



FPMI2458-DP4RPSMA Antenna Radiated Spurious Emission Test Report

Test Mode:	802.11a - Ant 0	Test Site:	AC1				
Test Channel:	52	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average limit.						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show				

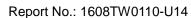
Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6431.5	32.5	7.9	40.4	68.2	-27.8	Peak	Horizontal
*	8616.0	29.5	13.5	43.0	68.2	-25.2	Peak	Horizontal
	11225.5	26.8	18.8	45.6	74.0	-28.4	Peak	Horizontal
	15773.0	25.3	20.4	45.7	74.0	-28.3	Peak	Horizontal
*	6916.0	31.8	9.9	41.7	68.2	-26.5	Peak	Vertical
*	8616.0	30.7	13.5	44.2	68.2	-24.0	Peak	Vertical
	11540.0	27.4	19.4	46.8	74.0	-27.2	Peak	Vertical
	15866.5	24.7	20.4	45.1	74.0	-28.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 0	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6967.0	30.9	10.3	41.2	68.2	-27.0	Peak	Horizontal
*	8777.5	29.5	13.9	43.4	68.2	-24.8	Peak	Horizontal
	11557.0	28.1	19.5	47.6	74.0	-26.4	Peak	Horizontal
	15866.5	24.7	20.4	45.1	74.0	-28.9	Peak	Horizontal
*	6967.0	32.5	10.3	42.8	68.2	-25.4	Peak	Vertical
*	8777.5	27.8	13.9	41.7	68.2	-26.5	Peak	Vertical
	11582.5	26.9	19.5	46.4	74.0	-27.6	Peak	Vertical
	15985.5	27.6	20.4	48.0	74.0	-26.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 2 of 209





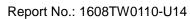
Test Mode:	802.11a - Ant 0	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6907.5	31.7	9.9	41.6	68.2	-26.6	Peak	Horizontal
*	8811.5	29.1	14.0	43.1	68.2	-25.1	Peak	Horizontal
	11659.0	27.6	19.3	46.9	74.0	-27.1	Peak	Horizontal
	15985.5	25.7	20.4	46.1	74.0	-27.9	Peak	Horizontal
*	6525.0	31.8	8.5	40.3	68.2	-27.9	Peak	Vertical
*	8811.5	29.1	14.0	43.1	68.2	-25.1	Peak	Vertical
	11659.0	27.6	19.3	46.9	74.0	-27.1	Peak	Vertical
	15773.0	25.2	20.4	45.6	74.0	-28.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 3 of 209





Test Mode:	802.11a - Ant 0	Test Site:	AC1				
Test Channel:	100	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6550.5	32.7	8.6	41.3	68.2	-26.9	Peak	Horizontal
*	8667.0	30.1	13.6	43.7	68.2	-24.5	Peak	Horizontal
	11115.0	27.7	18.6	46.3	74.0	-27.7	Peak	Horizontal
	15773.0	25.3	20.4	45.7	74.0	-28.3	Peak	Horizontal
*	6423.0	33.3	7.8	41.1	68.2	-27.1	Peak	Vertical
*	8667.0	28.9	13.6	42.5	68.2	-25.7	Peak	Vertical
	11200.0	28.0	18.7	46.7	74.0	-27.3	Peak	Vertical
	15739.0	26.3	20.4	46.7	74.0	-27.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 4 of 209





Test Mode:	802.11a - Ant 0	Test Site:	AC1				
Test Channel:	116	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7791.5	32.7	12.4	45.1	68.2	-23.1	Peak	Horizontal
*	8675.5	30.6	13.7	44.3	68.2	-23.9	Peak	Horizontal
	9304.5	30.7	14.7	45.4	74.0	-28.6	Peak	Horizontal
	10987.5	30.3	18.5	48.8	74.0	-25.2	Peak	Horizontal
*	7800.0	32.8	12.4	45.2	68.2	-23.0	Peak	Vertical
*	8760.5	30.9	13.9	44.8	68.2	-23.4	Peak	Vertical
	9423.5	30.7	14.5	45.2	74.0	-28.8	Peak	Vertical
	10928.0	30.4	18.4	48.8	74.0	-25.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 5 of 209





Test Mode:	802.11a - Ant 0	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6984.0	31.5	10.4	41.9	68.2	-26.3	Peak	Horizontal
*	8769.0	28.5	13.9	42.4	68.2	-25.8	Peak	Horizontal
	11744.0	26.4	18.9	45.3	74.0	-28.7	Peak	Horizontal
	15739.0	23.8	20.4	44.2	74.0	-29.8	Peak	Horizontal
*	6984.0	21.7	20.3	42.0	68.2	-26.2	Peak	Vertical
*	8769.0	18.8	23.1	41.9	68.2	-26.3	Peak	Vertical
	11395.5	18.5	27.6	46.1	74.0	-27.9	Peak	Vertical
	15866.5	21.5	24.5	46.0	74.0	-28.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 6 of 209





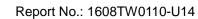
Test Mode:	802.11a - Ant 0	Test Site:	AC1
Test Channel:	140	Test Engineer:	Kevin Ker
Remark:	Average measurement was no limit.	t performed if peak I	evel lower than average
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6338.0	34.0	7.4	41.4	68.2	-26.8	Peak	Horizontal
*	8803.0	30.0	14.0	44.0	68.2	-24.2	Peak	Horizontal
	11633.5	26.4	19.4	45.8	74.0	-28.2	Peak	Horizontal
	15866.5	24.2	20.4	44.6	74.0	-29.4	Peak	Horizontal
*	6661.0	32.2	8.7	40.9	68.2	-27.3	Peak	Vertical
*	8803.0	28.3	14.0	42.3	68.2	-25.9	Peak	Vertical
	11574.0	27.5	19.5	47.0	74.0	-27.0	Peak	Vertical
	15858.0	25.4	20.4	45.8	74.0	-28.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 7 of 209





Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bellin the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6406.0	32.4	7.7	40.1	68.2	-28.1	Peak	Horizontal
*	8650.0	29.4	13.6	43.0	68.2	-25.2	Peak	Horizontal
	11684.5	25.9	19.2	45.1	74.0	-28.9	Peak	Horizontal
	15934.5	24.8	20.3	45.1	74.0	-28.9	Peak	Horizontal
*	6703.5	31.2	8.7	39.9	68.2	-28.3	Peak	Vertical
*	8650.0	28.3	13.6	41.9	68.2	-26.3	Peak	Vertical
	11540.0	27.1	19.4	46.5	74.0	-27.5	Peak	Vertical
	15662.5	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 8 of 209





Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6414.5	32.8	7.8	40.6	68.2	-27.6	Peak	Horizontal
*	8735.0	28.9	13.9	42.8	68.2	-25.4	Peak	Horizontal
	11098.0	28.7	18.6	47.3	74.0	-26.7	Peak	Horizontal
	15662.5	24.7	20.4	45.1	74.0	-28.9	Peak	Horizontal
*	6363.5	34.2	7.5	41.7	68.2	-26.5	Peak	Vertical
*	8735.0	29.2	13.9	43.1	68.2	-25.1	Peak	Vertical
	11200.0	27.4	18.7	46.1	74.0	-27.9	Peak	Vertical
	15586.0	25.5	20.5	46.0	74.0	-28.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 9 of 209





Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6295.5	31.8	7.2	39.0	68.2	-29.2	Peak	Horizontal
*	8684.0	29.6	13.7	43.3	68.2	-24.9	Peak	Horizontal
	11208.5	27.9	18.8	46.7	74.0	-27.3	Peak	Horizontal
	15586.0	24.4	20.5	44.9	74.0	-29.1	Peak	Horizontal
*	6440.0	31.5	8.0	39.5	68.2	-28.7	Peak	Vertical
*	8684.0	28.6	13.7	42.3	68.2	-25.9	Peak	Vertical
	11276.5	28.3	18.8	47.1	74.0	-26.9	Peak	Vertical
	15824.0	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 10 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6958.5	32.4	10.2	42.6	68.2	-25.6	Peak	Horizontal
*	8641.5	31.1	13.5	44.6	68.2	-23.6	Peak	Horizontal
	11336.0	28.1	19.0	47.1	74.0	-26.9	Peak	Horizontal
	15824.0	25.0	20.4	45.4	74.0	-28.6	Peak	Horizontal
*	6414.5	33.5	7.8	41.3	68.2	-26.9	Peak	Vertical
*	8641.5	31.1	13.5	44.6	68.2	-23.6	Peak	Vertical
	11633.5	27.3	19.4	46.7	74.0	-27.3	Peak	Vertical
	15985.5	25.4	20.4	45.8	74.0	-28.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 11 of 209





Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1						
Test Channel:	116	Test Engineer:	Kevin Ker						
Remark:	· ·	. Average measurement was not performed if peak level lower than average							
		limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.								

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7825.5	31.6	12.4	44.0	68.2	-24.2	Peak	Horizontal
*	8667.0	30.7	13.6	44.3	68.2	-23.9	Peak	Horizontal
	9483.0	30.6	14.4	45.0	74.0	-29.0	Peak	Horizontal
	11225.5	29.0	18.8	47.8	74.0	-26.2	Peak	Horizontal
*	7791.5	31.9	12.4	44.3	68.2	-23.9	Peak	Vertical
*	8922.0	31.1	14.0	45.1	68.2	-23.1	Peak	Vertical
	9389.5	31.2	14.5	45.7	74.0	-28.3	Peak	Vertical
	10885.5	31.0	18.3	49.3	74.0	-24.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 12 of 209





Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1				
Test Channel:	120	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.		40011				
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6006.5	34.2	6.1	40.3	68.2	-27.9	Peak	Horizontal
*	8769.0	29.7	13.9	43.6	68.2	-24.6	Peak	Horizontal
	11336.0	27.6	19.0	46.6	74.0	-27.4	Peak	Horizontal
	15985.5	24.6	20.4	45.0	74.0	-29.0	Peak	Horizontal
*	6916.0	30.4	9.9	40.3	68.2	-27.9	Peak	Vertical
*	8769.0	27.0	13.9	40.9	68.2	-27.3	Peak	Vertical
	11200.0	29.3	18.7	48.0	74.0	-26.0	Peak	Vertical
	15849.5	24.2	20.4	44.6	74.0	-29.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 13 of 209





Test Mode:	802.11n-HT20 - Ant 0	Test Site:	AC1
Test Channel:	140	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6678.0	32.5	8.7	41.2	68.2	-27.0	Peak	Horizontal
*	8726.5	29.1	13.8	42.9	68.2	-25.3	Peak	Horizontal
	11098.0	27.8	18.6	46.4	74.0	-27.6	Peak	Horizontal
	15849.5	24.8	20.4	45.2	74.0	-28.8	Peak	Horizontal
*	6618.5	30.9	8.7	39.6	68.2	-28.6	Peak	Vertical
*	8726.5	27.9	13.8	41.7	68.2	-26.5	Peak	Vertical
	11225.5	25.8	18.8	44.6	74.0	-29.4	Peak	Vertical
	15713.5	25.5	20.5	46.0	74.0	-28.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 14 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1					
Test Channel:	54	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6916.0	30.7	9.9	40.6	68.2	-27.6	Peak	Horizontal
*	8684.0	29.7	13.7	43.4	68.2	-24.8	Peak	Horizontal
	11234.0	26.5	18.8	45.3	74.0	-28.7	Peak	Horizontal
	15535.0	25.7	20.6	46.3	74.0	-27.7	Peak	Horizontal
*	6788.5	31.8	9.0	40.8	68.2	-27.4	Peak	Vertical
*	8684.0	28.0	13.7	41.7	68.2	-26.5	Peak	Vertical
	11472.0	28.2	19.3	47.5	74.0	-26.5	Peak	Vertical
	15909.0	25.6	20.4	46.0	74.0	-28.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 15 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1					
Test Channel:	62	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6440.0	34.5	8.0	42.5	68.2	-25.7	Peak	Horizontal
*	8820.0	29.6	14.0	43.6	68.2	-24.6	Peak	Horizontal
	11378.5	27.0	19.1	46.1	74.0	-27.9	Peak	Horizontal
	15909.0	25.6	20.4	46.0	74.0	-28.0	Peak	Horizontal
*	6873.5	31.6	9.6	41.2	68.2	-27.0	Peak	Vertical
*	8820.0	28.6	14.0	42.6	68.2	-25.6	Peak	Vertical
	11557.0	29.0	19.5	48.5	74.0	-25.5	Peak	Vertical
	15849.5	26.0	20.4	46.4	74.0	-27.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 16 of 209





Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1					
Test Channel:	102	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6448.5	32.8	8.0	40.8	68.2	-27.4	Peak	Horizontal
*	8650.0	30.0	13.6	43.6	68.2	-24.6	Peak	Horizontal
	11463.5	27.9	19.3	47.2	74.0	-26.8	Peak	Horizontal
	15849.5	25.3	20.4	45.7	74.0	-28.3	Peak	Horizontal
*	7018.0	29.8	10.7	40.5	68.2	-27.7	Peak	Vertical
*	8650.0	28.4	13.6	42.0	68.2	-26.2	Peak	Vertical
	11047.0	28.8	18.5	47.3	74.0	-26.7	Peak	Vertical
	15815.5	25.5	20.4	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 17 of 209





Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1					
Test Channel:	110	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
		limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.	OW MILITE MILE WILLING	ioonie, more le net enew					

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(dBµV)		(dBµV/m)				
*	7859.5	31.2	12.4	43.6	68.2	-24.6	Peak	Horizontal
*	8888.0	28.9	14.0	42.9	68.2	-25.3	Peak	Horizontal
	9483.0	30.8	14.4	45.2	74.0	-28.8	Peak	Horizontal
	11412.5	29.3	19.1	48.4	74.0	-25.6	Peak	Horizontal
*	7953.0	30.9	12.5	43.4	68.2	-24.8	Peak	Vertical
*	8692.5	29.9	13.7	43.6	68.2	-24.6	Peak	Vertical
	9432.0	31.6	14.4	46.0	74.0	-28.0	Peak	Vertical
	11251.0	28.9	18.8	47.7	74.0	-26.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 18 of 209





Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1					
Test Channel:	118	Test Engineer:	Kevin Ker					
Remark:	Average measurement was n	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6576.0	31.8	8.6	40.4	68.2	-27.8	Peak	Horizontal
*	8607.5	30.1	13.5	43.6	68.2	-24.6	Peak	Horizontal
	11948.0	25.7	18.6	44.3	74.0	-29.7	Peak	Horizontal
	15815.5	24.0	20.4	44.4	74.0	-29.6	Peak	Horizontal
*	6389.0	33.9	7.6	41.5	68.2	-26.7	Peak	Vertical
*	8607.5	28.3	13.5	41.8	68.2	-26.4	Peak	Vertical
	11038.5	29.4	18.5	47.9	74.0	-26.1	Peak	Vertical
	15985.5	25.2	20.4	45.6	74.0	-28.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 19 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1					
Test Channel:	134	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	Average measurement was not performed if peak level lower than average limit.						
	 Other frequency was 20dB belin the report. 	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6831.0	32.1	9.3	41.4	68.2	-26.8	Peak	Horizontal
*	8565.0	30.1	13.3	43.4	68.2	-24.8	Peak	Horizontal
	11378.5	27.0	19.1	46.1	74.0	-27.9	Peak	Horizontal
	15985.5	24.9	20.4	45.3	74.0	-28.7	Peak	Horizontal
*	6975.5	31.2	10.4	41.6	68.2	-26.6	Peak	Vertical
*	8565.0	29.6	13.3	42.9	68.2	-25.3	Peak	Vertical
	11421.0	27.7	19.1	46.8	74.0	-27.2	Peak	Vertical
	15645.5	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 20 of 209





Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6763.0	32.4	8.9	41.3	68.2	-26.9	Peak	Horizontal
*	8905.0	28.9	14.0	42.9	68.2	-25.3	Peak	Horizontal
	11021.5	27.5	18.5	46.0	74.0	-28.0	Peak	Horizontal
	15960.0	24.6	20.3	44.9	74.0	-29.1	Peak	Horizontal
*	6448.5	32.6	8.0	40.6	68.2	-27.6	Peak	Vertical
*	8905.0	28.2	14.0	42.2	68.2	-26.0	Peak	Vertical
	11514.5	27.2	19.4	46.6	74.0	-27.4	Peak	Vertical
	15892.0	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 21 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	· ·	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6992.5	32.0	10.5	42.5	68.2	-25.7	Peak	Horizontal
*	8548.0	31.0	13.2	44.2	68.2	-24.0	Peak	Horizontal
	11463.5	28.5	19.3	47.8	74.0	-26.2	Peak	Horizontal
	15892.0	26.5	20.4	46.9	74.0	-27.1	Peak	Horizontal
*	6491.0	33.1	8.3	41.4	68.2	-26.8	Peak	Vertical
*	8548.0	29.4	13.2	42.6	68.2	-25.6	Peak	Vertical
	11336.0	28.5	19.0	47.5	74.0	-26.5	Peak	Vertical
	15569.0	26.0	20.6	46.6	74.0	-27.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 22 of 209





Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1
Test Channel:	64	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6210.5	31.8	6.9	38.7	68.2	-29.5	Peak	Horizontal
*	8650.0	30.6	13.6	44.2	68.2	-24.0	Peak	Horizontal
	11489.0	28.2	19.3	47.5	74.0	-26.5	Peak	Horizontal
	15569.0	25.0	20.6	45.6	74.0	-28.4	Peak	Horizontal
*	6440.0	32.2	8.0	40.2	68.2	-28.0	Peak	Vertical
*	8650.0	29.0	13.6	42.6	68.2	-25.6	Peak	Vertical
	11038.5	28.8	18.5	47.3	74.0	-26.7	Peak	Vertical
	15849.5	25.3	20.4	45.7	74.0	-28.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 23 of 209





Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1
Test Channel:	100	Test Engineer:	Kevin Ker
Remark:	Average measurement was no limit.	t performed if peak I	evel lower than average
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6695.0	32.8	8.7	41.5	68.2	-26.7	Peak	Horizontal
*	8675.5	29.9	13.7	43.6	68.2	-24.6	Peak	Horizontal
	11021.5	27.4	18.5	45.9	74.0	-28.1	Peak	Horizontal
	15849.5	45.8	20.4	66.2	74.0	-7.8	Peak	Horizontal
*	6678.0	31.9	8.7	40.6	68.2	-27.6	Peak	Vertical
*	8675.5	28.1	13.7	41.8	68.2	-26.4	Peak	Vertical
	11846.0	25.8	18.7	44.5	74.0	-29.5	Peak	Vertical
	16011.0	24.4	20.4	44.8	74.0	-29.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 24 of 209





Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1				
Test Channel:	116	Test Engineer:	Kevin Ker				
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average					
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show				

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7817.0	31.4	12.4	43.8	68.2	-24.4	Peak	Horizontal
*	8905.0	29.6	14.0	43.6	68.2	-24.6	Peak	Horizontal
	9364.0	30.2	14.5	44.7	74.0	-29.3	Peak	Horizontal
	11081.0	29.2	18.6	47.8	74.0	-26.2	Peak	Horizontal
*	7808.5	31.5	12.4	43.9	68.2	-24.3	Peak	Vertical
*	8743.5	30.0	13.9	43.9	68.2	-24.3	Peak	Vertical
	9330.0	30.6	14.6	45.2	74.0	-28.8	Peak	Vertical
	10970.5	29.2	18.4	47.6	74.0	-26.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 25 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	t performed if peak I	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6635.5	32.9	8.7	41.6	68.2	-26.6	Peak	Horizontal
*	8599.0	30.2	13.4	43.6	68.2	-24.6	Peak	Horizontal
	11582.5	27.3	19.5	46.8	74.0	-27.2	Peak	Horizontal
	16011.0	24.7	20.4	45.1	74.0	-28.9	Peak	Horizontal
*	6040.5	33.7	6.2	39.9	68.2	-28.3	Peak	Vertical
*	8599.0	29.2	13.4	42.6	68.2	-25.6	Peak	Vertical
	11004.5	33.9	18.5	52.4	74.0	-21.6	Peak	Vertical
	15943.0	27.9	20.3	48.2	74.0	-25.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 26 of 209





Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1				
Test Channel:	140	Test Engineer:	Kevin Ker				
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6321.0	33.5	7.3	40.8	68.2	-27.4	Peak	Horizontal
*	8777.5	30.1	13.9	44.0	68.2	-24.2	Peak	Horizontal
	11361.5	28.8	19.0	47.8	74.0	-26.2	Peak	Horizontal
	15943.0	26.0	20.3	46.3	74.0	-27.7	Peak	Horizontal
*	6295.5	32.1	7.2	39.3	68.2	-28.9	Peak	Vertical
*	8777.5	28.1	13.9	42.0	68.2	-26.2	Peak	Vertical
	11404.0	27.7	19.1	46.8	74.0	-27.2	Peak	Vertical
	15849.5	25.0	20.4	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 27 of 209





Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1					
Test Channel:	144	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	t performed if peak I	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6312.5	31.7	7.2	38.9	68.2	-29.3	Peak	Horizontal
*	8990.0	29.5	14.1	43.6	68.2	-24.6	Peak	Horizontal
	11183.0	26.9	18.7	45.6	74.0	-28.4	Peak	Horizontal
	15849.5	25.3	20.4	45.7	74.0	-28.3	Peak	Horizontal
*	6737.5	31.4	8.8	40.2	68.2	-28.0	Peak	Vertical
*	8990.0	27.6	14.1	41.7	68.2	-26.5	Peak	Vertical
	11684.5	25.8	19.2	45.0	74.0	-29.0	Peak	Vertical
	15858.0	23.7	20.4	44.1	74.0	-29.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 28 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT40 - Ant 0	Test Site:	AC1					
Test Channel:	54	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6720.5	32.6	8.7	41.3	68.2	-26.9	Peak	Horizontal
*	8616.0	30.6	13.5	44.1	68.2	-24.1	Peak	Horizontal
	11276.5	26.5	18.8	45.3	74.0	-28.7	Peak	Horizontal
	15645.5	24.4	20.4	44.8	74.0	-29.2	Peak	Horizontal
*	6652.5	33.3	8.7	42.0	68.2	-26.2	Peak	Vertical
*	8616.0	29.5	13.5	43.0	68.2	-25.2	Peak	Vertical
	11523.0	28.4	19.4	47.8	74.0	-26.2	Peak	Vertical
	15943.0	26.1	20.3	46.4	74.0	-27.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 29 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT40 - Ant 0	Test Site:	AC1				
Test Channel:	62	Test Engineer:	Kevin Ker				
Remark:	Average measurement was no limit.	Average measurement was not performed if peak level lower than average					
	Other frequency was 20dB bellin the report.	ow limit line within 1	-18GHz, there is not show				

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6457.0	33.6	8.1	41.7	68.2	-26.5	Peak	Horizontal
*	8845.5	29.3	14.0	43.3	68.2	-24.9	Peak	Horizontal
	11098.0	29.1	18.6	47.7	74.0	-26.3	Peak	Horizontal
	15943.0	25.3	20.3	45.6	74.0	-28.4	Peak	Horizontal
*	6780.0	32.2	8.9	41.1	68.2	-27.1	Peak	Vertical
*	8845.5	29.0	14.0	43.0	68.2	-25.2	Peak	Vertical
	11497.5	27.9	19.3	47.2	74.0	-26.8	Peak	Vertical
	15722.0	26.3	20.5	46.8	74.0	-27.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 30 of 209





Test Mode:	802.11ac-VHT40 - Ant 0	Test Site:	AC1					
Test Channel:	102	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6856.5	31.4	9.5	40.9	68.2	-27.3	Peak	Horizontal
*	8556.5	29.8	13.2	43.0	68.2	-25.2	Peak	Horizontal
	11863.0	27.5	18.7	46.2	74.0	-27.8	Peak	Horizontal
	15722.0	24.8	20.5	45.3	74.0	-28.7	Peak	Horizontal
*	6533.5	31.7	8.5	40.2	68.2	-28.0	Peak	Vertical
*	8556.5	29.6	13.2	42.8	68.2	-25.4	Peak	Vertical
	11021.5	30.1	18.5	48.6	74.0	-25.4	Peak	Vertical
	15849.5	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 31 of 209





Test Mode:	802.11ac-VHT40 - Ant 0	Test Site:	AC1				
Test Channel:	110	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit. 2. Other frequency was 20dB bel	ow limit line within 1	-18GHz there is not show				
	in the report.	ow inflicting within 1	root iz, there is not snow				

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7791.5	31.2	12.4	43.6	68.2	-24.6	Peak	Horizontal
*	8854.0	31.2	14.0	45.2	68.2	-23.0	Peak	Horizontal
	9313.0	30.1	14.7	44.8	74.0	-29.2	Peak	Horizontal
	11506.0	27.9	19.4	47.3	74.0	-26.7	Peak	Horizontal
*	7791.5	30.9	12.4	43.3	68.2	-24.9	Peak	Vertical
*	8616.0	29.9	13.5	43.4	68.2	-24.8	Peak	Vertical
	9381.0	29.7	14.5	44.2	74.0	-29.8	Peak	Vertical
	11259.5	29.0	18.8	47.8	74.0	-26.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 32 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT40 - Ant 0	Test Site:	AC1					
Test Channel:	118	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6958.5	32.1	10.2	42.3	68.2	-25.9	Peak	Horizontal
*	8879.5	30.2	14.0	44.2	68.2	-24.0	Peak	Horizontal
	11574.0	27.7	19.5	47.2	74.0	-26.8	Peak	Horizontal
	15849.5	23.8	20.4	44.2	74.0	-29.8	Peak	Horizontal
*	6907.5	32.0	9.9	41.9	68.2	-26.3	Peak	Vertical
*	8879.5	28.4	14.0	42.4	68.2	-25.8	Peak	Vertical
	11242.5	28.3	18.8	47.1	74.0	-26.9	Peak	Vertical
	15637.0	25.9	20.4	46.3	74.0	-27.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 33 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT40 - Ant 0	Test Site:	AC1					
Test Channel:	134	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bellin the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6967.0	32.0	10.3	42.3	74.0	-31.7	Peak	Horizontal
*	8692.5	30.2	13.7	43.9	74.0	-30.1	Peak	Horizontal
	11540.0	28.0	19.4	47.4	74.0	-26.6	Peak	Horizontal
	15637.0	25.0	20.4	45.4	74.0	-28.6	Peak	Horizontal
*	6414.5	32.9	7.8	40.7	74.0	-33.3	Peak	Vertical
*	8692.5	29.3	13.7	43.0	74.0	-31.0	Peak	Vertical
	11106.5	28.0	18.6	46.6	74.0	-27.4	Peak	Vertical
	15747.5	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 34 of 209





Test Mode:	802.11ac-VHT40 - Ant 0	Test Site:	AC1					
Test Channel:	142	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6992.5	32.9	10.5	43.4	68.2	-24.8	Peak	Horizontal
*	8624.5	30.8	13.5	44.3	68.2	-23.9	Peak	Horizontal
	11531.5	28.5	19.4	47.9	74.0	-26.1	Peak	Horizontal
	15747.5	25.6	20.4	46.0	74.0	-28.0	Peak	Horizontal
*	6805.5	31.7	9.1	40.8	68.2	-27.4	Peak	Vertical
*	8624.5	28.2	13.5	41.7	68.2	-26.5	Peak	Vertical
	11472.0	27.0	19.3	46.3	74.0	-27.7	Peak	Vertical
	15577.5	25.0	20.5	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 35 of 209





Test Mode:	802.11ac-VHT80 - Ant 0	Test Site:	AC1					
Test Channel:	58	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6414.5	33.6	7.8	41.4	68.2	-26.8	Peak	Horizontal
*	8786.0	29.4	13.9	43.3	68.2	-24.9	Peak	Horizontal
	11115.0	28.2	18.6	46.8	74.0	-27.2	Peak	Horizontal
	16062.0	24.5	20.3	44.8	74.0	-29.2	Peak	Horizontal
*	6550.5	32.7	8.6	41.3	68.2	-26.9	Peak	Vertical
*	8599.0	31.2	13.4	44.6	68.2	-23.6	Peak	Vertical
	11548.5	27.4	19.4	46.8	74.0	-27.2	Peak	Vertical
	15492.5	24.7	20.7	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 36 of 209





Test Mode:	802.11ac-VHT80 - Ant 0	Test Site:	AC1					
Test Channel:	106	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6822.5	32.0	9.2	41.2	68.2	-27.0	Peak	Horizontal
*	8599.0	29.5	13.4	42.9	68.2	-25.3	Peak	Horizontal
	11047.0	28.4	18.5	46.9	74.0	-27.1	Peak	Horizontal
	15492.5	24.4	20.7	45.1	74.0	-28.9	Peak	Horizontal
*	6635.5	31.9	8.7	40.6	68.2	-27.6	Peak	Vertical
*	8599.0	30.4	13.4	43.8	68.2	-24.4	Peak	Vertical
	11625.0	27.7	19.4	47.1	74.0	-26.9	Peak	Vertical
	15773.0	26.4	20.4	46.8	74.0	-27.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 37 of 209





Test Mode:	802.11ac-VHT80 - Ant 0	Test Site:	AC1
Test Channel:	122	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6695.0	32.9	8.7	41.6	68.2	-26.6	Peak	Horizontal
*	8735.0	29.5	13.9	43.4	68.2	-24.8	Peak	Horizontal
	11574.0	28.3	19.5	47.8	74.0	-26.2	Peak	Horizontal
	15773.0	25.6	20.4	46.0	74.0	-28.0	Peak	Horizontal
*	6984.0	31.3	10.4	41.7	68.2	-26.5	Peak	Vertical
*	8735.0	28.4	13.9	42.3	68.2	-25.9	Peak	Vertical
	11336.0	27.2	19.0	46.2	74.0	-27.8	Peak	Vertical
	15713.5	24.9	20.5	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 38 of 209





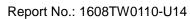
Test Mode:	802.11ac-VHT80 - Ant 0	Test Site:	AC1					
Test Channel:	138	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bellin the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6049.0	34.6	6.2	40.8	68.2	-27.4	Peak	Horizontal
*	8675.5	30.0	13.7	43.7	68.2	-24.5	Peak	Horizontal
	11982.0	27.5	18.7	46.2	74.0	-27.8	Peak	Horizontal
	15713.5	25.0	20.5	45.5	74.0	-28.5	Peak	Horizontal
*	6865.0	31.1	9.5	40.6	68.2	-27.6	Peak	Vertical
*	8675.5	29.5	13.7	43.2	68.2	-25.0	Peak	Vertical
	11948.0	26.0	18.6	44.6	74.0	-29.4	Peak	Vertical
	15722.0	25.6	20.5	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 39 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 0	Test Site:	AC1
Test Channel:	52	Test Engineer:	Kevin Ker
Remark:	Average measurement was no limit. Other fragrange was 20 dB had.		·
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6652.5	33.0	8.7	41.7	68.2	-26.5	Peak	Horizontal
*	8675.5	29.7	13.7	43.4	68.2	-24.8	Peak	Horizontal
	11106.5	28.1	18.6	46.7	74.0	-27.3	Peak	Horizontal
	15484.0	25.1	20.7	45.8	74.0	-28.2	Peak	Horizontal
*	6372.0	33.5	7.5	41.0	68.2	-27.2	Peak	Vertical
*	8675.5	28.7	13.7	42.4	68.2	-25.8	Peak	Vertical
	11557.0	27.7	19.5	47.2	74.0	-26.8	Peak	Vertical
	15654.0	24.8	20.4	45.2	74.0	-28.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 40 of 209





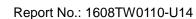
Test Mode:	802.11a - Ant 1	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6431.5	33.7	7.9	41.6	68.2	-26.6	Peak	Horizontal
*	8616.0	29.3	13.5	42.8	68.2	-25.4	Peak	Horizontal
	11429.5	26.7	19.2	45.9	74.0	-28.1	Peak	Horizontal
	15654.0	25.0	20.4	45.4	74.0	-28.6	Peak	Horizontal
*	6678.0	32.1	8.7	40.8	68.2	-27.4	Peak	Vertical
*	8616.0	29.3	13.5	42.8	68.2	-25.4	Peak	Vertical
	11455.0	28.4	19.2	47.6	74.0	-26.4	Peak	Vertical
	15654.0	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 41 of 209





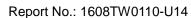
Test Mode:	802.11a - Ant 1	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6482.5	32.6	8.3	40.9	68.2	-27.3	Peak	Horizontal
*	8616.0	29.5	13.5	43.0	68.2	-25.2	Peak	Horizontal
	11540.0	29.0	19.4	48.4	74.0	-25.6	Peak	Horizontal
	15654.0	25.6	20.4	46.0	74.0	-28.0	Peak	Horizontal
*	6984.0	31.0	10.4	41.4	68.2	-26.8	Peak	Vertical
*	8616.0	28.9	13.5	42.4	68.2	-25.8	Peak	Vertical
	11030.0	28.5	18.5	47.0	74.0	-27.0	Peak	Vertical
	15917.5	23.6	20.4	44.0	74.0	-30.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 42 of 209





Test Mode:	802.11a - Ant 1	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6550.5	32.3	8.6	40.9	68.2	-27.3	Peak	Horizontal
*	8616.0	29.9	13.5	43.4	68.2	-24.8	Peak	Horizontal
	11293.5	26.6	18.9	45.5	74.0	-28.5	Peak	Horizontal
	15917.5	24.3	20.4	44.7	74.0	-29.3	Peak	Horizontal
*	6661.0	32.7	8.7	41.4	68.2	-26.8	Peak	Vertical
*	8616.0	29.2	13.5	42.7	68.2	-25.5	Peak	Vertical
	11506.0	27.6	19.4	47.0	74.0	-27.0	Peak	Vertical
	15858.0	26.0	20.4	46.4	74.0	-27.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 43 of 209 IC: 109D-FZCWO4A1





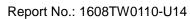
Test Mode:	802.11a - Ant 1	Test Site:	AC1				
Test Channel:	116	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.	limit.					
	4. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7808.5	30.1	12.4	42.5	68.2	-25.7	Peak	Horizontal
*	8888.0	30.2	14.0	44.2	68.2	-24.0	Peak	Horizontal
	9381.0	30.1	14.5	44.6	74.0	-29.4	Peak	Horizontal
	11548.5	28.7	19.4	48.1	74.0	-25.9	Peak	Horizontal
*	7885.0	31.3	12.4	43.7	68.2	-24.5	Peak	Vertical
*	8803.0	28.2	14.0	42.2	68.2	-26.0	Peak	Vertical
	9466.0	29.8	14.4	44.2	74.0	-29.8	Peak	Vertical
	10928.0	28.9	18.4	47.3	74.0	-26.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 44 of 209





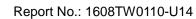
Test Mode:	802.11a - Ant 1	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6440.0	32.1	8.0	40.1	68.2	-28.1	Peak	Horizontal
*	8599.0	29.8	13.4	43.2	68.2	-25.0	Peak	Horizontal
	11455.0	28.3	19.2	47.5	74.0	-26.5	Peak	Horizontal
	15858.0	24.6	20.4	45.0	74.0	-29.0	Peak	Horizontal
*	6916.0	31.6	9.9	41.5	68.2	-26.7	Peak	Vertical
*	8599.0	29.9	13.4	43.3	68.2	-24.9	Peak	Vertical
	11463.5	27.9	19.3	47.2	74.0	-26.8	Peak	Vertical
	15926.0	25.2	20.4	45.6	74.0	-28.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 45 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 1	Test Site:	AC1				
Test Channel:	140	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6720.5	32.8	8.7	41.5	68.2	-26.7	Peak	Horizontal
*	8565.0	30.7	13.3	44.0	68.2	-24.2	Peak	Horizontal
	11191.5	30.2	18.7	48.9	74.0	-25.1	Peak	Horizontal
	15926.0	26.3	20.4	46.7	74.0	-27.3	Peak	Horizontal
*	6576.0	32.1	8.6	40.7	68.2	-27.5	Peak	Vertical
*	8565.0	29.0	13.3	42.3	68.2	-25.9	Peak	Vertical
	11319.0	28.1	18.9	47.0	74.0	-27.0	Peak	Vertical
	15705.0	24.4	20.5	44.9	74.0	-29.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 46 of 209





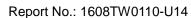
Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6593.0	32.8	8.7	41.5	68.2	-26.7	Peak	Horizontal
*	8752.0	29.8	13.9	43.7	68.2	-24.5	Peak	Horizontal
	11846.0	26.9	18.7	45.6	74.0	-28.4	Peak	Horizontal
	15790.0	24.9	20.4	45.3	74.0	-28.7	Peak	Horizontal
*	6848.0	31.4	9.4	40.8	68.2	-27.4	Peak	Vertical
*	8752.0	28.6	13.9	42.5	68.2	-25.7	Peak	Vertical
	11591.0	27.7	19.5	47.2	74.0	-26.8	Peak	Vertical
	16172.5	25.0	20.6	45.6	74.0	-28.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 47 of 209





Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6074.5	33.9	6.3	40.2	68.2	-28.0	Peak	Horizontal
*	8743.5	30.3	13.9	44.2	68.2	-24.0	Peak	Horizontal
	11531.5	27.9	19.4	47.3	74.0	-26.7	Peak	Horizontal
	16172.5	25.7	20.6	46.3	74.0	-27.7	Peak	Horizontal
*	6788.5	32.8	9.0	41.8	68.2	-26.4	Peak	Vertical
*	8743.5	29.6	13.9	43.5	68.2	-24.7	Peak	Vertical
	11115.0	28.9	18.6	47.5	74.0	-26.5	Peak	Vertical
	15773.0	27.0	20.4	47.4	74.0	-26.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 48 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6278.5	32.9	7.1	40.0	68.2	-28.2	Peak	Horizontal
*	8845.5	29.8	14.0	43.8	68.2	-24.4	Peak	Horizontal
	11948.0	27.2	18.6	45.8	74.0	-28.2	Peak	Horizontal
	15773.0	25.2	20.4	45.6	74.0	-28.4	Peak	Horizontal
*	6372.0	33.2	7.5	40.7	68.2	-27.5	Peak	Vertical
*	8845.5	27.7	14.0	41.7	68.2	-26.5	Peak	Vertical
	11582.5	27.1	19.5	46.6	74.0	-27.4	Peak	Vertical
	15713.5	25.2	20.5	45.7	74.0	-28.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 49 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6669.5	32.8	8.7	41.5	68.2	-26.7	Peak	Horizontal
*	8633.0	30.3	13.5	43.8	68.2	-24.4	Peak	Horizontal
	10996.0	33.6	18.5	52.1	74.0	-21.9	Peak	Horizontal
	15713.5	24.8	20.5	45.3	74.0	-28.7	Peak	Horizontal
*	6321.0	33.9	7.3	41.2	68.2	-27.0	Peak	Vertical
*	8633.0	29.5	13.5	43.0	68.2	-25.2	Peak	Vertical
	11004.5	32.2	18.5	50.7	74.0	-23.3	Peak	Vertical
	15790.0	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 50 of 209





Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1					
Test Channel:	116	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7817.0	30.7	12.4	43.1	68.2	-25.1	Peak	Horizontal
*	8760.5	29.1	13.9	43.0	68.2	-25.2	Peak	Horizontal
	9381.0	29.1	14.5	43.6	74.0	-30.4	Peak	Horizontal
	10877.0	30.1	18.2	48.3	74.0	-25.7	Peak	Horizontal
*	7791.5	33.1	12.4	45.5	68.2	-22.7	Peak	Vertical
*	8854.0	28.5	14.0	42.5	68.2	-25.7	Peak	Vertical
	9423.5	31.4	14.5	45.9	74.0	-28.1	Peak	Vertical
	11030.0	28.8	18.5	47.3	74.0	-26.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 51 of 209





Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1
Test Channel:	120	Test Engineer:	Kevin Ker
Remark:	Average measurement was no limit.		Ç
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6950.0	31.9	10.2	42.1	68.2	-26.1	Peak	Horizontal
*	8837.0	29.4	14.0	43.4	68.2	-24.8	Peak	Horizontal
	11565.5	27.3	19.5	46.8	74.0	-27.2	Peak	Horizontal
	15790.0	24.6	20.4	45.0	74.0	-29.0	Peak	Horizontal
*	6593.0	34.6	8.7	43.3	68.2	-24.9	Peak	Vertical
*	8837.0	27.8	14.0	41.8	68.2	-26.4	Peak	Vertical
	11208.5	30.2	18.8	49.0	74.0	-25.0	Peak	Vertical
	15849.5	24.8	20.4	45.2	74.0	-28.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 52 of 209





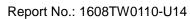
Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1					
Test Channel:	140	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6805.5	33.4	9.1	42.5	68.2	-25.7	Peak	Horizontal
*	8854.0	30.1	14.0	44.1	68.2	-24.1	Peak	Horizontal
	11395.5	31.5	19.1	50.6	74.0	-23.4	Peak	Horizontal
	15849.5	25.7	20.4	46.1	74.0	-27.9	Peak	Horizontal
*	6584.5	32.5	8.6	41.1	68.2	-27.1	Peak	Vertical
*	8854.0	28.1	14.0	42.1	68.2	-26.1	Peak	Vertical
	11030.0	28.5	18.5	47.0	74.0	-27.0	Peak	Vertical
	15866.5	25.5	20.4	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 53 of 209





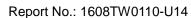
Test Mode:	802.11n-HT40 - Ant 1	Test Site:	AC1					
Test Channel:	54	Test Engineer:	Kevin Ker					
Remark:	· ·	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6695.0	32.1	8.7	40.8	68.2	-27.4	Peak	Horizontal
*	8667.0	30.3	13.6	43.9	68.2	-24.3	Peak	Horizontal
	11523.0	29.1	19.4	48.5	74.0	-25.5	Peak	Horizontal
	15773.0	24.8	20.4	45.2	74.0	-28.8	Peak	Horizontal
*	6933.0	33.3	10.1	43.4	68.2	-24.8	Peak	Vertical
*	8667.0	28.4	13.6	42.0	68.2	-26.2	Peak	Vertical
	11064.0	29.8	18.5	48.3	74.0	-25.7	Peak	Vertical
	15985.5	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 54 of 209





Test Mode:	802.11n-HT40 - Ant 1	Test Site:	AC1					
Test Channel:	62	Test Engineer:	Kevin Ker					
Remark:	· ·	. Average measurement was not performed if peak level lower than average						
	limit.	avy limait lima vyithim 4	1001 - there is not show					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6355.0	33.0	7.5	40.5	68.2	-27.7	Peak	Horizontal
*	8854.0	29.3	14.0	43.3	68.2	-24.9	Peak	Horizontal
	11582.5	26.9	19.5	46.4	74.0	-27.6	Peak	Horizontal
	15985.5	25.2	20.4	45.6	74.0	-28.4	Peak	Horizontal
*	6338.0	32.9	7.4	40.3	68.2	-27.9	Peak	Vertical
*	8854.0	28.8	14.0	42.8	68.2	-25.4	Peak	Vertical
	11548.5	28.6	19.4	48.0	74.0	-26.0	Peak	Vertical
	15773.0	26.0	20.4	46.4	74.0	-27.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 55 of 209





Test Mode:	802.11n-HT40 - Ant 1	Test Site:	AC1					
Test Channel:	102	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6618.5	33.2	8.7	41.9	68.2	-26.3	Peak	Horizontal
*	8692.5	30.5	13.7	44.2	68.2	-24.0	Peak	Horizontal
	11030.0	30.4	18.5	48.9	74.0	-25.1	Peak	Horizontal
	15883.5	25.7	20.4	46.1	74.0	-27.9	Peak	Horizontal
*	6465.5	51.4	-9.4	42.0	68.2	-26.2	Peak	Vertical
*	8692.5	45.7	-1.7	44.0	68.2	-24.2	Peak	Vertical
	11548.5	43.4	4.1	47.5	74.0	-26.5	Peak	Vertical
	15594.5	41.1	4.1	45.2	74.0	-28.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 56 of 209





Test Mode:	802.11n-HT40 - Ant 1	Test Site:	AC1					
Test Channel:	110	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7766.0	31.9	12.4	44.3	68.2	-23.9	Peak	Horizontal
*	8616.0	30.0	13.5	43.5	68.2	-24.7	Peak	Horizontal
	9432.0	29.3	14.4	43.7	74.0	-30.3	Peak	Horizontal
	11344.5	28.7	19.0	47.7	74.0	-26.3	Peak	Horizontal
*	7919.0	29.5	12.4	41.9	68.2	-26.3	Peak	Vertical
*	8786.0	28.4	13.9	42.3	68.2	-25.9	Peak	Vertical
	9389.5	29.7	14.5	44.2	74.0	-29.8	Peak	Vertical
	10843.0	29.1	18.1	47.2	74.0	-26.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 57 of 209 IC: 109D-FZCWO4A1





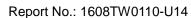
Test Mode:	802.11n-HT40 - Ant 1	Test Site:	AC1					
Test Channel:	118	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6737.5	32.1	8.8	40.9	68.2	-27.3	Peak	Horizontal
*	8675.5	30.5	13.7	44.2	68.2	-24.0	Peak	Horizontal
	11174.5	29.8	18.7	48.5	74.0	-25.5	Peak	Horizontal
	15594.5	25.6	20.5	46.1	74.0	-27.9	Peak	Horizontal
*	6380.5	34.0	7.6	41.6	68.2	-26.6	Peak	Vertical
*	8675.5	29.8	13.7	43.5	68.2	-24.7	Peak	Vertical
	11174.5	31.6	18.7	50.3	74.0	-23.7	Peak	Vertical
	15849.5	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 58 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 1	Test Site:	AC1					
Test Channel:	134	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6873.5	31.9	9.6	41.5	68.2	-26.7	Peak	Horizontal
*	8990.0	29.5	14.1	43.6	68.2	-24.6	Peak	Horizontal
	11956.5	26.7	18.6	45.3	74.0	-28.7	Peak	Horizontal
	15849.5	24.7	20.4	45.1	74.0	-28.9	Peak	Horizontal
*	6737.5	32.3	8.8	41.1	68.2	-27.1	Peak	Vertical
*	8990.0	28.0	14.1	42.1	68.2	-26.1	Peak	Vertical
	11514.5	27.4	19.4	46.8	74.0	-27.2	Peak	Vertical
	15662.5	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 59 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6661.0	32.5	8.7	41.2	68.2	-27.0	Peak	Horizontal
*	8820.0	30.0	14.0	44.0	68.2	-24.2	Peak	Horizontal
	11540.0	27.3	19.4	46.7	74.0	-27.3	Peak	Horizontal
	15858.0	25.2	20.4	45.6	74.0	-28.4	Peak	Horizontal
*	6950.0	31.0	10.2	41.2	68.2	-27.0	Peak	Vertical
*	8820.0	29.5	14.0	43.5	68.2	-24.7	Peak	Vertical
	11633.5	27.1	19.4	46.5	74.0	-27.5	Peak	Vertical
	15713.5	25.4	20.5	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 60 of 209





Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6924.5	21.9	20.0	41.9	68.2	-26.3	Peak	Horizontal
*	8624.5	20.3	22.9	43.2	68.2	-25.0	Peak	Horizontal
	11846.0	18.4	27.1	45.5	74.0	-28.5	Peak	Horizontal
	15501.0	19.2	26.6	45.8	74.0	-28.2	Peak	Horizontal
*	6822.5	31.7	9.2	40.9	68.2	-27.3	Peak	Vertical
*	8709.5	29.4	13.8	43.2	68.2	-25.0	Peak	Vertical
	11472.0	28.1	19.3	47.4	74.0	-26.6	Peak	Vertical
	15764.5	25.8	20.4	46.2	74.0	-27.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 61 of 209





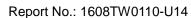
Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6984.0	30.8	10.4	41.2	68.2	-27.0	Peak	Horizontal
*	8650.0	30.0	13.6	43.6	68.2	-24.6	Peak	Horizontal
	11489.0	27.8	19.3	47.1	74.0	-26.9	Peak	Horizontal
	15764.5	26.0	20.4	46.4	74.0	-27.6	Peak	Horizontal
*	6185.0	34.1	6.8	40.9	68.2	-27.3	Peak	Vertical
*	8650.0	29.4	13.6	43.0	68.2	-25.2	Peak	Vertical
	11523.0	28.6	19.4	48.0	74.0	-26.0	Peak	Vertical
	15917.5	24.7	20.4	45.1	74.0	-28.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 62 of 209 IC: 109D-FZCWO4A1





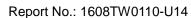
Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6576.0	22.2	19.2	41.4	68.2	-26.8	Peak	Horizontal
*	8794.5	20.5	23.1	43.6	68.2	-24.6	Peak	Horizontal
	10996.0	21.4	27.6	49.0	74.0	-25.0	Peak	Horizontal
	15875.0	21.0	24.5	45.5	74.0	-28.5	Peak	Horizontal
*	6635.5	33.3	8.7	42.0	68.2	-26.2	Peak	Vertical
*	8794.5	28.4	13.9	42.3	68.2	-25.9	Peak	Vertical
	11004.5	29.7	18.5	48.2	74.0	-25.8	Peak	Vertical
	15858.0	24.5	20.4	44.9	74.0	-29.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 63 of 209





Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1
Test Channel:	116	Test Engineer:	Kevin Ker
Remark:	Average measurement was no limit.	t performed if peak I	evel lower than average
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7842.5	30.6	12.4	43.0	68.2	-25.2	Peak	Horizontal
*	8692.5	28.6	13.7	42.3	68.2	-25.9	Peak	Horizontal
	9474.5	29.9	14.4	44.3	74.0	-29.7	Peak	Horizontal
	11123.5	28.6	18.6	47.2	74.0	-26.8	Peak	Horizontal
*	7808.5	30.4	12.4	42.8	68.2	-25.4	Peak	Vertical
*	8658.5	28.4	13.6	42.0	68.2	-26.2	Peak	Vertical
	9457.5	30.8	14.4	45.2	74.0	-28.8	Peak	Vertical
	11013.0	29.3	18.5	47.8	74.0	-26.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 64 of 209





Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6703.5	32.6	8.7	41.3	68.2	-26.9	Peak	Horizontal
*	8735.0	30.3	13.9	44.2	68.2	-24.0	Peak	Horizontal
	11200.0	29.8	18.7	48.5	74.0	-25.5	Peak	Horizontal
	15858.0	24.5	20.4	44.9	74.0	-29.1	Peak	Horizontal
*	6831.0	31.8	9.3	41.1	68.2	-27.1	Peak	Vertical
*	8735.0	28.7	13.9	42.6	68.2	-25.6	Peak	Vertical
	11200.0	30.7	18.7	49.4	74.0	-24.6	Peak	Vertical
	15662.5	25.3	20.4	45.7	74.0	-28.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 65 of 209





Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1					
Test Channel:	140	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6414.5	33.2	7.8	41.0	68.2	-27.2	Peak	Horizontal
*	8837.0	29.5	14.0	43.5	68.2	-24.7	Peak	Horizontal
	11336.0	27.6	19.0	46.6	74.0	-27.4	Peak	Horizontal
	15662.5	26.1	20.4	46.5	74.0	-27.5	Peak	Horizontal
*	6610.0	32.8	8.7	41.5	68.2	-26.7	Peak	Vertical
*	8837.0	28.7	14.0	42.7	68.2	-25.5	Peak	Vertical
	11404.0	28.8	19.1	47.9	74.0	-26.1	Peak	Vertical
	15739.0	25.9	20.4	46.3	74.0	-27.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 66 of 209





Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1						
Test Channel:	144	Test Engineer:	Kevin Ker						
Remark:	Average measurement was not performed if peak level lower than average								
	limit.								
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.								

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6831.0	32.8	9.3	42.1	68.2	-26.1	Peak	Horizontal
*	8667.0	30.5	13.6	44.1	68.2	-24.1	Peak	Horizontal
	11132.0	29.2	18.6	47.8	74.0	-26.2	Peak	Horizontal
	15739.0	25.0	20.4	45.4	74.0	-28.6	Peak	Horizontal
*	6236.0	33.9	6.9	40.8	68.2	-27.4	Peak	Vertical
*	8548.0	30.7	13.2	43.9	68.2	-24.3	Peak	Vertical
	11438.0	30.6	19.2	49.8	74.0	-24.2	Peak	Vertical
	15773.0	25.4	20.4	45.8	74.0	-28.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 67 of 209





Test Mode:	802.11ac-VHT40 - Ant 1	Test Site:	AC1					
Test Channel:	54	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7060.5	31.1	11.1	42.2	68.2	-26.0	Peak	Horizontal
*	8871.0	27.4	14.0	41.4	68.2	-26.8	Peak	Horizontal
	11497.5	28.6	19.3	47.9	74.0	-26.1	Peak	Horizontal
	15798.5	25.4	20.4	45.8	74.0	-28.2	Peak	Horizontal
*	6967.0	22.1	20.2	42.3	68.2	-25.9	Peak	Vertical
*	8701.0	21.5	23.0	44.5	68.2	-23.7	Peak	Vertical
	11931.0	18.5	27.1	45.6	74.0	-28.4	Peak	Vertical
	15798.5	20.7	24.7	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 68 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT40 - Ant 1	Test Site:	AC1					
Test Channel:	62	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bell in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6355.0	33.4	7.5	40.9	68.2	-27.3	Peak	Horizontal
*	8701.0	29.6	13.8	43.4	68.2	-24.8	Peak	Horizontal
	11387.0	27.1	19.1	46.2	74.0	-27.8	Peak	Horizontal
	15790.0	25.3	20.4	45.7	74.0	-28.3	Peak	Horizontal
*	6899.0	22.5	19.9	42.4	68.2	-25.8	Peak	Vertical
*	8658.5	22.2	22.9	45.1	68.2	-23.1	Peak	Vertical
	11514.5	19.5	27.8	47.3	74.0	-26.7	Peak	Vertical
	15790.0	21.3	24.7	46.0	74.0	-28.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 69 of 209





Test Mode:	802.11ac-VHT40 - Ant 1	Test Site:	AC1					
Test Channel:	102	Test Engineer:	Kevin Ker					
Remark:		Average measurement was not performed if peak level lower than average						
	limit. 2. Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6261.5	34.2	7.0	41.2	68.2	-27.0	Peak	Horizontal
*	8658.5	29.3	13.6	42.9	68.2	-25.3	Peak	Horizontal
	10996.0	30.2	18.5	48.7	74.0	-25.3	Peak	Horizontal
	15934.5	25.6	20.3	45.9	74.0	-28.1	Peak	Horizontal
*	6788.5	33.5	9.0	42.5	68.2	-25.7	Peak	Vertical
*	8641.5	30.7	13.5	44.2	68.2	-24.0	Peak	Vertical
	11327.5	28.1	18.9	47.0	74.0	-27.0	Peak	Vertical
	15934.5	25.6	20.3	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 70 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT40 - Ant 1	Test Site:	AC1
Test Channel:	110	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7817.0	31.3	12.4	43.7	68.2	-24.5	Peak	Horizontal
*	8692.5	29.4	13.7	43.1	68.2	-25.1	Peak	Horizontal
	9313.0	28.7	14.7	43.4	74.0	-30.6	Peak	Horizontal
	11582.5	28.2	19.5	47.7	74.0	-26.3	Peak	Horizontal
*	7842.5	29.3	12.4	41.7	68.2	-26.5	Peak	Vertical
*	8735.0	28.9	13.9	42.8	68.2	-25.4	Peak	Vertical
	9347.0	28.5	14.5	43.0	74.0	-31.0	Peak	Vertical
	11599.5	27.7	19.4	47.1	74.0	-26.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 71 of 209





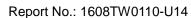
Test Mode:	802.11ac-VHT40 - Ant 1	Test Site:	AC1					
Test Channel:	118	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6669.5	33.2	8.7	41.9	68.2	-26.3	Peak	Horizontal
*	8641.5	29.6	13.5	43.1	68.2	-25.1	Peak	Horizontal
	11166.0	29.3	18.7	48.0	74.0	-26.0	Peak	Horizontal
	15790.0	25.9	20.4	46.3	74.0	-27.7	Peak	Horizontal
*	6865.0	32.1	9.5	41.6	68.2	-26.6	Peak	Vertical
*	8769.0	29.5	13.9	43.4	68.2	-24.8	Peak	Vertical
	11174.5	30.5	18.7	49.2	74.0	-24.8	Peak	Vertical
	15790.0	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 72 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT40 - Ant 1	Test Site:	AC1					
Test Channel:	134	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6763.0	32.3	8.9	41.2	74.0	-32.8	Peak	Horizontal
*	8769.0	28.9	13.9	42.8	74.0	-31.2	Peak	Horizontal
	11489.0	27.7	19.3	47.0	74.0	-27.0	Peak	Horizontal
	15866.5	25.1	20.4	45.5	74.0	-28.5	Peak	Horizontal
*	6822.5	33.4	9.2	42.6	74.0	-31.4	Peak	Vertical
*	8701.0	30.8	13.8	44.6	74.0	-29.4	Peak	Vertical
	11582.5	28.2	19.5	47.7	74.0	-26.3	Peak	Vertical
	15866.5	25.3	20.4	45.7	74.0	-28.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 73 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT40 - Ant 1	Test Site:	AC1					
Test Channel:	142	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6873.5	35.0	9.6	44.6	68.2	-23.6	Peak	Horizontal
*	8701.0	29.0	13.8	42.8	68.2	-25.4	Peak	Horizontal
	11421.0	29.1	19.1	48.2	74.0	-25.8	Peak	Horizontal
	15705.0	25.4	20.5	45.9	74.0	-28.1	Peak	Horizontal
*	6601.5	33.5	8.7	42.2	68.2	-26.0	Peak	Vertical
*	8658.5	30.3	13.6	43.9	68.2	-24.3	Peak	Vertical
	11540.0	28.6	19.4	48.0	74.0	-26.0	Peak	Vertical
	15705.0	25.1	20.5	45.6	74.0	-28.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 74 of 209





Test Mode:	802.11ac-VHT80 - Ant 1	Test Site:	AC1
Test Channel:	58	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6066.0	33.9	6.3	40.2	68.2	-28.0	Peak	Horizontal
*	8692.5	29.3	13.7	43.0	68.2	-25.2	Peak	Horizontal
	11548.5	28.4	19.4	47.8	74.0	-26.2	Peak	Horizontal
	15713.5	25.6	20.5	46.1	74.0	-27.9	Peak	Horizontal
*	6278.5	34.0	7.1	41.1	68.2	-27.1	Peak	Vertical
*	8633.0	30.8	13.5	44.3	68.2	-23.9	Peak	Vertical
	11455.0	27.5	19.2	46.7	74.0	-27.3	Peak	Vertical
	15713.5	25.5	20.5	46.0	74.0	-28.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 75 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT80 - Ant 1	Test Site:	AC1					
Test Channel:	106	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	Average measurement was not performed if peak level lower than average limit						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6431.5	34.0	7.9	41.9	68.2	-26.3	Peak	Horizontal
*	8633.0	29.0	13.5	42.5	68.2	-25.7	Peak	Horizontal
	11429.5	26.8	19.2	46.0	74.0	-28.0	Peak	Horizontal
	15866.5	24.0	20.4	44.4	74.0	-29.6	Peak	Horizontal
*	6236.0	34.0	6.9	40.9	68.2	-27.3	Peak	Vertical
*	8862.5	30.2	14.0	44.2	68.2	-24.0	Peak	Vertical
	11072.5	29.5	18.6	48.1	74.0	-25.9	Peak	Vertical
	15866.5	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 76 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT80 - Ant 1	Test Site:	AC1					
Test Channel:	122	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6873.5	33.0	9.6	42.6	68.2	-25.6	Peak	Horizontal
*	8862.5	28.7	14.0	42.7	68.2	-25.5	Peak	Horizontal
	11225.5	27.1	18.8	45.9	74.0	-28.1	Peak	Horizontal
	15603.0	27.1	20.5	47.6	74.0	-26.4	Peak	Horizontal
*	6890.5	31.2	9.7	40.9	68.2	-27.3	Peak	Vertical
*	8633.0	30.7	13.5	44.2	68.2	-24.0	Peak	Vertical
	11200.0	29.9	18.7	48.6	74.0	-25.4	Peak	Vertical
	15603.0	25.3	20.5	45.8	74.0	-28.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 77 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT80 - Ant 1	Test Site:	AC1					
Test Channel:	138	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	 Other frequency was 20dB belin the report. 	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6856.5	33.2	9.5	42.7	68.2	-25.5	Peak	Horizontal
*	8633.0	29.7	13.5	43.2	68.2	-25.0	Peak	Horizontal
	11506.0	28.9	19.4	48.3	74.0	-25.7	Peak	Horizontal
	15705.0	25.5	20.5	46.0	74.0	-28.0	Peak	Horizontal
*	6525.0	33.3	8.5	41.8	68.2	-26.4	Peak	Vertical
*	8871.0	30.5	14.0	44.5	68.2	-23.7	Peak	Vertical
	11344.5	29.0	19.0	48.0	74.0	-26.0	Peak	Vertical
	15705.0	24.7	20.5	45.2	74.0	-28.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 78 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 2	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bellin the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6491.0	33.9	8.3	42.2	68.2	-26.0	Peak	Horizontal
*	8633.0	29.2	13.5	42.7	68.2	-25.5	Peak	Horizontal
	11506.0	28.3	19.4	47.7	74.0	-26.3	Peak	Horizontal
	15883.5	25.5	20.4	45.9	74.0	-28.1	Peak	Horizontal
*	6168.0	34.1	6.7	40.8	68.2	-27.4	Peak	Vertical
*	8743.5	29.8	13.9	43.7	68.2	-24.5	Peak	Vertical
	11055.5	28.8	18.5	47.3	74.0	-26.7	Peak	Vertical
	15883.5	25.3	20.4	45.7	74.0	-28.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 79 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 2	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6312.5	34.1	7.2	41.3	68.2	-26.9	Peak	Horizontal
*	8743.5	28.2	13.9	42.1	68.2	-26.1	Peak	Horizontal
	11404.0	27.7	19.1	46.8	74.0	-27.2	Peak	Horizontal
	15781.5	25.6	20.4	46.0	74.0	-28.0	Peak	Horizontal
*	6720.5	33.1	8.7	41.8	68.2	-26.4	Peak	Vertical
*	8701.0	30.1	13.8	43.9	68.2	-24.3	Peak	Vertical
	11735.5	27.8	19.0	46.8	74.0	-27.2	Peak	Vertical
	15781.5	24.7	20.4	45.1	74.0	-28.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 80 of 209 IC: 109D-FZCWO4A1



Report No.: 1608TW0110-U14

Test Mode:	802.11a - Ant 2	Test Site:	AC1						
Test Channel:	64	Test Engineer:	Kevin Ker						
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average							
	limit.	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.								

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6474.0	33.1	8.2	41.3	68.2	-26.9	Peak	Horizontal
*	8701.0	28.8	13.8	42.6	68.2	-25.6	Peak	Horizontal
	11310.5	28.4	18.9	47.3	74.0	-26.7	Peak	Horizontal
	15730.5	25.9	20.5	46.4	74.0	-27.6	Peak	Horizontal
*	6737.5	33.7	8.8	42.5	68.2	-25.7	Peak	Vertical
*	8854.0	29.8	14.0	43.8	68.2	-24.4	Peak	Vertical
	11055.5	29.5	18.5	48.0	74.0	-26.0	Peak	Vertical
	15730.5	24.5	20.5	45.0	74.0	-29.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 81 of 209





Test Mode:	802.11a - Ant 2	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6278.5	33.6	7.1	40.7	68.2	-27.5	Peak	Horizontal
*	8854.0	28.6	14.0	42.6	68.2	-25.6	Peak	Horizontal
	11778.0	27.6	18.8	46.4	74.0	-27.6	Peak	Horizontal
	15773.0	25.0	20.4	45.4	74.0	-28.6	Peak	Horizontal
*	6244.5	34.2	7.0	41.2	68.2	-27.0	Peak	Vertical
*	8854.0	29.3	14.0	43.3	68.2	-24.9	Peak	Vertical
	11599.5	28.1	19.4	47.5	74.0	-26.5	Peak	Vertical
	15773.0	24.9	20.4	45.3	74.0	-28.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 82 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 2	Test Site:	AC1					
Test Channel:	116	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7774.5	31.5	12.4	43.9	68.2	-24.3	Peak	Horizontal
*	8701.0	29.1	13.8	42.9	68.2	-25.3	Peak	Horizontal
	9423.5	29.0	14.5	43.5	74.0	-30.5	Peak	Horizontal
	10673.0	29.9	17.4	47.3	74.0	-26.7	Peak	Horizontal
*	7851.0	31.8	12.4	44.2	68.2	-24.0	Peak	Vertical
*	8675.5	28.9	13.7	42.6	68.2	-25.6	Peak	Vertical
	9330.0	29.8	14.6	44.4	74.0	-29.6	Peak	Vertical
	11276.5	28.3	18.8	47.1	74.0	-26.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 83 of 209





Test Mode:	802.11a - Ant 2	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6780.0	32.5	8.9	41.4	68.2	-26.8	Peak	Horizontal
*	8854.0	28.9	14.0	42.9	68.2	-25.3	Peak	Horizontal
	11302.0	27.9	18.9	46.8	74.0	-27.2	Peak	Horizontal
	15773.0	25.4	20.4	45.8	74.0	-28.2	Peak	Horizontal
*	6746.0	32.5	8.8	41.3	68.2	-26.9	Peak	Vertical
*	8786.0	30.7	13.9	44.6	68.2	-23.6	Peak	Vertical
	11591.0	28.2	19.5	47.7	74.0	-26.3	Peak	Vertical
	15773.0	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 84 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 2	Test Site:	AC1					
Test Channel:	140	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6788.5	32.9	9.0	41.9	68.2	-26.3	Peak	Horizontal
*	8786.0	28.0	13.9	41.9	68.2	-26.3	Peak	Horizontal
	11293.5	27.8	18.9	46.7	74.0	-27.3	Peak	Horizontal
	15849.5	25.3	20.4	45.7	74.0	-28.3	Peak	Horizontal
*	6210.5	34.0	6.9	40.9	68.2	-27.3	Peak	Vertical
*	8616.0	29.4	13.5	42.9	68.2	-25.3	Peak	Vertical
	11293.5	27.4	18.9	46.3	74.0	-27.7	Peak	Vertical
	15849.5	24.8	20.4	45.2	74.0	-28.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 85 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT20 - Ant 2	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6423.0	33.7	7.8	41.5	68.2	-26.7	Peak	Horizontal
*	8845.5	29.6	14.0	43.6	68.2	-24.6	Peak	Horizontal
	11480.5	27.7	19.3	47.0	74.0	-27.0	Peak	Horizontal
	15883.5	25.8	20.4	46.2	74.0	-27.8	Peak	Horizontal
*	6933.0	32.6	10.1	42.7	68.2	-25.5	Peak	Vertical
*	8854.0	29.6	14.0	43.6	68.2	-24.6	Peak	Vertical
	11523.0	28.3	19.4	47.7	74.0	-26.3	Peak	Vertical
	15883.5	25.0	20.4	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 86 of 209





Test Mode:	802.11n-HT20 - Ant 2	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6933.0	31.7	10.1	41.8	68.2	-26.4	Peak	Horizontal
*	8854.0	29.1	14.0	43.1	68.2	-25.1	Peak	Horizontal
	11157.5	28.2	18.7	46.9	74.0	-27.1	Peak	Horizontal
	15807.0	25.2	20.4	45.6	74.0	-28.4	Peak	Horizontal
*	6329.5	37.6	5.0	42.6	68.2	-25.6	Peak	Vertical
*	8752.0	35.6	9.0	44.6	68.2	-23.6	Peak	Vertical
	11251.0	34.2	12.4	46.6	74.0	-27.4	Peak	Vertical
	15807.0	33.9	11.7	45.6	74.0	-28.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 87 of 209





Test Mode:	802.11n-HT20 - Ant 2	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6440.0	33.7	8.0	41.7	68.2	-26.5	Peak	Horizontal
*	8752.0	28.8	13.9	42.7	68.2	-25.5	Peak	Horizontal
	11455.0	28.5	19.2	47.7	74.0	-26.3	Peak	Horizontal
	15722.0	26.2	20.5	46.7	74.0	-27.3	Peak	Horizontal
*	6142.5	33.6	6.6	40.2	68.2	-28.0	Peak	Vertical
*	8616.0	31.0	13.5	44.5	68.2	-23.7	Peak	Vertical
	11412.5	27.9	19.1	47.0	74.0	-27.0	Peak	Vertical
	15722.0	24.8	20.5	45.3	74.0	-28.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 88 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT20 - Ant 2	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6202.0	33.9	6.8	40.7	68.2	-27.5	Peak	Horizontal
*	8616.0	29.5	13.5	43.0	68.2	-25.2	Peak	Horizontal
	11395.5	28.1	19.1	47.2	74.0	-26.8	Peak	Horizontal
	15705.0	25.2	20.5	45.7	74.0	-28.3	Peak	Horizontal
*	6729.0	34.2	8.7	42.9	68.2	-25.3	Peak	Vertical
*	8845.5	28.7	14.0	42.7	68.2	-25.5	Peak	Vertical
	11506.0	28.0	19.4	47.4	74.0	-26.6	Peak	Vertical
	15705.0	24.3	20.5	44.8	74.0	-29.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 89 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT20 - Ant 2	Test Site:	AC1					
Test Channel:	116	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7868.0	32.0	12.4	44.4	68.2	-23.8	Peak	Horizontal
*	8692.5	29.6	13.7	43.3	68.2	-24.9	Peak	Horizontal
	9466.0	29.9	14.4	44.3	74.0	-29.7	Peak	Horizontal
	11608.0	28.3	19.4	47.7	74.0	-26.3	Peak	Horizontal
*	7893.5	31.6	12.4	44.0	68.2	-24.2	Peak	Vertical
*	8667.0	29.7	13.6	43.3	68.2	-24.9	Peak	Vertical
	9423.5	30.7	14.5	45.2	74.0	-28.8	Peak	Vertical
	11574.0	27.7	19.5	47.2	74.0	-26.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 90 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT20 - Ant 2	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6516.5	32.8	8.5	41.3	68.2	-26.9	Peak	Horizontal
*	8845.5	28.9	14.0	42.9	68.2	-25.3	Peak	Horizontal
	11803.5	28.5	18.7	47.2	74.0	-26.8	Peak	Horizontal
	15917.5	26.0	20.4	46.4	74.0	-27.6	Peak	Horizontal
*	6372.0	33.6	7.5	41.1	68.2	-27.1	Peak	Vertical
*	8633.0	30.2	13.5	43.7	68.2	-24.5	Peak	Vertical
	11608.0	28.0	19.4	47.4	74.0	-26.6	Peak	Vertical
	15917.5	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 91 of 209





Test Mode:	802.11n-HT20 - Ant 2	Test Site:	AC1
Test Channel:	140	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6933.0	32.0	10.1	42.1	68.2	-26.1	Peak	Horizontal
*	8633.0	29.5	13.5	43.0	68.2	-25.2	Peak	Horizontal
	11038.5	29.5	18.5	48.0	74.0	-26.0	Peak	Horizontal
	15739.0	24.8	20.4	45.2	74.0	-28.8	Peak	Horizontal
*	6618.5	33.4	8.7	42.1	68.2	-26.1	Peak	Vertical
*	8794.5	29.7	13.9	43.6	68.2	-24.6	Peak	Vertical
	11234.0	27.4	18.8	46.2	74.0	-27.8	Peak	Vertical
	15739.0	25.4	20.4	45.8	74.0	-28.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 92 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 2	Test Site:	AC1					
Test Channel:	54	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6712.0	32.8	8.7	41.5	68.2	-26.7	Peak	Horizontal
*	8743.5	29.7	13.9	43.6	68.2	-24.6	Peak	Horizontal
	11829.0	28.1	18.7	46.8	74.0	-27.2	Peak	Horizontal
	15705.0	24.0	20.5	44.5	74.0	-29.5	Peak	Horizontal
*	6355.0	33.0	7.5	40.5	68.2	-27.7	Peak	Vertical
*	8896.5	29.6	14.0	43.6	68.2	-24.6	Peak	Vertical
	11319.0	29.1	18.9	48.0	74.0	-26.0	Peak	Vertical
	15705.0	25.4	20.5	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 93 of 209





Test Mode:	802.11n-HT40 - Ant 2	Test Site:	AC1					
Test Channel:	62	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6584.5	31.6	8.6	40.2	68.2	-28.0	Peak	Horizontal
*	8896.5	29.1	14.0	43.1	68.2	-25.1	Peak	Horizontal
	11489.0	28.8	19.3	48.1	74.0	-25.9	Peak	Horizontal
	15900.5	25.9	20.4	46.3	74.0	-27.7	Peak	Horizontal
*	6831.0	22.6	19.5	42.1	68.2	-26.1	Peak	Vertical
*	8862.5	20.7	23.1	43.8	68.2	-24.4	Peak	Vertical
	11633.5	19.2	27.6	46.8	74.0	-27.2	Peak	Vertical
	15900.5	21.1	24.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 94 of 209





Test Mode:	802.11n-HT40 - Ant 2	Test Site:	AC1					
Test Channel:	102	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6457.0	32.5	8.1	40.6	68.2	-27.6	Peak	Horizontal
*	8862.5	28.3	14.0	42.3	68.2	-25.9	Peak	Horizontal
	11353.0	26.9	19.0	45.9	74.0	-28.1	Peak	Horizontal
	15832.5	25.1	20.4	45.5	74.0	-28.5	Peak	Horizontal
*	6406.0	33.4	7.7	41.1	68.2	-27.1	Peak	Vertical
*	8888.0	30.2	14.0	44.2	68.2	-24.0	Peak	Vertical
	11412.5	27.2	19.1	46.3	74.0	-27.7	Peak	Vertical
	15832.5	24.8	20.4	45.2	74.0	-28.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 95 of 209





Test Mode:	802.11n-HT40 - Ant 2	Test Site:	AC1					
Test Channel:	110	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7885.0	29.4	12.4	41.8	68.2	-26.4	Peak	Horizontal
*	8803.0	29.0	14.0	43.0	68.2	-25.2	Peak	Horizontal
	9321.5	31.1	14.6	45.7	74.0	-28.3	Peak	Horizontal
	12050.0	28.8	18.8	47.6	74.0	-26.4	Peak	Horizontal
*	7808.5	19.6	22.3	41.9	68.2	-26.3	Peak	Vertical
*	8760.5	19.3	23.0	42.3	68.2	-25.9	Peak	Vertical
	9338.5	20.4	24.2	44.6	74.0	-29.4	Peak	Vertical
	11072.5	19.4	27.5	46.9	74.0	-27.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 96 of 209





Test Mode:	802.11n-HT40 - Ant 2	Test Site:	AC1
Test Channel:	118	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6788.5	31.5	9.0	40.5	68.2	-27.7	Peak	Horizontal
*	8888.0	28.8	14.0	42.8	68.2	-25.4	Peak	Horizontal
	11786.5	27.0	18.8	45.8	74.0	-28.2	Peak	Horizontal
	15790.0	25.2	20.4	45.6	74.0	-28.4	Peak	Horizontal
*	6695.0	32.2	8.7	40.9	68.2	-27.3	Peak	Vertical
*	8735.0	28.5	13.9	42.4	68.2	-25.8	Peak	Vertical
	11072.5	28.9	18.6	47.5	74.0	-26.5	Peak	Vertical
	15790.0	25.2	20.4	45.6	74.0	-28.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 97 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 2	Test Site:	AC1
Test Channel:	134	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6474.0	32.5	8.2	40.7	68.2	-27.5	Peak	Horizontal
*	8735.0	28.3	13.9	42.2	68.2	-26.0	Peak	Horizontal
	11727.0	27.7	19.0	46.7	74.0	-27.3	Peak	Horizontal
	15654.0	25.5	20.4	45.9	74.0	-28.1	Peak	Horizontal
*	6678.0	32.0	8.7	40.7	68.2	-27.5	Peak	Vertical
*	8616.0	29.7	13.5	43.2	68.2	-25.0	Peak	Vertical
	11574.0	26.5	19.5	46.0	74.0	-28.0	Peak	Vertical
	15654.0	26.0	20.4	46.4	74.0	-27.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 98 of 209





Test Mode:	802.11ac-VHT20 - Ant 2	Test Site:	AC1
Test Channel:	52	Test Engineer:	Kevin Ker
Remark:	Average measurement was no limit.	t performed if peak I	evel lower than average
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6644.0	32.1	8.7	40.8	68.2	-27.4	Peak	Horizontal
*	8777.5	28.9	13.9	42.8	68.2	-25.4	Peak	Horizontal
	11174.5	26.8	18.7	45.5	74.0	-28.5	Peak	Horizontal
	15671.0	25.4	20.4	45.8	74.0	-28.2	Peak	Horizontal
*	6635.5	32.1	8.7	40.8	68.2	-27.4	Peak	Vertical
*	8667.0	29.5	13.6	43.1	68.2	-25.1	Peak	Vertical
	11047.0	29.1	18.5	47.6	74.0	-26.4	Peak	Vertical
	15671.0	25.0	20.4	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 99 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT20 - Ant 2	Test Site:	AC1
Test Channel:	60	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6355.0	32.5	7.5	40.0	68.2	-28.2	Peak	Horizontal
*	8667.0	29.7	13.6	43.3	68.2	-24.9	Peak	Horizontal
	11429.5	27.6	19.2	46.8	74.0	-27.2	Peak	Horizontal
	15705.0	24.7	20.5	45.2	74.0	-28.8	Peak	Horizontal
*	6304.0	34.4	7.2	41.6	68.2	-26.6	Peak	Vertical
*	8735.0	29.7	13.9	43.6	68.2	-24.6	Peak	Vertical
	11897.0	27.1	18.6	45.7	74.0	-28.3	Peak	Vertical
	15705.0	25.0	20.5	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 100 of 209





Test Mode:	802.11ac-VHT20 - Ant 2	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6737.5	31.8	8.8	40.6	68.2	-27.6	Peak	Horizontal
*	8735.0	28.6	13.9	42.5	68.2	-25.7	Peak	Horizontal
	11472.0	28.2	19.3	47.5	74.0	-26.5	Peak	Horizontal
	15883.5	25.4	20.4	45.8	74.0	-28.2	Peak	Horizontal
*	6678.0	32.4	8.7	41.1	68.2	-27.1	Peak	Vertical
*	8837.0	29.6	14.0	43.6	68.2	-24.6	Peak	Vertical
	11506.0	27.5	19.4	46.9	74.0	-27.1	Peak	Vertical
	15883.5	25.5	20.4	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 101 of 209





Test Mode:	802.11ac-VHT20 - Ant 2	Test Site:	AC1
Test Channel:	100	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6584.5	32.3	8.6	40.9	68.2	-27.3	Peak	Horizontal
*	8837.0	28.0	14.0	42.0	68.2	-26.2	Peak	Horizontal
	11616.5	27.3	19.4	46.7	74.0	-27.3	Peak	Horizontal
	15756.0	25.7	20.4	46.1	74.0	-27.9	Peak	Horizontal
*	6584.5	32.9	8.6	41.5	68.2	-26.7	Peak	Vertical
*	8692.5	29.4	13.7	43.1	68.2	-25.1	Peak	Vertical
	11225.5	27.5	18.8	46.3	74.0	-27.7	Peak	Vertical
	15756.0	25.0	20.4	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 102 of 209





Test Mode:	802.11ac-VHT20 - Ant 2	Test Site:	AC1					
Test Channel:	116	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7808.5	30.6	12.4	43.0	68.2	-25.2	Peak	Horizontal
*	8769.0	28.8	13.9	42.7	68.2	-25.5	Peak	Horizontal
	9389.5	28.8	14.5	43.3	74.0	-30.7	Peak	Horizontal
	11072.5	26.8	18.6	45.4	74.0	-28.6	Peak	Horizontal
*	7774.5	30.5	12.4	42.9	68.2	-25.3	Peak	Vertical
*	8862.5	28.6	14.0	42.6	68.2	-25.6	Peak	Vertical
	9372.5	29.6	14.5	44.1	74.0	-29.9	Peak	Vertical
	11038.5	28.4	18.5	46.9	74.0	-27.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 103 of 209





Test Mode:	802.11ac-VHT20 - Ant 2	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6567.5	32.5	8.6	41.1	68.2	-27.1	Peak	Horizontal
*	8692.5	29.4	13.7	43.1	68.2	-25.1	Peak	Horizontal
	11531.5	27.3	19.4	46.7	74.0	-27.3	Peak	Horizontal
	15569.0	25.5	20.6	46.1	74.0	-27.9	Peak	Horizontal
*	6431.5	34.1	7.9	42.0	68.2	-26.2	Peak	Vertical
*	8803.0	29.4	14.0	43.4	68.2	-24.8	Peak	Vertical
	11327.5	28.2	18.9	47.1	74.0	-26.9	Peak	Vertical
	15569.0	25.4	20.6	46.0	74.0	-28.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 104 of 209





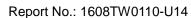
Test Mode:	802.11ac-VHT20 - Ant 2	Test Site:	AC1					
Test Channel:	140	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6610.0	32.2	8.7	40.9	68.2	-27.3	Peak	Horizontal
*	8803.0	27.9	14.0	41.9	68.2	-26.3	Peak	Horizontal
	11132.0	28.1	18.6	46.7	74.0	-27.3	Peak	Horizontal
	15781.5	25.7	20.4	46.1	74.0	-27.9	Peak	Horizontal
*	6448.5	33.4	8.0	41.4	68.2	-26.8	Peak	Vertical
*	8718.0	30.4	13.8	44.2	68.2	-24.0	Peak	Vertical
	11574.0	27.9	19.5	47.4	74.0	-26.6	Peak	Vertical
	15781.5	25.0	20.4	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 105 of 209





Test Mode:	802.11ac-VHT20 - Ant 2	Test Site:	AC1
Test Channel:	144	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6890.5	21.6	19.8	41.4	68.2	-26.8	Peak	Horizontal
*	8718.0	19.3	23.0	42.3	68.2	-25.9	Peak	Horizontal
	11140.5	19.1	27.4	46.5	74.0	-27.5	Peak	Horizontal
	15798.5	20.6	24.7	45.3	74.0	-28.7	Peak	Horizontal
*	6984.0	32.0	10.4	42.4	68.2	-25.8	Peak	Vertical
*	8879.5	30.9	14.0	44.9	68.2	-23.3	Peak	Vertical
	11378.5	26.8	19.1	45.9	74.0	-28.1	Peak	Vertical
	15798.5	24.9	20.4	45.3	74.0	-28.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 106 of 209





Test Mode:	802.11ac-VHT40 - Ant 2	Test Site:	AC1						
Test Channel:	54	Test Engineer:	Kevin Ker						
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average							
	limit.	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.								

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6686.5	32.2	8.7	40.9	68.2	-27.3	Peak	Horizontal
*	8735.0	28.1	13.9	42.0	68.2	-26.2	Peak	Horizontal
	11225.5	27.4	18.8	46.2	74.0	-27.8	Peak	Horizontal
	15773.0	25.9	20.4	46.3	74.0	-27.7	Peak	Horizontal
*	6695.0	41.2	8.7	49.9	68.2	-18.3	Peak	Vertical
*	8624.5	30.1	13.5	43.6	68.2	-24.6	Peak	Vertical
	11523.0	27.9	19.4	47.3	74.0	-26.7	Peak	Vertical
	15773.0	24.9	20.4	45.3	74.0	-28.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 107 of 209





Test Mode:	802.11ac-VHT40 - Ant 2	Test Site:	AC1					
Test Channel:	62	Test Engineer:	Kevin Ker					
Remark:		. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6797.0	33.1	9.0	42.1	68.2	-26.1	Peak	Horizontal
*	8624.5	29.5	13.5	43.0	68.2	-25.2	Peak	Horizontal
	11565.5	27.9	19.5	47.4	74.0	-26.6	Peak	Horizontal
	15781.5	24.9	20.4	45.3	74.0	-28.7	Peak	Horizontal
*	6831.0	31.9	9.3	41.2	68.2	-27.0	Peak	Vertical
*	8803.0	29.5	14.0	43.5	68.2	-24.7	Peak	Vertical
	11523.0	27.5	19.4	46.9	74.0	-27.1	Peak	Vertical
	15781.5	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 108 of 209





Test Mode:	802.11ac-VHT40 - Ant 2	Test Site:	AC1				
Test Channel:	102	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.	P 9 P 90 P 4	40011 (1 1 1 1				
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6406.0	33.1	7.7	40.8	68.2	-27.4	Peak	Horizontal
*	8803.0	29.0	14.0	43.0	68.2	-25.2	Peak	Horizontal
	11225.5	27.9	18.8	46.7	74.0	-27.3	Peak	Horizontal
	15713.5	24.5	20.5	45.0	74.0	-29.0	Peak	Horizontal
*	6380.5	31.9	7.6	39.5	68.2	-28.7	Peak	Vertical
*	8820.0	29.6	14.0	43.6	68.2	-24.6	Peak	Vertical
	11557.0	27.6	19.5	47.1	74.0	-26.9	Peak	Vertical
	15713.5	26.4	20.5	46.9	74.0	-27.1	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 109 of 209





Test Mode:	802.11ac-VHT40 - Ant 2	Test Site:	AC1					
Test Channel:	110	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7919.0	29.6	12.4	42.0	68.2	-26.2	Peak	Horizontal
*	8616.0	29.5	13.5	43.0	68.2	-25.2	Peak	Horizontal
	9313.0	29.3	14.7	44.0	74.0	-30.0	Peak	Horizontal
	11319.0	28.2	18.9	47.1	74.0	-26.9	Peak	Horizontal
*	7944.5	30.0	12.5	42.5	68.2	-25.7	Peak	Vertical
*	8769.0	28.4	13.9	42.3	68.2	-25.9	Peak	Vertical
	9364.0	31.0	14.5	45.5	74.0	-28.5	Peak	Vertical
	11531.5	28.5	19.4	47.9	74.0	-26.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 110 of 209





Test Mode:	802.11ac-VHT40 - Ant 2	Test Site:	AC1					
Test Channel:	118	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average limit.						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6491.0	32.5	8.3	40.8	68.2	-27.4	Peak	Horizontal
*	8820.0	28.6	14.0	42.6	68.2	-25.6	Peak	Horizontal
	11540.0	27.7	19.4	47.1	74.0	-26.9	Peak	Horizontal
	15764.5	26.0	20.4	46.4	74.0	-27.6	Peak	Horizontal
*	6678.0	33.0	8.7	41.7	68.2	-26.5	Peak	Vertical
*	8828.5	29.7	14.0	43.7	68.2	-24.5	Peak	Vertical
	11795.0	27.9	18.8	46.7	74.0	-27.3	Peak	Vertical
	15764.5	25.6	20.4	46.0	74.0	-28.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 111 of 209





Test Mode:	802.11ac-VHT40 - Ant 2	Test Site:	AC1					
Test Channel:	134	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6244.5	33.2	7.0	40.2	68.2	-28.0	Peak	Horizontal
*	8828.5	28.5	14.0	42.5	68.2	-25.7	Peak	Horizontal
	11361.5	29.1	19.0	48.1	74.0	-25.9	Peak	Horizontal
	15849.5	24.7	20.4	45.1	74.0	-28.9	Peak	Horizontal
*	6720.5	32.9	8.7	41.6	68.2	-26.6	Peak	Vertical
*	8633.0	31.2	13.5	44.7	68.2	-23.5	Peak	Vertical
	11565.5	27.6	19.5	47.1	74.0	-26.9	Peak	Vertical
	15849.5	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 112 of 209





Test Mode:	802.11ac-VHT40 - Ant 2	Test Site:	AC1
Test Channel:	142	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6210.5	33.6	6.9	40.5	68.2	-27.7	Peak	Horizontal
*	8633.0	29.2	13.5	42.7	68.2	-25.5	Peak	Horizontal
	11412.5	27.3	19.1	46.4	74.0	-27.6	Peak	Horizontal
	15892.0	25.3	20.4	45.7	74.0	-28.3	Peak	Horizontal
*	6397.5	34.1	7.7	41.8	68.2	-26.4	Peak	Vertical
*	8939.0	29.8	14.0	43.8	68.2	-24.4	Peak	Vertical
	11625.0	27.9	19.4	47.3	74.0	-26.7	Peak	Vertical
	15892.0	26.2	20.4	46.6	74.0	-27.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 113 of 209





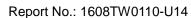
Test Mode:	802.11ac-VHT80 - Ant 2	Test Site:	AC1					
Test Channel:	58	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bellin the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6236.0	33.6	6.9	40.5	68.2	-27.7	Peak	Horizontal
*	8624.5	29.0	13.5	42.5	68.2	-25.7	Peak	Horizontal
	11021.5	27.8	18.5	46.3	74.0	-27.7	Peak	Horizontal
	15637.0	26.2	20.4	46.6	74.0	-27.4	Peak	Horizontal
*	6414.5	34.4	7.8	42.2	68.2	-26.0	Peak	Vertical
*	8828.5	29.3	14.0	43.3	68.2	-24.9	Peak	Vertical
	11455.0	27.2	19.2	46.4	74.0	-27.6	Peak	Vertical
	15637.0	24.5	20.4	44.9	74.0	-29.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 114 of 209





Test Mode:	802.11ac-VHT80 - Ant 2	Test Site:	AC1
Test Channel:	106	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6644.0	33.1	8.7	41.8	68.2	-26.4	Peak	Horizontal
*	8828.5	29.2	14.0	43.2	68.2	-25.0	Peak	Horizontal
	11531.5	27.8	19.4	47.2	74.0	-26.8	Peak	Horizontal
	15628.5	25.2	20.4	45.6	74.0	-28.4	Peak	Horizontal
*	6414.5	33.3	7.8	41.1	68.2	-27.1	Peak	Vertical
*	8862.5	30.2	14.0	44.2	68.2	-24.0	Peak	Vertical
	11727.0	27.9	19.0	46.9	74.0	-27.1	Peak	Vertical
	15628.5	25.4	20.4	45.8	74.0	-28.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 115 of 209





Test Mode:	802.11ac-VHT80 - Ant 2	Test Site:	AC1					
Test Channel:	122	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	 Other frequency was 20dB belin the report. 	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6525.0	32.8	8.5	41.3	68.2	-26.9	Peak	Horizontal
*	8862.5	29.1	14.0	43.1	68.2	-25.1	Peak	Horizontal
	11565.5	27.5	19.5	47.0	74.0	-27.0	Peak	Horizontal
	15560.5	25.0	20.6	45.6	74.0	-28.4	Peak	Horizontal
*	6431.5	33.2	7.9	41.1	68.2	-27.1	Peak	Vertical
*	8616.0	28.8	13.5	42.3	68.2	-25.9	Peak	Vertical
	11548.5	28.2	19.4	47.6	74.0	-26.4	Peak	Vertical
	15560.5	24.9	20.6	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 116 of 209





Test Mode:	802.11ac-VHT80 - Ant 2	Test Site:	AC1					
Test Channel:	138	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6644.0	33.0	8.7	41.7	68.2	-26.5	Peak	Horizontal
*	8616.0	30.2	13.5	43.7	68.2	-24.5	Peak	Horizontal
	11132.0	28.7	18.6	47.3	74.0	-26.7	Peak	Horizontal
	15586.0	24.6	20.5	45.1	74.0	-28.9	Peak	Horizontal
*	6814.0	32.0	9.1	41.1	68.2	-27.1	Peak	Vertical
*	8879.5	29.9	14.0	43.9	68.2	-24.3	Peak	Vertical
	11956.5	27.4	18.6	46.0	74.0	-28.0	Peak	Vertical
	15586.0	25.3	20.5	45.8	74.0	-28.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 117 of 209





Test Mode:	802.11a - Ant 2	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bellin the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6924.5	21.1	20.0	41.1	68.2	-27.1	Peak	Horizontal
*	8692.5	19.4	23.0	42.4	68.2	-25.8	Peak	Horizontal
	11302.0	19.7	27.5	47.2	74.0	-26.8	Peak	Horizontal
	16079.0	22.4	23.7	46.1	74.0	-27.9	Peak	Horizontal
*	6176.5	33.2	6.7	39.9	68.2	-28.3	Peak	Vertical
*	8888.0	28.9	14.0	42.9	68.2	-25.3	Peak	Vertical
	11514.5	28.3	19.4	47.7	74.0	-26.3	Peak	Vertical
	16079.0	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 118 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 3	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6839.5	31.5	9.3	40.8	68.2	-27.4	Peak	Horizontal
*	8888.0	28.4	14.0	42.4	68.2	-25.8	Peak	Horizontal
	11531.5	28.7	19.4	48.1	74.0	-25.9	Peak	Horizontal
	16079.0	26.3	20.4	46.7	74.0	-27.3	Peak	Horizontal
*	6389.0	33.4	7.6	41.0	68.2	-27.2	Peak	Vertical
*	8913.5	29.6	14.0	43.6	68.2	-24.6	Peak	Vertical
	11506.0	27.9	19.4	47.3	74.0	-26.7	Peak	Vertical
	16079.0	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 119 of 209





Test Mode:	802.11a - Ant 3	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6814.0	31.9	9.1	41.0	68.2	-27.2	Peak	Horizontal
*	8913.5	28.5	14.0	42.5	68.2	-25.7	Peak	Horizontal
	11174.5	27.5	18.7	46.2	74.0	-27.8	Peak	Horizontal
	15552.0	24.6	20.6	45.2	74.0	-28.8	Peak	Horizontal
*	6593.0	34.0	8.7	42.7	68.2	-25.5	Peak	Vertical
*	8624.5	31.2	13.5	44.7	68.2	-23.5	Peak	Vertical
	11965.0	27.9	18.6	46.5	74.0	-27.5	Peak	Vertical
	15552.0	25.9	20.6	46.5	74.0	-27.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 120 of 209





Test Mode:	802.11a - Ant 3	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6644.0	32.8	8.7	41.5	68.2	-26.7	Peak	Horizontal
*	8624.5	29.8	13.5	43.3	68.2	-24.9	Peak	Horizontal
	11395.5	27.7	19.1	46.8	74.0	-27.2	Peak	Horizontal
	15951.5	26.1	20.3	46.4	74.0	-27.6	Peak	Horizontal
*	6457.0	32.7	8.1	40.8	68.2	-27.4	Peak	Vertical
*	8624.5	29.8	13.5	43.3	68.2	-24.9	Peak	Vertical
	11540.0	29.0	19.4	48.4	74.0	-25.6	Peak	Vertical
	15951.5	25.6	20.3	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 121 of 209





Test Mode:	802.11a - Ant 3	Test Site:	AC1				
Test Channel:	116	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7910.5	30.6	12.4	43.0	68.2	-25.2	Peak	Horizontal
*	8811.5	27.8	14.0	41.8	68.2	-26.4	Peak	Horizontal
	9423.5	30.0	14.5	44.5	74.0	-29.5	Peak	Horizontal
	10970.5	29.6	18.4	48.0	74.0	-26.0	Peak	Horizontal
*	7876.5	28.7	12.4	41.1	68.2	-27.1	Peak	Vertical
*	8692.5	27.6	13.7	41.3	68.2	-26.9	Peak	Vertical
	9440.5	29.2	14.4	43.6	74.0	-30.4	Peak	Vertical
	10979.0	28.1	18.5	46.6	74.0	-27.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 122 of 209





Test Mode:	802.11a - Ant 3	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6890.5	32.2	9.7	41.9	68.2	-26.3	Peak	Horizontal
*	8624.5	29.4	13.5	42.9	68.2	-25.3	Peak	Horizontal
	11200.0	30.3	18.7	49.0	74.0	-25.0	Peak	Horizontal
	15849.5	25.5	20.4	45.9	74.0	-28.1	Peak	Horizontal
*	6176.5	34.1	6.7	40.8	68.2	-27.4	Peak	Vertical
*	8650.0	30.7	13.6	44.3	68.2	-23.9	Peak	Vertical
	11200.0	30.6	18.7	49.3	74.0	-24.7	Peak	Vertical
	15849.5	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 123 of 209





Test Mode:	802.11a - Ant 3	Test Site:	AC1					
Test Channel:	140	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6278.5	33.4	7.1	40.5	68.2	-27.7	Peak	Horizontal
*	8650.0	28.8	13.6	42.4	68.2	-25.8	Peak	Horizontal
	11404.0	29.7	19.1	48.8	74.0	-25.2	Peak	Horizontal
	15858.0	26.1	20.4	46.5	74.0	-27.5	Peak	Horizontal
*	6678.0	34.2	8.7	42.9	68.2	-25.3	Peak	Vertical
*	8658.5	29.3	13.6	42.9	68.2	-25.3	Peak	Vertical
	11412.5	27.4	19.1	46.5	74.0	-27.5	Peak	Vertical
	15858.0	24.8	20.4	45.2	74.0	-28.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 124 of 209





Test Mode:	802.11n-HT20 - Ant 3	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6890.5	30.9	9.7	40.6	68.2	-27.6	Peak	Horizontal
*	8692.5	29.3	13.7	43.0	68.2	-25.2	Peak	Horizontal
	11132.0	28.3	18.6	46.9	74.0	-27.1	Peak	Horizontal
	15917.5	25.7	20.4	46.1	74.0	-27.9	Peak	Horizontal
*	6984.0	30.8	10.4	41.2	68.2	-27.0	Peak	Vertical
*	8624.5	30.1	13.5	43.6	68.2	-24.6	Peak	Vertical
	11412.5	26.6	19.1	45.7	74.0	-28.3	Peak	Vertical
	15917.5	24.5	20.4	44.9	74.0	-29.1	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 125 of 209





Test Mode:	802.11n-HT20 - Ant 3	Test Site:	AC1
Test Channel:	60	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6312.5	32.9	7.2	40.1	68.2	-28.1	Peak	Horizontal
*	8624.5	29.3	13.5	42.8	68.2	-25.4	Peak	Horizontal
	11081.0	26.9	18.6	45.5	74.0	-28.5	Peak	Horizontal
	15450.0	24.9	20.8	45.7	74.0	-28.3	Peak	Horizontal
*	6304.0	33.8	7.2	41.0	68.2	-27.2	Peak	Vertical
*	8726.5	29.1	13.8	42.9	68.2	-25.3	Peak	Vertical
	11514.5	28.4	19.4	47.8	74.0	-26.2	Peak	Vertical
	15450.0	25.1	20.8	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 126 of 209





Test Mode:	802.11n-HT20 - Ant 3	Test Site:	AC1
Test Channel:	64	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6941.5	31.6	10.1	41.7	68.2	-26.5	Peak	Horizontal
*	8726.5	28.8	13.8	42.6	68.2	-25.6	Peak	Horizontal
	11089.5	29.8	18.6	48.4	74.0	-25.6	Peak	Horizontal
	15875.0	25.3	20.4	45.7	74.0	-28.3	Peak	Horizontal
*	6839.5	32.4	9.3	41.7	68.2	-26.5	Peak	Vertical
*	8735.0	29.5	13.9	43.4	68.2	-24.8	Peak	Vertical
	11973.5	27.6	18.7	46.3	74.0	-27.7	Peak	Vertical
	15875.0	24.9	20.4	45.3	74.0	-28.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 127 of 209





Test Mode:	802.11n-HT20 - Ant 3	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6729.0	33.8	8.7	42.5	68.2	-25.7	Peak	Horizontal
*	8735.0	28.9	13.9	42.8	68.2	-25.4	Peak	Horizontal
	11506.0	27.8	19.4	47.2	74.0	-26.8	Peak	Horizontal
	15858.0	25.4	20.4	45.8	74.0	-28.2	Peak	Horizontal
*	6372.0	32.9	7.5	40.4	68.2	-27.8	Peak	Vertical
*	8803.0	30.0	14.0	44.0	68.2	-24.2	Peak	Vertical
	11659.0	25.9	19.3	45.2	74.0	-28.8	Peak	Vertical
	15858.0	24.2	20.4	44.6	74.0	-29.4	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 128 of 209





802.11n-HT20 - Ant 3	Test Site:	AC1					
116	Test Engineer:	Kevin Ker					
	Average measurement was not performed if peak level lower than average						
2. Other frequency was 20dB below	ow limit line within 1	-18GHz, there is not show					
	1. Average measurement was no limit.	 1. Average measurement was not performed if peak I limit. 2. Other frequency was 20dB below limit line within 1 					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7876.5	29.3	12.4	41.7	68.2	-26.5	Peak	Horizontal
*	8854.0	27.3	14.0	41.3	68.2	-26.9	Peak	Horizontal
	9381.0	29.1	14.5	43.6	74.0	-30.4	Peak	Horizontal
	10894.0	29.6	18.3	47.9	74.0	-26.1	Peak	Horizontal
*	7953.0	29.6	12.5	42.1	68.2	-26.1	Peak	Vertical
*	8811.5	27.5	14.0	41.5	68.2	-26.7	Peak	Vertical
	9406.5	27.9	14.5	42.4	74.0	-31.6	Peak	Vertical
	11327.5	27.3	18.9	46.2	74.0	-27.8	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 129 of 209





Test Mode:	802.11n-HT20 - Ant 3	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6754.5	32.5	8.8	41.3	68.2	-26.9	Peak	Horizontal
*	8803.0	28.6	14.0	42.6	68.2	-25.6	Peak	Horizontal
	11191.5	30.5	18.7	49.2	74.0	-24.8	Peak	Horizontal
	15883.5	24.7	20.4	45.1	74.0	-28.9	Peak	Horizontal
*	6941.5	32.1	10.1	42.2	68.2	-26.0	Peak	Vertical
*	8845.5	30.2	14.0	44.2	68.2	-24.0	Peak	Vertical
	11200.0	32.6	18.7	51.3	74.0	-22.7	Peak	Vertical
	15883.5	25.5	20.4	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 130 of 209





Test Mode:	802.11n-HT20 - Ant 3	Test Site:	AC1				
Test Channel:	140	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6159.5	33.2	6.7	39.9	68.2	-28.3	Peak	Horizontal
*	8845.5	28.5	14.0	42.5	68.2	-25.7	Peak	Horizontal
	11395.5	29.5	19.1	48.6	74.0	-25.4	Peak	Horizontal
	15875.0	25.3	20.4	45.7	74.0	-28.3	Peak	Horizontal
*	6270.0	34.0	7.1	41.1	68.2	-27.1	Peak	Vertical
*	8692.5	28.6	13.7	42.3	68.2	-25.9	Peak	Vertical
	11548.5	27.6	19.4	47.0	74.0	-27.0	Peak	Vertical
	15875.0	25.8	20.4	46.2	74.0	-27.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 131 of 209





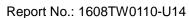
Test Mode:	802.11n-HT40 - Ant 3	Test Site:	AC1					
Test Channel:	54	Test Engineer:	Kevin Ker					
Remark:	· ·	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6890.5	30.8	9.7	40.5	68.2	-27.7	Peak	Horizontal
*	8913.5	28.4	14.0	42.4	68.2	-25.8	Peak	Horizontal
	11514.5	27.9	19.4	47.3	74.0	-26.7	Peak	Horizontal
	15645.5	25.4	20.4	45.8	74.0	-28.2	Peak	Horizontal
*	6924.5	32.3	10.0	42.3	68.2	-25.9	Peak	Vertical
*	8905.0	29.3	14.0	43.3	68.2	-24.9	Peak	Vertical
	11531.5	27.7	19.4	47.1	74.0	-26.9	Peak	Vertical
	15645.5	25.2	20.4	45.6	74.0	-28.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 132 of 209





Test Mode:	802.11n-HT40 - Ant 3	Test Site:	AC1					
Test Channel:	62	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6890.5	31.5	9.7	41.2	68.2	-27.0	Peak	Horizontal
*	8905.0	28.4	14.0	42.4	68.2	-25.8	Peak	Horizontal
	11642.0	27.4	19.4	46.8	74.0	-27.2	Peak	Horizontal
	15849.5	25.5	20.4	45.9	74.0	-28.1	Peak	Horizontal
*	6567.5	31.9	8.6	40.5	68.2	-27.7	Peak	Vertical
*	8828.5	29.3	14.0	43.3	68.2	-24.9	Peak	Vertical
	11123.5	27.9	18.6	46.5	74.0	-27.5	Peak	Vertical
	15849.5	24.8	20.4	45.2	74.0	-28.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 133 of 209





Test Mode:	802.11n-HT40 - Ant 3	Test Site:	AC1					
Test Channel:	102	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6635.5	32.1	8.7	40.8	68.2	-27.4	Peak	Horizontal
*	8828.5	28.6	14.0	42.6	68.2	-25.6	Peak	Horizontal
	11489.0	27.8	19.3	47.1	74.0	-26.9	Peak	Horizontal
	15858.0	24.5	20.4	44.9	74.0	-29.1	Peak	Horizontal
*	6907.5	32.2	9.9	42.1	68.2	-26.1	Peak	Vertical
*	8896.5	29.9	14.0	43.9	68.2	-24.3	Peak	Vertical
	11480.5	27.2	19.3	46.5	74.0	-27.5	Peak	Vertical
	15858.0	25.3	20.4	45.7	74.0	-28.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 134 of 209





Test Mode:	802.11n-HT40 - Ant 3	Test Site:	AC1					
Test Channel:	110	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7919.0	30.2	12.4	42.6	68.2	-25.6	Peak	Horizontal
*	8701.0	29.7	13.8	43.5	68.2	-24.7	Peak	Horizontal
	9313.0	28.6	14.7	43.3	74.0	-30.7	Peak	Horizontal
	10987.5	28.7	18.5	47.2	74.0	-26.8	Peak	Horizontal
*	7842.5	30.5	12.4	42.9	68.2	-25.3	Peak	Vertical
*	8769.0	28.2	13.9	42.1	68.2	-26.1	Peak	Vertical
	9423.5	29.0	14.5	43.5	74.0	-30.5	Peak	Vertical
	10979.0	28.7	18.5	47.2	74.0	-26.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 135 of 209





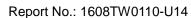
Test Mode:	802.11n-HT40 - Ant 3	Test Site:	AC1					
Test Channel:	118	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6635.5	32.5	8.7	41.2	68.2	-27.0	Peak	Horizontal
*	8896.5	28.5	14.0	42.5	68.2	-25.7	Peak	Horizontal
	11183.0	29.6	18.7	48.3	74.0	-25.7	Peak	Horizontal
	15739.0	25.5	20.4	45.9	74.0	-28.1	Peak	Horizontal
*	6261.5	34.2	7.0	41.2	68.2	-27.0	Peak	Vertical
*	8854.0	30.0	14.0	44.0	68.2	-24.2	Peak	Vertical
	11463.5	27.8	19.3	47.1	74.0	-26.9	Peak	Vertical
	15739.0	25.5	20.4	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 136 of 209





Test Mode:	802.11n-HT40 - Ant 3	Test Site:	AC1					
Test Channel:	134	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6975.5	31.7	10.4	42.1	68.2	-26.1	Peak	Horizontal
*	8854.0	28.7	14.0	42.7	68.2	-25.5	Peak	Horizontal
	11319.0	30.5	18.9	49.4	74.0	-24.6	Peak	Horizontal
	15909.0	27.9	20.4	48.3	74.0	-25.7	Peak	Horizontal
*	6950.0	32.0	10.2	42.2	68.2	-26.0	Peak	Vertical
*	8582.0	30.8	13.4	44.2	68.2	-24.0	Peak	Vertical
	11999.0	29.5	18.7	48.2	74.0	-25.8	Peak	Vertical
	15909.0	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 137 of 209





Test Mode:	802.11ac-VHT20 - Ant 3	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6984.0	31.9	10.4	42.3	68.2	-25.9	Peak	Horizontal
*	8845.5	28.4	14.0	42.4	68.2	-25.8	Peak	Horizontal
	11633.5	27.1	19.4	46.5	74.0	-27.5	Peak	Horizontal
	15450.0	25.2	20.8	46.0	74.0	-28.0	Peak	Horizontal
*	6423.0	33.1	7.8	40.9	68.2	-27.3	Peak	Vertical
*	8964.5	30.3	14.1	44.4	68.2	-23.8	Peak	Vertical
	11897.0	28.0	18.6	46.6	74.0	-27.4	Peak	Vertical
	15450.0	25.6	20.8	46.4	74.0	-27.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 138 of 209





Test Mode:	802.11ac-VHT20 - Ant 3	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6474.0	33.3	8.2	41.5	68.2	-26.7	Peak	Horizontal
*	8964.5	27.9	14.1	42.0	68.2	-26.2	Peak	Horizontal
	11404.0	27.8	19.1	46.9	74.0	-27.1	Peak	Horizontal
	15849.5	25.3	20.4	45.7	74.0	-28.3	Peak	Horizontal
*	6355.0	32.7	7.5	40.2	68.2	-28.0	Peak	Vertical
*	8650.0	30.4	13.6	44.0	68.2	-24.2	Peak	Vertical
	11123.5	28.7	18.6	47.3	74.0	-26.7	Peak	Vertical
	15849.5	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 139 of 209





Test Mode:	802.11ac-VHT20 - Ant 3	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6967.0	31.5	10.3	41.8	68.2	-26.4	Peak	Horizontal
*	8650.0	29.0	13.6	42.6	68.2	-25.6	Peak	Horizontal
	11531.5	28.1	19.4	47.5	74.0	-26.5	Peak	Horizontal
	15849.5	24.7	20.4	45.1	74.0	-28.9	Peak	Horizontal
*	6380.5	33.6	7.6	41.2	68.2	-27.0	Peak	Vertical
*	8624.5	30.1	13.5	43.6	68.2	-24.6	Peak	Vertical
	11344.5	29.3	19.0	48.3	74.0	-25.7	Peak	Vertical
	15849.5	25.6	20.4	46.0	74.0	-28.0	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 140 of 209





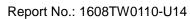
Test Mode:	802.11ac-VHT20 - Ant 3	Test Site:	AC1
Test Channel:	100	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6652.5	33.1	8.7	41.8	68.2	-26.4	Peak	Horizontal
*	8624.5	29.0	13.5	42.5	68.2	-25.7	Peak	Horizontal
	11599.5	28.5	19.4	47.9	74.0	-26.1	Peak	Horizontal
	15917.5	26.4	20.4	46.8	74.0	-27.2	Peak	Horizontal
*	6822.5	33.0	9.2	42.2	68.2	-26.0	Peak	Vertical
*	8743.5	31.0	13.9	44.9	68.2	-23.3	Peak	Vertical
	11302.0	27.5	18.9	46.4	74.0	-27.6	Peak	Vertical
	15917.5	24.4	20.4	44.8	74.0	-29.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 141 of 209





Test Mode:	802.11ac-VHT20 - Ant 3	Test Site:	AC1					
Test Channel:	116	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7834.0	30.0	12.4	42.4	68.2	-25.8	Peak	Horizontal
*	8624.5	30.2	13.5	43.7	68.2	-24.5	Peak	Horizontal
	9423.5	29.9	14.5	44.4	74.0	-29.6	Peak	Horizontal
	11106.5	29.5	18.6	48.1	74.0	-25.9	Peak	Horizontal
*	7893.5	29.3	12.4	41.7	68.2	-26.5	Peak	Vertical
*	8837.0	28.4	14.0	42.4	68.2	-25.8	Peak	Vertical
	9338.5	28.4	14.6	43.0	74.0	-31.0	Peak	Vertical
	11004.5	28.9	18.5	47.4	74.0	-26.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 142 of 209





Test Mode:	802.11ac-VHT20 - Ant 3	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6686.5	33.0	8.7	41.7	68.2	-26.5	Peak	Horizontal
*	8743.5	28.6	13.9	42.5	68.2	-25.7	Peak	Horizontal
	11200.0	31.2	18.7	49.9	74.0	-24.1	Peak	Horizontal
	15696.5	25.2	20.5	45.7	74.0	-28.3	Peak	Horizontal
*	6746.0	33.0	8.8	41.8	68.2	-26.4	Peak	Vertical
*	8582.0	31.3	13.4	44.7	68.2	-23.5	Peak	Vertical
	11208.5	32.7	18.8	51.5	74.0	-22.5	Peak	Vertical
	15696.5	25.4	20.5	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 143 of 209





Test Mode:	802.11ac-VHT20 - Ant 3	Test Site:	AC1					
Test Channel:	140	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6533.5	21.7	19.1	40.8	68.2	-27.4	Peak	Horizontal
*	8582.0	19.7	22.8	42.5	68.2	-25.7	Peak	Horizontal
	11480.5	19.1	27.8	46.9	74.0	-27.1	Peak	Horizontal
	15815.5	20.1	24.7	44.8	74.0	-29.2	Peak	Horizontal
*	6678.0	23.2	19.1	42.3	68.2	-25.9	Peak	Vertical
*	8811.5	20.8	23.1	43.9	68.2	-24.3	Peak	Vertical
	11905.5	19.1	27.1	46.2	74.0	-27.8	Peak	Vertical
	15815.5	20.4	24.7	45.1	74.0	-28.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 144 of 209





Test Mode:	802.11ac-VHT20 - Ant 3	Test Site:	AC1					
Test Channel:	144	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6363.5	32.9	7.5	40.4	68.2	-27.8	Peak	Horizontal
*	8811.5	28.7	14.0	42.7	68.2	-25.5	Peak	Horizontal
	11446.5	30.4	19.2	49.6	74.0	-24.4	Peak	Horizontal
	15773.0	25.4	20.4	45.8	74.0	-28.2	Peak	Horizontal
*	6406.0	33.4	7.7	41.1	68.2	-27.1	Peak	Vertical
*	8624.5	30.3	13.5	43.8	68.2	-24.4	Peak	Vertical
	11438.0	32.3	19.2	51.5	74.0	-22.5	Peak	Vertical
	15773.0	24.9	20.4	45.3	74.0	-28.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 145 of 209





Test Mode:	802.11ac-VHT40 - Ant 3	Test Site:	AC1					
Test Channel:	54	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6754.5	32.8	8.8	41.6	68.2	-26.6	Peak	Horizontal
*	8735.0	29.4	13.9	43.3	68.2	-24.9	Peak	Horizontal
	11242.5	28.5	18.8	47.3	74.0	-26.7	Peak	Horizontal
	15764.5	24.8	20.4	45.2	74.0	-28.8	Peak	Horizontal
*	6729.0	32.9	8.7	41.6	68.2	-26.6	Peak	Vertical
*	8607.5	30.3	13.5	43.8	68.2	-24.4	Peak	Vertical
	11123.5	27.6	18.6	46.2	74.0	-27.8	Peak	Vertical
	15764.5	25.3	20.4	45.7	74.0	-28.3	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 146 of 209





Test Mode:	802.11ac-VHT40 - Ant 3	Test Site:	AC1						
Test Channel:	62	Test Engineer:	Kevin Ker						
Remark:		. Average measurement was not performed if peak level lower than average							
		limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.		,						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6916.0	31.3	9.9	41.2	68.2	-27.0	Peak	Horizontal
*	8607.5	29.3	13.5	42.8	68.2	-25.4	Peak	Horizontal
	11208.5	27.6	18.8	46.4	74.0	-27.6	Peak	Horizontal
	15637.0	26.3	20.4	46.7	74.0	-27.3	Peak	Horizontal
*	6839.5	32.3	9.3	41.6	68.2	-26.6	Peak	Vertical
*	8684.0	30.4	13.7	44.1	68.2	-24.1	Peak	Vertical
	11565.5	27.9	19.5	47.4	74.0	-26.6	Peak	Vertical
	15637.0	25.4	20.4	45.8	74.0	-28.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 147 of 209





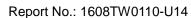
Test Mode:	802.11ac-VHT40 - Ant 3	Test Site:	AC1
Test Channel:	102	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6125.5	22.3	17.2	39.5	68.2	-28.7	Peak	Horizontal
*	8684.0	19.6	22.9	42.5	68.2	-25.7	Peak	Horizontal
	11336.0	18.6	27.5	46.1	74.0	-27.9	Peak	Horizontal
	15883.5	23.2	24.4	47.6	74.0	-26.4	Peak	Horizontal
*	6210.5	34.1	6.9	41.0	68.2	-27.2	Peak	Vertical
*	8548.0	30.4	13.2	43.6	68.2	-24.6	Peak	Vertical
	11523.0	28.0	19.4	47.4	74.0	-26.6	Peak	Vertical
	15883.5	25.8	20.4	46.2	74.0	-27.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 148 of 209





Test Mode:	802.11ac-VHT40 - Ant 3	Test Site:	AC1					
Test Channel:	110	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7800.0	30.6	12.4	43.0	68.2	-25.2	Peak	Horizontal
*	8718.0	28.8	13.8	42.6	68.2	-25.6	Peak	Horizontal
	9338.5	28.2	14.6	42.8	74.0	-31.2	Peak	Horizontal
	10953.5	28.7	18.4	47.1	74.0	-26.9	Peak	Horizontal
*	7825.5	31.1	12.4	43.5	68.2	-24.7	Peak	Vertical
*	8777.5	29.1	13.9	43.0	68.2	-25.2	Peak	Vertical
	9491.5	29.4	14.4	43.8	74.0	-30.2	Peak	Vertical
	11548.5	27.6	19.4	47.0	74.0	-27.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 149 of 209





Test Mode:	802.11ac-VHT40 - Ant 3	Test Site:	AC1
Test Channel:	118	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6848.0	32.9	9.4	42.3	68.2	-25.9	Peak	Horizontal
*	8548.0	29.3	13.2	42.5	68.2	-25.7	Peak	Horizontal
	11183.0	29.7	18.7	48.4	74.0	-25.6	Peak	Horizontal
	15917.5	25.8	20.4	46.2	74.0	-27.8	Peak	Horizontal
*	6355.0	34.6	7.5	42.1	68.2	-26.1	Peak	Vertical
*	8633.0	30.8	13.5	44.3	68.2	-23.9	Peak	Vertical
	11259.5	28.7	18.8	47.5	74.0	-26.5	Peak	Vertical
	15917.5	24.9	20.4	45.3	74.0	-28.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 150 of 209





Test Mode:	802.11ac-VHT40 - Ant 3	Test Site:	AC1
Test Channel:	134	Test Engineer:	Kevin Ker
Remark:	Average measurement was no limit.	t performed if peak I	evel lower than average
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6916.0	32.0	9.9	41.9	68.2	-26.3	Peak	Horizontal
*	8633.0	30.2	13.5	43.7	68.2	-24.5	Peak	Horizontal
	11336.0	28.2	19.0	47.2	74.0	-26.8	Peak	Horizontal
	15713.5	24.8	20.5	45.3	74.0	-28.7	Peak	Horizontal
*	6669.5	32.6	8.7	41.3	68.2	-26.9	Peak	Vertical
*	8624.5	30.2	13.5	43.7	68.2	-24.5	Peak	Vertical
	11531.5	27.6	19.4	47.0	74.0	-27.0	Peak	Vertical
	15713.5	24.3	20.5	44.8	74.0	-29.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 151 of 209





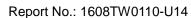
Test Mode:	802.11ac-VHT40 - Ant 3	Test Site:	AC1
Test Channel:	142	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6312.5	34.1	7.2	41.3	68.2	-26.9	Peak	Horizontal
*	8624.5	29.3	13.5	42.8	68.2	-25.4	Peak	Horizontal
	11404.0	30.9	19.1	50.0	74.0	-24.0	Peak	Horizontal
	15909.0	27.0	20.4	47.4	74.0	-26.6	Peak	Horizontal
*	6975.5	31.4	10.4	41.8	68.2	-26.4	Peak	Vertical
*	8607.5	30.7	13.5	44.2	68.2	-24.0	Peak	Vertical
	11557.0	29.4	19.5	48.9	74.0	-25.1	Peak	Vertical
	15909.0	25.5	20.4	45.9	74.0	-28.1	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 152 of 209





Test Mode:	802.11ac-VHT80 - Ant 3	Test Site:	AC1					
Test Channel:	58	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	t performed if peak l	evel lower than average					
	Other frequency was 20dB bel in the report.	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6644.0	31.7	8.7	40.4	68.2	-27.8	Peak	Horizontal
*	8760.5	27.9	13.9	41.8	68.2	-26.4	Peak	Horizontal
	11557.0	27.6	19.5	47.1	74.0	-26.9	Peak	Horizontal
	15637.0	25.0	20.4	45.4	74.0	-28.6	Peak	Horizontal
*	6576.0	33.0	8.6	41.6	68.2	-26.6	Peak	Vertical
*	8650.0	31.0	13.6	44.6	68.2	-23.6	Peak	Vertical
	11523.0	28.6	19.4	48.0	74.0	-26.0	Peak	Vertical
	15637.0	25.0	20.4	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 153 of 209





Test Mode:	802.11ac-VHT80 - Ant 3	Test Site:	AC1					
Test Channel:	106	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6321.0	33.6	7.3	40.9	68.2	-27.3	Peak	Horizontal
*	8650.0	29.3	13.6	42.9	68.2	-25.3	Peak	Horizontal
	11021.5	27.7	18.5	46.2	74.0	-27.8	Peak	Horizontal
	15849.5	25.7	20.4	46.1	74.0	-27.9	Peak	Horizontal
*	6431.5	33.4	7.9	41.3	68.2	-26.9	Peak	Vertical
*	8633.0	29.5	13.5	43.0	68.2	-25.2	Peak	Vertical
	11548.5	28.3	19.4	47.7	74.0	-26.3	Peak	Vertical
	15849.5	24.9	20.4	45.3	74.0	-28.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 154 of 209





Test Mode:	802.11ac-VHT80 - Ant 3	Test Site:	AC1					
Test Channel:	122	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6644.0	32.4	8.7	41.1	68.2	-27.1	Peak	Horizontal
*	8633.0	28.9	13.5	42.4	68.2	-25.8	Peak	Horizontal
	11871.5	29.2	18.7	47.9	74.0	-26.1	Peak	Horizontal
	15722.0	25.6	20.5	46.1	74.0	-27.9	Peak	Horizontal
*	6312.5	35.0	7.2	42.2	68.2	-26.0	Peak	Vertical
*	8803.0	30.3	14.0	44.3	68.2	-23.9	Peak	Vertical
	11489.0	27.7	19.3	47.0	74.0	-27.0	Peak	Vertical
	15722.0	25.8	20.5	46.3	74.0	-27.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 155 of 209





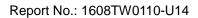
Test Mode:	802.11ac-VHT80 - Ant 3	Test Site:	AC1					
Test Channel:	138	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6414.5	32.4	7.8	40.2	68.2	-28.0	Peak	Horizontal
*	8803.0	28.5	14.0	42.5	68.2	-25.7	Peak	Horizontal
	11361.5	31.3	19.0	50.3	74.0	-23.7	Peak	Horizontal
	15781.5	25.9	20.4	46.3	74.0	-27.7	Peak	Horizontal
*	6737.5	33.1	8.8	41.9	68.2	-26.3	Peak	Vertical
*	8743.5	29.2	13.9	43.1	68.2	-25.1	Peak	Vertical
	11489.0	28.2	19.3	47.5	74.0	-26.5	Peak	Vertical
	15781.5	24.9	20.4	45.3	74.0	-28.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 156 of 209





Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6890.5	22.5	19.8	42.3	68.2	-25.9	Peak	Horizontal
*	8837.0	20.0	23.1	43.1	68.2	-25.1	Peak	Horizontal
	11412.5	20.7	27.7	48.4	74.0	-25.6	Peak	Horizontal
	15569.0	20.4	26.0	46.4	74.0	-27.6	Peak	Horizontal
*	6380.5	33.5	7.6	41.1	68.2	-27.1	Peak	Vertical
*	8616.0	30.1	13.5	43.6	68.2	-24.6	Peak	Vertical
	11531.5	27.4	19.4	46.8	74.0	-27.2	Peak	Vertical
	15569.0	26.1	20.6	46.7	74.0	-27.3	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 157 of 209





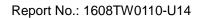
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6856.5	33.1	9.5	42.6	68.2	-25.6	Peak	Horizontal
*	8616.0	29.2	13.5	42.7	68.2	-25.5	Peak	Horizontal
	11106.5	28.3	18.6	46.9	74.0	-27.1	Peak	Horizontal
	16011.0	26.9	20.4	47.3	74.0	-26.7	Peak	Horizontal
*	6440.0	33.2	8.0	41.2	68.2	-27.0	Peak	Vertical
*	8947.5	30.3	14.0	44.3	68.2	-23.9	Peak	Vertical
	11497.5	27.8	19.3	47.1	74.0	-26.9	Peak	Vertical
	16011.0	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 158 of 209





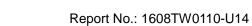
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6610.0	32.5	8.7	41.2	68.2	-27.0	Peak	Horizontal
*	8947.5	29.1	14.0	43.1	68.2	-25.1	Peak	Horizontal
	10639.0	30.4	17.4	47.8	74.0	-26.2	Peak	Horizontal
	15645.5	25.9	20.4	46.3	74.0	-27.7	Peak	Horizontal
*	6210.5	33.4	6.9	40.3	68.2	-27.9	Peak	Vertical
*	8735.0	30.2	13.9	44.1	68.2	-24.1	Peak	Vertical
	11004.5	29.4	18.5	47.9	74.0	-26.1	Peak	Vertical
	15645.5	25.6	20.4	46.0	74.0	-28.0	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 159 of 209





Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1						
Test Channel:	100	Test Engineer:	Kevin Ker						
Remark:		Average measurement was not performed if peak level lower than average							
		limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.		,						

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	(1411 12)	(dBµV)	(42)	(dBµV/m)	(45,47,111)	(32)		
*	6542.0	32.6	8.6	41.2	68.2	-27.0	Peak	Horizontal
*	8735.0	28.9	13.9	42.8	68.2	-25.4	Peak	Horizontal
	11012.0	36.2	18.5	54.7	74.0	-19.3	Peak	Horizontal
	11012.0	30.1	18.5	48.6	54.0	-5.4	Average	Horizontal
	15560.5	25.9	20.6	46.5	74.0	-27.5	Peak	Horizontal
*	6108.5	33.2	6.5	39.7	68.2	-28.5	Peak	Vertical
*	8616.0	31.3	13.5	44.8	68.2	-23.4	Peak	Vertical
	11010.0	35.6	18.5	54.1	74.0	-19.9	Peak	Vertical
	11010.0	30.2	18.5	48.7	54.0	-5.3	Average	Vertical
	15560.5	25.5	20.6	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 160 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	116	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7774.5	30.1	12.4	42.5	68.2	-25.7	Peak	Horizontal
*	8752.0	28.6	13.9	42.5	68.2	-25.7	Peak	Horizontal
	9381.0	28.7	14.5	43.2	74.0	-30.8	Peak	Horizontal
	11506.0	27.9	19.4	47.3	74.0	-26.7	Peak	Horizontal
*	7800.0	29.9	12.4	42.3	68.2	-25.9	Peak	Vertical
*	8828.5	28.8	14.0	42.8	68.2	-25.4	Peak	Vertical
	9440.5	29.8	14.4	44.2	74.0	-29.8	Peak	Vertical
	11344.5	28.6	19.0	47.6	74.0	-26.4	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 161 of 209





Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1
Test Channel:	120	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6873.5	33.5	9.6	43.1	68.2	-25.1	Peak	Horizontal
*	8616.0	30.4	13.5	43.9	68.2	-24.3	Peak	Horizontal
	11208.5	35.1	18.8	53.9	74.0	-20.1	Peak	Horizontal
	11208.5	27.8	18.8	46.6	54.0	-7.4	Average	Horizontal
*	15773.0	25.7	20.4	46.1	74.0	-27.9	Peak	Horizontal
*	6652.5	33.1	8.7	41.8	68.2	-26.4	Peak	Vertical
	8811.5	30.1	14.0	44.1	68.2	-24.1	Peak	Vertical
	11208.5	31.7	18.8	50.5	74.0	-23.5	Peak	Vertical
	15773.0	25.8	20.4	46.2	74.0	-27.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 162 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1				
Test Channel:	140	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6661.0	33.1	8.7	41.8	68.2	-26.4	Peak	Horizontal
*	8811.5	28.7	14.0	42.7	68.2	-25.5	Peak	Horizontal
	11387.0	29.9	19.1	49.0	74.0	-25.0	Peak	Horizontal
	15790.0	25.4	20.4	45.8	74.0	-28.2	Peak	Horizontal
*	6457.0	33.3	8.1	41.4	68.2	-26.8	Peak	Vertical
*	8718.0	30.0	13.8	43.8	68.2	-24.4	Peak	Vertical
	11387.0	27.6	19.1	46.7	74.0	-27.3	Peak	Vertical
	15790.0	25.4	20.4	45.8	74.0	-28.2	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 163 of 209





Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bellin the report.	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6797.0	33.0	9.0	42.0	68.2	-26.2	Peak	Horizontal
*	8607.5	29.5	13.5	43.0	68.2	-25.2	Peak	Horizontal
	11506.0	27.4	19.4	46.8	74.0	-27.2	Peak	Horizontal
	15977.0	26.9	20.4	47.3	74.0	-26.7	Peak	Horizontal
*	6576.0	31.8	8.6	40.4	68.2	-27.8	Peak	Vertical
*	8607.5	28.7	13.5	42.2	68.2	-26.0	Peak	Vertical
	11574.0	28.1	19.5	47.6	74.0	-26.4	Peak	Vertical
	15798.5	27.1	20.4	47.5	74.0	-26.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 164 of 209





Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6695.0	33.2	8.7	41.9	68.2	-26.3	Peak	Horizontal
*	8854.0	28.2	14.0	42.2	68.2	-26.0	Peak	Horizontal
	11497.5	26.8	19.3	46.1	74.0	-27.9	Peak	Horizontal
	15798.5	23.8	20.4	44.2	74.0	-29.8	Peak	Horizontal
*	6992.5	30.8	10.5	41.3	68.2	-26.9	Peak	Vertical
*	8854.0	28.5	14.0	42.5	68.2	-25.7	Peak	Vertical
	11047.0	28.1	18.5	46.6	74.0	-27.4	Peak	Vertical
	15917.5	25.0	20.4	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 165 of 209





Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3	Test Site:	AC1				
Test Channel:	64	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average					
	limit.	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6618.5	32.4	8.7	41.1	68.2	-27.1	Peak	Horizontal
*	8718.0	30.1	13.8	43.9	68.2	-24.3	Peak	Horizontal
	11633.5	27.6	19.4	47.0	74.0	-27.0	Peak	Horizontal
	15917.5	24.8	20.4	45.2	74.0	-28.8	Peak	Horizontal
*	6737.5	32.4	8.8	41.2	68.2	-27.0	Peak	Vertical
*	8718.0	29.3	13.8	43.1	68.2	-25.1	Peak	Vertical
	11548.5	28.0	19.4	47.4	74.0	-26.6	Peak	Vertical
	15892.0	27.0	20.4	47.4	74.0	-26.6	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 166 of 209



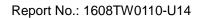
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3	Test Site:	AC1				
Test Channel:	100	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6627.0	22.3	19.1	41.4	68.2	-26.8	Peak	Horizontal
*	8692.5	20.2	23.0	43.2	68.2	-25.0	Peak	Horizontal
	11004.0	27.3	27.6	54.9	74.0	-19.1	Peak	Horizontal
	11004.0	32.3	13.0	45.3	54.0	-8.7	Average	Horizontal
	15892.0	21.8	24.4	46.2	74.0	-27.8	Peak	Horizontal
*	6278.5	33.1	7.1	40.2	68.2	-28.0	Peak	Vertical
*	8692.5	28.6	13.7	42.3	68.2	-25.9	Peak	Vertical
	11004.5	31.4	18.5	49.9	74.0	-24.1	Peak	Vertical
	15450.0	26.8	20.8	47.6	74.0	-26.4	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 167 of 209





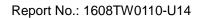
Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3	Test Site:	AC1				
Test Channel:	116	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7817.0	30.2	12.4	42.6	68.2	-25.6	Peak	Horizontal
*	8692.5	29.0	13.7	42.7	68.2	-25.5	Peak	Horizontal
	9381.0	29.6	14.5	44.1	74.0	-29.9	Peak	Horizontal
	11480.5	27.9	19.3	47.2	74.0	-26.8	Peak	Horizontal
*	7766.0	30.5	12.4	42.9	68.2	-25.3	Peak	Vertical
*	8837.0	29.6	14.0	43.6	68.2	-24.6	Peak	Vertical
	9423.5	28.8	14.5	43.3	74.0	-30.7	Peak	Vertical
	11353.0	28.3	19.0	47.3	74.0	-26.7	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 168 of 209





Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3	Test Site:	AC1
Test Channel:	120	Test Engineer:	Kevin Ker
Remark:	Average measurement was no limit.	t performed if peak I	evel lower than average
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz, there is not show

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6516.5	32.4	8.5	40.9	68.2	-27.3	Peak	Horizontal
*	8675.5	29.3	13.7	43.0	68.2	-25.2	Peak	Horizontal
	11531.5	27.0	19.4	46.4	74.0	-27.6	Peak	Horizontal
	15450.0	25.3	20.8	46.1	74.0	-27.9	Peak	Horizontal
*	6516.5	30.8	8.5	39.3	68.2	-28.9	Peak	Vertical
*	8667.0	28.4	13.6	42.0	68.2	-26.2	Peak	Vertical
	11625.0	27.8	19.4	47.2	74.0	-26.8	Peak	Vertical
	15977.0	26.1	20.4	46.5	74.0	-27.5	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 169 of 209





Test Mode:	802.11n-HT20 - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	140	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	 Other frequency was 20dB belin the report. 	ow limit line within 1	-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6448.5	33.3	8.0	41.3	68.2	-26.9	Peak	Horizontal
*	8633.0	30.0	13.5	43.5	68.2	-24.7	Peak	Horizontal
	11387.0	30.1	19.1	49.2	74.0	-24.8	Peak	Horizontal
	15977.0	24.7	20.4	45.1	74.0	-28.9	Peak	Horizontal
*	6882.0	32.0	9.7	41.7	68.2	-26.5	Peak	Vertical
*	8633.0	29.2	13.5	42.7	68.2	-25.5	Peak	Vertical
	11421.0	27.3	19.1	46.4	74.0	-27.6	Peak	Vertical
	15892.0	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 170 of 209





Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3	Test Site:	AC1
Test Channel:	54	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6474.0	33.2	8.2	41.4	68.2	-26.8	Peak	Horizontal
*	8658.5	29.6	13.6	43.2	68.2	-25.0	Peak	Horizontal
	11633.5	28.2	19.4	47.6	74.0	-26.4	Peak	Horizontal
	15815.5	24.4	20.4	44.8	74.0	-29.2	Peak	Horizontal
*	6363.5	33.2	7.5	40.7	68.2	-27.5	Peak	Vertical
*	8658.5	28.8	13.6	42.4	68.2	-25.8	Peak	Vertical
	11064.0	28.2	18.5	46.7	74.0	-27.3	Peak	Vertical
	15722.0	25.7	20.5	46.2	74.0	-27.8	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 171 of 209





Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3	Test Site:	AC1
Test Channel:	62	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6431.5	32.9	7.9	40.8	68.2	-27.4	Peak	Horizontal
*	8692.5	29.1	13.7	42.8	68.2	-25.4	Peak	Horizontal
	11531.5	27.9	19.4	47.3	74.0	-26.7	Peak	Horizontal
	15722.0	25.8	20.5	46.3	74.0	-27.7	Peak	Horizontal
*	6678.0	31.8	8.7	40.5	68.2	-27.7	Peak	Vertical
*	8692.5	27.8	13.7	41.5	68.2	-26.7	Peak	Vertical
	11548.5	27.7	19.4	47.1	74.0	-26.9	Peak	Vertical
	15696.5	24.9	20.5	45.4	74.0	-28.6	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 172 of 209





Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	102	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6312.5	32.9	7.2	40.1	68.2	-28.1	Peak	Horizontal
*	8743.5	30.5	13.9	44.4	68.2	-23.8	Peak	Horizontal
	11004.5	31.1	18.5	49.6	74.0	-24.4	Peak	Horizontal
	15696.5	24.7	20.5	45.2	74.0	-28.8	Peak	Horizontal
*	6907.5	32.0	9.9	41.9	68.2	-26.3	Peak	Vertical
*	8743.5	28.3	13.9	42.2	68.2	-26.0	Peak	Vertical
	11021.5	30.1	18.5	48.6	74.0	-25.4	Peak	Vertical
	15875.0	25.7	20.4	46.1	74.0	-27.9	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 173 of 209





Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	110	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7774.5	30.7	12.4	43.1	68.2	-25.1	Peak	Horizontal
*	8692.5	30.3	13.7	44.0	68.2	-24.2	Peak	Horizontal
	9389.5	29.6	14.5	44.1	74.0	-29.9	Peak	Horizontal
	10894.0	28.9	18.3	47.2	74.0	-26.8	Peak	Horizontal
*	7910.5	29.9	12.4	42.3	68.2	-25.9	Peak	Vertical
*	8743.5	30.0	13.9	43.9	68.2	-24.3	Peak	Vertical
	9466.0	28.7	14.4	43.1	74.0	-30.9	Peak	Vertical
	11072.5	29.4	18.6	48.0	74.0	-26.0	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 174 of 209





Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	118	Test Engineer:	Kevin Ker					
Remark:	Average measurement was n limit.	Average measurement was not performed if peak level lower than average limit.						
	Other frequency was 20dB be in the report.	elow limit line within	1-18GHz, there is not show					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6533.5	31.0	8.5	39.5	68.2	-28.7	Peak	Horizontal
*	8786.0	28.7	13.9	42.6	68.2	-25.6	Peak	Horizontal
	11174.5	29.1	18.7	47.8	74.0	-26.2	Peak	Horizontal
	15875.0	24.7	20.4	45.1	74.0	-28.9	Peak	Horizontal
*	6550.5	32.3	8.6	40.9	68.2	-27.3	Peak	Vertical
*	8786.0	27.9	13.9	41.8	68.2	-26.4	Peak	Vertical
	11174.5	32.9	18.7	51.6	74.0	-22.4	Peak	Vertical
	15722.0	26.0	20.5	46.5	74.0	-27.5	Peak	Vertical

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 175 of 209





Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	134	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6856.5	32.4	9.5	41.9	68.2	-26.3	Peak	Horizontal
*	8607.5	30.5	13.5	44.0	68.2	-24.2	Peak	Horizontal
	11344.5	32.6	19.0	51.6	74.0	-22.4	Peak	Horizontal
	15722.0	25.4	20.5	45.9	74.0	-28.1	Peak	Horizontal
*	6805.5	32.5	9.1	41.6	68.2	-26.6	Peak	Vertical
*	8607.5	29.4	13.5	42.9	68.2	-25.3	Peak	Vertical
	11344.5	29.9	19.0	48.9	74.0	-25.1	Peak	Vertical
	15577.5	25.2	20.5	45.7	74.0	-28.3	Peak	Vertical

Note 2: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 176 of 209



Test Mode:	802.11ac-VHT20 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	52	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6652.5	32.6	8.7	41.3	68.2	-26.9	Peak	Horizontal
*	8590.5	29.4	13.4	42.8	68.2	-25.4	Peak	Horizontal
	11336.0	27.0	19.0	46.0	74.0	-28.0	Peak	Horizontal
	15960.0	25.1	20.3	45.4	74.0	-28.6	Peak	Horizontal
*	6635.5	32.5	8.7	41.2	68.2	-27.0	Peak	Vertical
*	8590.5	29.3	13.4	42.7	68.2	-25.5	Peak	Vertical
	11574.0	27.8	19.5	47.3	74.0	-26.7	Peak	Vertical
	15637.0	26.6	20.4	47.0	74.0	-27.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 177 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT20 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	60	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(dBµV)		(dBµV/m)				
*	6372.0	33.3	7.5	40.8	68.2	-27.4	Peak	Horizontal
*	8675.5	30.4	13.7	44.1	68.2	-24.1	Peak	Horizontal
	11667.5	27.9	19.3	47.2	74.0	-26.8	Peak	Horizontal
	15637.0	25.5	20.4	45.9	74.0	-28.1	Peak	Horizontal
*	6975.5	31.6	10.4	42.0	68.2	-26.2	Peak	Vertical
*	8675.5	29.0	13.7	42.7	68.2	-25.5	Peak	Vertical
	11667.5	27.9	19.3	47.2	74.0	-26.8	Peak	Vertical
	15798.5	25.8	20.4	46.2	74.0	-27.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 178 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT20 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	64	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6814.0	33.1	9.1	42.2	68.2	-26.0	Peak	Horizontal
*	8616.0	29.6	13.5	43.1	68.2	-25.1	Peak	Horizontal
	11123.5	28.5	18.6	47.1	74.0	-26.9	Peak	Horizontal
	15798.5	25.9	20.4	46.3	74.0	-27.7	Peak	Horizontal
*	6933.0	32.6	10.1	42.7	68.2	-25.5	Peak	Vertical
*	8616.0	29.7	13.5	43.2	68.2	-25.0	Peak	Vertical
	11132.0	28.7	18.6	47.3	74.0	-26.7	Peak	Vertical
	15909.0	26.1	20.4	46.5	74.0	-27.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 179 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT20 -	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	100	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6355.0	33.0	7.5	40.5	68.2	-27.7	Peak	Horizontal
*	8854.0	29.6	14.0	43.6	68.2	-24.6	Peak	Horizontal
	11004.5	35.7	18.5	54.2	74.0	-19.8	Peak	Horizontal
	11004.5	30.4	18.5	48.9	54.0	-5.1	Average	Horizontal
	15909.0	25.9	20.4	46.3	74.0	-27.7	Peak	Horizontal
*	6474.0	33.0	8.2	41.2	68.2	-27.0	Peak	Vertical
*	8854.0	28.2	14.0	42.2	68.2	-26.0	Peak	Vertical
	11004.5	31.7	18.5	50.2	74.0	-23.8	Peak	Vertical
	15807.0	25.8	20.4	46.2	74.0	-27.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) - Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 180 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT20 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	116	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7791.5	30.6	12.4	43.0	68.2	-25.2	Peak	Horizontal
*	8616.0	29.6	13.5	43.1	68.2	-25.1	Peak	Horizontal
	9364.0	31.3	14.5	45.8	74.0	-28.2	Peak	Horizontal
	10851.5	28.5	18.1	46.6	74.0	-27.4	Peak	Horizontal
*	7902.0	31.1	12.4	43.5	68.2	-24.7	Peak	Vertical
*	8633.0	29.9	13.5	43.4	68.2	-24.8	Peak	Vertical
	9423.5	28.9	14.5	43.4	74.0	-30.6	Peak	Vertical
	11123.5	27.9	18.6	46.5	74.0	-27.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 181 of 209

IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT20 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	120	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6287.0	34.1	7.1	41.2	68.2	-27.0	Peak	Horizontal
*	8794.5	29.4	13.9	43.3	68.2	-24.9	Peak	Horizontal
	11200.0	34.2	18.7	52.9	74.0	-21.1	Peak	Horizontal
	15807.0	25.0	20.4	45.4	74.0	-28.6	Peak	Horizontal
*	6627.0	33.0	8.7	41.7	68.2	-26.5	Peak	Vertical
*	8794.5	28.5	13.9	42.4	68.2	-25.8	Peak	Vertical
	11191.5	36.1	18.7	54.8	74.0	-19.2	Peak	Vertical
	15977.0	27.4	20.4	47.8	74.0	-26.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 182 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT20 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	140	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	6584.5	33.2	8.6	41.8	68.2	-26.4	Peak	Horizontal
*	8667.0	30.3	13.6	43.9	68.2	-24.3	Peak	Horizontal
	11395.5	31.0	19.1	50.1	74.0	-23.9	Peak	Horizontal
	15977.0	26.0	20.4	46.4	74.0	-27.6	Peak	Horizontal
*	6729.0	33.8	8.7	42.5	68.2	-25.7	Peak	Vertical
*	8667.0	29.5	13.6	43.1	68.2	-25.1	Peak	Vertical
	11404.0	29.2	19.1	48.3	74.0	-25.7	Peak	Vertical
	15968.5	27.5	20.3	47.8	74.0	-26.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 183 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT20 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	144	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6533.5	32.5	8.5	41.0	68.2	-27.2	Peak	Horizontal
*	8735.0	29.8	13.9	43.7	68.2	-24.5	Peak	Horizontal
	11429.5	32.1	19.2	51.3	74.0	-22.7	Peak	Horizontal
	15968.5	25.0	20.3	45.3	74.0	-28.7	Peak	Horizontal
*	6440.0	32.9	8.0	40.9	68.2	-27.3	Peak	Vertical
*	8735.0	28.6	13.9	42.5	68.2	-25.7	Peak	Vertical
	11455.0	32.1	19.2	51.3	74.0	-22.7	Peak	Vertical
	15747.5	26.3	20.4	46.7	74.0	-27.3	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 184 of 209



Test Mode:	802.11ac-VHT40 –	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	54	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6338.0	34.2	7.4	41.6	68.2	-26.6	Peak	Horizontal
*	8811.5	30.3	14.0	44.3	68.2	-23.9	Peak	Horizontal
	11582.5	26.9	19.5	46.4	74.0	-27.6	Peak	Horizontal
	15773.0	26.0	20.4	46.4	74.0	-27.6	Peak	Horizontal
*	6797.0	31.4	9.0	40.4	68.2	-27.8	Peak	Vertical
*	8811.5	28.9	14.0	42.9	68.2	-25.3	Peak	Vertical
	11344.5	28.1	19.0	47.1	74.0	-26.9	Peak	Vertical
	15909.0	26.9	20.4	47.3	74.0	-26.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 185 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT40 –	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	62	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6533.5	33.0	8.5	41.5	68.2	-26.7	Peak	Horizontal
*	8556.5	30.8	13.2	44.0	68.2	-24.2	Peak	Horizontal
	11650.5	28.4	19.3	47.7	74.0	-26.3	Peak	Horizontal
	15909.0	25.0	20.4	45.4	74.0	-28.6	Peak	Horizontal
*	6746.0	33.4	8.8	42.2	68.2	-26.0	Peak	Vertical
*	8556.5	29.3	13.2	42.5	68.2	-25.7	Peak	Vertical
	11506.0	28.8	19.4	48.2	74.0	-25.8	Peak	Vertical
	15501.0	25.2	20.6	45.8	74.0	-28.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 186 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT40 –	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	102	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average				
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	,	(dBµV)	(-)	(dBµV/m)	(' /	(*)		
*	6593.0	22.8	19.2	42.0	68.2	-26.2	Peak	Horizontal
*	8964.5	21.6	23.0	44.6	68.2	-23.6	Peak	Horizontal
	11565.5	20.1	27.8	47.9	74.0	-26.1	Peak	Horizontal
	15501.0	20.7	26.6	47.3	74.0	-26.7	Peak	Horizontal
*	6593.0	32.2	8.7	40.9	68.2	-27.3	Peak	Vertical
*	8862.5	30.7	14.0	44.7	68.2	-23.5	Peak	Vertical
	11565.5	27.7	19.5	47.2	74.0	-26.8	Peak	Vertical
	15637.0	25.1	20.4	45.5	74.0	-28.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 187 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT40 -	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	110	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average				
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7851.0	30.8	12.4	43.2	68.2	-25.0	Peak	Horizontal
*	8641.5	30.1	13.5	43.6	68.2	-24.6	Peak	Horizontal
	9338.5	29.2	14.6	43.8	74.0	-30.2	Peak	Horizontal
	11081.0	28.6	18.6	47.2	74.0	-26.8	Peak	Horizontal
*	7817.0	29.7	12.4	42.1	68.2	-26.1	Peak	Vertical
*	8888.0	28.6	14.0	42.6	68.2	-25.6	Peak	Vertical
	9364.0	29.4	14.5	43.9	74.0	-30.1	Peak	Vertical
	11472.0	26.8	19.3	46.1	74.0	-27.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 188 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT40 –	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	118	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average				
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6406.0	34.0	7.7	41.7	68.2	-26.5	Peak	Horizontal
*	8811.5	30.3	14.0	44.3	68.2	-23.9	Peak	Horizontal
	11064.0	29.1	18.5	47.6	74.0	-26.4	Peak	Horizontal
	15637.0	25.6	20.4	46.0	74.0	-28.0	Peak	Horizontal
*	6899.0	32.5	9.8	42.3	68.2	-25.9	Peak	Vertical
*	8811.5	29.5	14.0	43.5	68.2	-24.7	Peak	Vertical
	11616.5	27.6	19.4	47.0	74.0	-27.0	Peak	Vertical
	15713.5	25.7	20.5	46.2	74.0	-27.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 189 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT40 –	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	134	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average				
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6508.0	33.7	8.4	42.1	68.2	-26.1	Peak	Horizontal
*	8692.5	31.3	13.7	45.0	68.2	-23.2	Peak	Horizontal
	11081.0	28.4	18.6	47.0	74.0	-27.0	Peak	Horizontal
	15713.5	24.7	20.5	45.2	74.0	-28.8	Peak	Horizontal
*	6831.0	31.8	9.3	41.1	68.2	-27.1	Peak	Vertical
*	8692.5	28.9	13.7	42.6	68.2	-25.6	Peak	Vertical
	11421.0	27.9	19.1	47.0	74.0	-27.0	Peak	Vertical
	15858.0	25.6	20.4	46.0	74.0	-28.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 190 of 209



Test Mode:	802.11ac-VHT40 -	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	142	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average				
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6338.0	33.7	7.4	41.1	68.2	-27.1	Peak	Horizontal
*	8582.0	31.1	13.4	44.5	68.2	-23.7	Peak	Horizontal
	11489.0	26.7	19.3	46.0	74.0	-28.0	Peak	Horizontal
	15858.0	24.7	20.4	45.1	74.0	-28.9	Peak	Horizontal
*	6380.5	33.4	7.6	41.0	68.2	-27.2	Peak	Vertical
*	8582.0	29.0	13.4	42.4	68.2	-25.8	Peak	Vertical
	11591.0	27.3	19.5	46.8	74.0	-27.2	Peak	Vertical
	15858.0	25.0	20.4	45.4	74.0	-28.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 191 of 209



Test Mode:	802.11ac-VHT80 -	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	58	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average				
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6440.0	33.5	8.0	41.5	68.2	-26.7	Peak	Horizontal
*	8675.5	30.9	13.7	44.6	68.2	-23.6	Peak	Horizontal
	11582.5	26.8	19.5	46.3	74.0	-27.7	Peak	Horizontal
	15832.5	24.1	20.4	44.5	74.0	-29.5	Peak	Horizontal
*	6533.5	32.9	8.5	41.4	68.2	-26.8	Peak	Vertical
*	8675.5	28.7	13.7	42.4	68.2	-25.8	Peak	Vertical
	11463.5	28.1	19.3	47.4	74.0	-26.6	Peak	Vertical
	15849.5	25.4	20.4	45.8	74.0	-28.2	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 192 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	106	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6482.5	34.0	8.3	42.3	68.2	-25.9	Peak	Horizontal
*	8675.5	30.3	13.7	44.0	68.2	-24.2	Peak	Horizontal
	11625.0	28.2	19.4	47.6	74.0	-26.4	Peak	Horizontal
	15849.5	25.2	20.4	45.6	74.0	-28.4	Peak	Horizontal
*	6695.0	32.9	8.7	41.6	68.2	-26.6	Peak	Vertical
*	8675.5	29.7	13.7	43.4	68.2	-24.8	Peak	Vertical
	11089.5	28.4	18.6	47.0	74.0	-27.0	Peak	Vertical
	15824.0	25.8	20.4	46.2	74.0	-27.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 193 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	122	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6788.5	32.5	9.0	41.5	68.2	-26.7	Peak	Horizontal
*	8913.5	30.0	14.0	44.0	68.2	-24.2	Peak	Horizontal
	11174.5	27.1	18.7	45.8	74.0	-28.2	Peak	Horizontal
	15824.0	25.1	20.4	45.5	74.0	-28.5	Peak	Horizontal
*	6576.0	31.7	8.6	40.3	68.2	-27.9	Peak	Vertical
*	8913.5	27.9	14.0	41.9	68.2	-26.3	Peak	Vertical
	11268.0	28.7	18.8	47.5	74.0	-26.5	Peak	Vertical
	15722.0	25.4	20.5	45.9	74.0	-28.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 194 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80 -	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	138	Test Engineer:	Kevin Ker				
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average				
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	6312.5	22.5	17.9	40.4	68.2	-27.8	Peak	Horizontal
*	8616.0	21.2	22.9	44.1	68.2	-24.1	Peak	Horizontal
	11642.0	19.2	27.6	46.8	74.0	-27.2	Peak	Horizontal
	15722.0	21.3	24.9	46.2	74.0	-27.8	Peak	Horizontal
*	6661.0	32.9	8.7	41.6	68.2	-26.6	Peak	Vertical
*	8616.0	29.0	13.5	42.5	68.2	-25.7	Peak	Vertical
	11472.0	26.9	19.3	46.2	74.0	-27.8	Peak	Vertical
	16062.0	25.1	20.3	45.4	74.0	-28.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 195 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	42 +48	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7834.0	31.6	12.4	44.0	68.2	-24.2	Peak	Horizontal
*	8845.5	30.7	14.0	44.7	68.2	-23.5	Peak	Horizontal
	9355.5	30.7	14.5	45.2	74.0	-28.8	Peak	Horizontal
	11616.5	29.1	19.4	48.5	74.0	-25.5	Peak	Horizontal
*	7936.0	32.5	12.4	44.9	68.2	-23.3	Peak	Vertical
*	8769.0	29.7	13.9	43.6	68.2	-24.6	Peak	Vertical
	9372.5	31.6	14.5	46.1	74.0	-27.9	Peak	Vertical
	11684.5	28.2	19.2	47.4	74.0	-26.6	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 196 of 209



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	42 +106	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7842.5	31.0	12.4	43.4	68.2	-24.8	Peak	Horizontal
*	8794.5	31.4	13.9	45.3	68.2	-22.9	Peak	Horizontal
	9338.5	31.5	14.6	46.1	74.0	-27.9	Peak	Horizontal
	10979.0	29.6	18.5	48.1	74.0	-25.9	Peak	Horizontal
*	7851.0	31.8	12.4	44.2	68.2	-24.0	Peak	Vertical
*	8650.0	32.0	13.6	45.6	68.2	-22.6	Peak	Vertical
	9355.5	31.6	14.5	46.1	74.0	-27.9	Peak	Vertical
	10911.0	29.7	18.4	48.1	74.0	-25.9	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 197 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	42 +122	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7893.5	31.5	12.4	43.9	68.2	-24.3	Peak	Horizontal
*	8633.0	31.4	13.5	44.9	68.2	-23.3	Peak	Horizontal
	9372.5	31.6	14.5	46.1	74.0	-27.9	Peak	Horizontal
	10902.5	29.4	18.3	47.7	74.0	-26.3	Peak	Horizontal
*	7910.5	31.0	12.4	43.4	68.2	-24.8	Peak	Vertical
*	8539.5	31.4	13.1	44.5	68.2	-23.7	Peak	Vertical
	9338.5	31.7	14.6	46.3	74.0	-27.7	Peak	Vertical
	11030.0	29.7	18.5	48.2	74.0	-25.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 198 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	42 +138	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7783.0	31.3	12.4	43.7	68.2	-24.5	Peak	Horizontal
*	8633.0	30.6	13.5	44.1	68.2	-24.1	Peak	Horizontal
	9364.0	31.0	14.5	45.5	74.0	-28.5	Peak	Horizontal
	10877.0	30.0	18.2	48.2	74.0	-25.8	Peak	Horizontal
*	7842.5	31.4	12.4	43.8	68.2	-24.4	Peak	Vertical
*	8658.5	31.4	13.6	45.0	68.2	-23.2	Peak	Vertical
	9364.0	31.5	14.5	46.0	74.0	-28.0	Peak	Vertical
	10970.5	29.1	18.4	47.5	74.0	-26.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 199 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	58 +106	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	,	(dBµV)	,	(dBµV/m)	\ /	,		
*	7842.5	31.5	12.4	43.9	68.2	-24.3	Peak	Horizontal
*	8862.5	30.8	14.0	44.8	68.2	-23.4	Peak	Horizontal
	9355.5	31.1	14.5	45.6	74.0	-28.4	Peak	Horizontal
	11642.0	29.5	19.4	48.9	74.0	-25.1	Peak	Horizontal
*	7842.5	31.5	12.4	43.9	68.2	-24.3	Peak	Vertical
*	8633.0	30.7	13.5	44.2	68.2	-24.0	Peak	Vertical
	9321.5	31.3	14.6	45.9	74.0	-28.1	Peak	Vertical
	10902.5	29.0	18.3	47.3	74.0	-26.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 200 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	58 +122	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7774.5	30.7	12.4	43.1	68.2	-25.1	Peak	Horizontal
*	8684.0	31.1	13.7	44.8	68.2	-23.4	Peak	Horizontal
	9313.0	30.5	14.7	45.2	74.0	-28.8	Peak	Horizontal
	11038.5	29.1	18.5	47.6	74.0	-26.4	Peak	Horizontal
*	7876.5	31.1	12.4	43.5	68.2	-24.7	Peak	Vertical
*	8752.0	31.2	13.9	45.1	68.2	-23.1	Peak	Vertical
	9415.0	31.2	14.5	45.7	74.0	-28.3	Peak	Vertical
	11361.5	29.2	19.0	48.2	74.0	-25.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 201 of 209



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	58 +138	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7927.5	32.3	12.4	44.7	68.2	-23.5	Peak	Horizontal
*	8828.5	30.6	14.0	44.6	68.2	-23.6	Peak	Horizontal
	9347.0	31.5	14.5	46.0	74.0	-28.0	Peak	Horizontal
	11514.5	28.1	19.4	47.5	74.0	-26.5	Peak	Horizontal
*	7791.5	31.5	12.4	43.9	68.2	-24.3	Peak	Vertical
*	8905.0	30.1	14.0	44.1	68.2	-24.1	Peak	Vertical
	9372.5	31.0	14.5	45.5	74.0	-28.5	Peak	Vertical
	11531.5	27.8	19.4	47.2	74.0	-26.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 202 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	58 +155	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7842.5	32.0	12.4	44.4	68.2	-23.8	Peak	Horizontal
*	8947.5	30.6	14.0	44.6	68.2	-23.6	Peak	Horizontal
	9347.0	31.3	14.5	45.8	74.0	-28.2	Peak	Horizontal
	10953.5	29.4	18.4	47.8	74.0	-26.2	Peak	Horizontal
*	7970.0	31.1	12.5	43.6	68.2	-24.6	Peak	Vertical
*	8803.0	31.0	14.0	45.0	68.2	-23.2	Peak	Vertical
	9415.0	31.3	14.5	45.8	74.0	-28.2	Peak	Vertical
	11038.5	28.5	18.5	47.0	74.0	-27.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 203 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	106 +122	Test Engineer:	Kevin Ker			
Remark:	1. Average measurement was no	t performed if peak I	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7791.5	31.4	12.4	43.8	68.2	-24.4	Peak	Horizontal
*	8811.5	30.3	14.0	44.3	68.2	-23.9	Peak	Horizontal
	9372.5	31.1	14.5	45.6	74.0	-28.4	Peak	Horizontal
	10970.5	29.2	18.4	47.6	74.0	-26.4	Peak	Horizontal
*	7876.5	29.5	12.4	41.9	68.2	-26.3	Peak	Vertical
*	8624.5	31.5	13.5	45.0	68.2	-23.2	Peak	Vertical
	9338.5	32.2	14.6	46.8	74.0	-27.2	Peak	Vertical
	10826.0	27.7	18.0	45.7	74.0	-28.3	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 204 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1					
	Ant 0 + 1 + 2 + 3							
Test Channel:	106 +138	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7800.0	31.5	12.4	43.9	68.2	-24.3	Peak	Horizontal
*	8845.5	30.2	14.0	44.2	68.2	-24.0	Peak	Horizontal
	9321.5	32.3	14.6	46.9	74.0	-27.1	Peak	Horizontal
	11140.5	28.8	18.7	47.5	74.0	-26.5	Peak	Horizontal
*	7783.0	31.1	12.4	43.5	68.2	-24.7	Peak	Vertical
*	8565.0	30.0	13.3	43.3	68.2	-24.9	Peak	Vertical
	9389.5	31.3	14.5	45.8	74.0	-28.2	Peak	Vertical
	11072.5	28.9	18.6	47.5	74.0	-26.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 205 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	106 +155	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7953.0	31.2	12.5	43.7	68.2	-24.5	Peak	Horizontal
*	8735.0	31.3	13.9	45.2	68.2	-23.0	Peak	Horizontal
	9330.0	30.8	14.6	45.4	74.0	-28.6	Peak	Horizontal
	11191.5	28.8	18.7	47.5	74.0	-26.5	Peak	Horizontal
*	7808.5	31.4	12.4	43.8	68.2	-24.4	Peak	Vertical
*	8922.0	30.5	14.0	44.5	68.2	-23.7	Peak	Vertical
	9415.0	31.2	14.5	45.7	74.0	-28.3	Peak	Vertical
	11072.5	29.3	18.6	47.9	74.0	-26.1	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 206 of 209



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	122 +138	Test Engineer:	Kevin Ker			
Remark:	Average measurement was not performed if peak level lower than average					
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7800.0	31.5	12.4	43.9	68.2	-24.3	Peak	Horizontal
*	8845.5	30.2	14.0	44.2	68.2	-24.0	Peak	Horizontal
	9321.5	32.3	14.6	46.9	74.0	-27.1	Peak	Horizontal
	11140.5	28.8	18.7	47.5	74.0	-26.5	Peak	Horizontal
*	7783.0	31.1	12.4	43.5	68.2	-24.7	Peak	Vertical
*	8565.0	30.0	13.3	43.3	68.2	-24.9	Peak	Vertical
	9389.5	31.3	14.5	45.8	74.0	-28.2	Peak	Vertical
	11072.5	28.9	18.6	47.5	74.0	-26.5	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 207 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1					
	Ant 0 + 1 + 2 + 3							
Test Channel:	122 +155	+155 Test Engineer: Kevin Ker						
Remark:	Average measurement was not performed if peak level lower than average							
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.	•						

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	,	(dBµV)	,	(dBµV/m)	(1 /	,		
*	7842.5	31.5	12.4	43.9	68.2	-24.3	Peak	Horizontal
*	8794.5	29.2	13.9	43.1	68.2	-25.1	Peak	Horizontal
	9432.0	30.9	14.4	45.3	74.0	-28.7	Peak	Horizontal
	11361.5	28.4	19.0	47.4	74.0	-26.6	Peak	Horizontal
*	7800.0	31.6	12.4	44.0	68.2	-24.2	Peak	Vertical
*	8667.0	30.7	13.6	44.3	68.2	-23.9	Peak	Vertical
	9338.5	32.0	14.6	46.6	74.0	-27.4	Peak	Vertical
	11506.0	28.3	19.4	47.7	74.0	-26.3	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 Page Number: 208 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	138 +155	Test Engineer: Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average					
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7834.0	31.2	12.4	43.6	68.2	-24.6	Peak	Horizontal
*	8633.0	31.5	13.5	45.0	68.2	-23.2	Peak	Horizontal
	9313.0	31.5	14.7	46.2	74.0	-27.8	Peak	Horizontal
	11251.0	29.7	18.8	48.5	74.0	-25.5	Peak	Horizontal
*	7859.5	31.3	12.4	43.7	68.2	-24.5	Peak	Vertical
*	8837.0	30.7	14.0	44.7	68.2	-23.5	Peak	Vertical
	9423.5	29.9	14.5	44.4	74.0	-29.6	Peak	Vertical
	11030.0	29.5	18.5	48.0	74.0	-26.0	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

Note 2: Measure Level (dBµV/m) = Reading Level (dBµV) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m) – Pre_Amplifier Gain (dB)

FCC ID: 2AD8UFZCWO4A1 IC: 109D-FZCWO4A1