS1	18.5	134	5670	19.02	18.80	21.92	155.657	22.22
11ac VHT80	MCS0-NSS1	17	106	5530	16.17	16.98	19.60	91.288	22.22
11ac VHT80	MCS0-NSS1	19.5	122	5610	19.20	19.05	22.14	163.529	22.22

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10. Maximum Power Spectral Density

10.1.Test Limit

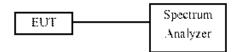
PSD:

Freq	uency Band	Limit					
	5.15~5.25GHz						
	Operating Mode						
	Outdoor access point	17 dBm/MHz					
	Indoor access point	17 dBm/MHz					
	Fixed point-to-point access points	17 dBm/MHz					
	client devices	11 dBm/MHz					
	5.250~5.350 GHz	11 dBm/MHz					
	5.470~5.725 GHz	11 dBm/MHz					
	5.725~5.85 GHz	30 dBm/500kHz					

10.2.Test Procedure

Reference to KDB789033 D02 General UNII Test Procedures New Rules v02r01

10.3.Test Setup Layout



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10.4. Test Result and Data

(Non-Beamforming)

In the 5.3G Band

Modulation	СН	Freq. (MHz)	Meas I (dBm/	_	Sum chain (dBm)	Duty Cycle CF(dB)	Total Corr'd PPSD	PPSD Limit
Туре	OH		ANT A	ANT B			(dBm/MHz)	(dBm/MHz)
	52	5260	6.15	6.61	9.40	0.15	9.55	9.80
11a	60	5300	6.11	6.20	9.17	0.15	9.32	9.80
	64	5320	6.49	6.49	9.50	0.15	9.65	9.80
	52	5260	6.10	6.72	9.43	0.00	9.43	9.80
11ac VHT20	60	5300	6.48	6.71	9.61	0.00	9.61	9.80
	64	5320	6.51	6.78	9.66	0.00	9.66	9.80
11ac VHT40	54	5270	5.86	6.47	9.19	0.00	9.19	9.80
TIAC VIII40	62	5310	1.66	1.66	4.67	0.00	4.67	9.80
11ac VHT80	58	5290	-1.67	-1.28	1.54	0.23	1.77	9.80

In the 5.5G Band

Modulation	СН	Freq.	Meas PPSD (dBm/MHz)		Sum chain	Duty Cycle	Total Corr'd PPSD	PPSD Limit
Туре	011	(MHz)	ANT A	ANT B	(dBm)	CF(dB)	(dBm/MHz)	(dBm/MHz)
	100	5500	5.16	6.04	8.63	0.15	8.78	9.22
11a	120	5600	5.32	6.01	8.69	0.15	8.84	9.22
	140	5700	5.71	6.00	8.87	0.15	9.02	9.22
	100	5500	5.53	6.49	9.05	0.00	9.05	9.22
11ac VHT20	120	5600	5.86	6.52	9.21	0.00	9.21	9.22
	140	5700	5.75	6.38	9.09	0.00	9.09	9.22
	102	5510	1.08	1.90	4.52	0.00	4.52	9.22
11ac VHT40	118	5590	5.41	6.36	8.92	0.00	8.92	9.22
	134	5670	5.08	5.13	8.12	0.00	8.12	9.22
11ac VHT80	106	5530	-3.10	-2.85	0.04	0.23	0.27	9.22
TIAC VIIIOU	122	5610	1.73	1.98	4.87	0.23	5.10	9.22

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(Beamforming)

In the 5.3G Band

Modulation	СН	Freq.	Meas PPSD (dBm/MHz)			Duty Cycle	Total Corr'd PPSD	PPSD Limit
Туре	G	(MHz)	ANT A	ANT B	(dBm)	CF(dB)	(dBm/MHz)	(dBm/MHz)
	52	5260	5.62	5.95	8.80	0.74	9.54	9.80
11ac VHT20	60	5300	5.75	5.97	8.87	0.74	9.61	9.80
	64	5320	5.96	6.01	9.00	0.74	9.74	9.80
11ac VHT40	54	5270	4.49	5.08	7.81	0.62	8.43	9.80
Trac VIII-10	62	5310	4.50	4.53	7.53	0.62	8.15	9.80
11ac VHT80	58	5290	1.68	2.07	4.89	0.40	5.29	9.80

In the 5.5G Band

Modulation Type	СН	Freq.	Meas PPSD (dBm/MHz)		Sum chain	Duty Cycle	Total Corr'd PPSD	PPSD Limit
,,		(MHz)	ANT A	ANT B	(dBm)	CF(dB)	(dBm/MHz)	(dBm/MHz)
	100	5500	4.89	5.66	8.30	0.74	9.04	9.22
11ac VHT20	120	5600	4.79	5.51	8.18	0.74	8.92	9.22
	140	5700	5.03	5.36	8.21	0.74	8.95	9.22
	102	5510	3.02	3.72	6.39	0.62	7.01	9.22
11ac VHT40	118	5590	4.68	5.56	8.15	0.62	8.77	9.22
	134	5670	4.68	4.58	7.64	0.62	8.26	9.22
11ac VHT80	106	5530	-0.51	0.13	2.83	0.40	3.23	9.22
TIAC VIIIOU	122	5610	2.19	2.47	5.34	0.40	5.74	9.22

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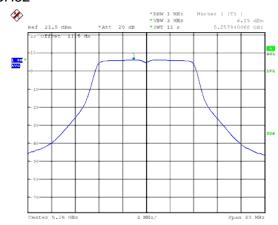
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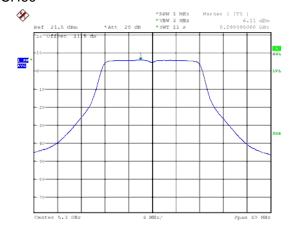
ANT A (Non-Beamforming) Modulation Type: 802.11a (6Mbps)

CH52

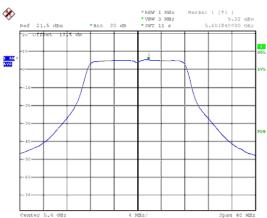


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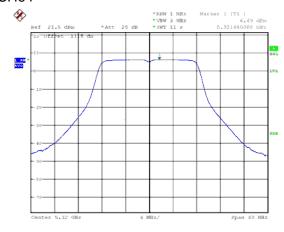
CH60



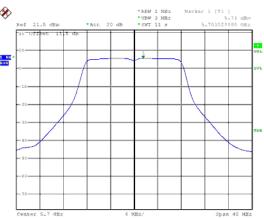
CH120



CH64



CH140



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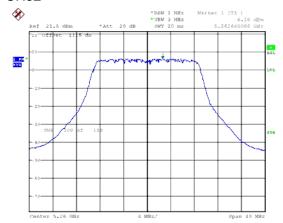
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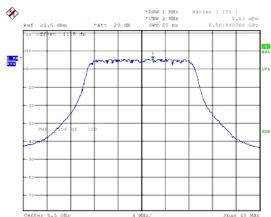


ANT A (Non-Beamforming) Modulation Type: 11ac VHT20 (6.5Mbps)

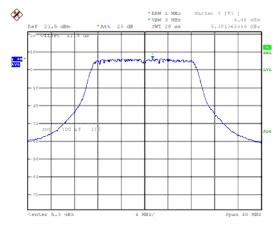
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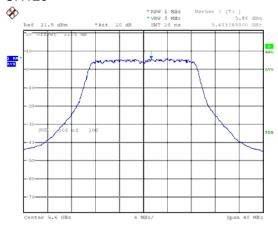
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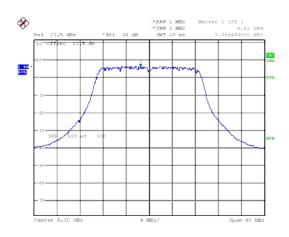
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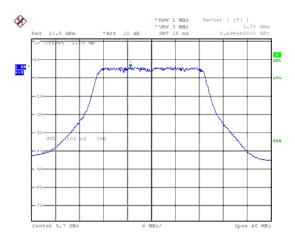
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CH64



CH140



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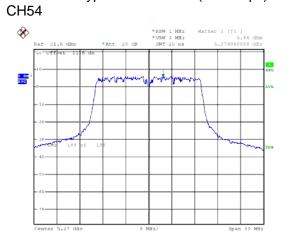
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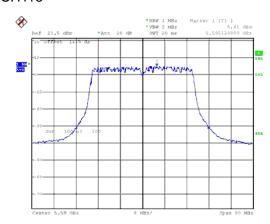


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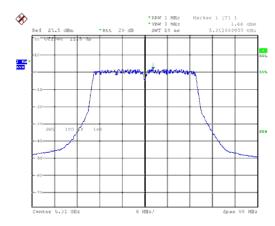
ANT A (Non-Beamforming) Modulation Type: 11ac VHT40 (13.5Mbps)



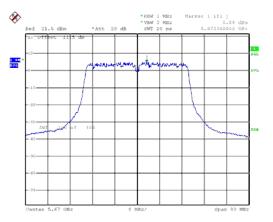
CH118



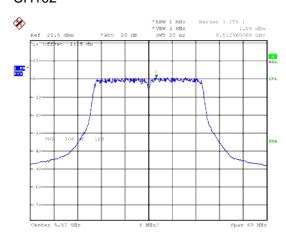
CH62



CH134



CH102

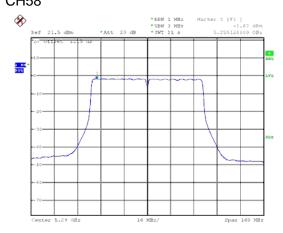


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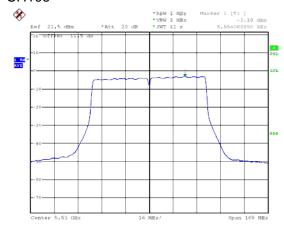
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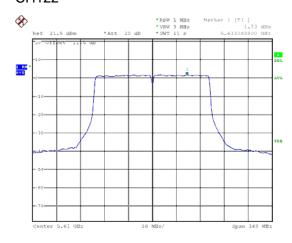
ANT A (Non-Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



CH122



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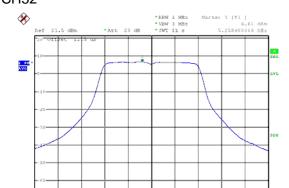
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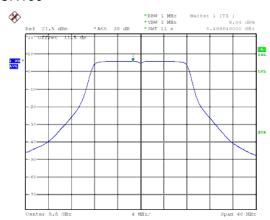


ANT B (Non-Beamforming)

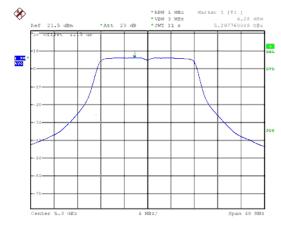
Modulation Type: 802.11a (6Mbps) CH52



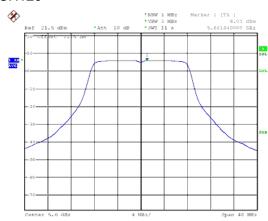
CH100



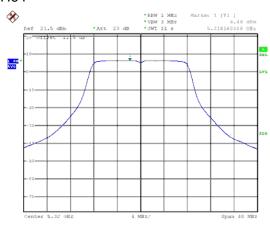
CH60



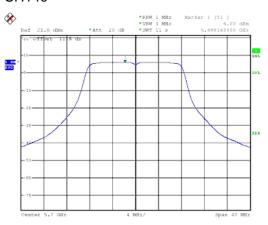
CH120



CH64



CH140



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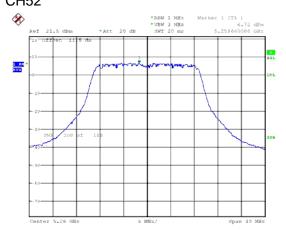
T-FD-510-0 Ver 1.2

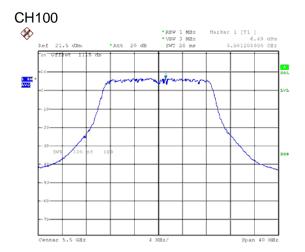
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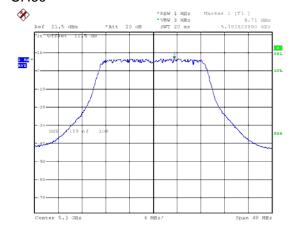


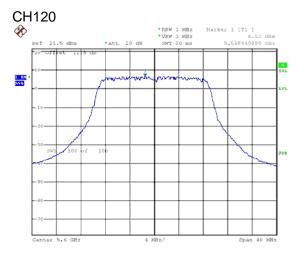
ANT B (Non-Beamforming) Modulation Type: 11ac VHT20 (6.5Mbps) CH52



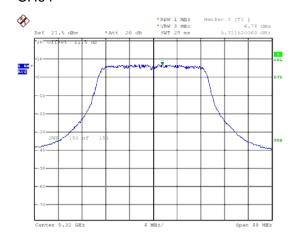


CH60

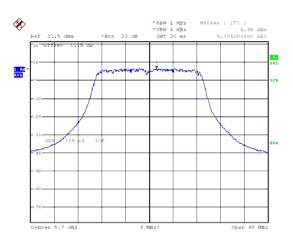




CH64



CH140



CERPASS TECHNOLOGY CORP.

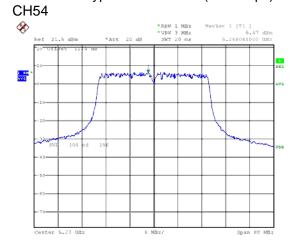
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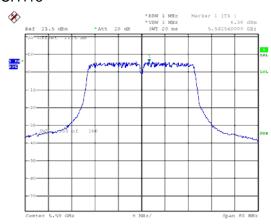




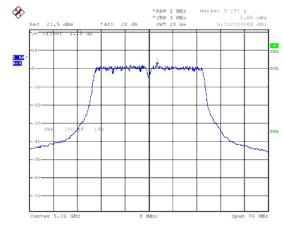
ANT B (Non-Beamforming) Modulation Type: 11ac VHT40 (13.5Mbps)



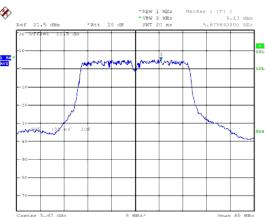
CH118



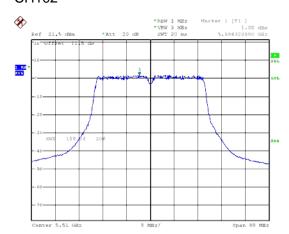
CH62



CH134



CH102

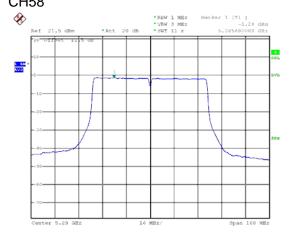


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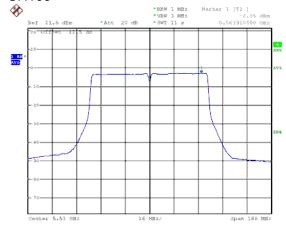
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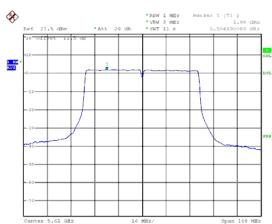
ANT B (Non-Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



CH122



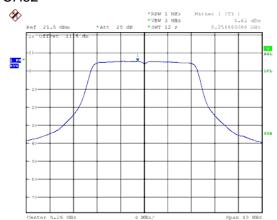
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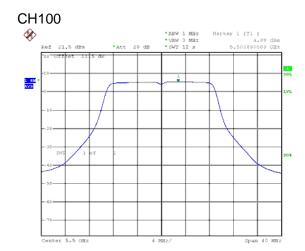
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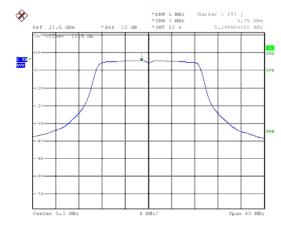


ANT A (Beamforming) Modulation Type: 11ac VHT20 (6.5Mbps) CH52

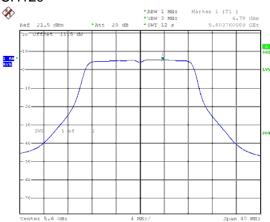




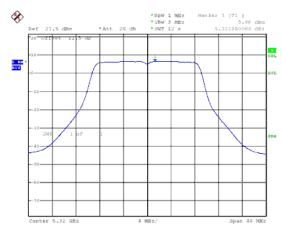
CH60



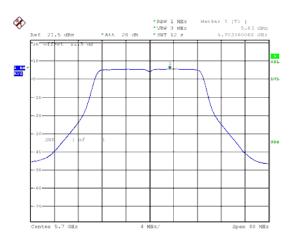
CH120



CH64



CH140



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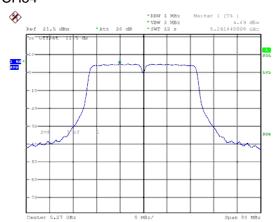
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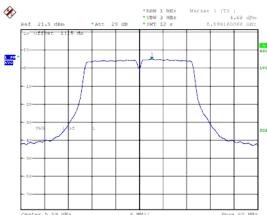




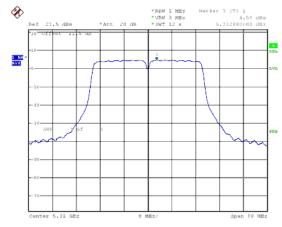
ANT A (Beamforming) Modulation Type: 11ac VHT40 (13.5Mbps) CH54



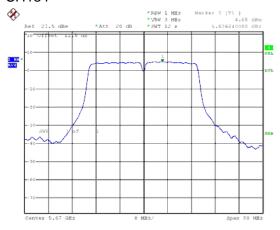
CH118



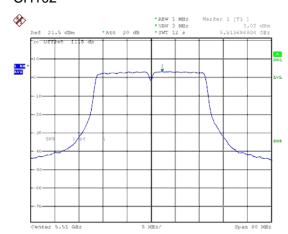
CH62



CH134



CH102



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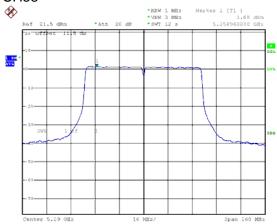
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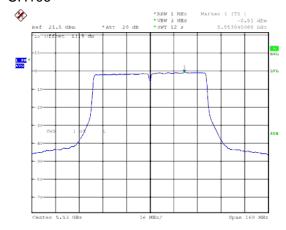
FCC ID.



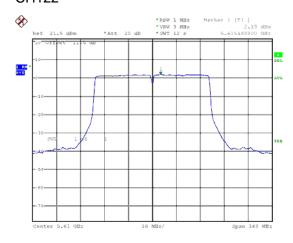
ANT A (Beamforming) Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



CH122



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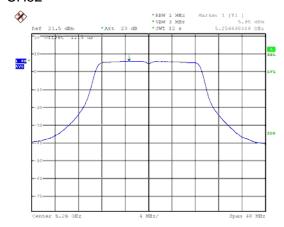
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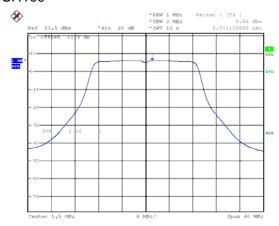


ANT B (Beamforming)

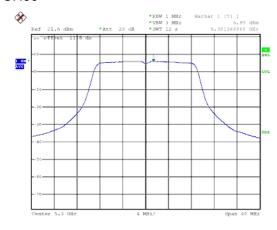
Modulation Type: 11ac VHT20 (6.5Mbps) CH52



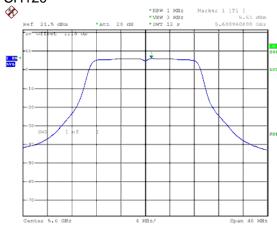
CH100



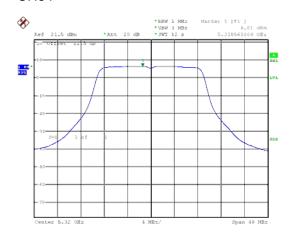
CH60



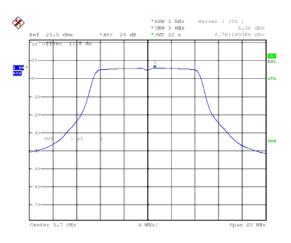
CH120



CH64



CH140



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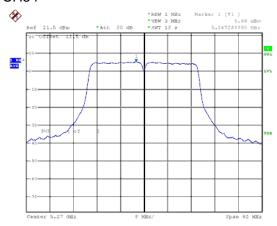
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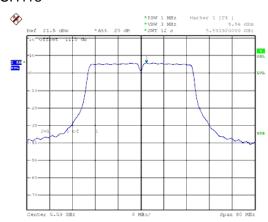


ANT B (Beamforming)

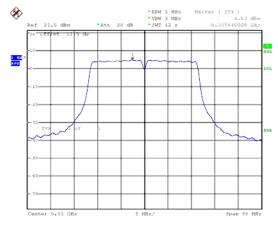
Modulation Type: 11ac VHT40 (13.5Mbps) CH54



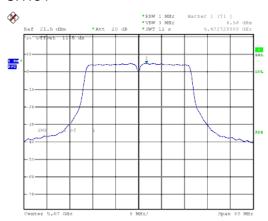
CH118



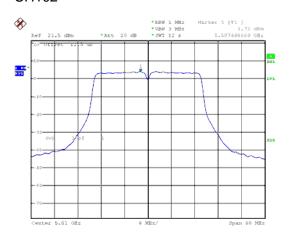
CH62



CH134



CH102



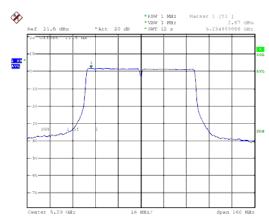
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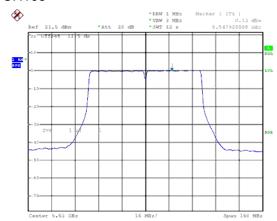


ANT B (Beamforming)

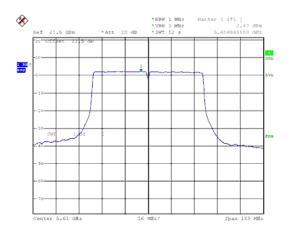
Modulation Type: 802.11ac VHT80 (29.3Mbps) CH58



CH106



CH122



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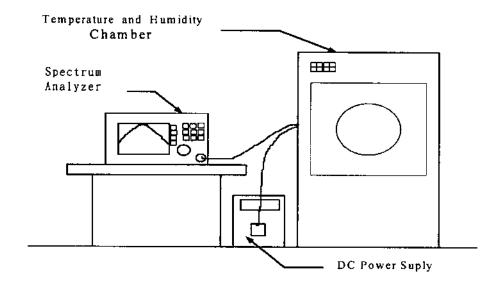


11. Frequency Stability

11.1.Test Procedure

- 1. The EUT was placed inside the Temperature and Humidity chamber.
- 2. The transmitter output was connected to spectrum analyzer.
- 3. Turn the EUT on and couple its output to a spectrum analyzer.
- 4. Turn the EUT off and set the chamber to the highest temperature specified.
- 5. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- 6. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- 7. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

11.2.Test Setup Layout



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11.3.Test Result and Data

Operating free	quency: 52	260 MHz					
Temperature	Power	2 mi	nute	5 mi	nute	10 m	inute
(°C)	supply (V)	(MHz)	(%)	(MHz)	(%)	(MHz)	(%)
	102	5259.9364	-0.001209	5259.9448	-0.001049	5259.9562	-0.000833
40	120	5259.9364	-0.001209	5259.9446	-0.001053	5259.9560	-0.000837
	138	5259.9363	-0.001211	5259.9445	-0.001055	5259.9560	-0.000837
	102	5259.9399	-0.001143	5259.9362	-0.001213	5259.9354	-0.001228
30	120	5259.9396	-0.001148	5259.9362	-0.001213	5259.9353	-0.001230
	138	5259.9395	-0.001150	5259.9361	-0.001215	5259.9351	-0.001234
	102	5259.9469	-0.001010	5259.9365	-0.001207	5259.9347	-0.001241
20	120	5259.9467	-0.001013	5259.9364	-0.001209	5259.9347	-0.001241
	138	5259.9466	-0.001015	5259.9362	-0.001213	5259.9345	-0.001245
	102	5259.9545	-0.000865	5259.9486	-0.000977	5259.9409	-0.001124
10	120	5259.9544	-0.000867	5259.9485	-0.000979	5259.9409	-0.001124
	138	5259.9542	-0.000871	5259.9483	-0.000983	5259.9408	-0.001125
	102	5259.9765	-0.000447	5259.9659	-0.000648	5259.9515	-0.000922
0	120	5259.9763	-0.000451	5259.9658	-0.000650	5259.9514	-0.000924
	138	5259.9762	-0.000452	5259.9658	-0.000650	5259.9512	-0.000928

Limit:

Manufacturers of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified in the users manual.

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