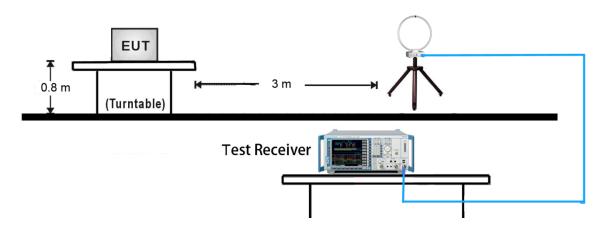


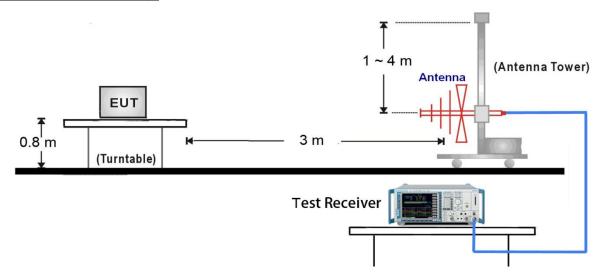


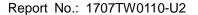
7.8.4.Test Setup

9kHz ~30MHz Test Setup:



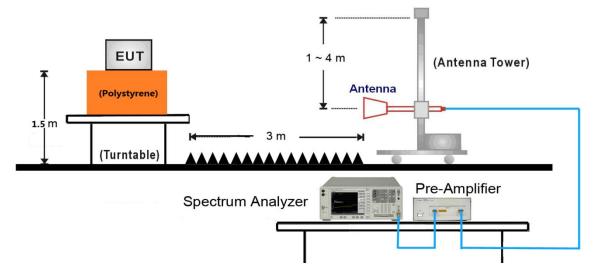
30MHz ~ 1GHz Test Setup:



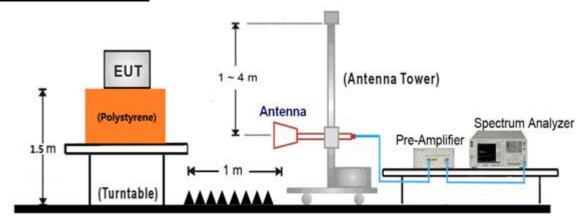




1GHz ~18GHz Test Setup:



18GHz ~40GHz Test Setup:



Page Number: 194 of 1017



7.8.5.Test Result

Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11a - Ant 1	Test Channel:	36				
Remark:	1. Average measurement was no	t performed if peak l	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)				
*	8641.5	32.6	13.5	46.1	68.2	-22.1	Peak	Horizontal
*	9823.0	32.1	15.6	47.7	68.2	-20.5	Peak	Horizontal
	10928.0	31.5	18.4	49.9	74.0	-24.1	Peak	Horizontal
	11599.5	31.4	19.4	50.8	74.0	-23.2	Peak	Horizontal
*	8820.0	31.4	14.0	45.4	68.2	-22.8	Peak	Vertical
*	9967.5	32.6	15.3	47.9	68.2	-20.3	Peak	Vertical
	11106.5	31.3	18.6	49.9	74.0	-24.1	Peak	Vertical
	11608.0	32.7	19.4	52.1	74.0	-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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11a - Ant 1	Test Channel:	44				
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)				
*	8692.5	32.3	13.7	46.0	68.2	-22.2	Peak	Horizontal
*	9857.0	31.9	16.2	48.1	68.2	-20.1	Peak	Horizontal
	11531.5	31.6	19.4	51.0	74.0	-23.0	Peak	Horizontal
	12118.0	32.0	18.9	50.9	74.0	-23.1	Peak	Horizontal
*	8650.0	32.3	13.6	45.9	68.2	-22.3	Peak	Vertical
*	9619.0	33.0	14.4	47.4	68.2	-20.8	Peak	Vertical
	11038.5	31.5	18.5	50.0	74.0	-24.0	Peak	Vertical
	11625.0	31.4	19.4	50.8	74.0	-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: 2AD8UFZCWO2CA1



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 1	Test Channel:	48
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)				
*	8641.5	32.8	13.5	46.3	68.2	-21.9	Peak	Horizontal
*	9848.5	32.1	16.1	48.2	68.2	-20.0	Peak	Horizontal
	10970.5	32.0	18.4	50.4	74.0	-23.6	Peak	Horizontal
	12152.0	31.5	18.9	50.4	74.0	-23.6	Peak	Horizontal
*	8845.5	31.5	14.0	45.5	68.2	-22.7	Peak	Vertical
*	9831.5	32.0	15.9	47.9	68.2	-20.3	Peak	Vertical
	11004.5	32.1	18.5	50.6	74.0	-23.4	Peak	Vertical
	12118.0	31.7	18.9	50.6	74.0	-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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11a - Ant 1	Test Channel:	149				
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)				
*	8616.0	32.3	13.5	45.8	68.2	-22.4	Peak	Horizontal
*	9840.0	31.4	16.0	47.4	68.2	-20.8	Peak	Horizontal
	10945.0	31.4	18.4	49.8	74.0	-24.2	Peak	Horizontal
	11506.0	31.0	19.4	50.4	74.0	-23.6	Peak	Horizontal
*	8913.5	32.7	14.0	46.7	68.2	-21.5	Peak	Vertical
*	9729.5	33.5	14.7	48.2	68.2	-20.0	Peak	Vertical
	10945.0	31.1	18.4	49.5	74.0	-24.5	Peak	Vertical
	11642.0	30.8	19.4	50.2	74.0	-23.8	Peak	Vertical

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



Page Number: 198 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 1	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8854.0	32.0	14.0	46.0	68.2	-22.2	Peak	Horizontal
*	9976.0	32.6	15.3	47.9	68.2	-20.3	Peak	Horizontal
	10953.5	31.0	18.4	49.4	74.0	-24.6	Peak	Horizontal
	11591.0	31.8	19.5	51.3	74.0	-22.7	Peak	Horizontal
*	8616.0	32.4	13.5	45.9	68.2	-22.3	Peak	Vertical
*	9729.5	32.8	14.7	47.5	68.2	-20.7	Peak	Vertical
	10911.0	31.7	18.4	50.1	74.0	-23.9	Peak	Vertical
	11633.5	30.9	19.4	50.3	74.0	-23.7	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11a - Ant 1	Test Channel:	165				
Remark:	1. Average measurement was no	t performed if peak	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)				
*	8616.0	32.0	13.5	45.5	68.2	-22.7	Peak	Horizontal
*	9857.0	32.1	16.2	48.3	68.2	-19.9	Peak	Horizontal
	10868.5	31.0	18.2	49.2	74.0	-24.8	Peak	Horizontal
	11650.5	32.0	19.3	51.3	74.0	-22.7	Peak	Horizontal
*	8548.0	32.6	13.2	45.8	68.2	-22.4	Peak	Vertical
*	9729.5	32.9	14.7	47.6	68.2	-20.6	Peak	Vertical
	11599.5	31.0	19.4	50.4	74.0	-23.6	Peak	Vertical
	11956.5	32.1	18.6	50.7	74.0	-23.3	Peak	Vertical

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

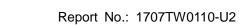




Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	36				
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average				
	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)				
*	8871.0	31.7	14.0	45.7	68.2	-22.5	Peak	Horizontal
*	9848.5	32.2	16.1	48.3	68.2	-19.9	Peak	Horizontal
	10962.0	31.4	18.4	49.8	74.0	-24.2	Peak	Horizontal
	11625.0	31.1	19.4	50.5	74.0	-23.5	Peak	Horizontal
*	8896.5	32.4	14.0	46.4	68.2	-21.8	Peak	Vertical
*	9857.0	31.3	16.2	47.5	68.2	-20.7	Peak	Vertical
	10962.0	31.5	18.4	49.9	74.0	-24.1	Peak	Vertical
	11633.5	31.1	19.4	50.5	74.0	-23.5	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	44				
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)				
*	8854.0	32.3	14.0	46.3	68.2	-21.9	Peak	Horizontal
*	9721.0	33.3	14.7	48.0	68.2	-20.2	Peak	Horizontal
	10962.0	31.4	18.4	49.8	74.0	-24.2	Peak	Horizontal
	11574.0	31.8	19.5	51.3	74.0	-22.7	Peak	Horizontal
*	8845.5	32.1	14.0	46.1	68.2	-22.1	Peak	Vertical
*	9670.0	33.3	14.5	47.8	68.2	-20.4	Peak	Vertical
	11565.5	31.2	19.5	50.7	74.0	-23.3	Peak	Vertical
	12118.0	32.0	18.9	50.9	74.0	-23.1	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	48
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)				
*	8582.0	33.3	13.4	46.7	68.2	-21.5	Peak	Horizontal
*	9865.5	31.9	16.0	47.9	68.2	-20.3	Peak	Horizontal
	11047.0	31.6	18.5	50.1	74.0	-23.9	Peak	Horizontal
	12101.0	31.3	18.9	50.2	74.0	-23.8	Peak	Horizontal
*	8548.0	33.1	13.2	46.3	68.2	-21.9	Peak	Vertical
*	9848.5	31.7	16.1	47.8	68.2	-20.4	Peak	Vertical
	11013.0	31.7	18.5	50.2	74.0	-23.8	Peak	Vertical
	11625.0	31.5	19.4	50.9	74.0	-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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	149				
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)				
*	8667.0	32.6	13.6	46.2	68.2	-22.0	Peak	Horizontal
*	9840.0	31.6	16.0	47.6	68.2	-20.6	Peak	Horizontal
	10885.5	31.6	18.3	49.9	74.0	-24.1	Peak	Horizontal
	11591.0	31.0	19.5	50.5	74.0	-23.5	Peak	Horizontal
*	8692.5	32.1	13.7	45.8	68.2	-22.4	Peak	Vertical
*	9933.5	32.7	15.3	48.0	68.2	-20.2	Peak	Vertical
	10970.5	31.6	18.4	50.0	74.0	-24.0	Peak	Vertical
	11676.0	31.6	19.2	50.8	74.0	-23.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	157				
Remark:	1. Average measurement was no	t performed if peak	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)				
*	8675.5	32.3	13.7	46.0	68.2	-22.2	Peak	Horizontal
*	9916.5	32.7	15.3	48.0	68.2	-20.2	Peak	Horizontal
	11132.0	32.5	18.6	51.1	74.0	-22.9	Peak	Horizontal
	11599.5	31.4	19.4	50.8	74.0	-23.2	Peak	Horizontal
*	8845.5	31.9	14.0	45.9	68.2	-22.3	Peak	Vertical
*	9678.5	33.5	14.6	48.1	68.2	-20.1	Peak	Vertical
	11149.0	31.3	18.7	50.0	74.0	-24.0	Peak	Vertical
	12041.5	32.1	18.8	50.9	74.0	-23.1	Peak	Vertical

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



Page Number: 205 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	165				
Remark:	1. Average measurement was no	t 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)				
*	8633.0	32.6	13.5	46.1	68.2	-22.1	Peak	Horizontal
*	9857.0	31.4	16.2	47.6	68.2	-20.6	Peak	Horizontal
	11633.5	31.8	19.4	51.2	74.0	-22.8	Peak	Horizontal
	12602.5	31.8	18.7	50.5	74.0	-23.5	Peak	Horizontal
*	8871.0	31.8	14.0	45.8	68.2	-22.4	Peak	Vertical
*	9602.0	33.7	14.4	48.1	68.2	-20.1	Peak	Vertical
	10979.0	32.2	18.5	50.7	74.0	-23.3	Peak	Vertical
	11625.0	31.8	19.4	51.2	74.0	-22.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	38				
Remark:	1. Average measurement was no	t performed if peak l	evel 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)				
*	8692.5	32.2	13.7	45.9	68.2	-22.3	Peak	Horizontal
*	9687.0	32.7	14.6	47.3	68.2	-20.9	Peak	Horizontal
	10953.5	32.2	18.4	50.6	74.0	-23.4	Peak	Horizontal
	11599.5	31.2	19.4	50.6	74.0	-23.4	Peak	Horizontal
*	8590.5	32.4	13.4	45.8	68.2	-22.4	Peak	Vertical
*	9857.0	31.9	16.2	48.1	68.2	-20.1	Peak	Vertical
	10936.5	31.7	18.4	50.1	74.0	-23.9	Peak	Vertical
	11625.0	30.7	19.4	50.1	74.0	-23.9	Peak	Vertical

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



AC220 Wi-Fi AP OD directional **Product** Temperature 26°C antenna US Kevin Ker 57 % Test Engineer Relative Humidity AC1 **Test Site Test Date** 2017/08/16 Test Mode: 802.11n-HT40 - Ant 1 Test Channel: 46 Remark: 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.

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8667.0	32.3	13.6	45.9	68.2	-22.3	Peak	Horizontal
*	9857.0	31.5	16.2	47.7	68.2	-20.5	Peak	Horizontal
	10979.0	32.0	18.5	50.5	74.0	-23.5	Peak	Horizontal
	11616.5	32.2	19.4	51.6	74.0	-22.4	Peak	Horizontal
*	8616.0	34.0	13.5	47.5	68.2	-20.7	Peak	Vertical
*	9857.0	31.8	16.2	48.0	68.2	-20.2	Peak	Vertical
	10962.0	32.0	18.4	50.4	74.0	-23.6	Peak	Vertical
	11489.0	31.6	19.3	50.9	74.0	-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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/16					
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	151					
Remark:	Average measurement was no	t performed if peak l	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	ow 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)				
*	8599.0	32.4	13.4	45.8	68.2	-22.4	Peak	Horizontal
*	9670.0	33.3	14.5	47.8	68.2	-20.4	Peak	Horizontal
	10928.0	31.7	18.4	50.1	74.0	-23.9	Peak	Horizontal
	11642.0	31.4	19.4	50.8	74.0	-23.2	Peak	Horizontal
*	8905.0	31.8	14.0	45.8	68.2	-22.4	Peak	Vertical
*	9891.0	32.0	15.5	47.5	68.2	-20.7	Peak	Vertical
	10962.0	31.4	18.4	49.8	74.0	-24.2	Peak	Vertical
	11514.5	31.6	19.4	51.0	74.0	-23.0	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB belin the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8862.5	32.3	14.0	46.3	68.2	-21.9	Peak	Horizontal
*	9891.0	32.5	15.5	48.0	68.2	-20.2	Peak	Horizontal
	10928.0	31.2	18.4	49.6	74.0	-24.4	Peak	Horizontal
	11608.0	31.9	19.4	51.3	74.0	-22.7	Peak	Horizontal
*	8939.0	31.6	14.0	45.6	68.2	-22.6	Peak	Vertical
*	9831.5	32.5	15.9	48.4	68.2	-19.8	Peak	Vertical
	11234.0	31.3	18.8	50.1	74.0	-23.9	Peak	Vertical
	11599.5	31.3	19.4	50.7	74.0	-23.3	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/16					
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	36					
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)				
*	8794.5	31.5	13.9	45.4	68.2	-22.8	Peak	Horizontal
*	9840.0	31.6	16.0	47.6	68.2	-20.6	Peak	Horizontal
	10928.0	31.1	18.4	49.5	74.0	-24.5	Peak	Horizontal
	11642.0	30.9	19.4	50.3	74.0	-23.7	Peak	Horizontal
*	8616.0	32.6	13.5	46.1	68.2	-22.1	Peak	Vertical
*	9636.0	32.3	14.4	46.7	68.2	-21.5	Peak	Vertical
	10962.0	31.6	18.4	50.0	74.0	-24.0	Peak	Vertical
	11582.5	31.0	19.5	50.5	74.0	-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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/16					
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	44					
Remark:	1. Average measurement was no	t performed if peak l	evel 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)				
*	8590.5	32.8	13.4	46.2	68.2	-22.0	Peak	Horizontal
*	9695.5	32.5	14.6	47.1	68.2	-21.1	Peak	Horizontal
	10962.0	31.4	18.4	49.8	74.0	-24.2	Peak	Horizontal
	11599.5	31.0	19.4	50.4	74.0	-23.6	Peak	Horizontal
*	8862.5	32.7	14.0	46.7	68.2	-21.5	Peak	Vertical
*	9874.0	31.8	15.8	47.6	68.2	-20.6	Peak	Vertical
	10962.0	31.4	18.4	49.8	74.0	-24.2	Peak	Vertical
	11506.0	32.9	19.4	52.3	74.0	-21.7	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	48				
Remark:	1. Average measurement was no	t performed if peak l	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)				
*	8633.0	32.4	13.5	45.9	68.2	-22.3	Peak	Horizontal
*	9865.5	32.0	16.0	48.0	68.2	-20.2	Peak	Horizontal
	11038.5	31.4	18.5	49.9	74.0	-24.1	Peak	Horizontal
	12126.5	32.3	18.9	51.2	74.0	-22.8	Peak	Horizontal
*	8701.0	31.7	13.8	45.5	68.2	-22.7	Peak	Vertical
*	9678.5	32.5	14.6	47.1	68.2	-21.1	Peak	Vertical
	11523.0	31.0	19.4	50.4	74.0	-23.6	Peak	Vertical
	12194.5	32.3	18.8	51.1	74.0	-22.9	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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	149				
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)				
*	8641.5	32.3	13.5	45.8	68.2	-22.4	Peak	Horizontal
*	9610.5	32.9	14.4	47.3	68.2	-20.9	Peak	Horizontal
	11548.5	30.8	19.4	50.2	74.0	-23.8	Peak	Horizontal
	11922.5	31.8	18.6	50.4	74.0	-23.6	Peak	Horizontal
*	8599.0	32.3	13.4	45.7	68.2	-22.5	Peak	Vertical
*	9755.0	32.8	14.8	47.6	68.2	-20.6	Peak	Vertical
	11268.0	31.0	18.8	49.8	74.0	-24.2	Peak	Vertical
	12084.0	31.5	18.9	50.4	74.0	-23.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8641.5	32.0	13.5	45.5	68.2	-22.7	Peak	Horizontal
*	9729.5	32.3	14.7	47.0	68.2	-21.2	Peak	Horizontal
	10953.5	31.2	18.4	49.6	74.0	-24.4	Peak	Horizontal
	11625.0	31.9	19.4	51.3	74.0	-22.7	Peak	Horizontal
*	8862.5	31.8	14.0	45.8	68.2	-22.4	Peak	Vertical
*	9789.0	31.9	15.0	46.9	68.2	-21.3	Peak	Vertical
	10970.5	31.0	18.4	49.4	74.0	-24.6	Peak	Vertical
	11540.0	31.3	19.4	50.7	74.0	-23.3	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/16					
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	165					
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)				
*	8871.0	31.8	14.0	45.8	68.2	-22.4	Peak	Horizontal
*	9899.5	32.4	15.4	47.8	68.2	-20.4	Peak	Horizontal
	10996.0	30.8	18.5	49.3	74.0	-24.7	Peak	Horizontal
	11650.5	32.9	19.3	52.2	74.0	-21.8	Peak	Horizontal
*	8641.5	33.2	13.5	46.7	68.2	-21.5	Peak	Vertical
*	9823.0	32.0	15.6	47.6	68.2	-20.6	Peak	Vertical
	10936.5	31.1	18.4	49.5	74.0	-24.5	Peak	Vertical
	11574.0	31.4	19.5	50.9	74.0	-23.1	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	38
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)				
*	8667.0	32.4	13.6	46.0	68.2	-22.2	Peak	Horizontal
*	9712.5	32.5	14.7	47.2	68.2	-21.0	Peak	Horizontal
	11064.0	30.6	18.5	49.1	74.0	-24.9	Peak	Horizontal
	11506.0	31.1	19.4	50.5	74.0	-23.5	Peak	Horizontal
*	8616.0	32.5	13.5	46.0	68.2	-22.2	Peak	Vertical
*	9661.5	33.4	14.5	47.9	68.2	-20.3	Peak	Vertical
	10868.5	31.3	18.2	49.5	74.0	-24.5	Peak	Vertical
	11506.0	30.9	19.4	50.3	74.0	-23.7	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)

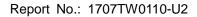


Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	46
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8633.0	32.2	13.5	45.7	68.2	-22.5	Peak	Horizontal
*	9899.5	32.6	15.4	48.0	68.2	-20.2	Peak	Horizontal
	10945.0	31.2	18.4	49.6	74.0	-24.4	Peak	Horizontal
	11574.0	30.7	19.5	50.2	74.0	-23.8	Peak	Horizontal
*	8607.5	33.5	13.5	47.0	68.2	-21.2	Peak	Vertical
*	9670.0	33.2	14.5	47.7	68.2	-20.5	Peak	Vertical
	11353.0	32.5	19.0	51.5	74.0	-22.5	Peak	Vertical
	12101.0	31.9	18.9	50.8	74.0	-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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	151				
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)				
*	8616.0	32.5	13.5	46.0	68.2	-22.2	Peak	Horizontal
*	9670.0	32.7	14.5	47.2	68.2	-21.0	Peak	Horizontal
	11633.5	31.1	19.4	50.5	74.0	-23.5	Peak	Horizontal
	12517.5	32.0	18.6	50.6	74.0	-23.4	Peak	Horizontal
*	8684.0	31.8	13.7	45.5	68.2	-22.7	Peak	Vertical
*	9857.0	31.4	16.2	47.6	68.2	-20.6	Peak	Vertical
	10970.5	31.1	18.4	49.5	74.0	-24.5	Peak	Vertical
	11548.5	31.2	19.4	50.6	74.0	-23.4	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	159
Remark:	Average measurement was no limit.	t performed if peak l	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)				
*	8607.5	33.2	13.5	46.7	68.2	-21.5	Peak	Horizontal
*	9857.0	32.2	16.2	48.4	68.2	-19.8	Peak	Horizontal
	10970.5	31.0	18.4	49.4	74.0	-24.6	Peak	Horizontal
	11531.5	30.8	19.4	50.2	74.0	-23.8	Peak	Horizontal
*	8845.5	31.8	14.0	45.8	68.2	-22.4	Peak	Vertical
*	9746.5	32.9	14.8	47.7	68.2	-20.5	Peak	Vertical
	11081.0	31.1	18.6	49.7	74.0	-24.3	Peak	Vertical
	11548.5	31.1	19.4	50.5	74.0	-23.5	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11ac-VHT80 - Ant 1	Test Channel:	42				
Remark:	1. Average measurement was no	t performed if peak	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)				
*	8624.5	32.7	13.5	46.2	68.2	-22.0	Peak	Horizontal
*	9865.5	32.0	16.0	48.0	68.2	-20.2	Peak	Horizontal
	11310.5	30.5	18.9	49.4	74.0	-24.6	Peak	Horizontal
	11616.5	32.2	19.4	51.6	74.0	-22.4	Peak	Horizontal
*	8573.5	33.3	13.3	46.6	68.2	-21.6	Peak	Vertical
*	9619.0	33.4	14.4	47.8	68.2	-20.4	Peak	Vertical
	11421.0	31.0	19.1	50.1	74.0	-23.9	Peak	Vertical
	12041.5	31.4	18.8	50.2	74.0	-23.8	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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 1	Test Channel:	155
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8633.0	33.6	13.5	47.1	68.2	-21.1	Peak	Horizontal
*	9644.5	33.5	14.4	47.9	68.2	-20.3	Peak	Horizontal
	11361.5	31.5	19.0	50.5	74.0	-23.5	Peak	Horizontal
	12067.0	31.2	18.8	50.0	74.0	-24.0	Peak	Horizontal
*	8633.0	32.4	13.5	45.9	68.2	-22.3	Peak	Vertical
*	9857.0	31.4	16.2	47.6	68.2	-20.6	Peak	Vertical
	10928.0	31.4	18.4	49.8	74.0	-24.2	Peak	Vertical
	11582.5	31.3	19.5	50.8	74.0	-23.2	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11a - Ant 2	Test Channel:	36				
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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8624.5	33.6	13.5	47.1	68.2	-21.1	Peak	Horizontal
*	9882.5	32.3	15.6	47.9	68.2	-20.3	Peak	Horizontal
	10894.0	31.6	18.3	49.9	74.0	-24.1	Peak	Horizontal
	11642.0	31.6	19.4	51.0	74.0	-23.0	Peak	Horizontal
*	8709.5	32.0	13.8	45.8	68.2	-22.4	Peak	Vertical
*	9712.5	32.9	14.7	47.6	68.2	-20.6	Peak	Vertical
	10919.5	31.9	18.4	50.3	74.0	-23.7	Peak	Vertical
	11599.5	31.5	19.4	50.9	74.0	-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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/16			
Test Mode:	802.11a - Ant 2	Test Channel:	44			
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)				
*	8565.0	32.9	13.3	46.2	68.2	-22.0	Peak	Horizontal
*	9627.5	32.9	14.4	47.3	68.2	-20.9	Peak	Horizontal
	10894.0	31.2	18.3	49.5	74.0	-24.5	Peak	Horizontal
	11523.0	31.1	19.4	50.5	74.0	-23.5	Peak	Horizontal
*	8582.0	32.9	13.4	46.3	68.2	-21.9	Peak	Vertical
*	9865.5	31.7	16.0	47.7	68.2	-20.5	Peak	Vertical
	10800.5	31.9	17.9	49.8	74.0	-24.2	Peak	Vertical
	11557.0	31.8	19.5	51.3	74.0	-22.7	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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11a - Ant 2	Test Channel:	48
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)				
*	8607.5	32.7	13.5	46.2	68.2	-22.0	Peak	Horizontal
*	9687.0	33.1	14.6	47.7	68.2	-20.5	Peak	Horizontal
	11021.5	31.7	18.5	50.2	74.0	-23.8	Peak	Horizontal
	11582.5	31.4	19.5	50.9	74.0	-23.1	Peak	Horizontal
*	8607.5	32.8	13.5	46.3	68.2	-21.9	Peak	Vertical
*	9857.0	31.8	16.2	48.0	68.2	-20.2	Peak	Vertical
	10945.0	31.4	18.4	49.8	74.0	-24.2	Peak	Vertical
	11625.0	31.8	19.4	51.2	74.0	-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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11a - Ant 2	Test Channel:	149				
Remark:	Average measurement was not performed if peak level lower than						
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not sho						
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8794.5	31.7	13.9	45.6	68.2	-22.6	Peak	Horizontal
*	9627.5	32.6	14.4	47.0	68.2	-21.2	Peak	Horizontal
	10868.5	31.1	18.2	49.3	74.0	-24.7	Peak	Horizontal
	11489.0	33.0	19.3	52.3	74.0	-21.7	Peak	Horizontal
*	8667.0	31.8	13.6	45.4	68.2	-22.8	Peak	Vertical
*	9831.5	32.8	15.9	48.7	68.2	-19.5	Peak	Vertical
	10953.5	31.3	18.4	49.7	74.0	-24.3	Peak	Vertical
	11616.5	31.0	19.4	50.4	74.0	-23.6	Peak	Vertical

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

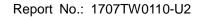




Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11a - Ant 2	Test Channel:	157				
Remark:	Average measurement was not performed if peak level lower than average.						
	limit.						
	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)				
*	8743.5	30.5	13.9	44.4	68.2	-23.8	Peak	Horizontal
*	9653.0	33.4	14.5	47.9	68.2	-20.3	Peak	Horizontal
	10911.0	31.2	18.4	49.6	74.0	-24.4	Peak	Horizontal
	11567.8	21.8	19.5	41.3	54.0	-12.7	Average	Horizontal
	11574.0	35.2	19.5	54.7	74.0	-19.3	Peak	Horizontal
*	8633.0	32.3	13.5	45.8	68.2	-22.4	Peak	Vertical
*	9712.5	32.8	14.7	47.5	68.2	-20.7	Peak	Vertical
	10834.5	31.7	18.1	49.8	74.0	-24.2	Peak	Vertical
	11565.5	30.8	19.5	50.3	74.0	-23.7	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11a - Ant 2	Test Channel:	165				
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)				
*	8633.0	31.9	13.5	45.4	68.2	-22.8	Peak	Horizontal
*	9780.5	32.3	14.9	47.2	68.2	-21.0	Peak	Horizontal
	10639.0	31.3	17.4	48.7	74.0	-25.3	Peak	Horizontal
	11650.0	31.2	19.3	50.5	54.0	-3.5	Average	Horizontal
	11659.0	44.2	19.3	63.5	74.0	-10.5	Peak	Horizontal
*	8590.5	32.8	13.4	46.2	68.2	-22.0	Peak	Vertical
*	9772.0	32.2	14.9	47.1	68.0	-20.9	Peak	Vertical
	10987.5	31.7	18.5	50.2	74.0	-23.8	Peak	Vertical
	11650.0	24.2	19.3	43.5	54.0	-10.5	Average	Vertical
	11650.5	35.7	19.3	55.0	74.0	-19.0	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	36				
Remark:	1. Average measurement was no	t performed if peak l	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)				
*	8743.5	31.4	13.9	45.3	68.2	-22.9	Peak	Horizontal
*	9891.0	32.5	15.5	48.0	68.2	-20.2	Peak	Horizontal
	10962.0	31.5	18.4	49.9	74.0	-24.1	Peak	Horizontal
	11574.0	31.4	19.5	50.9	74.0	-23.1	Peak	Horizontal
*	8837.0	31.8	14.0	45.8	68.2	-22.4	Peak	Vertical
*	9755.0	33.4	14.8	48.2	68.2	-20.0	Peak	Vertical
	10885.5	31.9	18.3	50.2	74.0	-23.8	Peak	Vertical
	11625.0	31.1	19.4	50.5	74.0	-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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	44				
Remark:	Average measurement was no	t performed if peak	evel 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)				
*	8641.5	31.9	13.5	45.4	68.2	-22.8	Peak	Horizontal
*	9848.5	32.2	16.1	48.3	68.2	-19.9	Peak	Horizontal
	11013.0	31.0	18.5	49.5	74.0	-24.5	Peak	Horizontal
	12033.0	31.7	18.8	50.5	74.0	-23.5	Peak	Horizontal
*	8684.0	32.2	13.7	45.9	68.2	-22.3	Peak	Vertical
*	9721.0	32.8	14.7	47.5	68.2	-20.7	Peak	Vertical
	10613.5	32.4	17.3	49.7	74.0	-24.3	Peak	Vertical
	11514.5	31.1	19.4	50.5	74.0	-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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	48				
Remark:	Average measurement was no	t performed if peak	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)				
*	8701.0	31.7	13.8	45.5	68.2	-22.7	Peak	Horizontal
*	9848.5	31.4	16.1	47.5	68.2	-20.7	Peak	Horizontal
	10962.0	32.3	18.4	50.7	74.0	-23.3	Peak	Horizontal
	11650.5	32.6	19.3	51.9	74.0	-22.1	Peak	Horizontal
*	8531.0	32.7	13.1	45.8	68.2	-22.4	Peak	Vertical
*	9721.0	33.0	14.7	47.7	68.2	-20.5	Peak	Vertical
	10945.0	31.1	18.4	49.5	74.0	-24.5	Peak	Vertical
	11548.5	30.7	19.4	50.1	74.0	-23.9	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8624.5	32.4	13.5	45.9	68.2	-22.3	Peak	Horizontal
*	9687.0	33.6	14.6	48.2	68.2	-20.0	Peak	Horizontal
	10953.5	31.7	18.4	50.1	74.0	-23.9	Peak	Horizontal
	11480.5	32.4	19.3	51.7	74.0	-22.3	Peak	Horizontal
*	8616.0	32.1	13.5	45.6	68.2	-22.6	Peak	Vertical
*	9857.0	32.0	16.2	48.2	68.2	-20.0	Peak	Vertical
	10919.5	31.3	18.4	49.7	74.0	-24.3	Peak	Vertical
	11650.5	31.2	19.3	50.5	74.0	-23.5	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8616.0	32.4	13.5	45.9	68.2	-22.3	Peak	Horizontal
*	9840.0	31.5	16.0	47.5	68.2	-20.7	Peak	Horizontal
	10928.0	30.9	18.4	49.3	74.0	-24.7	Peak	Horizontal
	11567.4	21.5	19.5	41.0	54.0	-13.0	Average	Horizontal
	11574.0	35.4	19.5	54.9	74.0	-19.1	Peak	Horizontal
*	8565.0	32.8	13.3	46.1	68.2	-22.1	Peak	Vertical
*	9738.0	34.0	14.8	48.8	68.2	-19.4	Peak	Vertical
	11106.5	31.7	18.6	50.3	74.0	-23.7	Peak	Vertical
	11565.5	31.5	19.5	51.0	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 232 of 1017





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	165
Remark:	Average measurement was no limit.	t performed if peak l	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)				
*	8641.5	32.8	13.5	46.3	68.2	-21.9	Peak	Horizontal
*	9738.0	33.9	14.8	48.7	68.2	-19.5	Peak	Horizontal
	11021.5	31.3	18.5	49.8	74.0	-24.2	Peak	Horizontal
	11649.8	29.6	19.3	48.9	54.0	-5.1	Average	Horizontal
	11650.5	44.0	19.3	63.3	74.0	-10.7	Peak	Horizontal
*	8879.5	31.8	14.0	45.8	68.2	-22.4	Peak	Vertical
*	9848.5	31.8	16.1	47.9	68.2	-20.3	Peak	Vertical
	10919.5	31.6	18.4	50.0	74.0	-24.0	Peak	Vertical
	11650.5	34.1	19.3	53.4	74.0	-20.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	38
Remark:	Average measurement was no limit.	t performed if peak l	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)				
*	8701.0	33.2	13.8	47.0	68.2	-21.2	Peak	Horizontal
*	9678.5	33.0	14.6	47.6	68.2	-20.6	Peak	Horizontal
	11285.0	30.3	18.8	49.1	74.0	-24.9	Peak	Horizontal
	12050.0	32.0	18.8	50.8	74.0	-23.2	Peak	Horizontal
*	8675.5	32.2	13.7	45.9	68.2	-22.3	Peak	Vertical
*	9619.0	32.9	14.4	47.3	68.2	-20.9	Peak	Vertical
	10945.0	31.4	18.4	49.8	74.0	-24.2	Peak	Vertical
	11455.0	31.6	19.2	50.8	74.0	-23.2	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/16			
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	46			
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)				
*	8735.0	31.4	13.9	45.3	68.2	-22.9	Peak	Horizontal
*	9661.5	31.9	14.5	46.4	68.2	-21.8	Peak	Horizontal
	11072.5	31.3	18.6	49.9	74.0	-24.1	Peak	Horizontal
	12143.5	31.7	18.9	50.6	74.0	-23.4	Peak	Horizontal
*	8633.0	32.6	13.5	46.1	68.2	-22.1	Peak	Vertical
*	9729.5	33.3	14.7	48.0	68.2	-20.2	Peak	Vertical
	10945.0	31.6	18.4	50.0	74.0	-24.0	Peak	Vertical
	11650.5	32.3	19.3	51.6	74.0	-22.4	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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/16			
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	151			
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)				
*	8675.5	31.8	13.7	45.5	68.2	-22.7	Peak	Horizontal
*	9840.0	32.1	16.0	48.1	68.2	-20.1	Peak	Horizontal
	10902.5	31.8	18.3	50.1	74.0	-23.9	Peak	Horizontal
	11523.0	32.0	19.4	51.4	74.0	-22.6	Peak	Horizontal
*	8616.0	32.3	13.5	45.8	68.2	-22.4	Peak	Vertical
*	9755.0	32.7	14.8	47.5	68.2	-20.7	Peak	Vertical
	11625.0	31.4	19.4	50.8	74.0	-23.2	Peak	Vertical
	12594.0	32.5	18.7	51.2	74.0	-22.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8888.0	32.3	14.0	46.3	68.2	-21.9	Peak	Horizontal
*	9831.5	32.2	15.9	48.1	68.2	-20.1	Peak	Horizontal
	10919.5	31.3	18.4	49.7	74.0	-24.3	Peak	Horizontal
	11591.0	33.0	19.5	52.5	74.0	-21.5	Peak	Horizontal
*	8641.5	33.5	13.5	47.0	68.2	-21.2	Peak	Vertical
*	9848.5	31.8	16.1	47.9	68.2	-20.3	Peak	Vertical
	10962.0	32.5	18.4	50.9	74.0	-23.1	Peak	Vertical
	11582.5	31.8	19.5	51.3	74.0	-22.7	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	36
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8981.5	31.1	14.1	45.2	68.2	-23.0	Peak	Horizontal
*	9610.5	32.7	14.4	47.1	68.2	-21.1	Peak	Horizontal
	10962.0	31.4	18.4	49.8	74.0	-24.2	Peak	Horizontal
	11616.5	31.7	19.4	51.1	74.0	-22.9	Peak	Horizontal
*	8616.0	31.1	13.5	44.6	68.2	-23.6	Peak	Vertical
*	9746.5	32.3	14.8	47.1	68.2	-21.1	Peak	Vertical
	11013.0	31.5	18.5	50.0	74.0	-24.0	Peak	Vertical
	11565.5	31.4	19.5	50.9	74.0	-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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	44				
Remark:	1. Average measurement was no	t performed if peak l	level lower than average				
	limit.						
	2. Other frequency was 20dB bel	. 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)				
*	8675.5	32.6	13.7	46.3	68.2	-21.9	Peak	Horizontal
*	9831.5	31.6	15.9	47.5	68.2	-20.7	Peak	Horizontal
	10936.5	31.2	18.4	49.6	74.0	-24.4	Peak	Horizontal
	11642.0	31.5	19.4	50.9	74.0	-23.1	Peak	Horizontal
*	8582.0	32.6	13.4	46.0	68.2	-22.2	Peak	Vertical
*	9746.5	33.1	14.8	47.9	68.2	-20.3	Peak	Vertical
	10953.5	31.9	18.4	50.3	74.0	-23.7	Peak	Vertical
	11625.0	30.9	19.4	50.3	74.0	-23.7	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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/16			
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	48			
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)				
*	8633.0	32.5	13.5	46.0	68.2	-22.2	Peak	Horizontal
*	9712.5	33.1	14.7	47.8	68.2	-20.4	Peak	Horizontal
	11523.0	31.8	19.4	51.2	74.0	-22.8	Peak	Horizontal
	12109.5	31.5	18.9	50.4	74.0	-23.6	Peak	Horizontal
*	8641.5	32.3	13.5	45.8	68.2	-22.4	Peak	Vertical
*	9755.0	32.9	14.8	47.7	68.2	-20.5	Peak	Vertical
	10911.0	31.9	18.4	50.3	74.0	-23.7	Peak	Vertical
	11599.5	30.7	19.4	50.1	74.0	-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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/16					
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	149					
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8854.0	32.3	14.0	46.3	68.2	-21.9	Peak	Horizontal
*	9840.0	32.7	16.0	48.7	68.2	-19.5	Peak	Horizontal
	10928.0	31.0	18.4	49.4	74.0	-24.6	Peak	Horizontal
	11497.5	33.7	19.3	53.0	74.0	-21.0	Peak	Horizontal
*	8871.0	32.7	14.0	46.7	68.2	-21.5	Peak	Vertical
*	9738.0	33.1	14.8	47.9	68.2	-20.3	Peak	Vertical
	10970.5	31.3	18.4	49.7	74.0	-24.3	Peak	Vertical
	11463.5	31.5	19.3	50.8	74.0	-23.2	Peak	Vertical

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

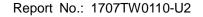




Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	157				
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average				
	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)				
*	8871.0	30.8	14.0	44.8	68.2	-23.4	Peak	Horizontal
*	9721.0	33.2	14.7	47.9	68.2	-20.3	Peak	Horizontal
	11004.5	32.3	18.5	50.8	74.0	-23.2	Peak	Horizontal
	11569.9	23.8	19.5	43.3	54.0	-10.7	Average	Horizontal
	11574.0	34.7	19.5	54.2	74.0	-19.8	Peak	Horizontal
*	8709.5	32.3	13.8	46.1	68.2	-22.1	Peak	Vertical
*	9857.0	31.4	16.2	47.6	68.2	-20.6	Peak	Vertical
	10962.0	31.5	18.4	49.9	74.0	-24.1	Peak	Vertical
	11633.5	31.8	19.4	51.2	74.0	-22.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8650.0	32.9	13.6	46.5	68.2	-21.7	Peak	Horizontal
*	9848.5	31.9	16.1	48.0	68.2	-20.2	Peak	Horizontal
	10970.5	31.6	18.4	50.0	74.0	-24.0	Peak	Horizontal
	11649.3	30.8	19.3	50.1	54.0	-3.9	Average	Horizontal
	11650.5	43.6	19.3	62.9	74.0	-11.1	Peak	Horizontal
*	8862.5	32.1	14.0	46.1	68.2	-22.1	Peak	Vertical
*	9636.0	33.6	14.4	48.0	68.2	-20.2	Peak	Vertical
	10928.0	31.7	18.4	50.1	74.0	-23.9	Peak	Vertical
	11650.5	37.2	19.3	56.5	74.0	-17.5	Peak	Vertical
	11655.1	24.3	19.3	43.6	54.0	-10.4	Average	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8633.0	32.5	13.5	46.0	68.2	-22.2	Peak	Horizontal
*	9721.0	33.1	14.7	47.8	68.2	-20.4	Peak	Horizontal
	10962.0	31.5	18.4	49.9	74.0	-24.1	Peak	Horizontal
	11531.5	31.6	19.4	51.0	74.0	-23.0	Peak	Horizontal
*	8616.0	32.6	13.5	46.1	68.2	-22.1	Peak	Vertical
*	9857.0	31.8	16.2	48.0	68.2	-20.2	Peak	Vertical
	11293.5	30.7	18.9	49.6	74.0	-24.4	Peak	Vertical
	11599.5	31.8	19.4	51.2	74.0	-22.8	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	46				
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)				
*	8582.0	32.8	13.4	46.2	68.2	-22.0	Peak	Horizontal
*	9729.5	33.0	14.7	47.7	68.2	-20.5	Peak	Horizontal
	10860.0	31.9	18.2	50.1	74.0	-23.9	Peak	Horizontal
	11523.0	31.1	19.4	50.5	74.0	-23.5	Peak	Horizontal
*	8862.5	32.4	14.0	46.4	68.2	-21.8	Peak	Vertical
*	9874.0	32.4	15.8	48.2	68.2	-20.0	Peak	Vertical
	10953.5	31.5	18.4	49.9	74.0	-24.1	Peak	Vertical
	11616.5	31.3	19.4	50.7	74.0	-23.3	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 ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	151				
Remark:	1. Average measurement was no	t performed if peak l	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)				
*	8633.0	32.3	13.5	45.8	68.2	-22.4	Peak	Horizontal
*	9772.0	31.4	14.9	46.3	68.2	-21.9	Peak	Horizontal
	10911.0	32.6	18.4	51.0	74.0	-23.0	Peak	Horizontal
	11506.0	32.3	19.4	51.7	74.0	-22.3	Peak	Horizontal
*	8879.5	32.4	14.0	46.4	68.2	-21.8	Peak	Vertical
*	9695.5	32.4	14.6	47.0	68.2	-21.2	Peak	Vertical
	11353.0	31.5	19.0	50.5	74.0	-23.5	Peak	Vertical
	12109.5	31.3	18.9	50.2	74.0	-23.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8845.5	31.6	14.0	45.6	68.2	-22.6	Peak	Horizontal
*	9729.5	32.3	14.7	47.0	68.2	-21.2	Peak	Horizontal
	10919.5	30.9	18.4	49.3	74.0	-24.7	Peak	Horizontal
	11608.0	34.1	19.4	53.5	74.0	-20.5	Peak	Horizontal
*	8922.0	32.2	14.0	46.2	68.2	-22.0	Peak	Vertical
*	9848.5	31.5	16.1	47.6	68.2	-20.6	Peak	Vertical
	10962.0	31.7	18.4	50.1	74.0	-23.9	Peak	Vertical
	11489.0	31.5	19.3	50.8	74.0	-23.2	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11ac-VHT80 - Ant 2	Test Channel:	42				
Remark:	1. Average measurement was no	t performed if peak l	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)				
*	8786.0	31.6	13.9	45.5	68.2	-22.7	Peak	Horizontal
*	9729.5	33.1	14.7	47.8	68.2	-20.4	Peak	Horizontal
	11072.5	31.1	18.6	49.7	74.0	-24.3	Peak	Horizontal
	12033.0	31.8	18.8	50.6	74.0	-23.4	Peak	Horizontal
*	8837.0	31.8	14.0	45.8	68.2	-22.4	Peak	Vertical
*	9721.0	32.5	14.7	47.2	68.2	-21.0	Peak	Vertical
	10783.5	30.0	17.8	47.8	74.0	-26.2	Peak	Vertical
	11659.0	31.5	19.3	50.8	74.0	-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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 2	Test Channel:	155
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8641.5	32.4	13.5	45.9	68.2	-22.3	Peak	Horizontal
*	9848.5	31.6	16.1	47.7	68.2	-20.5	Peak	Horizontal
	11098.0	31.7	18.6	50.3	74.0	-23.7	Peak	Horizontal
	11599.5	31.9	19.4	51.3	74.0	-22.7	Peak	Horizontal
*	8862.5	31.9	14.0	45.9	68.2	-22.3	Peak	Vertical
*	9687.0	32.8	14.6	47.4	68.2	-20.8	Peak	Vertical
	10877.0	31.0	18.2	49.2	74.0	-24.8	Peak	Vertical
	11650.5	31.4	19.3	50.7	74.0	-23.3	Peak	Vertical

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



in the report.

AC220 Wi-Fi AP OD directional **Product** Temperature 26°C antenna US Kevin Ker 57 % Test Engineer Relative Humidity AC1 **Test Site Test Date** 2017/08/16 Test Mode: Test Channel: 802.11a - Ant 1 + 2 (CDD Mode) 36 Remark: 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

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8573.5	32.5	13.3	45.8	68.2	-22.4	Peak	Horizontal
*	9840.0	31.3	16.0	47.3	68.2	-20.9	Peak	Horizontal
	11098.0	31.7	18.6	50.3	74.0	-23.7	Peak	Horizontal
	11599.5	31.3	19.4	50.7	74.0	-23.3	Peak	Horizontal
*	8854.0	31.4	14.0	45.4	68.2	-22.8	Peak	Vertical
*	9678.5	32.6	14.6	47.2	68.2	-21.0	Peak	Vertical
	10775.0	32.5	17.8	50.3	74.0	-23.7	Peak	Vertical
	11565.5	32.0	19.5	51.5	74.0	-22.5	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: 2AD8UFZCWO2CA1

Report No.: 1707TW0110-U2



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/16				
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	44				
Remark:	1. Average measurement was no	t 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)				
*	8667.0	33.3	13.6	46.9	68.2	-21.3	Peak	Horizontal
*	9763.5	32.9	14.9	47.8	68.2	-20.4	Peak	Horizontal
	10987.5	31.4	18.5	49.9	74.0	-24.1	Peak	Horizontal
	11625.0	32.6	19.4	52.0	74.0	-22.0	Peak	Horizontal
*	8616.0	32.5	13.5	46.0	68.2	-22.2	Peak	Vertical
*	9857.0	31.6	16.2	47.8	68.2	-20.4	Peak	Vertical
	10953.5	31.1	18.4	49.5	74.0	-24.5	Peak	Vertical
	11531.5	31.9	19.4	51.3	74.0	-22.7	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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/16					
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	48					
Remark:	Average measurement was no	t performed if peak l	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8633.0	32.3	13.5	45.8	68.2	-22.4	Peak	Horizontal
*	9908.0	32.6	15.3	47.9	68.2	-20.3	Peak	Horizontal
	11582.5	31.7	19.5	51.2	74.0	-22.8	Peak	Horizontal
	12143.5	31.5	18.9	50.4	74.0	-23.6	Peak	Horizontal
*	8641.5	32.0	13.5	45.5	68.2	-22.7	Peak	Vertical
*	9908.0	32.2	15.3	47.5	68.2	-20.7	Peak	Vertical
	10800.5	32.2	17.9	50.1	74.0	-23.9	Peak	Vertical
	12101.0	31.3	18.9	50.2	74.0	-23.8	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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/16					
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	149					
Remark:	1. Average measurement was no	t performed if peak	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)				
*	8820.0	32.1	14.0	46.1	68.2	-22.1	Peak	Horizontal
*	9772.0	32.1	14.9	47.0	68.2	-21.2	Peak	Horizontal
	11489.0	32.3	19.3	51.6	74.0	-22.4	Peak	Horizontal
	12152.0	31.8	18.9	50.7	74.0	-23.3	Peak	Horizontal
*	8590.5	32.7	13.4	46.1	68.2	-22.1	Peak	Vertical
*	9746.5	32.5	14.8	47.3	68.2	-20.9	Peak	Vertical
	11523.0	31.5	19.4	50.9	74.0	-23.1	Peak	Vertical
	12058.5	32.8	18.8	51.6	74.0	-22.4	Peak	Vertical

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

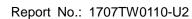




Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/16					
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	157					
Remark:	1. Average measurement was no	t performed if peak	evel lower than 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)				
*	8811.5	31.8	14.0	45.8	68.2	-22.4	Peak	Horizontal
*	9891.0	32.9	15.5	48.4	68.2	-19.8	Peak	Horizontal
	10928.0	30.3	18.4	48.7	74.0	-25.3	Peak	Horizontal
	11570.0	24.9	19.5	44.4	54.0	-9.6	Average	Horizontal
	11574.0	34.8	19.5	54.3	74.0	-19.7	Peak	Horizontal
*	8590.5	32.5	13.4	45.9	68.2	-22.3	Peak	Vertical
*	9746.5	32.2	14.8	47.0	68.2	-21.2	Peak	Vertical
	10979.0	31.8	18.5	50.3	74.0	-23.7	Peak	Vertical
	12126.5	31.3	18.9	50.2	74.0	-23.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/16					
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	165					
Remark:	1. Average measurement was no	t performed if peak	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)				
*	8692.5	30.5	13.7	44.2	68.2	-24.0	Peak	Horizontal
*	9763.5	32.3	14.9	47.2	68.2	-21.0	Peak	Horizontal
	10605.0	32.0	17.3	49.3	74.0	-24.7	Peak	Horizontal
	11649.9	30.3	19.3	49.6	54.0	-4.4	Average	Horizontal
	11650.5	42.1	19.3	61.4	74.0	-12.6	Peak	Horizontal
*	8692.5	30.8	13.7	44.5	68.2	-23.7	Peak	Vertical
*	9848.5	31.2	16.1	47.3	68.2	-20.9	Peak	Vertical
	10885.5	31.3	18.3	49.6	74.0	-24.4	Peak	Vertical
	11650.5	33.7	19.3	53.0	74.0	-21.0	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: 2AD8UFZCWO2CA1 Page Number: 255 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	36
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)				
*	8667.0	32.9	13.6	46.5	68.2	-21.7	Peak	Horizontal
*	9780.5	32.1	14.9	47.0	68.2	-21.2	Peak	Horizontal
	11047.0	30.7	18.5	49.2	74.0	-24.8	Peak	Horizontal
	11591.0	31.6	19.5	51.1	74.0	-22.9	Peak	Horizontal
*	8871.0	31.8	14.0	45.8	68.2	-22.4	Peak	Vertical
*	9865.5	32.4	16.0	48.4	68.2	-19.8	Peak	Vertical
	10996.0	31.8	18.5	50.3	74.0	-23.7	Peak	Vertical
	11540.0	31.9	19.4	51.3	74.0	-22.7	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: 2AD8UFZCWO2CA1



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	44
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)				
*	8837.0	31.9	14.0	45.9	68.2	-22.3	Peak	Horizontal
*	9848.5	30.8	16.1	46.9	68.2	-21.3	Peak	Horizontal
	11310.5	31.6	18.9	50.5	74.0	-23.5	Peak	Horizontal
	12126.5	31.0	18.9	49.9	74.0	-24.1	Peak	Horizontal
*	8922.0	31.7	14.0	45.7	68.2	-22.5	Peak	Vertical
*	9865.5	31.5	16.0	47.5	68.2	-20.7	Peak	Vertical
	10962.0	30.9	18.4	49.3	74.0	-24.7	Peak	Vertical
	11506.0	32.0	19.4	51.4	74.0	-22.6	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: 2AD8UFZCWO2CA1



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	48
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)				
*	8641.5	30.9	13.5	44.4	68.2	-23.8	Peak	Horizontal
*	9704.0	32.2	14.6	46.8	68.2	-21.4	Peak	Horizontal
	11089.5	31.5	18.6	50.1	74.0	-23.9	Peak	Horizontal
	11625.0	31.3	19.4	50.7	74.0	-23.3	Peak	Horizontal
*	8692.5	31.6	13.7	45.3	68.2	-22.9	Peak	Vertical
*	9738.0	32.3	14.8	47.1	68.2	-21.1	Peak	Vertical
	10979.0	31.2	18.5	49.7	74.0	-24.3	Peak	Vertical
	11633.5	31.2	19.4	50.6	74.0	-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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8854.0	32.1	14.0	46.1	68.2	-22.1	Peak	Horizontal
*	9899.5	32.4	15.4	47.8	68.2	-20.4	Peak	Horizontal
	10911.0	31.6	18.4	50.0	74.0	-24.0	Peak	Horizontal
	11497.5	32.6	19.3	51.9	74.0	-22.1	Peak	Horizontal
*	8607.5	31.9	13.5	45.4	68.2	-22.8	Peak	Vertical
*	9840.0	31.3	16.0	47.3	68.2	-20.9	Peak	Vertical
	10928.0	31.4	18.4	49.8	74.0	-24.2	Peak	Vertical
	12441.0	32.3	18.4	50.7	74.0	-23.3	Peak	Vertical

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





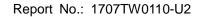
Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8879.5	31.8	14.0	45.8	68.2	-22.4	Peak	Horizontal
*	9721.0	32.5	14.7	47.2	68.2	-21.0	Peak	Horizontal
	10945.0	31.2	18.4	49.6	74.0	-24.4	Peak	Horizontal
	11569.3	23.3	19.5	42.8	54.0	-11.2	Average	Horizontal
	11574.0	35.4	19.5	54.9	74.0	-19.1	Peak	Horizontal
*	8811.5	31.6	14.0	45.6	68.2	-22.6	Peak	Vertical
*	9772.0	32.8	14.9	47.7	68.2	-20.5	Peak	Vertical
	10690.0	32.3	17.4	49.7	74.0	-24.3	Peak	Vertical
	11506.0	31.0	19.4	50.4	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 260 of 1017





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	165	
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)				
*	8854.0	31.8	14.0	45.8	68.2	-22.4	Peak	Horizontal
*	9831.5	31.9	15.9	47.8	68.2	-20.4	Peak	Horizontal
	11030.0	31.4	18.5	49.9	74.0	-24.1	Peak	Horizontal
	11650.2	30.3	19.3	49.6	54.0	-4.4	Average	Horizontal
	11650.5	42.9	19.3	62.2	74.0	-11.8	Peak	Horizontal
*	8888.0	32.5	14.0	46.5	68.2	-21.7	Peak	Vertical
*	9678.5	33.9	14.6	48.5	68.2	-19.7	Peak	Vertical
	10647.5	33.2	17.4	50.6	74.0	-23.4	Peak	Vertical
	11650.2	23.0	19.3	42.3	54.0	-11.7	Average	Vertical
	11650.5	35.8	19.3	55.1	74.0	-18.9	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8565.0	32.5	13.3	45.8	68.2	-22.4	Peak	Horizontal
*	9729.5	32.7	14.7	47.4	68.2	-20.8	Peak	Horizontal
	10970.5	32.4	18.4	50.8	74.0	-23.2	Peak	Horizontal
	11523.0	31.5	19.4	50.9	74.0	-23.1	Peak	Horizontal
*	8718.0	31.4	13.8	45.2	68.2	-23.0	Peak	Vertical
*	9729.5	32.8	14.7	47.5	68.2	-20.7	Peak	Vertical
	10902.5	31.1	18.3	49.4	74.0	-24.6	Peak	Vertical
	11684.5	30.7	19.2	49.9	74.0	-24.1	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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	46
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)				
*	8879.5	32.7	14.0	46.7	68.2	-21.5	Peak	Horizontal
*	9738.0	32.8	14.8	47.6	68.2	-20.6	Peak	Horizontal
	10639.0	32.0	17.4	49.4	74.0	-24.6	Peak	Horizontal
	11540.0	31.1	19.4	50.5	74.0	-23.5	Peak	Horizontal
*	8641.5	33.2	13.5	46.7	68.2	-21.5	Peak	Vertical
*	9687.0	32.9	14.6	47.5	68.2	-20.7	Peak	Vertical
	11480.5	31.6	19.3	50.9	74.0	-23.1	Peak	Vertical
	12058.5	32.2	18.8	51.0	74.0	-23.0	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: 2AD8UFZCWO2CA1 Page Number: 263 of 1017





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	151
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)				
*	8777.5	30.9	13.9	44.8	68.2	-23.4	Peak	Horizontal
*	9899.5	31.6	15.4	47.0	68.2	-21.2	Peak	Horizontal
	10673.0	31.7	17.4	49.1	74.0	-24.9	Peak	Horizontal
	11506.0	32.2	19.4	51.6	74.0	-22.4	Peak	Horizontal
*	8803.0	31.8	14.0	45.8	68.2	-22.4	Peak	Vertical
*	9933.5	32.6	15.3	47.9	68.2	-20.3	Peak	Vertical
	10979.0	31.4	18.5	49.9	74.0	-24.1	Peak	Vertical
	11489.0	31.4	19.3	50.7	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 264 of 1017





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	159
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)				
*	8675.5	32.3	13.7	46.0	68.2	-22.2	Peak	Horizontal
*	9848.5	31.5	16.1	47.6	68.2	-20.6	Peak	Horizontal
	11030.0	31.6	18.5	50.1	74.0	-23.9	Peak	Horizontal
	11591.0	33.0	19.5	52.5	74.0	-21.5	Peak	Horizontal
*	8718.0	31.2	13.8	45.0	68.2	-23.2	Peak	Vertical
*	9729.5	32.4	14.7	47.1	68.2	-21.1	Peak	Vertical
	11608.0	31.2	19.4	50.6	74.0	-23.4	Peak	Vertical
	12449.5	33.1	18.4	51.5	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 265 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	36
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)				
*	8692.5	33.1	13.7	46.8	68.2	-21.4	Peak	Horizontal
*	9840.0	31.3	16.0	47.3	68.2	-20.9	Peak	Horizontal
	11480.5	30.6	19.3	49.9	74.0	-24.1	Peak	Horizontal
	12356.0	31.5	18.4	49.9	74.0	-24.1	Peak	Horizontal
*	8871.0	32.1	14.0	46.1	68.2	-22.1	Peak	Vertical
*	9704.0	32.7	14.6	47.3	68.2	-20.9	Peak	Vertical
	11667.5	31.3	19.3	50.6	74.0	-23.4	Peak	Vertical
	12126.5	32.2	18.9	51.1	74.0	-22.9	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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	44
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)				
*	8743.5	31.9	13.9	45.8	68.2	-22.4	Peak	Horizontal
*	9874.0	31.9	15.8	47.7	68.2	-20.5	Peak	Horizontal
	11259.5	31.5	18.8	50.3	74.0	-23.7	Peak	Horizontal
	12126.5	31.4	18.9	50.3	74.0	-23.7	Peak	Horizontal
*	8565.0	32.9	13.3	46.2	68.2	-22.0	Peak	Vertical
*	9848.5	31.6	16.1	47.7	68.2	-20.5	Peak	Vertical
	10970.5	32.0	18.4	50.4	74.0	-23.6	Peak	Vertical
	12007.5	31.4	18.7	50.1	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 267 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	48
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)				
*	8667.0	31.8	13.6	45.4	68.2	-22.8	Peak	Horizontal
*	9857.0	31.9	16.2	48.1	68.2	-20.1	Peak	Horizontal
	11072.5	31.3	18.6	49.9	74.0	-24.1	Peak	Horizontal
	11897.0	31.2	18.6	49.8	74.0	-24.2	Peak	Horizontal
*	8845.5	31.6	14.0	45.6	68.2	-22.6	Peak	Vertical
*	9840.0	31.7	16.0	47.7	68.2	-20.5	Peak	Vertical
	11548.5	31.8	19.4	51.2	74.0	-22.8	Peak	Vertical
	12101.0	31.6	18.9	50.5	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 268 of 1017



AC220 Wi-Fi AP OD directional Product Temperature 26°C antenna US Kevin Ker 57 % Test Engineer Relative Humidity **Test Site** AC1 Test Date 2017/08/16 802.11ac-VHT20 - Ant 1 + 2 Test Mode: Test Channel: 149 (CDD Mode) Remark: 1. Average measurement was not performed if peak level lower than average 2. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.

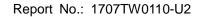
Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8854.0	31.7	14.0	45.7	68.2	-22.5	Peak	Horizontal
*	9882.5	32.2	15.6	47.8	68.2	-20.4	Peak	Horizontal
	10868.5	30.9	18.2	49.1	74.0	-24.9	Peak	Horizontal
	11497.5	33.5	19.3	52.8	74.0	-21.2	Peak	Horizontal
*	8667.0	32.1	13.6	45.7	68.2	-22.5	Peak	Vertical
*	9865.5	32.6	16.0	48.6	68.2	-19.6	Peak	Vertical
	10970.5	32.0	18.4	50.4	74.0	-23.6	Peak	Vertical
	11650.5	30.9	19.3	50.2	74.0	-23.8	Peak	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/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: 2AD8UFZCWO2CA1 Page Number: 269 of 1017





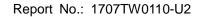
Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8854.0	31.4	14.0	45.4	68.2	-22.8	Peak	Horizontal
*	9959.0	32.6	15.3	47.9	68.2	-20.3	Peak	Horizontal
	11123.5	30.5	18.6	49.1	74.0	-24.9	Peak	Horizontal
	11568.9	24.5	19.5	44.0	54.0	-10.0	Average	Horizontal
	11574.0	36.2	19.5	55.7	74.0	-18.3	Peak	Horizontal
*	8633.0	32.5	13.5	46.0	68.2	-22.2	Peak	Vertical
*	9738.0	32.8	14.8	47.6	68.2	-20.6	Peak	Vertical
	11276.5	30.7	18.8	49.5	74.0	-24.5	Peak	Vertical
	11506.0	31.0	19.4	50.4	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 270 of 1017





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	165
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)				
*	8811.5	31.7	14.0	45.7	68.2	-22.5	Peak	Horizontal
*	9712.5	32.5	14.7	47.2	68.2	-21.0	Peak	Horizontal
	11098.0	30.7	18.6	49.3	74.0	-24.7	Peak	Horizontal
	11649.7	31.1	19.3	50.4	54.0	-3.6	Average	Horizontal
	11650.5	42.9	19.3	62.2	74.0	-11.8	Peak	Horizontal
*	8684.0	30.8	13.7	44.5	68.2	-23.7	Peak	Vertical
*	9840.0	32.3	16.0	48.3	68.2	-19.9	Peak	Vertical
	10962.0	31.9	18.4	50.3	74.0	-23.7	Peak	Vertical
	11659.0	34.1	19.3	53.4	74.0	-20.6	Peak	Vertical

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



Page Number: 272 of 1017

Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (CDD Mode)	Test Channel:	38
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)				
*	8922.0	31.7	14.0	45.7	68.2	-22.5	Peak	Horizontal
*	9874.0	32.9	15.8	48.7	68.2	-19.5	Peak	Horizontal
	10979.0	31.4	18.5	49.9	74.0	-24.1	Peak	Horizontal
	11506.0	31.1	19.4	50.5	74.0	-23.5	Peak	Horizontal
*	8667.0	31.6	13.6	45.2	68.2	-23.0	Peak	Vertical
*	9848.5	31.0	16.1	47.1	68.2	-21.1	Peak	Vertical
	11072.5	31.2	18.6	49.8	74.0	-24.2	Peak	Vertical
	11608.0	31.2	19.4	50.6	74.0	-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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	46
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)				
*	8862.5	32.3	14.0	46.3	68.2	-21.9	Peak	Horizontal
*	9857.0	31.5	16.2	47.7	68.2	-20.5	Peak	Horizontal
	10996.0	30.8	18.5	49.3	74.0	-24.7	Peak	Horizontal
	11591.0	31.6	19.5	51.1	74.0	-22.9	Peak	Horizontal
*	8667.0	31.8	13.6	45.4	68.2	-22.8	Peak	Vertical
*	9857.0	32.2	16.2	48.4	68.2	-19.8	Peak	Vertical
	11276.5	30.4	18.8	49.2	74.0	-24.8	Peak	Vertical
	11582.5	31.2	19.5	50.7	74.0	-23.3	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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	151
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)				
*	8854.0	31.0	14.0	45.0	68.2	-23.2	Peak	Horizontal
*	9593.5	31.9	14.4	46.3	68.2	-21.9	Peak	Horizontal
	10860.0	31.0	18.2	49.2	74.0	-24.8	Peak	Horizontal
	11514.5	31.7	19.4	51.1	74.0	-22.9	Peak	Horizontal
*	8607.5	32.8	13.5	46.3	68.2	-21.9	Peak	Vertical
*	9636.0	31.1	14.4	45.5	68.2	-22.7	Peak	Vertical
	11013.0	31.0	18.5	49.5	74.0	-24.5	Peak	Vertical
	11514.5	30.8	19.4	50.2	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 274 of 1017





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	159
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)				
*	8862.5	31.9	14.0	45.9	68.2	-22.3	Peak	Horizontal
*	9857.0	31.5	16.2	47.7	68.2	-20.5	Peak	Horizontal
	10945.0	31.5	18.4	49.9	74.0	-24.1	Peak	Horizontal
	11591.0	32.8	19.5	52.3	74.0	-21.7	Peak	Horizontal
*	8862.5	31.7	14.0	45.7	68.2	-22.5	Peak	Vertical
*	9729.5	32.8	14.7	47.5	68.2	-20.7	Peak	Vertical
	10792.0	32.1	17.9	50.0	74.0	-24.0	Peak	Vertical
	11557.0	31.2	19.5	50.7	74.0	-23.3	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (CDD Mode)	Test Channel:	42
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)				
*	8811.5	30.9	14.0	44.9	68.2	-23.3	Peak	Horizontal
*	9551.0	32.1	14.4	46.5	68.2	-21.7	Peak	Horizontal
	11055.5	31.3	18.5	49.8	74.0	-24.2	Peak	Horizontal
	11667.5	31.5	19.3	50.8	74.0	-23.2	Peak	Horizontal
*	8624.5	32.3	13.5	45.8	68.2	-22.4	Peak	Vertical
*	9848.5	32.1	16.1	48.2	68.2	-20.0	Peak	Vertical
	10996.0	31.6	18.5	50.1	74.0	-23.9	Peak	Vertical
	11565.5	31.2	19.5	50.7	74.0	-23.3	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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (CDD Mode)	Test Channel:	155
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)				
*	8556.5	32.9	13.2	46.1	68.2	-22.1	Peak	Horizontal
*	9848.5	31.7	16.1	47.8	68.2	-20.4	Peak	Horizontal
	10936.5	31.6	18.4	50.0	74.0	-24.0	Peak	Horizontal
	11625.0	31.1	19.4	50.5	74.0	-23.5	Peak	Horizontal
*	8862.5	31.5	14.0	45.5	68.2	-22.7	Peak	Vertical
*	9857.0	31.5	16.2	47.7	68.2	-20.5	Peak	Vertical
	10741.0	31.5	17.6	49.1	74.0	-24.9	Peak	Vertical
	11480.5	29.5	19.3	48.8	74.0	-25.2	Peak	Vertical

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

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

FCC ID: 2AD8UFZCWO2CA1 Page Number: 277 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	36
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)				
*	8641.5	33.1	13.5	46.6	68.2	-21.6	Peak	Horizontal
*	9840.0	31.3	16.0	47.3	68.2	-20.9	Peak	Horizontal
	11055.5	31.2	18.5	49.7	74.0	-24.3	Peak	Horizontal
	11472.0	31.4	19.3	50.7	74.0	-23.3	Peak	Horizontal
*	8573.5	32.3	13.3	45.6	68.2	-22.6	Peak	Vertical
*	9729.5	32.6	14.7	47.3	68.2	-20.9	Peak	Vertical
	11098.0	31.0	18.6	49.6	74.0	-24.4	Peak	Vertical
	11667.5	30.3	19.3	49.6	74.0	-24.4	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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	44
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)				
*	8845.5	31.9	14.0	45.9	68.2	-22.3	Peak	Horizontal
*	9789.0	33.1	15.0	48.1	68.2	-20.1	Peak	Horizontal
	10970.5	31.3	18.4	49.7	74.0	-24.3	Peak	Horizontal
	11625.0	32.1	19.4	51.5	74.0	-22.5	Peak	Horizontal
*	8684.0	32.1	13.7	45.8	68.2	-22.4	Peak	Vertical
*	9729.5	32.0	14.7	46.7	68.2	-21.5	Peak	Vertical
	10775.0	33.1	17.8	50.9	74.0	-23.1	Peak	Vertical
	11659.0	30.5	19.3	49.8	74.0	-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: 2AD8UFZCWO2CA1

Page Number: 279 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	48	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8837.0	31.6	14.0	45.6	68.2	-22.6	Peak	Horizontal
*	9738.0	32.0	14.8	46.8	68.2	-21.4	Peak	Horizontal
	11004.5	31.4	18.5	49.9	74.0	-24.1	Peak	Horizontal
	12135.0	32.1	18.9	51.0	74.0	-23.0	Peak	Horizontal
*	8896.5	31.5	14.0	45.5	68.2	-22.7	Peak	Vertical
*	9687.0	32.7	14.6	47.3	68.2	-20.9	Peak	Vertical
	10919.5	31.9	18.4	50.3	74.0	-23.7	Peak	Vertical
	11582.5	31.8	19.5	51.3	74.0	-22.7	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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8650.0	32.6	13.6	46.2	68.2	-22.0	Peak	Horizontal
*	9695.5	32.9	14.6	47.5	68.2	-20.7	Peak	Horizontal
	10979.0	31.2	18.5	49.7	74.0	-24.3	Peak	Horizontal
	11489.0	32.7	19.3	52.0	74.0	-22.0	Peak	Horizontal
*	8633.0	32.9	13.5	46.4	68.2	-21.8	Peak	Vertical
*	9678.5	32.6	14.6	47.2	68.2	-21.0	Peak	Vertical
	10877.0	30.8	18.2	49.0	74.0	-25.0	Peak	Vertical
	11489.0	31.1	19.3	50.4	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 281 of 1017



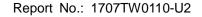


Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8701.0	31.6	13.8	45.4	68.2	-22.8	Peak	Horizontal
*	9695.5	32.2	14.6	46.8	68.2	-21.4	Peak	Horizontal
	10834.5	30.5	18.1	48.6	74.0	-25.4	Peak	Horizontal
	11565.5	33.9	19.5	53.4	74.0	-20.6	Peak	Horizontal
*	8548.0	33.5	13.2	46.7	68.2	-21.5	Peak	Vertical
*	9840.0	32.7	16.0	48.7	68.2	-19.5	Peak	Vertical
	11132.0	31.5	18.6	50.1	74.0	-23.9	Peak	Vertical
	11650.5	31.5	19.3	50.8	74.0	-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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	165	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8616.0	32.1	13.5	45.6	68.2	-22.6	Peak	Horizontal
*	9848.5	31.2	16.1	47.3	68.2	-20.9	Peak	Horizontal
	10936.5	31.3	18.4	49.7	74.0	-24.3	Peak	Horizontal
	11659.0	38.0	19.3	57.3	74.0	-16.7	Peak	Horizontal
	11659.0	25.3	19.3	44.6	54.0	-9.4	Average	Horizonta
*	8862.5	32.1	14.0	46.1	68.2	-22.1	Peak	Vertical
*	9840.0	31.9	16.0	47.9	68.2	-20.3	Peak	Vertical
	11650.5	37.6	19.3	56.9	74.0	-17.1	Peak	Vertical
	11650.5	25.0	19.3	44.3	54.0	-9.7	Average	Vertical
	12024.5	29.7	18.8	48.5	74.0	-25.5	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	38	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8616.0	32.0	13.5	45.5	68.2	-22.7	Peak	Horizontal
*	9729.5	31.8	14.7	46.5	68.2	-21.7	Peak	Horizontal
	11463.5	30.9	19.3	50.2	74.0	-23.8	Peak	Horizontal
	12169.0	31.4	18.8	50.2	74.0	-23.8	Peak	Horizontal
*	8616.0	31.3	13.5	44.8	68.2	-23.4	Peak	Vertical
*	9687.0	32.1	14.6	46.7	68.2	-21.5	Peak	Vertical
	11140.5	30.3	18.7	49.0	74.0	-25.0	Peak	Vertical
	11608.0	29.8	19.4	49.2	74.0	-24.8	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: 2AD8UFZCWO2CA1 Page Number: 284 of 1017



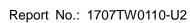
Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	46	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8837.0	30.5	14.0	44.5	68.2	-23.7	Peak	Horizontal
*	9848.5	30.1	16.1	46.2	68.2	-22.0	Peak	Horizontal
	10953.5	30.2	18.4	48.6	74.0	-25.4	Peak	Horizontal
	11990.5	29.6	18.7	48.3	74.0	-25.7	Peak	Horizontal
*	8845.5	31.3	14.0	45.3	68.2	-22.9	Peak	Vertical
*	9831.5	30.3	15.9	46.2	68.2	-22.0	Peak	Vertical
	11013.0	30.1	18.5	48.6	74.0	-25.4	Peak	Vertical
	11676.0	30.8	19.2	50.0	74.0	-24.0	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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	151
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8871.0	31.8	14.0	45.8	68.2	-22.4	Peak	Horizontal
*	9865.5	31.4	16.0	47.4	68.2	-20.8	Peak	Horizontal
	10732.5	31.7	17.6	49.3	74.0	-24.7	Peak	Horizontal
	11523.0	30.1	19.4	49.5	74.0	-24.5	Peak	Horizontal
*	8743.5	31.7	13.9	45.6	68.2	-22.6	Peak	Vertical
*	9789.0	31.2	15.0	46.2	68.2	-22.0	Peak	Vertical
	10851.5	30.7	18.1	48.8	74.0	-25.2	Peak	Vertical
	11497.5	30.2	19.3	49.5	74.0	-24.5	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8735.0	31.3	13.9	45.2	68.2	-23.0	Peak	Horizontal
*	9729.5	32.5	14.7	47.2	68.2	-21.0	Peak	Horizontal
	10962.0	31.4	18.4	49.8	74.0	-24.2	Peak	Horizontal
	11591.0	31.2	19.5	50.7	74.0	-23.3	Peak	Horizontal
*	8896.5	33.0	14.0	47.0	68.2	-21.2	Peak	Vertical
*	9848.5	31.4	16.1	47.5	68.2	-20.7	Peak	Vertical
	10987.5	31.8	18.5	50.3	74.0	-23.7	Peak	Vertical
	11616.5	31.5	19.4	50.9	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 287 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	36
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8879.5	31.2	14.0	45.2	68.2	-23.0	Peak	Horizontal
*	9899.5	32.1	15.4	47.5	68.2	-20.7	Peak	Horizontal
	11098.0	30.8	18.6	49.4	74.0	-24.6	Peak	Horizontal
	11591.0	30.3	19.5	49.8	74.0	-24.2	Peak	Horizontal
*	8871.0	31.3	14.0	45.3	68.2	-22.9	Peak	Vertical
*	9746.5	32.0	14.8	46.8	68.2	-21.4	Peak	Vertical
	11021.5	31.3	18.5	49.8	74.0	-24.2	Peak	Vertical
	11693.0	29.8	19.2	49.0	74.0	-25.0	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: 2AD8UFZCWO2CA1 Page Number: 288 of 1017



Page Number: 289 of 1017

Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8811.5	31.3	14.0	45.3	68.2	-22.9	Peak	Horizontal
*	9865.5	31.4	16.0	47.4	68.2	-20.8	Peak	Horizontal
	10647.5	31.2	17.4	48.6	74.0	-25.4	Peak	Horizontal
	11531.5	29.6	19.4	49.0	74.0	-25.0	Peak	Horizontal
*	8905.0	32.7	14.0	46.7	68.2	-21.5	Peak	Vertical
*	9899.5	33.0	15.4	48.4	68.2	-19.8	Peak	Vertical
	11115.0	31.3	18.6	49.9	74.0	-24.1	Peak	Vertical
	11693.0	30.9	19.2	50.1	74.0	-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)



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8811.5	30.3	14.0	44.3	68.2	-23.9	Peak	Horizontal
*	9840.0	30.4	16.0	46.4	68.2	-21.8	Peak	Horizontal
	10919.5	29.9	18.4	48.3	74.0	-25.7	Peak	Horizontal
	11557.0	29.8	19.5	49.3	74.0	-24.7	Peak	Horizontal
*	8599.0	31.7	13.4	45.1	68.2	-23.1	Peak	Vertical
*	9721.0	30.9	14.7	45.6	68.2	-22.6	Peak	Vertical
	11047.0	29.6	18.5	48.1	74.0	-25.9	Peak	Vertical
	11514.5	29.6	19.4	49.0	74.0	-25.0	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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8650.0	32.9	13.6	46.5	68.2	-21.7	Peak	Horizontal
*	9848.5	30.3	16.1	46.4	68.2	-21.8	Peak	Horizontal
	11106.5	31.7	18.6	50.3	74.0	-23.7	Peak	Horizontal
	11489.0	31.0	19.3	50.3	74.0	-23.7	Peak	Horizontal
*	8667.0	31.5	13.6	45.1	68.2	-23.1	Peak	Vertical
*	9831.5	31.2	15.9	47.1	68.2	-21.1	Peak	Vertical
	10987.5	31.5	18.5	50.0	74.0	-24.0	Peak	Vertical
	11633.5	31.3	19.4	50.7	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 291 of 1017

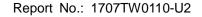




Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8786.0	30.1	13.9	44.0	68.2	-24.2	Peak	Horizontal
*	9729.5	31.7	14.7	46.4	68.2	-21.8	Peak	Horizontal
	11021.5	30.2	18.5	48.7	74.0	-25.3	Peak	Horizontal
	11480.5	30.5	19.3	49.8	74.0	-24.2	Peak	Horizontal
*	8633.0	31.4	13.5	44.9	68.2	-23.3	Peak	Vertical
*	9865.5	31.2	16.0	47.2	68.2	-21.0	Peak	Vertical
	11106.5	30.9	18.6	49.5	74.0	-24.5	Peak	Vertical
	11582.5	32.4	19.5	51.9	74.0	-22.1	Peak	Vertical

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



Page Number: 293 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8862.5	32.1	14.0	46.1	68.2	-22.1	Peak	Horizontal
*	9848.5	31.8	16.1	47.9	68.2	-20.3	Peak	Horizontal
	11089.5	30.8	18.6	49.4	74.0	-24.6	Peak	Horizontal
	11659.0	41.3	19.3	60.6	74.0	-13.4	Peak	Horizontal
	11659.0	31.7	19.3	51.0	54.0	-3.0	Average	Horizontal
*	8650.0	31.8	13.6	45.4	68.2	-22.8	Peak	Vertical
*	9772.0	31.6	14.9	46.5	68.2	-21.7	Peak	Vertical
	10979.0	30.6	18.5	49.1	74.0	-24.9	Peak	Vertical
	11650.5	40.8	19.3	60.1	74.0	-13.9	Peak	Vertical
	11650.5	30.6	19.3	49.9	54.0	-4.1	Average	Vertical

Note 1: "*" is not in restricted band, its limit is -27dBm/MHz or -17dBm/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)



AC220 Wi-Fi AP OD directional Product Temperature 26°C antenna US Kevin Ker 57 % Test Engineer Relative Humidity AC1 **Test Site** Test Date 2017/08/16 802.11ac-VHT40 - Ant 1 + 2 Test Mode: Test Channel: 38 (Beam-Forming Mode) Remark: 1. Average measurement was not performed if peak level lower than average

Report No.: 1707TW0110-U2

		Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report.							
Mark	Fraguency	Pooding	Factor	Moacuro	Limit	Margin	Dotoctor	Polarization	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8837.0	30.9	14.0	44.9	68.2	-23.3	Peak	Horizontal
*	9780.5	31.9	14.9	46.8	68.2	-21.4	Peak	Horizontal
	10970.5	30.9	18.4	49.3	74.0	-24.7	Peak	Horizontal
	12050.0	30.7	18.8	49.5	74.0	-24.5	Peak	Horizontal
*	8701.0	30.9	13.8	44.7	68.2	-23.5	Peak	Vertical
*	9908.0	32.4	15.3	47.7	68.2	-20.5	Peak	Vertical
	10919.5	30.7	18.4	49.1	74.0	-24.9	Peak	Vertical
	11591.0	30.1	19.5	49.6	74.0	-24.4	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: 2AD8UFZCWO2CA1 Page Number: 294 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	46	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8692.5	30.6	13.7	44.3	68.2	-23.9	Peak	Horizontal
*	9729.5	31.1	14.7	45.8	68.2	-22.4	Peak	Horizontal
	11030.0	29.6	18.5	48.1	74.0	-25.9	Peak	Horizontal
	11650.5	30.3	19.3	49.6	74.0	-24.4	Peak	Horizontal
*	8633.0	31.9	13.5	45.4	68.2	-22.8	Peak	Vertical
*	9670.0	33.4	14.5	47.9	68.2	-20.3	Peak	Vertical
	11540.0	30.5	19.4	49.9	74.0	-24.1	Peak	Vertical
	12092.5	31.6	18.9	50.5	74.0	-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)





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	151
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8845.5	31.8	14.0	45.8	68.2	-22.4	Peak	Horizontal
*	9908.0	31.5	15.3	46.8	68.2	-21.4	Peak	Horizontal
	11098.0	30.0	18.6	48.6	74.0	-25.4	Peak	Horizontal
	11599.5	30.2	19.4	49.6	74.0	-24.4	Peak	Horizontal
*	8871.0	31.2	14.0	45.2	68.2	-23.0	Peak	Vertical
*	9857.0	30.5	16.2	46.7	68.2	-21.5	Peak	Vertical
	11081.0	30.2	18.6	48.8	74.0	-25.2	Peak	Vertical
	11582.5	31.2	19.5	50.7	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 296 of 1017





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8794.5	31.6	13.9	45.5	68.2	-22.7	Peak	Horizontal
*	9797.5	31.9	15.1	47.0	68.2	-21.2	Peak	Horizontal
	10868.5	30.8	18.2	49.0	74.0	-25.0	Peak	Horizontal
	11591.0	30.9	19.5	50.4	74.0	-23.6	Peak	Horizontal
*	8667.0	31.3	13.6	44.9	68.2	-23.3	Peak	Vertical
*	9848.5	31.1	16.1	47.2	68.2	-21.0	Peak	Vertical
	11123.5	30.6	18.6	49.2	74.0	-24.8	Peak	Vertical
	11540.0	30.7	19.4	50.1	74.0	-23.9	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: 2AD8UFZCWO2CA1 Page Number: 297 of 1017



Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/16	
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	42	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8752.0	30.1	13.9	44.0	68.2	-24.2	Peak	Horizontal
*	9814.5	31.0	15.4	46.4	68.2	-21.8	Peak	Horizontal
	11013.0	31.0	18.5	49.5	74.0	-24.5	Peak	Horizontal
	11667.5	31.2	19.3	50.5	74.0	-23.5	Peak	Horizontal
*	8871.0	31.6	14.0	45.6	68.2	-22.6	Peak	Vertical
*	9848.5	30.5	16.1	46.6	68.2	-21.6	Peak	Vertical
	11021.5	30.2	18.5	48.7	74.0	-25.3	Peak	Vertical
	11557.0	31.5	19.5	51.0	74.0	-23.0	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: 2AD8UFZCWO2CA1 Page Number: 298 of 1017





Product	AC220 Wi-Fi AP OD directional antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/16
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	155
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	8692.5	31.5	13.7	45.2	68.2	-23.0	Peak	Horizontal
*	9831.5	31.5	15.9	47.4	68.2	-20.8	Peak	Horizontal
	11132.0	31.0	18.6	49.6	74.0	-24.4	Peak	Horizontal
	12109.5	31.2	18.9	50.1	74.0	-23.9	Peak	Horizontal
*	8692.5	31.6	13.7	45.3	68.2	-22.9	Peak	Vertical
*	9721.0	31.8	14.7	46.5	68.2	-21.7	Peak	Vertical
	10851.5	31.1	18.1	49.2	74.0	-24.8	Peak	Vertical
	12118.0	31.1	18.9	50.0	74.0	-24.0	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: 2AD8UFZCWO2CA1 Page Number: 299 of 1017



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 1	Test Channel:	36				
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)				
	7528.0	30.9	12.8	43.7	74.0	-30.3	Peak	Horizontal
	11548.5	29.9	19.5	49.4	74.0	-24.6	Peak	Horizontal
*	13758.5	29.8	22.0	51.8	68.2	-16.4	Peak	Horizontal
*	16538.0	30.4	22.1	52.5	68.2	-15.7	Peak	Horizontal
	7545.0	30.5	12.8	43.3	74.0	-30.7	Peak	Vertical
	11514.5	29.6	19.4	49.0	74.0	-25.0	Peak	Vertical
*	13750.0	29.8	22.0	51.8	68.2	-16.4	Peak	Vertical
*	16767.5	30.5	23.5	54.0	68.2	-14.2	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)





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7375.0	30.7	12.5	43.2	74.0	-30.8	Peak	Horizontal
	11004.5	29.0	18.5	47.5	74.0	-26.5	Peak	Horizontal
*	13852.0	29.2	22.3	51.5	68.2	-16.7	Peak	Horizontal
*	16614.5	29.5	22.5	52.0	68.2	-16.2	Peak	Horizontal
	7536.5	30.8	12.8	43.6	74.0	-30.4	Peak	Vertical
	11412.5	28.5	19.1	47.6	74.0	-26.4	Peak	Vertical
*	13869.0	29.2	22.3	51.5	68.2	-16.7	Peak	Vertical
*	16665.5	29.7	22.8	52.5	68.2	-15.7	Peak	Vertical

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



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11a - Ant 1	Test Channel:	48			
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)				
	7460.0	31.3	12.8	44.1	74.0	-29.9	Peak	Horizontal
	11659.0	29.0	19.3	48.3	74.0	-25.7	Peak	Horizontal
*	13920.0	29.4	22.4	51.8	68.2	-16.4	Peak	Horizontal
*	16623.0	29.9	22.6	52.5	68.2	-15.7	Peak	Horizontal
	7511.0	31.0	12.9	43.9	74.0	-30.1	Peak	Vertical
	11378.5	28.6	19.1	47.7	74.0	-26.3	Peak	Vertical
*	14098.5	29.1	22.9	52.0	68.2	-16.2	Peak	Vertical
*	16529.5	30.3	22.0	52.3	68.2	-15.9	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)





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 1	Test Channel:	149				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7468.5	30.2	12.8	43.0	74.0	-31.0	Peak	Horizontal
	11608.0	28.5	19.4	47.9	74.0	-26.1	Peak	Horizontal
*	13835.0	29.4	22.2	51.6	68.2	-16.6	Peak	Horizontal
*	16478.5	29.3	21.8	51.1	68.2	-17.1	Peak	Horizontal
	7630.0	30.6	12.6	43.2	74.0	-30.8	Peak	Vertical
	11531.5	28.7	19.4	48.1	74.0	-25.9	Peak	Vertical
*	14217.5	29.9	23.1	53.0	68.2	-15.2	Peak	Vertical
*	16546.5	29.9	22.1	52.0	68.2	-16.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 1	Test Channel:	157				
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	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7613.0	30.8	12.6	43.4	74.0	-30.6	Peak	Horizontal
	11616.5	29.3	19.4	48.7	74.0	-25.3	Peak	Horizontal
*	13716.0	29.6	22.0	51.6	68.2	-16.6	Peak	Horizontal
*	16699.5	30.1	23.0	53.1	68.2	-15.1	Peak	Horizontal
	7655.5	31.4	12.5	43.9	74.0	-30.1	Peak	Vertical
	11565.5	29.9	19.5	49.4	74.0	-24.6	Peak	Vertical
*	13818.0	29.1	22.2	51.3	68.2	-16.9	Peak	Vertical
*	16614.5	29.7	22.5	52.2	68.2	-16.0	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 1	Test Channel:	165				
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 (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(dBµV)		(dBµV/m)				
	7528.0	31.1	12.8	43.9	74.0	-30.1	Peak	Horizontal
	11506.0	28.7	19.4	48.1	74.0	-25.9	Peak	Horizontal
*	14081.5	28.7	22.8	51.5	68.2	-16.7	Peak	Horizontal
*	16589.0	30.7	22.4	53.1	68.2	-15.1	Peak	Horizontal
	7400.5	30.8	12.6	43.4	74.0	-30.6	Peak	Vertical
	11531.5	28.5	19.4	47.9	74.0	-26.1	Peak	Vertical
*	13920.0	29.9	22.4	52.3	68.2	-15.9	Peak	Vertical
*	16461.5	29.8	21.7	51.5	68.2	-16.7	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	36				
Remark:	1. Average measurement was no	t performed if peak	evel lower than average				
	limit.						
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.						

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
		(dBµV)		(dBµV/m)				
	7460.0	31.1	12.8	43.9	74.0	-30.1	Peak	Horizontal
	11565.5	29.4	19.5	48.9	74.0	-25.1	Peak	Horizontal
*	13775.5	30.1	22.1	52.2	68.2	-16.0	Peak	Horizontal
*	16861.0	29.7	24.0	53.7	68.2	-14.5	Peak	Horizontal
	7519.5	31.3	12.8	44.1	74.0	-29.9	Peak	Vertical
	11616.5	29.1	19.4	48.5	74.0	-25.5	Peak	Vertical
*	13801.0	29.1	22.1	51.2	68.2	-17.0	Peak	Vertical
*	16776.0	30.2	23.5	53.7	68.2	-14.5	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7553.5	30.2	12.8	43.0	74.0	-31.0	Peak	Horizontal
	11514.5	29.0	19.4	48.4	74.0	-25.6	Peak	Horizontal
*	14132.5	30.0	23.0	53.0	68.2	-15.2	Peak	Horizontal
*	16725.0	30.6	23.2	53.8	68.2	-14.4	Peak	Horizontal
	7621.5	31.6	12.6	44.2	74.0	-29.8	Peak	Vertical
	11582.5	29.5	19.5	49.0	74.0	-25.0	Peak	Vertical
*	14124.0	29.7	23.0	52.7	68.2	-15.5	Peak	Vertical
*	16767.5	30.2	23.5	53.7	68.2	-14.5	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	48
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)				
	7502.5	30.6	12.9	43.5	74.0	-30.5	Peak	Horizontal
	11540.0	30.2	19.4	49.6	74.0	-24.4	Peak	Horizontal
*	14285.5	29.8	23.1	52.9	68.2	-15.3	Peak	Horizontal
*	16793.0	30.3	23.7	54.0	68.2	-14.2	Peak	Horizontal
	7562.0	31.2	12.8	44.0	74.0	-30.0	Peak	Vertical
	11667.5	29.1	19.3	48.4	74.0	-25.6	Peak	Vertical
*	14030.5	29.0	22.7	51.7	68.2	-16.5	Peak	Vertical
*	16589.0	30.6	22.4	53.0	68.2	-15.2	Peak	Vertical

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

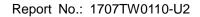




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	149			
Remark:	1. Average measurement was no	t performed if peak	level lower than average			
	limit.					
	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)				
	7604.5	30.3	12.7	43.0	74.0	-31.0	Peak	Horizontal
	11565.5	28.6	19.5	48.1	74.0	-25.9	Peak	Horizontal
*	13962.5	28.7	22.6	51.3	68.2	-16.9	Peak	Horizontal
*	16725.0	30.6	23.2	53.8	68.2	-14.4	Peak	Horizontal
	7366.5	30.9	12.5	43.4	74.0	-30.6	Peak	Vertical
	11531.5	29.2	19.4	48.6	74.0	-25.4	Peak	Vertical
*	14226.0	29.2	23.1	52.3	68.2	-15.9	Peak	Vertical
*	16538.0	29.3	22.1	51.4	68.2	-16.8	Peak	Vertical

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

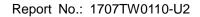




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7536.5	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
	11506.0	29.1	19.4	48.5	74.0	-25.5	Peak	Horizontal
*	14107.0	29.2	22.9	52.1	68.2	-16.1	Peak	Horizontal
*	16640.0	30.1	22.7	52.8	68.2	-15.4	Peak	Horizontal
	7621.5	30.7	12.6	43.3	74.0	-30.7	Peak	Vertical
	11574.0	30.2	19.5	49.7	74.0	-24.3	Peak	Vertical
*	13758.5	29.9	22.0	51.9	68.2	-16.3	Peak	Vertical
*	16563.5	29.9	22.2	52.1	68.2	-16.1	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7426.0	30.4	12.7	43.1	74.0	-30.9	Peak	Horizontal
	11591.0	28.8	19.5	48.3	74.0	-25.7	Peak	Horizontal
*	14141.0	28.4	23.0	51.4	68.2	-16.8	Peak	Horizontal
*	16665.5	30.7	22.8	53.5	68.2	-14.7	Peak	Horizontal
	7366.5	30.6	12.5	43.1	74.0	-30.9	Peak	Vertical
	11727.0	30.0	19.0	49.0	74.0	-25.0	Peak	Vertical
*	14370.5	29.7	23.2	52.9	68.2	-15.3	Peak	Vertical
*	16631.5	30.0	22.6	52.6	68.2	-15.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB belin the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7536.5	31.0	12.8	43.8	74.0	-30.2	Peak	Horizontal
	11514.5	28.9	19.4	48.3	74.0	-25.7	Peak	Horizontal
*	14166.5	28.9	23.1	52.0	68.2	-16.2	Peak	Horizontal
*	16597.5	31.0	22.4	53.4	68.2	-14.8	Peak	Horizontal
	7502.5	30.1	12.9	43.0	74.0	-31.0	Peak	Vertical
	11616.5	29.0	19.4	48.4	74.0	-25.6	Peak	Vertical
*	13792.5	29.3	22.1	51.4	68.2	-16.8	Peak	Vertical
*	16631.5	30.1	22.6	52.7	68.2	-15.5	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: 2AD8UFZCWO2CA1

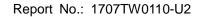




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	46			
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average			
	limit.					
	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)				
	7604.5	30.7	12.7	43.4	74.0	-30.6	Peak	Horizontal
	11140.5	30.1	18.7	48.8	74.0	-25.2	Peak	Horizontal
*	13826.5	29.4	22.2	51.6	68.2	-16.6	Peak	Horizontal
*	17014.0	29.1	24.6	53.7	68.2	-14.5	Peak	Horizontal
	7562.0	31.0	12.8	43.8	74.0	-30.2	Peak	Vertical
	11472.0	28.7	19.3	48.0	74.0	-26.0	Peak	Vertical
*	13733.0	26.7	22.0	48.7	68.2	-19.5	Peak	Vertical
*	17107.5	26.4	24.9	51.3	68.2	-16.9	Peak	Vertical

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

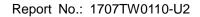




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	151
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7247.5	32.4	12.2	44.6	74.0	-29.4	Peak	Horizontal
	11659.0	30.3	19.3	49.6	74.0	-24.4	Peak	Horizontal
*	14124.0	29.6	23.0	52.6	68.2	-15.6	Peak	Horizontal
*	16538.0	30.4	22.1	52.5	68.2	-15.7	Peak	Horizontal
	7485.5	30.8	12.8	43.6	74.0	-30.4	Peak	Vertical
	11276.5	26.7	18.8	45.5	74.0	-28.5	Peak	Vertical
*	13784.0	29.2	22.1	51.3	68.2	-16.9	Peak	Vertical
*	16589.0	29.7	22.4	52.1	68.2	-16.1	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	159			
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)				
	7264.5	31.1	12.3	43.4	74.0	-30.6	Peak	Horizontal
	11625.0	29.9	19.4	49.3	74.0	-24.7	Peak	Horizontal
*	14336.5	29.5	23.2	52.7	68.2	-15.5	Peak	Horizontal
*	16665.5	29.8	22.8	52.6	68.2	-15.6	Peak	Horizontal
	7545.0	30.8	12.8	43.6	74.0	-30.4	Peak	Vertical
	11591.0	29.9	19.5	49.4	74.0	-24.6	Peak	Vertical
*	13716.0	29.1	22.0	51.1	68.2	-17.1	Peak	Vertical
*	16657.0	30.1	22.8	52.9	68.2	-15.3	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	36				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7468.5	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
	11633.5	29.2	19.4	48.6	74.0	-25.4	Peak	Horizontal
*	13503.5	30.1	21.8	51.9	68.2	-16.3	Peak	Horizontal
*	16597.5	30.3	22.4	52.7	68.2	-15.5	Peak	Horizontal
	7451.5	31.4	12.8	44.2	74.0	-29.8	Peak	Vertical
	11523.0	29.2	19.4	48.6	74.0	-25.4	Peak	Vertical
*	14047.5	29.1	22.7	51.8	68.2	-16.4	Peak	Vertical
*	16716.5	30.4	23.1	53.5	68.2	-14.7	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	44			
Remark:	1. Average measurement was no	t performed if peak	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)				
	7613.0	31.4	12.6	44.0	74.0	-30.0	Peak	Horizontal
	11608.0	29.3	19.4	48.7	74.0	-25.3	Peak	Horizontal
*	13826.5	29.6	22.2	51.8	68.2	-16.4	Peak	Horizontal
*	16827.0	30.0	23.9	53.9	68.2	-14.3	Peak	Horizontal
	7485.5	30.2	12.8	43.0	74.0	-31.0	Peak	Vertical
	11574.0	29.2	19.5	48.7	74.0	-25.3	Peak	Vertical
*	14124.0	29.8	23.0	52.8	68.2	-15.4	Peak	Vertical
*	16538.0	29.4	22.1	51.5	68.2	-16.7	Peak	Vertical

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

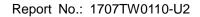




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	48				
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average				
	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)				
	7451.5	31.0	12.8	43.8	74.0	-30.2	Peak	Horizontal
	11599.5	29.5	19.5	49.0	74.0	-25.0	Peak	Horizontal
*	13826.5	29.2	22.2	51.4	68.2	-16.8	Peak	Horizontal
*	16674.0	29.8	22.9	52.7	68.2	-15.5	Peak	Horizontal
	7477.0	30.8	12.8	43.6	74.0	-30.4	Peak	Vertical
	11548.5	28.8	19.5	48.3	74.0	-25.7	Peak	Vertical
*	13809.5	29.3	22.1	51.4	68.2	-16.8	Peak	Vertical
*	16325.5	29.8	21.2	51.0	68.2	-17.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	149				
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)				
	7536.5	30.6	12.8	43.4	74.0	-30.6	Peak	Horizontal
	11616.5	29.2	19.4	48.6	74.0	-25.4	Peak	Horizontal
*	13809.5	29.1	22.1	51.2	68.2	-17.0	Peak	Horizontal
*	16801.5	29.5	23.8	53.3	68.2	-14.9	Peak	Horizontal
	7409.0	31.6	12.6	44.2	74.0	-29.8	Peak	Vertical
	10962.0	29.2	18.4	47.6	74.0	-26.4	Peak	Vertical
*	13818.0	29.0	22.2	51.2	68.2	-17.0	Peak	Vertical
*	16478.5	30.2	21.8	52.0	68.2	-16.2	Peak	Vertical

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

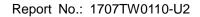




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7426.0	30.6	12.7	43.3	74.0	-30.7	Peak	Horizontal
	11684.5	29.1	19.2	48.3	74.0	-25.7	Peak	Horizontal
*	13707.5	28.9	22.0	50.9	68.2	-17.3	Peak	Horizontal
*	16750.5	30.6	23.3	53.9	68.2	-14.3	Peak	Horizontal
	7630.0	30.7	12.6	43.3	74.0	-30.7	Peak	Vertical
	11565.5	29.2	19.5	48.7	74.0	-25.3	Peak	Vertical
*	13792.5	29.0	22.1	51.1	68.2	-17.1	Peak	Vertical
*	16665.5	30.4	22.8	53.2	68.2	-15.0	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7562.0	30.3	12.8	43.1	74.0	-30.9	Peak	Horizontal
	11378.5	29.1	19.1	48.2	74.0	-25.8	Peak	Horizontal
*	13894.5	30.0	22.3	52.3	68.2	-15.9	Peak	Horizontal
*	16759.0	30.1	23.4	53.5	68.2	-14.7	Peak	Horizontal
	7477.0	30.2	12.8	43.0	74.0	-31.0	Peak	Vertical
	11659.0	31.7	17.5	49.2	74.0	-24.8	Peak	Vertical
*	13818.0	29.2	22.2	51.4	68.2	-16.8	Peak	Vertical
*	16852.5	29.9	24.0	53.9	68.2	-14.3	Peak	Vertical

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



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7681.0	31.0	12.5	43.5	74.0	-30.5	Peak	Horizontal
	10996.0	30.4	18.5	48.9	74.0	-25.1	Peak	Horizontal
*	13758.5	29.1	22.0	51.1	68.2	-17.1	Peak	Horizontal
*	16776.0	30.3	23.5	53.8	68.2	-14.4	Peak	Horizontal
	7664.0	31.3	12.5	43.8	74.0	-30.2	Peak	Vertical
	11599.5	28.8	19.5	48.3	74.0	-25.7	Peak	Vertical
*	13784.0	29.7	22.1	51.8	68.2	-16.4	Peak	Vertical
*	16776.0	30.2	23.5	53.7	68.2	-14.5	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	46				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7494.0	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
	11404.0	29.1	19.1	48.2	74.0	-25.8	Peak	Horizontal
*	13826.5	29.6	22.2	51.8	68.2	-16.4	Peak	Horizontal
*	16555.0	29.6	22.2	51.8	68.2	-16.4	Peak	Horizontal
	7579.0	30.5	12.7	43.2	74.0	-30.8	Peak	Vertical
	10945.0	29.3	18.4	47.7	74.0	-26.3	Peak	Vertical
*	13971.0	28.9	22.6	51.5	68.2	-16.7	Peak	Vertical
*	16682.5	30.5	22.9	53.4	68.2	-14.8	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	151				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7562.0	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
	11693.0	29.4	19.2	48.6	74.0	-25.4	Peak	Horizontal
*	13809.5	28.8	22.1	50.9	68.2	-17.3	Peak	Horizontal
*	16682.5	30.0	22.9	52.9	68.2	-15.3	Peak	Horizontal
	7519.5	30.6	12.8	43.4	74.0	-30.6	Peak	Vertical
	11132.0	29.9	18.6	48.5	74.0	-25.5	Peak	Vertical
*	13716.0	29.3	22.0	51.3	68.2	-16.9	Peak	Vertical
*	16589.0	30.0	22.4	52.4	68.2	-15.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7383.5	30.8	12.5	43.3	74.0	-30.7	Peak	Horizontal
	11021.5	30.1	18.5	48.6	74.0	-25.4	Peak	Horizontal
*	14124.0	29.5	23.0	52.5	68.2	-15.7	Peak	Horizontal
*	16861.0	29.9	24.0	53.9	68.2	-14.3	Peak	Horizontal
	7528.0	32.6	12.8	45.4	74.0	-28.6	Peak	Vertical
	11089.5	29.7	18.6	48.3	74.0	-25.7	Peak	Vertical
*	13809.5	29.3	22.1	51.4	68.2	-16.8	Peak	Vertical
*	16640.0	30.4	22.7	53.1	68.2	-15.1	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/27					
Test Mode:	802.11ac-VHT80 - Ant 1	Test Channel:	42					
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7613.0	30.1	12.6	42.7	74.0	-31.3	Peak	Horizontal
	11616.5	29.0	19.4	48.4	74.0	-25.6	Peak	Horizontal
*	14124.0	29.7	23.0	52.7	68.2	-15.5	Peak	Horizontal
*	16606.0	30.5	22.5	53.0	68.2	-15.2	Peak	Horizontal
	7511.0	30.6	12.9	43.5	74.0	-30.5	Peak	Vertical
	11650.5	29.3	19.3	48.6	74.0	-25.4	Peak	Vertical
*	13826.5	29.4	22.2	51.6	68.2	-16.6	Peak	Vertical
*	16657.0	30.1	22.8	52.9	68.2	-15.3	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT80 - Ant 1	Test Channel:	155
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7494.0	31.3	12.8	44.1	74.0	-29.9	Peak	Horizontal
	11540.0	29.5	19.4	48.9	74.0	-25.1	Peak	Horizontal
*	13741.5	29.2	22.0	51.2	68.2	-17.0	Peak	Horizontal
*	16827.0	30.0	23.9	53.9	68.2	-14.3	Peak	Horizontal
	7494.0	31.3	12.8	44.1	74.0	-29.9	Peak	Vertical
	11540.0	29.5	19.4	48.9	74.0	-25.1	Peak	Vertical
*	13741.5	29.2	22.0	51.2	68.2	-17.0	Peak	Vertical
*	16827.0	30.0	23.9	53.9	68.2	-14.3	Peak	Vertical

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



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 2	Test Channel:	36				
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)				
	7502.5	31.2	12.9	44.1	74.0	-29.9	Peak	Horizontal
	11370.0	29.5	19.0	48.5	74.0	-25.5	Peak	Horizontal
*	14124.0	29.5	23.0	52.5	68.2	-15.7	Peak	Horizontal
*	16580.5	30.6	22.3	52.9	68.2	-15.3	Peak	Horizontal
	7562.0	30.7	12.8	43.5	74.0	-30.5	Peak	Vertical
	11667.5	29.4	19.3	48.7	74.0	-25.3	Peak	Vertical
*	14149.5	28.9	23.0	51.9	68.2	-16.3	Peak	Vertical
*	16529.5	29.9	22.0	51.9	68.2	-16.3	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)



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 2	Test Channel:	44
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)				
	7511.0	30.5	12.9	43.4	74.0	-30.6	Peak	Horizontal
	11514.5	28.9	19.4	48.3	74.0	-25.7	Peak	Horizontal
*	13971.0	28.9	22.6	51.5	68.2	-16.7	Peak	Horizontal
*	16767.5	29.8	23.5	53.3	68.2	-14.9	Peak	Horizontal
	7630.0	31.6	12.6	44.2	74.0	-29.8	Peak	Vertical
	11531.5	29.2	19.4	48.6	74.0	-25.4	Peak	Vertical
*	13971.0	30.1	22.6	52.7	68.2	-15.5	Peak	Vertical
*	16521.0	30.1	22.0	52.1	68.2	-16.1	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)

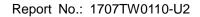




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 2	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel 		Ç
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7443.0	30.7	12.7	43.4	74.0	-30.6	Peak	Horizontal
	11642.0	28.9	19.4	48.3	74.0	-25.7	Peak	Horizontal
*	13673.5	28.9	21.9	50.8	68.2	-17.4	Peak	Horizontal
*	16572.0	29.5	22.3	51.8	68.2	-16.4	Peak	Horizontal
	7460.0	31.1	12.8	43.9	74.0	-30.1	Peak	Vertical
	11081.0	30.3	18.6	48.9	74.0	-25.1	Peak	Vertical
*	13971.0	29.1	22.6	51.7	68.2	-16.5	Peak	Vertical
*	16716.5	30.3	23.1	53.4	68.2	-14.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 2	Test Channel:	149				
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)				
	7630.0	31.2	12.6	43.8	74.0	-30.2	Peak	Horizontal
	11557.0	29.6	19.5	49.1	74.0	-24.9	Peak	Horizontal
*	14124.0	30.1	23.0	53.1	68.2	-15.1	Peak	Horizontal
*	16742.0	30.6	23.3	53.9	68.2	-14.3	Peak	Horizontal
	7409.0	31.4	12.6	44.0	74.0	-30.0	Peak	Vertical
	11030.0	29.5	18.5	48.0	74.0	-26.0	Peak	Vertical
*	13869.0	29.8	22.3	52.1	68.2	-16.1	Peak	Vertical
*	16538.0	30.5	22.1	52.6	68.2	-15.6	Peak	Vertical

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

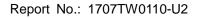




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 2	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel 		Ç
	in the report.		,

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7562.0	30.2	12.8	43.0	74.0	-31.0	Peak	Horizontal
	11557.0	30.3	19.5	49.8	74.0	-24.2	Peak	Horizontal
*	13869.0	29.2	22.3	51.5	68.2	-16.7	Peak	Horizontal
*	16538.0	29.7	22.1	51.8	68.2	-16.4	Peak	Horizontal
	7562.0	31.4	12.8	44.2	74.0	-29.8	Peak	Vertical
	11565.5	28.9	19.5	48.4	74.0	-25.6	Peak	Vertical
*	13775.5	29.9	22.1	52.0	68.2	-16.2	Peak	Vertical
*	16614.5	30.5	22.5	53.0	68.2	-15.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/27					
Test Mode:	802.11a - Ant 2	Test Channel:	165					
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	. 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)				
	7494.0	30.9	12.8	43.7	74.0	-30.3	Peak	Horizontal
	11650.5	29.8	19.3	49.1	74.0	-24.9	Peak	Horizontal
*	13869.0	29.1	22.3	51.4	68.2	-16.8	Peak	Horizontal
*	16827.0	29.8	23.9	53.7	68.2	-14.5	Peak	Horizontal
	7460.0	30.4	12.8	43.2	74.0	-30.8	Peak	Vertical
	11650.5	30.3	19.3	49.6	74.0	-24.4	Peak	Vertical
*	13809.5	29.7	22.1	51.8	68.2	-16.4	Peak	Vertical
*	16487.0	30.0	21.8	51.8	68.2	-16.4	Peak	Vertical

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

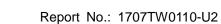




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	36
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7545.0	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
	11676.0	29.2	19.2	48.4	74.0	-25.6	Peak	Horizontal
*	13750.0	29.9	22.0	51.9	68.2	-16.3	Peak	Horizontal
*	16742.0	29.9	23.3	53.2	68.2	-15.0	Peak	Horizontal
	7536.5	31.4	12.8	44.2	74.0	-29.8	Peak	Vertical
	11667.5	29.0	19.3	48.3	74.0	-25.7	Peak	Vertical
*	13818.0	29.7	22.2	51.9	68.2	-16.3	Peak	Vertical
*	16427.5	30.5	21.6	52.1	68.2	-16.1	Peak	Vertical

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

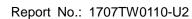




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	44			
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average			
	limit.					
	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)				
	7468.5	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
	10911.0	30.0	18.4	48.4	74.0	-25.6	Peak	Horizontal
*	14132.5	29.8	23.0	52.8	68.2	-15.4	Peak	Horizontal
*	16674.0	30.4	22.9	53.3	68.2	-14.9	Peak	Horizontal
	7315.5	31.6	12.4	44.0	74.0	-30.0	Peak	Vertical
	11548.5	29.0	19.5	48.5	74.0	-25.5	Peak	Vertical
*	14209.0	29.8	23.1	52.9	68.2	-15.3	Peak	Vertical
*	16589.0	30.4	22.4	52.8	68.2	-15.4	Peak	Vertical

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

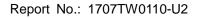




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	48			
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average			
	limit.					
	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)				
	7545.0	30.7	12.8	43.5	74.0	-30.5	Peak	Horizontal
	11659.0	29.4	19.3	48.7	74.0	-25.3	Peak	Horizontal
*	14132.5	29.1	23.0	52.1	68.2	-16.1	Peak	Horizontal
*	16674.0	30.5	22.9	53.4	68.2	-14.8	Peak	Horizontal
	7511.0	30.5	12.9	43.4	74.0	-30.6	Peak	Vertical
	11548.5	30.1	19.5	49.6	74.0	-24.4	Peak	Vertical
*	14081.5	29.2	22.8	52.0	68.2	-16.2	Peak	Vertical
*	16427.5	30.5	21.6	52.1	68.2	-16.1	Peak	Vertical

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

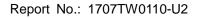




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7519.5	30.9	12.8	43.7	74.0	-30.3	Peak	Horizontal
	11582.5	30.0	19.5	49.5	74.0	-24.5	Peak	Horizontal
*	13996.5	29.3	22.7	52.0	68.2	-16.2	Peak	Horizontal
*	16555.0	29.6	22.2	51.8	68.2	-16.4	Peak	Horizontal
	7528.0	31.2	12.8	44.0	74.0	-30.0	Peak	Vertical
	11497.5	28.9	19.4	48.3	74.0	-25.7	Peak	Vertical
*	14175.0	29.1	23.1	52.2	68.2	-16.0	Peak	Vertical
*	16640.0	30.2	22.7	52.9	68.2	-15.3	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/27					
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	157					
Remark:	1. Average measurement was no	t performed if peak	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	. 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)				
	7451.5	31.5	12.8	44.3	74.0	-29.7	Peak	Horizontal
	11327.5	29.8	18.9	48.7	74.0	-25.3	Peak	Horizontal
*	13843.5	29.8	22.2	52.0	68.2	-16.2	Peak	Horizontal
*	16699.5	30.4	23.0	53.4	68.2	-14.8	Peak	Horizontal
	7630.0	30.8	12.6	43.4	74.0	-30.6	Peak	Vertical
	11132.0	29.6	18.6	48.2	74.0	-25.8	Peak	Vertical
*	14124.0	29.7	23.0	52.7	68.2	-15.5	Peak	Vertical
*	16538.0	29.5	22.1	51.6	68.2	-16.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7655.5	31.7	12.5	44.2	74.0	-29.8	Peak	Horizontal
	10936.5	29.2	18.4	47.6	74.0	-26.4	Peak	Horizontal
*	14073.0	29.2	22.8	52.0	68.2	-16.2	Peak	Horizontal
*	16648.5	29.5	22.8	52.3	68.2	-15.9	Peak	Horizontal
	7468.5	30.1	12.8	42.9	74.0	-31.1	Peak	Vertical
	11650.5	29.4	19.3	48.7	74.0	-25.3	Peak	Vertical
*	13843.5	29.6	22.2	51.8	68.2	-16.4	Peak	Vertical
*	16521.0	29.1	22.0	51.1	68.2	-17.1	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	38			
Remark:	1. Average measurement was no	t 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)				
	7409.0	30.9	12.6	43.5	74.0	-30.5	Peak	Horizontal
	11540.0	29.0	19.4	48.4	74.0	-25.6	Peak	Horizontal
*	14022.0	28.7	22.7	51.4	68.2	-16.8	Peak	Horizontal
*	16580.5	30.4	22.3	52.7	68.2	-15.5	Peak	Horizontal
	7553.5	30.9	12.8	43.7	74.0	-30.3	Peak	Vertical
	11506.0	29.1	19.4	48.5	74.0	-25.5	Peak	Vertical
*	14166.5	29.1	23.1	52.2	68.2	-16.0	Peak	Vertical
*	16461.5	30.1	21.7	51.8	68.2	-16.4	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	46
Remark:	Average measurement was no	t performed if peak l	evel lower than average
	limit.		
	2. Other frequency was 20dB bel	ow 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)				
	7494.0	31.1	12.8	43.9	74.0	-30.1	Peak	Horizontal
	11548.5	28.2	19.5	47.7	74.0	-26.3	Peak	Horizontal
*	13843.5	29.4	22.2	51.6	68.2	-16.6	Peak	Horizontal
*	16563.5	30.1	22.2	52.3	68.2	-15.9	Peak	Horizontal
	7324.0	31.0	12.4	43.4	74.0	-30.6	Peak	Vertical
	11412.5	29.0	19.1	48.1	74.0	-25.9	Peak	Vertical
*	13826.5	29.4	22.2	51.6	68.2	-16.6	Peak	Vertical
*	16563.5	29.3	22.2	51.5	68.2	-16.7	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	151
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7536.5	30.7	12.8	43.5	74.0	-30.5	Peak	Horizontal
	11506.0	29.5	19.4	48.9	74.0	-25.1	Peak	Horizontal
*	14073.0	28.9	22.8	51.7	68.2	-16.5	Peak	Horizontal
*	16589.0	29.4	22.4	51.8	68.2	-16.4	Peak	Horizontal
	7604.5	30.7	12.7	43.4	74.0	-30.6	Peak	Vertical
	11676.0	29.8	19.2	49.0	74.0	-25.0	Peak	Vertical
*	13860.5	29.7	22.3	52.0	68.2	-16.2	Peak	Vertical
*	16716.5	30.3	23.1	53.4	68.2	-14.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/27					
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	159					
Remark:	1. Average measurement was no	t performed if peak	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7562.0	31.4	12.8	44.2	74.0	-29.8	Peak	Horizontal
	11625.0	29.2	19.4	48.6	74.0	-25.4	Peak	Horizontal
*	13784.0	29.3	22.1	51.4	68.2	-16.8	Peak	Horizontal
*	16597.5	30.5	22.4	52.9	68.2	-15.3	Peak	Horizontal
	7485.5	30.8	12.8	43.6	74.0	-30.4	Peak	Vertical
	11574.0	29.3	19.5	48.8	74.0	-25.2	Peak	Vertical
*	13971.0	29.3	22.6	51.9	68.2	-16.3	Peak	Vertical
*	16665.5	30.5	22.8	53.3	68.2	-14.9	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/27					
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	36					
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7596.0	30.9	12.7	43.6	74.0	-30.4	Peak	Horizontal
	11574.0	29.4	19.5	48.9	74.0	-25.1	Peak	Horizontal
*	13869.0	29.1	22.3	51.4	68.2	-16.8	Peak	Horizontal
*	16546.5	29.4	22.1	51.5	68.2	-16.7	Peak	Horizontal
	7562.0	29.9	12.8	42.7	74.0	-31.3	Peak	Vertical
	11506.0	28.9	19.4	48.3	74.0	-25.7	Peak	Vertical
*	13826.5	29.6	22.2	51.8	68.2	-16.4	Peak	Vertical
*	16835.5	29.9	23.9	53.8	68.2	-14.4	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7460.0	30.9	12.8	43.7	74.0	-30.3	Peak	Horizontal
	11132.0	30.1	18.6	48.7	74.0	-25.3	Peak	Horizontal
*	13818.0	30.7	22.2	52.9	68.2	-15.3	Peak	Horizontal
*	16563.5	29.1	22.2	51.3	68.2	-16.9	Peak	Horizontal
	7502.5	30.9	12.9	43.8	74.0	-30.2	Peak	Vertical
	11565.5	29.3	19.5	48.8	74.0	-25.2	Peak	Vertical
*	14124.0	29.0	23.0	52.0	68.2	-16.2	Peak	Vertical
*	16614.5	30.4	22.5	52.9	68.2	-15.3	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: 2AD8UFZCWO2CA1

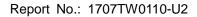




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/27					
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	48					
Remark:	1. Average measurement was no	t performed if peak	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show						
	in the report.							

Mark	Frequency (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	(1411 12)	(dBµV)	(3)	(dBµV/m)	(45,4711)	(GD)		
	7621.5	30.7	12.6	43.3	74.0	-30.7	Peak	Horizontal
	11480.5	29.3	19.3	48.6	74.0	-25.4	Peak	Horizontal
*	14132.5	29.1	23.0	52.1	68.2	-16.1	Peak	Horizontal
*	16835.5	29.6	23.9	53.5	68.2	-14.7	Peak	Horizontal
	7511.0	30.8	12.9	43.7	74.0	-30.3	Peak	Vertical
	10953.5	29.9	18.4	48.3	74.0	-25.7	Peak	Vertical
*	13835.0	30.0	22.2	52.2	68.2	-16.0	Peak	Vertical
*	16725.0	30.1	23.2	53.3	68.2	-14.9	Peak	Vertical

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

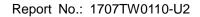




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	149				
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average				
	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)				
	7613.0	31.7	12.6	44.3	74.0	-29.7	Peak	Horizontal
	11557.0	29.2	19.5	48.7	74.0	-25.3	Peak	Horizontal
*	14175.0	29.7	23.1	52.8	68.2	-15.4	Peak	Horizontal
*	16597.5	30.0	22.4	52.4	68.2	-15.8	Peak	Horizontal
	7570.5	30.9	12.8	43.7	74.0	-30.3	Peak	Vertical
	10996.0	29.7	18.5	48.2	74.0	-25.8	Peak	Vertical
*	14217.5	29.5	23.1	52.6	68.2	-15.6	Peak	Vertical
*	16589.0	31.0	22.4	53.4	68.2	-14.8	Peak	Vertical

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

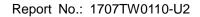




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7358.0	30.8	12.4	43.2	74.0	-30.8	Peak	Horizontal
	11514.5	28.6	19.4	48.0	74.0	-26.0	Peak	Horizontal
*	14124.0	29.1	23.0	52.1	68.2	-16.1	Peak	Horizontal
*	16886.5	29.7	24.1	53.8	68.2	-14.4	Peak	Horizontal
	7613.0	31.2	12.6	43.8	74.0	-30.2	Peak	Vertical
	11565.5	31.7	19.5	51.2	74.0	-22.8	Peak	Vertical
*	14081.5	29.9	22.8	52.7	68.2	-15.5	Peak	Vertical
*	16606.0	30.3	22.5	52.8	68.2	-15.4	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7604.5	30.9	12.7	43.6	74.0	-30.4	Peak	Horizontal
	11650.5	29.6	19.3	48.9	74.0	-25.1	Peak	Horizontal
*	14081.5	29.0	22.8	51.8	68.2	-16.4	Peak	Horizontal
*	16784.5	30.1	23.6	53.7	68.2	-14.5	Peak	Horizontal
	7519.5	30.7	12.8	43.5	74.0	-30.5	Peak	Vertical
	11650.5	31.2	19.3	50.5	74.0	-23.5	Peak	Vertical
*	14175.0	29.2	23.1	52.3	68.2	-15.9	Peak	Vertical
*	16538.0	30.5	22.1	52.6	68.2	-15.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	38				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7451.5	30.9	12.8	43.7	74.0	-30.3	Peak	Horizontal
	11557.0	29.8	19.5	49.3	74.0	-24.7	Peak	Horizontal
*	14081.5	29.5	22.8	52.3	68.2	-15.9	Peak	Horizontal
*	16767.5	29.5	23.5	53.0	68.2	-15.2	Peak	Horizontal
	7511.0	30.8	12.9	43.7	74.0	-30.3	Peak	Vertical
	11565.5	28.5	19.5	48.0	74.0	-26.0	Peak	Vertical
*	14073.0	29.8	22.8	52.6	68.2	-15.6	Peak	Vertical
*	16589.0	31.1	22.4	53.5	68.2	-14.7	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: 2AD8UFZCWO2CA1

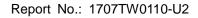




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	46				
Remark:	1. Average measurement was no	t performed if peak	evel lower than average				
	limit.						
	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)				
	7519.5	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
	11404.0	29.0	19.1	48.1	74.0	-25.9	Peak	Horizontal
*	14132.5	29.4	23.0	52.4	68.2	-15.8	Peak	Horizontal
*	16453.0	29.3	21.6	50.9	68.2	-17.3	Peak	Horizontal
	7494.0	31.0	12.8	43.8	74.0	-30.2	Peak	Vertical
	11565.5	29.6	19.5	49.1	74.0	-24.9	Peak	Vertical
*	14234.5	29.1	23.1	52.2	68.2	-16.0	Peak	Vertical
*	16529.5	30.5	22.0	52.5	68.2	-15.7	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	151				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7545.0	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
	11582.5	29.5	19.5	49.0	74.0	-25.0	Peak	Horizontal
*	14209.0	29.6	23.1	52.7	68.2	-15.5	Peak	Horizontal
*	16555.0	29.0	22.2	51.2	68.2	-17.0	Peak	Horizontal
	7417.5	32.0	12.6	44.6	74.0	-29.4	Peak	Vertical
	11582.5	29.5	19.5	49.0	74.0	-25.0	Peak	Vertical
*	14209.0	29.6	23.1	52.7	68.2	-15.5	Peak	Vertical
*	16563.5	29.8	22.2	52.0	68.2	-16.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	159				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7477.0	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
	11659.0	29.0	19.3	48.3	74.0	-25.7	Peak	Horizontal
*	14285.5	29.0	23.1	52.1	68.2	-16.1	Peak	Horizontal
*	16665.5	30.8	22.8	53.6	68.2	-14.6	Peak	Horizontal
	7468.5	31.0	12.8	43.8	74.0	-30.2	Peak	Vertical
	11472.0	29.4	19.3	48.7	74.0	-25.3	Peak	Vertical
*	13809.5	29.7	22.1	51.8	68.2	-16.4	Peak	Vertical
*	16589.0	30.0	22.4	52.4	68.2	-15.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT80 - Ant 2	Test Channel:	42				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7536.5	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
	11174.5	28.9	18.7	47.6	74.0	-26.4	Peak	Horizontal
*	13707.5	29.4	22.0	51.4	68.2	-16.8	Peak	Horizontal
*	16767.5	29.9	23.5	53.4	68.2	-14.8	Peak	Horizontal
	7494.0	31.5	12.8	44.3	74.0	-29.7	Peak	Vertical
	11574.0	28.6	19.5	48.1	74.0	-25.9	Peak	Vertical
*	14081.5	29.0	22.8	51.8	68.2	-16.4	Peak	Vertical
*	16657.0	30.4	22.8	53.2	68.2	-15.0	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT80 - Ant 2	Test Channel:	155				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7511.0	30.6	12.9	43.5	74.0	-30.5	Peak	Horizontal
	11557.0	29.4	19.5	48.9	74.0	-25.1	Peak	Horizontal
*	13716.0	30.0	22.0	52.0	68.2	-16.2	Peak	Horizontal
*	16529.5	30.0	22.0	52.0	68.2	-16.2	Peak	Horizontal
	7460.0	31.0	12.8	43.8	74.0	-30.2	Peak	Vertical
	11540.0	29.3	19.4	48.7	74.0	-25.3	Peak	Vertical
*	14158.0	29.2	23.1	52.3	68.2	-15.9	Peak	Vertical
*	16716.5	29.8	23.1	52.9	68.2	-15.3	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	36				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7536.5	30.7	12.8	43.5	74.0	-30.5	Peak	Horizontal
	11531.5	28.0	19.4	47.4	74.0	-26.6	Peak	Horizontal
*	14175.0	28.8	23.1	51.9	68.2	-16.3	Peak	Horizontal
*	16665.5	31.0	22.8	53.8	68.2	-14.4	Peak	Horizontal
	7375.0	30.9	12.5	43.4	74.0	-30.6	Peak	Vertical
	11514.5	29.2	19.4	48.6	74.0	-25.4	Peak	Vertical
*	14260.0	29.6	23.1	52.7	68.2	-15.5	Peak	Vertical
*	16589.0	30.6	22.4	53.0	68.2	-15.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7477.0	29.7	12.8	42.5	74.0	-31.5	Peak	Horizontal
	11540.0	29.0	19.4	48.4	74.0	-25.6	Peak	Horizontal
*	14124.0	28.1	23.0	51.1	68.2	-17.1	Peak	Horizontal
*	16665.5	30.4	22.8	53.2	68.2	-15.0	Peak	Horizontal
	7570.5	30.6	12.8	43.4	74.0	-30.6	Peak	Vertical
	11548.5	28.7	19.5	48.2	74.0	-25.8	Peak	Vertical
*	13809.5	29.5	22.1	51.6	68.2	-16.6	Peak	Vertical
*	16665.5	29.9	22.8	52.7	68.2	-15.5	Peak	Vertical

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





AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Kevin Ker	Relative Humidity	57 %
AC1	Test Date	2017/08/27
802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	48
limit. 2. Other frequency was 20dB below		•
	antenna US Kevin Ker AC1 802.11a - Ant 1 + 2 (CDD Mode) 1. Average measurement was no limit.	AC1 Relative Humidity AC1 Test Date 802.11a - Ant 1 + 2 (CDD Mode) Test Channel: 1. Average measurement was not performed if peak limit. 2. Other frequency was 20dB below limit line within 1

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
	11582.5	29.5	19.5	49.0	74.0	-25.0	Peak	Horizontal
*	13818.0	30.6	22.2	52.8	68.2	-15.4	Peak	Horizontal
*	16767.5	30.0	23.5	53.5	68.2	-14.7	Peak	Horizontal
	7485.5	30.5	12.8	43.3	74.0	-30.7	Peak	Vertical
	11480.5	28.6	19.3	47.9	74.0	-26.1	Peak	Vertical
*	13835.0	28.4	22.2	50.6	68.2	-17.6	Peak	Vertical
*	16648.5	29.6	22.8	52.4	68.2	-15.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	149			
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)				
	7468.5	30.0	12.8	42.8	74.0	-31.2	Peak	Horizontal
	11582.5	28.5	19.5	48.0	74.0	-26.0	Peak	Horizontal
*	13784.0	30.1	22.1	52.2	68.2	-16.0	Peak	Horizontal
*	16665.5	30.1	22.8	52.9	68.2	-15.3	Peak	Horizontal
	7400.5	30.5	12.6	43.1	74.0	-30.9	Peak	Vertical
	11497.5	30.3	19.4	49.7	74.0	-24.3	Peak	Vertical
*	13809.5	30.3	22.1	52.4	68.2	-15.8	Peak	Vertical
*	16623.0	30.2	22.6	52.8	68.2	-15.4	Peak	Vertical

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

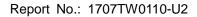




Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7570.5	31.0	12.8	43.8	74.0	-30.2	Peak	Horizontal
	11565.5	31.7	17.6	49.3	74.0	-24.7	Peak	Horizontal
*	13792.5	28.3	22.1	50.4	68.2	-17.8	Peak	Horizontal
*	16589.0	30.7	22.4	53.1	68.2	-15.1	Peak	Horizontal
	7494.0	30.4	12.8	43.2	74.0	-30.8	Peak	Vertical
	11565.5	33.8	17.6	51.4	74.0	-22.6	Peak	Vertical
*	13826.5	29.2	22.2	51.4	68.2	-16.8	Peak	Vertical
*	16767.5	29.4	23.5	52.9	68.2	-15.3	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	165			
Remark:	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 sh					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7528.0	30.9	12.8	43.7	74.0	-30.3	Peak	Horizontal
	11642.0	32.6	17.4	50.0	74.0	-24.0	Peak	Horizontal
*	13818.0	30.1	22.2	52.3	68.2	-15.9	Peak	Horizontal
*	16674.0	30.6	22.9	53.5	68.2	-14.7	Peak	Horizontal
	7536.5	30.2	12.8	43.0	74.0	-31.0	Peak	Vertical
	11650.5	34.3	17.4	51.7	74.0	-22.3	Peak	Vertical
*	13656.5	29.2	21.8	51.0	68.2	-17.2	Peak	Vertical
*	16708.0	30.5	23.1	53.6	68.2	-14.6	Peak	Vertical

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



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	36
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)				
	7383.5	31.0	12.5	43.5	74.0	-30.5	Peak	Horizontal
	11506.0	29.9	19.4	49.3	74.0	-24.7	Peak	Horizontal
*	13792.5	29.8	22.1	51.9	68.2	-16.3	Peak	Horizontal
*	16648.5	31.2	22.8	54.0	68.2	-14.2	Peak	Horizontal
	7545.0	30.4	12.8	43.2	74.0	-30.8	Peak	Vertical
	11208.5	28.6	18.8	47.4	74.0	-26.6	Peak	Vertical
*	13826.5	28.6	22.2	50.8	68.2	-17.4	Peak	Vertical
*	16597.5	30.6	22.4	53.0	68.2	-15.2	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: 2AD8UFZCWO2CA1 Page Number: 362 of 1017



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	44
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)				
	7545.0	31.1	12.8	43.9	74.0	-30.1	Peak	Horizontal
	11557.0	28.8	19.5	48.3	74.0	-25.7	Peak	Horizontal
*	13894.5	28.8	22.3	51.1	68.2	-17.1	Peak	Horizontal
*	16614.5	30.0	22.5	52.5	68.2	-15.7	Peak	Horizontal
	7485.5	30.3	12.8	43.1	74.0	-30.9	Peak	Vertical
	11565.5	28.7	19.5	48.2	74.0	-25.8	Peak	Vertical
*	13826.5	29.7	22.2	51.9	68.2	-16.3	Peak	Vertical
*	16665.5	29.7	22.8	52.5	68.2	-15.7	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: 2AD8UFZCWO2CA1 Page Number: 363 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	48
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)				
	7519.5	30.4	12.8	43.2	74.0	-30.8	Peak	Horizontal
	11276.5	29.1	18.8	47.9	74.0	-26.1	Peak	Horizontal
*	13716.0	29.8	22.0	51.8	68.2	-16.4	Peak	Horizontal
*	16827.0	29.8	23.9	53.7	68.2	-14.5	Peak	Horizontal
	7621.5	30.6	12.6	43.2	74.0	-30.8	Peak	Vertical
	11514.5	30.5	19.4	49.9	74.0	-24.1	Peak	Vertical
*	13792.5	29.2	22.1	51.3	68.2	-16.9	Peak	Vertical
*	16589.0	30.8	22.4	53.2	68.2	-15.0	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: 2AD8UFZCWO2CA1 Page Number: 364 of 1017





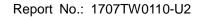
Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç .

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7553.5	31.4	12.8	44.2	74.0	-29.8	Peak	Horizontal
	11548.5	29.0	19.5	48.5	74.0	-25.5	Peak	Horizontal
*	13758.5	29.5	22.0	51.5	68.2	-16.7	Peak	Horizontal
*	16538.0	30.6	22.1	52.7	68.2	-15.5	Peak	Horizontal
	7638.5	30.7	12.6	43.3	74.0	-30.7	Peak	Vertical
	11489.0	30.1	19.3	49.4	74.0	-24.6	Peak	Vertical
*	13750.0	29.8	22.0	51.8	68.2	-16.4	Peak	Vertical
*	16538.0	30.3	22.1	52.4	68.2	-15.8	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: 2AD8UFZCWO2CA1 Page Number: 365 of 1017





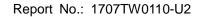
Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7562.0	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
	11574.0	32.2	17.4	49.6	74.0	-24.4	Peak	Horizontal
*	13818.0	29.6	22.2	51.8	68.2	-16.4	Peak	Horizontal
*	16427.5	29.6	21.6	51.2	68.2	-17.0	Peak	Horizontal
	7579.0	29.9	12.7	42.6	74.0	-31.4	Peak	Vertical
	11565.5	36.6	17.6	54.2	74.0	-19.8	Peak	Vertical
	11567.0	25.4	17.5	42.9	54.0	-11.1	Average	Vertical
*	13860.5	28.8	22.3	51.1	68.2	-17.1	Peak	Vertical
*	16640.0	29.8	22.7	52.5	68.2	-15.7	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: 2AD8UFZCWO2CA1 Page Number: 366 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	165
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)				
	7511.0	30.6	12.9	43.5	74.0	-30.5	Peak	Horizontal
	11650.5	33.6	17.4	51.0	74.0	-23.0	Peak	Horizontal
*	13699.0	28.5	22.0	50.5	68.2	-17.7	Peak	Horizontal
*	16606.0	30.8	22.5	53.3	68.2	-14.9	Peak	Horizontal
	7468.5	29.9	12.8	42.7	74.0	-31.3	Peak	Vertical
	11650.5	40.1	17.4	57.5	74.0	-16.5	Peak	Vertical
	11653.0	28.7	17.4	46.1	54.0	-7.9	Average	Vertical
*	13622.5	29.3	21.8	51.1	68.2	-17.1	Peak	Vertical
*	16368.0	29.7	21.4	51.1	68.2	-17.1	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: 2AD8UFZCWO2CA1 Page Number: 367 of 1017



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	38
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)				
	7485.5	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
	11557.0	29.9	19.5	49.4	74.0	-24.6	Peak	Horizontal
*	13775.5	29.5	22.1	51.6	68.2	-16.6	Peak	Horizontal
*	16827.0	30.0	23.9	53.9	68.2	-14.3	Peak	Horizontal
	7528.0	31.4	12.8	44.2	74.0	-29.8	Peak	Vertical
	11472.0	29.3	19.3	48.6	74.0	-25.4	Peak	Vertical
*	13826.5	30.4	22.2	52.6	68.2	-15.6	Peak	Vertical
*	16597.5	31.3	22.4	53.7	68.2	-14.5	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: 2AD8UFZCWO2CA1 Page Number: 368 of 1017



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	46
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)				
	7477.0	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
	11480.5	29.8	19.3	49.1	74.0	-24.9	Peak	Horizontal
*	13784.0	28.9	22.1	51.0	68.2	-17.2	Peak	Horizontal
*	16691.0	30.4	23.0	53.4	68.2	-14.8	Peak	Horizontal
	7468.5	30.4	12.8	43.2	74.0	-30.8	Peak	Vertical
	11548.5	29.2	19.5	48.7	74.0	-25.3	Peak	Vertical
*	13809.5	29.3	22.1	51.4	68.2	-16.8	Peak	Vertical
*	16682.5	30.4	22.9	53.3	68.2	-14.9	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: 2AD8UFZCWO2CA1 Page Number: 369 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	151
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7485.5	30.1	12.8	42.9	74.0	-31.1	Peak	Horizontal
	11514.5	28.4	19.4	47.8	74.0	-26.2	Peak	Horizontal
*	13767.0	29.2	22.0	51.2	68.2	-17.0	Peak	Horizontal
*	16674.0	30.8	22.9	53.7	68.2	-14.5	Peak	Horizontal
	7545.0	30.6	12.8	43.4	74.0	-30.6	Peak	Vertical
	11497.5	32.7	17.3	50.0	74.0	-24.0	Peak	Vertical
*	13767.0	29.8	22.0	51.8	68.2	-16.4	Peak	Vertical
*	16623.0	30.3	22.6	52.9	68.2	-15.3	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: 2AD8UFZCWO2CA1 Page Number: 370 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	159
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)				
	7596.0	30.4	12.7	43.1	74.0	-30.9	Peak	Horizontal
	11582.5	29.4	19.5	48.9	74.0	-25.1	Peak	Horizontal
*	13563.0	29.0	21.8	50.8	68.2	-17.4	Peak	Horizontal
*	16725.0	30.1	23.2	53.3	68.2	-14.9	Peak	Horizontal
	7536.5	30.3	12.8	43.1	74.0	-30.9	Peak	Vertical
	11591.0	30.4	19.5	49.9	74.0	-24.1	Peak	Vertical
*	13775.5	29.1	22.1	51.2	68.2	-17.0	Peak	Vertical
*	16529.5	30.2	22.0	52.2	68.2	-16.0	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	36
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)				
	7468.5	30.0	12.8	42.8	74.0	-31.2	Peak	Horizontal
	11548.5	28.7	19.5	48.2	74.0	-25.8	Peak	Horizontal
*	13784.0	28.9	22.1	51.0	68.2	-17.2	Peak	Horizontal
*	16631.5	29.5	22.6	52.1	68.2	-16.1	Peak	Horizontal
	7613.0	31.9	12.6	44.5	74.0	-29.5	Peak	Vertical
	11463.5	29.7	19.3	49.0	74.0	-25.0	Peak	Vertical
*	13758.5	29.3	22.0	51.3	68.2	-16.9	Peak	Vertical
*	16580.5	29.7	22.3	52.0	68.2	-16.2	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)



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	44
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)				
	7536.5	30.7	12.8	43.5	74.0	-30.5	Peak	Horizontal
	11540.0	28.9	19.4	48.3	74.0	-25.7	Peak	Horizontal
*	13809.5	29.3	22.1	51.4	68.2	-16.8	Peak	Horizontal
*	16640.0	30.2	22.7	52.9	68.2	-15.3	Peak	Horizontal
	7494.0	30.2	12.8	43.0	74.0	-31.0	Peak	Vertical
	11565.5	30.6	19.5	50.1	74.0	-23.9	Peak	Vertical
*	13750.0	29.1	22.0	51.1	68.2	-17.1	Peak	Vertical
*	16546.5	30.1	22.1	52.2	68.2	-16.0	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)





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7613.0	30.2	12.6	42.8	74.0	-31.2	Peak	Horizontal
	11506.0	28.7	19.4	48.1	74.0	-25.9	Peak	Horizontal
*	13809.5	29.9	22.1	52.0	68.2	-16.2	Peak	Horizontal
*	16597.5	29.7	22.4	52.1	68.2	-16.1	Peak	Horizontal
	7511.0	31.3	12.9	44.2	74.0	-29.8	Peak	Vertical
	11574.0	30.0	19.5	49.5	74.0	-24.5	Peak	Vertical
*	13809.5	29.9	22.1	52.0	68.2	-16.2	Peak	Vertical
*	16580.5	29.0	22.3	51.3	68.2	-16.9	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)





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	149
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)				
	7477.0	30.7	12.8	43.5	74.0	-30.5	Peak	Horizontal
	11659.0	29.5	19.3	48.8	74.0	-25.2	Peak	Horizontal
*	13792.5	29.9	22.1	52.0	68.2	-16.2	Peak	Horizontal
*	16793.0	27.7	23.7	51.4	68.2	-16.8	Peak	Horizontal
	7494.0	30.9	12.8	43.7	74.0	-30.3	Peak	Vertical
	11489.0	33.4	17.1	50.5	74.0	-23.5	Peak	Vertical
*	13758.5	29.1	22.0	51.1	68.2	-17.1	Peak	Vertical
*	16546.5	30.4	22.1	52.5	68.2	-15.7	Peak	Vertical

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





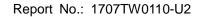
Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7545.0	31.4	12.8	44.2	74.0	-29.8	Peak	Horizontal
	11557.0	28.7	19.5	48.2	74.0	-25.8	Peak	Horizontal
*	13767.0	29.0	22.0	51.0	68.2	-17.2	Peak	Horizontal
*	16844.0	29.8	23.9	53.7	68.2	-14.5	Peak	Horizontal
	7613.0	30.7	12.6	43.3	74.0	-30.7	Peak	Vertical
	11565.5	33.3	17.6	50.9	74.0	-23.1	Peak	Vertical
*	13801.0	29.1	22.1	51.2	68.2	-17.0	Peak	Vertical
*	16793.0	29.9	23.7	53.6	68.2	-14.6	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: 2AD8UFZCWO2CA1 Page Number: 376 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	165
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)				
	7647.0	30.9	12.5	43.4	74.0	-30.6	Peak	Horizontal
	11650.5	32.1	19.3	51.4	74.0	-22.6	Peak	Horizontal
*	14073.0	29.1	22.8	51.9	68.2	-16.3	Peak	Horizontal
*	16784.5	30.2	23.6	53.8	68.2	-14.4	Peak	Horizontal
	7494.0	30.5	12.8	43.3	74.0	-30.7	Peak	Vertical
	11650.1	28.9	17.3	46.2	54.0	-7.8	Average	Vertical
	11650.5	40.8	17.4	58.2	74.0	-15.8	Peak	Vertical
*	13869.0	29.2	22.3	51.5	68.2	-16.7	Peak	Vertical
*	16640.0	30.1	22.7	52.8	68.2	-15.4	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: 2AD8UFZCWO2CA1 Page Number: 377 of 1017



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (CDD Mode)	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7409.0	30.4	12.6	43.0	74.0	-31.0	Peak	Horizontal
	11540.0	28.3	19.4	47.7	74.0	-26.3	Peak	Horizontal
*	13597.0	28.6	21.8	50.4	68.2	-17.8	Peak	Horizontal
*	16827.0	29.7	23.9	53.6	68.2	-14.6	Peak	Horizontal
	7587.5	31.3	12.7	44.0	74.0	-30.0	Peak	Vertical
	11565.5	28.8	19.5	48.3	74.0	-25.7	Peak	Vertical
*	13818.0	29.4	22.2	51.6	68.2	-16.6	Peak	Vertical
*	16716.5	30.1	23.1	53.2	68.2	-15.0	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)



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	46
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)				
	7502.5	30.6	12.9	43.5	74.0	-30.5	Peak	Horizontal
	11616.5	29.5	19.4	48.9	74.0	-25.1	Peak	Horizontal
*	13750.0	28.7	22.0	50.7	68.2	-17.5	Peak	Horizontal
*	16589.0	31.4	22.4	53.8	68.2	-14.4	Peak	Horizontal
	7536.5	30.2	12.8	43.0	74.0	-31.0	Peak	Vertical
	11557.0	29.0	19.5	48.5	74.0	-25.5	Peak	Vertical
*	13809.5	30.1	22.1	52.2	68.2	-16.0	Peak	Vertical
*	16640.0	30.3	22.7	53.0	68.2	-15.2	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)





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	151
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)				
	7536.5	29.9	12.8	42.7	74.0	-31.3	Peak	Horizontal
	11506.0	29.5	19.4	48.9	74.0	-25.1	Peak	Horizontal
*	13835.0	28.6	22.2	50.8	68.2	-17.4	Peak	Horizontal
*	16623.0	29.8	22.6	52.4	68.2	-15.8	Peak	Horizontal
	7579.0	30.9	12.7	43.6	74.0	-30.4	Peak	Vertical
	11523.0	32.7	17.2	49.9	74.0	-24.1	Peak	Vertical
*	13775.5	29.1	22.1	51.2	68.2	-17.0	Peak	Vertical
*	16631.5	30.7	22.6	53.3	68.2	-14.9	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: 2AD8UFZCWO2CA1 Page Number: 380 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	159
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)				
	7630.0	31.2	12.6	43.8	74.0	-30.2	Peak	Horizontal
	11582.5	29.5	19.5	49.0	74.0	-25.0	Peak	Horizontal
*	13877.5	30.4	22.3	52.7	68.2	-15.5	Peak	Horizontal
*	16716.5	30.5	23.1	53.6	68.2	-14.6	Peak	Horizontal
	7528.0	31.4	12.8	44.2	74.0	-29.8	Peak	Vertical
	11582.5	32.5	17.2	49.7	74.0	-24.3	Peak	Vertical
*	13971.0	29.3	22.6	51.9	68.2	-16.3	Peak	Vertical
*	16682.5	30.3	22.9	53.2	68.2	-15.0	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (CDD Mode)	Test Channel:	42
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)				
	7511.0	31.2	12.9	44.1	74.0	-29.9	Peak	Horizontal
	11200.0	29.1	18.8	47.9	74.0	-26.1	Peak	Horizontal
*	14073.0	29.4	22.8	52.2	68.2	-16.0	Peak	Horizontal
*	16640.0	30.7	22.7	53.4	68.2	-14.8	Peak	Horizontal
	7477.0	31.0	12.8	43.8	74.0	-30.2	Peak	Vertical
	11463.5	28.9	19.3	48.2	74.0	-25.8	Peak	Vertical
*	13809.5	28.9	22.1	51.0	68.2	-17.2	Peak	Vertical
*	16657.0	30.4	22.8	53.2	68.2	-15.0	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)





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (CDD Mode)	Test Channel:	155
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)				
	7545.0	30.2	12.8	43.0	74.0	-31.0	Peak	Horizontal
	11557.0	29.0	19.5	48.5	74.0	-25.5	Peak	Horizontal
*	13826.5	29.0	22.2	51.2	68.2	-17.0	Peak	Horizontal
*	16776.0	29.7	23.5	53.2	68.2	-15.0	Peak	Horizontal
	7460.0	30.7	12.8	43.5	74.0	-30.5	Peak	Vertical
	11548.5	29.6	19.5	49.1	74.0	-24.9	Peak	Vertical
*	13809.5	29.3	22.1	51.4	68.2	-16.8	Peak	Vertical
*	16580.5	29.8	22.3	52.1	68.2	-16.1	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: 2AD8UFZCWO2CA1 Page Number: 383 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	36
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7111.5	32.3	11.5	43.8	68.2	-24.4	Peak	Horizontal
*	7953.0	32.5	12.5	45.0	68.2	-23.2	Peak	Horizontal
	11047.0	31.8	18.5	50.3	74.0	-23.7	Peak	Horizontal
	11404.0	32.1	19.1	51.2	74.0	-22.8	Peak	Horizontal
*	7188.0	32.2	12.0	44.2	68.2	-24.0	Peak	Vertical
*	7825.5	32.8	12.4	45.2	68.2	-23.0	Peak	Vertical
	9049.5	31.9	14.2	46.1	74.0	-27.9	Peak	Vertical
	10843.0	32.1	18.1	50.2	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 384 of 1017



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	44
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)				
*	7145.5	31.7	11.8	43.5	68.2	-24.7	Peak	Horizontal
*	7817.0	31.5	12.4	43.9	68.2	-24.3	Peak	Horizontal
	9151.5	32.2	14.7	46.9	74.0	-27.1	Peak	Horizontal
	11616.5	31.3	19.4	50.7	74.0	-23.3	Peak	Horizontal
*	7103.0	32.1	11.5	43.6	68.2	-24.6	Peak	Vertical
*	7774.5	32.2	12.4	44.6	68.2	-23.6	Peak	Vertical
	9168.5	32.2	14.7	46.9	74.0	-27.1	Peak	Vertical
	11480.5	31.2	19.3	50.5	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 385 of 1017



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7774.5	33.6	12.4	46.0	68.2	-22.2	Peak	Horizontal
*	10477.5	32.7	17.1	49.8	68.2	-18.4	Peak	Horizontal
	11038.5	31.0	18.5	49.5	74.0	-24.5	Peak	Horizontal
	11582.5	32.3	19.5	51.8	74.0	-22.2	Peak	Horizontal
*	7111.5	32.2	11.5	43.7	68.2	-24.5	Peak	Vertical
*	7927.5	31.7	12.4	44.1	68.2	-24.1	Peak	Vertical
	9151.5	31.4	14.7	46.1	74.0	-27.9	Peak	Vertical
	11531.5	31.5	19.4	50.9	74.0	-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)





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7145.5	34.0	11.8	45.8	68.2	-22.4	Peak	Horizontal
*	7774.5	33.3	12.4	45.7	68.2	-22.5	Peak	Horizontal
	9151.5	31.7	14.7	46.4	74.0	-27.6	Peak	Horizontal
	11472.0	30.9	19.3	50.2	74.0	-23.8	Peak	Horizontal
*	7120.0	33.0	11.6	44.6	68.2	-23.6	Peak	Vertical
*	7817.0	31.6	12.4	44.0	68.2	-24.2	Peak	Vertical
	9143.0	31.5	14.6	46.1	74.0	-27.9	Peak	Vertical
	11497.5	31.2	19.3	50.5	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 387 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7128.5	32.6	11.7	44.3	68.2	-23.9	Peak	Horizontal
*	7944.5	31.8	12.5	44.3	68.2	-23.9	Peak	Horizontal
	9168.5	31.9	14.7	46.6	74.0	-27.4	Peak	Horizontal
	11463.5	31.9	19.3	51.2	74.0	-22.8	Peak	Horizontal
*	7137.0	32.6	11.7	44.3	68.2	-23.9	Peak	Vertical
*	7783.0	33.0	12.4	45.4	68.2	-22.8	Peak	Vertical
	9151.5	31.7	14.7	46.4	74.0	-27.6	Peak	Vertical
	11055.5	31.9	18.5	50.4	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 388 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7094.5	31.9	11.4	43.3	68.2	-24.9	Peak	Horizontal
*	7774.5	32.2	12.4	44.6	68.2	-23.6	Peak	Horizontal
	9083.5	33.0	14.4	47.4	74.0	-26.6	Peak	Horizontal
	11650.5	33.4	19.3	52.7	74.0	-21.3	Peak	Horizontal
*	7077.5	32.5	11.3	43.8	68.2	-24.4	Peak	Vertical
*	7834.0	32.4	12.4	44.8	68.2	-23.4	Peak	Vertical
	9109.0	31.3	14.5	45.8	74.0	-28.2	Peak	Vertical
	11650.5	34.6	19.3	53.9	74.0	-20.1	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: 2AD8UFZCWO2CA1 Page Number: 389 of 1017



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/27	
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	38	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7120.0	32.2	11.6	43.8	68.2	-24.4	Peak	Horizontal
*	7876.5	31.7	12.4	44.1	68.2	-24.1	Peak	Horizontal
	9100.5	32.2	14.4	46.6	74.0	-27.4	Peak	Horizontal
	11565.5	31.0	19.5	50.5	74.0	-23.5	Peak	Horizontal
*	7094.5	32.7	11.4	44.1	68.2	-24.1	Peak	Vertical
*	7987.0	32.6	12.5	45.1	68.2	-23.1	Peak	Vertical
	9100.5	32.4	14.4	46.8	74.0	-27.2	Peak	Vertical
	11650.5	31.4	19.3	50.7	74.0	-23.3	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: 2AD8UFZCWO2CA1 Page Number: 390 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/27	
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	46	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7128.5	32.7	11.7	44.4	68.2	-23.8	Peak	Horizontal
*	7825.2	32.1	12.4	44.5	68.2	-23.7	Peak	Horizontal
	9143.0	31.9	14.6	46.5	74.0	-27.5	Peak	Horizontal
	11591.0	31.0	19.5	50.5	74.0	-23.5	Peak	Horizontal
*	7154.0	32.2	11.9	44.1	68.2	-24.1	Peak	Vertical
*	7944.5	31.9	12.5	44.4	68.2	-23.8	Peak	Vertical
	9151.5	31.7	14.7	46.4	74.0	-27.6	Peak	Vertical
	11540.0	31.0	19.4	50.4	74.0	-23.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/27	
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	151	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7111.5	31.5	11.5	43.0	68.2	-25.2	Peak	Horizontal
*	7885.0	31.5	12.4	43.9	68.2	-24.3	Peak	Horizontal
	10979.0	29.8	18.5	48.3	74.0	-25.7	Peak	Horizontal
	12381.5	29.5	18.4	47.9	74.0	-26.1	Peak	Horizontal
*	7111.5	31.7	11.5	43.2	68.2	-25.0	Peak	Vertical
*	7834.0	30.8	12.4	43.2	68.2	-25.0	Peak	Vertical
	10681.5	30.1	17.4	47.5	74.0	-26.5	Peak	Vertical
	12058.5	29.5	18.8	48.3	74.0	-25.7	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: 2AD8UFZCWO2CA1 Page Number: 392 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7077.5	31.8	11.3	43.1	68.2	-25.1	Peak	Horizontal
*	7808.5	31.5	12.4	43.9	68.2	-24.3	Peak	Horizontal
	10724.0	30.3	17.6	47.9	74.0	-26.1	Peak	Horizontal
	11625.0	32.0	19.4	51.4	74.0	-22.6	Peak	Horizontal
*	7137.0	32.2	11.7	43.9	68.2	-24.3	Peak	Vertical
*	7902.0	30.7	12.4	43.1	68.2	-25.1	Peak	Vertical
	10664.5	29.9	17.4	47.3	74.0	-26.7	Peak	Vertical
	11599.5	31.7	19.4	51.1	74.0	-22.9	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	36
Remark:	 Average measurement was no limit. Other frequency was 20dB belin the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7171.0	31.1	11.9	43.0	68.2	-25.2	Peak	Horizontal
*	7876.5	30.5	12.4	42.9	68.2	-25.3	Peak	Horizontal
	11242.5	29.1	18.8	47.9	74.0	-26.1	Peak	Horizontal
	12611.0	30.4	18.7	49.1	74.0	-24.9	Peak	Horizontal
*	7009.5	31.9	10.7	42.6	68.2	-25.6	Peak	Vertical
*	7842.5	31.1	12.4	43.5	68.2	-24.7	Peak	Vertical
	10945.0	30.1	18.4	48.5	74.0	-25.5	Peak	Vertical
	12169.0	30.3	18.8	49.1	74.0	-24.9	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: 2AD8UFZCWO2CA1 Page Number: 394 of 1017



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/27	
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	44	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7111.5	31.1	11.5	42.6	68.2	-25.6	Peak	Horizontal
*	7868.0	30.7	12.4	43.1	68.2	-25.1	Peak	Horizontal
	11174.5	29.0	18.7	47.7	74.0	-26.3	Peak	Horizontal
	12237.0	29.7	18.7	48.4	74.0	-25.6	Peak	Horizontal
*	7009.5	30.8	10.7	41.5	68.2	-26.7	Peak	Vertical
*	7859.5	30.7	12.4	43.1	68.2	-25.1	Peak	Vertical
	11200.0	28.5	18.7	47.2	74.0	-26.8	Peak	Vertical
	12364.5	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: 2AD8UFZCWO2CA1 Page Number: 395 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7086.0	31.1	11.3	42.4	68.2	-25.8	Peak	Horizontal
*	7885.0	30.6	12.4	43.0	68.2	-25.2	Peak	Horizontal
	11174.5	29.1	18.7	47.8	74.0	-26.2	Peak	Horizontal
	12058.5	30.4	18.8	49.2	74.0	-24.8	Peak	Horizontal
*	7009.5	31.3	10.7	42.0	68.2	-26.2	Peak	Vertical
*	7902.0	30.6	12.4	43.0	68.2	-25.2	Peak	Vertical
	11871.5	28.8	18.7	47.5	74.0	-26.5	Peak	Vertical
	12696.0	29.8	18.8	48.6	74.0	-25.4	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: 2AD8UFZCWO2CA1 Page Number: 396 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7094.5	32.5	11.4	43.9	68.2	-24.3	Peak	Horizontal
*	7953.0	31.6	12.5	44.1	68.2	-24.1	Peak	Horizontal
	9134.5	31.7	14.6	46.3	74.0	-27.7	Peak	Horizontal
	11608.0	31.2	19.4	50.6	74.0	-23.4	Peak	Horizontal
*	7137.0	32.5	11.7	44.2	68.2	-24.0	Peak	Vertical
*	7834.0	33.2	12.4	45.6	68.2	-22.6	Peak	Vertical
	11582.5	31.0	19.5	50.5	74.0	-23.5	Peak	Vertical
	12611.0	31.9	18.7	50.6	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 397 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7179.5	32.5	12.0	44.5	68.2	-23.7	Peak	Horizontal
*	7876.5	31.6	12.4	44.0	68.2	-24.2	Peak	Horizontal
	10792.0	32.1	17.9	50.0	74.0	-24.0	Peak	Horizontal
	11565.5	31.4	19.5	50.9	74.0	-23.1	Peak	Horizontal
*	7111.5	32.4	11.5	43.9	68.2	-24.3	Peak	Vertical
*	7936.0	31.9	12.4	44.3	68.2	-23.9	Peak	Vertical
	11072.5	31.0	18.6	49.6	74.0	-24.4	Peak	Vertical
	12109.5	31.8	18.9	50.7	74.0	-23.3	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7179.5	32.6	12.0	44.6	68.2	-23.6	Peak	Horizontal
*	7757.5	33.7	12.4	46.1	68.2	-22.1	Peak	Horizontal
	11106.5	31.6	18.6	50.2	74.0	-23.8	Peak	Horizontal
	11650.5	32.0	19.3	51.3	74.0	-22.7	Peak	Horizontal
*	7060.5	32.5	11.1	43.6	68.2	-24.6	Peak	Vertical
*	7757.5	34.1	12.4	46.5	68.2	-21.7	Peak	Vertical
	10792.0	31.8	17.9	49.7	74.0	-24.3	Peak	Vertical
	11659.0	33.5	19.3	52.8	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 399 of 1017



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7137.0	32.8	11.7	44.5	68.2	-23.7	Peak	Horizontal
*	7859.5	31.6	12.4	44.0	68.2	-24.2	Peak	Horizontal
	11038.5	31.8	18.5	50.3	74.0	-23.7	Peak	Horizontal
	12500.5	31.3	18.5	49.8	74.0	-24.2	Peak	Horizontal
*	7154.0	32.5	11.9	44.4	68.2	-23.8	Peak	Vertical
*	7876.5	32.6	12.4	45.0	68.2	-23.2	Peak	Vertical
	11429.5	31.4	19.2	50.6	74.0	-23.4	Peak	Vertical
	12109.5	31.8	18.9	50.7	74.0	-23.3	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)



AC220 Wi-Fi AP OD external Product Temperature 26°C antenna US Kevin Ker 57 % Test Engineer Relative Humidity AC1 **Test Site** Test Date 2017/08/27 802.11ac-VHT40 - Ant 1 + 2 Test Mode: Test Channel: 46 (Beam-Forming Mode) Remark: 1. Average measurement was not performed if peak level lower than average 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)				
*	7137.0	31.5	11.7	43.2	68.2	-25.0	Peak	Horizontal
*	7834.0	31.1	12.4	43.5	68.2	-24.7	Peak	Horizontal
	9134.5	30.9	14.6	45.5	74.0	-28.5	Peak	Horizontal
	11659.0	31.4	19.3	50.7	74.0	-23.3	Peak	Horizontal
*	7145.5	31.9	11.8	43.7	68.2	-24.5	Peak	Vertical
*	7885.0	31.8	12.4	44.2	68.2	-24.0	Peak	Vertical
	9126.0	32.5	14.6	47.1	74.0	-26.9	Peak	Vertical
	11650.5	31.1	19.3	50.4	74.0	-23.6	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: 2AD8UFZCWO2CA1 Page Number: 401 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	151
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7145.5	31.9	11.8	43.7	68.2	-24.5	Peak	Horizontal
*	8862.5	31.8	14.0	45.8	68.2	-22.4	Peak	Horizontal
	10970.5	31.3	18.4	49.7	74.0	-24.3	Peak	Horizontal
	11582.5	31.3	19.5	50.8	74.0	-23.2	Peak	Horizontal
*	7120.0	32.7	11.6	44.3	68.2	-23.9	Peak	Vertical
*	7953.0	31.4	12.5	43.9	68.2	-24.3	Peak	Vertical
	10919.5	31.1	18.4	49.5	74.0	-24.5	Peak	Vertical
	11616.5	31.3	19.4	50.7	74.0	-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: 2AD8UFZCWO2CA1 Page Number: 402 of 1017





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/27	
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	159	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7035.0	32.5	10.9	43.4	68.2	-24.8	Peak	Horizontal
*	7791.5	33.8	12.4	46.2	68.2	-22.0	Peak	Horizontal
	10987.5	30.8	18.5	49.3	74.0	-24.7	Peak	Horizontal
	11565.5	31.7	19.5	51.2	74.0	-22.8	Peak	Horizontal
*	7137.0	32.1	11.7	43.8	68.2	-24.4	Peak	Vertical
*	8862.5	31.7	14.0	45.7	68.2	-22.5	Peak	Vertical
	11106.5	30.9	18.6	49.5	74.0	-24.5	Peak	Vertical
	11591.0	32.3	19.5	51.8	74.0	-22.2	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/27	
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	42	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7018.0	33.5	10.7	44.2	68.2	-24.0	Peak	Horizontal
*	8769.0	31.5	13.9	45.4	68.2	-22.8	Peak	Horizontal
	10928.0	31.1	18.4	49.5	74.0	-24.5	Peak	Horizontal
	12075.5	31.4	18.9	50.3	74.0	-23.7	Peak	Horizontal
*	7205.0	32.8	12.1	44.9	68.2	-23.3	Peak	Vertical
*	8709.5	31.6	13.8	45.4	68.2	-22.8	Peak	Vertical
	10979.0	31.1	18.5	49.6	74.0	-24.4	Peak	Vertical
	12254.0	31.9	18.6	50.5	74.0	-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)





Product	AC220 Wi-Fi AP OD external antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/27	
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	155	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
*	7103.0	33.7	11.5	45.2	68.2	-23.0	Peak	Horizontal
*	8871.0	31.8	14.0	45.8	68.2	-22.4	Peak	Horizontal
	10987.5	31.5	18.5	50.0	74.0	-24.0	Peak	Horizontal
	11608.0	31.8	19.4	51.2	74.0	-22.8	Peak	Horizontal
*	7137.0	32.2	11.7	43.9	68.2	-24.3	Peak	Vertical
*	8905.0	31.4	14.0	45.4	68.2	-22.8	Peak	Vertical
	10979.0	31.5	18.5	50.0	74.0	-24.0	Peak	Vertical
	11565.5	30.6	19.5	50.1	74.0	-23.9	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: 2AD8UFZCWO2CA1 Page Number: 405 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 1	Test Channel:	36				
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)				
	7477.0	30.7	12.8	43.5	74.0	-30.5	Peak	Horizontal
	8131.5	29.5	12.2	41.7	74.0	-32.3	Peak	Horizontal
*	8735.0	28.9	13.9	42.8	68.2	-25.4	Peak	Horizontal
*	10061.0	30.0	15.6	45.6	68.2	-22.6	Peak	Horizontal
	7553.5	31.1	12.8	43.9	74.0	-30.1	Peak	Vertical
	8140.0	31.0	12.2	43.2	74.0	-30.8	Peak	Vertical
*	8998.5	29.2	14.1	43.3	68.2	-24.9	Peak	Vertical
*	10154.5	30.4	16.0	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)





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 1	Test Channel:	44				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7451.5	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
	8386.5	30.5	12.1	42.6	74.0	-31.4	Peak	Horizontal
*	10120.5	29.5	15.8	45.3	68.2	-22.9	Peak	Horizontal
*	13121.0	28.6	20.1	48.7	68.2	-19.5	Peak	Horizontal
	7553.5	30.0	12.8	42.8	74.0	-31.2	Peak	Vertical
	8361.0	30.8	12.0	42.8	74.0	-31.2	Peak	Vertical
*	9576.5	30.4	14.4	44.8	68.2	-23.4	Peak	Vertical
*	13172.0	29.0	20.2	49.2	68.2	-19.0	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 1	Test Channel:	48				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7332.5	29.1	12.4	41.5	74.0	-32.5	Peak	Horizontal
	8352.5	28.2	12.0	40.2	74.0	-33.8	Peak	Horizontal
*	9721.0	27.5	14.7	42.2	68.2	-26.0	Peak	Horizontal
*	12934.0	28.0	19.6	47.6	68.2	-20.6	Peak	Horizontal
	7681.0	30.8	12.5	43.3	74.0	-30.7	Peak	Vertical
	8267.5	30.9	11.9	42.8	74.0	-31.2	Peak	Vertical
*	9228.0	30.3	14.8	45.1	68.2	-23.1	Peak	Vertical
*	10494.5	28.2	17.2	45.4	68.2	-22.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 1	Test Channel:	149				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7553.5	30.4	12.8	43.2	74.0	-30.8	Peak	Horizontal
	8480.0	29.9	12.7	42.6	74.0	-31.4	Peak	Horizontal
*	9576.5	30.2	14.4	44.6	68.2	-23.6	Peak	Horizontal
*	12959.5	28.0	19.8	47.8	68.2	-20.4	Peak	Horizontal
	7553.5	31.1	12.8	43.9	74.0	-30.1	Peak	Vertical
	8446.0	29.7	12.5	42.2	74.0	-31.8	Peak	Vertical
*	9296.0	28.1	14.7	42.8	68.2	-25.4	Peak	Vertical
*	10477.5	29.1	17.1	46.2	68.2	-22.0	Peak	Vertical

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

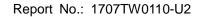




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1	Test Channel:	157
Remark:	Average measurement was no limit.	t performed if peak l	evel lower than average
	Other frequency was 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)				
	7519.5	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
	8454.5	30.4	12.5	42.9	74.0	-31.1	Peak	Horizontal
*	9296.0	29.0	14.7	43.7	68.2	-24.5	Peak	Horizontal
*	10129.0	30.6	15.9	46.5	68.2	-21.7	Peak	Horizontal
	7434.5	28.7	12.7	41.4	74.0	-32.6	Peak	Vertical
	8386.5	30.2	12.1	42.3	74.0	-31.7	Peak	Vertical
*	9228.0	30.4	14.8	45.2	68.2	-23.0	Peak	Vertical
*	10214.0	28.3	16.3	44.6	68.2	-23.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7485.5	30.3	12.8	43.1	74.0	-30.9	Peak	Horizontal
	8276.0	28.1	11.9	40.0	74.0	-34.0	Peak	Horizontal
*	9780.5	30.2	14.9	45.1	68.2	-23.1	Peak	Horizontal
*	12840.5	26.8	19.2	46.0	68.2	-22.2	Peak	Horizontal
	7511.0	30.6	12.9	43.5	74.0	-30.5	Peak	Vertical
	8446.0	30.2	12.5	42.7	74.0	-31.3	Peak	Vertical
*	9602.0	30.8	14.4	45.2	68.2	-23.0	Peak	Vertical
*	12951.0	28.3	19.7	48.0	68.2	-20.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	36
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	27.8	12.6	40.4	74.0	-33.6	Peak	Horizontal
	8276.0	28.0	11.9	39.9	74.0	-34.1	Peak	Horizontal
*	9245.0	29.7	14.8	44.5	68.2	-23.7	Peak	Horizontal
*	10137.5	30.5	15.9	46.4	68.2	-21.8	Peak	Horizontal
	7460.0	30.5	12.8	43.3	74.0	-30.7	Peak	Vertical
	8165.5	30.1	12.1	42.2	74.0	-31.8	Peak	Vertical
*	9245.0	28.7	14.8	43.5	68.2	-24.7	Peak	Vertical
*	10171.5	28.5	16.1	44.6	68.2	-23.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7604.5	30.5	12.7	43.2	74.0	-30.8	Peak	Horizontal
	8199.5	31.3	12.0	43.3	74.0	-30.7	Peak	Horizontal
*	9219.5	30.2	14.8	45.0	68.2	-23.2	Peak	Horizontal
*	10163.0	30.9	16.0	46.9	68.2	-21.3	Peak	Horizontal
	7528.0	30.8	12.8	43.6	74.0	-30.4	Peak	Vertical
	8276.0	28.1	11.9	40.0	74.0	-34.0	Peak	Vertical
*	9593.5	29.8	14.4	44.2	68.2	-24.0	Peak	Vertical
*	12806.5	28.0	19.1	47.1	68.2	-21.1	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7553.5	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
	8191.0	30.5	12.0	42.5	74.0	-31.5	Peak	Horizontal
*	10188.5	29.6	16.2	45.8	68.2	-22.4	Peak	Horizontal
*	12823.5	28.4	19.2	47.6	68.2	-20.6	Peak	Horizontal
	7596.0	31.0	12.7	43.7	74.0	-30.3	Peak	Vertical
	8242.0	28.7	11.9	40.6	74.0	-33.4	Peak	Vertical
*	9755.0	30.4	14.8	45.2	68.2	-23.0	Peak	Vertical
*	12747.0	27.9	18.9	46.8	68.2	-21.4	Peak	Vertical

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

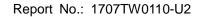




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	149			
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average			
	limit.					
	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)				
	7638.5	30.4	12.6	43.0	74.0	-31.0	Peak	Horizontal
	8242.0	28.2	11.9	40.1	74.0	-33.9	Peak	Horizontal
*	10129.0	30.2	15.9	46.1	68.2	-22.1	Peak	Horizontal
*	13036.0	28.6	20.0	48.6	68.2	-19.6	Peak	Horizontal
	7468.5	29.3	12.8	42.1	74.0	-31.9	Peak	Vertical
	8318.5	29.1	11.9	41.0	74.0	-33.0	Peak	Vertical
*	10171.5	29.9	16.1	46.0	68.2	-22.2	Peak	Vertical
*	12976.5	28.4	19.8	48.2	68.2	-20.0	Peak	Vertical

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

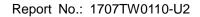




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/27					
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	157					
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average					
	limit.							
	2. Other frequency was 20dB bel	. 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)				
	7511.0	30.6	12.9	43.5	74.0	-30.5	Peak	Horizontal
	8199.5	29.8	12.0	41.8	74.0	-32.2	Peak	Horizontal
*	10350.0	28.9	16.8	45.7	68.2	-22.5	Peak	Horizontal
*	12976.5	28.4	19.8	48.2	68.2	-20.0	Peak	Horizontal
	7511.0	30.6	12.9	43.5	74.0	-30.5	Peak	Vertical
	8369.5	30.2	12.1	42.3	74.0	-31.7	Peak	Vertical
*	9559.5	31.4	14.4	45.8	68.2	-22.4	Peak	Vertical
*	12772.5	28.5	19.0	47.5	68.2	-20.7	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7528.0	30.9	12.8	43.7	74.0	-30.3	Peak	Horizontal
	8386.5	29.4	12.1	41.5	74.0	-32.5	Peak	Horizontal
*	9763.5	28.8	14.9	43.7	68.2	-24.5	Peak	Horizontal
*	12704.5	28.5	18.8	47.3	68.2	-20.9	Peak	Horizontal
	7553.5	32.8	12.8	45.6	74.0	-28.4	Peak	Vertical
	8242.0	29.2	11.9	41.1	74.0	-32.9	Peak	Vertical
*	9627.5	30.7	14.4	45.1	68.2	-23.1	Peak	Vertical
*	12755.5	28.3	18.9	47.2	68.2	-21.0	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	29.5	12.8	42.3	74.0	-31.7	Peak	Horizontal
	8378.0	29.8	12.1	41.9	74.0	-32.1	Peak	Horizontal
*	10052.5	28.6	15.5	44.1	68.2	-24.1	Peak	Horizontal
*	12755.5	28.3	18.9	47.2	68.2	-21.0	Peak	Horizontal
	7468.5	29.5	12.8	42.3	74.0	-31.7	Peak	Vertical
	8276.0	29.1	11.9	41.0	74.0	-33.0	Peak	Vertical
*	10120.5	29.2	15.8	45.0	68.2	-23.2	Peak	Vertical
*	13070.0	28.0	20.0	48.0	68.2	-20.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	46
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7485.5	30.6	12.8	43.4	74.0	-30.6	Peak	Horizontal
	8420.5	29.5	12.3	41.8	74.0	-32.2	Peak	Horizontal
*	10078.0	28.3	15.6	43.9	68.2	-24.3	Peak	Horizontal
*	12789.5	28.3	19.1	47.4	68.2	-20.8	Peak	Horizontal
	7562.0	30.7	12.8	43.5	74.0	-30.5	Peak	Vertical
	8497.0	29.7	12.8	42.5	74.0	-31.5	Peak	Vertical
*	9644.5	30.8	14.5	45.3	68.2	-22.9	Peak	Vertical
*	12942.5	28.3	19.7	48.0	68.2	-20.2	Peak	Vertical

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





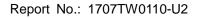
Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	151			
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average			
	limit.					
	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)				
	7536.5	31.1	12.8	43.9	74.0	-30.1	Peak	Horizontal
	8412.0	30.7	12.3	43.0	74.0	-31.0	Peak	Horizontal
*	9644.5	30.4	14.5	44.9	68.2	-23.3	Peak	Horizontal
*	12747.0	29.2	18.9	48.1	68.2	-20.1	Peak	Horizontal
	7536.5	31.1	12.8	43.9	74.0	-30.1	Peak	Vertical
	8242.0	28.4	11.9	40.3	74.0	-33.7	Peak	Vertical
*	10171.5	29.0	16.1	45.1	68.2	-23.1	Peak	Vertical
*	12781.0	27.1	19.0	46.1	68.2	-22.1	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11n-HT40 - Ant 1	Test Channel:	159				
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)				
	7409.0	30.8	12.6	43.4	74.0	-30.6	Peak	Horizontal
	8471.5	30.0	12.6	42.6	74.0	-31.4	Peak	Horizontal
*	9976.0	30.5	15.4	45.9	68.2	-22.3	Peak	Horizontal
*	12721.5	26.5	18.8	45.3	68.2	-22.9	Peak	Horizontal
	7409.0	29.4	12.6	42.0	74.0	-32.0	Peak	Vertical
	8471.5	29.8	12.6	42.4	74.0	-31.6	Peak	Vertical
*	9780.5	30.0	14.9	44.9	68.2	-23.3	Peak	Vertical
*	12721.5	26.5	18.8	45.3	68.2	-22.9	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	36			
Remark:	1. Average measurement was no	t 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)				
	7409.0	29.4	12.6	42.0	74.0	-32.0	Peak	Horizontal
	8242.0	29.6	11.9	41.5	74.0	-32.5	Peak	Horizontal
*	9840.0	27.7	16.0	43.7	68.2	-24.5	Peak	Horizontal
*	12781.0	27.7	19.0	46.7	68.2	-21.5	Peak	Horizontal
	7332.5	29.9	12.4	42.3	74.0	-31.7	Peak	Vertical
	8335.5	29.1	12.0	41.1	74.0	-32.9	Peak	Vertical
*	9721.0	28.3	14.7	43.0	68.2	-25.2	Peak	Vertical
*	12781.0	27.7	19.0	46.7	68.2	-21.5	Peak	Vertical

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



Page Number: 423 of 1017



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	44			
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 (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	()	(dBµV)	(3.2)	(dBµV/m)	(3.2 3.7111)	(0.2)		
	7332.5	29.9	12.4	42.3	74.0	-31.7	Peak	Horizontal
	8165.5	30.0	12.1	42.1	74.0	-31.9	Peak	Horizontal
*	9942.0	29.2	15.3	44.5	68.2	-23.7	Peak	Horizontal
*	12721.5	29.1	18.8	47.9	68.2	-20.3	Peak	Horizontal
	7536.5	30.1	12.8	42.9	74.0	-31.1	Peak	Vertical
	8386.5	29.7	12.1	41.8	74.0	-32.2	Peak	Vertical
*	10171.5	29.7	16.1	45.8	68.2	-22.4	Peak	Vertical
*	12721.5	29.1	18.8	47.9	68.2	-20.3	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)





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7536.5	30.1	12.8	42.9	74.0	-31.1	Peak	Horizontal
	8480.0	31.1	12.7	43.8	74.0	-30.2	Peak	Horizontal
*	10180.0	30.2	16.1	46.3	68.2	-21.9	Peak	Horizontal
*	12840.5	27.6	19.2	46.8	68.2	-21.4	Peak	Horizontal
	7536.5	29.6	12.8	42.4	74.0	-31.6	Peak	Vertical
	8250.5	28.9	11.9	40.8	74.0	-33.2	Peak	Vertical
*	10129.0	29.3	15.9	45.2	68.2	-23.0	Peak	Vertical
*	12840.5	27.6	19.2	46.8	68.2	-21.4	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	30.1	12.6	42.7	74.0	-31.3	Peak	Horizontal
	8429.0	29.6	12.4	42.0	74.0	-32.0	Peak	Horizontal
*	9950.5	30.4	15.3	45.7	68.2	-22.5	Peak	Horizontal
*	13010.5	28.5	19.9	48.4	68.2	-19.8	Peak	Horizontal
	7400.5	30.1	12.6	42.7	74.0	-31.3	Peak	Vertical
	8488.5	29.6	12.8	42.4	74.0	-31.6	Peak	Vertical
*	10146.0	29.4	16.0	45.4	68.2	-22.8	Peak	Vertical
*	13010.5	27.6	19.9	47.5	68.2	-20.7	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	157				
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)				
	7511.0	30.5	12.9	43.4	74.0	-30.6	Peak	Horizontal
	8378.0	31.3	12.1	43.4	74.0	-30.6	Peak	Horizontal
*	10231.0	30.1	16.4	46.5	68.2	-21.7	Peak	Horizontal
*	12934.0	28.5	19.6	48.1	68.2	-20.1	Peak	Horizontal
	7579.0	30.9	12.7	43.6	74.0	-30.4	Peak	Vertical
	8429.0	30.2	12.4	42.6	74.0	-31.4	Peak	Vertical
*	10078.0	29.3	15.6	44.9	68.2	-23.3	Peak	Vertical
*	12934.0	28.5	19.6	48.1	68.2	-20.1	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT20 - Ant 1	Test Channel:	165				
Remark:	1. Average measurement was no	t 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)				
	7579.0	30.9	12.7	43.6	74.0	-30.4	Peak	Horizontal
	8335.5	30.8	12.0	42.8	74.0	-31.2	Peak	Horizontal
*	10180.0	29.9	16.1	46.0	68.2	-22.2	Peak	Horizontal
*	12959.5	28.5	19.8	48.3	68.2	-19.9	Peak	Horizontal
	7366.5	29.4	12.5	41.9	74.0	-32.1	Peak	Vertical
	8446.0	30.7	12.5	43.2	74.0	-30.8	Peak	Vertical
*	10171.5	30.3	16.1	46.4	68.2	-21.8	Peak	Vertical
*	12959.5	28.5	19.8	48.3	68.2	-19.9	Peak	Vertical

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



AC220 Wi-Fi AP OD small omni **Product** Temperature 26°C antenna US Kevin Ker 57 % Test Engineer Relative Humidity **Test Site** AC1 **Test Date** 2017/08/27 Test Mode: 802.11ac-VHT40 - Ant 1 Test Channel: 38 Remark: 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.

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	29.4	12.5	41.9	74.0	-32.1	Peak	Horizontal
	8480.0	30.1	12.7	42.8	74.0	-31.2	Peak	Horizontal
*	10163.0	29.1	16.0	45.1	68.2	-23.1	Peak	Horizontal
*	13070.0	27.0	20.0	47.0	68.2	-21.2	Peak	Horizontal
	7451.5	30.2	12.8	43.0	74.0	-31.0	Peak	Vertical
	8378.0	30.0	12.1	42.1	74.0	-31.9	Peak	Vertical
*	10018.5	29.1	15.4	44.5	68.2	-23.7	Peak	Vertical
*	13070.0	27.0	20.0	47.0	68.2	-21.2	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: 2AD8UFZCWO2CA1

Report No.: 1707TW0110-U2





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/27					
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	46					
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)				
	7451.5	30.2	12.8	43.0	74.0	-31.0	Peak	Horizontal
	8208.0	31.2	11.9	43.1	74.0	-30.9	Peak	Horizontal
*	9899.5	30.8	15.4	46.2	68.2	-22.0	Peak	Horizontal
*	12993.5	29.4	19.8	49.2	68.2	-19.0	Peak	Horizontal
	7494.0	30.5	12.8	43.3	74.0	-30.7	Peak	Vertical
	8488.5	31.2	12.8	44.0	74.0	-30.0	Peak	Vertical
*	9942.0	29.5	15.3	44.8	68.2	-23.4	Peak	Vertical
*	12993.5	29.4	19.8	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	151				
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)				
	7553.5	31.0	12.8	43.8	74.0	-30.2	Peak	Horizontal
	8344.0	30.7	12.0	42.7	74.0	-31.3	Peak	Horizontal
*	10120.5	29.6	15.8	45.4	68.2	-22.8	Peak	Horizontal
*	12883.0	28.4	19.4	47.8	68.2	-20.4	Peak	Horizontal
	7434.5	30.2	12.7	42.9	74.0	-31.1	Peak	Vertical
	8199.5	29.7	12.0	41.7	74.0	-32.3	Peak	Vertical
*	9916.5	31.7	15.3	47.0	68.2	-21.2	Peak	Vertical
*	12900.0	28.0	19.5	47.5	68.2	-20.7	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT40 - Ant 1	Test Channel:	159				
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)				
	7502.5	30.1	12.9	43.0	74.0	-31.0	Peak	Horizontal
	8310.0	29.2	11.9	41.1	74.0	-32.9	Peak	Horizontal
*	10001.5	30.1	15.4	45.5	68.2	-22.7	Peak	Horizontal
*	12900.0	28.0	19.5	47.5	68.2	-20.7	Peak	Horizontal
	7468.5	30.5	12.8	43.3	74.0	-30.7	Peak	Vertical
	8310.0	29.2	11.9	41.1	74.0	-32.9	Peak	Vertical
*	9636.0	30.4	14.4	44.8	68.2	-23.4	Peak	Vertical
*	12721.5	29.0	18.8	47.8	68.2	-20.4	Peak	Vertical

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

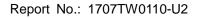




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT80 - Ant 1	Test Channel:	42				
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average				
	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)				
	7553.5	31.3	12.8	44.1	74.0	-29.9	Peak	Horizontal
	8369.5	31.0	12.1	43.1	74.0	-30.9	Peak	Horizontal
*	10001.5	30.0	15.4	45.4	68.2	-22.8	Peak	Horizontal
*	12721.5	29.0	18.8	47.8	68.2	-20.4	Peak	Horizontal
	7553.5	31.3	12.8	44.1	74.0	-29.9	Peak	Vertical
	8488.5	30.2	12.8	43.0	74.0	-31.0	Peak	Vertical
*	10367.0	29.6	16.8	46.4	68.2	-21.8	Peak	Vertical
*	12772.5	28.6	19.0	47.6	68.2	-20.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT80 - Ant 1	Test Channel:	155				
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)				
	7400.5	30.4	12.6	43.0	74.0	-31.0	Peak	Horizontal
	8310.0	29.0	11.9	40.9	74.0	-33.1	Peak	Horizontal
*	9967.5	27.9	15.3	43.2	68.2	-25.0	Peak	Horizontal
*	12951.0	28.0	19.7	47.7	68.2	-20.5	Peak	Horizontal
	7536.5	31.6	12.8	44.4	74.0	-29.6	Peak	Vertical
	8471.5	30.9	12.6	43.5	74.0	-30.5	Peak	Vertical
*	9772.0	30.2	14.9	45.1	68.2	-23.1	Peak	Vertical
*	12951.0	28.0	19.7	47.7	68.2	-20.5	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 2	Test Channel:	36				
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)				
	7536.5	31.6	12.8	44.4	74.0	-29.6	Peak	Horizontal
	8463.0	29.8	12.6	42.4	74.0	-31.6	Peak	Horizontal
*	9857.0	27.7	16.2	43.9	68.2	-24.3	Peak	Horizontal
*	13078.5	28.8	20.0	48.8	68.2	-19.4	Peak	Horizontal
	7324.0	29.9	12.4	42.3	74.0	-31.7	Peak	Vertical
	8352.5	29.7	12.0	41.7	74.0	-32.3	Peak	Vertical
*	9984.5	28.4	15.4	43.8	68.2	-24.4	Peak	Vertical
*	13078.5	28.8	20.0	48.8	68.2	-19.4	Peak	Vertical

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





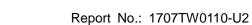
Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 2	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7324.0	29.9	12.4	42.3	74.0	-31.7	Peak	Horizontal
	8242.0	29.1	11.9	41.0	74.0	-33.0	Peak	Horizontal
*	9840.0	28.0	16.0	44.0	68.2	-24.2	Peak	Horizontal
*	12840.5	27.5	19.2	46.7	68.2	-21.5	Peak	Horizontal
	7366.5	29.9	12.5	42.4	74.0	-31.6	Peak	Vertical
	8310.0	29.6	11.9	41.5	74.0	-32.5	Peak	Vertical
*	10214.0	28.7	16.3	45.0	68.2	-23.2	Peak	Vertical
*	12840.5	27.5	19.2	46.7	68.2	-21.5	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 2	Test Channel:	48
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)				
	7477.0	31.1	12.8	43.9	74.0	-30.1	Peak	Horizontal
	8386.5	30.9	12.1	43.0	74.0	-31.0	Peak	Horizontal
*	9942.0	29.9	15.3	45.2	68.2	-23.0	Peak	Horizontal
*	13078.5	29.8	20.0	49.8	68.2	-18.4	Peak	Horizontal
	7460.0	31.5	12.8	44.3	74.0	-29.7	Peak	Vertical
	8352.5	30.8	12.0	42.8	74.0	-31.2	Peak	Vertical
*	9772.0	29.4	14.9	44.3	68.2	-23.9	Peak	Vertical
*	13078.5	29.8	20.0	49.8	68.2	-18.4	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 2	Test Channel:	149				
Remark:	1. Average measurement was no	t performed if peak	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)				
	7434.5	29.5	12.7	42.2	74.0	-31.8	Peak	Horizontal
	8250.5	28.7	11.9	40.6	74.0	-33.4	Peak	Horizontal
*	9899.5	29.3	15.4	44.7	68.2	-23.5	Peak	Horizontal
*	12721.5	27.6	18.8	46.4	68.2	-21.8	Peak	Horizontal
	7536.5	29.8	12.8	42.6	74.0	-31.4	Peak	Vertical
	8429.0	30.2	12.4	42.6	74.0	-31.4	Peak	Vertical
*	9874.0	29.7	15.8	45.5	68.2	-22.7	Peak	Vertical
*	12721.5	27.6	18.8	46.4	68.2	-21.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 2	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel 		Š
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7536.5	29.8	12.8	42.6	74.0	-31.4	Peak	Horizontal
	8463.0	29.0	12.6	41.6	74.0	-32.4	Peak	Horizontal
*	9772.0	29.4	14.9	44.3	68.2	-23.9	Peak	Horizontal
*	12840.5	27.7	19.2	46.9	68.2	-21.3	Peak	Horizontal
	7570.5	29.2	12.8	42.0	74.0	-32.0	Peak	Vertical
	8216.5	29.4	11.9	41.3	74.0	-32.7	Peak	Vertical
*	10120.5	29.0	15.8	44.8	68.2	-23.4	Peak	Vertical
*	12840.5	27.7	19.2	46.9	68.2	-21.3	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11a - Ant 2	Test Channel:	165				
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)				
	7400.5	29.4	12.6	42.0	74.0	-32.0	Peak	Horizontal
	8429.0	29.3	12.4	41.7	74.0	-32.3	Peak	Horizontal
*	9891.0	28.6	15.5	44.1	68.2	-24.1	Peak	Horizontal
*	12891.5	27.8	19.4	47.2	68.2	-21.0	Peak	Horizontal
	7502.5	30.6	12.8	43.4	74.0	-30.6	Peak	Vertical
	8429.0	30.6	12.4	43.0	74.0	-31.0	Peak	Vertical
*	9763.5	29.1	14.9	44.0	68.2	-24.2	Peak	Vertical
*	12891.5	27.8	19.4	47.2	68.2	-21.0	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	36
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7502.5	30.6	12.8	43.4	74.0	-30.6	Peak	Horizontal
	8310.0	30.1	11.9	42.0	74.0	-32.0	Peak	Horizontal
*	9857.0	27.9	16.2	44.1	68.2	-24.1	Peak	Horizontal
*	12721.5	27.5	18.8	46.3	68.2	-21.9	Peak	Horizontal
	7562.0	29.4	12.8	42.2	74.0	-31.8	Peak	Vertical
	8199.5	29.8	12.0	41.8	74.0	-32.2	Peak	Vertical
*	10095.0	28.2	15.7	43.9	68.2	-24.3	Peak	Vertical
*	12721.5	27.5	18.8	46.3	68.2	-21.9	Peak	Vertical

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

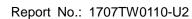




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C					
Test Engineer	Kevin Ker	Relative Humidity	57 %					
Test Site	AC1	Test Date	2017/08/27					
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	44					
Remark:	Average measurement was no	t performed if peak l	evel lower than average					
	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)				
	7562.0	29.4	12.8	42.2	74.0	-31.8	Peak	Horizontal
	8267.5	29.9	11.9	41.8	74.0	-32.2	Peak	Horizontal
*	10180.0	30.6	16.1	46.7	68.2	-21.5	Peak	Horizontal
*	12917.0	27.0	19.6	46.6	68.2	-21.6	Peak	Horizontal
	7511.0	29.3	12.8	42.1	74.0	-31.9	Peak	Vertical
	8199.5	29.5	12.0	41.5	74.0	-32.5	Peak	Vertical
*	10265.0	28.4	16.5	44.9	68.2	-23.3	Peak	Vertical
*	12917.0	27.0	19.6	46.6	68.2	-21.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7511.0	29.3	12.8	42.1	74.0	-31.9	Peak	Horizontal
	8361.0	29.1	12.0	41.1	74.0	-32.9	Peak	Horizontal
*	10035.5	29.2	15.5	44.7	68.2	-23.5	Peak	Horizontal
*	12721.5	26.9	18.8	45.7	68.2	-22.5	Peak	Horizontal
	7638.5	30.2	12.6	42.8	74.0	-31.2	Peak	Vertical
	8310.0	29.8	11.9	41.7	74.0	-32.3	Peak	Vertical
*	10367.0	28.2	16.8	45.0	68.2	-23.2	Peak	Vertical
*	12721.5	26.9	18.8	45.7	68.2	-22.5	Peak	Vertical

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

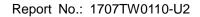




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	149				
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average				
	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)				
	7332.5	30.0	12.4	42.4	74.0	-31.6	Peak	Horizontal
	8352.5	29.3	12.0	41.3	74.0	-32.7	Peak	Horizontal
*	10171.5	28.9	16.1	45.0	68.2	-23.2	Peak	Horizontal
*	12781.0	28.5	19.0	47.5	68.2	-20.7	Peak	Horizontal
	7638.5	30.1	12.6	42.7	74.0	-31.3	Peak	Vertical
	8318.5	30.0	11.9	41.9	74.0	-32.1	Peak	Vertical
*	10078.0	29.2	15.6	44.8	68.2	-23.4	Peak	Vertical
*	12781.0	28.5	19.0	47.5	68.2	-20.7	Peak	Vertical

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

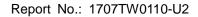




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7638.5	30.1	12.6	42.7	74.0	-31.3	Peak	Horizontal
	8199.5	29.0	12.0	41.0	74.0	-33.0	Peak	Horizontal
*	10035.5	28.2	15.5	43.7	68.2	-24.5	Peak	Horizontal
*	12891.5	29.0	19.4	48.4	68.2	-19.8	Peak	Horizontal
	7366.5	29.3	12.5	41.8	74.0	-32.2	Peak	Vertical
	8276.0	28.9	11.9	40.8	74.0	-33.2	Peak	Vertical
*	10035.5	29.0	15.5	44.5	68.2	-23.7	Peak	Vertical
*	12891.5	29.0	19.4	48.4	68.2	-19.8	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11n-HT20 - Ant 2	Test Channel:	165				
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average				
	limit.						
	2. Other frequency was 20dB bel	2. Other frequency was 20dB below limit line within 1-18GHz, there is not show					
	in the report.						

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7324.0	31.0	12.4	43.4	74.0	-30.6	Peak	Horizontal
	8165.5	29.7	12.1	41.8	74.0	-32.2	Peak	Horizontal
*	9721.0	28.7	14.7	43.4	68.2	-24.8	Peak	Horizontal
*	12772.5	27.0	19.0	46.0	68.2	-22.2	Peak	Horizontal
	7545.0	29.4	12.8	42.2	74.0	-31.8	Peak	Vertical
	8199.5	29.9	12.0	41.9	74.0	-32.1	Peak	Vertical
*	9950.5	28.8	15.3	44.1	68.2	-24.1	Peak	Vertical
*	12772.5	27.0	19.0	46.0	68.2	-22.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7545.0	29.4	12.8	42.2	74.0	-31.8	Peak	Horizontal
	8310.0	29.9	11.9	41.8	74.0	-32.2	Peak	Horizontal
*	9814.5	28.0	15.4	43.4	68.2	-24.8	Peak	Horizontal
*	12951.0	27.7	19.7	47.4	68.2	-20.8	Peak	Horizontal
	7570.5	29.6	12.8	42.4	74.0	-31.6	Peak	Vertical
	8242.0	29.1	11.9	41.0	74.0	-33.0	Peak	Vertical
*	9857.0	28.3	16.2	44.5	68.2	-23.7	Peak	Vertical
*	12951.0	27.7	19.7	47.4	68.2	-20.8	Peak	Vertical

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

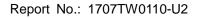




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	46			
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average			
	limit.					
	2. Other frequency was 20dB below limit line within 1-18GHz, there is not sho					
	in the report.					

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7570.5	29.6	12.8	42.4	74.0	-31.6	Peak	Horizontal
	8259.0	29.4	11.9	41.3	74.0	-32.7	Peak	Horizontal
*	10018.5	28.2	15.4	43.6	68.2	-24.6	Peak	Horizontal
*	13010.5	27.9	19.9	47.8	68.2	-20.4	Peak	Horizontal
	7366.5	30.4	12.5	42.9	74.0	-31.1	Peak	Vertical
	8386.5	29.7	12.1	41.8	74.0	-32.2	Peak	Vertical
*	9942.0	29.2	15.3	44.5	68.2	-23.7	Peak	Vertical
*	13010.5	27.9	19.9	47.8	68.2	-20.4	Peak	Vertical

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

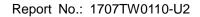




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	151			
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average			
	limit.					
	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)				
	7604.5	29.9	12.7	42.6	74.0	-31.4	Peak	Horizontal
	8242.0	29.4	11.9	41.3	74.0	-32.7	Peak	Horizontal
*	9857.0	28.0	16.2	44.2	68.2	-24.0	Peak	Horizontal
*	12721.5	27.2	18.8	46.0	68.2	-22.2	Peak	Horizontal
	7434.5	29.8	12.7	42.5	74.0	-31.5	Peak	Vertical
	8276.0	28.5	11.9	40.4	74.0	-33.6	Peak	Vertical
*	9857.0	27.6	16.2	43.8	68.2	-24.4	Peak	Vertical
*	12721.5	27.2	18.8	46.0	68.2	-22.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 2	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	29.8	12.7	42.5	74.0	-31.5	Peak	Horizontal
	8386.5	29.9	12.1	42.0	74.0	-32.0	Peak	Horizontal
*	10214.0	29.2	16.3	45.5	68.2	-22.7	Peak	Horizontal
*	12891.5	28.7	19.4	48.1	68.2	-20.1	Peak	Horizontal
	7366.5	29.7	12.5	42.2	74.0	-31.8	Peak	Vertical
	8386.5	30.1	12.1	42.2	74.0	-31.8	Peak	Vertical
*	10120.5	30.0	15.8	45.8	68.2	-22.4	Peak	Vertical
*	12891.5	28.7	19.4	48.1	68.2	-20.1	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	36			
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 (MHz)	Reading Level	Factor (dB)	Measure Level	Limit (dBµV/m)	Margin (dB)	Detector	Polarization
	,	(dBµV)	(-)	(dBµV/m)	(1 - 7	(*)		
	7366.5	29.7	12.5	42.2	74.0	-31.8	Peak	Horizontal
	8293.0	29.8	11.9	41.7	74.0	-32.3	Peak	Horizontal
*	10197.0	28.3	16.2	44.5	68.2	-23.7	Peak	Horizontal
*	12908.5	27.1	19.5	46.6	68.2	-21.6	Peak	Horizontal
	7366.5	30.0	12.5	42.5	74.0	-31.5	Peak	Vertical
	8276.0	29.7	11.9	41.6	74.0	-32.4	Peak	Vertical
*	10265.0	29.6	16.5	46.1	68.2	-22.1	Peak	Vertical
*	12908.5	27.1	19.5	46.6	68.2	-21.6	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	44			
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)				
	7366.5	30.0	12.5	42.5	74.0	-31.5	Peak	Horizontal
	8131.5	30.4	12.2	42.6	74.0	-31.4	Peak	Horizontal
*	10256.5	30.0	16.5	46.5	68.2	-21.7	Peak	Horizontal
*	12840.5	28.1	19.2	47.3	68.2	-20.9	Peak	Horizontal
	7434.5	29.1	12.7	41.8	74.0	-32.2	Peak	Vertical
	8429.0	29.5	12.4	41.9	74.0	-32.1	Peak	Vertical
*	10035.5	28.6	15.5	44.1	68.2	-24.1	Peak	Vertical
*	12840.5	28.1	19.2	47.3	68.2	-20.9	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	29.1	12.7	41.8	74.0	-32.2	Peak	Horizontal
	8284.5	29.1	11.9	41.0	74.0	-33.0	Peak	Horizontal
*	10035.5	28.8	15.5	44.3	68.2	-23.9	Peak	Horizontal
*	12891.5	28.2	19.4	47.6	68.2	-20.6	Peak	Horizontal
	7468.5	29.5	12.8	42.3	74.0	-31.7	Peak	Vertical
	8310.0	30.0	11.9	41.9	74.0	-32.1	Peak	Vertical
*	10222.5	30.0	16.3	46.3	68.2	-21.9	Peak	Vertical
*	12738.5	29.5	18.9	48.4	68.2	-19.8	Peak	Vertical

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

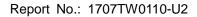




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	149			
Remark:	1. Average measurement was no	t performed if peak l	evel lower than average			
	limit.					
	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)				
	7468.5	30.6	12.8	43.4	74.0	-30.6	Peak	Horizontal
	8378.0	30.3	12.1	42.4	74.0	-31.6	Peak	Horizontal
*	9763.5	29.3	14.9	44.2	68.2	-24.0	Peak	Horizontal
*	12713.0	26.5	18.8	45.3	68.2	-22.9	Peak	Horizontal
	7400.5	30.2	12.6	42.8	74.0	-31.2	Peak	Vertical
	8386.5	30.0	12.1	42.1	74.0	-31.9	Peak	Vertical
*	10307.5	28.3	16.6	44.9	68.2	-23.3	Peak	Vertical
*	12713.0	26.5	18.8	45.3	68.2	-22.9	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	157			
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)				
	7400.5	30.2	12.6	42.8	74.0	-31.2	Peak	Horizontal
	8199.5	29.9	12.0	41.9	74.0	-32.1	Peak	Horizontal
*	9721.0	29.7	14.7	44.4	68.2	-23.8	Peak	Horizontal
*	12951.0	27.5	19.7	47.2	68.2	-21.0	Peak	Horizontal
	7468.5	30.1	12.8	42.9	74.0	-31.1	Peak	Vertical
	8429.0	30.3	12.4	42.7	74.0	-31.3	Peak	Vertical
*	10307.5	28.7	16.6	45.3	68.2	-22.9	Peak	Vertical
*	12951.0	27.5	19.7	47.2	68.2	-21.0	Peak	Vertical

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

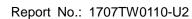




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11ac-VHT20 - Ant 2	Test Channel:	165			
Remark:	1. Average measurement was no	t performed if peak	level lower than average			
	limit.					
	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)				
	7400.5	31.1	12.6	43.7	74.0	-30.3	Peak	Horizontal
	8480.0	30.7	12.7	43.4	74.0	-30.6	Peak	Horizontal
*	10231.0	30.2	16.4	46.6	68.2	-21.6	Peak	Horizontal
*	12891.5	28.9	19.4	48.3	68.2	-19.9	Peak	Horizontal
	7468.5	30.1	12.8	42.9	74.0	-31.1	Peak	Vertical
	8250.5	29.5	11.9	41.4	74.0	-32.6	Peak	Vertical
*	9857.0	27.8	16.2	44.0	68.2	-24.2	Peak	Vertical
*	12781.0	29.5	19.0	48.5	68.2	-19.7	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C			
Test Engineer	Kevin Ker	Relative Humidity	57 %			
Test Site	AC1	Test Date	2017/08/27			
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	38			
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 (dBµV)	(dB)	Level (dBµV/m)	(dBµV/m)	(dB)		
	7468.5	29.6	12.8	42.4	74.0	-31.6	Peak	Horizontal
	8463.0	29.0	12.6	41.6	74.0	-32.4	Peak	Horizontal
*	10214.0	28.9	16.3	45.2	68.2	-23.0	Peak	Horizontal
*	12781.0	29.5	19.0	48.5	68.2	-19.7	Peak	Horizontal
	7468.5	29.6	12.8	42.4	74.0	-31.6	Peak	Vertical
	8199.5	29.4	12.0	41.4	74.0	-32.6	Peak	Vertical
*	9814.5	29.0	15.4	44.4	68.2	-23.8	Peak	Vertical
*	12891.5	27.6	19.4	47.0	68.2	-21.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C				
Test Engineer	Kevin Ker	Relative Humidity	57 %				
Test Site	AC1	Test Date	2017/08/27				
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	46				
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)				
	7468.5	31.2	12.8	44.0	74.0	-30.0	Peak	Horizontal
	8386.5	30.6	12.1	42.7	74.0	-31.3	Peak	Horizontal
*	10265.0	29.3	16.5	45.8	68.2	-22.4	Peak	Horizontal
*	12891.5	27.6	19.4	47.0	68.2	-21.2	Peak	Horizontal
	7468.5	31.2	12.8	44.0	74.0	-30.0	Peak	Vertical
	8276.0	29.9	11.9	41.8	74.0	-32.2	Peak	Vertical
*	9967.5	30.1	15.3	45.4	68.2	-22.8	Peak	Vertical
*	12781.0	28.8	19.0	47.8	68.2	-20.4	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	151
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	29.3	12.5	41.8	74.0	-32.2	Peak	Horizontal
	8276.0	28.9	11.9	40.8	74.0	-33.2	Peak	Horizontal
*	10120.5	29.0	15.8	44.8	68.2	-23.4	Peak	Horizontal
*	12934.0	26.8	19.6	46.4	68.2	-21.8	Peak	Horizontal
	7366.5	29.3	12.5	41.8	74.0	-32.2	Peak	Vertical
	8276.0	29.4	11.9	41.3	74.0	-32.7	Peak	Vertical
*	9678.5	28.7	14.6	43.3	68.2	-24.9	Peak	Vertical
*	12721.5	27.4	18.8	46.2	68.2	-22.0	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 2	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	30.1	12.5	42.6	74.0	-31.4	Peak	Horizontal
	8293.0	30.0	11.9	41.9	74.0	-32.1	Peak	Horizontal
*	10120.5	28.4	15.8	44.2	68.2	-24.0	Peak	Horizontal
*	12721.5	27.4	18.8	46.2	68.2	-22.0	Peak	Horizontal
	7366.5	30.1	12.5	42.6	74.0	-31.4	Peak	Vertical
	8327.0	28.6	11.9	40.5	74.0	-33.5	Peak	Vertical
*	9814.5	28.4	15.4	43.8	68.2	-24.4	Peak	Vertical
*	12891.5	27.8	19.4	47.2	68.2	-21.0	Peak	Vertical

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

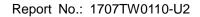




Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT80 - Ant 2	Test Channel:	42
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	30.0	12.6	42.6	74.0	-31.4	Peak	Horizontal
	8310.0	29.4	11.9	41.3	74.0	-32.7	Peak	Horizontal
*	10171.5	28.7	16.1	44.8	68.2	-23.4	Peak	Horizontal
*	12891.5	27.8	19.4	47.2	68.2	-21.0	Peak	Horizontal
	7400.5	30.0	12.6	42.6	74.0	-31.4	Peak	Vertical
	8242.0	30.2	11.9	42.1	74.0	-31.9	Peak	Vertical
*	9899.5	28.9	15.4	44.3	68.2	-23.9	Peak	Vertical
*	12721.5	27.3	18.8	46.1	68.2	-22.1	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT80 - Ant 2	Test Channel:	155
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7332.5	30.1	12.4	42.5	74.0	-31.5	Peak	Horizontal
	8276.0	29.4	11.9	41.3	74.0	-32.7	Peak	Horizontal
*	10171.5	29.3	16.1	45.4	68.2	-22.8	Peak	Horizontal
*	12721.5	26.9	18.8	45.7	68.2	-22.5	Peak	Horizontal
	7332.5	30.1	12.4	42.5	74.0	-31.5	Peak	Vertical
	8429.0	30.1	12.4	42.5	74.0	-31.5	Peak	Vertical
*	10307.5	29.2	16.6	45.8	68.2	-22.4	Peak	Vertical
*	12951.0	28.3	19.7	48.0	68.2	-20.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	36
Remark:	 Average measurement was no limit. Other frequency was 20dB bel 		-
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7375.0	29.1	12.5	41.6	74.0	-32.4	Peak	Horizontal
	8242.0	29.1	11.9	41.0	74.0	-33.0	Peak	Horizontal
*	10129.0	29.9	15.9	45.8	68.2	-22.4	Peak	Horizontal
*	12951.0	28.3	19.7	48.0	68.2	-20.2	Peak	Horizontal
	7375.0	29.1	12.5	41.6	74.0	-32.4	Peak	Vertical
	8437.5	30.4	12.4	42.8	74.0	-31.2	Peak	Vertical
*	10069.5	30.7	15.6	46.3	68.2	-21.9	Peak	Vertical
*	12781.0	27.8	19.0	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel 		-
	in the report.		

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	29.1	12.7	41.8	74.0	-32.2	Peak	Horizontal
	8386.5	29.6	12.1	41.7	74.0	-32.3	Peak	Horizontal
*	9636.0	30.2	14.4	44.6	68.2	-23.6	Peak	Horizontal
*	12781.0	27.8	19.0	46.8	68.2	-21.4	Peak	Horizontal
	7434.5	29.1	12.7	41.8	74.0	-32.2	Peak	Vertical
	8242.0	29.7	11.9	41.6	74.0	-32.4	Peak	Vertical
*	9857.0	27.9	16.2	44.1	68.2	-24.1	Peak	Vertical
*	12891.5	28.6	19.4	48.0	68.2	-20.2	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	29.5	12.7	42.2	74.0	-31.8	Peak	Horizontal
	8284.5	29.6	11.9	41.5	74.0	-32.5	Peak	Horizontal
*	10265.0	28.5	16.5	45.0	68.2	-23.2	Peak	Horizontal
*	12891.5	28.6	19.4	48.0	68.2	-20.2	Peak	Horizontal
	7434.5	29.5	12.7	42.2	74.0	-31.8	Peak	Vertical
	8352.5	29.0	12.0	41.0	74.0	-33.0	Peak	Vertical
*	9899.5	29.3	15.4	44.7	68.2	-23.5	Peak	Vertical
*	12840.5	29.2	19.2	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB belin the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7570.5	30.3	12.8	43.1	74.0	-30.9	Peak	Horizontal
	8352.5	29.3	12.0	41.3	74.0	-32.7	Peak	Horizontal
*	10078.0	28.1	15.6	43.7	68.2	-24.5	Peak	Horizontal
*	12721.5	27.4	18.8	46.2	68.2	-22.0	Peak	Horizontal
	7570.5	30.3	12.8	43.1	74.0	-30.9	Peak	Vertical
	8429.0	29.3	12.4	41.7	74.0	-32.3	Peak	Vertical
*	9814.5	28.2	15.4	43.6	68.2	-24.6	Peak	Vertical
*	12951.0	28.5	19.7	48.2	68.2	-20.0	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7536.5	30.5	12.8	43.3	74.0	-30.7	Peak	Horizontal
	8463.0	29.1	12.6	41.7	74.0	-32.3	Peak	Horizontal
*	10265.0	28.6	16.5	45.1	68.2	-23.1	Peak	Horizontal
*	12951.0	28.5	19.7	48.2	68.2	-20.0	Peak	Horizontal
	7536.5	30.5	12.8	43.3	74.0	-30.7	Peak	Vertical
	8352.5	29.0	12.0	41.0	74.0	-33.0	Peak	Vertical
*	9942.0	28.5	15.3	43.8	68.2	-24.4	Peak	Vertical
*	12951.0	27.3	19.7	47.0	68.2	-21.2	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11a - Ant 1 + 2 (CDD Mode)	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7528.0	31.4	12.8	44.2	74.0	-29.8	Peak	Horizontal
	8395.0	29.9	12.2	42.1	74.0	-31.9	Peak	Horizontal
*	10078.0	29.1	15.6	44.7	68.2	-23.5	Peak	Horizontal
*	11652.1	28.0	19.3	47.3	54.0	-6.7	Peak	Horizontal
	12891.5	28.4	19.4	47.8	68.2	-20.4	Peak	Vertical
	7366.5	29.3	12.5	41.8	74.0	-32.2	Peak	Vertical
*	8310.0	28.6	11.9	40.5	74.0	-33.5	Peak	Vertical
*	10035.5	28.0	15.5	43.5	68.2	-24.7	Peak	Vertical

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



AC220 Wi-Fi AP OD small omni Product Temperature 26°C antenna US Kevin Ker 57 % Test Engineer Relative Humidity **Test Site** AC1 Test Date 2017/08/27 802.11n-HT20 - Ant 1 + 2 Test Mode: Test Channel: 36 (CDD Mode) Remark: 1. Average measurement was not performed if peak level lower than average 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)				
	7366.5	29.3	12.5	41.8	74.0	-32.2	Peak	Horizontal
	8259.0	30.9	11.9	42.8	74.0	-31.2	Peak	Horizontal
*	10069.5	30.4	15.6	46.0	68.2	-22.2	Peak	Horizontal
*	12840.5	27.9	19.2	47.1	68.2	-21.1	Peak	Horizontal
	7443.0	30.0	12.7	42.7	74.0	-31.3	Peak	Vertical
	8199.5	29.4	12.0	41.4	74.0	-32.6	Peak	Vertical
*	10222.5	30.8	16.3	47.1	68.2	-21.1	Peak	Vertical
*	12840.5	27.9	19.2	47.1	68.2	-21.1	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: 2AD8UFZCWO2CA1 Page Number: 468 of 1017



Report No.: 1707TW0110-U2

Page Number: 469 of 1017

Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7443.0	30.0	12.7	42.7	74.0	-31.3	Peak	Horizontal
	8369.5	29.7	12.1	41.8	74.0	-32.2	Peak	Horizontal
*	9984.5	28.2	15.4	43.6	68.2	-24.6	Peak	Horizontal
*	12985.0	26.7	19.8	46.5	68.2	-21.7	Peak	Horizontal
	7400.5	29.6	12.6	42.2	74.0	-31.8	Peak	Vertical
	8242.0	29.4	11.9	41.3	74.0	-32.7	Peak	Vertical
*	10120.5	30.0	15.8	45.8	68.2	-22.4	Peak	Vertical
*	12985.0	26.7	19.8	46.5	68.2	-21.7	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: 2AD8UFZCWO2CA1



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	29.6	12.6	42.2	74.0	-31.8	Peak	Horizontal
	8480.0	30.2	12.7	42.9	74.0	-31.1	Peak	Horizontal
*	9967.5	28.3	15.3	43.6	68.2	-24.6	Peak	Horizontal
*	12840.5	27.2	19.2	46.4	68.2	-21.8	Peak	Horizontal
	7366.5	29.8	12.5	42.3	74.0	-31.7	Peak	Vertical
	8386.5	29.3	12.1	41.4	74.0	-32.6	Peak	Vertical
*	10120.5	29.6	15.8	45.4	68.2	-22.8	Peak	Vertical
*	12840.5	27.2	19.2	46.4	68.2	-21.8	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7536.5	30.7	12.8	43.5	74.0	-30.5	Peak	Horizontal
	8429.0	30.5	12.4	42.9	74.0	-31.1	Peak	Horizontal
*	10197.0	28.7	16.2	44.9	68.2	-23.3	Peak	Horizontal
*	13010.5	27.7	19.9	47.6	68.2	-20.6	Peak	Horizontal
	7570.5	29.5	12.8	42.3	74.0	-31.7	Peak	Vertical
	8199.5	29.6	12.0	41.6	74.0	-32.4	Peak	Vertical
*	10197.0	28.4	16.2	44.6	68.2	-23.6	Peak	Vertical
*	13010.5	27.7	19.9	47.6	68.2	-20.6	Peak	Vertical

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





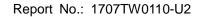
Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7570.5	29.5	12.8	42.3	74.0	-31.7	Peak	Horizontal
	8386.5	29.3	12.1	41.4	74.0	-32.6	Peak	Horizontal
*	9772.0	29.9	14.9	44.8	68.2	-23.4	Peak	Horizontal
*	12781.0	28.6	19.0	47.6	68.2	-20.6	Peak	Horizontal
	7536.5	29.8	12.8	42.6	74.0	-31.4	Peak	Vertical
	8352.5	29.6	12.0	41.6	74.0	-32.4	Peak	Vertical
*	10307.5	28.8	16.6	45.4	68.2	-22.8	Peak	Vertical
*	12781.0	28.6	19.0	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: 2AD8UFZCWO2CA1 Page Number: 472 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7460.0	31.3	12.8	44.1	74.0	-29.9	Peak	Horizontal
	8242.0	29.7	11.9	41.6	74.0	-32.4	Peak	Horizontal
*	9993.0	29.1	15.4	44.5	68.2	-23.7	Peak	Horizontal
*	11653.4	27.5	19.3	46.8	54.0	-7.2	Average	Horizontal
	12891.5	29.1	19.4	48.5	68.2	-19.7	Peak	Horizontal
	7468.5	29.5	12.8	42.3	74.0	-31.7	Peak	Vertical
	8386.5	29.8	12.1	41.9	74.0	-32.1	Peak	Vertical
*	9993.0	28.7	15.4	44.1	68.2	-24.1	Peak	Vertical
*	12840.5	27.6	19.2	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: 2AD8UFZCWO2CA1 Page Number: 473 of 1017



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	29.3	12.7	42.0	74.0	-32.0	Peak	Horizontal
	8276.0	29.0	11.9	40.9	74.0	-33.1	Peak	Horizontal
*	10171.5	29.8	16.1	45.9	68.2	-22.3	Peak	Horizontal
*	12840.5	27.6	19.2	46.8	68.2	-21.4	Peak	Horizontal
	7434.5	29.3	12.7	42.0	74.0	-32.0	Peak	Vertical
	8276.0	29.2	11.9	41.1	74.0	-32.9	Peak	Vertical
*	10035.5	28.3	15.5	43.8	68.2	-24.4	Peak	Vertical
*	12951.0	28.1	19.7	47.8	68.2	-20.4	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)



Report No.: 1707TW0110-U2

Page Number: 475 of 1017

Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	46
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)				
	7417.5	31.7	12.6	44.3	74.0	-29.7	Peak	Horizontal
	8488.5	30.6	12.7	43.3	74.0	-30.7	Peak	Horizontal
*	9976.0	28.4	15.3	43.7	68.2	-24.5	Peak	Horizontal
*	12951.0	27.6	19.7	47.3	68.2	-20.9	Peak	Horizontal
	7332.5	29.9	12.4	42.3	74.0	-31.7	Peak	Vertical
	8276.0	29.7	11.9	41.6	74.0	-32.4	Peak	Vertical
*	10078.0	29.8	15.6	45.4	68.2	-22.8	Peak	Vertical
*	12951.0	27.6	19.7	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	151
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)				
	7400.5	30.3	12.6	42.9	74.0	-31.1	Peak	Horizontal
	8310.0	30.3	11.9	42.2	74.0	-31.8	Peak	Horizontal
*	9942.0	29.0	15.3	44.3	68.2	-23.9	Peak	Horizontal
*	12891.5	28.0	19.4	47.4	68.2	-20.8	Peak	Horizontal
	7536.5	29.9	12.8	42.7	74.0	-31.3	Peak	Vertical
	8199.5	29.2	12.0	41.2	74.0	-32.8	Peak	Vertical
*	9993.0	28.8	15.4	44.2	68.2	-24.0	Peak	Vertical
*	12891.5	28.0	19.4	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: 2AD8UFZCWO2CA1 Page Number: 476 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	159
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)				
	7536.5	29.9	12.8	42.7	74.0	-31.3	Peak	Horizontal
	8242.0	29.6	11.9	41.5	74.0	-32.5	Peak	Horizontal
*	9899.5	29.5	15.4	44.9	68.2	-23.3	Peak	Horizontal
*	12721.5	28.6	18.8	47.4	68.2	-20.8	Peak	Horizontal
	7434.5	30.0	12.7	42.7	74.0	-31.3	Peak	Vertical
	8242.0	29.9	11.9	41.8	74.0	-32.2	Peak	Vertical
*	9942.0	30.1	15.3	45.4	68.2	-22.8	Peak	Vertical
*	12721.5	28.6	18.8	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: 2AD8UFZCWO2CA1 Page Number: 477 of 1017



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	36
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	30.0	12.7	42.7	74.0	-31.3	Peak	Horizontal
	8310.0	30.8	11.9	42.7	74.0	-31.3	Peak	Horizontal
*	9993.0	28.9	15.4	44.3	68.2	-23.9	Peak	Horizontal
*	12721.5	27.5	18.8	46.3	68.2	-21.9	Peak	Horizontal
	7400.5	29.5	12.6	42.1	74.0	-31.9	Peak	Vertical
	8310.0	29.0	11.9	40.9	74.0	-33.1	Peak	Vertical
*	10035.5	28.7	15.5	44.2	68.2	-24.0	Peak	Vertical
*	12721.5	27.5	18.8	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: 2AD8UFZCWO2CA1



Report No.: 1707TW0110-U2

Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	44
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)				
	7400.5	29.5	12.6	42.1	74.0	-31.9	Peak	Horizontal
	8310.0	28.8	11.9	40.7	74.0	-33.3	Peak	Horizontal
*	9721.0	28.6	14.7	43.3	68.2	-24.9	Peak	Horizontal
*	12891.5	27.2	19.4	46.6	68.2	-21.6	Peak	Horizontal
	7434.5	29.5	12.7	42.2	74.0	-31.8	Peak	Vertical
	8318.5	30.2	11.9	42.1	74.0	-31.9	Peak	Vertical
*	10273.5	29.6	16.5	46.1	68.2	-22.1	Peak	Vertical
*	12891.5	27.2	19.4	46.6	68.2	-21.6	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: 2AD8UFZCWO2CA1



Page Number: 480 of 1017

Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	48
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)				
	7434.5	29.5	12.7	42.2	74.0	-31.8	Peak	Horizontal
	8310.0	29.2	11.9	41.1	74.0	-32.9	Peak	Horizontal
*	9899.5	29.0	15.4	44.4	68.2	-23.8	Peak	Horizontal
*	12951.0	27.5	19.7	47.2	68.2	-21.0	Peak	Horizontal
	7468.5	29.6	12.8	42.4	74.0	-31.6	Peak	Vertical
	8310.0	29.2	11.9	41.1	74.0	-32.9	Peak	Vertical
*	10027.0	27.9	15.4	43.3	68.2	-24.9	Peak	Vertical
*	12951.0	27.5	19.7	47.2	68.2	-21.0	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	149
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)				
	7672.5	30.1	12.5	42.6	74.0	-31.4	Peak	Horizontal
	8276.0	29.5	11.9	41.4	74.0	-32.6	Peak	Horizontal
*	9721.0	29.2	14.7	43.9	68.2	-24.3	Peak	Horizontal
*	12781.0	28.6	19.0	47.6	68.2	-20.6	Peak	Horizontal
	7536.5	30.8	12.8	43.6	74.0	-30.4	Peak	Vertical
	8310.0	29.2	11.9	41.1	74.0	-32.9	Peak	Vertical
*	9993.0	29.0	15.4	44.4	68.2	-23.8	Peak	Vertical
*	12781.0	28.6	19.0	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: 2AD8UFZCWO2CA1 Page Number: 481 of 1017





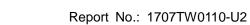
Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Ç

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7536.5	30.8	12.8	43.6	74.0	-30.4	Peak	Horizontal
	8429.0	29.6	12.4	42.0	74.0	-32.0	Peak	Horizontal
*	9899.5	28.8	15.4	44.2	68.2	-24.0	Peak	Horizontal
*	12721.5	27.7	18.8	46.5	68.2	-21.7	Peak	Horizontal
	7400.5	30.0	12.6	42.6	74.0	-31.4	Peak	Vertical
	8276.0	29.6	11.9	41.5	74.0	-32.5	Peak	Vertical
*	10078.0	28.9	15.6	44.5	68.2	-23.7	Peak	Vertical
*	12721.5	27.7	18.8	46.5	68.2	-21.7	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: 2AD8UFZCWO2CA1 Page Number: 482 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (CDD Mode)	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7392.0	31.0	12.6	43.6	74.0	-30.4	Peak	Horizontal
	8165.5	29.8	12.1	41.9	74.0	-32.1	Peak	Horizontal
*	10180.0	30.2	16.1	46.3	68.2	-21.9	Peak	Horizontal
*	12891.5	29.4	19.4	48.8	68.2	-25.2	Peak	Horizontal
	7400.5	30.0	12.6	42.6	74.0	-31.4	Peak	Vertical
	8471.5	29.7	12.6	42.3	74.0	-25.9	Peak	Vertical
*	9993.0	29.1	15.4	44.5	68.2	-23.7	Peak	Vertical
*	13070.0	28.6	20.0	48.6	68.2	48.6	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	38
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)				
	7468.5	30.6	12.8	43.4	74.0	-30.6	Peak	Horizontal
	8386.5	29.3	12.1	41.4	74.0	-32.6	Peak	Horizontal
*	10214.0	29.0	16.3	45.3	68.2	-22.9	Peak	Horizontal
*	13070.0	28.6	20.0	48.6	68.2	-19.6	Peak	Horizontal
	7468.5	30.6	12.8	43.4	74.0	-30.6	Peak	Vertical
	8429.0	29.1	12.4	41.5	74.0	-32.5	Peak	Vertical
*	9950.5	28.5	15.3	43.8	68.2	-24.4	Peak	Vertical
*	13010.5	27.8	19.9	47.7	68.2	-20.5	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)



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	46
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)				
	7502.5	29.6	12.8	42.4	74.0	-31.6	Peak	Horizontal
	8276.0	29.3	11.9	41.2	74.0	-32.8	Peak	Horizontal
*	10078.0	28.9	15.6	44.5	68.2	-23.7	Peak	Horizontal
*	13010.5	27.8	19.9	47.7	68.2	-20.5	Peak	Horizontal
	7502.5	29.6	12.8	42.4	74.0	-31.6	Peak	Vertical
	8352.5	29.0	12.0	41.0	74.0	-33.0	Peak	Vertical
*	9857.0	28.1	16.2	44.3	68.2	-23.9	Peak	Vertical
*	12721.5	27.8	18.8	46.6	68.2	-21.6	Peak	Vertical

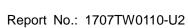
Note 1: "*" is not in restricted band, its limit is -27dBm/MHz. At a distance of 3 meters, the field strength limit in dBµV/m can be determined by adding a "conversion" factor of 95.2dB to the EIRP limit of -27dBm/MHz to obtain the limit for out of band spurious emissions.

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: 2AD8UFZCWO2CA1 Page Number: 485 of 1017







Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	151
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)				
	7298.5	30.4	12.3	42.7	74.0	-31.3	Peak	Horizontal
	8310.0	29.6	11.9	41.5	74.0	-32.5	Peak	Horizontal
*	10078.0	28.8	15.6	44.4	68.2	-23.8	Peak	Horizontal
*	12891.5	28.6	19.4	48.0	68.2	-20.2	Peak	Horizontal
	7298.5	30.4	12.3	42.7	74.0	-31.3	Peak	Vertical
	8276.0	28.9	11.9	40.8	74.0	-33.2	Peak	Vertical
*	9814.5	29.7	15.4	45.1	68.2	-23.1	Peak	Vertical
*	13010.5	28.0	19.9	47.9	68.2	-20.3	Peak	Vertical

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





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (CDD Mode)	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	30.1	12.6	42.7	74.0	-31.3	Peak	Horizontal
	8352.5	29.4	12.0	41.4	74.0	-32.6	Peak	Horizontal
*	10171.5	30.3	16.1	46.4	68.2	-21.8	Peak	Horizontal
*	13010.5	28.0	19.9	47.9	68.2	-20.3	Peak	Horizontal
	7400.5	30.1	12.6	42.7	74.0	-31.3	Peak	Vertical
	8276.0	28.7	11.9	40.6	74.0	-33.4	Peak	Vertical
*	9899.5	28.8	15.4	44.2	68.2	-24.0	Peak	Vertical
*	12951.0	27.7	19.7	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: 2AD8UFZCWO2CA1 Page Number: 487 of 1017



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (CDD Mode)	Test Channel:	42
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)				
	7366.5	29.6	12.5	42.1	74.0	-31.9	Peak	Horizontal
	8386.5	30.1	12.1	42.2	74.0	-31.8	Peak	Horizontal
*	10214.0	29.6	16.3	45.9	68.2	-22.3	Peak	Horizontal
*	12951.0	27.7	19.7	47.4	68.2	-20.8	Peak	Horizontal
	7562.0	31.4	12.8	44.2	74.0	-29.8	Peak	Vertical
	8386.5	30.1	12.1	42.2	74.0	-31.8	Peak	Vertical
*	10035.5	28.8	15.5	44.3	68.2	-23.9	Peak	Vertical
*	12713.0	26.8	18.8	45.6	68.2	-22.6	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (CDD Mode)	Test Channel:	155
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)				
	7434.5	30.6	12.7	43.3	74.0	-30.7	Peak	Horizontal
	8463.0	30.1	12.6	42.7	74.0	-31.3	Peak	Horizontal
*	10222.5	30.7	16.3	47.0	68.2	-21.2	Peak	Horizontal
*	12798.0	28.7	19.1	47.8	68.2	-20.4	Peak	Horizontal
	7434.5	30.6	12.7	43.3	74.0	-30.7	Peak	Vertical
	8471.5	29.9	12.6	42.5	74.0	-31.5	Peak	Vertical
*	9984.5	28.2	15.4	43.6	68.2	-24.6	Peak	Vertical
*	12721.5	27.5	18.8	46.3	68.2	-21.9	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: 2AD8UFZCWO2CA1 Page Number: 489 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	36
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7366.5	31.7	12.5	44.2	74.0	-29.8	Peak	Horizontal
	8395.0	31.6	12.2	43.8	74.0	-30.2	Peak	Horizontal
*	9678.5	32.3	14.6	46.9	68.2	-21.3	Peak	Horizontal
*	12840.5	30.5	19.2	49.7	68.2	-18.5	Peak	Horizontal
	7502.5	31.5	12.8	44.3	74.0	-29.7	Peak	Vertical
	8386.5	31.4	12.1	43.5	74.0	-30.5	Peak	Vertical
*	9899.5	31.2	15.4	46.6	68.2	-21.6	Peak	Vertical
*	12840.5	30.5	19.2	49.7	68.2	-18.5	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7502.5	31.5	12.8	44.3	74.0	-29.7	Peak	Horizontal
	8420.5	30.0	12.3	42.3	74.0	-31.7	Peak	Horizontal
*	9942.0	31.9	15.3	47.2	68.2	-21.0	Peak	Horizontal
*	13010.5	30.0	19.9	49.9	68.2	-18.3	Peak	Horizontal
	7434.5	32.0	12.7	44.7	74.0	-29.3	Peak	Vertical
	8352.5	31.2	12.0	43.2	74.0	-30.8	Peak	Vertical
*	10171.5	30.5	16.1	46.6	68.2	-21.6	Peak	Vertical
*	13010.5	30.0	19.9	49.9	68.2	-18.3	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: 2AD8UFZCWO2CA1



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	48
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	32.0	12.7	44.7	74.0	-29.3	Peak	Horizontal
	8335.5	32.6	11.9	44.5	74.0	-29.5	Peak	Horizontal
*	10061.0	29.9	15.6	45.5	68.2	-22.7	Peak	Horizontal
*	12900.0	29.4	19.5	48.9	68.2	-19.3	Peak	Horizontal
	7332.5	31.1	12.4	43.5	74.0	-30.5	Peak	Vertical
	8276.0	31.8	11.9	43.7	74.0	-30.3	Peak	Vertical
*	10027.0	31.5	15.4	46.9	68.2	-21.3	Peak	Vertical
*	12900.0	29.4	19.5	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: 2AD8UFZCWO2CA1 Page Number: 492 of 1017





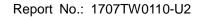
Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	31.2	12.8	44.0	74.0	-30.0	Peak	Horizontal
	8318.5	31.5	11.9	43.4	74.0	-30.6	Peak	Horizontal
*	9857.0	31.4	16.2	47.6	68.2	-20.6	Peak	Horizontal
*	12951.0	29.6	19.7	49.3	68.2	-18.9	Peak	Horizontal
	7604.5	31.3	12.7	44.0	74.0	-30.0	Peak	Vertical
	8242.0	30.6	11.9	42.5	74.0	-31.5	Peak	Vertical
*	9899.5	31.2	15.4	46.6	68.2	-21.6	Peak	Vertical
*	12951.0	29.6	19.7	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: 2AD8UFZCWO2CA1 Page Number: 493 of 1017





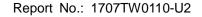
Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	157
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8310.0	31.4	11.9	43.3	74.0	-30.7	Peak	Horizontal
	11565.5	33.6	19.5	53.1	74.0	-20.9	Peak	Horizontal
*	12951.0	29.8	19.7	49.5	68.2	-18.7	Peak	Horizontal
*	13546.0	29.7	21.9	51.6	68.2	-16.6	Peak	Horizontal
	8242.0	31.0	11.9	42.9	74.0	-31.1	Peak	Vertical
	11569.6	24.6	19.5	44.1	54.0	-9.9	Average	Vertical
	11574.0	35.4	19.5	54.9	74.0	-19.1	Peak	Vertical
*	12721.5	30.2	18.8	49.0	68.2	-19.2	Peak	Vertical
*	13427.0	29.2	21.5	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: 2AD8UFZCWO2CA1 Page Number: 494 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	165
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8310.0	31.4	11.9	43.3	74.0	-30.7	Peak	Horizontal
	11648.0	26.1	19.3	45.4	54.0	-8.6	Average	Horizontal
	11650.5	35.6	19.3	54.9	74.0	-19.1	Peak	Horizontal
*	12721.5	30.1	18.8	48.9	68.2	-19.3	Peak	Horizontal
*	13486.5	30.3	21.7	52.0	68.2	-16.2	Peak	Horizontal
	8276.0	32.1	11.9	44.0	74.0	-30.0	Peak	Vertical
	11649.6	25.6	19.3	44.9	54.0	-9.1	Average	Vertical
	11650.5	36.8	19.3	56.1	74.0	-17.9	Peak	Vertical
*	12721.5	29.8	18.8	48.6	68.2	-19.6	Peak	Vertical
*	13486.5	29.5	21.7	51.2	68.2	-17.0	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7434.5	32.4	12.7	45.1	74.0	-28.9	Peak	Horizontal
	8310.0	31.6	11.9	43.5	74.0	-30.5	Peak	Horizontal
*	9899.5	31.4	15.4	46.8	68.2	-21.4	Peak	Horizontal
*	12781.0	31.3	19.0	50.3	68.2	-17.9	Peak	Horizontal
	7400.5	31.7	12.6	44.3	74.0	-29.7	Peak	Vertical
	8327.0	31.9	11.9	43.8	74.0	-30.2	Peak	Vertical
*	10180.0	30.5	16.1	46.6	68.2	-21.6	Peak	Vertical
*	12781.0	31.3	19.0	50.3	68.2	-17.9	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: 2AD8UFZCWO2CA1 Page Number: 496 of 1017



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	46
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	31.7	12.6	44.3	74.0	-29.7	Peak	Horizontal
	8310.0	32.6	11.9	44.5	74.0	-29.5	Peak	Horizontal
*	10069.5	30.3	15.6	45.9	68.2	-22.3	Peak	Horizontal
*	12840.5	29.7	19.2	48.9	68.2	-19.3	Peak	Horizontal
	7468.5	31.5	12.8	44.3	74.0	-29.7	Peak	Vertical
	8429.0	32.2	12.4	44.6	74.0	-29.4	Peak	Vertical
*	10078.0	31.1	15.6	46.7	68.2	-21.5	Peak	Vertical
*	12840.5	29.7	19.2	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: 2AD8UFZCWO2CA1 Page Number: 497 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	151
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8386.5	31.2	12.1	43.3	74.0	-30.7	Peak	Horizontal
	11514.5	32.0	19.4	51.4	74.0	-22.6	Peak	Horizontal
*	12721.5	31.8	18.8	50.6	68.2	-17.6	Peak	Horizontal
*	13486.5	29.4	21.7	51.1	68.2	-17.1	Peak	Horizontal
	7434.5	31.7	12.7	44.4	74.0	-29.6	Peak	Vertical
	8429.0	30.9	12.4	43.3	74.0	-30.7	Peak	Vertical
*	10214.0	30.8	16.3	47.1	68.2	-21.1	Peak	Vertical
*	13486.5	29.4	21.7	51.1	68.2	-17.1	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: 2AD8UFZCWO2CA1 Page Number: 498 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11n-HT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8352.5	31.8	12.0	43.8	74.0	-30.2	Peak	Horizontal
	11591.0	33.4	19.5	52.9	74.0	-21.1	Peak	Horizontal
*	12781.0	30.1	19.0	49.1	68.2	-19.1	Peak	Horizontal
*	13520.5	29.2	21.8	51.0	68.2	-17.2	Peak	Horizontal
	8352.5	31.6	12.0	43.6	74.0	-30.4	Peak	Vertical
	11591.0	33.9	19.5	53.4	74.0	-20.6	Peak	Vertical
*	12781.0	30.1	19.0	49.1	68.2	-19.1	Peak	Vertical
*	13546.0	30.1	21.9	52.0	68.2	-16.2	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: 2AD8UFZCWO2CA1 Page Number: 499 of 1017



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	36
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)				
	7434.5	32.2	12.7	44.9	74.0	-29.1	Peak	Horizontal
	8395.0	31.3	12.2	43.5	74.0	-30.5	Peak	Horizontal
*	10120.5	30.8	15.8	46.6	68.2	-21.6	Peak	Horizontal
*	13546.0	30.1	21.9	52.0	68.2	-16.2	Peak	Horizontal
	7434.5	32.2	12.7	44.9	74.0	-29.1	Peak	Vertical
	8386.5	31.1	12.1	43.2	74.0	-30.8	Peak	Vertical
*	9891.0	29.9	15.5	45.4	68.2	-22.8	Peak	Vertical
*	12951.0	31.0	19.7	50.7	68.2	-17.5	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)





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	44
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		Š

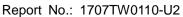
Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7502.5	31.9	12.8	44.7	74.0	-29.3	Peak	Horizontal
	8352.5	31.3	12.0	43.3	74.0	-30.7	Peak	Horizontal
*	10214.0	30.6	16.3	46.9	68.2	-21.3	Peak	Horizontal
*	12951.0	31.0	19.7	50.7	68.2	-17.5	Peak	Horizontal
	7502.5	31.9	12.8	44.7	74.0	-29.3	Peak	Vertical
	8437.5	30.6	12.4	43.0	74.0	-31.0	Peak	Vertical
*	10180.0	30.1	16.1	46.2	68.2	-22.0	Peak	Vertical
*	12951.0	29.7	19.7	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: 2AD8UFZCWO2CA1







Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/27	
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	48	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7400.5	32.6	12.6	45.2	74.0	-28.8	Peak	Horizontal
	8310.0	31.3	11.9	43.2	74.0	-30.8	Peak	Horizontal
*	10171.5	31.1	16.1	47.2	68.2	-21.0	Peak	Horizontal
*	12951.0	29.7	19.7	49.4	68.2	-18.8	Peak	Horizontal
	7400.5	32.6	12.6	45.2	74.0	-28.8	Peak	Vertical
	8352.5	32.1	12.0	44.1	74.0	-29.9	Peak	Vertical
*	9993.0	31.1	15.4	46.5	68.2	-21.7	Peak	Vertical
*	12891.5	29.8	19.4	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: 2AD8UFZCWO2CA1





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	149
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8463.0	32.1	12.6	44.7	74.0	-29.3	Peak	Horizontal
	11489.0	33.1	19.3	52.4	74.0	-21.6	Peak	Horizontal
*	12721.5	30.0	18.8	48.8	68.2	-19.4	Peak	Horizontal
*	13486.5	30.1	21.7	51.8	68.2	-16.4	Peak	Horizontal
	8463.0	32.1	12.6	44.7	74.0	-29.3	Peak	Vertical
	11497.5	31.8	19.3	51.1	74.0	-22.9	Peak	Vertical
*	12849.0	29.8	19.2	49.0	68.2	-19.2	Peak	Vertical
*	13427.0	29.8	21.5	51.3	68.2	-16.9	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: 2AD8UFZCWO2CA1 Page Number: 503 of 1017





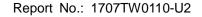
Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/27	
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	157	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8352.5	31.4	12.0	43.4	74.0	-30.6	Peak	Horizontal
	11565.5	32.9	19.5	52.4	74.0	-21.6	Peak	Horizontal
*	12891.5	30.0	19.4	49.4	68.2	-18.8	Peak	Horizontal
*	13546.0	30.2	21.9	52.1	68.2	-16.1	Peak	Horizontal
	8463.0	32.8	12.6	45.4	74.0	-28.6	Peak	Vertical
	11574.0	33.3	19.5	52.8	74.0	-21.2	Peak	Vertical
	12891.5	30.2	19.4	49.6	68.2	-18.6	Peak	Vertical
*	13486.5	30.2	21.7	51.9	68.2	-16.3	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: 2AD8UFZCWO2CA1 Page Number: 504 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C	
Test Engineer	Kevin Ker	Relative Humidity	57 %	
Test Site	AC1	Test Date	2017/08/27	
Test Mode:	802.11ac-VHT20 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	165	
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•	

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8352.5	31.0	12.0	43.0	74.0	-31.0	Peak	Horizontal
	11659.0	35.4	19.3	54.7	74.0	-19.3	Peak	Horizontal
	11660.4	25.4	19.3	44.7	54.0	-9.3	Average	Horizontal
*	12721.5	30.0	18.8	48.8	68.2	-19.4	Peak	Horizontal
*	13486.5	30.2	21.7	51.9	68.2	-16.3	Peak	Horizontal
	8199.5	31.4	12.0	43.4	74.0	-30.6	Peak	Vertical
	11648.4	26.4	19.3	45.7	54.0	-8.3	Average	Vertical
	11650.5	36.6	19.3	55.9	74.0	-18.1	Peak	Vertical
*	12721.5	31.5	18.8	50.3	68.2	-17.9	Peak	Vertical
*	13546.0	29.7	21.9	51.6	68.2	-16.6	Peak	Vertical

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



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	38
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		-

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7468.5	32.3	12.8	45.1	74.0	-28.9	Peak	Horizontal
	8352.5	31.6	12.0	43.6	74.0	-30.4	Peak	Horizontal
*	10214.0	30.2	16.3	46.5	68.2	-21.7	Peak	Horizontal
*	13546.0	29.7	21.9	51.6	68.2	-16.6	Peak	Horizontal
	7468.5	32.3	12.8	45.1	74.0	-28.9	Peak	Vertical
	8284.5	32.1	11.9	44.0	74.0	-30.0	Peak	Vertical
*	10086.5	30.7	15.7	46.4	68.2	-21.8	Peak	Vertical
*	12721.5	30.4	18.8	49.2	68.2	-19.0	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)



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	46
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7502.5	32.6	12.8	45.4	74.0	-28.6	Peak	Horizontal
	8276.0	31.8	11.9	43.7	74.0	-30.3	Peak	Horizontal
*	10171.5	31.2	16.1	47.3	68.2	-20.9	Peak	Horizontal
*	12721.5	30.4	18.8	49.2	68.2	-19.0	Peak	Horizontal
	7502.5	32.6	12.8	45.4	74.0	-28.6	Peak	Vertical
	8293.0	31.7	11.9	43.6	74.0	-30.4	Peak	Vertical
*	9993.0	30.8	15.4	46.2	68.2	-22.0	Peak	Vertical
*	12781.0	30.8	19.0	49.8	68.2	-18.4	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)





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	151
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	9015.5	31.1	14.2	45.3	74.0	-28.7	Peak	Horizontal
	11497.5	33.4	19.3	52.7	74.0	-21.3	Peak	Horizontal
*	12840.5	29.9	19.2	49.1	68.2	-19.1	Peak	Horizontal
*	13427.0	30.7	21.5	52.2	68.2	-16.0	Peak	Horizontal
	7536.5	31.8	12.8	44.6	74.0	-29.4	Peak	Vertical
	8199.5	30.9	12.0	42.9	74.0	-31.1	Peak	Vertical
*	10035.5	31.9	15.5	47.4	68.2	-20.8	Peak	Vertical
*	12781.0	30.4	19.0	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: 2AD8UFZCWO2CA1 Page Number: 508 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C
Test Engineer	Kevin Ker	Relative Humidity	57 %
Test Site	AC1	Test Date	2017/08/27
Test Mode:	802.11ac-VHT40 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	159
Remark:	 Average measurement was no limit. Other frequency was 20dB bel in the report. 		•

Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	8310.0	32.5	11.9	44.4	74.0	-29.6	Peak	Horizontal
	11582.5	33.0	19.5	52.5	74.0	-21.5	Peak	Horizontal
*	12781.0	30.4	19.0	49.4	68.2	-18.8	Peak	Horizontal
*	13546.0	30.1	21.9	52.0	68.2	-16.2	Peak	Horizontal
	8310.0	32.5	11.9	44.4	74.0	-29.6	Peak	Vertical
	11591.0	33.7	19.5	53.2	74.0	-20.8	Peak	Vertical
*	13010.5	31.1	19.9	51.0	68.2	-17.2	Peak	Vertical
*	13427.0	29.8	21.5	51.3	68.2	-16.9	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: 2AD8UFZCWO2CA1 Page Number: 509 of 1017



Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C		
Test Engineer	Kevin Ker	Relative Humidity	57 %		
Test Site	AC1	Test Date	2017/08/27		
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	42		
Remark:	 Average measurement was not performed if peak level lower than average limit. 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)				
	7638.5	31.7	12.6	44.3	74.0	-29.7	Peak	Horizontal
	8131.5	31.4	12.2	43.6	74.0	-30.4	Peak	Horizontal
*	10120.5	31.3	15.8	47.1	68.2	-21.1	Peak	Horizontal
*	13427.0	29.8	21.5	51.3	68.2	-16.9	Peak	Horizontal
	7298.5	31.3	12.3	43.6	74.0	-30.4	Peak	Vertical
	8131.5	31.4	12.2	43.6	74.0	-30.4	Peak	Vertical
*	9899.5	30.8	15.4	46.2	68.2	-22.0	Peak	Vertical
*	13010.5	31.1	19.9	51.0	68.2	-17.2	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: 2AD8UFZCWO2CA1 Page Number: 510 of 1017





Product	AC220 Wi-Fi AP OD small omni antenna US	Temperature	26°C		
Test Engineer	Kevin Ker	Relative Humidity	57 %		
Test Site	AC1	Test Date	2017/08/27		
Test Mode:	802.11ac-VHT80 - Ant 1 + 2 (Beam-Forming Mode)	Test Channel:	155		
Remark:	 Average measurement was not performed if peak level lower than average limit. Other frequency was 20dB below limit line within 1-18GHz, there is not show in the report. 				

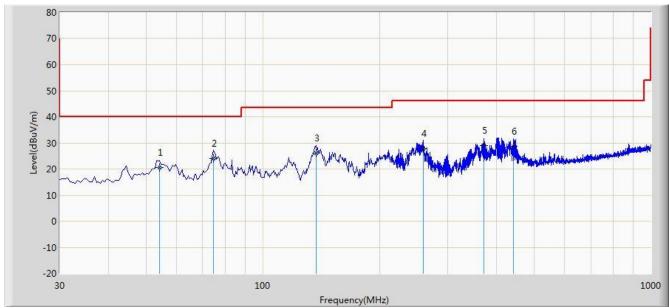
Mark	Frequency	Reading	Factor	Measure	Limit	Margin	Detector	Polarization
	(MHz)	Level	(dB)	Level	(dBµV/m)	(dB)		
		(dBµV)		(dBµV/m)				
	7332.5	31.4	12.4	43.8	74.0	-30.2	Peak	Horizontal
	8310.0	32.1	11.9	44.0	74.0	-30.0	Peak	Horizontal
*	10171.5	31.2	16.1	47.3	68.2	-20.9	Peak	Horizontal
*	12781.0	30.2	19.0	49.2	68.2	-19.0	Peak	Horizontal
	7332.5	31.4	12.4	43.8	74.0	-30.2	Peak	Vertical
	8352.5	31.5	12.0	43.5	74.0	-30.5	Peak	Vertical
*	9772.0	31.2	14.9	46.1	68.2	-22.1	Peak	Vertical
*	12840.5	30.0	19.2	49.2	68.2	-19.0	Peak	Vertical

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



The worst case of Radiated Emission below 1GHz:

Note: There is the worst case within frequency range 30MHz~1GHz.					
EUT: AC220 Wi-Fi AP OD external antenna US Power: DC 54V					
Probe: VULB 9168_20-2000MHz	Polarity: Horizontal				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Site: AC1	Time: 2017/08/23 - 14:13				



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			54.250	20.691	5.846	-19.309	40.000	14.845	QP
2		*	74.620	24.072	14.195	-15.928	40.000	9.877	QP
3			137.185	26.200	16.473	-17.300	43.500	9.727	QP
4			259.405	27.781	13.734	-18.219	46.000	14.047	QP
5			370.995	28.885	12.518	-17.115	46.000	16.367	QP
6			442.250	28.732	11.205	-17.268	46.000	17.527	QP

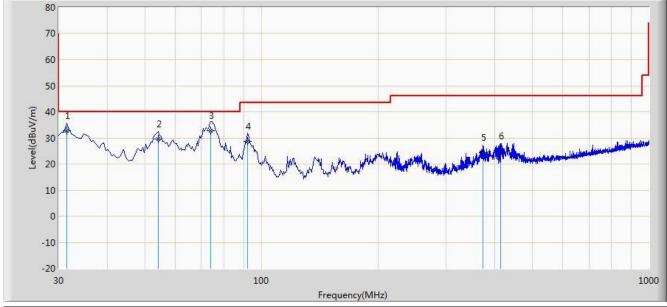
Note 1: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: $9kHz \sim 30MHz$, $18GHz \sim 40GHz$), therefore no data appear in the report.



Note: There is the worst case within frequency range 30MHz~1GHz.					
EUT: AC220 Wi-Fi AP OD external antenna US Power: DC 54V					
Probe: VULB 9168_20-2000MHz	Polarity: Vertical				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Site: AC1	Time: 2017/08/23 - 14:25				



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			31.455	32.710	20.405	-7.290	40.000	12.305	QP
2			54.250	29.517	14.672	-10.483	40.000	14.845	QP
3		*	74.135	32.853	22.864	-7.147	40.000	9.989	QP
4			92.080	28.660	16.834	-14.840	43.500	11.826	QP
5			372.410	24.355	7.967	-21.645	46.000	16.387	QP
6			414.120	24.980	7.824	-21.020	46.000	17.155	QP

Note 1: Measure Level $(dB\mu V/m)$ = Reading Level $(dB\mu V)$ + Factor (dB)

Factor (dB) = Cable Loss (dB) + Antenna Factor (dB/m)

Note 2: The test trace is same as the ambient noise and the amplitude of the emissions are attenuated more than 20dB below the permissible (the test frequency range: 9kHz ~ 30MHz, 18GHz ~ 40GHz), therefore no data appear in the report.



7.9. Radiated RestrictedBand Edge Measurement

7.9.1.Test Limit

For 15.205 requirement:

Radiated emissions which fall in the restricted bands, as defined in Section 15.205(a) of FCC part 15, must also comply with the radiated emission limits specified in Section 15.209(a).

Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (GHz)
0.090 - 0.110	16.42-16.423	399.9 - 410	4.5-5.15
¹ 0.495 - 0.505	16.69475-16.69525	608 - 614	5.35-5.46
2.1735-2.1905	16.80425-16.80475	960 - 1240	7.25-7.75
4.125-4.128	25.5 -25.67	1300 - 1427	8.25 - 8.5
4.17725-4.17775	37.5-38.25	1435-1626.5	9.0-9.2
4.20725-4.20775	73-74.6	1645.5-1646.5	9.3-9.5
6.215-6.218	74.8-75.2	1660 - 1710	10.6-12.7
6.26775-6.26825	108-121.94	1718.8-1722.2	13.25-13.4
6.31175-6.31225	6.31175-6.31225 123 - 138		14.47-14.5
8.291-8.294	149.9-150.05	2310–2390	15.35-16.2
8.362-8.366	156.52475-156.525	2483.5 - 2500	17.7-21.4
8.37625-8.38675	156.7-156.9	2690 - 2900	22.01-23.12
8.41425-8.41475	162.0125-167.17	3260 - 3267	23.6-24.0
12.29-12.293	12.29-12.293 167.72-173.2		31.2-31.8
12.51975-12.52025	12.51975-12.52025 240 - 285		36.43-36.5
12.57675-12.57725	322-335.4	3600 - 4400	(²)
13.36-13.41			

For 15.407(b) requirement:

For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.

For transmitters operating in the 5.725-5.85 GHz band: All emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an e.i.r.p. of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an e.i.r.p. of -27 dBm/MHz.

Refer to KDB 789033 D02v01r04 G)2)c), as specified in § 15.407(b), emissions above 1000 MHz that are outside of the restricted bands are subject to a maximum emission limit of -27 dBm/MHz (or -17 dBm/MHz as specified in § 15.407(b)(4)). However, an out-of-band emission that complies with

FCC ID: 2AD8UFZCWO2CA1 Page Number: 514 of 1017



both the peak and average limits of § 15.209 is not required to satisfy the -27 dBm/MHz or -17 dBm/MHz maximum emission limit.

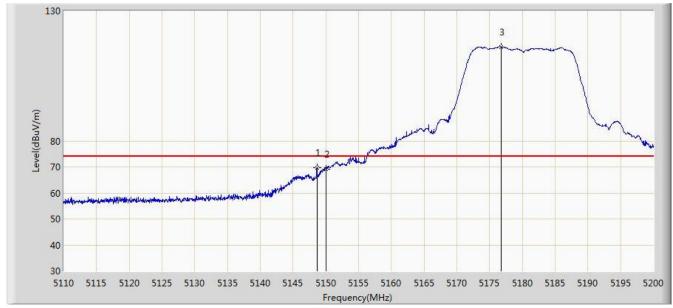
All out of band emissions appearing in a restricted band as specified in Section 15.205 of the Title 47CFR must not exceed the limits shown in Table per Section 15.209.

FCC Part 15 Subpart C Paragraph 15.209							
Frequency	Frequency Field Strength						
[MHz]	[uV/m]	[Meters]					
0.009 - 0.490	2400/F (kHz)	300					
0.490 - 1.705	24000/F (kHz)	30					
1.705 - 30	30	30					
30 - 88	100	3					
88 - 216	150	3					
216 - 960	200	3					
Above 960	500	3					



7.9.2.Test Result

Site: AC1	Time: 2017/08/11 - 07:16					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11a at Channel 5180MHz Ant 1						

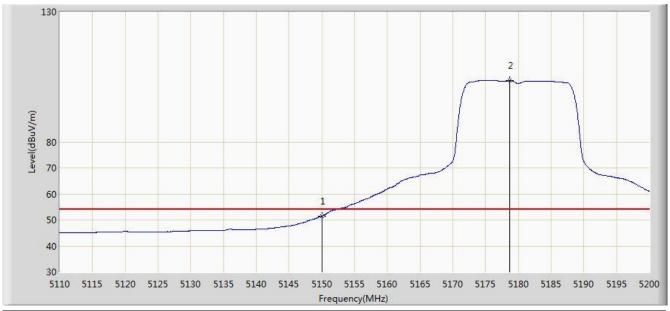


No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5148.655	69.682	65.508	-4.318	74.000	4.174	PK
2			5150.000	69.273	65.104	-4.727	74.000	4.170	PK
3		*	5176.735	116.206	112.126	N/A	N/A	4.081	PK

Note: Measure Level (dB μ V/m) = Reading Level (dB μ V) + Factor (dB)



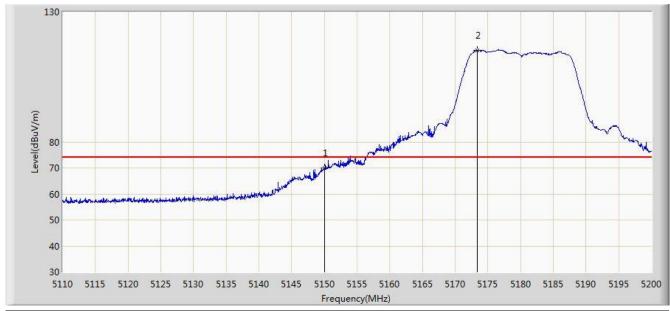
Site: AC1	Time: 2017/08/11 - 07:13					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11a at Channel 5180MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	51.477	47.308	-2.523	54.000	4.170	AV
2		*	5178.670	103.556	99.482	N/A	N/A	4.073	AV



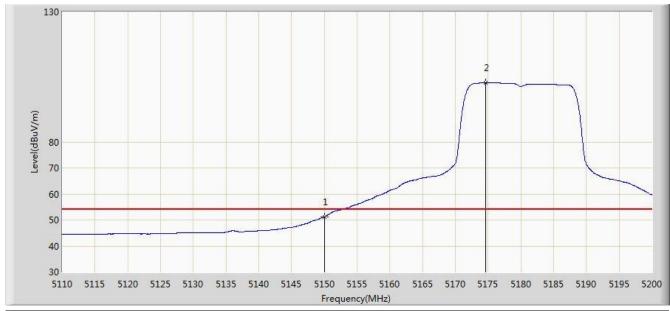
Site: AC1	Time: 2017/08/11 - 07:17					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11a at Channel 5180MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	69.905	65.736	-4.095	74.000	4.170	PK
2		*	5173.360	115.348	111.256	N/A	N/A	4.092	PK



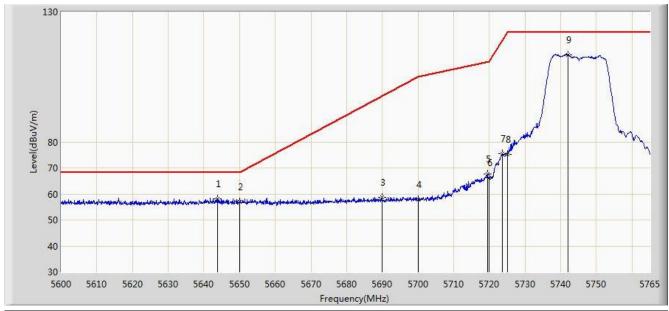
Site: AC1	Time: 2017/08/11 - 07:20					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11a at Channel 5180MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	51.211	47.042	-2.789	54.000	4.170	AV
2		*	5174.620	102.797	98.709	N/A	N/A	4.088	AV



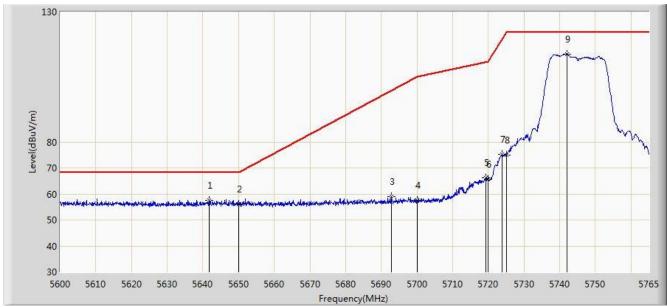
Site: AC1	Time: 2017/08/11 - 07:41					
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11a at Channel 5745MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5643.808	58.136	53.486	-10.064	68.200	4.651	PK
2			5650.000	56.869	52.198	-11.331	68.200	4.671	PK
3			5689.925	58.742	53.915	-40.193	98.935	4.828	PK
4			5700.000	57.968	53.090	-47.232	105.200	4.878	PK
5			5719.460	67.817	62.824	-42.832	110.649	4.993	PK
6			5720.000	66.218	61.221	-44.582	110.800	4.997	PK
7			5723.585	75.364	70.344	-43.611	118.975	5.020	PK
8			5725.000	75.298	70.269	-46.902	122.200	5.029	PK
9		*	5742.065	113.592	108.454	N/A	N/A	5.137	PK



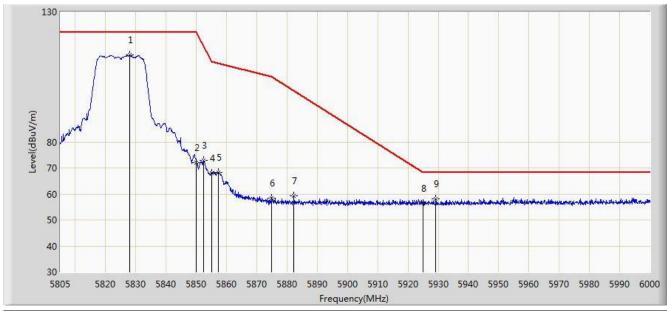
Site: AC1	Time: 2017/08/11 - 07:49				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11a at Channel 5745MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5641.828	57.493	52.849	-10.707	68.200	4.644	PK
2			5650.000	56.084	51.413	-12.116	68.200	4.671	PK
3			5692.812	58.938	54.098	-41.794	100.732	4.840	PK
4			5700.000	57.580	52.702	-47.620	105.200	4.878	PK
5			5719.212	66.237	61.245	-44.343	110.580	4.992	PK
6			5720.000	65.522	60.525	-45.278	110.800	4.997	PK
7			5723.750	75.094	70.073	-44.257	119.351	5.021	PK
8			5725.000	75.019	69.990	-47.181	122.200	5.029	PK
9		*	5742.065	113.787	108.649	N/A	N/A	5.137	PK



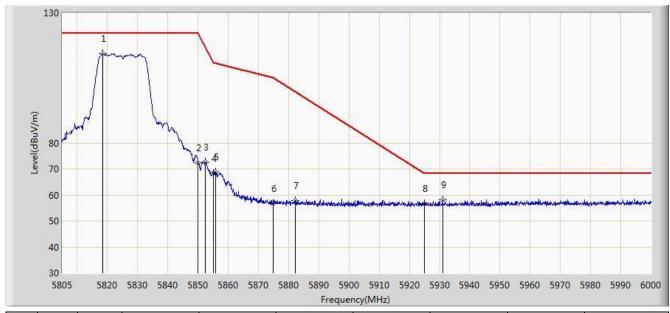
Site: AC1	Time: 2017/08/11 - 07:52				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11a at Channel 5825MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5827.913	113.448	107.843	N/A	N/A	5.606	PK
2			5850.000	72.059	66.333	-50.141	122.200	5.726	PK
3			5852.482	72.837	67.101	-43.703	116.540	5.736	PK
4			5855.000	67.908	62.162	-42.892	110.800	5.746	PK
5			5857.357	68.363	62.607	-41.776	110.139	5.756	PK
6			5875.000	58.471	52.651	-46.729	105.200	5.820	PK
7			5882.317	59.246	53.401	-41.372	100.618	5.845	PK
8			5925.000	56.459	50.493	-11.741	68.200	5.967	PK
9			5929.118	57.972	51.995	-10.228	68.200	5.977	PK



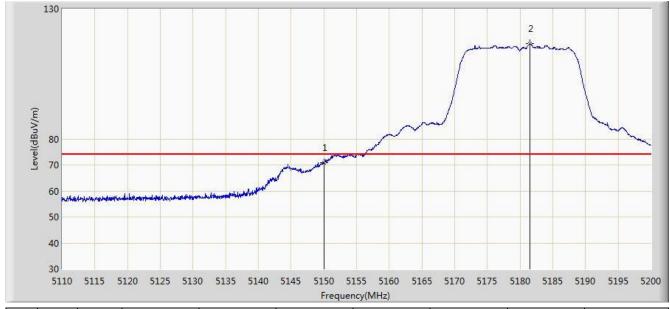
Site: AC1	Time: 2017/08/11 - 07:55					
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11a at Channel 5825MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5818.553	114.213	108.663	N/A	N/A	5.551	PK
2			5850.000	72.436	66.710	-49.764	122.200	5.726	PK
3			5852.482	72.717	66.981	-43.823	116.540	5.736	PK
4			5855.000	68.352	62.606	-42.448	110.800	5.746	PK
5			5855.797	68.767	63.017	-41.810	110.576	5.749	PK
6			5875.000	56.741	50.921	-48.459	105.200	5.820	PK
7			5882.123	57.832	51.988	-42.907	100.739	5.844	PK
8			5925.000	56.623	50.657	-11.577	68.200	5.967	PK
9			5930.970	58.123	52.142	-10.077	68.200	5.981	PK



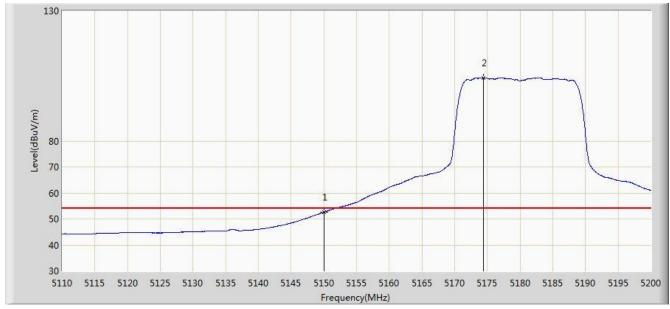
Site: AC1	Time: 2017/08/11 - 07:59				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	70.874	66.705	-3.126	74.000	4.170	PK
2		*	5181.505	116.532	112.469	N/A	N/A	4.064	PK



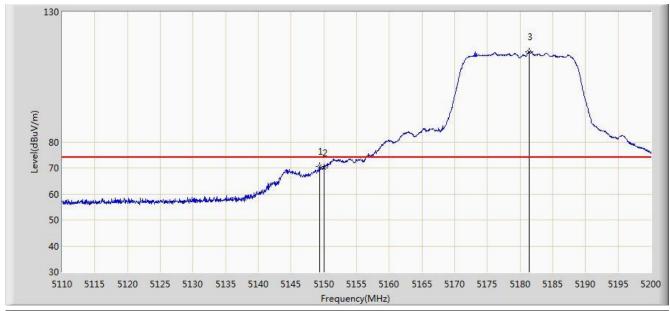
Site: AC1	Time: 2017/08/11 - 08:01					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	52.596	48.427	-1.404	54.000	4.170	AV
2		*	5174.350	104.274	100.185	N/A	N/A	4.088	AV



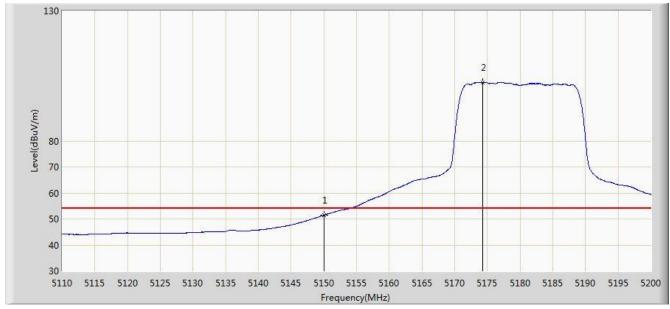
Site: AC1	Time: 2017/08/11 - 08:01					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5149.330	70.592	66.421	-3.408	74.000	4.171	PK
2			5150.000	70.079	65.910	-3.921	74.000	4.170	PK
3		*	5181.370	114.695	110.631	N/A	N/A	4.064	PK



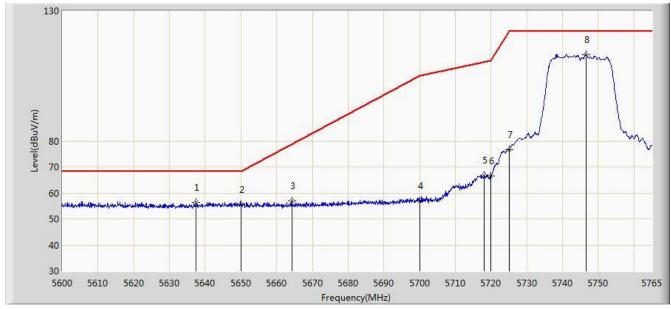
Site: AC1	Time: 2017/08/11 - 08:03					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11n-HT20 at Channel 5180MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	51.424	47.255	-2.576	54.000	4.170	AV
2		*	5174.260	102.538	98.449	N/A	N/A	4.088	AV



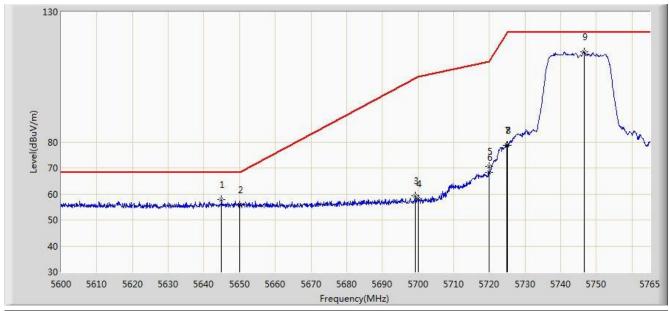
Site: AC1	Time: 2017/08/11 - 09:58				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT20 at Channel 5745MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5637.373	56.502	51.872	-11.698	68.200	4.630	PK
2			5650.000	55.365	50.694	-12.835	68.200	4.671	PK
3			5664.268	57.068	52.344	-25.863	82.931	4.724	PK
4			5700.000	56.859	51.981	-48.341	105.200	4.878	PK
5			5718.140	66.855	61.870	-43.425	110.280	4.985	PK
6			5720.000	66.583	61.586	-44.217	110.800	4.997	PK
7			5725.000	76.713	71.684	-45.487	122.200	5.029	PK
8		*	5746.685	113.206	108.041	N/A	N/A	5.165	PK



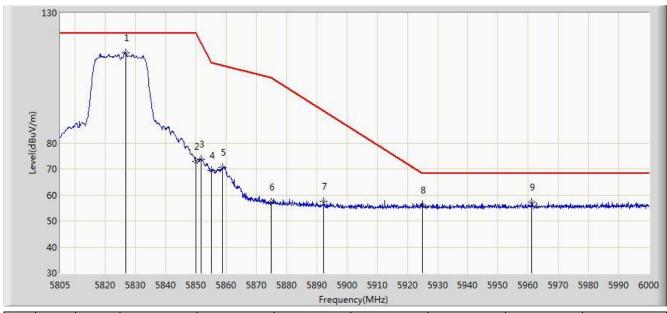
Site: AC1	Time: 2017/08/11 - 10:04				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT20 at Channel 5745MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5644.962	57.817	53.163	-10.383	68.200	4.654	PK
2			5650.000	55.923	51.252	-12.277	68.200	4.671	PK
3			5699.248	59.315	54.441	-45.418	104.733	4.874	PK
4			5700.000	58.223	53.345	-46.977	105.200	4.878	PK
5			5719.873	70.554	65.558	-40.210	110.765	4.997	PK
6			5720.000	68.206	63.209	-42.594	110.800	4.997	PK
7			5724.905	78.735	73.707	-43.248	121.983	5.029	PK
8			5725.000	78.594	73.565	-43.606	122.200	5.029	PK
9		*	5746.685	114.671	109.506	N/A	N/A	5.165	PK



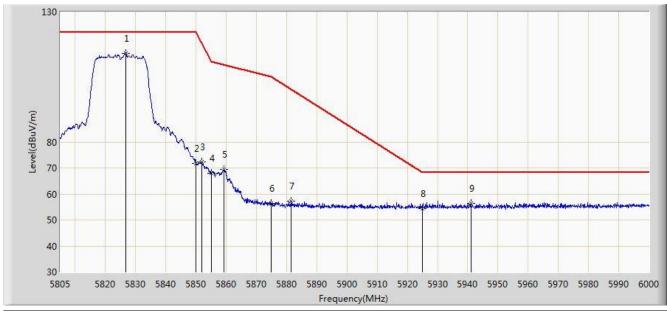
Site: AC1	Time: 2017/08/11 - 10:16				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5826.645	114.629	109.031	N/A	N/A	5.598	PK
2			5850.000	72.848	67.122	-49.352	122.200	5.726	PK
3			5851.605	73.653	67.921	-44.886	118.540	5.732	PK
4			5855.000	69.439	63.693	-41.361	110.800	5.746	PK
5			5858.820	70.664	64.902	-39.065	109.729	5.762	PK
6			5875.000	57.142	51.322	-48.058	105.200	5.820	PK
7			5892.263	57.664	51.785	-36.734	94.398	5.879	PK
8			5925.000	55.964	49.998	-12.236	68.200	5.967	PK
9			5961.098	57.175	51.129	-11.025	68.200	6.046	PK



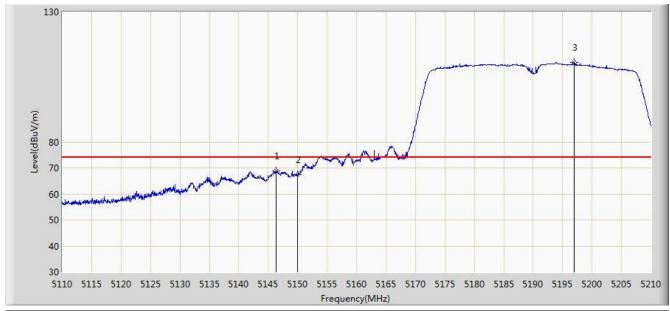
Site: AC1	Time: 2017/08/11 - 10:26				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT20 at Channel 5825MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5826.743	114.069	108.471	N/A	N/A	5.599	PK
2			5850.000	71.742	66.016	-50.458	122.200	5.726	PK
3			5851.897	72.176	66.443	-45.697	117.874	5.734	PK
4			5855.000	67.968	62.222	-42.832	110.800	5.746	PK
5			5859.308	69.428	63.664	-40.164	109.592	5.764	PK
6			5875.000	56.255	50.435	-48.945	105.200	5.820	PK
7			5881.538	57.307	51.465	-43.798	101.105	5.842	PK
8			5925.000	54.490	48.524	-13.710	68.200	5.967	PK
9			5941.013	56.420	50.414	-11.780	68.200	6.006	PK



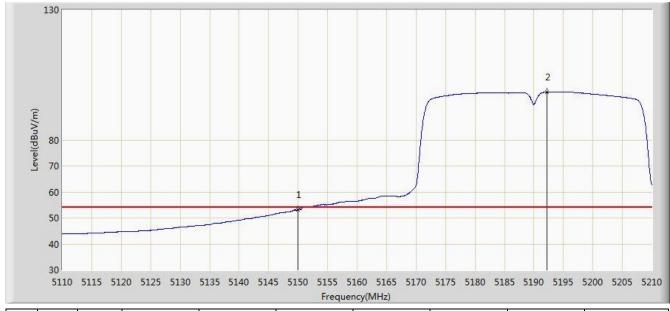
Site: AC1	Time: 2017/08/11 - 22:49				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5146.400	68.784	64.608	-5.216	74.000	4.176	PK
2			5150.000	67.338	63.169	-6.662	74.000	4.170	PK
3		*	5197.000	110.642	106.633	N/A	N/A	4.009	PK



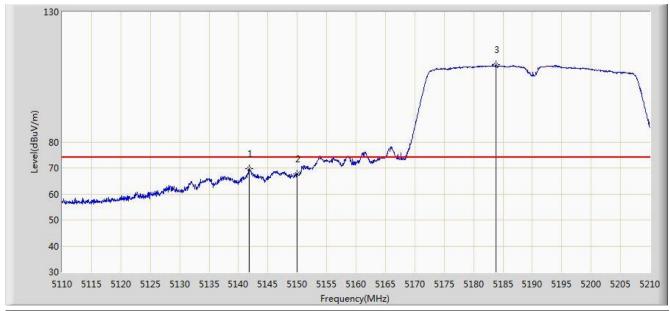
Site: AC1	Time: 2017/08/11 - 22:48				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	53.201	49.032	-0.799	54.000	4.170	AV
2		*	5192.200	98.383	94.357	N/A	N/A	4.026	AV



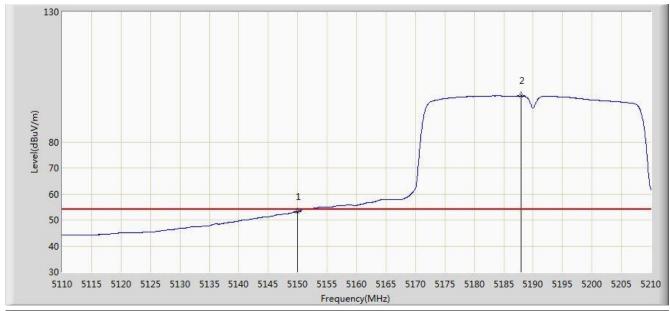
Site: AC1	Time: 2017/08/11 - 22:50				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5141.850	69.661	65.485	-4.339	74.000	4.176	PK
2			5150.000	67.658	63.489	-6.342	74.000	4.170	PK
3		*	5183.750	109.680	105.624	N/A	N/A	4.056	PK



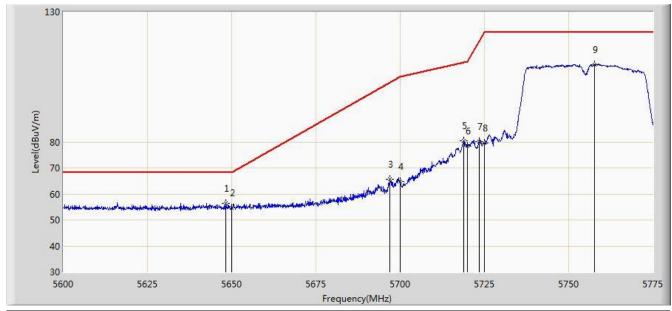
Site: AC1	Time: 2017/08/11 - 22:53				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT40 at Channel 5190MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	53.250	49.081	-0.750	54.000	4.170	AV
2		*	5188.000	97.704	93.663	N/A	N/A	4.041	AV



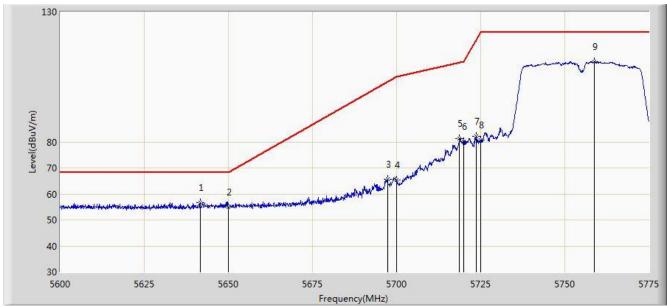
Site: AC1	Time: 2017/08/12 - 00:06					
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5648.212	56.257	51.592	-11.943	68.200	4.665	PK
2			5650.000	54.679	50.008	-13.521	68.200	4.671	PK
3			5696.950	65.671	60.809	-37.634	103.305	4.862	PK
4			5700.000	64.684	59.806	-40.516	105.200	4.878	PK
5			5718.913	80.369	75.379	-30.127	110.496	4.990	PK
6			5720.000	78.383	73.386	-32.417	110.800	4.997	PK
7			5723.462	80.067	75.048	-38.627	118.694	5.019	PK
8			5725.000	79.622	74.593	-42.578	122.200	5.029	PK
9		*	5757.675	109.841	104.614	N/A	N/A	5.226	PK



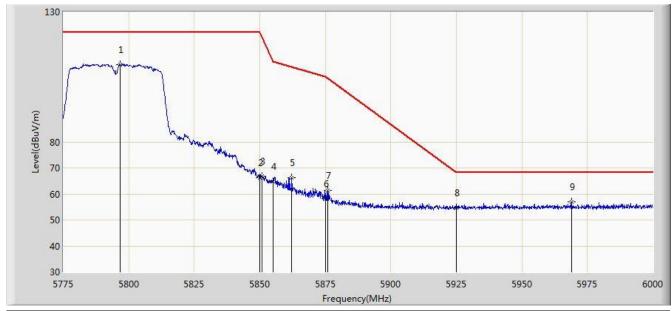
Site: AC1	Time: 2017/08/12 - 00:09				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT40 at Channel 5755MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5641.562	56.573	51.930	-11.627	68.200	4.643	PK
2			5650.000	54.957	50.286	-13.243	68.200	4.671	PK
3			5697.388	65.749	60.885	-37.828	103.577	4.865	PK
4			5700.000	65.262	60.384	-39.938	105.200	4.878	PK
5			5718.737	81.432	76.443	-29.015	110.447	4.989	PK
6			5720.000	80.218	75.221	-30.582	110.800	4.997	PK
7			5723.638	82.108	77.088	-36.987	119.096	5.021	PK
8			5725.000	80.639	75.610	-41.561	122.200	5.029	PK
9		*	5758.812	110.953	105.720	N/A	N/A	5.233	PK



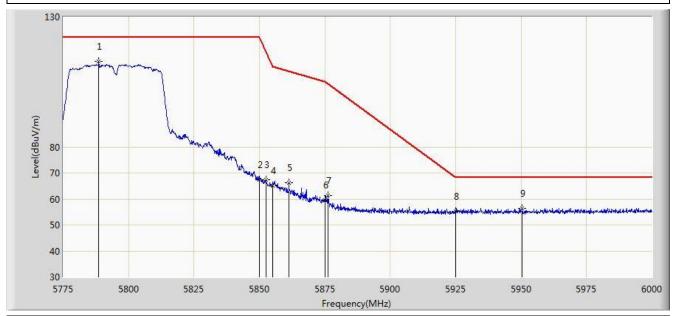
Site: AC1	Time: 2017/08/12 - 00:13					
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5796.712	109.787	104.360	N/A	N/A	5.428	PK
2			5850.000	66.140	60.414	-56.060	122.200	5.726	PK
3			5850.825	66.684	60.955	-53.634	120.318	5.729	PK
4			5855.000	64.674	58.928	-46.126	110.800	5.746	PK
5			5862.187	66.288	60.512	-42.498	108.785	5.775	PK
6			5875.000	57.988	52.168	-47.212	105.200	5.820	PK
7			5875.913	61.227	55.404	-43.401	104.628	5.823	PK
8			5925.000	54.735	48.769	-13.465	68.200	5.967	PK
9			5968.950	57.015	50.956	-11.185	68.200	6.059	PK



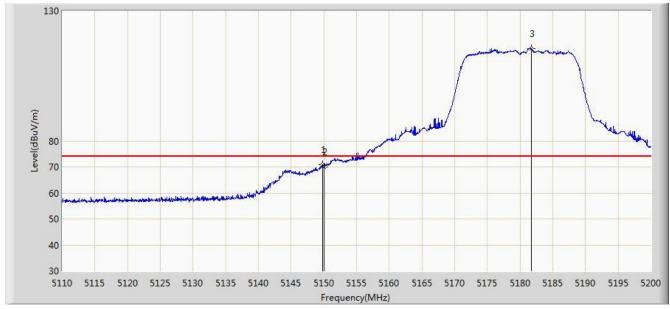
Site: AC1	Time: 2017/08/12 - 00:17				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11n-HT40 at Channel 5795MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5788.612	112.969	107.584	N/A	N/A	5.385	PK
2			5850.000	67.363	61.637	-54.837	122.200	5.726	PK
3			5852.400	67.498	61.763	-49.228	116.727	5.736	PK
4			5855.000	65.084	59.338	-45.716	110.800	5.746	PK
5			5861.288	66.229	60.457	-42.808	109.037	5.772	PK
6			5875.000	59.703	53.883	-45.497	105.200	5.820	PK
7			5876.250	61.299	55.475	-43.118	104.417	5.824	PK
8			5925.000	55.265	49.299	-12.935	68.200	5.967	PK
9			5950.388	56.378	50.351	-11.822	68.200	6.027	PK



Site: AC1	Time: 2017/08/12 - 00:22				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5149.780	70.876	66.706	-3.124	74.000	4.169	PK
2			5150.000	69.912	65.743	-4.088	74.000	4.170	PK
3		*	5181.730	115.628	111.565	N/A	N/A	4.063	PK



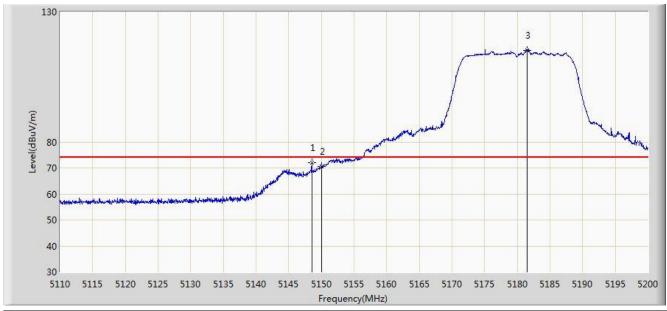
Site: AC1	Time: 2017/08/12 - 00:27					
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	51.214	47.045	-2.786	54.000	4.170	AV
2		*	5177.545	103.158	99.080	N/A	N/A	4.077	AV



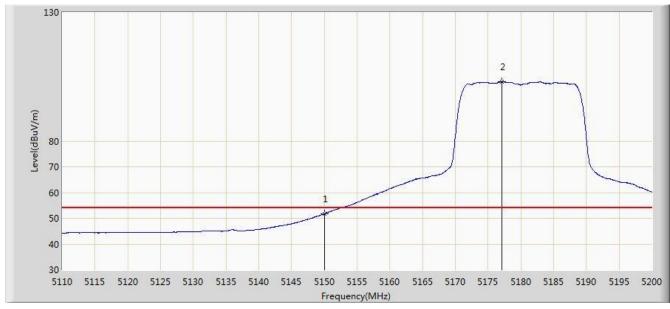
Site: AC1	Time: 2017/08/12 - 00:29				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5148.520	72.047	67.873	-1.953	74.000	4.173	PK
2			5150.000	70.649	66.480	-3.351	74.000	4.170	PK
3		*	5181.460	115.343	111.279	N/A	N/A	4.064	PK



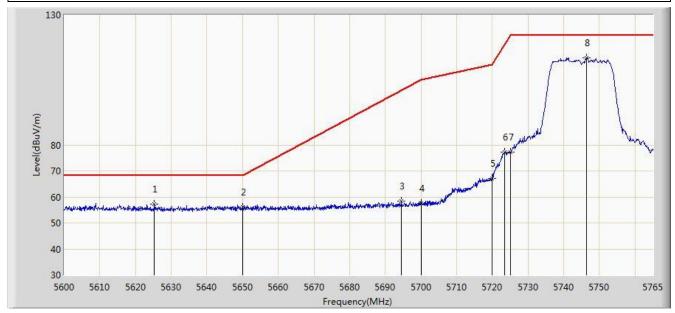
Site: AC1	Time: 2017/08/12 - 00:32				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5180MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	51.800	47.631	-2.200	54.000	4.170	AV
2		*	5177.140	102.978	98.899	N/A	N/A	4.080	AV



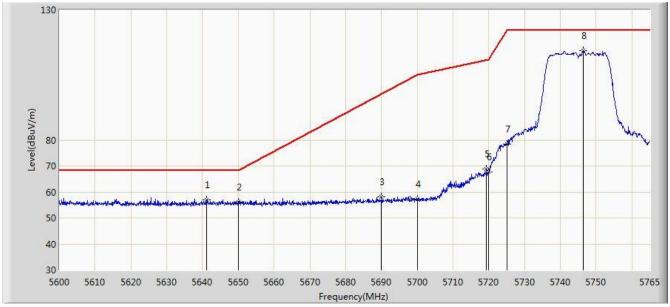
Site: AC1	Time: 2017/08/12 - 01:09				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5745MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5625.328	57.144	52.548	-11.056	68.200	4.595	PK
2			5650.000	56.083	51.412	-12.117	68.200	4.671	PK
3			5694.545	58.472	53.623	-43.337	101.809	4.849	PK
4			5700.000	57.510	52.632	-47.690	105.200	4.878	PK
5			5720.000	67.098	62.101	-43.702	110.800	4.997	PK
6			5723.420	77.373	72.354	-41.226	118.599	5.019	PK
7			5725.000	77.341	72.312	-44.859	122.200	5.029	PK
8		*	5746.437	113.531	108.368	N/A	N/A	5.163	PK



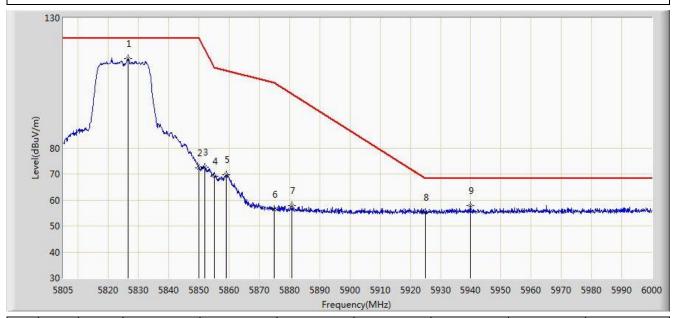
Site: AC1	Time: 2017/08/12 - 01:15				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5745MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5641.167	56.919	52.277	-11.281	68.200	4.641	PK
2			5650.000	56.222	51.551	-11.978	68.200	4.671	PK
3			5690.007	58.067	53.239	-40.920	98.986	4.828	PK
4			5700.000	57.263	52.385	-47.937	105.200	4.878	PK
5			5719.377	68.900	63.907	-41.726	110.626	4.993	PK
6			5720.000	67.543	62.546	-43.257	110.800	4.997	PK
7			5725.000	78.334	73.305	-43.866	122.200	5.029	PK
8		*	5746.355	114.396	109.233	N/A	N/A	5.163	PK



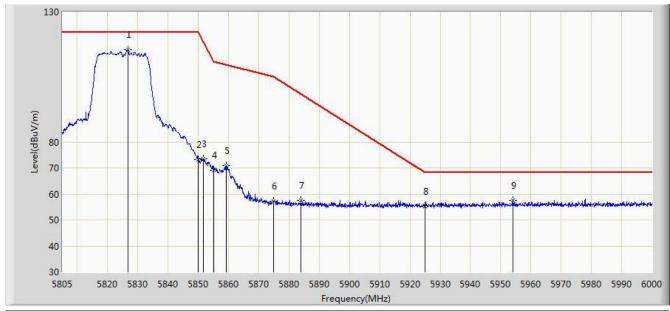
Site: AC1	Time: 2017/08/12 - 01:19				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5826.450	114.327	108.731	N/A	N/A	5.596	PK
2			5850.000	72.215	66.489	-49.985	122.200	5.726	PK
3			5851.800	72.749	67.016	-45.346	118.095	5.733	PK
4			5855.000	69.263	63.517	-41.537	110.800	5.746	PK
5			5859.015	69.632	63.869	-40.042	109.674	5.763	PK
6			5875.000	56.290	50.470	-48.910	105.200	5.820	PK
7			5880.855	57.701	51.861	-43.832	101.533	5.840	PK
8			5925.000	55.114	49.148	-13.086	68.200	5.967	PK
9			5939.940	57.920	51.917	-10.280	68.200	6.004	PK



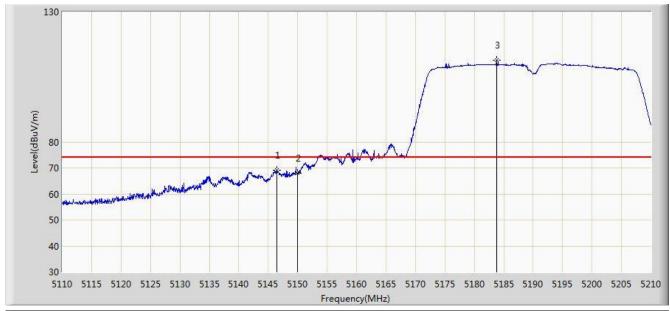
Site: AC1	Time: 2017/08/12 - 01:21					
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11ac-VHT20 at Channel 5825MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5826.645	115.450	109.852	N/A	N/A	5.598	PK
2			5850.000	73.095	67.369	-49.105	122.200	5.726	PK
3			5851.605	73.384	67.652	-45.155	118.540	5.732	PK
4			5855.000	69.003	63.257	-41.797	110.800	5.746	PK
5			5859.210	70.905	65.141	-38.715	109.620	5.764	PK
6			5875.000	57.260	51.440	-47.940	105.200	5.820	PK
7			5883.975	57.565	51.714	-42.015	99.580	5.850	PK
8			5925.000	55.132	49.166	-13.068	68.200	5.967	PK
9			5954.175	57.527	51.493	-10.673	68.200	6.034	PK



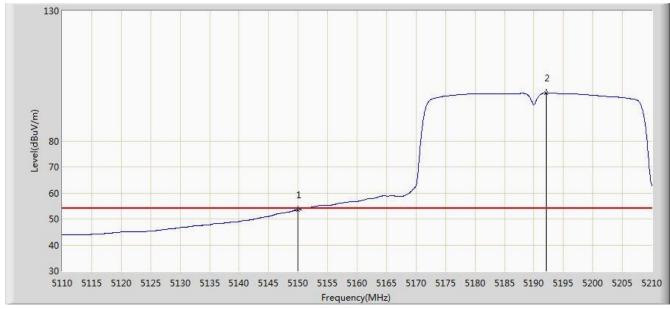
Site: AC1	Time: 2017/08/12 - 02:11				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5146.500	69.188	65.012	-4.812	74.000	4.176	PK
2			5150.000	67.926	63.757	-6.074	74.000	4.170	PK
3		*	5183.750	111.305	107.249	N/A	N/A	4.056	PK



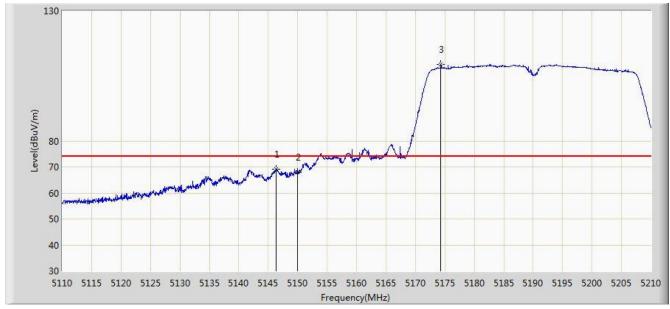
Site: AC1	Time: 2017/08/12 - 01:26				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	53.571	49.402	-0.429	54.000	4.170	AV
2		*	5192.050	98.380	94.354	N/A	N/A	4.027	AV



Site: AC1	Time: 2017/08/12 - 02:12				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5146.400	69.194	65.018	-4.806	74.000	4.176	PK
2			5150.000	67.925	63.756	-6.075	74.000	4.170	PK
3		*	5174.300	109.379	105.290	N/A	N/A	4.088	PK



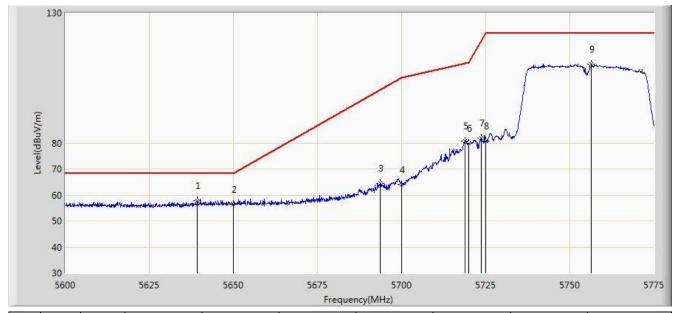
Site: AC1	Time: 2017/08/12 - 02:14				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5190MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	53.201	49.032	-0.799	54.000	4.170	AV
2		*	5187.700	97.547	93.505	N/A	N/A	4.042	AV



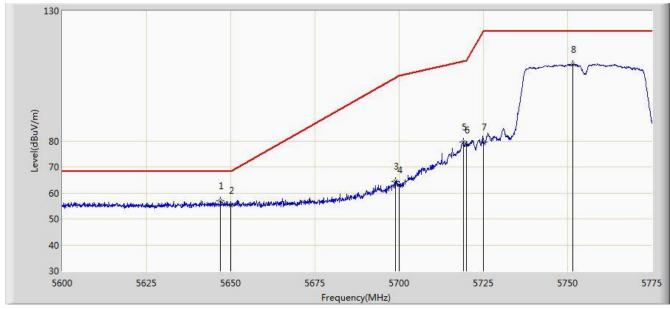
Site: AC1	Time: 2017/08/12 - 02:38				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5755MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5639.288	57.797	53.161	-10.403	68.200	4.635	PK
2			5650.000	56.359	51.688	-11.841	68.200	4.671	PK
3			5693.625	64.409	59.565	-36.828	101.237	4.844	PK
4			5700.000	63.979	59.101	-41.221	105.200	4.878	PK
5			5718.825	80.783	75.794	-29.688	110.472	4.990	PK
6			5720.000	79.850	74.853	-30.950	110.800	4.997	PK
7			5723.638	81.824	76.804	-37.271	119.096	5.021	PK
8			5725.000	80.662	75.633	-41.538	122.200	5.029	PK
9		*	5756.450	110.182	104.962	N/A	N/A	5.220	PK



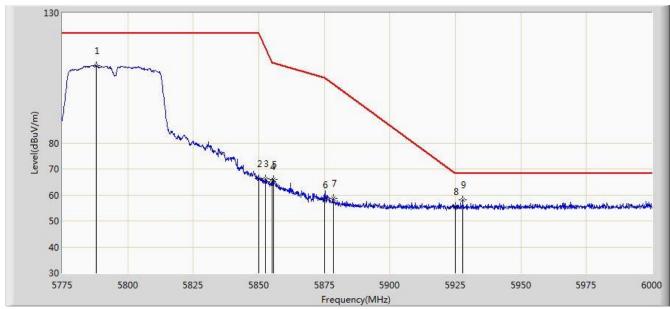
Site: AC1	Time: 2017/08/12 - 02:41					
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5755MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5646.987	56.830	52.169	-11.370	68.200	4.661	PK
2			5650.000	55.114	50.443	-13.086	68.200	4.671	PK
3			5698.875	64.375	59.503	-40.126	104.501	4.872	PK
4			5700.000	63.011	58.133	-42.189	105.200	4.878	PK
5			5719.000	79.707	74.717	-30.813	110.520	4.990	PK
6			5720.000	78.546	73.549	-32.254	110.800	4.997	PK
7			5725.000	79.547	74.518	-42.653	122.200	5.029	PK
8		*	5751.462	109.487	104.295	N/A	N/A	5.191	PK



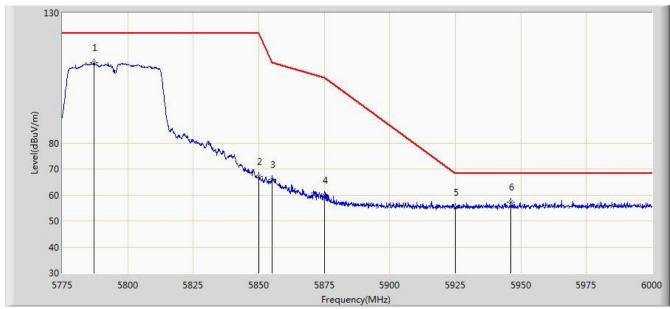
Site: AC1	Time: 2017/08/12 - 02:47					
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker					
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal					
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V					
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5795MHz Ant 1						



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5788.050	109.708	104.326	N/A	N/A	5.382	PK
2			5850.000	66.178	60.452	-56.022	122.200	5.726	PK
3			5852.400	66.295	60.560	-50.431	116.727	5.736	PK
4			5855.000	65.095	59.349	-45.705	110.800	5.746	PK
5			5855.663	66.058	60.309	-44.556	110.614	5.749	PK
6			5875.000	58.210	52.390	-46.990	105.200	5.820	PK
7			5878.388	58.788	52.957	-44.289	103.078	5.831	PK
8			5925.000	55.593	49.627	-12.607	68.200	5.967	PK
9			5927.888	58.068	52.094	-10.132	68.200	5.974	PK



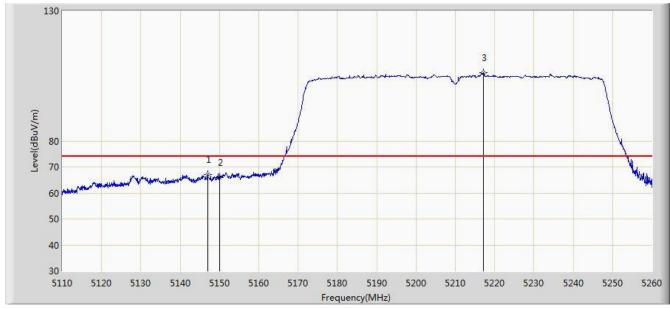
Site: AC1	Time: 2017/08/12 - 02:49				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT40 at Channel 5795MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5787.038	110.781	105.404	N/A	N/A	5.378	PK
2			5850.000	67.105	61.379	-55.095	122.200	5.726	PK
3			5855.000	65.922	60.176	-44.878	110.800	5.746	PK
4			5875.000	59.884	54.064	-45.316	105.200	5.820	PK
5			5925.000	55.261	49.295	-12.939	68.200	5.967	PK
6			5946.225	57.355	51.337	-10.845	68.200	6.018	PK



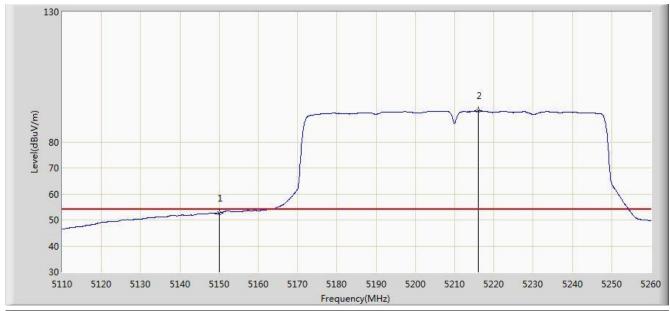
Site: AC1	Time: 2017/08/12 - 02:59				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5146.975	67.114	62.938	-6.886	74.000	4.176	PK
2			5150.000	65.840	61.671	-8.160	74.000	4.170	PK
3		*	5217.175	106.232	102.285	N/A	N/A	3.947	PK



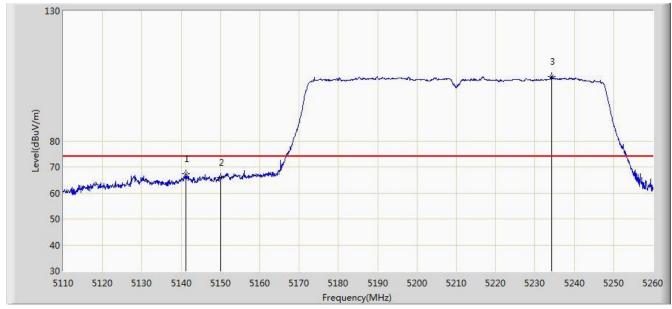
Site: AC1	Time: 2017/08/12 - 02:58				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	52.717	48.548	-1.283	54.000	4.170	AV
2		*	5216.050	91.923	87.972	N/A	N/A	3.951	AV



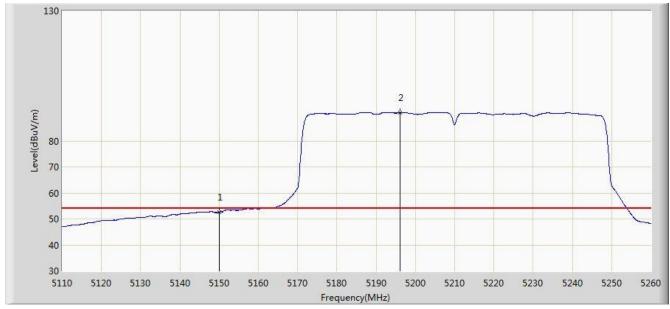
Site: AC1	Time: 2017/08/12 - 03:00				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz Ant 1					



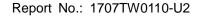
No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5141.125	67.330	63.154	-6.670	74.000	4.175	PK
2			5150.000	65.814	61.645	-8.186	74.000	4.170	PK
3		*	5234.275	104.880	100.983	N/A	N/A	3.897	PK



Site: AC1	Time: 2017/08/12 - 03:00				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5210MHz Ant 1					

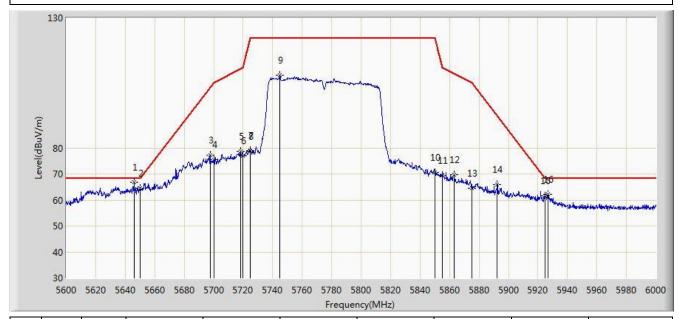


No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	52.683	48.514	-1.317	54.000	4.170	AV
2		*	5196.025	90.860	86.848	N/A	N/A	4.012	AV





Site: AC1	Time: 2017/08/12 - 03:22				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5775MHz Ant 1					

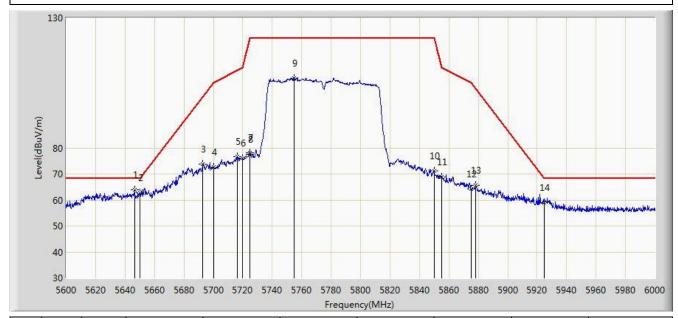


No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5646.000	66.905	62.247	-1.295	68.200	4.657	PK
2			5650.000	64.605	59.934	-3.595	68.200	4.671	PK
3			5697.600	77.245	72.379	-26.464	103.709	4.865	PK
4			5700.000	75.464	70.586	-29.736	105.200	4.878	PK
5			5718.200	78.692	73.707	-31.605	110.297	4.985	PK
6			5720.000	76.840	71.843	-33.960	110.800	4.997	PK
7			5724.600	78.987	73.961	-42.301	121.288	5.026	PK
8			5725.000	78.829	73.800	-43.371	122.200	5.029	PK
9			5744.800	107.828	102.674	N/A	N/A	5.154	PK
10			5850.000	70.700	64.974	-51.500	122.200	5.726	PK
11			5855.000	69.460	63.714	-41.340	110.800	5.746	PK
12			5863.200	69.754	63.975	-38.747	108.502	5.779	PK
13			5875.000	64.516	58.696	-40.684	105.200	5.820	PK
14			5892.200	66.079	60.200	-28.358	94.437	5.879	PK
15			5925.000	61.492	55.526	-6.708	68.200	5.967	PK
16			5927.000	62.199	56.228	-6.001	68.200	5.971	PK





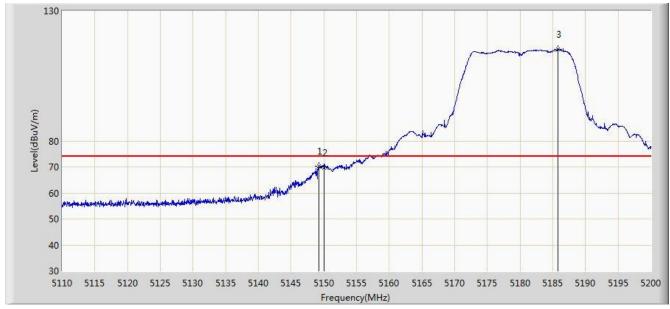
Site: AC1	Time: 2017/08/12 - 03:32				
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11ac-VHT80 at Channel 5775MHz Ant 1					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1		*	5646.400	63.945	59.286	-4.255	68.200	4.659	PK
2			5650.000	62.845	58.174	-5.355	68.200	4.671	PK
3			5692.800	73.795	68.955	-26.929	100.724	4.840	PK
4			5700.000	72.591	67.713	-32.609	105.200	4.878	PK
5			5716.200	76.601	71.629	-33.136	109.738	4.972	PK
6			5720.000	75.972	70.975	-34.828	110.800	4.997	PK
7			5724.600	78.053	73.027	-43.235	121.288	5.026	PK
8			5725.000	77.517	72.488	-44.683	122.200	5.029	PK
9			5754.800	106.892	101.681	N/A	N/A	5.211	PK
10			5850.000	71.042	65.316	-51.158	122.200	5.726	PK
11			5855.000	68.881	63.135	-41.919	110.800	5.746	PK
12			5875.000	64.140	58.320	-41.060	105.200	5.820	PK
13			5878.400	65.541	59.709	-37.529	103.070	5.831	PK
14			5925.000	59.075	53.109	-9.125	68.200	5.967	PK



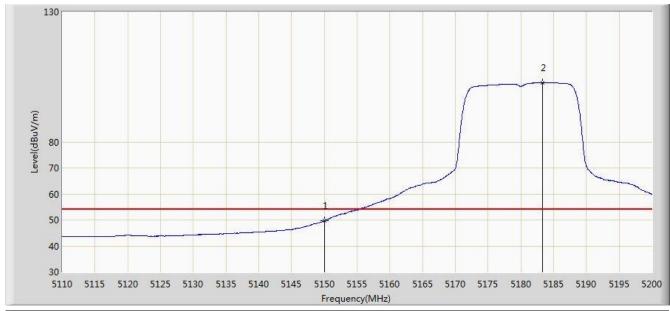
Site: AC1	Time: 2017/08/12 - 05:15				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11a at Channel 5180MHz Ant 2					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5149.285	70.297	66.125	-3.703	74.000	4.171	PK
2			5150.000	69.817	65.648	-4.183	74.000	4.170	PK
3		*	5185.825	115.079	111.031	N/A	N/A	4.049	PK



Site: AC1	Time: 2017/08/12 - 05:12				
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker				
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal				
EUT: AC220 Wi-Fi AP OD directional antenna US	Power: DC 54V				
Test Mode: Transmit by 802.11a at Channel 5180MHz Ant 2					



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	49.685	45.516	-4.315	54.000	4.170	AV
2		*	5183.305	102.727	98.670	N/A	N/A	4.057	AV



Site: AC1	Time: 2017/08/12 - 05:16			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical			
EUT: AC220 Wi-Fi AP OD directional antenna US Power: DC 54V				
Test Mode: Transmit by 802.11a at Channel 5180MHz Ant 2				



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	68.770	64.601	-5.230	74.000	4.170	PK
2		*	5182.090	114.491	110.430	N/A	N/A	4.061	PK



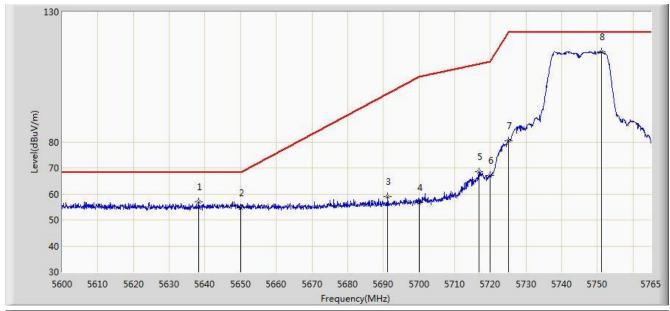
Site: AC1	Time: 2017/08/12 - 05:19			
Limit: FCC_Part15.209_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Vertical			
EUT: AC220 Wi-Fi AP OD directional antenna US Power: DC 54V				
Test Mode: Transmit by 802.11a at Channel 5180MHz Ant 2				



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5150.000	48.567	44.398	-5.433	54.000	4.170	AV
2		*	5182.585	100.347	96.287	N/A	N/A	4.060	AV



Site: AC1	Time: 2017/08/12 - 05:38			
Limit: FCC_Part15.407_RE(3m)	Engineer: Kevin Ker			
Probe: BBHA9120D_1GHz_18GHz	Polarity: Horizontal			
EUT: AC220 Wi-Fi AP OD directional antenna US Power: DC 54V				
Test Mode: Transmit by 802.11a at Channel 5745MHz Ant 2				



No	Flag	Mark	Frequency	Measure	Reading	Margin	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	
				(dBuV/m)	(dBuV)				
1			5638.197	57.080	52.447	-11.120	68.200	4.632	PK
2			5650.000	54.769	50.098	-13.431	68.200	4.671	PK
3			5691.245	58.980	54.147	-40.777	99.757	4.833	PK
4			5700.000	56.701	51.823	-48.499	105.200	4.878	PK
5			5716.737	68.549	63.573	-41.339	109.888	4.976	PK
6			5720.000	67.210	62.213	-43.590	110.800	4.997	PK
7			5725.000	80.443	75.414	-41.757	122.200	5.029	PK
8		*	5751.058	114.745	109.556	N/A	N/A	5.190	PK