6/26 dB Bandwidth and Occupied Bandwidth Test

Company:	Airspan Networks Access Point A5x			est Date:		10/17/2019 Andreas Davidsson PASS		
EUT Name:				est Engineer:				
Model:				est Result:				
Operating Mode:	TX Mode							
Mode	Antenna Tes		Frequency (MHz)	6/26 dB Bandwidth (MHz)	99% Occupied Bandwidth (MHz)	6/26 dB Bandwidth Limit (MHz)	Conclusion	
	1	36	5180	23.85	17.984	≥ 0.5	PASS	
	2	36	5180	23.94	17.962	≥ 0.5	PASS	
	1	44	5220	24.22	18.055	≥ 0.5	PASS	
	2	44	5220	24.31	17.928	≥ 0.5	PASS	
	1	48	5240	24.36	17.994	≥ 0.5	PASS	
U-NII-1	2	48	5240	23.82	17.873	≥ 0.5	PASS	
	1	38	5190	42.48	36.476	≥ 0.5	PASS	
	2	38	5190	42.45	36.430	≥ 0.5	PASS	
	1	46	5230	42.90	36.495	≥ 0.5	PASS	
	2	46	5230	42.22	36.412	≥ 0.5	PASS	
	1	42	5210	92.09	75.475	≥ 0.5	PASS	
	2	42	5210	82.31	75.390	≥ 0.5	PASS	
	1	149	5745	17.58	17.754	≥ 0.5	PASS	
	2	149	5745	17.62	17.734	≥ 0.5	PASS	
	1	157	5785	17.75	17.756	≥ 0.5	PASS	
	2	157	5785	17.59	17.737	≥ 0.5	PASS	
	1	165	5825	17.80	17.756	≥ 0.5	PASS	
II NIII A	2	165	5825	17.58	17.748	≥ 0.5	PASS	
U-NII-3	1	151	5755	36.30	36.217	≥ 0.5	PASS	
	2	151	5755	36.31	36.240	≥ 0.5	PASS	
	1	159	5795	36.31	36.245	≥ 0.5	PASS	
	2	159	5795	36.34	36.232	≥ 0.5	PASS	
	1	155	5775	75.29	75.284	≥ 0.5	PASS	
	2	155	5775	75.44	75.304	≥ 0.5	PASS	

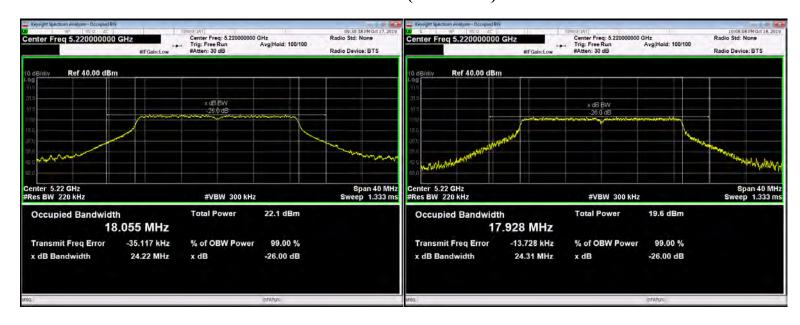
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Antenna 1 + 2 Channel 36 (5180MHz)



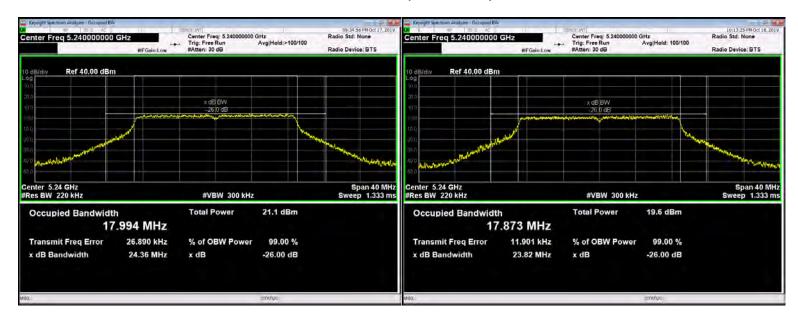
Antenna 1 + 2 Channel 44 (5220MHz)



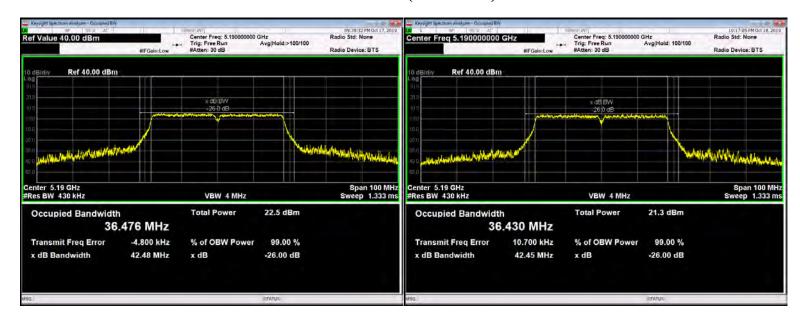
ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 + 2 Channel 48 (5240MHz)



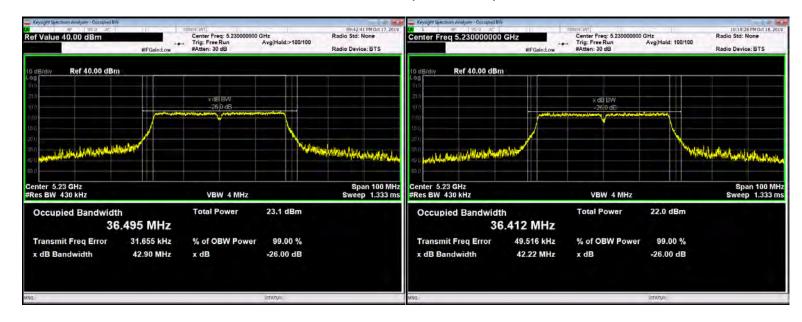
Antenna 1 + 2 Channel 38 (5190MHz)



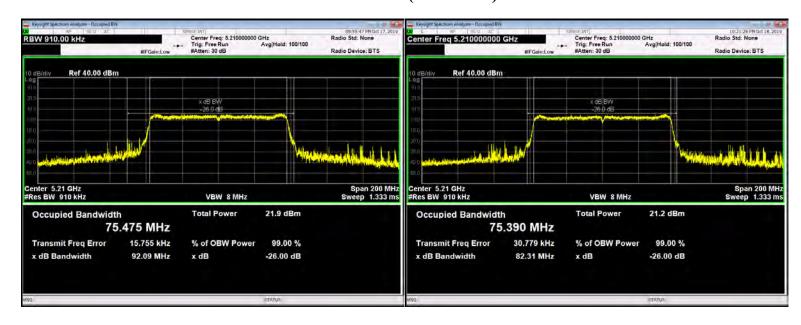
ELECTRO MAGNETIC TEST, INC.

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Antenna 1 + 2 Channel 46 (5230MHz)



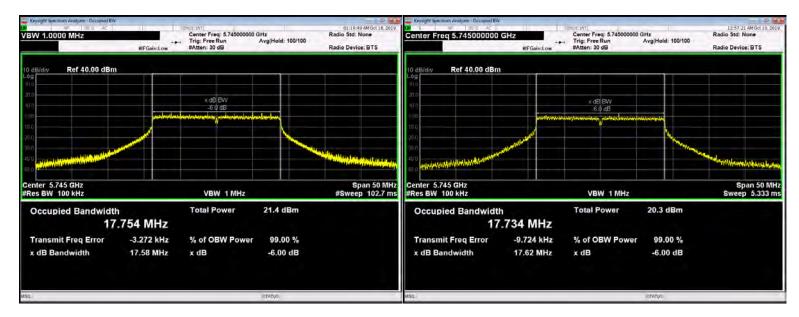
Antenna 1 + 2 Channel 42 (5210MHz)



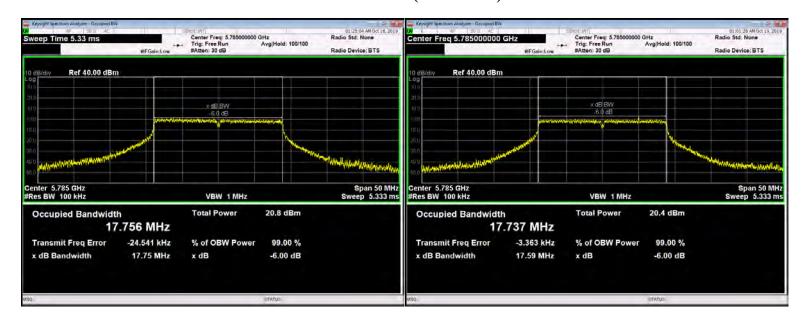
ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 + 2 Channel 149 (5745MHz)



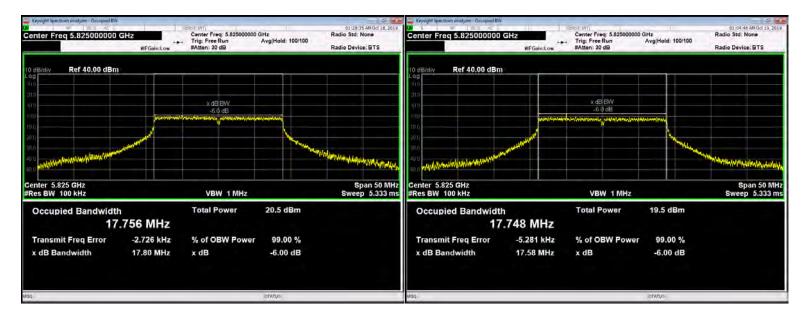
Antenna 1 + 2 Channel 157 (5785MHz)



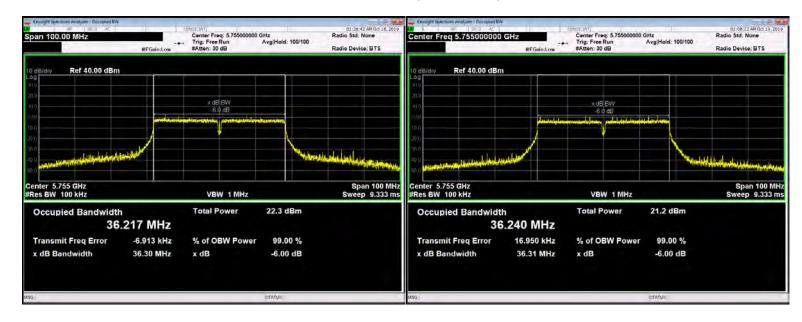
ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 + 2 Channel 165 (5825MHz)



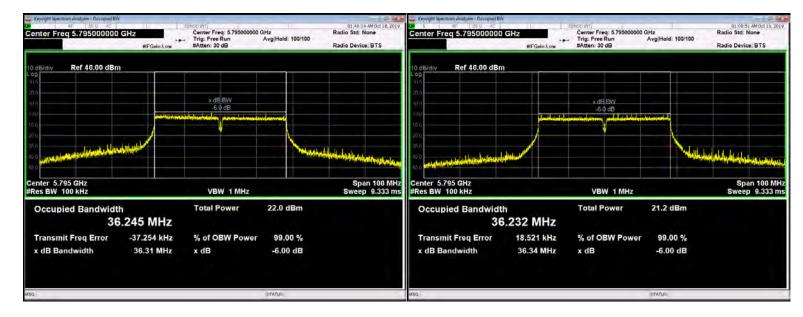
Antenna 1 + 2 Channel 151 (5755MHz)



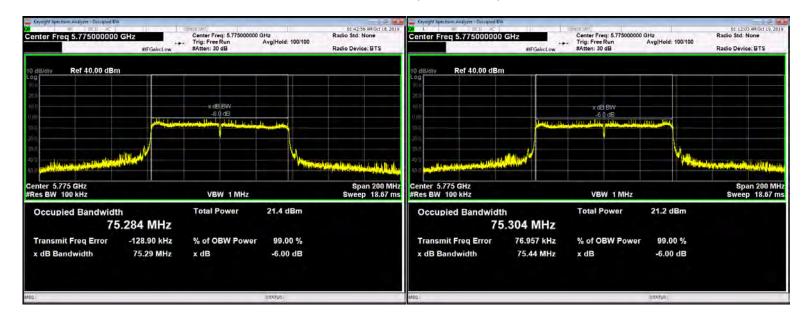
ELECTRO MAGNETIC TEST, INC.

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Antenna 1 + 2 Channel 159 (5795MHz)



Antenna 1 + 2 Channel 155 (5775MHz)





Maximum Peak Output Power Test Data

Company:	Airspan Networks				Test Date	10/17/2019			
EUT Name	Access Point				Test Engineer	Andreas Davidsson			
Model:	A5x				Test Result	PASS			
Operating Mode	TX N	lode				•			
Mode Antenna Test Frequency (MHz)		Raw Power (dBm)	Peak Output Power (dBm)	Limit (dBm)	Conclusion				
		1	36	5180	20.89	23.43	≤ 30	PASS	
		2	36	5180	19.89	23.43	≥ 30		
		1	44	5220	21.52	23.89	≤ 30	PASS	
		2	44	5220	20.12				
U-NII-1	1	1	48	5240	21.54	23.87	≤ 30	PASS	
(Dipole Ant		2	48	5240	20.06				
Gain)		1	38	5190	19.79	22.21	≤ 3 0	PASS	
Í		2	38	5190	18.51			 	
		1	46	5230	20.93	23.37	≤ 3 0	PASS	
		2	46	5230	19.71				
		2	42 42	5210 5210	20.10 19.23	22.70	≤ 30	PASS	
		1	36	5180	4.29	7.05	≤ 30 ≤ 30 ≤ 30	PASS PASS PASS	
		2	36	5180	3.78				
		1	44	5220	4.02	6.79			
		2	44 48	5220 5240	3.53 3.40				
U-NII-1		2	48	5240	2.87	6.15			
(Horn Antenna Gain)	enna	1	38	5190	3.71	6.53	≤ 30		
		2	38	5190	3.71			PASS	
		1	46	5230	3.33		≤ 30		
		2	46	5230	2.94	6.15		PASS	
		1	42	5210	3.35				
		2	42	5210	2.86	6.12	≤ 30	PASS	



Maximum Peak Output Power Test Data (Continued)

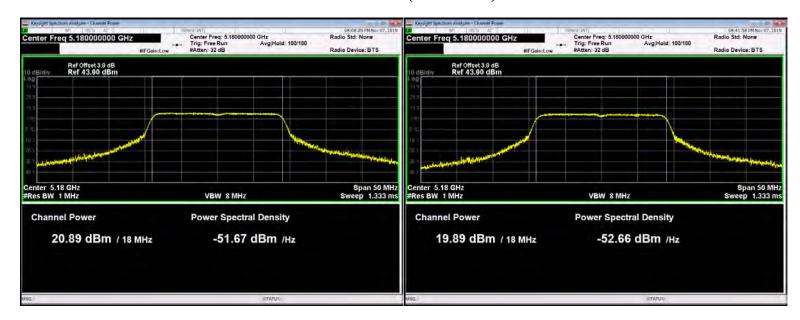
	1	149	5745	22.85	25.38	≤ 30	PASS
	2	149	5745	21.83			
	1	157	5785	21.33	24.47	≤ 3 0	PASS
	2	157	5785	21.59	24.47	≥ 30	
U-NII-3	1	165	5825	19.61	23.61	< 20	PASS
(Dipole Antenna	2	165	5825	21.41	23.01	≤ 30	PASS
Gain)	1	151	5755	22.18	24.66	< 20	DACC
	2	151	5755	21.05	24.66	≤ 30	PASS
	1	159	5795	20.07	22.57	< 20	DACC
	2	159	5795	21.00	23.57	≤ 30	PASS
	1	155	5775	21.18	24.10	< 20	DACC
	2	155	5775	21.18	24.19	≤ 30	PASS
	1	149	5745	4.09	6.60	< 20	DAGG
	2	149	5745	3.21	6.68	≤ 30	PASS
	1	157	5785	4.15	7.29	≤ 30	DAGG
	2	157	5785	4.41	7.29		PASS
U-NII-3	1	165	5825	4.15	6.90	< 20	PASS
(Horn Antenna	2	165	5825	3.60	6.89	≤ 30	PASS
Gain)	1	151	5755	3.90	C F 4	< 20	DACC
	2	151	5755	3.13	6.54	≤ 30	PASS
	1	159	5795	2.46	F 32	< 20	DACC
	2	159	5795	1.96	5.23	≤ 30	PASS
	1	155	5775	3.80	6.42	≤ 30	DACC
	2	155	5775	2.97	0.42		PASS
	Test Equipment: Please refer to section 5.2 Peak Output Power Calculation (See Section 7.4.2 for calculation explanation) listed below each screenshot						

screenshot.

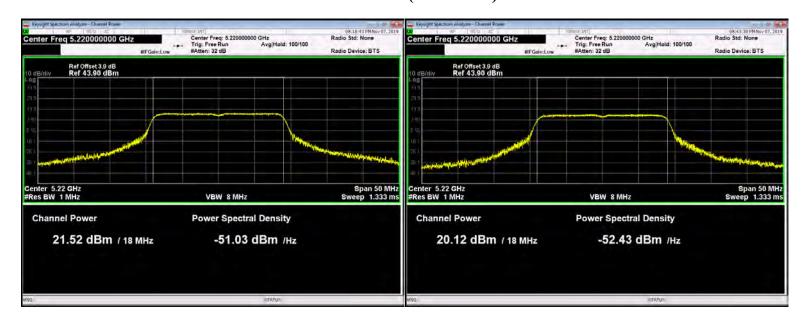
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Antenna 1 + 2 Channel 36 (5180MHz)



Antenna 1 + 2 Channel 44 (5220MHz)



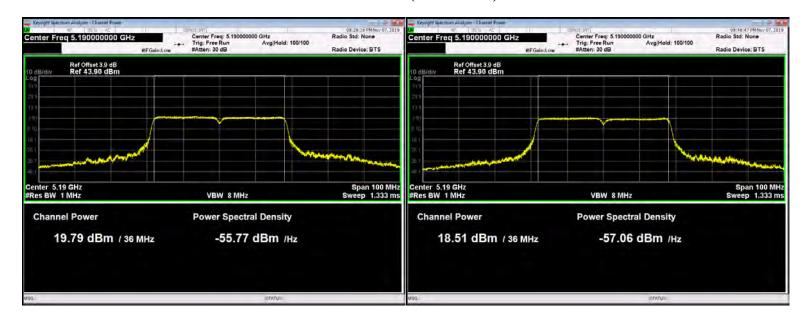
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Antenna 1 + 2 Channel 48 (5240MHz)



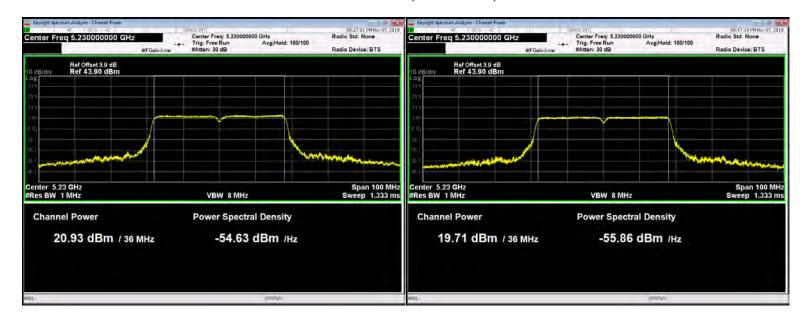
Antenna 1 + 2 Channel 38 (5190MHz)



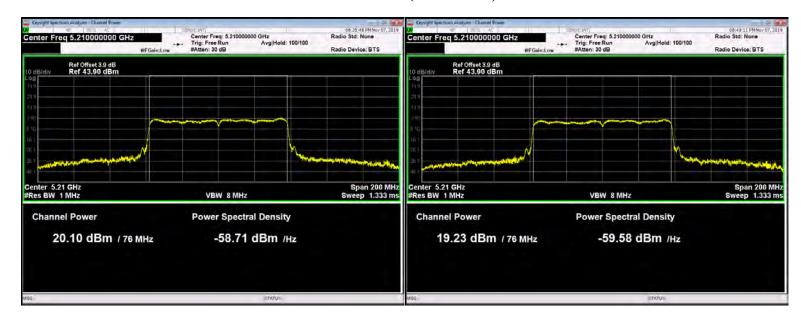
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Antenna 1 + 2 Channel 46 (5230MHz)



Antenna 1 + 2 Channel 42 (5210MHz)



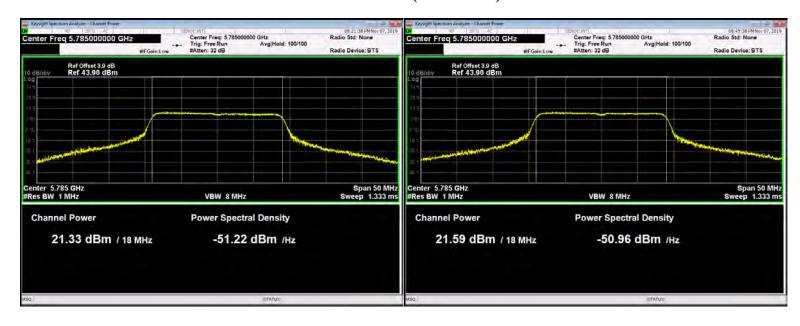
ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 + 2 Channel 149 (5745MHz)



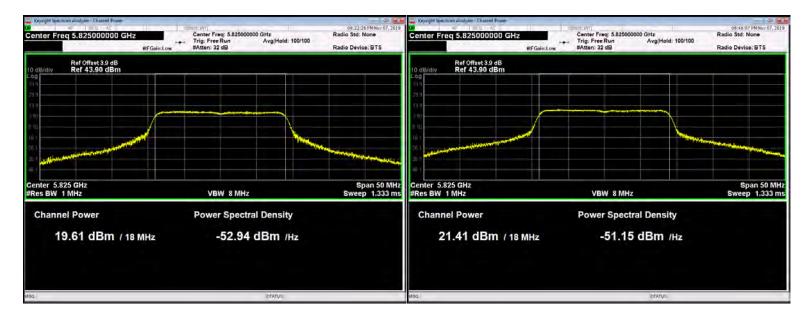
Antenna 1 + 2 Channel 157 (5785MHz)



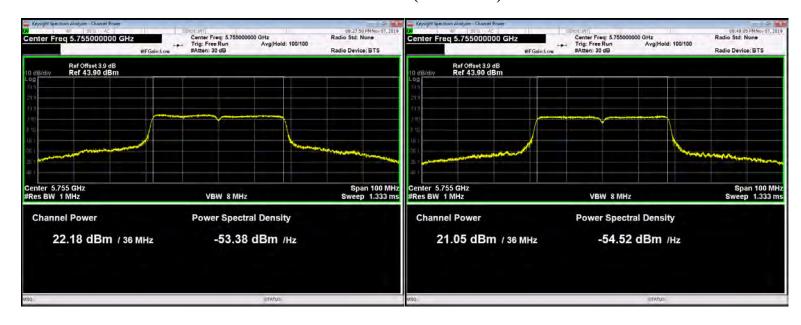
ELECTRO MAGNETIC TEST, INC.

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Antenna 1 + 2 Channel 165 (5825MHz)



Antenna 1 + 2 Channel 151 (5755MHz)



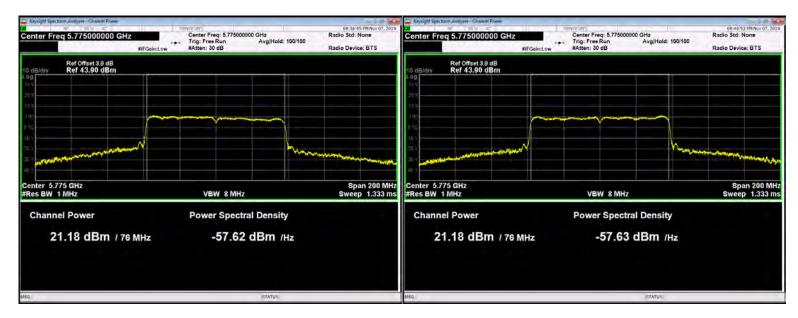
ELECTRO MAGNETIC TEST, INC.

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Antenna 1 + 2 Channel 159 (5795MHz)



Antenna 1 + 2 Channel 155 (5775MHz)



Maximum Power Spectral Density Test Data

Company:	Airspan Networks			Test Date	10/17/2019			
EUT Name	Access Point			Test Engineer	Andreas Davidsson			
Model:	A5x			Test Result	PASS			
Operating Mode	TX Mode							
Mode	Antenna	Test CH	Frequency (MHz)	Raw Peak (dBm)	Maximum PSD (dBm)	Limit (dBm)	Conclusion	
	1	36	5180	4.68	7.19	≤ 17	Pass	
	2	36	5180	3.61	7.19	≥ 1 <i>/</i>	rass	
	1	44	5220	5.20	7.60	≤ 17	Pass	
	2	44	5220	3.88	7.00	≥ 1 <i>/</i>	rass	
	1	48	5240	5.44	7.07	≤ 17	Pass	
U-NII-1 (Dipole Antenna Gain)	2	48	5240	4.20	7.87			
	1	38	5190	3.52	5.74	≤ 17	Pass	
	2	38	5190	1.76	3.74			
	1	46	5230	4.18	6.43	≤ 17	Pass	
	2	46	5230	2.51				
	1	42	5210	0.83	2.10	≤ 17	Pass	
	2	42	5210	-0.61	3.18		1 455	
	1	36	5180	3.17	6.46	≤ 17	Pass	
	2	36	5180	3.12	6.16			
	1	44	5220	3.15	6.12	≤ 17	Pass	
	2	44	5220	3.10	6.13			
	1	48	5240	3.09	6.07	≤ 17 ≤ 17	Pass	
U-NII-1	2	48	5240	3.03	6.07			
(Horn Antenna Gain)	1	38	5190	2.82	5.81		Pass	
Gaini	2	38	5190	2.78	5.81		rass	
	1	46	5230	2.78	5.77	≤ 17	Pass	
	2	46	5230	2.74	5.//		гаѕѕ	
	1	42	5210	2.45	5.44		Pass	
	2	42	5210	2.41	5.44	≤ 17	rass	



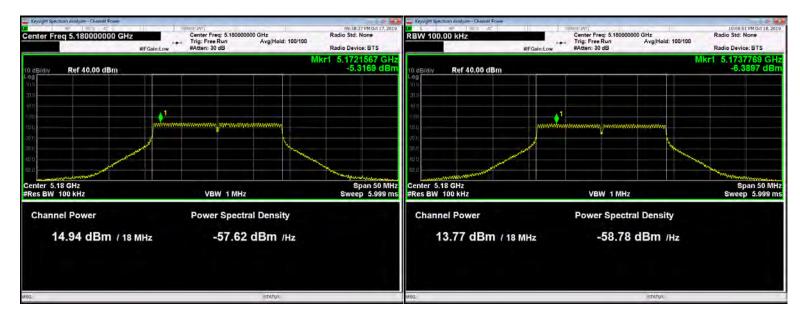
Maximum Power Spectral Density Test Data (Continued)

U-NII-3	1	149	5745	2.53	5.20	≤ 30	Pass
	2	149	5745	1.83	3.20		Pass
	1	157	5785	2.55	5.01	≤ 30	Pass
	2	157	5785	1.36	3.01	≥ 30	
	1	165	5825	2.14	4.67	< 20	Pass
	2	165	5825	1.12	4.07	≤ 30	
(Dipole Antenna Gain)	1	151	5755	1.76	4.02	< 20	Daga
Antenna Gam)	2	151	5755	0.09	4.02	≤ 30	Pass
	1	159	5795	1.28	2.56	< 20	Pass
	2	159	5795	-0.33	3.56	≤ 30	
	1	155	5775	1.58	2.91	≤ 30	Pass
	2	155	5775	-2.88			
	1	149	5745	0.21	3.20	≤ 30	D
	2	149	5745	0.16			Pass
	1	157	5785	0.16	3.17	≤ 30	Pass
	2	157	5785	0.16			
	1	165	5825	0.15	2.42	≤ 30	Pass
U-NII-3	2	165	5825	0.07	3.12		
(Horn Antenna Gain)	1	151	5755	-0.17	2.07	≤ 30	Pass
Gain)	2	151	5755	-0.11	2.87		
	1	159	5795	-0.15	2.70	≤ 30	Pass
	2	159	5795	-0.31	2.78		
	1	155	5775	-0.50	2.1-	≤ 30	D
	2	155	5775	-0.58	2.47		Pass
	Test Equipment: Please refer to 5.2 A correction factor of +10 dB was added for U-NII-1 bands and +7 for U-NII-3 bands to mate Resolution bandwidth requirements.						

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Antenna 1 + 2 Channel 36 (5180MHz)



Antenna 1 + 2 Channel 44 (5220MHz)



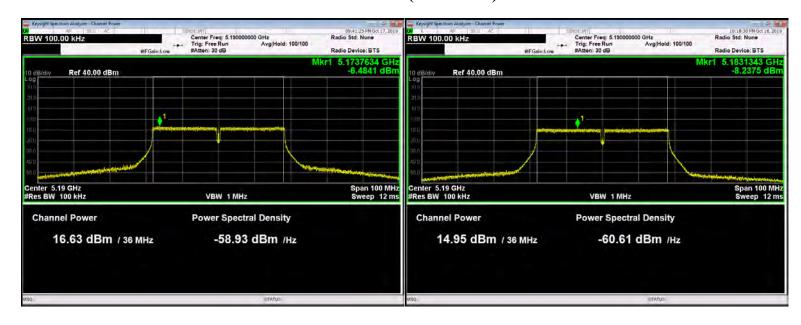
ELECTRO MAGNETIC TEST, INC.

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Antenna 1 + 2 Channel 48 (5240MHz)



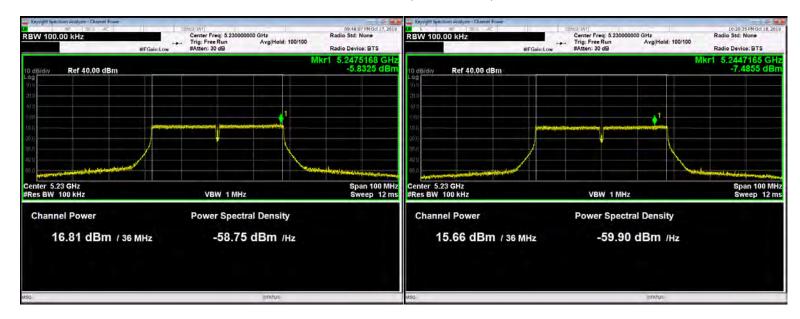
Antenna 1 + 2 Channel 38 (5190MHz)



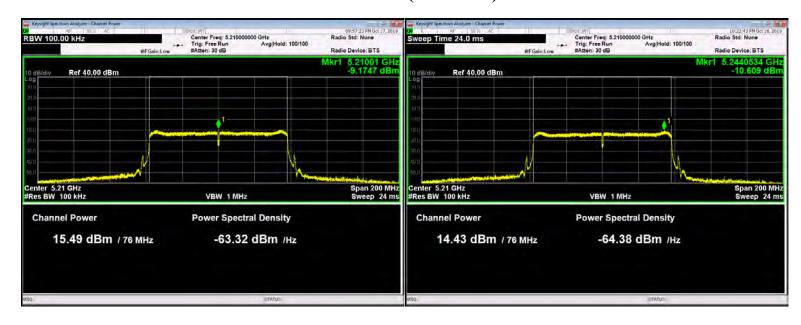
ELECTRO MAGNETIC TEST, INC.

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Antenna 1 + 2 Channel 46 (5230MHz)



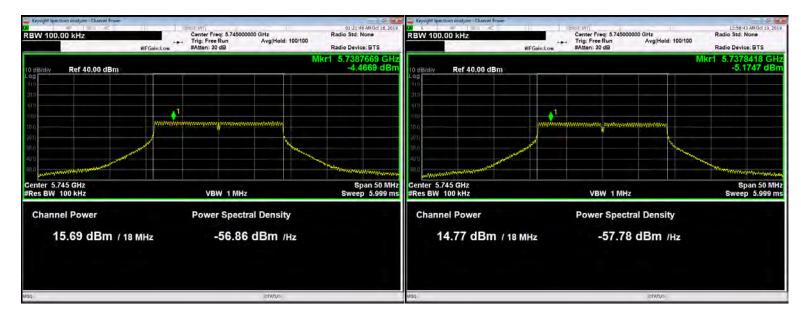
Antenna 1 + 2 Channel 42 (5210MHz)



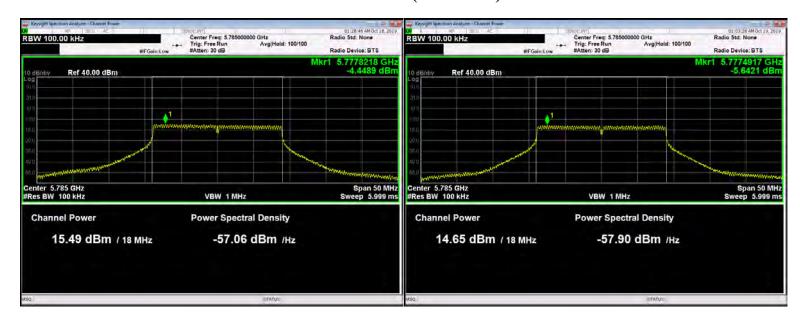
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Antenna 1 + 2 Channel 149 (5745MHz)



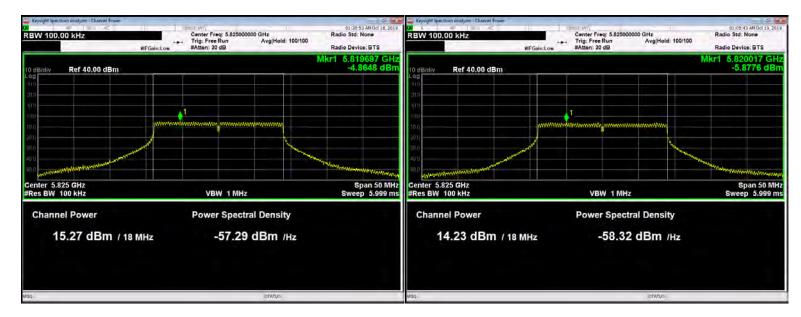
Antenna 1 + 2 Channel 157 (5785MHz)



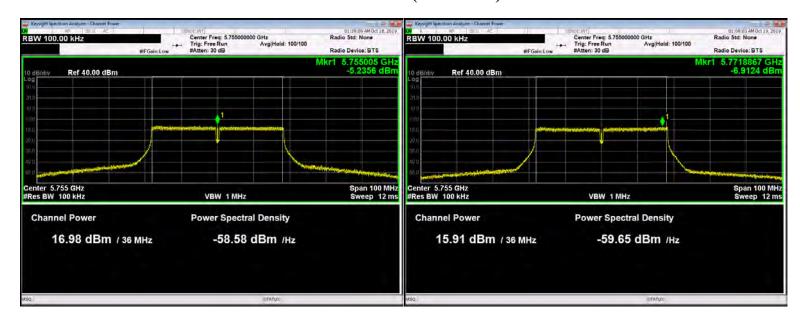
ELECTRO MAGNETIC TEST, INC.

1547 Plymouth Street, Mountain View, CA 94043 Tel: (650) 965-4000 Fax: (650) 965-3000

Antenna 1 + 2 Channel 165 (5825MHz)



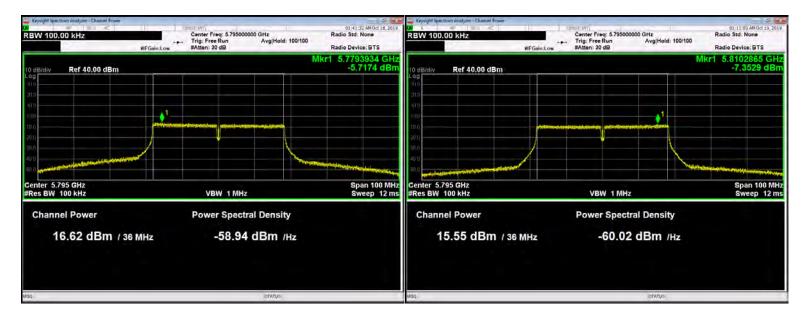
Antenna 1 + 2 Channel 151 (5755MHz)



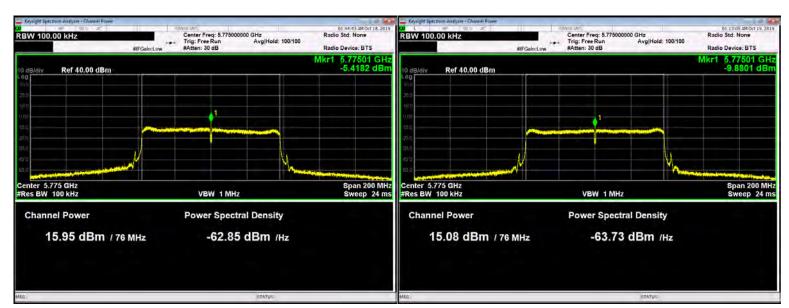
ELECTRO MAGNETIC TEST, INC.

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Antenna 1 + 2 Channel 159 (5795MHz)



Antenna 1 + 2 Channel 155 (5775MHz)



APPENDIX B

TEST SETUP DIAGRAMS

ELECTRO MAGNETIC TEST, INC.

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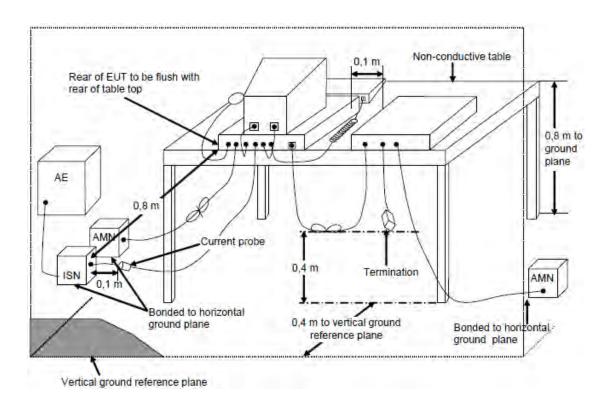


FIGURE 1 – TABLETOP CONDUCTED EMISSIONS TEST SETUP – SITE "D"

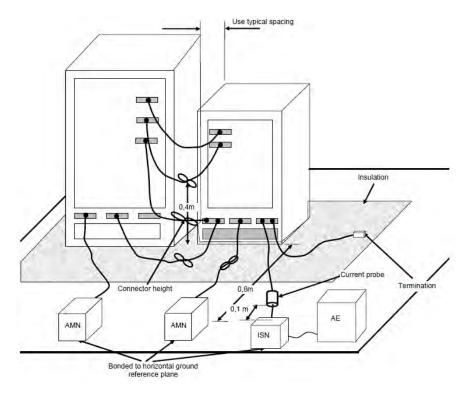


FIGURE 1a - FLOORSTANDING CONDUCTED EMISSIONS TEST SETUP - SITE "D"

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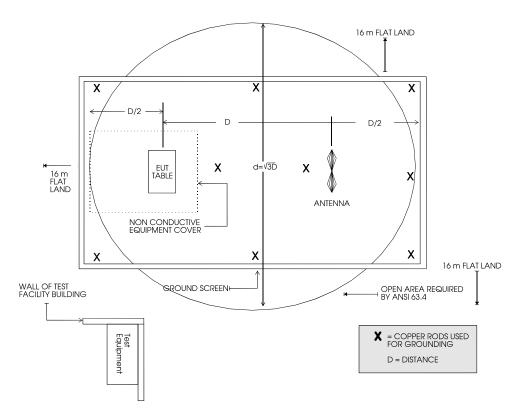


FIGURE 2 - PLOT MAP AND LAYOUT OF TEST SITE "A"

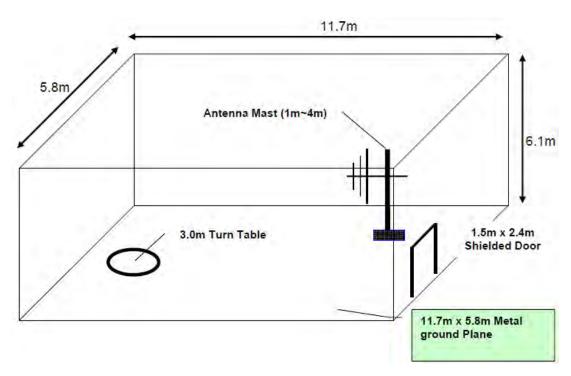


FIGURE 3 - LAYOUT OF 5 METER SEMI-ANECHOIC CHAMBER

APPENDIX C

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

No modifications were made to the EUT by Electro Magnetic Test, Inc. personnel during the testing.

APPENDIX D

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

There are no additional models to be covered under this report.

End of Report

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