



Galtronics Omni 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)				
	7458.0	28.6	12.8	41.4	74.0	-32.6	Peak	Horizontal
	8205.0	31.1	11.9	43.0	74.0	-31.0	Peak	Horizontal
*	8965.0	27.7	14.1	41.8	68.2	-26.4	Peak	Horizontal
*	9968.0	28.1	15.3	43.4	68.2	-24.8	Peak	Horizontal
	7569.2	28.4	12.8	41.2	74.0	-32.8	Peak	Vertical
	8256.0	29.4	11.9	41.3	74.0	-32.7	Peak	Vertical
*	8693.0	27.9	13.7	41.6	68.2	-26.6	Peak	Vertical
*	9858.0	27.3	16.2	43.5	68.2	-24.7	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 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7562.0	29.6	12.8	42.4	74.0	-31.6	Peak	Horizontal
	8369.0	29.6	12.1	41.7	74.0	-32.3	Peak	Horizontal
*	8758.5	27.8	13.9	41.7	68.2	-26.5	Peak	Horizontal
*	9741.0	28.5	14.8	43.3	68.2	-24.9	Peak	Horizontal
	7550.0	29.2	12.8	42.0	74.0	-32.0	Peak	Vertical
	8452.0	28.5	12.5	41.0	74.0	-33.0	Peak	Vertical
*	8758.0	27.9	13.9	41.8	68.2	-26.4	Peak	Vertical
*	9889.0	28.6	15.5	44.1	68.2	-24.1	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8256.0	29.1	11.9	41.0	74.0	-33.0	Peak	Horizontal
	9120.0	28.3	14.5	42.8	74.0	-31.2	Peak	Horizontal
*	10363.0	28.4	16.8	45.2	68.2	-23.0	Peak	Horizontal
*	12869.0	26.1	19.3	45.4	68.2	-22.8	Peak	Horizontal
	7425.0	28.8	12.7	41.5	74.0	-32.5	Peak	Vertical
	8230.0	29.1	11.9	41.0	74.0	-33.0	Peak	Vertical
*	9685.0	29.1	14.6	43.7	68.2	-24.5	Peak	Vertical
*	10360.0	28.0	16.8	44.8	68.2	-23.4	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

1. 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.

Report No.: 1608TW0110-U14

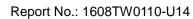
Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	7456.0	29.2	12.8	42.0	74.0	-32.0	Peak	Horizontal
	8120.0	29.3	12.2	41.5	74.0	-32.5	Peak	Horizontal
*	9725.0	29.0	14.7	43.7	68.2	-24.5	Peak	Horizontal
*	10362.0	28.0	16.8	44.8	68.2	-23.4	Peak	Horizontal
	7562.0	30.6	12.8	43.4	74.0	-30.6	Peak	Vertical
	8125.0	29.6	12.2	41.8	74.0	-32.2	Peak	Vertical
*	9825.0	28.5	15.7	44.2	68.2	-24.0	Peak	Vertical
*	12865.0	25.4	19.3	44.7	68.2	-23.5	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: 4 of 209





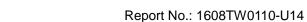
Test Mode:	802.11a - Ant 0	Test Site:	AC1			
Test Channel:	116	Test Engineer:	Kevin Ker			
Remark:	Average measurement was not performed if peak level lower than average					
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.					

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7842.5	31.2	12.4	43.6	68.2	-24.6	Peak	Horizontal
*	8828.5	29.5	14.0	43.5	68.2	-24.7	Peak	Horizontal
	9432.0	31.0	14.4	45.4	74.0	-28.6	Peak	Horizontal
	11047.0	29.4	18.5	47.9	74.0	-26.1	Peak	Horizontal
*	7936.0	30.8	12.4	43.2	68.2	-25.0	Peak	Vertical
*	8837.0	29.7	14.0	43.7	68.2	-24.5	Peak	Vertical
	9466.0	29.5	14.4	43.9	74.0	-30.1	Peak	Vertical
	11021.5	29.2	18.5	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: 5 of 209





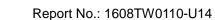
Test Mode:	802.11a - Ant 0	Test Site:	AC1				
Test Channel:	120	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7365.0	29.0	12.5	41.5	74.0	-32.5	Peak	Horizontal
	8123.0	29.7	12.2	41.9	74.0	-32.1	Peak	Horizontal
*	9825.0	28.6	15.7	44.3	68.2	-23.9	Peak	Horizontal
*	12893.0	25.1	19.4	44.5	68.2	-23.7	Peak	Horizontal
	7362.0	28.7	12.5	41.2	74.0	-32.8	Peak	Vertical
	8125.0	30.0	12.2	42.2	74.0	-31.8	Peak	Vertical
*	9856.0	27.0	16.2	43.2	68.2	-25.0	Peak	Vertical
*	10365.0	28.2	16.8	45.0	68.2	-23.2	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: 6 of 209





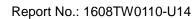
Test Mode:	802.11a - Ant 0	Test Site:	AC1				
Test Channel:	140	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7456.0	28.7	12.8	41.5	74.0	-32.5	Peak	Horizontal
	8425.0	29.7	12.3	42.0	74.0	-32.0	Peak	Horizontal
*	9825.0	28.5	15.7	44.2	68.2	-24.0	Peak	Horizontal
*	10236.0	27.4	16.4	43.8	68.2	-24.4	Peak	Horizontal
	7365.0	29.2	12.5	41.7	74.0	-32.3	Peak	Vertical
	8253.0	30.5	11.9	42.4	74.0	-31.6	Peak	Vertical
*	9836.0	28.7	16.0	44.7	68.2	-23.5	Peak	Vertical
*	10368.0	28.3	16.8	45.1	68.2	-23.1	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: 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	. 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7365.0	29.4	12.5	41.9	74.0	-32.1	Peak	Horizontal
	8425.0	29.0	12.3	41.3	74.0	-32.7	Peak	Horizontal
*	9863.0	28.6	16.1	44.7	68.2	-23.5	Peak	Horizontal
*	10368.0	28.2	16.8	45.0	68.2	-23.2	Peak	Horizontal
	7362.0	29.3	12.5	41.8	74.0	-32.2	Peak	Vertical
	9426.0	29.2	14.4	43.6	74.0	-30.4	Peak	Vertical
*	9825.0	28.7	15.7	44.4	68.2	-23.8	Peak	Vertical
*	12789.0	26.0	19.0	45.0	68.2	-23.2	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: 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.	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
	8256.0	29.2	11.9	41.1	74.0	-32.9	Peak	Horizontal
	9125.0	28.3	14.6	42.9	74.0	-31.1	Peak	Horizontal
*	9630.0	28.4	14.4	42.8	68.2	-25.4	Peak	Horizontal
*	10369.0	28.7	16.8	45.5	68.2	-22.7	Peak	Horizontal
	7639.0	29.8	12.6	42.4	74.0	-31.6	Peak	Vertical
	8236.0	29.9	11.9	41.8	74.0	-32.2	Peak	Vertical
*	9858.0	27.7	16.2	43.9	68.2	-24.3	Peak	Vertical
*	10369.0	28.4	16.8	45.2	68.2	-23.0	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: 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.	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
	7436.0	28.6	12.7	41.3	74.0	-32.7	Peak	Horizontal
	8256.0	30.2	11.9	42.1	74.0	-31.9	Peak	Horizontal
*	9686.0	28.7	14.6	43.3	68.2	-24.9	Peak	Horizontal
*	10358.0	28.6	16.8	45.4	68.2	-22.8	Peak	Horizontal
	7365.0	28.9	12.5	41.4	74.0	-32.6	Peak	Vertical
	8352.0	29.2	12.0	41.2	74.0	-32.8	Peak	Vertical
*	9642.0	28.7	14.4	43.1	68.2	-25.1	Peak	Vertical
*	10369.0	27.9	16.8	44.7	68.2	-23.5	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:	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
	7362.0	29.6	12.5	42.1	74.0	-31.9	Peak	Horizontal
	8354.0	29.8	12.0	41.8	74.0	-32.2	Peak	Horizontal
*	9854.0	28.5	16.2	44.7	68.2	-23.5	Peak	Horizontal
*	10368.0	28.2	16.8	45.0	68.2	-23.2	Peak	Horizontal
	7369.0	29.3	12.5	41.8	74.0	-32.2	Peak	Vertical
	8362.0	29.4	12.0	41.4	74.0	-32.6	Peak	Vertical
*	9684.0	29.1	14.6	43.7	68.2	-24.5	Peak	Vertical
*	12869.0	25.9	19.3	45.2	68.2	-23.0	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: 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 (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7978.5	29.5	12.5	42.0	68.2	-26.2	Peak	Horizontal
*	8862.5	30.3	14.0	44.3	68.2	-23.9	Peak	Horizontal
	9381.0	28.9	14.5	43.4	74.0	-30.6	Peak	Horizontal
	10996.0	29.1	18.5	47.6	74.0	-26.4	Peak	Horizontal
*	7953.0	29.4	12.5	41.9	68.2	-26.3	Peak	Vertical
*	8854.0	29.1	14.0	43.1	68.2	-25.1	Peak	Vertical
	9483.0	29.9	14.4	44.3	74.0	-29.7	Peak	Vertical
	11072.5	28.2	18.6	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: 12 of 209 IC: 109D-FZCWO4A1





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	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(dBµV)		(dBµV/m)				
	7468.0	29.6	12.8	42.4	74.0	-31.6	Peak	Horizontal
	8365.0	29.7	12.0	41.7	74.0	-32.3	Peak	Horizontal
*	9687.0	29.9	14.6	44.5	68.2	-23.7	Peak	Horizontal
*	10349.0	28.1	16.8	44.9	68.2	-23.3	Peak	Horizontal
	7365.0	29.2	12.5	41.7	74.0	-32.3	Peak	Vertical
	11310.5	29.4	18.9	48.3	74.0	-25.7	Peak	Vertical
*	12968.0	25.0	19.8	44.8	68.2	-23.4	Peak	Vertical
*	13698.0	27.2	22.0	49.2	68.2	-19.0	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7364.0	29.6	12.5	42.1	74.0	-31.9	Peak	Horizontal
	9425.0	29.1	14.4	43.5	74.0	-30.5	Peak	Horizontal
*	10005.0	28.3	15.4	43.7	68.2	-24.5	Peak	Horizontal
*	13456.0	25.2	21.6	46.8	68.2	-21.4	Peak	Horizontal
	8365.0	29.2	12.0	41.2	74.0	-32.8	Peak	Vertical
	9152.0	29.0	14.7	43.7	74.0	-30.3	Peak	Vertical
*	10005.0	28.3	15.4	43.7	68.2	-24.5	Peak	Vertical
*	12895.0	25.5	19.4	44.9	68.2	-23.3	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: 14 of 209





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.							
	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
	7365.0	28.7	12.5	41.2	74.0	-32.8	Peak	Horizontal
	8456.0	28.7	12.5	41.2	74.0	-32.8	Peak	Horizontal
*	9985.0	28.5	15.4	43.9	68.2	-24.3	Peak	Horizontal
*	10368.0	28.0	16.8	44.8	68.2	-23.4	Peak	Horizontal
	7639.0	30.2	12.6	42.8	74.0	-31.2	Peak	Vertical
	8256.0	29.9	11.9	41.8	74.0	-32.2	Peak	Vertical
*	9684.0	28.3	14.6	42.9	68.2	-25.3	Peak	Vertical
*	10365.0	27.9	16.8	44.7	68.2	-23.5	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: 15 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 0	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
	7425.0	29.3	12.7	42.0	74.0	-32.0	Peak	Horizontal
	8250.0	30.1	11.9	42.0	74.0	-32.0	Peak	Horizontal
*	9968.0	28.2	15.3	43.5	68.2	-24.7	Peak	Horizontal
*	10362.0	27.7	16.8	44.5	68.2	-23.7	Peak	Horizontal
	9410.0	29.6	14.5	44.1	74.0	-29.9	Peak	Vertical
	11089.5	29.9	18.6	48.5	74.0	-25.5	Peak	Vertical
*	12875.0	25.2	19.3	44.5	68.2	-23.7	Peak	Vertical
*	13695.0	26.8	21.9	48.7	68.2	-19.5	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: 16 of 209





Test Mode:	802.11n-HT40 - Ant 0	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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	9125.0	29.2	14.6	43.8	74.0	-30.2	Peak	Horizontal
	11021.5	29.7	18.5	48.2	74.0	-25.8	Peak	Horizontal
*	12896.0	25.2	19.4	44.6	68.2	-23.6	Peak	Horizontal
*	13654.0	26.6	21.8	48.4	68.2	-19.8	Peak	Horizontal
	7635.0	30.0	12.6	42.6	74.0	-31.4	Peak	Vertical
	8235.0	30.2	11.9	42.1	74.0	-31.9	Peak	Vertical
*	9685.0	28.9	14.6	43.5	68.2	-24.7	Peak	Vertical
*	12895.0	25.8	19.4	45.2	68.2	-23.0	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: 17 of 209 IC: 109D-FZCWO4A1





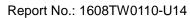
Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1				
Test Channel:	110	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7817.0	29.5	12.4	41.9	68.2	-26.3	Peak	Horizontal
*	8692.5	29.0	13.7	42.7	68.2	-25.5	Peak	Horizontal
	9406.5	30.0	14.5	44.5	74.0	-29.5	Peak	Horizontal
	11268.0	28.6	18.8	47.4	74.0	-26.6	Peak	Horizontal
*	7944.5	30.5	12.5	43.0	68.2	-25.2	Peak	Vertical
*	8641.5	30.3	13.5	43.8	68.2	-24.4	Peak	Vertical
	9466.0	29.0	14.4	43.4	74.0	-30.6	Peak	Vertical
	10953.5	28.4	18.4	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: 18 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1				
Test Channel:	118	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
	7463.0	29.3	12.8	42.1	74.0	-31.9	Peak	Horizontal
	8425.0	28.9	12.3	41.2	74.0	-32.8	Peak	Horizontal
*	9685.0	28.7	14.6	43.3	68.2	-24.9	Peak	Horizontal
*	12868.0	26.5	19.3	45.8	68.2	-22.4	Peak	Horizontal
	7365.0	28.8	12.5	41.3	74.0	-32.7	Peak	Vertical
	8365.0	29.4	12.0	41.4	74.0	-32.6	Peak	Vertical
*	9785.0	28.6	15.0	43.6	68.2	-24.6	Peak	Vertical
*	10364.0	28.3	16.8	45.1	68.2	-23.1	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: 19 of 209





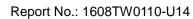
Test Mode:	802.11n-HT40 - Ant 0	Test Site:	AC1				
Test Channel:	134	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average limit.						
	 Other frequency was 20dB belin the report. 	ow limit line within 1	-18GHz, there is not show				

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7365.0	29.5	12.5	42.0	74.0	-32.0	Peak	Horizontal
	9421.0	29.3	14.5	43.8	74.0	-30.2	Peak	Horizontal
*	10365.0	28.2	16.8	45.0	68.2	-23.2	Peak	Horizontal
*	12865.0	25.6	19.3	44.9	68.2	-23.3	Peak	Horizontal
	7639.0	28.9	12.6	41.5	74.0	-32.5	Peak	Vertical
	8120.0	29.6	12.2	41.8	74.0	-32.2	Peak	Vertical
*	9635.0	27.7	14.4	42.1	68.2	-26.1	Peak	Vertical
*	12756.0	24.9	18.9	43.8	68.2	-24.4	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: 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 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
	9025.0	28.4	14.2	42.6	74.0	-31.4	Peak	Horizontal
	11365.0	25.6	19.0	44.6	74.0	-29.4	Peak	Horizontal
*	12968.0	24.8	19.8	44.6	68.2	-23.6	Peak	Horizontal
*	13652.0	26.0	21.8	47.8	68.2	-20.4	Peak	Horizontal
	9425.0	29.1	14.4	43.5	74.0	-30.5	Peak	Vertical
	11384.0	25.9	19.1	45.0	74.0	-29.0	Peak	Vertical
*	12985.0	26.7	19.8	46.5	68.2	-21.7	Peak	Vertical
*	13658.0	25.7	21.8	47.5	68.2	-20.7	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: 21 of 209





Test Mode:	802.11ac-VHT20 - 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 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
	9325.0	27.9	14.6	42.5	74.0	-31.5	Peak	Horizontal
	11856.0	26.4	18.7	45.1	74.0	-28.9	Peak	Horizontal
*	12895.0	25.2	19.4	44.6	68.2	-23.6	Peak	Horizontal
*	13652.0	26.1	21.8	47.9	68.2	-20.3	Peak	Horizontal
	9368.0	29.0	14.5	43.5	74.0	-30.5	Peak	Vertical
	11358.0	26.6	19.0	45.6	74.0	-28.4	Peak	Vertical
*	12752.0	25.7	18.9	44.6	68.2	-23.6	Peak	Vertical
*	13489.0	25.1	21.7	46.8	68.2	-21.4	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
	9025.0	27.3	14.2	41.5	74.0	-32.5	Peak	Horizontal
	11456.0	26.3	19.2	45.5	74.0	-28.5	Peak	Horizontal
*	12851.0	25.4	19.2	44.6	68.2	-23.6	Peak	Horizontal
*	13652.0	26.0	21.8	47.8	68.2	-20.4	Peak	Horizontal
	9352.0	28.0	14.5	42.5	74.0	-31.5	Peak	Vertical
	11254.0	26.4	18.8	45.2	74.0	-28.8	Peak	Vertical
*	12846.0	25.4	19.2	44.6	68.2	-23.6	Peak	Vertical
*	13690.0	28.2	21.9	50.1	68.2	-18.1	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: 23 of 209





Test Mode:	802.11ac-VHT20 - Ant 0	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 (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9302.0	28.2	14.7	42.9	74.0	-31.1	Peak	Horizontal
	11013.0	29.9	18.5	48.4	74.0	-25.6	Peak	Horizontal
*	12968.0	24.7	19.8	44.5	68.2	-23.7	Peak	Horizontal
*	13625.0	26.7	21.8	48.5	68.2	-19.7	Peak	Horizontal
	9120.0	28.4	14.5	42.9	74.0	-31.1	Peak	Vertical
	11368.0	26.2	19.0	45.2	74.0	-28.8	Peak	Vertical
*	12984.0	25.4	19.8	45.2	68.2	-23.0	Peak	Vertical
*	13602.0	26.4	21.8	48.2	68.2	-20.0	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: 24 of 209





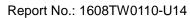
Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1
Test Channel:	116	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7851.0	30.0	12.4	42.4	68.2	-25.8	Peak	Horizontal
*	8811.5	29.2	14.0	43.2	68.2	-25.0	Peak	Horizontal
	9423.5	29.0	14.5	43.5	74.0	-30.5	Peak	Horizontal
	11081.0	28.1	18.6	46.7	74.0	-27.3	Peak	Horizontal
*	7885.0	30.5	12.4	42.9	68.2	-25.3	Peak	Vertical
*	8854.0	29.0	14.0	43.0	68.2	-25.2	Peak	Vertical
	9406.5	29.3	14.5	43.8	74.0	-30.2	Peak	Vertical
	11276.5	27.9	18.8	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: 25 of 209





Test Mode:	802.11ac-VHT20 - 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.						
	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)				
	9320.0	28.0	14.6	42.6	74.0	-31.4	Peak	Horizontal
	11025.0	28.1	18.5	46.6	74.0	-27.4	Peak	Horizontal
*	12752.0	26.3	18.9	45.2	68.2	-23.0	Peak	Horizontal
*	13687.0	26.8	21.9	48.7	68.2	-19.5	Peak	Horizontal
	9412.0	29.7	14.5	44.2	74.0	-29.8	Peak	Vertical
	11054.0	27.8	18.5	46.3	74.0	-27.7	Peak	Vertical
*	12965.0	25.8	19.8	45.6	68.2	-22.6	Peak	Vertical
*	13965.0	28.1	22.6	50.7	68.2	-17.5	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: 26 of 209 IC: 109D-FZCWO4A1





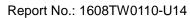
Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1					
Test Channel:	140	Test Engineer:	Kevin Ker					
Remark:		Average measurement was not performed if peak level lower than average						
		limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9450.0	28.4	14.4	42.8	74.0	-31.2	Peak	Horizontal
	11054.0	27.6	18.5	46.1	74.0	-27.9	Peak	Horizontal
*	12982.0	25.0	19.8	44.8	68.2	-23.4	Peak	Horizontal
*	13682.0	26.2	21.9	48.1	68.2	-20.1	Peak	Horizontal
	9125.0	28.3	14.6	42.9	74.0	-31.1	Peak	Vertical
	11068.0	27.3	18.5	45.8	74.0	-28.2	Peak	Vertical
*	12852.0	25.7	19.2	44.9	68.2	-23.3	Peak	Vertical
*	13650.0	26.9	21.8	48.7	68.2	-19.5	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: 27 of 209





Test Mode:	802.11ac-VHT20 - Ant 0	Test Site:	AC1				
Test Channel:	144	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.	and the state of t	4001 le thana is not about				
	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
	9012.0	27.4	14.1	41.5	74.0	-32.5	Peak	Horizontal
	11253.0	26.6	18.8	45.4	74.0	-28.6	Peak	Horizontal
*	12952.0	25.8	19.7	45.5	68.2	-22.7	Peak	Horizontal
*	13620.0	26.3	21.8	48.1	68.2	-20.1	Peak	Horizontal
	9035.0	29.3	14.2	43.5	74.0	-30.5	Peak	Vertical
	11365.0	25.9	19.0	44.9	74.0	-29.1	Peak	Vertical
*	12925.0	25.8	19.6	45.4	68.2	-22.8	Peak	Vertical
*	13458.0	25.2	21.6	46.8	68.2	-21.4	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: 28 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT40 - Ant 0	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
	9085.0	27.1	14.4	41.5	74.0	-32.5	Peak	Horizontal
	11025.0	28.0	18.5	46.5	74.0	-27.5	Peak	Horizontal
*	12850.0	25.0	19.2	44.2	68.2	-24.0	Peak	Horizontal
*	13690.0	26.2	21.9	48.1	68.2	-20.1	Peak	Horizontal
	9056.0	27.9	14.2	42.1	74.0	-31.9	Peak	Vertical
	11360.0	25.3	19.0	44.3	74.0	-29.7	Peak	Vertical
*	12702.0	25.9	18.8	44.7	68.2	-23.5	Peak	Vertical
*	13752.0	27.1	22.0	49.1	68.2	-19.1	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: 29 of 209





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 (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9036.0	27.1	14.2	41.3	74.0	-32.7	Peak	Horizontal
	10896.0	26.4	18.3	44.7	74.0	-29.3	Peak	Horizontal
*	12902.0	25.7	19.5	45.2	68.2	-23.0	Peak	Horizontal
*	13650.0	26.8	21.8	48.6	68.2	-19.6	Peak	Horizontal
	9056.0	27.4	14.2	41.6	74.0	-32.4	Peak	Vertical
	10965.0	27.1	18.4	45.5	74.0	-28.5	Peak	Vertical
*	12752.0	26.1	18.9	45.0	68.2	-23.2	Peak	Vertical
*	13560.0	25.6	21.8	47.4	68.2	-20.8	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: 30 of 209





Test Mode:	802.11ac-VHT40 - Ant 0	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 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
	9035.0	27.5	14.2	41.7	74.0	-32.3	Peak	Horizontal
	10965.0	27.2	18.4	45.6	74.0	-28.4	Peak	Horizontal
*	12965.0	25.0	19.8	44.8	68.2	-23.4	Peak	Horizontal
*	13680.0	26.0	21.9	47.9	68.2	-20.3	Peak	Horizontal
	9152.0	27.7	14.7	42.4	74.0	-31.6	Peak	Vertical
	10685.0	27.8	17.4	45.2	74.0	-28.8	Peak	Vertical
*	12953.0	24.8	19.7	44.5	68.2	-23.7	Peak	Vertical
*	13650.0	26.4	21.8	48.2	68.2	-20.0	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: 31 of 209 IC: 109D-FZCWO4A1





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
*	7800.0	29.7	12.4	42.1	68.2	-26.1	Peak	Horizontal
*	8777.5	28.3	13.9	42.2	68.2	-26.0	Peak	Horizontal
	9457.5	29.0	14.4	43.4	74.0	-30.6	Peak	Horizontal
	11157.5	28.7	18.7	47.4	74.0	-26.6	Peak	Horizontal
*	7910.5	30.8	12.4	43.2	68.2	-25.0	Peak	Vertical
*	8701.0	29.6	13.8	43.4	68.2	-24.8	Peak	Vertical
	9423.5	30.1	14.5	44.6	74.0	-29.4	Peak	Vertical
	11047.0	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: 32 of 209





Test Mode:	802.11ac-VHT40 - Ant 0	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
	9125.0	28.4	14.6	43.0	74.0	-31.0	Peak	Horizontal
	10958.0	28.0	18.4	46.4	74.0	-27.6	Peak	Horizontal
*	12840.0	25.1	19.2	44.3	68.2	-23.9	Peak	Horizontal
*	13695.0	26.4	21.9	48.3	68.2	-19.9	Peak	Horizontal
	9125.0	27.9	14.6	42.5	74.0	-31.5	Peak	Vertical
	10985.0	28.2	18.5	46.7	74.0	-27.3	Peak	Vertical
*	12861.0	25.7	19.3	45.0	68.2	-23.2	Peak	Vertical
*	13620.0	26.5	21.8	48.3	68.2	-19.9	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: 33 of 209





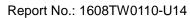
Test Mode:	802.11ac-VHT40 - Ant 0	Test Site:	AC1					
Test Channel:	134	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is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

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9165.0	27.9	14.7	42.6	74.0	-31.4	Peak	Horizontal
	11282.0	26.1	18.8	44.9	74.0	-29.1	Peak	Horizontal
*	12902.0	25.2	19.5	44.7	68.2	-23.5	Peak	Horizontal
*	13604.0	26.1	21.8	47.9	68.2	-20.3	Peak	Horizontal
	9325.0	28.2	14.6	42.8	74.0	-31.2	Peak	Vertical
	10684.0	27.9	17.4	45.3	74.0	-28.7	Peak	Vertical
*	12850.0	25.8	19.2	45.0	68.2	-23.2	Peak	Vertical
*	13695.0	26.9	21.9	48.8	68.2	-19.4	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: 34 of 209





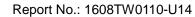
Test Mode:	802.11ac-VHT40 - Ant 0	Test Site:	AC1
Test Channel:	142	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	9032.0	28.3	14.2	42.5	74.0	-31.5	Peak	Horizontal
	11258.0	26.1	18.8	44.9	74.0	-29.1	Peak	Horizontal
*	12965.0	24.8	19.8	44.6	68.2	-23.6	Peak	Horizontal
*	13620.0	26.9	21.8	48.7	68.2	-19.5	Peak	Horizontal
	9462.0	28.4	14.4	42.8	74.0	-31.2	Peak	Vertical
	10852.0	27.1	18.1	45.2	74.0	-28.8	Peak	Vertical
*	12965.0	24.8	19.8	44.6	68.2	-23.6	Peak	Vertical
*	13520.0	25.1	21.8	46.9	68.2	-21.3	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: 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. 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
	9325.0	27.8	14.6	42.4	74.0	-31.6	Peak	Horizontal
	11102.0	26.8	18.6	45.4	74.0	-28.6	Peak	Horizontal
*	12842.0	25.5	19.2	44.7	68.2	-23.5	Peak	Horizontal
*	13902.0	26.7	22.3	49.0	68.2	-19.2	Peak	Horizontal
	9320.0	28.0	14.6	42.6	74.0	-31.4	Peak	Vertical
	11025.0	27.6	18.5	46.1	74.0	-27.9	Peak	Vertical
*	12858.0	26.2	19.3	45.5	68.2	-22.7	Peak	Vertical
*	13625.0	25.9	21.8	47.7	68.2	-20.5	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: 36 of 209 IC: 109D-FZCWO4A1





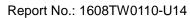
Test Mode:	802.11ac-VHT80 - Ant 0	Test Site:	AC1
Test Channel:	106	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9025.0	27.8	14.2	42.0	74.0	-32.0	Peak	Horizontal
	10954.0	27.4	18.4	45.8	74.0	-28.2	Peak	Horizontal
*	12802.0	25.7	19.1	44.8	68.2	-23.4	Peak	Horizontal
*	13695.0	26.3	21.9	48.2	68.2	-20.0	Peak	Horizontal
	9036.0	27.9	14.2	42.1	74.0	-31.9	Peak	Vertical
	12365.0	25.6	18.4	44.0	74.0	-30.0	Peak	Vertical
*	12825.0	24.9	19.2	44.1	68.2	-24.1	Peak	Vertical
*	13620.0	25.5	21.8	47.3	68.2	-20.9	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	9063.0	28.7	14.3	43.0	74.0	-31.0	Peak	Horizontal
	10965.0	27.2	18.4	45.6	74.0	-28.4	Peak	Horizontal
*	12902.0	25.5	19.5	45.0	68.2	-23.2	Peak	Horizontal
*	13650.0	26.1	21.8	47.9	68.2	-20.3	Peak	Horizontal
	9056.0	27.7	14.2	41.9	74.0	-32.1	Peak	Vertical
	10654.0	27.4	17.4	44.8	74.0	-29.2	Peak	Vertical
*	12740.0	25.0	18.9	43.9	68.2	-24.3	Peak	Vertical
*	13450.0	25.0	21.6	46.6	68.2	-21.6	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 limit						
	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)				
	9352.0	28.8	14.5	43.3	74.0	-30.7	Peak	Horizontal
	11965.0	25.4	18.6	44.0	74.0	-30.0	Peak	Horizontal
*	12960.0	24.9	19.7	44.6	68.2	-23.6	Peak	Horizontal
*	13520.0	25.3	21.8	47.1	68.2	-21.1	Peak	Horizontal
	9362.0	28.4	14.5	42.9	74.0	-31.1	Peak	Vertical
	10960.0	27.0	18.4	45.4	74.0	-28.6	Peak	Vertical
*	12850.0	25.5	19.2	44.7	68.2	-23.5	Peak	Vertical
*	13652.0	25.5	21.8	47.3	68.2	-20.9	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 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
	9325.0	29.0	14.6	43.6	74.0	-30.4	Peak	Horizontal
	10658.0	29.0	17.4	46.4	74.0	-27.6	Peak	Horizontal
*	12852.0	26.3	19.2	45.5	68.2	-22.7	Peak	Horizontal
*	13658.0	26.6	21.8	48.4	68.2	-19.8	Peak	Horizontal
	9038.0	28.1	14.2	42.3	74.0	-31.7	Peak	Vertical
	10965.0	27.4	18.4	45.8	74.0	-28.2	Peak	Vertical
*	12852.0	26.3	19.2	45.5	68.2	-22.7	Peak	Vertical
*	13625.0	27.1	21.8	48.9	68.2	-19.3	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: 40 of 209





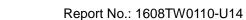
Test Mode:	802.11a - Ant 1	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit 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
	9036.0	28.7	14.2	42.9	74.0	-31.1	Peak	Horizontal
	10695.0	28.5	17.5	46.0	74.0	-28.0	Peak	Horizontal
*	12965.0	25.9	19.8	45.7	68.2	-22.5	Peak	Horizontal
*	13650.0	28.1	21.8	49.9	68.2	-18.3	Peak	Horizontal
	9036.0	28.3	14.2	42.5	74.0	-31.5	Peak	Vertical
	10965.0	28.2	18.4	46.6	74.0	-27.4	Peak	Vertical
*	12958.0	26.1	19.7	45.8	68.2	-22.4	Peak	Vertical
*	13652.0	27.6	21.8	49.4	68.2	-18.8	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: 41 of 209





Test Mode:	802.11a - 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.							
	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
	9125.0	28.9	14.6	43.5	74.0	-30.5	Peak	Horizontal
	11205.0	27.7	18.8	46.5	74.0	-27.5	Peak	Horizontal
*	12980.0	25.9	19.8	45.7	68.2	-22.5	Peak	Horizontal
*	13650.0	26.9	21.8	48.7	68.2	-19.5	Peak	Horizontal
	7436.0	29.3	12.7	42.0	74.0	-32.0	Peak	Vertical
	9412.0	29.9	14.5	44.4	74.0	-29.6	Peak	Vertical
*	10456.0	28.6	17.1	45.7	68.2	-22.5	Peak	Vertical
*	12769.0	26.4	19.0	45.4	68.2	-22.8	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: 42 of 209 IC: 109D-FZCWO4A1





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
	8426.0	29.2	12.3	41.5	74.0	-32.5	Peak	Horizontal
	10996.0	29.6	18.5	48.1	74.0	-25.9	Peak	Horizontal
*	12702.0	26.9	18.8	45.7	68.2	-22.5	Peak	Horizontal
*	13652.0	27.1	21.8	48.9	68.2	-19.3	Peak	Horizontal
	8365.0	29.9	12.0	41.9	74.0	-32.1	Peak	Vertical
	9120.0	28.4	14.5	42.9	74.0	-31.1	Peak	Vertical
*	12869.0	26.3	19.3	45.6	68.2	-22.6	Peak	Vertical
*	13520.0	26.2	21.8	48.0	68.2	-20.2	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: 43 of 209 IC: 109D-FZCWO4A1





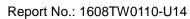
Test Mode:	802.11a - Ant 1	Test Site:	AC1						
Test Channel:	116	Test Engineer:	Kevin Ker						
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average							
	limit.	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there 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
*	7859.5	28.8	12.4	41.2	68.2	-27.0	Peak	Horizontal
*	8794.5	29.3	13.9	43.2	68.2	-25.0	Peak	Horizontal
	9440.5	29.2	14.4	43.6	74.0	-30.4	Peak	Horizontal
	11047.0	28.3	18.5	46.8	74.0	-27.2	Peak	Horizontal
*	7808.5	29.3	12.4	41.7	68.2	-26.5	Peak	Vertical
*	8862.5	29.3	14.0	43.3	68.2	-24.9	Peak	Vertical
	9423.5	29.3	14.5	43.8	74.0	-30.2	Peak	Vertical
	11234.0	27.4	18.8	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: 44 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 1	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.	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)				
	8362.0	29.4	12.0	41.4	74.0	-32.6	Peak	Horizontal
	11200.0	32.1	18.7	50.8	74.0	-23.2	Peak	Horizontal
*	12968.0	25.6	19.8	45.4	68.2	-22.8	Peak	Horizontal
*	13524.0	25.9	21.8	47.7	68.2	-20.5	Peak	Horizontal
	9425.0	29.8	14.4	44.2	74.0	-29.8	Peak	Vertical
	11200.0	28.8	18.7	47.5	74.0	-26.5	Peak	Vertical
*	12850.0	26.1	19.2	45.3	68.2	-22.9	Peak	Vertical
*	13524.0	25.8	21.8	47.6	68.2	-20.6	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: 45 of 209 IC: 109D-FZCWO4A1





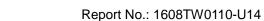
Test Mode:	802.11a - Ant 1	Test Site:	AC1						
Test Channel:	140	Test Engineer:	Kevin Ker						
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average							
	limit.	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there 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)				
	7463.0	29.9	12.8	42.7	74.0	-31.3	Peak	Horizontal
	8125.0	29.8	12.2	42.0	74.0	-32.0	Peak	Horizontal
*	10586.0	28.8	17.3	46.1	68.2	-22.1	Peak	Horizontal
*	12856.0	25.7	19.3	45.0	68.2	-23.2	Peak	Horizontal
	7458.0	29.6	12.8	42.4	74.0	-31.6	Peak	Vertical
	11250.0	27.1	18.8	45.9	74.0	-28.1	Peak	Vertical
*	12863.0	26.0	19.3	45.3	68.2	-22.9	Peak	Vertical
*	13584.0	25.7	21.8	47.5	68.2	-20.7	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: 46 of 209 IC: 109D-FZCWO4A1





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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8364.0	30.0	12.0	42.0	74.0	-32.0	Peak	Horizontal
	9120.0	28.5	14.5	43.0	74.0	-31.0	Peak	Horizontal
*	10452.0	28.2	17.1	45.3	68.2	-22.9	Peak	Horizontal
*	12843.0	26.3	19.2	45.5	68.2	-22.7	Peak	Horizontal
	8364.0	30.2	12.0	42.2	74.0	-31.8	Peak	Vertical
	9036.0	28.3	14.2	42.5	74.0	-31.5	Peak	Vertical
*	10430.0	28.3	17.0	45.3	68.2	-22.9	Peak	Vertical
*	12854.0	26.4	19.3	45.7	68.2	-22.5	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: 47 of 209





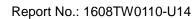
Test Mode:	802.11n-HT20 - Ant 1	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there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

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8302.0	29.5	11.9	41.4	74.0	-32.6	Peak	Horizontal
	9025.0	27.7	14.2	41.9	74.0	-32.1	Peak	Horizontal
*	10368.0	28.8	16.8	45.6	68.2	-22.6	Peak	Horizontal
*	12736.0	26.3	18.9	45.2	68.2	-23.0	Peak	Horizontal
	7526.0	30.5	12.8	43.3	74.0	-30.7	Peak	Vertical
	9425.0	29.6	14.4	44.0	74.0	-30.0	Peak	Vertical
*	10256.0	28.3	16.5	44.8	68.2	-23.4	Peak	Vertical
*	12703.0	26.8	18.8	45.6	68.2	-22.6	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





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
	7463.0	28.8	12.8	41.6	74.0	-32.4	Peak	Horizontal
	9038.0	27.5	14.2	41.7	74.0	-32.3	Peak	Horizontal
*	10265.0	28.8	16.5	45.3	68.2	-22.9	Peak	Horizontal
*	12820.0	25.8	19.1	44.9	68.2	-23.3	Peak	Horizontal
	7632.0	30.1	12.6	42.7	74.0	-31.3	Peak	Vertical
	8362.0	29.0	12.0	41.0	74.0	-33.0	Peak	Vertical
*	10425.4	28.6	17.0	45.6	68.2	-22.6	Peak	Vertical
*	12856.3	26.0	19.3	45.3	68.2	-22.9	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: 49 of 209





Test Mode:	802.11n-HT20 - Ant 1	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)				
	9136.0	28.9	14.6	43.5	74.0	-30.5	Peak	Horizontal
	10996.0	30.3	18.5	48.8	74.0	-25.2	Peak	Horizontal
*	12863.5	26.8	19.3	46.1	68.2	-22.1	Peak	Horizontal
*	13469.0	26.7	21.7	48.4	68.2	-19.8	Peak	Horizontal
	9362.0	28.4	14.5	42.9	74.0	-31.1	Peak	Vertical
	10979.0	29.2	18.5	47.7	74.0	-26.3	Peak	Vertical
*	12763.5	25.9	19.0	44.9	68.2	-23.3	Peak	Vertical
*	13692.0	27.3	21.9	49.2	68.2	-19.0	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: 50 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT20 - Ant 1	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
*	7783.0	30.3	12.4	42.7	68.2	-25.5	Peak	Horizontal
*	8709.5	28.9	13.8	42.7	68.2	-25.5	Peak	Horizontal
	9347.0	28.5	14.5	43.0	74.0	-31.0	Peak	Horizontal
	10792.0	29.9	17.9	47.8	74.0	-26.2	Peak	Horizontal
*	7953.0	30.8	12.5	43.3	68.2	-24.9	Peak	Vertical
*	8777.5	28.2	13.9	42.1	68.2	-26.1	Peak	Vertical
	9423.5	28.8	14.5	43.3	74.0	-30.7	Peak	Vertical
	11523.0	27.4	19.4	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: 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	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
	9425.0	28.9	14.4	43.3	74.0	-30.7	Peak	Horizontal
	11200.0	33.5	18.7	52.2	74.0	-21.8	Peak	Horizontal
*	12843.6	25.8	19.2	45.0	68.2	-23.2	Peak	Horizontal
*	13520.0	26.0	21.8	47.8	68.2	-20.4	Peak	Horizontal
	7458.0	29.2	12.8	42.0	74.0	-32.0	Peak	Vertical
	8365.0	29.7	12.0	41.7	74.0	-32.3	Peak	Vertical
*	10368.0	28.8	16.8	45.6	68.2	-22.6	Peak	Vertical
*	12851.0	26.4	19.2	45.6	68.2	-22.6	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: 52 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT20 - 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.						
	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)				
	8365.0	29.5	12.0	41.5	74.0	-32.5	Peak	Horizontal
	9425.0	29.4	14.4	43.8	74.0	-30.2	Peak	Horizontal
*	10569.5	29.3	17.3	46.6	68.2	-21.6	Peak	Horizontal
*	12803.0	26.3	19.1	45.4	68.2	-22.8	Peak	Horizontal
	8463.0	19.1	22.5	41.6	74.0	-32.4	Peak	Vertical
	9468.0	18.7	24.4	43.1	74.0	-30.9	Peak	Vertical
*	10386.0	19.9	26.2	46.1	68.2	-22.1	Peak	Vertical
*	12785.0	17.8	27.4	45.2	68.2	-23.0	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: 53 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 1	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
	7486.0	29.1	12.8	41.9	74.0	-32.1	Peak	Horizontal
	8358.0	29.0	12.0	41.0	74.0	-33.0	Peak	Horizontal
*	9812.0	29.5	15.3	44.8	68.2	-23.4	Peak	Horizontal
*	10450.0	28.2	17.1	45.3	68.2	-22.9	Peak	Horizontal
	7695.0	29.7	12.4	42.1	74.0	-31.9	Peak	Vertical
	9428.0	29.3	14.4	43.7	74.0	-30.3	Peak	Vertical
*	10394.0	29.0	16.9	45.9	68.2	-22.3	Peak	Vertical
*	12960.0	25.6	19.7	45.3	68.2	-22.9	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: 54 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 1	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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8469.0	29.1	12.6	41.7	74.0	-32.3	Peak	Horizontal
	9420.0	29.7	14.5	44.2	74.0	-29.8	Peak	Horizontal
*	10205.0	28.9	16.2	45.1	68.2	-23.1	Peak	Horizontal
*	12756.0	26.7	18.9	45.6	68.2	-22.6	Peak	Horizontal
	8439.0	28.7	12.4	41.1	74.0	-32.9	Peak	Vertical
	9428.0	29.0	14.4	43.4	74.0	-30.6	Peak	Vertical
*	10436.0	28.6	17.0	45.6	68.2	-22.6	Peak	Vertical
*	12936.0	25.5	19.7	45.2	68.2	-23.0	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: 55 of 209 IC: 109D-FZCWO4A1





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.							
	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
	9458.0	29.3	14.4	43.7	74.0	-30.3	Peak	Horizontal
	11021.5	29.8	18.5	48.3	74.0	-25.7	Peak	Horizontal
*	12805.0	26.5	19.1	45.6	68.2	-22.6	Peak	Horizontal
*	13695.0	27.7	21.9	49.6	68.2	-18.6	Peak	Horizontal
	7458.0	29.3	12.8	42.1	74.0	-31.9	Peak	Vertical
	8365.0	29.3	12.0	41.3	74.0	-32.7	Peak	Vertical
*	9725.0	29.0	14.7	43.7	68.2	-24.5	Peak	Vertical
*	10368.0	28.8	16.8	45.6	68.2	-22.6	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: 56 of 209





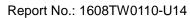
Test Mode:	802.11n-HT40 - Ant 1	Test Site:	AC1
Test Channel:	110	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7808.5	28.6	12.4	41.0	68.2	-27.2	Peak	Horizontal
*	8658.5	27.5	13.6	41.1	68.2	-27.1	Peak	Horizontal
	9423.5	29.2	14.5	43.7	74.0	-30.3	Peak	Horizontal
	10970.5	28.9	18.4	47.3	74.0	-26.7	Peak	Horizontal
*	7868.0	29.1	12.4	41.5	68.2	-26.7	Peak	Vertical
*	8828.5	28.4	14.0	42.4	68.2	-25.8	Peak	Vertical
	9423.5	29.1	14.5	43.6	74.0	-30.4	Peak	Vertical
	11047.0	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: 57 of 209





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
	9320.0	28.1	14.6	42.7	74.0	-31.3	Peak	Horizontal
	11157.5	30.4	18.7	49.1	74.0	-24.9	Peak	Horizontal
*	12759.0	25.8	18.9	44.7	68.2	-23.5	Peak	Horizontal
*	13968.0	27.6	22.6	50.2	68.2	-18.0	Peak	Horizontal
	7695.0	29.1	12.4	41.5	74.0	-32.5	Peak	Vertical
	8405.0	29.2	12.2	41.4	74.0	-32.6	Peak	Vertical
*	9703.0	29.2	14.6	43.8	68.2	-24.4	Peak	Vertical
*	10420.0	28.4	17.0	45.4	68.2	-22.8	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: 58 of 209





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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7586.0	29.7	12.7	42.4	74.0	-31.6	Peak	Horizontal
	9128.0	27.6	14.6	42.2	74.0	-31.8	Peak	Horizontal
*	10487.0	28.6	17.1	45.7	68.2	-22.5	Peak	Horizontal
*	12963.0	25.5	19.8	45.3	68.2	-22.9	Peak	Horizontal
	9458.0	28.9	14.4	43.3	74.0	-30.7	Peak	Vertical
	11157.5	28.1	18.7	46.8	74.0	-27.2	Peak	Vertical
*	12958.0	26.3	19.7	46.0	68.2	-22.2	Peak	Vertical
*	13690.0	27.6	21.9	49.5	68.2	-18.7	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: 59 of 209 IC: 109D-FZCWO4A1



Report No.: 1608TW0110-U14

Test Mode:	802.11ac-VHT20 - Ant 1	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
	8263.0	30.1	11.9	42.0	74.0	-32.0	Peak	Horizontal
	9128.0	28.0	14.6	42.6	74.0	-31.4	Peak	Horizontal
*	10463.0	27.8	17.1	44.9	68.2	-23.3	Peak	Horizontal
*	12874.0	25.4	19.3	44.7	68.2	-23.5	Peak	Horizontal
	8259.0	30.8	11.9	42.7	74.0	-31.3	Peak	Vertical
	9458.0	30.4	14.4	44.8	74.0	-29.2	Peak	Vertical
*	10365.0	29.6	16.8	46.4	68.2	-21.8	Peak	Vertical
*	12853.0	27.0	19.3	46.3	68.2	-21.9	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: 60 of 209





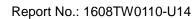
Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1						
Test Channel:	60	Test Engineer:	Kevin Ker						
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average							
	limit.	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB 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
	8365.0	29.0	12.0	41.0	74.0	-33.0	Peak	Horizontal
	9428.0	28.8	14.4	43.2	74.0	-30.8	Peak	Horizontal
*	10352.0	27.9	16.8	44.7	68.2	-23.5	Peak	Horizontal
*	12896.0	25.8	19.4	45.2	68.2	-23.0	Peak	Horizontal
	9036.0	28.3	14.2	42.5	74.0	-31.5	Peak	Vertical
	10965.0	28.2	18.4	46.6	74.0	-27.4	Peak	Vertical
*	12958.0	26.1	19.7	45.8	68.2	-22.4	Peak	Vertical
*	13652.0	27.6	21.8	49.4	68.2	-18.8	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 IC: 109D-FZCWO4A1





Test Mode:	802.11ac-VHT20 - 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 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
	7469.0	28.8	12.8	41.6	74.0	-32.4	Peak	Horizontal
	9458.0	28.1	14.4	42.5	74.0	-31.5	Peak	Horizontal
*	10582.0	28.5	17.3	45.8	68.2	-22.4	Peak	Horizontal
*	12896.0	26.2	19.4	45.6	68.2	-22.6	Peak	Horizontal
	7638.0	29.3	12.6	41.9	74.0	-32.1	Peak	Vertical
	8368.0	28.7	12.0	40.7	74.0	-33.3	Peak	Vertical
*	10468.0	27.9	17.1	45.0	68.2	-23.2	Peak	Vertical
*	12803.0	25.5	19.1	44.6	68.2	-23.6	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: 62 of 209





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.							
	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
	8426.0	29.2	12.3	41.5	74.0	-32.5	Peak	Horizontal
	10996.0	29.6	18.5	48.1	74.0	-25.9	Peak	Horizontal
*	12702.0	26.9	18.8	45.7	68.2	-22.5	Peak	Horizontal
*	13652.0	27.1	21.8	48.9	68.2	-19.3	Peak	Horizontal
	8365.0	29.9	12.0	41.9	74.0	-32.1	Peak	Vertical
	9120.0	28.4	14.5	42.9	74.0	-31.1	Peak	Vertical
*	12869.0	26.3	19.3	45.6	68.2	-22.6	Peak	Vertical
*	13520.0	26.2	21.8	48.0	68.2	-20.2	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: 63 of 209 IC: 109D-FZCWO4A1





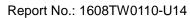
Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1						
Test Channel:	116	Test Engineer:	Kevin Ker						
Remark:	Average measurement was not performed if peak level lower than average								
	limit.	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, 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
*	7842.5	30.8	12.4	43.2	68.2	-25.0	Peak	Horizontal
*	8811.5	28.6	14.0	42.6	68.2	-25.6	Peak	Horizontal
	9423.5	30.4	14.5	44.9	74.0	-29.1	Peak	Horizontal
	11038.5	28.3	18.5	46.8	74.0	-27.2	Peak	Horizontal
*	7800.0	31.0	12.4	43.4	68.2	-24.8	Peak	Vertical
*	8692.5	27.6	13.7	41.3	68.2	-26.9	Peak	Vertical
	9423.5	30.4	14.5	44.9	74.0	-29.1	Peak	Vertical
	11132.0	28.7	18.6	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: 64 of 209





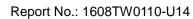
Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1
Test Channel:	120	Test Engineer:	Kevin Ker
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	8362.0	29.4	12.0	41.4	74.0	-32.6	Peak	Horizontal
	11200.0	32.1	18.7	50.8	74.0	-23.2	Peak	Horizontal
*	12968.0	25.6	19.8	45.4	68.2	-22.8	Peak	Horizontal
*	13524.0	25.9	21.8	47.7	68.2	-20.5	Peak	Horizontal
	9425.0	29.8	14.4	44.2	74.0	-29.8	Peak	Vertical
	11200.0	28.8	18.7	47.5	74.0	-26.5	Peak	Vertical
*	12850.0	26.1	19.2	45.3	68.2	-22.9	Peak	Vertical
*	13524.0	25.8	21.8	47.6	68.2	-20.6	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: 65 of 209





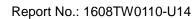
Test Mode:	802.11ac-VHT20 - Ant 1	Test Site:	AC1					
Test Channel:	140	Test Engineer:	Kevin Ker					
Remark:		Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7463.0	29.9	12.8	42.7	74.0	-31.3	Peak	Horizontal
	8125.0	29.8	12.2	42.0	74.0	-32.0	Peak	Horizontal
*	10586.0	28.8	17.3	46.1	68.2	-22.1	Peak	Horizontal
*	12856.0	25.7	19.3	45.0	68.2	-23.2	Peak	Horizontal
	7458.0	29.6	12.8	42.4	74.0	-31.6	Peak	Vertical
	11250.0	27.1	18.8	45.9	74.0	-28.1	Peak	Vertical
*	12863.0	26.0	19.3	45.3	68.2	-22.9	Peak	Vertical
*	13584.0	25.7	21.8	47.5	68.2	-20.7	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.	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
	8438.0	30.1	12.4	42.5	74.0	-31.5	Peak	Horizontal
	9384.0	28.3	14.5	42.8	74.0	-31.2	Peak	Horizontal
*	10384.0	28.7	16.9	45.6	68.2	-22.6	Peak	Horizontal
*	12847.0	26.9	19.2	46.1	68.2	-22.1	Peak	Horizontal
	8428.0	29.1	12.4	41.5	74.0	-32.5	Peak	Vertical
	9484.0	28.9	14.4	43.3	74.0	-30.7	Peak	Vertical
*	10365.0	28.4	16.8	45.2	68.2	-23.0	Peak	Vertical
*	12847.0	26.2	19.2	45.4	68.2	-22.8	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: 67 of 209 IC: 109D-FZCWO4A1





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.	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
	9428.0	28.8	14.4	43.2	74.0	-30.8	Peak	Horizontal
	10685.0	27.7	17.4	45.1	74.0	-28.9	Peak	Horizontal
*	12968.0	25.5	19.8	45.3	68.2	-22.9	Peak	Horizontal
*	13625.0	26.5	21.8	48.3	68.2	-19.9	Peak	Horizontal
	7468.0	29.5	12.8	42.3	74.0	-31.7	Peak	Vertical
	8425.0	29.3	12.3	41.6	74.0	-32.4	Peak	Vertical
*	9874.0	28.3	15.8	44.1	68.2	-24.1	Peak	Vertical
*	10365.0	28.3	16.8	45.1	68.2	-23.1	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: 68 of 209





Test Mode:	802.11ac-VHT40 - Ant 1	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
	7536.0	30.1	12.8	42.9	74.0	-31.1	Peak	Horizontal
	8125.0	30.1	12.2	42.3	74.0	-31.7	Peak	Horizontal
*	9858.0	28.1	16.2	44.3	68.2	-23.9	Peak	Horizontal
*	12987.0	26.0	19.8	45.8	68.2	-22.4	Peak	Horizontal
	8458.0	29.8	12.5	42.3	74.0	-31.7	Peak	Vertical
	9428.0	29.1	14.4	43.5	74.0	-30.5	Peak	Vertical
*	10428.0	28.5	17.0	45.5	68.2	-22.7	Peak	Vertical
*	12847.0	26.2	19.2	45.4	68.2	-22.8	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: 69 of 209 IC: 109D-FZCWO4A1





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.	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
	9362.0	29.5	14.5	44.0	74.0	-30.0	Peak	Horizontal
	11047.0	29.9	18.5	48.4	74.0	-25.6	Peak	Horizontal
*	12869.0	26.0	19.3	45.3	68.2	-22.9	Peak	Horizontal
*	13698.0	26.7	22.0	48.7	68.2	-19.5	Peak	Horizontal
	9428.0	29.1	14.4	43.5	74.0	-30.5	Peak	Vertical
	11255.0	26.6	18.8	45.4	74.0	-28.6	Peak	Vertical
*	12890.0	25.5	19.4	44.9	68.2	-23.3	Peak	Vertical
*	13685.0	26.9	21.9	48.8	68.2	-19.4	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: 70 of 209





Test Mode:	802.11ac-VHT40 - 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
*	7825.5	30.2	12.4	42.6	68.2	-25.6	Peak	Horizontal
*	8786.0	29.5	13.9	43.4	68.2	-24.8	Peak	Horizontal
	9381.0	28.9	14.5	43.4	74.0	-30.6	Peak	Horizontal
	11497.5	26.6	19.3	45.9	74.0	-28.1	Peak	Horizontal
*	7825.5	30.3	12.4	42.7	68.2	-25.5	Peak	Vertical
*	8913.5	29.0	14.0	43.0	68.2	-25.2	Peak	Vertical
	9440.5	30.5	14.4	44.9	74.0	-29.1	Peak	Vertical
	11489.0	27.1	19.3	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: 71 of 209





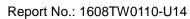
Test Mode:	802.11ac-VHT40 - Ant 1	Test Site:	AC1					
Test Channel:	118	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average limit.						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz,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

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9365.0	28.7	14.5	43.2	74.0	-30.8	Peak	Horizontal
	11183.0	30.3	18.7	49.0	74.0	-25.0	Peak	Horizontal
*	12847.0	26.6	19.2	45.8	68.2	-22.4	Peak	Horizontal
*	13698.0	27.6	22.0	49.6	68.2	-18.6	Peak	Horizontal
	9320.0	28.3	14.6	42.9	74.0	-31.1	Peak	Vertical
	11586.0	25.5	19.5	45.0	74.0	-29.0	Peak	Vertical
*	12847.0	26.2	19.2	45.4	68.2	-22.8	Peak	Vertical
*	13658.0	26.7	21.8	48.5	68.2	-19.7	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: 72 of 209





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.							
	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
	7485.0	29.5	12.8	42.3	74.0	-31.7	Peak	Horizontal
	8351.0	29.2	12.0	41.2	74.0	-32.8	Peak	Horizontal
*	9874.0	28.8	15.8	44.6	68.2	-23.6	Peak	Horizontal
*	10368.0	29.2	16.8	46.0	68.2	-22.2	Peak	Horizontal
	7368.0	29.0	12.5	41.5	74.0	-32.5	Peak	Vertical
	8367.0	29.6	12.0	41.6	74.0	-32.4	Peak	Vertical
*	9870.0	28.7	15.9	44.6	68.2	-23.6	Peak	Vertical
*	12843.0	25.5	19.2	44.7	68.2	-23.5	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: 73 of 209





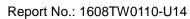
Test Mode:	802.11ac-VHT40 - Ant 1	Test Site:	AC1					
Test Channel:	142	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not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

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7365.0	29.3	12.5	41.8	74.0	-32.2	Peak	Horizontal
	8428.0	29.2	12.4	41.6	74.0	-32.4	Peak	Horizontal
*	9802.0	29.1	15.1	44.2	68.2	-24.0	Peak	Horizontal
*	12902.0	26.4	19.5	45.9	68.2	-22.3	Peak	Horizontal
	8352.0	29.3	12.0	41.3	74.0	-32.7	Peak	Vertical
	9302.0	27.7	14.7	42.4	74.0	-31.6	Peak	Vertical
*	9825.0	28.0	15.7	43.7	68.2	-24.5	Peak	Vertical
*	12895.0	26.0	19.4	45.4	68.2	-22.8	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: 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
	7528.0	28.9	12.8	41.7	74.0	-32.3	Peak	Horizontal
	9358.0	28.5	14.5	43.0	74.0	-31.0	Peak	Horizontal
*	10368.0	28.3	16.8	45.1	68.2	-23.1	Peak	Horizontal
*	12963.0	24.8	19.8	44.6	68.2	-23.6	Peak	Horizontal
	9365.0	30.0	14.5	44.5	74.0	-29.5	Peak	Vertical
	10695.0	28.1	17.5	45.6	74.0	-28.4	Peak	Vertical
*	12865.0	25.7	19.3	45.0	68.2	-23.2	Peak	Vertical
*	13685.0	27.0	21.9	48.9	68.2	-19.3	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: 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. 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
	8452.0	29.0	12.5	41.5	74.0	-32.5	Peak	Horizontal
	11060.0	28.8	18.5	47.3	74.0	-26.7	Peak	Horizontal
*	12856.0	25.1	19.3	44.4	68.2	-23.8	Peak	Horizontal
*	13569.0	25.5	21.8	47.3	68.2	-20.9	Peak	Horizontal
	8463.0	29.6	12.6	42.2	74.0	-31.8	Peak	Vertical
	11081.0	30.4	18.6	49.0	74.0	-25.0	Peak	Vertical
*	12854.0	26.4	19.3	45.7	68.2	-22.5	Peak	Vertical
*	13658.0	27.0	21.8	48.8	68.2	-19.4	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: 76 of 209





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.							
	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
	8426.0	29.2	12.3	41.5	74.0	-32.5	Peak	Horizontal
	9365.0	29.9	14.5	44.4	74.0	-29.6	Peak	Horizontal
*	10365.0	28.3	16.8	45.1	68.2	-23.1	Peak	Horizontal
*	12896.0	25.6	19.4	45.0	68.2	-23.2	Peak	Horizontal
	8428.0	29.1	12.4	41.5	74.0	-32.5	Peak	Vertical
	9025.0	27.6	14.2	41.8	74.0	-32.2	Peak	Vertical
*	9685.0	28.6	14.6	43.2	68.2	-25.0	Peak	Vertical
*	12968.0	25.1	19.8	44.9	68.2	-23.3	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: 77 of 209





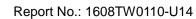
Test Mode:	802.11ac-VHT80 - Ant 1	Test Site:	AC1					
Test Channel:	138	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there is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

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	10685.0	28.4	17.4	45.8	74.0	-28.2	Peak	Horizontal
	12360.0	26.7	18.4	45.1	74.0	-28.9	Peak	Horizontal
*	12968.0	25.4	19.8	45.2	68.2	-23.0	Peak	Horizontal
*	13625.0	26.5	21.8	48.3	68.2	-19.9	Peak	Horizontal
	8475.0	28.6	12.7	41.3	74.0	-32.7	Peak	Vertical
	9485.0	28.8	14.4	43.2	74.0	-30.8	Peak	Vertical
*	10385.0	28.7	16.9	45.6	68.2	-22.6	Peak	Vertical
*	12840.0	25.8	19.2	45.0	68.2	-23.2	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: 78 of 209 IC: 109D-FZCWO4A1





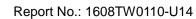
Test Mode:	802.11a - Ant 2	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bellin the report.	ow limit line within 1	-18GHz, there is not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

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	8205.0	29.6	11.9	41.5	74.0	-32.5	Peak	Horizontal
	9365.0	28.3	14.5	42.8	74.0	-31.2	Peak	Horizontal
*	9836.0	27.9	16.0	43.9	68.2	-24.3	Peak	Horizontal
*	12758.0	25.9	18.9	44.8	68.2	-23.4	Peak	Horizontal
	7456.0	29.4	12.8	42.2	74.0	-31.8	Peak	Vertical
	8453.0	28.6	12.5	41.1	74.0	-32.9	Peak	Vertical
*	10520.0	30.1	17.2	47.3	68.2	-20.9	Peak	Vertical
*	12802.0	26.0	19.1	45.1	68.2	-23.1	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: 79 of 209





Test Mode:	802.11a - 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
	7368.0	30.3	12.5	42.8	74.0	-31.2	Peak	Horizontal
	9452.0	28.8	14.4	43.2	74.0	-30.8	Peak	Horizontal
*	10368.0	29.1	16.8	45.9	68.2	-22.3	Peak	Horizontal
*	12785.0	25.6	19.0	44.6	68.2	-23.6	Peak	Horizontal
	8425.0	29.1	12.3	41.4	74.0	-32.6	Peak	Vertical
	10656.0	30.1	17.4	47.5	74.0	-26.5	Peak	Vertical
*	12896.0	25.6	19.4	45.0	68.2	-23.2	Peak	Vertical
*	13650.0	26.5	21.8	48.3	68.2	-19.9	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



Report No.: 1608TW0110-U14

Test Mode:	802.11a - Ant 2	Test Site:	AC1
Test Channel:	64	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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8425.0	28.8	12.3	41.1	74.0	-32.9	Peak	Horizontal
	10640.5	28.9	17.4	46.3	74.0	-27.7	Peak	Horizontal
*	12789.0	26.7	19.0	45.7	68.2	-22.5	Peak	Horizontal
*	13462.0	25.8	21.6	47.4	68.2	-20.8	Peak	Horizontal
	8362.0	29.3	12.0	41.3	74.0	-32.7	Peak	Vertical
	9365.0	28.6	14.5	43.1	74.0	-30.9	Peak	Vertical
*	10368.0	28.2	16.8	45.0	68.2	-23.2	Peak	Vertical
*	12902.0	25.6	19.5	45.1	68.2	-23.1	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: 81 of 209





Test Mode:	802.11a - 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.							
	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
	8362.0	30.2	12.0	42.2	74.0	-31.8	Peak	Horizontal
	9422.0	30.4	14.5	44.9	74.0	-29.1	Peak	Horizontal
*	10365.0	29.2	16.8	46.0	68.2	-22.2	Peak	Horizontal
*	12840.0	26.7	19.2	45.9	68.2	-22.3	Peak	Horizontal
	7368.0	30.3	12.5	42.8	74.0	-31.2	Peak	Vertical
	9384.0	29.1	14.5	43.6	74.0	-30.4	Peak	Vertical
*	10258.0	28.6	16.5	45.1	68.2	-23.1	Peak	Vertical
*	12961.0	26.0	19.8	45.8	68.2	-22.4	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: 82 of 209 IC: 109D-FZCWO4A1





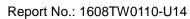
Test Mode:	802.11a - Ant 2	Test Site:	AC1					
Test Channel:	116	Test Engineer:	Kevin Ker					
Remark:	Average measurement was not performed if peak level lower than average							
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.							

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7825.5	29.8	12.4	42.2	68.2	-26.0	Peak	Horizontal
*	8769.0	28.7	13.9	42.6	68.2	-25.6	Peak	Horizontal
	9474.5	30.2	14.4	44.6	74.0	-29.4	Peak	Horizontal
	11565.5	27.1	19.5	46.6	74.0	-27.4	Peak	Horizontal
*	7825.5	29.4	12.4	41.8	68.2	-26.4	Peak	Vertical
*	8811.5	30.1	14.0	44.1	68.2	-24.1	Peak	Vertical
	9457.5	30.2	14.4	44.6	74.0	-29.4	Peak	Vertical
	11489.0	28.3	19.3	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: 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.	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
	8475.0	29.2	12.7	41.9	74.0	-32.1	Peak	Horizontal
	9358.0	28.7	14.5	43.2	74.0	-30.8	Peak	Horizontal
*	10462.0	28.7	17.1	45.8	68.2	-22.4	Peak	Horizontal
*	13685.0	27.3	21.9	49.2	68.2	-19.0	Peak	Horizontal
	7362.0	31.1	12.5	43.6	74.0	-30.4	Peak	Vertical
	8325.0	30.0	11.9	41.9	74.0	-32.1	Peak	Vertical
*	9870.0	28.7	15.9	44.6	68.2	-23.6	Peak	Vertical
*	10320.0	28.4	16.7	45.1	68.2	-23.1	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: 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.	ow limit line within 1	19CHz there is not show					
	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
	9368.0	28.7	14.5	43.2	74.0	-30.8	Peak	Horizontal
	10968.0	27.6	18.4	46.0	74.0	-28.0	Peak	Horizontal
*	12870.0	26.4	19.3	45.7	68.2	-22.5	Peak	Horizontal
*	13652.0	26.3	21.8	48.1	68.2	-20.1	Peak	Horizontal
	8321.5	29.7	11.9	41.6	74.0	-32.4	Peak	Vertical
	9028.0	27.6	14.2	41.8	74.0	-32.2	Peak	Vertical
*	9825.0	28.5	15.7	44.2	68.2	-24.0	Peak	Vertical
*	12869.0	25.3	19.3	44.6	68.2	-23.6	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: 85 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT20 - Ant 2	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
	8465.0	29.6	12.6	42.2	74.0	-31.8	Peak	Horizontal
	9328.0	28.1	14.6	42.7	74.0	-31.3	Peak	Horizontal
*	10348.0	28.2	16.8	45.0	68.2	-23.2	Peak	Horizontal
*	12840.0	26.6	19.2	45.8	68.2	-22.4	Peak	Horizontal
	8362.0	29.0	12.0	41.0	74.0	-33.0	Peak	Vertical
	9458.0	30.3	14.4	44.7	74.0	-29.3	Peak	Vertical
*	10368.0	29.2	16.8	46.0	68.2	-22.2	Peak	Vertical
*	12968.0	25.4	19.8	45.2	68.2	-23.0	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: 86 of 209 IC: 109D-FZCWO4A1





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
	9463.0	28.8	14.4	43.2	74.0	-30.8	Peak	Horizontal
	10854.0	27.6	18.1	45.7	74.0	-28.3	Peak	Horizontal
*	12968.0	25.4	19.8	45.2	68.2	-23.0	Peak	Horizontal
*	13698.0	27.2	22.0	49.2	68.2	-19.0	Peak	Horizontal
	8463.0	28.9	12.6	41.5	74.0	-32.5	Peak	Vertical
	10673.0	30.4	17.4	47.8	74.0	-26.2	Peak	Vertical
*	12790.0	26.0	19.1	45.1	68.2	-23.1	Peak	Vertical
*	13463.0	25.8	21.6	47.4	68.2	-20.8	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: 87 of 209 IC: 109D-FZCWO4A1





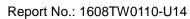
Test Mode:	802.11n-HT20 - Ant 2	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there 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
	9428.0	29.7	14.4	44.1	74.0	-29.9	Peak	Horizontal
	11520.0	26.6	19.4	46.0	74.0	-28.0	Peak	Horizontal
*	12968.0	25.2	19.8	45.0	68.2	-23.2	Peak	Horizontal
*	13462.0	26.4	21.6	48.0	68.2	-20.2	Peak	Horizontal
	8258.0	29.6	11.9	41.5	74.0	-32.5	Peak	Vertical
	9487.0	29.1	14.4	43.5	74.0	-30.5	Peak	Vertical
*	10395.0	28.9	16.9	45.8	68.2	-22.4	Peak	Vertical
*	12842.0	25.9	19.2	45.1	68.2	-23.1	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: 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 (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	7368.0	30.2	12.5	42.7	74.0	-31.3	Peak	Horizontal
	8458.0	29.7	12.5	42.2	74.0	-31.8	Peak	Horizontal
*	9852.0	28.1	16.2	44.3	68.2	-23.9	Peak	Horizontal
*	10368.0	29.1	16.8	45.9	68.2	-22.3	Peak	Horizontal
	8367.0	29.2	12.0	41.2	74.0	-32.8	Peak	Vertical
	9024.0	27.8	14.2	42.0	74.0	-32.0	Peak	Vertical
*	9858.0	28.2	16.2	44.4	68.2	-23.8	Peak	Vertical
*	12930.0	25.4	19.6	45.0	68.2	-23.2	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





Test Mode:	802.11n-HT20 - 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 (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7808.5	29.6	12.4	42.0	68.2	-26.2	Peak	Horizontal
*	8845.5	29.2	14.0	43.2	68.2	-25.0	Peak	Horizontal
	9449.0	29.9	14.4	44.3	74.0	-29.7	Peak	Horizontal
	11565.5	27.3	19.5	46.8	74.0	-27.2	Peak	Horizontal
*	7834.0	30.8	12.4	43.2	68.2	-25.0	Peak	Vertical
*	8718.0	29.6	13.8	43.4	68.2	-24.8	Peak	Vertical
	9423.5	29.9	14.5	44.4	74.0	-29.6	Peak	Vertical
	11506.0	26.5	19.4	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: 90 of 209





Test Mode:	802.11n-HT20 - 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 (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	10725.0	29.0	17.6	46.6	74.0	-27.4	Peak	Horizontal
	11858.0	25.9	18.7	44.6	74.0	-29.4	Peak	Horizontal
*	12802.0	26.1	19.1	45.2	68.2	-23.0	Peak	Horizontal
*	13640.0	26.1	21.8	47.9	68.2	-20.3	Peak	Horizontal
	9402.0	29.0	14.5	43.5	74.0	-30.5	Peak	Vertical
	11980.0	26.1	18.7	44.8	74.0	-29.2	Peak	Vertical
*	12984.0	25.8	19.8	45.6	68.2	-22.6	Peak	Vertical
*	13654.0	27.0	21.8	48.8	68.2	-19.4	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: 91 of 209





Test Mode:	802.11n-HT20 - 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.							
	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
	8425.0	29.2	12.3	41.5	74.0	-32.5	Peak	Horizontal
	9352.0	28.8	14.5	43.3	74.0	-30.7	Peak	Horizontal
*	10485.0	28.9	17.1	46.0	68.2	-22.2	Peak	Horizontal
*	12802.0	26.6	19.1	45.7	68.2	-22.5	Peak	Horizontal
	9402.0	28.7	14.5	43.2	74.0	-30.8	Peak	Vertical
	11635.0	26.6	19.4	46.0	74.0	-28.0	Peak	Vertical
*	12835.0	25.9	19.2	45.1	68.2	-23.1	Peak	Vertical
*	13654.0	26.6	21.8	48.4	68.2	-19.8	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: 92 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11n-HT40 - Ant 2	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
	9402.0	29.2	14.5	43.7	74.0	-30.3	Peak	Horizontal
	11582.0	26.1	19.5	45.6	74.0	-28.4	Peak	Horizontal
*	12903.0	26.2	19.5	45.7	68.2	-22.5	Peak	Horizontal
*	13658.0	27.1	21.8	48.9	68.2	-19.3	Peak	Horizontal
	7458.0	29.4	12.8	42.2	74.0	-31.8	Peak	Vertical
	8463.0	29.4	12.6	42.0	74.0	-32.0	Peak	Vertical
*	9852.0	28.4	16.2	44.6	68.2	-23.6	Peak	Vertical
*	10480.0	28.5	17.1	45.6	68.2	-22.6	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7456.0	29.7	12.8	42.5	74.0	-31.5	Peak	Horizontal
	8456.0	29.0	12.5	41.5	74.0	-32.5	Peak	Horizontal
*	10579.5	31.0	17.3	48.3	68.2	-19.9	Peak	Horizontal
*	12736.0	26.9	18.9	45.8	68.2	-22.4	Peak	Horizontal
	9485.0	28.9	14.4	43.3	74.0	-30.7	Peak	Vertical
	11580.0	26.4	19.5	45.9	74.0	-28.1	Peak	Vertical
*	12965.0	25.7	19.8	45.5	68.2	-22.7	Peak	Vertical
*	13680.0	26.8	21.9	48.7	68.2	-19.5	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.							
	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
	10638.0	28.0	17.4	45.4	74.0	-28.6	Peak	Horizontal
	11854.0	26.1	18.7	44.8	74.0	-29.2	Peak	Horizontal
*	12858.0	25.6	19.3	44.9	68.2	-23.3	Peak	Horizontal
*	13520.0	25.6	21.8	47.4	68.2	-20.8	Peak	Horizontal
	9485.0	29.8	14.4	44.2	74.0	-29.8	Peak	Vertical
	11362.0	27.2	19.0	46.2	74.0	-27.8	Peak	Vertical
*	12785.0	26.1	19.0	45.1	68.2	-23.1	Peak	Vertical
*	13528.0	25.2	21.8	47.0	68.2	-21.2	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: 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.	P	40011 11 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
*	7910.5	30.3	12.4	42.7	68.2	-25.5	Peak	Horizontal
*	8854.0	28.5	14.0	42.5	68.2	-25.7	Peak	Horizontal
	9440.5	31.1	14.4	45.5	74.0	-28.5	Peak	Horizontal
	11650.5	27.6	19.3	46.9	74.0	-27.1	Peak	Horizontal
*	7842.5	30.9	12.4	43.3	68.2	-24.9	Peak	Vertical
*	8854.0	29.3	14.0	43.3	68.2	-24.9	Peak	Vertical
	9381.0	29.9	14.5	44.4	74.0	-29.6	Peak	Vertical
	11149.0	28.1	18.7	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: 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.	. 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)				
	9304.0	27.7	14.7	42.4	74.0	-31.6	Peak	Horizontal
	11336.0	28.3	19.0	47.3	74.0	-26.7	Peak	Horizontal
*	12741.0	26.3	18.9	45.2	68.2	-23.0	Peak	Horizontal
*	13698.0	26.8	22.0	48.8	68.2	-19.4	Peak	Horizontal
	9415.0	29.6	14.5	44.1	74.0	-29.9	Peak	Vertical
	11365.0	26.1	19.0	45.1	74.0	-28.9	Peak	Vertical
*	12845.0	25.8	19.2	45.0	68.2	-23.2	Peak	Vertical
*	13542.0	25.5	21.8	47.3	68.2	-20.9	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: 97 of 209 IC: 109D-FZCWO4A1





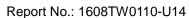
Test Mode:	802.11n-HT40 - Ant 2	Test Site:	AC1					
Test Channel:	134	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there 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
	10847.0	27.5	18.1	45.6	74.0	-28.4	Peak	Horizontal
	11354.0	26.3	19.0	45.3	74.0	-28.7	Peak	Horizontal
*	12950.0	25.5	19.7	45.2	68.2	-23.0	Peak	Horizontal
*	13647.0	27.1	21.8	48.9	68.2	-19.3	Peak	Horizontal
	9364.0	29.2	14.5	43.7	74.0	-30.3	Peak	Vertical
	11847.0	26.3	18.7	45.0	74.0	-29.0	Peak	Vertical
*	12874.0	26.0	19.3	45.3	68.2	-22.9	Peak	Vertical
*	13968.0	27.2	22.6	49.8	68.2	-18.4	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: 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	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
	7320.0	29.7	12.4	42.1	74.0	-31.9	Peak	Horizontal
	8465.0	29.6	12.6	42.2	74.0	-31.8	Peak	Horizontal
*	9695.0	28.5	14.6	43.1	68.2	-25.1	Peak	Horizontal
*	10362.0	28.9	16.8	45.7	68.2	-22.5	Peak	Horizontal
	7458.0	29.4	12.8	42.2	74.0	-31.8	Peak	Vertical
	8205.0	30.3	11.9	42.2	74.0	-31.8	Peak	Vertical
*	9825.0	28.4	15.7	44.1	68.2	-24.1	Peak	Vertical
*	12874.0	26.4	19.3	45.7	68.2	-22.5	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: 99 of 209





Test Mode:	802.11ac-VHT20 - Ant 2	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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.0	29.3	12.8	42.1	74.0	-31.9	Peak	Horizontal
	8368.0	29.7	12.0	41.7	74.0	-32.3	Peak	Horizontal
*	9825.0	28.9	15.7	44.6	68.2	-23.6	Peak	Horizontal
*	12847.0	25.6	19.2	44.8	68.2	-23.4	Peak	Horizontal
	8475.0	29.0	12.7	41.7	74.0	-32.3	Peak	Vertical
	11458.0	26.7	19.2	45.9	74.0	-28.1	Peak	Vertical
*	12965.0	25.6	19.8	45.4	68.2	-22.8	Peak	Vertical
*	13620.0	26.8	21.8	48.6	68.2	-19.6	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: 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.	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
	8458.0	29.2	12.5	41.7	74.0	-32.3	Peak	Horizontal
	9025.0	27.7	14.2	41.9	74.0	-32.1	Peak	Horizontal
*	10368.0	28.0	16.8	44.8	68.2	-23.4	Peak	Horizontal
*	12847.0	25.2	19.2	44.4	68.2	-23.8	Peak	Horizontal
	8463.0	29.0	12.6	41.6	74.0	-32.4	Peak	Vertical
	10639.0	30.0	17.4	47.4	74.0	-26.6	Peak	Vertical
*	12758.0	26.4	18.9	45.3	68.2	-22.9	Peak	Vertical
*	13463.0	25.6	21.6	47.2	68.2	-21.0	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: 101 of 209





Test Mode:	802.11ac-VHT20 - 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
	7526.0	29.3	12.8	42.1	74.0	-31.9	Peak	Horizontal
	9038.0	28.5	14.2	42.7	74.0	-31.3	Peak	Horizontal
*	10368.0	28.9	16.8	45.7	68.2	-22.5	Peak	Horizontal
*	12847.0	25.8	19.2	45.0	68.2	-23.2	Peak	Horizontal
	7685.0	29.2	12.5	41.7	74.0	-32.3	Peak	Vertical
	9125.0	28.1	14.6	42.7	74.0	-31.3	Peak	Vertical
*	10265.0	28.3	16.5	44.8	68.2	-23.4	Peak	Vertical
*	12968.0	25.0	19.8	44.8	68.2	-23.4	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: 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
*	7876.5	29.9	12.4	42.3	68.2	-25.9	Peak	Horizontal
*	8896.5	28.4	14.0	42.4	68.2	-25.8	Peak	Horizontal
	9491.5	29.6	14.4	44.0	74.0	-30.0	Peak	Horizontal
	11089.5	28.3	18.6	46.9	74.0	-27.1	Peak	Horizontal
*	7808.5	28.8	12.4	41.2	68.2	-27.0	Peak	Vertical
*	8743.5	28.5	13.9	42.4	68.2	-25.8	Peak	Vertical
	9406.5	30.0	14.5	44.5	74.0	-29.5	Peak	Vertical
	11047.0	28.3	18.5	46.8	74.0	-27.2	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: 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
	8336.0	30.0	11.9	41.9	74.0	-32.1	Peak	Horizontal
	9425.0	29.2	14.4	43.6	74.0	-30.4	Peak	Horizontal
*	10368.0	28.6	16.8	45.4	68.2	-22.8	Peak	Horizontal
*	12968.0	25.2	19.8	45.0	68.2	-23.2	Peak	Horizontal
	8463.0	29.6	12.6	42.2	74.0	-31.8	Peak	Vertical
	11200.0	29.0	18.7	47.7	74.0	-26.3	Peak	Vertical
*	12702.0	26.0	18.8	44.8	68.2	-23.4	Peak	Vertical
*	13652.0	26.7	21.8	48.5	68.2	-19.7	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: 104 of 209





Test Mode:	802.11ac-VHT20 - Ant 2	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
	8447.0	27.1	12.5	39.6	74.0	-34.4	Peak	Horizontal
	9425.0	28.4	14.4	42.8	74.0	-31.2	Peak	Horizontal
*	10368.0	28.5	16.8	45.3	68.2	-22.9	Peak	Horizontal
*	12985.0	24.0	19.8	43.8	68.2	-24.4	Peak	Horizontal
	8459.0	29.2	12.6	41.8	74.0	-32.2	Peak	Vertical
	9352.0	28.4	14.5	42.9	74.0	-31.1	Peak	Vertical
*	10254.0	28.4	16.5	44.9	68.2	-23.3	Peak	Vertical
*	12968.0	25.4	19.8	45.2	68.2	-23.0	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: 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 (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(dBµV)		(dBµV/m)				
	7425.0	28.7	12.7	41.4	74.0	-32.6	Peak	Horizontal
	8475.0	29.2	12.7	41.9	74.0	-32.1	Peak	Horizontal
*	9684.0	29.2	14.6	43.8	68.2	-24.4	Peak	Horizontal
*	10368.0	28.2	16.8	45.0	68.2	-23.2	Peak	Horizontal
	7635.0	30.1	12.6	42.7	74.0	-31.3	Peak	Vertical
	9025.0	28.2	14.2	42.4	74.0	-31.6	Peak	Vertical
*	10415.0	28.2	17.0	45.2	68.2	-23.0	Peak	Vertical
*	12847.0	25.2	19.2	44.4	68.2	-23.8	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: 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 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
	9425.0	29.7	14.4	44.1	74.0	-29.9	Peak	Horizontal
	10958.0	28.4	18.4	46.8	74.0	-27.2	Peak	Horizontal
*	12896.0	26.0	19.4	45.4	68.2	-22.8	Peak	Horizontal
*	13968.0	27.9	22.6	50.5	68.2	-17.7	Peak	Horizontal
	9365.0	29.3	14.5	43.8	74.0	-30.2	Peak	Vertical
	11258.0	27.0	18.8	45.8	74.0	-28.2	Peak	Vertical
*	12869.0	26.3	19.3	45.6	68.2	-22.6	Peak	Vertical
*	13685.0	26.9	21.9	48.8	68.2	-19.4	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: 107 of 209





Test Mode:	802.11ac-VHT40 - Ant 2	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
	7365.0	29.7	12.5	42.2	74.0	-31.8	Peak	Horizontal
	8463.0	29.1	12.6	41.7	74.0	-32.3	Peak	Horizontal
*	9858.0	27.5	16.2	43.7	68.2	-24.5	Peak	Horizontal
*	12847.0	26.1	19.2	45.3	68.2	-22.9	Peak	Horizontal
	7658.0	30.4	12.5	42.9	74.0	-31.1	Peak	Vertical
	9425.0	29.8	14.4	44.2	74.0	-29.8	Peak	Vertical
*	10365.0	28.4	16.8	45.2	68.2	-23.0	Peak	Vertical
*	12875.0	25.6	19.3	44.9	68.2	-23.3	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: 108 of 209





Test Mode:	802.11ac-VHT40 - Ant 2	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
	8425.0	29.7	12.3	42.0	74.0	-32.0	Peak	Horizontal
	9402.0	29.5	14.5	44.0	74.0	-30.0	Peak	Horizontal
*	10368.0	29.3	16.8	46.1	68.2	-22.1	Peak	Horizontal
*	12968.0	26.6	19.8	46.4	68.2	-21.8	Peak	Horizontal
	7458.0	29.4	12.8	42.2	74.0	-31.8	Peak	Vertical
	8435.0	29.7	12.4	42.1	74.0	-31.9	Peak	Vertical
*	10368.0	28.8	16.8	45.6	68.2	-22.6	Peak	Vertical
*	12825.0	26.3	19.2	45.5	68.2	-22.7	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: 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	. 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
*	7876.5	29.0	12.4	41.4	68.2	-26.8	Peak	Horizontal
*	8913.5	28.9	14.0	42.9	68.2	-25.3	Peak	Horizontal
	9466.0	29.2	14.4	43.6	74.0	-30.4	Peak	Horizontal
	11072.5	28.5	18.6	47.1	74.0	-26.9	Peak	Horizontal
*	7842.5	29.6	12.4	42.0	68.2	-26.2	Peak	Vertical
*	8684.0	27.8	13.7	41.5	68.2	-26.7	Peak	Vertical
	9381.0	29.5	14.5	44.0	74.0	-30.0	Peak	Vertical
	11531.5	27.1	19.4	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: 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 (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	7458.0	29.8	12.8	42.6	74.0	-31.4	Peak	Horizontal
	8253.0	29.4	11.9	41.3	74.0	-32.7	Peak	Horizontal
*	9858.0	27.4	16.2	43.6	68.2	-24.6	Peak	Horizontal
*	12785.0	25.6	19.0	44.6	68.2	-23.6	Peak	Horizontal
	7365.0	31.2	12.5	43.7	74.0	-30.3	Peak	Vertical
	9425.0	29.9	14.4	44.3	74.0	-29.7	Peak	Vertical
*	10365.0	28.7	16.8	45.5	68.2	-22.7	Peak	Vertical
*	12964.0	25.6	19.8	45.4	68.2	-22.8	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8456.0	29.0	12.5	41.5	74.0	-32.5	Peak	Horizontal
	9358.0	28.7	14.5	43.2	74.0	-30.8	Peak	Horizontal
*	10425.0	28.9	17.0	45.9	68.2	-22.3	Peak	Horizontal
*	12985.0	26.1	19.8	45.9	68.2	-22.3	Peak	Horizontal
	7458.0	28.9	12.8	41.7	74.0	-32.3	Peak	Vertical
	8325.0	29.2	11.9	41.1	74.0	-32.9	Peak	Vertical
*	9758.0	28.7	14.8	43.5	68.2	-24.7	Peak	Vertical
*	10368.0	28.4	16.8	45.2	68.2	-23.0	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: 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	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)				
	7436.0	28.7	12.7	41.4	74.0	-32.6	Peak	Horizontal
	8458.0	29.6	12.5	42.1	74.0	-31.9	Peak	Horizontal
*	9685.0	28.9	14.6	43.5	68.2	-24.7	Peak	Horizontal
*	10325.0	28.3	16.7	45.0	68.2	-23.2	Peak	Horizontal
	8469.0	28.6	12.6	41.2	74.0	-32.8	Peak	Vertical
	11685.0	25.9	19.2	45.1	74.0	-28.9	Peak	Vertical
*	12885.0	25.9	19.4	45.3	68.2	-22.9	Peak	Vertical
*	13968.0	27.7	22.6	50.3	68.2	-17.9	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: 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
	9360.0	28.4	14.5	42.9	74.0	-31.1	Peak	Horizontal
	11968.0	26.0	18.7	44.7	74.0	-29.3	Peak	Horizontal
*	12745.0	26.4	18.9	45.3	68.2	-22.9	Peak	Horizontal
*	13625.0	26.8	21.8	48.6	68.2	-19.6	Peak	Horizontal
	9325.0	28.3	14.6	42.9	74.0	-31.1	Peak	Vertical
	10968.0	27.7	18.4	46.1	74.0	-27.9	Peak	Vertical
*	12784.0	26.1	19.0	45.1	68.2	-23.1	Peak	Vertical
*	13958.0	27.3	22.5	49.8	68.2	-18.4	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: 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.	. 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
	9684.0	28.6	14.6	43.2	74.0	-30.8	Peak	Horizontal
	11484.0	26.5	19.3	45.8	74.0	-28.2	Peak	Horizontal
*	12847.0	25.3	19.2	44.5	68.2	-23.7	Peak	Horizontal
*	13954.0	27.1	22.5	49.6	68.2	-18.6	Peak	Horizontal
	9402.0	29.1	14.5	43.6	74.0	-30.4	Peak	Vertical
	11365.0	27.6	19.0	46.6	74.0	-27.4	Peak	Vertical
*	12847.0	25.6	19.2	44.8	68.2	-23.4	Peak	Vertical
*	13695.0	27.4	21.9	49.3	68.2	-18.9	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: 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	. 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
	9364.0	28.6	14.5	43.1	74.0	-30.9	Peak	Horizontal
	11365.0	26.6	19.0	45.6	74.0	-28.4	Peak	Horizontal
*	12968.0	26.0	19.8	45.8	68.2	-22.4	Peak	Horizontal
*	13684.0	26.6	21.9	48.5	68.2	-19.7	Peak	Horizontal
	9384.0	28.7	14.5	43.2	74.0	-30.8	Peak	Vertical
	11368.0	26.3	19.0	45.3	74.0	-28.7	Peak	Vertical
*	12968.0	25.5	19.8	45.3	68.2	-22.9	Peak	Vertical
*	13684.0	26.6	21.9	48.5	68.2	-19.7	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: 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
	9384.0	28.4	14.5	42.9	74.0	-31.1	Peak	Horizontal
	11302.0	26.8	18.9	45.7	74.0	-28.3	Peak	Horizontal
*	12748.0	25.5	18.9	44.4	68.2	-23.8	Peak	Horizontal
*	13694.0	27.0	21.9	48.9	68.2	-19.3	Peak	Horizontal
	9364.0	28.5	14.5	43.0	74.0	-31.0	Peak	Vertical
	11384.0	25.9	19.1	45.0	74.0	-29.0	Peak	Vertical
*	12968.0	25.1	19.8	44.9	68.2	-23.3	Peak	Vertical
*	13587.0	24.6	21.8	46.4	68.2	-21.8	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: 117 of 209





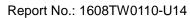
Test Mode:	802.11a - Ant 2	Test Site:	AC1					
Test Channel:	52	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bellin the report.	ow limit line within 1	-18GHz, there is not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

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9468.0	29.5	14.4	43.9	74.0	-30.1	Peak	Horizontal
	11369.0	27.3	19.0	46.3	74.0	-27.7	Peak	Horizontal
*	12784.0	26.1	19.0	45.1	68.2	-23.1	Peak	Horizontal
*	13968.0	27.6	22.6	50.2	68.2	-18.0	Peak	Horizontal
	7436.0	30.4	12.7	43.1	74.0	-30.9	Peak	Vertical
	8368.0	30.2	12.0	42.2	74.0	-31.8	Peak	Vertical
*	9684.0	30.0	14.6	44.6	68.2	-23.6	Peak	Vertical
*	10368.0	29.4	16.8	46.2	68.2	-22.0	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: 118 of 209





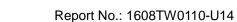
Test Mode:	802.11a - Ant 3	Test Site:	AC1					
Test Channel:	60	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is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

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	9302.0	28.5	14.7	43.2	74.0	-30.8	Peak	Horizontal
	10968.0	27.0	18.4	45.4	74.0	-28.6	Peak	Horizontal
*	12758.0	25.6	18.9	44.5	68.2	-23.7	Peak	Horizontal
*	13648.0	26.0	21.8	47.8	68.2	-20.4	Peak	Horizontal
	7436.0	29.3	12.7	42.0	74.0	-32.0	Peak	Vertical
	8365.0	29.9	12.0	41.9	74.0	-32.1	Peak	Vertical
*	9648.0	28.8	14.5	43.3	68.2	-24.9	Peak	Vertical
*	10368.0	28.3	16.8	45.1	68.2	-23.1	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: 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
	9402.0	29.2	14.5	43.7	74.0	-30.3	Peak	Horizontal
	11368.0	26.2	19.0	45.2	74.0	-28.8	Peak	Horizontal
*	12968.0	26.3	19.8	46.1	68.2	-22.1	Peak	Horizontal
*	13648.0	26.9	21.8	48.7	68.2	-19.5	Peak	Horizontal
	9415.2	29.5	14.5	44.0	74.0	-30.0	Peak	Vertical
	11285.5	26.9	18.8	45.7	74.0	-28.3	Peak	Vertical
*	12847.0	25.3	19.2	44.5	68.2	-23.7	Peak	Vertical
*	13684.0	26.6	21.9	48.5	68.2	-19.7	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: 120 of 209





Test Mode:	802.11a - 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.	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)				
	8365.0	29.1	12.0	41.1	74.0	-32.9	Peak	Horizontal
	11968.0	25.3	18.7	44.0	74.0	-30.0	Peak	Horizontal
*	12847.0	24.9	19.2	44.1	68.2	-24.1	Peak	Horizontal
*	13758.0	26.2	22.0	48.2	68.2	-20.0	Peak	Horizontal
	9468.0	28.4	14.4	42.8	74.0	-31.2	Peak	Vertical
	11368.0	25.9	19.0	44.9	74.0	-29.1	Peak	Vertical
*	12968.0	25.1	19.8	44.9	68.2	-23.3	Peak	Vertical
*	13684.0	27.5	21.9	49.4	68.2	-18.8	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: 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
*	7774.5	28.8	12.4	41.2	68.2	-27.0	Peak	Horizontal
*	8888.0	28.1	14.0	42.1	68.2	-26.1	Peak	Horizontal
	9381.0	29.3	14.5	43.8	74.0	-30.2	Peak	Horizontal
	11531.5	26.4	19.4	45.8	74.0	-28.2	Peak	Horizontal
*	7774.5	29.3	12.4	41.7	68.2	-26.5	Peak	Vertical
*	8956.0	27.3	14.0	41.3	68.2	-26.9	Peak	Vertical
	9423.5	28.9	14.5	43.4	74.0	-30.6	Peak	Vertical
	11336.0	27.4	19.0	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: 122 of 209





Test Mode:	802.11a - Ant 3	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 (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9158.0	28.1	14.7	42.8	74.0	-31.2	Peak	Horizontal
	11364.0	26.3	19.0	45.3	74.0	-28.7	Peak	Horizontal
*	12968.0	25.7	19.8	45.5	68.2	-22.7	Peak	Horizontal
*	13845.0	27.5	22.2	49.7	68.2	-18.5	Peak	Horizontal
	9484.0	29.2	14.4	43.6	74.0	-30.4	Peak	Vertical
	11168.0	26.8	18.7	45.5	74.0	-28.5	Peak	Vertical
*	12758.0	25.6	18.9	44.5	68.2	-23.7	Peak	Vertical
*	13958.0	27.5	22.5	50.0	68.2	-18.2	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: 123 of 209 IC: 109D-FZCWO4A1





Test Mode:	802.11a - Ant 3	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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8452.0	29.2	12.5	41.7	74.0	-32.3	Peak	Horizontal
	11404.0	30.4	19.1	49.5	74.0	-24.5	Peak	Horizontal
*	12750.0	25.4	18.9	44.3	68.2	-23.9	Peak	Horizontal
*	13462.0	26.1	21.6	47.7	68.2	-20.5	Peak	Horizontal
	9448.0	29.9	14.4	44.3	74.0	-29.7	Peak	Vertical
	11412.5	31.0	19.1	50.1	74.0	-23.9	Peak	Vertical
*	12758.0	25.4	18.9	44.3	68.2	-23.9	Peak	Vertical
*	13694.0	27.1	21.9	49.0	68.2	-19.2	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: 124 of 209





Test Mode:	802.11n-HT20 - Ant 3	Test Site:	AC1
Test Channel:	52	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)				
	9421.0	29.2	14.5	43.7	74.0	-30.3	Peak	Horizontal
	11532.0	25.9	19.4	45.3	74.0	-28.7	Peak	Horizontal
*	12846.0	25.5	19.2	44.7	68.2	-23.5	Peak	Horizontal
*	13684.0	27.1	21.9	49.0	68.2	-19.2	Peak	Horizontal
	7695.0	29.1	12.4	41.5	74.0	-32.5	Peak	Vertical
	8251.0	29.5	11.9	41.4	74.0	-32.6	Peak	Vertical
*	9684.0	28.5	14.6	43.1	68.2	-25.1	Peak	Vertical
*	10458.0	27.8	17.1	44.9	68.2	-23.3	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: 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
	9362.0	28.6	14.5	43.1	74.0	-30.9	Peak	Horizontal
	10968.0	27.1	18.4	45.5	74.0	-28.5	Peak	Horizontal
*	12847.0	25.4	19.2	44.6	68.2	-23.6	Peak	Horizontal
*	13984.0	27.3	22.6	49.9	68.2	-18.3	Peak	Horizontal
	7463.0	29.9	12.8	42.7	74.0	-31.3	Peak	Vertical
	8364.0	29.2	12.0	41.2	74.0	-32.8	Peak	Vertical
*	10596.5	31.1	17.3	48.4	68.2	-19.8	Peak	Vertical
*	12863.0	25.3	19.3	44.6	68.2	-23.6	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: 126 of 209





Test Mode:	802.11n-HT20 - Ant 3	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	· ·	. Average measurement was not performed if peak level lower than average						
	limit.	avy limait lima vyithim 1	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 (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9425.0	29.1	14.4	43.5	74.0	-30.5	Peak	Horizontal
	11365.0	25.9	19.0	44.9	74.0	-29.1	Peak	Horizontal
*	12847.0	25.8	19.2	45.0	68.2	-23.2	Peak	Horizontal
*	13645.0	26.4	21.8	48.2	68.2	-20.0	Peak	Horizontal
	9362.0	28.8	14.5	43.3	74.0	-30.7	Peak	Vertical
	11368.0	26.3	19.0	45.3	74.0	-28.7	Peak	Vertical
*	12832.0	26.0	19.2	45.2	68.2	-23.0	Peak	Vertical
*	13958.0	27.1	22.5	49.6	68.2	-18.6	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: 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.	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)				
	8475.0	28.8	12.7	41.5	74.0	-32.5	Peak	Horizontal
	10984.0	27.7	18.5	46.2	74.0	-27.8	Peak	Horizontal
*	12965.0	25.4	19.8	45.2	68.2	-23.0	Peak	Horizontal
*	13845.0	27.4	22.2	49.6	68.2	-18.6	Peak	Horizontal
	9320.5	28.2	14.6	42.8	74.0	-31.2	Peak	Vertical
	11684.0	26.7	19.2	45.9	74.0	-28.1	Peak	Vertical
*	12964.0	25.2	19.8	45.0	68.2	-23.2	Peak	Vertical
*	13847.0	27.2	22.2	49.4	68.2	-18.8	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: 128 of 209





Test Mode:	802.11n-HT20 - 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
*	7902.0	30.7	12.4	43.1	68.2	-25.1	Peak	Horizontal
*	8939.0	27.6	14.0	41.6	68.2	-26.6	Peak	Horizontal
	9398.0	29.9	14.5	44.4	74.0	-29.6	Peak	Horizontal
	11132.0	27.7	18.6	46.3	74.0	-27.7	Peak	Horizontal
*	7876.5	30.2	12.4	42.6	68.2	-25.6	Peak	Vertical
*	8845.5	28.2	14.0	42.2	68.2	-26.0	Peak	Vertical
	9381.0	28.7	14.5	43.2	74.0	-30.8	Peak	Vertical
	11183.0	28.0	18.7	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: 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 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)				
	9436.0	29.6	14.4	44.0	74.0	-30.0	Peak	Horizontal
	11200.0	30.5	18.7	49.2	74.0	-24.8	Peak	Horizontal
*	12748.0	25.9	18.9	44.8	68.2	-23.4	Peak	Horizontal
*	13652.0	26.5	21.8	48.3	68.2	-19.9	Peak	Horizontal
	9384.0	28.6	14.5	43.1	74.0	-30.9	Peak	Vertical
	11638.0	26.6	19.4	46.0	74.0	-28.0	Peak	Vertical
*	12968.0	25.2	19.8	45.0	68.2	-23.2	Peak	Vertical
*	13620.0	26.9	21.8	48.7	68.2	-19.5	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: 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 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)				
	9364.0	28.1	14.5	42.6	74.0	-31.4	Peak	Horizontal
	11395.5	31.7	19.1	50.8	74.0	-23.2	Peak	Horizontal
*	12763.0	25.8	19.0	44.8	68.2	-23.4	Peak	Horizontal
*	13984.0	28.5	22.6	51.1	68.2	-17.1	Peak	Horizontal
	9412.0	29.4	14.5	43.9	74.0	-30.1	Peak	Vertical
	11395.5	32.5	19.1	51.6	74.0	-22.4	Peak	Vertical
*	12830.0	26.1	19.2	45.3	68.2	-22.9	Peak	Vertical
*	13684.0	26.7	21.9	48.6	68.2	-19.6	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: 131 of 209





Test Mode:	802.11n-HT40 - Ant 3	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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8475.0	29.2	12.7	41.9	74.0	-32.1	Peak	Horizontal
	9362.0	28.8	14.5	43.3	74.0	-30.7	Peak	Horizontal
*	12963.0	26.0	19.8	45.8	68.2	-22.4	Peak	Horizontal
*	13684.0	27.8	21.9	49.7	68.2	-18.5	Peak	Horizontal
	9425.0	30.0	14.4	44.4	74.0	-29.6	Peak	Vertical
	11362.0	27.0	19.0	46.0	74.0	-28.0	Peak	Vertical
*	12847.0	25.5	19.2	44.7	68.2	-23.5	Peak	Vertical
*	13962.0	26.6	22.5	49.1	68.2	-19.1	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: 132 of 209





Test Mode:	802.11n-HT40 - Ant 3	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 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
	9425.0	29.3	14.4	43.7	74.0	-30.3	Peak	Horizontal
	10630.5	30.7	17.3	48.0	74.0	-26.0	Peak	Horizontal
*	12873.0	25.8	19.3	45.1	68.2	-23.1	Peak	Horizontal
*	13695.0	27.5	21.9	49.4	68.2	-18.8	Peak	Horizontal
	9320.0	28.9	14.6	43.5	74.0	-30.5	Peak	Vertical
	10958.0	27.3	18.4	45.7	74.0	-28.3	Peak	Vertical
*	12845.0	25.9	19.2	45.1	68.2	-23.1	Peak	Vertical
*	13965.0	26.9	22.6	49.5	68.2	-18.7	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: 133 of 209





Test Mode:	802.11n-HT40 - Ant 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.								
	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
	9368.0	28.8	14.5	43.3	74.0	-30.7	Peak	Horizontal
	11365.0	27.1	19.0	46.1	74.0	-27.9	Peak	Horizontal
*	12965.0	25.2	19.8	45.0	68.2	-23.2	Peak	Horizontal
*	13625.0	26.1	21.8	47.9	68.2	-20.3	Peak	Horizontal
	9328.0	28.8	14.6	43.4	74.0	-30.6	Peak	Vertical
	11352.0	27.0	19.0	46.0	74.0	-28.0	Peak	Vertical
*	12932.0	25.2	19.6	44.8	68.2	-23.4	Peak	Vertical
*	13856.0	27.6	22.3	49.9	68.2	-18.3	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.							
	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)				
*	7808.5	29.8	12.4	42.2	68.2	-26.0	Peak	Horizontal
*	8828.5	28.8	14.0	42.8	68.2	-25.4	Peak	Horizontal
	9432.0	28.7	14.4	43.1	74.0	-30.9	Peak	Horizontal
	11174.5	27.8	18.7	46.5	74.0	-27.5	Peak	Horizontal
*	7859.5	28.8	12.4	41.2	68.2	-27.0	Peak	Vertical
*	8769.0	26.7	13.9	40.6	68.2	-27.6	Peak	Vertical
	9483.0	29.8	14.4	44.2	74.0	-29.8	Peak	Vertical
	11574.0	27.2	19.5	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: 135 of 209





Test Mode:	802.11n-HT40 - Ant 3	Test Site:	AC1						
Test Channel:	118	Test Engineer:	Kevin Ker						
Remark:	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
	9362.0	29.2	14.5	43.7	74.0	-30.3	Peak	Horizontal
	10968.0	27.7	18.4	46.1	74.0	-27.9	Peak	Horizontal
*	12948.0	25.1	19.7	44.8	68.2	-23.4	Peak	Horizontal
*	13652.0	26.3	21.8	48.1	68.2	-20.1	Peak	Horizontal
	9360.0	28.4	14.5	42.9	74.0	-31.1	Peak	Vertical
	11847.0	25.7	18.7	44.4	74.0	-29.6	Peak	Vertical
*	12964.0	26.0	19.8	45.8	68.2	-22.4	Peak	Vertical
*	13645.0	26.7	21.8	48.5	68.2	-19.7	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: 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.							
	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)				
	9402.0	29.6	14.5	44.1	74.0	-29.9	Peak	Horizontal
	11587.0	26.2	19.5	45.7	74.0	-28.3	Peak	Horizontal
*	12784.0	26.4	19.0	45.4	68.2	-22.8	Peak	Horizontal
*	13854.0	28.2	22.3	50.5	68.2	-17.7	Peak	Horizontal
	9387.0	29.8	14.5	44.3	74.0	-29.7	Peak	Vertical
	11352.0	27.5	19.0	46.5	74.0	-27.5	Peak	Vertical
*	12841.0	27.4	19.2	46.6	68.2	-21.6	Peak	Vertical
*	13968.0	27.4	22.6	50.0	68.2	-18.2	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: 137 of 209





Test Mode:	802.11ac-VHT20 - Ant 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 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)				
	9301.0	28.1	14.7	42.8	74.0	-31.2	Peak	Horizontal
	11258.0	26.6	18.8	45.4	74.0	-28.6	Peak	Horizontal
*	12784.0	25.6	19.0	44.6	68.2	-23.6	Peak	Horizontal
*	13950.0	27.3	22.5	49.8	68.2	-18.4	Peak	Horizontal
	9420.0	28.7	14.5	43.2	74.0	-30.8	Peak	Vertical
	11874.0	25.5	18.7	44.2	74.0	-29.8	Peak	Vertical
*	12963.0	25.6	19.8	45.4	68.2	-22.8	Peak	Vertical
*	13650.0	26.0	21.8	47.8	68.2	-20.4	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	9308.0	28.1	14.7	42.8	74.0	-31.2	Peak	Horizontal
	11284.0	26.7	18.8	45.5	74.0	-28.5	Peak	Horizontal
*	12951.0	26.0	19.7	45.7	68.2	-22.5	Peak	Horizontal
*	13625.0	26.3	21.8	48.1	68.2	-20.1	Peak	Horizontal
	8436.0	28.8	12.4	41.2	74.0	-32.8	Peak	Vertical
	10968.0	27.0	18.4	45.4	74.0	-28.6	Peak	Vertical
*	12920.0	24.8	19.6	44.4	68.2	-23.8	Peak	Vertical
*	13642.0	26.1	21.8	47.9	68.2	-20.3	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: 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	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(dBµV)		(dBµV/m)				
	9362.0	29.1	14.5	43.6	74.0	-30.4	Peak	Horizontal
	10639.0	31.3	17.4	48.7	74.0	-25.3	Peak	Horizontal
*	12968.0	24.6	19.8	44.4	68.2	-23.8	Peak	Horizontal
*	13654.0	26.2	21.8	48.0	68.2	-20.2	Peak	Horizontal
	8469.0	29.2	12.6	41.8	74.0	-32.2	Peak	Vertical
	10638.0	30.0	17.4	47.4	74.0	-26.6	Peak	Vertical
*	12847.0	25.9	19.2	45.1	68.2	-23.1	Peak	Vertical
*	13964.0	27.8	22.6	50.4	68.2	-17.8	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: 140 of 209





Test Mode:	802.11ac-VHT20 - 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
	9425.0	29.9	14.4	44.3	74.0	-29.7	Peak	Horizontal
	11302.0	26.8	18.9	45.7	74.0	-28.3	Peak	Horizontal
*	12968.0	25.1	19.8	44.9	68.2	-23.3	Peak	Horizontal
*	13625.0	26.5	21.8	48.3	68.2	-19.9	Peak	Horizontal
	9684.0	29.2	14.6	43.8	74.0	-30.2	Peak	Vertical
	11487.0	26.8	19.3	46.1	74.0	-27.9	Peak	Vertical
*	12846.0	25.7	19.2	44.9	68.2	-23.3	Peak	Vertical
*	13695.0	27.1	21.9	49.0	68.2	-19.2	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 limit.	Average measurement was not performed if peak level lower than average 1. 1.						
	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
*	7876.5	29.6	12.4	42.0	68.2	-26.2	Peak	Horizontal
*	8922.0	28.1	14.0	42.1	68.2	-26.1	Peak	Horizontal
	9364.0	29.6	14.5	44.1	74.0	-29.9	Peak	Horizontal
	11276.5	28.2	18.8	47.0	74.0	-27.0	Peak	Horizontal
*	7876.5	30.7	12.4	43.1	68.2	-25.1	Peak	Vertical
*	8811.5	28.2	14.0	42.2	68.2	-26.0	Peak	Vertical
	9381.0	29.1	14.5	43.6	74.0	-30.4	Peak	Vertical
	11667.5	28.1	19.3	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





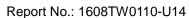
Test Mode:	802.11ac-VHT20 - Ant 3	Test Site:	AC1				
Test Channel:	120	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.	and the total and the A	4001 le (hana 'a nat ahan)				
	2. Other frequency was 20dB below limit line within 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
	9462.0	29.0	14.4	43.4	74.0	-30.6	Peak	Horizontal
	11200.0	29.8	18.7	48.5	74.0	-25.5	Peak	Horizontal
*	12846.0	26.2	19.2	45.4	68.2	-22.8	Peak	Horizontal
*	13625.0	26.9	21.8	48.7	68.2	-19.5	Peak	Horizontal
	9320.0	27.7	14.6	42.3	74.0	-31.7	Peak	Vertical
	10635.0	28.2	17.3	45.5	74.0	-28.5	Peak	Vertical
*	12964.0	25.9	19.8	45.7	68.2	-22.5	Peak	Vertical
*	13458.0	25.2	21.6	46.8	68.2	-21.4	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: 143 of 209





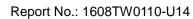
Test Mode:	802.11ac-VHT20 - Ant 3	Test Site:	AC1				
Test Channel:	140	Test Engineer:	Kevin Ker				
Remark:	Average measurement was not performed if peak level lower than average						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9320.0	28.0	14.6	42.6	74.0	-31.4	Peak	Horizontal
	11404.0	29.8	19.1	48.9	74.0	-25.1	Peak	Horizontal
*	12863.0	25.2	19.3	44.5	68.2	-23.7	Peak	Horizontal
*	13658.0	25.7	21.8	47.5	68.2	-20.7	Peak	Horizontal
	9425.0	28.8	14.4	43.2	74.0	-30.8	Peak	Vertical
	11395.5	31.9	19.1	51.0	74.0	-23.0	Peak	Vertical
*	12805.0	27.0	19.1	46.1	68.2	-22.1	Peak	Vertical
*	13630.0	25.8	21.8	47.6	68.2	-20.6	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: 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
	8436.0	30.1	12.4	42.5	74.0	-31.5	Peak	Horizontal
	10968.0	27.5	18.4	45.9	74.0	-28.1	Peak	Horizontal
*	12745.0	26.3	18.9	45.2	68.2	-23.0	Peak	Horizontal
*	13653.0	26.9	21.8	48.7	68.2	-19.5	Peak	Horizontal
	9302.0	28.0	14.7	42.7	74.0	-31.3	Peak	Vertical
	11446.5	33.4	19.2	52.6	74.0	-21.4	Peak	Vertical
*	12847.0	26.2	19.2	45.4	68.2	-22.8	Peak	Vertical
*	13695.0	27.4	21.9	49.3	68.2	-18.9	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: 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
	9384.0	29.6	14.5	44.1	74.0	-29.9	Peak	Horizontal
	11485.0	26.5	19.3	45.8	74.0	-28.2	Peak	Horizontal
*	12830.0	26.5	19.2	45.7	68.2	-22.5	Peak	Horizontal
*	13641.0	27.9	21.8	49.7	68.2	-18.5	Peak	Horizontal
	9405.0	29.3	14.5	43.8	74.0	-30.2	Peak	Vertical
	11840.0	25.7	18.7	44.4	74.0	-29.6	Peak	Vertical
*	12847.0	25.4	19.2	44.6	68.2	-23.6	Peak	Vertical
*	13698.0	26.9	22.0	48.9	68.2	-19.3	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 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
	9341.0	28.3	14.6	42.9	74.0	-31.1	Peak	Horizontal
	11463.0	26.6	19.3	45.9	74.0	-28.1	Peak	Horizontal
*	12796.0	26.0	19.1	45.1	68.2	-23.1	Peak	Horizontal
*	13694.0	27.0	21.9	48.9	68.2	-19.3	Peak	Horizontal
	9326.0	28.7	14.6	43.3	74.0	-30.7	Peak	Vertical
	11745.0	25.7	18.9	44.6	74.0	-29.4	Peak	Vertical
*	12995.0	25.7	19.8	45.5	68.2	-22.7	Peak	Vertical
*	13886.0	27.8	22.3	50.1	68.2	-18.1	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: 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	. 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
	9084.0	27.5	14.4	41.9	74.0	-32.1	Peak	Horizontal
	11638.0	26.4	19.4	45.8	74.0	-28.2	Peak	Horizontal
*	12785.0	26.4	19.0	45.4	68.2	-22.8	Peak	Horizontal
*	13684.0	27.8	21.9	49.7	68.2	-18.5	Peak	Horizontal
	9308.0	27.8	14.7	42.5	74.0	-31.5	Peak	Vertical
	11968.0	25.1	18.7	43.8	74.0	-30.2	Peak	Vertical
*	12847.0	24.4	19.2	43.6	68.2	-24.6	Peak	Vertical
*	13965.0	27.2	22.6	49.8	68.2	-18.4	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: 148 of 209





Test Mode:	802.11ac-VHT40 - 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. 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
*	7800.0	30.4	12.4	42.8	68.2	-25.4	Peak	Horizontal
*	8735.0	29.4	13.9	43.3	68.2	-24.9	Peak	Horizontal
	9406.5	29.9	14.5	44.4	74.0	-29.6	Peak	Horizontal
	11659.0	27.2	19.3	46.5	74.0	-27.5	Peak	Horizontal
*	7893.5	30.3	12.4	42.7	68.2	-25.5	Peak	Vertical
*	8854.0	27.9	14.0	41.9	68.2	-26.3	Peak	Vertical
	9474.5	28.9	14.4	43.3	74.0	-30.7	Peak	Vertical
	11038.5	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: 149 of 209





Test Mode:	802.11ac-VHT40 - 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.							
	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
	9384.0	27.9	14.5	42.4	74.0	-31.6	Peak	Horizontal
	11847.0	25.3	18.7	44.0	74.0	-30.0	Peak	Horizontal
*	12765.0	24.9	19.0	43.9	68.2	-24.3	Peak	Horizontal
*	13968.0	26.7	22.6	49.3	68.2	-18.9	Peak	Horizontal
	9325.0	28.3	14.6	42.9	74.0	-31.1	Peak	Vertical
	11654.0	26.3	19.3	45.6	74.0	-28.4	Peak	Vertical
*	12703.0	25.6	18.8	44.4	68.2	-23.8	Peak	Vertical
*	13846.0	27.2	22.2	49.4	68.2	-18.8	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	9361.0	28.9	14.5	43.4	74.0	-30.6	Peak	Horizontal
	11319.0	32.2	18.9	51.1	74.0	-22.9	Peak	Horizontal
*	12900.0	25.6	19.5	45.1	68.2	-23.1	Peak	Horizontal
*	13648.0	26.5	21.8	48.3	68.2	-19.9	Peak	Horizontal
	9305.0	28.2	14.7	42.9	74.0	-31.1	Peak	Vertical
	11068.0	27.0	18.5	45.5	74.0	-28.5	Peak	Vertical
*	12846.0	25.5	19.2	44.7	68.2	-23.5	Peak	Vertical
*	13847.0	27.2	22.2	49.4	68.2	-18.8	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: 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	. 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
	7583.0	30.0	12.7	42.7	74.0	-31.3	Peak	Horizontal
	11421.0	29.0	19.1	48.1	74.0	-25.9	Peak	Horizontal
*	12803.0	26.1	19.1	45.2	68.2	-23.0	Peak	Horizontal
*	13530.0	25.6	21.8	47.4	68.2	-20.8	Peak	Horizontal
	9336.0	28.8	14.6	43.4	74.0	-30.6	Peak	Vertical
	11421.0	30.5	19.1	49.6	74.0	-24.4	Peak	Vertical
*	12905.0	26.6	19.5	46.1	68.2	-22.1	Peak	Vertical
*	13620.0	27.1	21.8	48.9	68.2	-19.3	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: 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.	. 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
	8432.0	29.5	12.4	41.9	74.0	-32.1	Peak	Horizontal
	11965.0	26.3	18.6	44.9	74.0	-29.1	Peak	Horizontal
*	12963.0	24.9	19.8	44.7	68.2	-23.5	Peak	Horizontal
*	13841.0	27.6	22.2	49.8	68.2	-18.4	Peak	Horizontal
	9358.0	28.8	14.5	43.3	74.0	-30.7	Peak	Vertical
	11840.0	26.4	18.7	45.1	74.0	-28.9	Peak	Vertical
*	12902.0	26.3	19.5	45.8	68.2	-22.4	Peak	Vertical
*	13620.0	26.6	21.8	48.4	68.2	-19.8	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: 153 of 209





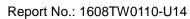
Test Mode:	802.11ac-VHT80 - Ant 3	Test Site:	AC1						
Test Channel:	106	Test Engineer:	Kevin Ker						
Remark:		Average measurement was not performed if peak level lower than average							
		limit. 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show							
	in the report.								

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	9362.0	28.3	14.5	42.8	74.0	-31.2	Peak	Horizontal
	11639.0	26.0	19.4	45.4	74.0	-28.6	Peak	Horizontal
*	12964.0	24.9	19.8	44.7	68.2	-23.5	Peak	Horizontal
*	13620.0	26.4	21.8	48.2	68.2	-20.0	Peak	Horizontal
	8415.0	29.3	12.3	41.6	74.0	-32.4	Peak	Vertical
	9325.0	28.0	14.6	42.6	74.0	-31.4	Peak	Vertical
*	9925.0	28.1	15.3	43.4	68.2	-24.8	Peak	Vertical
*	12802.0	25.6	19.1	44.7	68.2	-23.5	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7362.0	29.1	12.5	41.6	74.0	-32.4	Peak	Horizontal
	8402.0	28.5	12.2	40.7	74.0	-33.3	Peak	Horizontal
*	9684.0	28.6	14.6	43.2	68.2	-25.0	Peak	Horizontal
*	10365.0	28.2	16.8	45.0	68.2	-23.2	Peak	Horizontal
	7658.0	30.2	12.5	42.7	74.0	-31.3	Peak	Vertical
	8350.0	28.8	12.0	40.8	74.0	-33.2	Peak	Vertical
*	9984.0	28.5	15.4	43.9	68.2	-24.3	Peak	Vertical
*	12843.0	24.9	19.2	44.1	68.2	-24.1	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: 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.							
	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
	9361.0	28.9	14.5	43.4	74.0	-30.6	Peak	Horizontal
	11365.0	26.2	19.0	45.2	74.0	-28.8	Peak	Horizontal
*	12847.0	25.3	19.2	44.5	68.2	-23.7	Peak	Horizontal
*	13958.0	26.1	22.5	48.6	68.2	-19.6	Peak	Horizontal
	9304.0	27.5	14.7	42.2	74.0	-31.8	Peak	Vertical
	11320.0	26.7	18.9	45.6	74.0	-28.4	Peak	Vertical
*	12965.0	25.0	19.8	44.8	68.2	-23.4	Peak	Vertical
*	13802.0	27.5	22.1	49.6	68.2	-18.6	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: 156 of 209





Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1						
Test Channel:	52	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
	7639.0	29.2	12.6	41.8	74.0	-32.2	Peak	Horizontal
	8125.0	29.2	12.2	41.4	74.0	-32.6	Peak	Horizontal
*	9785.0	28.7	15.0	43.7	68.2	-24.5	Peak	Horizontal
*	10369.0	27.9	16.8	44.7	68.2	-23.5	Peak	Horizontal
	7636.0	29.8	12.6	42.4	74.0	-31.6	Peak	Vertical
	8102.0	29.1	12.3	41.4	74.0	-32.6	Peak	Vertical
*	9758.0	30.5	14.8	45.3	68.2	-22.9	Peak	Vertical
*	10369.0	27.9	16.8	44.7	68.2	-23.5	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: 157 of 209





Test Mode:	802.11a - Ant 0 + 1 + 2 + 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
	7463.0	29.1	12.8	41.9	74.0	-32.1	Peak	Horizontal
	8430.0	27.7	12.4	40.1	74.0	-33.9	Peak	Horizontal
*	9802.0	28.3	15.1	43.4	68.2	-24.8	Peak	Horizontal
*	10367.0	27.1	16.8	43.9	68.2	-24.3	Peak	Horizontal
	7364.0	28.7	12.5	41.2	74.0	-32.8	Peak	Vertical
	8436.0	29.5	12.4	41.9	74.0	-32.1	Peak	Vertical
*	9587.0	28.1	14.4	42.5	68.2	-25.7	Peak	Vertical
*	10359.0	27.1	16.8	43.9	68.2	-24.3	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: 158 of 209





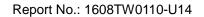
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	64	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	. Average measurement was not performed if peak level lower than average						
	limit.	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz,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

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7362.0	29.0	12.5	41.5	74.0	-32.5	Peak	Horizontal
	8402.0	28.9	12.2	41.1	74.0	-32.9	Peak	Horizontal
*	9645.0	29.1	14.4	43.5	68.2	-24.7	Peak	Horizontal
*	10463.0	27.6	17.1	44.7	68.2	-23.5	Peak	Horizontal
	7436.0	28.5	12.7	41.2	74.0	-32.8	Peak	Vertical
	8253.0	29.0	11.9	40.9	74.0	-33.1	Peak	Vertical
*	9825.0	28.5	15.7	44.2	68.2	-24.0	Peak	Vertical
*	10362.0	27.6	16.8	44.4	68.2	-23.8	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: 159 of 209





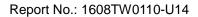
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	100	Test Engineer:	Kevin Ker					
Remark:	1. Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there 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
	8402.0	28.8	12.2	41.0	74.0	-33.0	Peak	Horizontal
	11004.5	30.6	18.5	49.1	74.0	-24.9	Peak	Horizontal
*	12893.0	25.0	19.4	44.4	68.2	-23.8	Peak	Horizontal
*	13693.0	26.6	21.9	48.5	68.2	-19.7	Peak	Horizontal
	7362.0	28.8	12.5	41.3	74.0	-32.7	Peak	Vertical
	8462.0	29.3	12.6	41.9	74.0	-32.1	Peak	Vertical
*	9852.0	27.7	16.2	43.9	68.2	-24.3	Peak	Vertical
*	10362.0	28.1	16.8	44.9	68.2	-23.3	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: 160 of 209





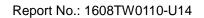
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	116	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bel in the report.	ow limit line within 1	-18GHz,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

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7876.5	30.6	12.4	43.0	68.2	-25.2	Peak	Horizontal
*	8667.0	29.4	13.6	43.0	68.2	-25.2	Peak	Horizontal
	9364.0	28.8	14.5	43.3	74.0	-30.7	Peak	Horizontal
	11098.0	28.0	18.6	46.6	74.0	-27.4	Peak	Horizontal
*	7961.5	29.9	12.5	42.4	68.2	-25.8	Peak	Vertical
*	8794.5	28.9	13.9	42.8	68.2	-25.4	Peak	Vertical
	9415.0	29.5	14.5	44.0	74.0	-30.0	Peak	Vertical
	11531.5	27.0	19.4	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: 161 of 209





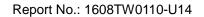
Test Mode:	802.11a - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	120	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no	Average measurement was not performed if peak level lower than average						
	limit.							
	2. Other frequency was 20dB below limit line within 1-18GHz, there 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
	7256.0	28.7	12.2	40.9	74.0	-33.1	Peak	Horizontal
	8463.0	27.2	12.6	39.8	74.0	-34.2	Peak	Horizontal
*	9825.0	27.4	15.7	43.1	68.2	-25.1	Peak	Horizontal
*	10245.0	26.8	16.4	43.2	68.2	-25.0	Peak	Horizontal
	7253.0	28.9	12.2	41.1	74.0	-32.9	Peak	Vertical
	8230.0	28.3	11.9	40.2	74.0	-33.8	Peak	Vertical
*	9825.0	28.3	15.7	44.0	68.2	-24.2	Peak	Vertical
*	10361.0	27.3	16.8	44.1	68.2	-24.1	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: 162 of 209





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.	P	40011 41 1 4 1				
	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)				
	7425.0	30.0	12.7	42.7	74.0	-31.3	Peak	Horizontal
	8225.0	28.3	11.9	40.2	74.0	-33.8	Peak	Horizontal
*	9825.0	27.9	15.7	43.6	68.2	-24.6	Peak	Horizontal
*	10362.0	27.6	16.8	44.4	68.2	-23.8	Peak	Horizontal
	7253.0	29.1	12.2	41.3	74.0	-32.7	Peak	Vertical
	8256.0	29.1	11.9	41.0	74.0	-33.0	Peak	Vertical
*	9825.0	27.8	15.7	43.5	68.2	-24.7	Peak	Vertical
*	10245.0	27.1	16.4	43.5	68.2	-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: 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	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
	7420.0	29.7	12.7	42.4	74.0	-31.6	Peak	Horizontal
	8230.0	29.6	11.9	41.5	74.0	-32.5	Peak	Horizontal
*	9685.0	29.1	14.6	43.7	68.2	-24.5	Peak	Horizontal
*	10256.0	27.8	16.5	44.3	68.2	-23.9	Peak	Horizontal
	7402.0	28.0	12.6	40.6	74.0	-33.4	Peak	Vertical
	8230.0	28.5	11.9	40.4	74.0	-33.6	Peak	Vertical
*	9654.0	27.4	14.5	41.9	68.2	-26.3	Peak	Vertical
*	10425.0	27.2	17.0	44.2	68.2	-24.0	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: 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 limit. Other frequency was 20dB bel 		Ç
	in the report.		

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	7463.0	28.9	12.8	41.7	74.0	-32.3	Peak	Horizontal
	8230.0	28.9	11.9	40.8	74.0	-33.2	Peak	Horizontal
*	9630.0	28.8	14.4	43.2	68.2	-25.0	Peak	Horizontal
*	10423.0	28.4	17.0	45.4	68.2	-22.8	Peak	Horizontal
	7463.0	28.0	12.8	40.8	74.0	-33.2	Peak	Vertical
	8256.0	29.2	11.9	41.1	74.0	-32.9	Peak	Vertical
*	9825.0	28.4	15.7	44.1	68.2	-24.1	Peak	Vertical
*	10456.0	27.4	17.1	44.5	68.2	-23.7	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: 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
	7430.0	29.0	12.7	41.7	74.0	-32.3	Peak	Horizontal
	10630.5	30.6	17.3	47.9	74.0	-26.1	Peak	Horizontal
*	12890.0	25.6	19.4	45.0	68.2	-23.2	Peak	Horizontal
*	13625.0	28.2	21.8	50.0	68.2	-18.2	Peak	Horizontal
	7436.0	29.1	12.7	41.8	74.0	-32.2	Peak	Vertical
	10639.0	30.5	17.4	47.9	74.0	-26.1	Peak	Vertical
*	12863.0	25.7	19.3	45.0	68.2	-23.2	Peak	Vertical
*	13658.0	26.4	21.8	48.2	68.2	-20.0	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: 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 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
	7430.0	28.8	12.7	41.5	74.0	-32.5	Peak	Horizontal
	11004.5	34.0	18.5	52.5	74.0	-21.5	Peak	Horizontal
*	12863.0	25.7	19.3	45.0	68.2	-23.2	Peak	Horizontal
*	13624.0	27.1	21.8	48.9	68.2	-19.3	Peak	Horizontal
	7463.0	29.1	12.8	41.9	74.0	-32.1	Peak	Vertical
	8205.0	29.8	11.9	41.7	74.0	-32.3	Peak	Vertical
*	10446.0	27.9	17.1	45.0	68.2	-23.2	Peak	Vertical
*	12830.0	25.4	19.2	44.6	68.2	-23.6	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: 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 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
*	7757.5	27.9	12.4	40.3	68.2	-27.9	Peak	Horizontal
*	8735.0	27.7	13.9	41.6	68.2	-26.6	Peak	Horizontal
	9423.5	28.5	14.5	43.0	74.0	-31.0	Peak	Horizontal
	11472.0	27.4	19.3	46.7	74.0	-27.3	Peak	Horizontal
*	7808.5	29.7	12.4	42.1	68.2	-26.1	Peak	Vertical
*	8769.0	28.1	13.9	42.0	68.2	-26.2	Peak	Vertical
	9483.0	29.0	14.4	43.4	74.0	-30.6	Peak	Vertical
	11310.5	27.6	18.9	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8205.0	29.5	11.9	41.4	74.0	-32.6	Peak	Horizontal
	11200.0	32.4	18.7	51.1	74.0	-22.9	Peak	Horizontal
*	12832.0	24.7	19.2	43.9	68.2	-24.3	Peak	Horizontal
*	13658.0	26.8	21.8	48.6	68.2	-19.6	Peak	Horizontal
	8236.0	29.0	11.9	40.9	74.0	-33.1	Peak	Vertical
	11191.5	30.7	18.7	49.4	74.0	-24.6	Peak	Vertical
*	12864.0	25.1	19.3	44.4	68.2	-23.8	Peak	Vertical
*	13620.0	26.1	21.8	47.9	68.2	-20.3	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: 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. 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
	8203.0	30.7	11.9	42.6	74.0	-31.4	Peak	Horizontal
	11395.5	33.9	19.1	53.0	74.0	-21.0	Peak	Horizontal
*	12830.0	25.8	19.2	45.0	68.2	-23.2	Peak	Horizontal
*	13625.0	26.7	21.8	48.5	68.2	-19.7	Peak	Horizontal
	8320.0	29.4	11.9	41.3	74.0	-32.7	Peak	Vertical
	11412.0	34.0	19.1	53.1	74.0	-20.9	Peak	Vertical
*	12830.0	25.4	19.2	44.6	68.2	-23.6	Peak	Vertical
*	13652.0	26.1	21.8	47.9	68.2	-20.3	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: 170 of 209





Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3	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
	7402.0	29.2	12.6	41.8	74.0	-32.2	Peak	Horizontal
	8410.0	29.3	12.3	41.6	74.0	-32.4	Peak	Horizontal
*	9812.0	28.7	15.3	44.0	68.2	-24.2	Peak	Horizontal
*	10420.0	29.6	17.0	46.6	68.2	-21.6	Peak	Horizontal
	7402.0	28.4	12.6	41.0	74.0	-33.0	Peak	Vertical
	8321.0	28.8	11.9	40.7	74.0	-33.3	Peak	Vertical
*	9822.0	28.3	15.6	43.9	68.2	-24.3	Peak	Vertical
*	12795.0	25.2	19.1	44.3	68.2	-23.9	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: 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	. 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)				
	7420.0	27.3	12.7	40.0	74.0	-34.0	Peak	Horizontal
	8463.0	28.3	12.6	40.9	74.0	-33.1	Peak	Horizontal
*	9802.0	28.1	15.1	43.2	68.2	-25.0	Peak	Horizontal
*	10360.0	26.8	16.8	43.6	68.2	-24.6	Peak	Horizontal
	7430.0	28.3	12.7	41.0	74.0	-33.0	Peak	Vertical
	8320.0	28.7	11.9	40.6	74.0	-33.4	Peak	Vertical
*	9745.0	28.5	14.8	43.3	68.2	-24.9	Peak	Vertical
*	10460.0	27.7	17.1	44.8	68.2	-23.4	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: 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
	8403.0	28.7	12.2	40.9	74.0	-33.1	Peak	Horizontal
	11021.5	31.7	18.5	50.2	74.0	-23.8	Peak	Horizontal
*	12705.0	25.7	18.8	44.5	68.2	-23.7	Peak	Horizontal
*	13620.0	26.3	21.8	48.1	68.2	-20.1	Peak	Horizontal
	7463.0	30.0	12.8	42.8	74.0	-31.2	Peak	Vertical
	8402.0	29.0	12.2	41.2	74.0	-32.8	Peak	Vertical
*	9846.0	28.1	16.1	44.2	68.2	-24.0	Peak	Vertical
*	12705.0	26.1	18.8	44.9	68.2	-23.3	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: 173 of 209





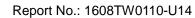
Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	110	Test Engineer:	Kevin Ker					
Remark:	Average measurement was no limit.	. Average measurement was not performed if peak level lower than average						
	Other frequency was 20dB bellin the report.	ow limit line within 1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

Mark	Frequency (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7885.0	29.3	12.4	41.7	68.2	-26.5	Peak	Horizontal
*	8930.5	27.2	14.0	41.2	68.2	-27.0	Peak	Horizontal
	9440.5	28.3	14.4	42.7	74.0	-31.3	Peak	Horizontal
	11251.0	27.5	18.8	46.3	74.0	-27.7	Peak	Horizontal
*	7893.5	30.9	12.4	43.3	68.2	-24.9	Peak	Vertical
*	8828.5	28.7	14.0	42.7	68.2	-25.5	Peak	Vertical
	9381.0	29.0	14.5	43.5	74.0	-30.5	Peak	Vertical
	11557.0	27.8	19.5	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: 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 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
	8420.0	29.0	12.3	41.3	74.0	-32.7	Peak	Horizontal
	11174.5	31.7	18.7	50.4	74.0	-23.6	Peak	Horizontal
*	12736.0	26.2	18.9	45.1	68.2	-23.1	Peak	Horizontal
*	13652.0	27.3	21.8	49.1	68.2	-19.1	Peak	Horizontal
	7469.0	29.2	12.8	42.0	74.0	-32.0	Peak	Vertical
	8320.0	29.9	11.9	41.8	74.0	-32.2	Peak	Vertical
*	9802.0	29.5	15.1	44.6	68.2	-23.6	Peak	Vertical
*	12763.0	25.8	19.0	44.8	68.2	-23.4	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: 175 of 209





Test Mode:	802.11n-HT40 - Ant 0 + 1 + 2 + 3	Test Site:	AC1					
Test Channel:	134	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
	7463.0	29.1	12.8	41.9	74.0	-32.1	Peak	Horizontal
	11336.0	33.1	19.0	52.1	74.0	-21.9	Peak	Horizontal
*	12756.0	25.8	18.9	44.7	68.2	-23.5	Peak	Horizontal
*	13462.0	25.0	21.6	46.6	68.2	-21.6	Peak	Horizontal
	7463.0	30.3	12.8	43.1	74.0	-30.9	Peak	Vertical
	8402.0	29.6	12.2	41.8	74.0	-32.2	Peak	Vertical
*	9825.0	28.4	15.7	44.1	68.2	-24.1	Peak	Vertical
*	10360.0	29.1	16.8	45.9	68.2	-22.3	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: 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)				
	7402.0	28.2	12.6	40.8	74.0	-33.2	Peak	Horizontal
	8463.0	28.3	12.6	40.9	74.0	-33.1	Peak	Horizontal
*	10253.0	28.0	16.5	44.5	68.2	-23.7	Peak	Horizontal
*	12746.0	25.4	18.9	44.3	68.2	-23.9	Peak	Horizontal
	7436.0	29.2	12.7	41.9	74.0	-32.1	Peak	Vertical
	8203.0	29.4	11.9	41.3	74.0	-32.7	Peak	Vertical
*	9825.0	27.6	15.7	43.3	68.2	-24.9	Peak	Vertical
*	12702.0	25.5	18.8	44.3	68.2	-23.9	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7463.0	29.0	12.8	41.8	74.0	-32.2	Peak	Horizontal
	8420.0	29.0	12.3	41.3	74.0	-32.7	Peak	Horizontal
*	10596.5	32.2	17.3	49.5	68.2	-18.7	Peak	Horizontal
*	12763.0	26.8	19.0	45.8	68.2	-22.4	Peak	Horizontal
	7463.0	29.1	12.8	41.9	74.0	-32.1	Peak	Vertical
	8360.0	30.3	12.0	42.3	74.0	-31.7	Peak	Vertical
*	10596.0	31.0	17.3	48.3	68.2	-19.9	Peak	Vertical
*	13425.0	25.8	21.5	47.3	68.2	-20.9	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: 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)				
	7463.0	30.1	12.8	42.9	74.0	-31.1	Peak	Horizontal
	8320.0	29.2	11.9	41.1	74.0	-32.9	Peak	Horizontal
*	9802.0	29.6	15.1	44.7	68.2	-23.5	Peak	Horizontal
*	10200.0	29.6	16.2	45.8	68.2	-22.4	Peak	Horizontal
	7463.0	29.9	12.8	42.7	74.0	-31.3	Peak	Vertical
	10630.5	31.1	17.3	48.4	74.0	-25.6	Peak	Vertical
*	12702.0	26.5	18.8	45.3	68.2	-22.9	Peak	Vertical
*	13462.0	26.4	21.6	48.0	68.2	-20.2	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: 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	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)				
	7463.0	29.9	12.8	42.7	74.0	-31.3	Peak	Horizontal
	10630.5	31.1	17.3	48.4	74.0	-25.6	Peak	Horizontal
*	12702.0	26.5	18.8	45.3	68.2	-22.9	Peak	Horizontal
*	13462.0	26.4	21.6	48.0	68.2	-20.2	Peak	Horizontal
	7523.0	30.4	12.8	43.2	74.0	-30.8	Peak	Vertical
	8463.0	29.0	12.6	41.6	74.0	-32.4	Peak	Vertical
*	9725.0	28.9	14.7	43.6	68.2	-24.6	Peak	Vertical
*	10430.0	28.1	17.0	45.1	68.2	-23.1	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: 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)				
*	7817.0	30.4	12.4	42.8	68.2	-25.4	Peak	Horizontal
*	8811.5	28.0	14.0	42.0	68.2	-26.2	Peak	Horizontal
	9415.0	29.5	14.5	44.0	74.0	-30.0	Peak	Horizontal
	11531.5	27.1	19.4	46.5	74.0	-27.5	Peak	Horizontal
*	7842.5	29.9	12.4	42.3	68.2	-25.9	Peak	Vertical
*	8752.0	28.8	13.9	42.7	68.2	-25.5	Peak	Vertical
	9347.0	28.2	14.5	42.7	74.0	-31.3	Peak	Vertical
	11081.0	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: 181 of 209



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)				
	8420.0	28.7	12.3	41.0	74.0	-33.0	Peak	Horizontal
	11200.0	33.5	18.7	52.2	74.0	-21.8	Peak	Horizontal
*	12750.0	26.4	18.9	45.3	68.2	-22.9	Peak	Horizontal
*	13462.0	25.3	21.6	46.9	68.2	-21.3	Peak	Horizontal
	9425.0	28.8	14.4	43.2	74.0	-30.8	Peak	Vertical
	11200.0	30.7	18.7	49.4	74.0	-24.6	Peak	Vertical
*	12736.0	25.7	18.9	44.6	68.2	-23.6	Peak	Vertical
*	13485.0	45.9	21.7	67.6	68.2	-0.6	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: 182 of 209



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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8402.0	29.2	12.2	41.4	74.0	-32.6	Peak	Horizontal
	11395.5	32.1	19.1	51.2	74.0	-22.8	Peak	Horizontal
*	12703.0	26.7	18.8	45.5	68.2	-22.7	Peak	Horizontal
*	13406.0	25.5	21.4	46.9	68.2	-21.3	Peak	Horizontal
	8402.0	29.9	12.2	42.1	74.0	-31.9	Peak	Vertical
	11404.0	34.3	19.1	53.4	74.0	-20.6	Peak	Vertical
*	12730.0	26.6	18.8	45.4	68.2	-22.8	Peak	Vertical
*	13403.0	26.1	21.4	47.5	68.2	-20.7	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: 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)				
	8402.0	29.9	12.2	42.1	74.0	-31.9	Peak	Horizontal
	11404.0	34.3	19.1	53.4	74.0	-20.6	Peak	Horizontal
*	12730.0	26.6	18.8	45.4	68.2	-22.8	Peak	Horizontal
*	13403.0	26.1	21.4	47.5	68.2	-20.7	Peak	Horizontal
	8430.0	29.8	12.4	42.2	74.0	-31.8	Peak	Vertical
	11440.0	42.9	19.2	62.1	74.0	-11.9	Peak	Vertical
	11440.0	25.2	19.2	44.4	54.0	-9.6	Average	Vertical
*	12701.0	26.3	18.8	45.1	68.2	-23.1	Peak	Vertical
*	13402.0	26.1	21.4	47.5	68.2	-20.7	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)

Page Number: 184 of 209 IC: 109D-FZCWO4A1



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	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)				
	7458.0	29.6	12.8	42.4	74.0	-31.6	Peak	Horizontal
	8320.0	28.3	11.9	40.2	74.0	-33.8	Peak	Horizontal
*	9782.0	28.7	14.9	43.6	68.2	-24.6	Peak	Horizontal
*	12763.0	25.5	19.0	44.5	68.2	-23.7	Peak	Horizontal
	7432.0	28.3	12.7	41.0	74.0	-33.0	Peak	Vertical
	8253.0	29.5	11.9	41.4	74.0	-32.6	Peak	Vertical
*	9680.0	28.6	14.6	43.2	68.2	-25.0	Peak	Vertical
*	12730.0	25.1	18.8	43.9	68.2	-24.3	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: 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	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)				
	7320.0	29.6	12.4	42.0	74.0	-32.0	Peak	Horizontal
	8250.0	29.5	11.9	41.4	74.0	-32.6	Peak	Horizontal
*	9725.0	28.4	14.7	43.1	68.2	-25.1	Peak	Horizontal
*	12750.0	26.0	18.9	44.9	68.2	-23.3	Peak	Horizontal
	7436.0	27.9	12.7	40.6	74.0	-33.4	Peak	Vertical
	8362.0	29.5	12.0	41.5	74.0	-32.5	Peak	Vertical
*	9630.0	29.3	14.4	43.7	68.2	-24.5	Peak	Vertical
*	10530.0	27.8	17.2	45.0	68.2	-23.2	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 l	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)				
	7459.0	27.3	12.8	40.1	74.0	-33.9	Peak	Horizontal
	8436.0	28.6	12.4	41.0	74.0	-33.0	Peak	Horizontal
*	9632.0	28.2	14.4	42.6	68.2	-25.6	Peak	Horizontal
*	12763.0	25.6	19.0	44.6	68.2	-23.6	Peak	Horizontal
	7525.0	28.8	12.8	41.6	74.0	-32.4	Peak	Vertical
	8425.0	28.8	12.3	41.1	74.0	-32.9	Peak	Vertical
*	9675.0	28.4	14.5	42.9	68.2	-25.3	Peak	Vertical
*	10456.0	28.3	17.1	45.4	68.2	-22.8	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: 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	30.2	12.4	42.6	68.2	-25.6	Peak	Horizontal
*	8837.0	29.0	14.0	43.0	68.2	-25.2	Peak	Horizontal
	9381.0	29.3	14.5	43.8	74.0	-30.2	Peak	Horizontal
	11684.5	27.3	19.2	46.5	74.0	-27.5	Peak	Horizontal
*	7834.0	30.3	12.4	42.7	68.2	-25.5	Peak	Vertical
*	8811.5	28.6	14.0	42.6	68.2	-25.6	Peak	Vertical
	9355.5	29.3	14.5	43.8	74.0	-30.2	Peak	Vertical
	11132.0	27.8	18.6	46.4	74.0	-27.6	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: 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)				
	8456.0	29.6	12.5	42.1	74.0	-31.9	Peak	Horizontal
	9125.0	28.6	14.6	43.2	74.0	-30.8	Peak	Horizontal
*	10586.0	28.1	17.3	45.4	68.2	-22.8	Peak	Horizontal
*	12796.0	25.0	19.1	44.1	68.2	-24.1	Peak	Horizontal
	7558.0	29.0	12.8	41.8	74.0	-32.2	Peak	Vertical
	8332.0	28.7	11.9	40.6	74.0	-33.4	Peak	Vertical
*	9825.0	27.5	15.7	43.2	68.2	-25.0	Peak	Vertical
*	12869.0	24.7	19.3	44.0	68.2	-24.2	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: 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)				
	7456.0	28.5	12.8	41.3	74.0	-32.7	Peak	Horizontal
	9125.0	27.3	14.6	41.9	74.0	-32.1	Peak	Horizontal
*	9802.0	28.5	15.1	43.6	68.2	-24.6	Peak	Horizontal
*	12758.0	25.4	18.9	44.3	68.2	-23.9	Peak	Horizontal
	7520.0	28.6	12.8	41.4	74.0	-32.6	Peak	Vertical
	8362.0	29.1	12.0	41.1	74.0	-32.9	Peak	Vertical
*	8965.0	28.7	14.1	42.8	68.2	-25.4	Peak	Vertical
*	10456.0	27.6	17.1	44.7	68.2	-23.5	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: 190 of 209 IC: 109D-FZCWO4A1



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)				
	7520.0	28.2	12.8	41.0	74.0	-33.0	Peak	Horizontal
	8463.0	28.5	12.6	41.1	74.0	-32.9	Peak	Horizontal
*	9235.0	27.7	14.8	42.5	68.2	-25.7	Peak	Horizontal
*	12896.0	24.6	19.4	44.0	68.2	-24.2	Peak	Horizontal
	7635.0	29.8	12.6	42.4	74.0	-31.6	Peak	Vertical
	8425.0	29.3	12.3	41.6	74.0	-32.4	Peak	Vertical
*	8965.0	28.1	14.1	42.2	68.2	-26.0	Peak	Vertical
*	9785.0	29.8	15.0	44.8	68.2	-23.4	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 IC: 109D-FZCWO4A1



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)				
	7580.0	28.5	12.7	41.2	74.0	-32.8	Peak	Horizontal
	9452.0	28.4	14.4	42.8	74.0	-31.2	Peak	Horizontal
*	9825.0	28.4	15.7	44.1	68.2	-24.1	Peak	Horizontal
*	10528.0	28.3	17.2	45.5	68.2	-22.7	Peak	Horizontal
	7896.0	28.4	12.4	40.8	74.0	-33.2	Peak	Vertical
	8462.0	28.5	12.6	41.1	74.0	-32.9	Peak	Vertical
*	9250.0	27.3	14.8	42.1	68.2	-26.1	Peak	Vertical
*	9825.0	27.9	15.7	43.6	68.2	-24.6	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: 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)				
	7650.0	29.8	12.5	42.3	74.0	-31.7	Peak	Horizontal
	8352.0	28.5	12.0	40.5	74.0	-33.5	Peak	Horizontal
*	8967.0	27.4	14.1	41.5	68.2	-26.7	Peak	Horizontal
*	9870.0	28.7	15.9	44.6	68.2	-23.6	Peak	Horizontal
	7560.0	28.5	12.8	41.3	74.0	-32.7	Peak	Vertical
	8462.0	29.1	12.6	41.7	74.0	-32.3	Peak	Vertical
*	8705.0	28.0	13.8	41.8	68.2	-26.4	Peak	Vertical
*	9802.0	28.4	15.1	43.5	68.2	-24.7	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: 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)				
	7650.0	29.4	12.5	41.9	74.0	-32.1	Peak	Horizontal
	8425.0	28.9	12.3	41.2	74.0	-32.8	Peak	Horizontal
*	8756.0	27.8	13.9	41.7	68.2	-26.5	Peak	Horizontal
*	9802.0	28.8	15.1	43.9	68.2	-24.3	Peak	Horizontal
	7632.0	29.0	12.6	41.6	74.0	-32.4	Peak	Vertical
	8320.0	29.5	11.9	41.4	74.0	-32.6	Peak	Vertical
*	8964.0	27.5	14.1	41.6	68.2	-26.6	Peak	Vertical
*	9875.0	27.5	15.8	43.3	68.2	-24.9	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: 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)				
	7582.0	29.6	12.7	42.3	74.0	-31.7	Peak	Horizontal
	8425.0	28.9	12.3	41.2	74.0	-32.8	Peak	Horizontal
*	8796.0	28.6	13.9	42.5	68.2	-25.7	Peak	Horizontal
*	9685.0	29.3	14.6	43.9	68.2	-24.3	Peak	Horizontal
	7596.0	29.7	12.7	42.4	74.0	-31.6	Peak	Vertical
	11506.0	30.8	19.4	50.2	74.0	-23.8	Peak	Vertical
*	12852.0	25.8	19.2	45.0	68.2	-23.2	Peak	Vertical
*	13652.0	27.1	21.8	48.9	68.2	-19.3	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: 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)				
*	7783.0	32.3	12.4	44.7	68.2	-23.5	Peak	Horizontal
*	8837.0	31.4	14.0	45.4	68.2	-22.8	Peak	Horizontal
	9338.5	31.8	14.6	46.4	74.0	-27.6	Peak	Horizontal
	11361.5	29.5	19.0	48.5	74.0	-25.5	Peak	Horizontal
*	7808.5	31.3	12.4	43.7	68.2	-24.5	Peak	Vertical
*	8692.5	30.5	13.7	44.2	68.2	-24.0	Peak	Vertical
	9347.0	31.5	14.5	46.0	74.0	-28.0	Peak	Vertical
	11353.0	29.7	19.0	48.7	74.0	-25.3	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: 196 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1				
	Ant 0 + 1 + 2 + 3						
Test Channel:	42 +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 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)				
*	7817.0	33.3	12.4	45.7	68.2	-22.5	Peak	Horizontal
*	8837.0	31.0	14.0	45.0	68.2	-23.2	Peak	Horizontal
	9330.0	31.3	14.6	45.9	74.0	-28.1	Peak	Horizontal
	10911.0	30.0	18.4	48.4	74.0	-25.6	Peak	Horizontal
*	7783.0	31.5	12.4	43.9	68.2	-24.3	Peak	Vertical
*	8624.5	31.4	13.5	44.9	68.2	-23.3	Peak	Vertical
	9364.0	31.9	14.5	46.4	74.0	-27.6	Peak	Vertical
	10843.0	30.4	18.1	48.5	74.0	-25.5	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: 197 of 209



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)				
*	7919.0	30.4	12.4	42.8	68.2	-25.4	Peak	Horizontal
*	8743.5	31.5	13.9	45.4	68.2	-22.8	Peak	Horizontal
	9321.5	31.9	14.6	46.5	74.0	-27.5	Peak	Horizontal
	10877.0	29.9	18.2	48.1	74.0	-25.9	Peak	Horizontal
*	7842.5	31.8	12.4	44.2	68.2	-24.0	Peak	Vertical
*	8820.0	31.9	14.0	45.9	68.2	-22.3	Peak	Vertical
	9330.0	31.8	14.6	46.4	74.0	-27.6	Peak	Vertical
	11353.0	29.5	19.0	48.5	74.0	-25.5	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: 198 of 209



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)				
*	7885.0	31.0	12.4	43.4	68.2	-24.8	Peak	Horizontal
*	8624.5	31.2	13.5	44.7	68.2	-23.5	Peak	Horizontal
	9355.5	31.0	14.5	45.5	74.0	-28.5	Peak	Horizontal
	10979.0	29.6	18.5	48.1	74.0	-25.9	Peak	Horizontal
*	7808.5	31.3	12.4	43.7	68.2	-24.5	Peak	Vertical
*	8828.5	32.1	14.0	46.1	68.2	-22.1	Peak	Vertical
	9338.5	31.6	14.6	46.2	74.0	-27.8	Peak	Vertical
	11013.0	29.8	18.5	48.3	74.0	-25.7	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: 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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7834.0	33.0	12.4	45.4	68.2	-22.8	Peak	Horizontal
*	8735.0	30.9	13.9	44.8	68.2	-23.4	Peak	Horizontal
	9321.5	31.4	14.6	46.0	74.0	-28.0	Peak	Horizontal
	11276.5	28.5	18.8	47.3	74.0	-26.7	Peak	Horizontal
*	7817.0	30.6	12.4	43.0	68.2	-25.2	Peak	Vertical
*	8837.0	30.8	14.0	44.8	68.2	-23.4	Peak	Vertical
	9313.0	31.6	14.7	46.3	74.0	-27.7	Peak	Vertical
	10953.5	29.5	18.4	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: 200 of 209



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)				
*	7825.5	31.3	12.4	43.7	68.2	-24.5	Peak	Horizontal
*	8658.5	32.0	13.6	45.6	68.2	-22.6	Peak	Horizontal
	9347.0	30.8	14.5	45.3	74.0	-28.7	Peak	Horizontal
	11021.5	29.6	18.5	48.1	74.0	-25.9	Peak	Horizontal
*	7851.0	32.2	12.4	44.6	68.2	-23.6	Peak	Vertical
*	8862.5	30.3	14.0	44.3	68.2	-23.9	Peak	Vertical
	9381.0	30.4	14.5	44.9	74.0	-29.1	Peak	Vertical
	10911.0	29.6	18.4	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 Page Number: 201 of 209 IC: 109D-FZCWO4A1



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)				
*	7987.0	32.0	12.5	44.5	68.2	-23.7	Peak	Horizontal
*	8718.0	31.5	13.8	45.3	68.2	-22.9	Peak	Horizontal
	9347.0	31.4	14.5	45.9	74.0	-28.1	Peak	Horizontal
	10987.5	29.7	18.5	48.2	74.0	-25.8	Peak	Horizontal
*	7944.5	31.8	12.5	44.3	68.2	-23.9	Peak	Vertical
*	8854.0	31.1	14.0	45.1	68.2	-23.1	Peak	Vertical
	9330.0	31.4	14.6	46.0	74.0	-28.0	Peak	Vertical
	11353.0	28.7	19.0	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: 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)				
*	7936.0	31.9	12.4	44.3	68.2	-23.9	Peak	Horizontal
*	8811.5	31.1	14.0	45.1	68.2	-23.1	Peak	Horizontal
	9423.5	31.4	14.5	45.9	74.0	-28.1	Peak	Horizontal
	11319.0	29.0	18.9	47.9	74.0	-26.1	Peak	Horizontal
*	7774.5	31.5	12.4	43.9	68.2	-24.3	Peak	Vertical
*	8837.0	31.0	14.0	45.0	68.2	-23.2	Peak	Vertical
	9347.0	32.4	14.5	46.9	74.0	-27.1	Peak	Vertical
	11625.0	28.5	19.4	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: 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)				
*	7825.5	31.4	12.4	43.8	68.2	-24.4	Peak	Horizontal
*	8616.0	30.3	13.5	43.8	68.2	-24.4	Peak	Horizontal
	9330.0	32.1	14.6	46.7	74.0	-27.3	Peak	Horizontal
	11013.0	29.6	18.5	48.1	74.0	-25.9	Peak	Horizontal
*	7834.0	32.7	12.4	45.1	68.2	-23.1	Peak	Vertical
*	8845.5	30.5	14.0	44.5	68.2	-23.7	Peak	Vertical
	9372.5	31.4	14.5	45.9	74.0	-28.1	Peak	Vertical
	11038.5	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 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 (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7961.5	31.0	12.5	43.5	68.2	-24.7	Peak	Horizontal
*	8667.0	31.0	13.6	44.6	68.2	-23.6	Peak	Horizontal
	9321.5	31.2	14.6	45.8	74.0	-28.2	Peak	Horizontal
	11642.0	29.4	19.4	48.8	74.0	-25.2	Peak	Horizontal
*	7800.0	32.0	12.4	44.4	68.2	-23.8	Peak	Vertical
*	8658.5	31.1	13.6	44.7	68.2	-23.5	Peak	Vertical
	9313.0	31.1	14.7	45.8	74.0	-28.2	Peak	Vertical
	11480.5	29.1	19.3	48.4	74.0	-25.6	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: 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:	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	32.5	12.4	44.9	68.2	-23.3	Peak	Horizontal
*	8667.0	31.0	13.6	44.6	68.2	-23.6	Peak	Horizontal
	9355.5	32.1	14.5	46.6	74.0	-27.4	Peak	Horizontal
	11047.0	29.4	18.5	47.9	74.0	-26.1	Peak	Horizontal
*	7851.0	31.2	12.4	43.6	68.2	-24.6	Peak	Vertical
*	8845.5	30.8	14.0	44.8	68.2	-23.4	Peak	Vertical
	9347.0	31.5	14.5	46.0	74.0	-28.0	Peak	Vertical
	11319.0	28.6	18.9	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: 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:	1. Average measurement was no	Average measurement was not performed if peak level lower than average					
	limit.						
	2. Other frequency was 20dB below	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	31.9	12.4	44.3	68.2	-23.9	Peak	Horizontal
*	8845.5	31.8	14.0	45.8	68.2	-22.4	Peak	Horizontal
	9440.5	31.1	14.4	45.5	74.0	-28.5	Peak	Horizontal
	11234.0	29.6	18.8	48.4	74.0	-25.6	Peak	Horizontal
*	7970.0	32.4	12.5	44.9	68.2	-23.3	Peak	Vertical
*	8837.0	31.1	14.0	45.1	68.2	-23.1	Peak	Vertical
	9440.5	30.1	14.4	44.5	74.0	-29.5	Peak	Vertical
	11327.5	29.3	18.9	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: 207 of 209 IC: 109D-FZCWO4A1



Test Mode:	802.11ac-VHT80+80 -	Test Site:	AC1			
	Ant 0 + 1 + 2 + 3					
Test Channel:	122 +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)				
*	7910.5	30.6	12.4	43.0	68.2	-25.2	Peak	Horizontal
*	8760.5	30.3	13.9	44.2	68.2	-24.0	Peak	Horizontal
	9372.5	31.9	14.5	46.4	74.0	-27.6	Peak	Horizontal
	11370.0	29.3	19.0	48.3	74.0	-25.7	Peak	Horizontal
*	7885.0	30.7	12.4	43.1	68.2	-25.1	Peak	Vertical
*	8896.5	31.0	14.0	45.0	68.2	-23.2	Peak	Vertical
	9338.5	31.3	14.6	45.9	74.0	-28.1	Peak	Vertical
	11038.5	29.2	18.5	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



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 (MHz)	Reading Level (dBµV)	Factor (dB)	Measure Level (dBµV/m)	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
*	7885.0	31.2	12.4	43.6	68.2	-24.6	Peak	Horizontal
*	8811.5	30.9	14.0	44.9	68.2	-23.3	Peak	Horizontal
	9313.0	30.8	14.7	45.5	74.0	-28.5	Peak	Horizontal
	10681.5	31.1	17.4	48.5	74.0	-25.5	Peak	Horizontal
*	7842.5	30.9	12.4	43.3	68.2	-24.9	Peak	Vertical
*	8743.5	31.3	13.9	45.2	68.2	-23.0	Peak	Vertical
	9338.5	31.0	14.6	45.6	74.0	-28.4	Peak	Vertical
	10902.5	30.3	18.3	48.6	74.0	-25.4	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 ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

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

てんへ にんべ	
ine End	 _

FCC ID: 2AD8UFZCWO4A1 Page Number: 209 of 209