

EUT	AX5400 Tri-Band Wi-Fi 6 Router	Date of Test	2021-09-15
Factor	BBHA 9120D	Temp. / Humidity	24.6°C/47%
Polarity	Vertical	Site / Test Engineer	AC1 / Jay
Test Mode	Transmit by 802.11ax-HE160 at Channel 5570MHz	Test Voltage	120V/60Hz



No		Frequency	Reading	C.F	Measurement	Margin	Limit	Remark
		(MHz)	(dBuV)	(dB)	(dBuV/m)	(dB)	(dBuV/m)	(QP/PK/AV)
1		5455.800	45.89	20.70	66.59	-7.41	74.00	Peak
2		5460.000	39.88	20.70	60.58	-7.62	68.20	Peak
3		5467.800	46.72	20.72	67.43	-0.77	68.20	Peak
4		5470.000	41.16	20.72	61.88	-6.32	68.20	Peak
5	*	5604.400	87.69	21.15	108.84	N/A	N/A	Peak
6		5725.000	41.79	21.59	63.38	-4.82	68.20	Peak
7		5728.800	42.29	21.60	63.90	-4.30	68.20	Peak

Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)+ 16dB Attenuation (dB)- Preamplifier(dB).

3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).

4. The emission levels of other frequencies are very lower than the limit and not show in test report.



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INO		(MHz)	(dBuV)	(dB)	(dBuV/m)	(dB)	(dBuV/m)	(QP/PK/AV)
1		5460.000	31.27	20.70	51.97	-2.03	54.00	Average
2	*	5594.200	76.58	21.11	97.70	N/A	N/A	Average

Note:

- 1. " *", means this data is the worst emission level.
- 2. C.F (Correction Factor) = Antenna Factor (dB)+ Cable Loss (dB)+ 16dB Attenuation (dB)- Preamplifier(dB).
- 3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).
- 4. The emission levels of other frequencies are very lower than the limit and not show in test report.



7.10. AC Conducted Emissions Measurement

7.10.1.Test Limit

FCC Part 15.207 Limits							
Frequency (MHz)	QP (dBµV)	AV (dBµV)					
0.15 - 0.50	66 - 56	56 - 46					
0.50 - 5.0	56	46					
5.0 - 30	60	50					

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

7.10.2.Test Procedure

The EUT was setup according to ANSI C63.4, 2009 and tested according to KDB 789033 for compliance to FCC 47CFR 15.247 requirements. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface. The EUT and simulators are connected to the main power through a line impedance stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor, was individually connected through a LISN to the input power source.

The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.

Conducted emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9kHz.



7.10.3.Test Setup





7.10.4.Test Result

EUT	AX5400 Tri-Band Wi-Fi 6 Router	Date of Test	2021-09-15
Factor	CE_ENV216-L1 (Filter OFF)_2021	Temp. / Humidity	26°C /48.7%
Polarity	Line1	Site / Test Engineer	SR2 / Eric Lin
Test Mode	Transmit by 802.11a at channel 5785MHz	Test Voltage	AC 120V/60Hz



No		Frequency	Reading	C.F	Measurement	Margin	Limit	Remark
NO		(MHz)	(dBuV)	(dB)	(dBuV/m)	(dB)	(dBuV/m)	(QP/PK/AV)
1		0.162	27.29	9.61	36.90	-28.46	65.36	QP
2		0.162	14.29	9.61	23.90	-31.46	55.36	Average
3	*	0.518	30.17	9.63	39.80	-16.20	56.00	QP
4		0.518	19.77	9.63	29.40	-16.60	46.00	Average
5		1.180	17.53	9.67	27.20	-28.80	56.00	QP
6		1.180	8.23	9.67	17.90	-28.10	46.00	Average
7		1.530	17.62	9.68	27.30	-28.70	56.00	QP
8		1.530	7.82	9.68	17.50	-28.50	46.00	Average
9		4.270	17.68	9.72	27.40	-28.60	56.00	QP
10		4.270	8.18	9.72	17.90	-28.10	46.00	Average
11		17.540	10.55	9.95	20.50	-39.50	60.00	QP
12		17.540	4.35	9.95	14.30	-35.70	50.00	Average

Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).

3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).



EUT	AX5400 Tri-Band Wi-Fi 6 Router	Date of Test	2021-09-15
Factor	CE_ENV216-N (Filter OFF)_2021	Temp. / Humidity	26°C /48.7%
Polarity	Neutral	Site / Test Engineer	SR2 / Eric Lin
Test Mode	Transmit by 802.11a at channel 5785MHz	Test Voltage	AC 120V/60Hz



No		Frequency	Reading	C.F	Measurement	Margin	Limit	Remark
		(MHz)	(dBuV)	(dB)	(dBuV/m)	(dB)	(dBuV/m)	(QP/PK/AV)
1		0.154	26.68	9.62	36.30	-29.48	65.78	QP
2		0.154	12.98	9.62	22.60	-33.18	55.78	Average
3		0.510	30.67	9.63	40.30	-15.70	56.00	QP
4	*	0.510	20.97	9.63	30.60	-15.40	46.00	Average
5		0.818	17.14	9.66	26.80	-29.20	56.00	QP
6		0.818	6.84	9.66	16.50	-29.50	46.00	Average
7		2.190	16.91	9.69	26.60	-29.40	56.00	QP
8		2.190	8.01	9.69	17.70	-28.30	46.00	Average
9		4.160	17.07	9.73	26.80	-29.20	56.00	QP
10		4.160	6.87	9.73	16.60	-29.40	46.00	Average
11		17.830	10.79	10.01	20.80	-39.20	60.00	QP
12		17.830	4.79	10.01	14.80	-35.20	50.00	Average

Note:

1. " *", means this data is the worst emission level.

2. C.F (Correction Factor) = LISN Factor (dB)+ Cable Loss (dB).

3. Measurement(dBuV/m) = Reading(dBuV) + C.F (Correction Factor).



8. CONCLUSION

The data collected relate only the item(s) tested and show that the device is in compliance with Part

15E of the FCC Rules.

The End



Appendix A - Test Setup Photograph

Refer to "2105TW0004-Setup Photo" file.



Appendix B - External Photograph

Refer to "2105TW0004-External Photo" file.



Appendix C - Internal Photograph

Refer to "2105TW0004-Internal Photo" file.