2*TX+2*RX-Beam-forming:

Mode	Channel	Test Frequency (MHz)	Average Power Output (dBm)		Total Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Result
			Ant 1	Ant 2				
1	CH36	5180	**18.44**	**17.64**	**21.07**	8.5	27.5	Pass
1	CH44	5220	**18.19**	**17.89**	**21.05**	8.5	27.5	Pass
1	CH48	5240	**18.41**	**18.21**	**21.32**	8.5	27.5	Pass
1	CH149	5745	**20.38**	**20.28**	**23.34**	8.5	27.5	Pass
1	CH157	5785	**20.23**	**20.69**	**23.48**	8.5	27.5	Pass
1	CH165	5825	**20.45**	**20.33**	**23.40**	8.5	27.5	Pass
2	CH36	5180	**18.38**	**18.00**	**21.20**	8.5	27.5	Pass
2	CH44	5220	**18.36**	**18.09**	**21.24**	8.5	27.5	Pass
2	CH48	5240	**18.33**	**18.15**	**21.25**	8.5	27.5	Pass
2	CH149	5745	**20.51**	**20.63**	**23.58**	8.5	27.5	Pass
2	CH157	5785	**20.57**	**20.37**	**23.48**	8.5	27.5	Pass
2	CH165	5825	**20.61**	**20.39**	**23.51**	8.5	27.5	Pass
3	CH38	5190	**16.63**	**16.71**	**19.68**	8.5	27.5	Pass
3	CH46	5230	**16.70**	**16.79**	**19.76**	8.5	27.5	Pass
3	CH151	5755	**20.36**	**19.95**	**23.17**	8.5	27.5	Pass
3	CH159	5795	**20.04**	**19.95**	**23.01**	8.5	27.5	Pass
4	CH36	5180	**18.01**	**18.00**	**21.02**	8.5	27.5	Pass
4	CH44	5220	**18.36**	**18.14**	**21.26**	8.5	27.5	Pass
4	CH48	5240	**18.32**	**18.27**	**21.31**	8.5	27.5	Pass
4	CH149	5745	**20.47**	**20.61**	**23.55**	8.5	27.5	Pass

4	CH157	5785	**20.46**	**20.98**	**23.74**	8.5	27.5	Pass
4	CH165	5825	**21.05**	**20.64**	**23.86**	8.5	27.5	Pass
5	CH38	5190	**16.84**	**16.32**	**19.60**	8.5	27.5	Pass
5	CH46	5230	**17.11**	**17.13**	**20.13**	8.5	27.5	Pass
5	CH151	5755	**20.45**	**20.24**	**23.36**	8.5	27.5	Pass
5	CH159	5795	**20.78**	**20.16**	**23.49**	8.5	27.5	Pass
6	CH42	5210	**16.47**	**16.37**	**19.43**	8.5	27.5	Pass
6	CH155	5775	**18.94**	**18.31**	**21.65**	8.5	27.5	Pass
7	CH36	5180	**17.71**	**17.36**	**20.55**	8.5	27.5	Pass
7	CH44	5220	**18.18**	**17.55**	**20.89**	8.5	27.5	Pass
7	CH48	5240	**18.18**	**18.16**	**21.18**	8.5	27.5	Pass
7	CH149	5745	**20.78**	**20.70**	**23.75**	8.5	27.5	Pass
7	CH157	5785	**20.59**	**20.28**	**23.45**	8.5	27.5	Pass
7	CH165	5825	**20.34**	**20.41**	**23.39**	8.5	27.5	Pass
8	CH38	5190	**16.53**	**16.28**	**19.42**	8.5	27.5	Pass
8	CH46	5230	**16.15**	**16.49**	**19.33**	8.5	27.5	Pass
8	CH151	5755	**20.44**	**19.83**	**23.16**	8.5	27.5	Pass
8	CH159	5795	**20.53**	**19.91**	**23.24**	8.5	27.5	Pass
9	CH42	5210	**16.33**	**16.56**	**19.46**	8.5	27.5	Pass
9	CH155	5775	**18.59**	**18.49**	**21.55**	8.5	27.5	Pass

4*TX+4*RX-CDD:

Mode	Channel	Test Frequency (MHz)	Peak Power Output (dBm)				Total Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Result
			Ant 0	Ant 1	Ant 2	Ant 3				
1	CH36	5180	**15.74**	**15.24**	**16.15**	**15.71**	**21.74**	5.5	30	Pass
1	CH44	5220	**15.77**	**15.42**	**15.88**	**15.87**	**21.76**	5.5	30	Pass
1	CH48	5240	**15.67**	**15.77**	**15.60**	**15.76**	**21.72**	5.5	30	Pass
1	CH149	5745	**19.17**	**19.10**	**19.38**	**19.29**	**25.26**	5.5	30	Pass
1	CH157	5785	**19.04**	**18.92**	**19.31**	**18.78**	**25.04**	5.5	30	Pass
1	CH165	5825	**18.82**	**19.43**	**19.43**	**19.06**	**25.21**	5.5	30	Pass
2	CH36	5180	**15.49**	**14.78**	**15.62**	**15.31**	**21.33**	5.5	30	Pass
2	CH44	5220	**15.92**	**14.69**	**15.74**	**15.38**	**21.48**	5.5	30	Pass
2	CH48	5240	**15.84**	**14.99**	**15.87**	**15.61**	**21.61**	5.5	30	Pass
2	CH149	5745	**18.90**	**18.82**	**18.80**	**18.67**	**24.82**	5.5	30	Pass
2	CH157	5785	**18.90**	**18.24**	**18.77**	**18.00**	**24.51**	5.5	30	Pass
2	CH165	5825	**19.19**	**18.83**	**18.83**	**17.63**	**24.68**	5.5	30	Pass
3	CH38	5190	**13.32**	**12.54**	**13.43**	**12.53**	**19.00**	5.5	30	Pass
3	CH46	5230	**13.16**	**12.64**	**13.33**	**12.85**	**19.02**	5.5	30	Pass
3	CH151	5755	**19.06**	**18.70**	**19.30**	**18.99**	**25.04**	5.5	30	Pass
3	CH159	5795	**20.12**	**19.62**	**20.73**	**19.92**	**26.14**	5.5	30	Pass
4	CH36	5180	**15.52**	**14.80**	**15.63**	**15.34**	**21.35**	5.5	30	Pass
4	CH44	5220	**15.17**	**14.55**	**15.38**	**15.54**	**21.20**	5.5	30	Pass
4	CH48	5240	**15.30**	**14.72**	**15.50**	**15.26**	**21.23**	5.5	30	Pass
4	CH149	5745	**18.45**	**18.45**	**18.69**	**18.42**	**24.52**	5.5	30	Pass

4	CH157	5785	**18.89**	**18.64**	**18.63**	**17.57**	**24.48**	5.5	30	Pass
4	CH165	5825	**19.06**	**18.54**	**19.14**	**17.99**	**24.73**	5.5	30	Pass
5	CH38	5190	**13.32**	**12.64**	**13.86**	**12.97**	**19.24**	5.5	30	Pass
5	CH46	5230	**13.04**	**12.62**	**13.29**	**13.06**	**19.03**	5.5	30	Pass
5	CH151	5755	**19.72**	**18.72**	**19.95**	**19.44**	**25.50**	5.5	30	Pass
5	CH159	5795	**20.83**	**20.49**	**21.26**	**20.31**	**26.76**	5.5	30	Pass
6	CH42	5210	**12.08**	**11.80**	**12.46**	**11.21**	**17.93**	5.5	30	Pass
6	CH155	5775	**15.48**	**14.54**	**15.45**	**14.52**	**21.04**	5.5	30	Pass
7	CH36	5180	**15.04**	**14.74**	**15.54**	**14.67**	**21.03**	5.5	30	Pass
7	CH44	5220	**15.20**	**14.78**	**15.32**	**15.11**	**21.13**	5.5	30	Pass
7	CH48	5240	**14.42**	**14.62**	**15.27**	**15.53**	**21.00**	5.5	30	Pass
7	CH149	5745	**19.03**	**18.82**	**18.96**	**19.03**	**24.98**	5.5	30	Pass
7	CH157	5785	**18.36**	**17.71**	**18.25**	**17.72**	**24.04**	5.5	30	Pass
7	CH165	5825	**17.62**	**17.40**	**18.05**	**17.18**	**23.60**	5.5	30	Pass
8	CH38	5190	**13.25**	**12.43**	**13.46**	**12.76**	**19.01**	5.5	30	Pass
8	CH46	5230	**12.75**	**12.26**	**13.02**	**13.44**	**18.91**	5.5	30	Pass
8	CH151	5755	**18.77**	**18.95**	**19.41**	**18.84**	**25.02**	5.5	30	Pass
8	CH159	5795	**19.44**	**19.38**	**20.39**	**19.06**	**25.62**	5.5	30	Pass
9	CH42	5210	**11.55**	**11.93**	**12.56**	**11.73**	**17.98**	5.5	30	Pass
9	CH155	5775	**15.54**	**14.99**	**14.50**	**14.63**	**20.95**	5.5	30	Pass

4*TX+4*RX-Beam-forming:

Mode	Channel	Test Frequency (MHz)	Peak Power Output (dBm)				Total Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Result
			Ant 0	Ant 1	Ant 2	Ant 3				
1	CH36	5180	**15.94**	**15.37**	**15.71**	**15.16**	**21.58**	11.5	24.5	Pass
1	CH44	5220	**15.33**	**15.52**	**15.62**	**15.57**	**21.53**	11.5	24.5	Pass
1	CH48	5240	**15.36**	**15.75**	**15.67**	**15.49**	**21.59**	11.5	24.5	Pass
1	CH149	5745	**18.33**	**18.12**	**17.98**	**18.17**	**24.17**	11.5	24.5	Pass
1	CH157	5785	**18.03**	**18.20**	**18.06**	**18.25**	**24.16**	11.5	24.5	Pass
1	CH165	5825	**18.16**	**18.12**	**17.96**	**18.01**	**24.08**	11.5	24.5	Pass
2	CH36	5180	**15.46**	**14.46**	**15.52**	**15.35**	**21.24**	11.5	24.5	Pass
2	CH44	5220	**15.37**	**14.70**	**15.52**	**15.69**	**21.36**	11.5	24.5	Pass
2	CH48	5240	**15.40**	**14.71**	**15.88**	**15.48**	**21.41**	11.5	24.5	Pass
2	CH149	5745	**18.29**	**17.96**	**18.46**	**18.35**	**24.29**	11.5	24.5	Pass
2	CH157	5785	**17.99**	**17.93**	**18.14**	**17.77**	**23.98**	11.5	24.5	Pass
2	CH165	5825	**18.03**	**18.36**	**18.58**	**17.35**	**24.12**	11.5	24.5	Pass
3	CH38	5190	**13.30**	**12.28**	**13.28**	**12.21**	**18.82**	11.5	24.5	Pass
3	CH46	5230	**13.01**	**12.44**	**13.05**	**12.53**	**18.79**	11.5	24.5	Pass
3	CH151	5755	**16.58**	**18.02**	**18.32**	**18.47**	**24.37**	11.5	24.5	Pass
3	CH159	5795	**18.17**	**17.91**	**18.62**	**18.56**	**24.35**	11.5	24.5	Pass
4	CH36	5180	**15.81**	**14.96**	**15.80**	**15.21**	**21.48**	11.5	24.5	Pass
4	CH44	5220	**14.98**	**14.60**	**15.59**	**15.33**	**21.16**	11.5	24.5	Pass
4	CH48	5240	**15.22**	**14.93**	**15.43**	**15.48**	**21.29**	11.5	24.5	Pass
4	CH149	5745	**18.40**	**18.46**	**18.21**	**18.38**	**24.38**	11.5	24.5	Pass

4	CH157	5785	**18.58**	**18.50**	**18.24**	**17.47**	**24.24**	11.5	24.5	Pass
4	CH165	5825	**18.69**	**18.04**	**18.64**	**17.92**	**24.36**	11.5	24.5	Pass
5	CH38	5190	**13.26**	**12.57**	**13.83**	**12.81**	**19.16**	11.5	24.5	Pass
5	CH46	5230	**12.94**	**12.45**	**13.48**	**13.07**	**19.02**	11.5	24.5	Pass
5	CH151	5755	**18.71**	**17.94**	**18.72**	**18.39**	**24.37**	11.5	24.5	Pass
5	CH159	5795	**18.41**	**17.33**	**19.20**	**18.36**	**24.40**	11.5	24.5	Pass
6	CH42	5210	**12.31**	**11.71**	**12.28**	**11.85**	**18.07**	11.5	24.5	Pass
6	CH155	5775	**15.52**	**14.75**	**16.12**	**14.36**	**21.26**	11.5	24.5	Pass
7	CH36	5180	**14.51**	**15.05**	**15.45**	**14.75**	**20.97**	11.5	24.5	Pass
7	CH44	5220	**14.99**	**14.77**	**15.45**	**15.14**	**21.12**	11.5	24.5	Pass
7	CH48	5240	**14.32**	**14.59**	**15.46**	**15.41**	**20.99**	11.5	24.5	Pass
7	CH149	5745	**18.26**	**18.16**	**18.44**	**18.34**	**24.32**	11.5	24.5	Pass
7	CH157	5785	**18.16**	**17.71**	**18.69**	**17.99**	**24.17**	11.5	24.5	Pass
7	CH165	5825	**17.34**	**17.39**	**18.43**	**17.76**	**23.77**	11.5	24.5	Pass
8	CH38	5190	**12.89**	**12.15**	**13.31**	**12.99**	**18.88**	11.5	24.5	Pass
8	CH46	5230	**12.53**	**12.20**	**12.81**	**13.37**	**18.77**	11.5	24.5	Pass
8	CH151	5755	**18.26**	**18.14**	**18.66**	**18.34**	**24.37**	11.5	24.5	Pass
8	CH159	5795	**18.43**	**18.06**	**18.46**	**18.35**	**24.35**	11.5	24.5	Pass
9	CH42	5210	**11.57**	**11.31**	**12.64**	**11.73**	**17.86**	11.5	24.5	Pass
9	CH155	5775	**15.20**	**14.49**	**14.89**	**14.68**	**20.84**	11.5	24.5	Pass

Product Name	:	Wireless Access Point	Power	:	AC 120V/60Hz
Test Mode	:	Mode 1~9(ETH7)	Test Site	:	TR8
Test Date	:	2018.05.20	Test Engineer	:	Damon

2*TX+2*RX-CDD:

Mode	Channel	Test Frequency (MHz)	Average Power Output (dBm)		Total Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Result
			Ant 1	Ant 2				
1	CH36	5180	**18.36**	**18.20**	**21.29**	5.5	30	Pass
1	CH44	5220	**17.91**	**17.71**	**20.82**	5.5	30	Pass
1	CH48	5240	**18.31**	**18.52**	**21.43**	5.5	30	Pass
2	CH36	5180	**18.42**	**17.82**	**21.14**	5.5	30	Pass
2	CH44	5220	**18.96**	**18.19**	**21.60**	5.5	30	Pass
2	CH48	5240	**18.38**	**18.20**	**21.30**	5.5	30	Pass
3	CH38	5190	**17.10**	**16.97**	**20.05**	5.5	30	Pass
3	CH46	5230	**16.73**	**17.28**	**20.02**	5.5	30	Pass
4	CH36	5180	**18.60**	**18.49**	**21.56**	5.5	30	Pass
4	CH44	5220	**18.20**	**18.40**	**21.31**	5.5	30	Pass
4	CH48	5240	**18.40**	**18.45**	**21.44**	5.5	30	Pass
5	CH38	5190	**16.68**	**16.33**	**19.52**	5.5	30	Pass
5	CH46	5230	**17.32**	**17.01**	**20.18**	5.5	30	Pass
6	CH42	5210	**16.22**	**16.29**	**19.27**	5.5	30	Pass
7	CH36	5180	**15.54**	**15.59**	**18.58**	5.5	30	Pass
7	CH44	5220	**18.16**	**17.86**	**21.02**	5.5	30	Pass
7	CH48	5240	**18.11**	**17.95**	**21.04**	5.5	30	Pass
8	CH38	5190	**18.56**	**17.56**	**21.10**	5.5	30	Pass

8	CH46	5230	**16.30**	**16.30**	**19.31**	5.5	30	Pass
9	CH42	5210	**16.97**	**16.76**	**19.88**	5.5	30	Pass

2*TX+2*RX-Beam-forming:

Mode	Channel	Test Frequency (MHz)	Average Power Output (dBm)		Total Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Result
			Ant 1	Ant 2				
1	CH36	5180	**17.29**	**17.23**	**20.27**	8.5	27.5	Pass
1	CH44	5220	**17.53**	**17.02**	**20.29**	8.5	27.5	Pass
1	CH48	5240	**17.10**	**16.94**	**20.03**	8.5	27.5	Pass
2	CH36	5180	**17.38**	**17.04**	**20.22**	8.5	27.5	Pass
2	CH44	5220	**18.12**	**17.44**	**20.80**	8.5	27.5	Pass
2	CH48	5240	**17.39**	**17.11**	**20.26**	8.5	27.5	Pass
3	CH38	5190	**15.74**	**15.85**	**18.81**	8.5	27.5	Pass
3	CH46	5230	**15.66**	**15.33**	**18.51**	8.5	27.5	Pass
4	CH36	5180	**17.02**	**16.86**	**19.95**	8.5	27.5	Pass
4	CH44	5220	**17.44**	**17.48**	**20.47**	8.5	27.5	Pass
4	CH48	5240	**17.60**	**17.23**	**20.43**	8.5	27.5	Pass
5	CH38	5190	**15.84**	**15.17**	**18.53**	8.5	27.5	Pass
5	CH46	5230	**15.88**	**15.37**	**18.64**	8.5	27.5	Pass
6	CH42	5210	**15.95**	**14.70**	**18.38**	8.5	27.5	Pass
7	CH36	5180	**16.64**	**16.04**	**19.36**	8.5	27.5	Pass
7	CH44	5220	**17.92**	**16.48**	**20.27**	8.5	27.5	Pass
7	CH48	5240	**17.15**	**16.63**	**19.91**	8.5	27.5	Pass
8	CH38	5190	**15.85**	**15.26**	**18.58**	8.5	27.5	Pass

8	CH46	5230	**15.65**	**15.38**	**18.53**	8.5	27.5	Pass
9	CH42	5210	**15.14**	**15.91**	**18.55**	8.5	27.5	Pass

4*TX+4*RX-CDD:

Mode	Channel	Test Frequency (MHz)	Peak Power Output (dBm)				Total Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Result
			Ant 1	Ant 2	Ant 3	Ant 4				
1	CH36	5180	**15.63**	**15.12**	**14.95**	**15.15**	**21.24**	5.5	30	Pass
1	CH44	5220	**15.52**	**14.76**	**15.25**	**15.11**	**21.19**	5.5	30	Pass
1	CH48	5240	**15.14**	**15.12**	**15.11**	**15.10**	**21.14**	5.5	30	Pass
2	CH36	5180	**15.09**	**14.21**	**14.59**	**14.30**	**20.58**	5.5	30	Pass
2	CH44	5220	**15.26**	**14.34**	**14.85**	**14.90**	**20.87**	5.5	30	Pass
2	CH48	5240	**15.16**	**14.14**	**15.04**	**14.58**	**20.77**	5.5	30	Pass
3	CH38	5190	**12.70**	**11.38**	**12.67**	**12.04**	**18.25**	5.5	30	Pass
3	CH46	5230	**12.77**	**11.83**	**12.36**	**11.97**	**18.27**	5.5	30	Pass
4	CH36	5180	**15.09**	**14.12**	**14.77**	**14.63**	**20.69**	5.5	30	Pass
4	CH44	5220	**14.37**	**14.08**	**14.83**	**14.57**	**20.49**	5.5	30	Pass
4	CH48	5240	**14.72**	**13.79**	**14.67**	**14.60**	**20.48**	5.5	30	Pass
5	CH38	5190	**12.53**	**11.60**	**12.51**	**12.28**	**18.27**	5.5	30	Pass
5	CH46	5230	**12.39**	**11.56**	**13.02**	**12.14**	**18.33**	5.5	30	Pass
6	CH42	5210	**11.52**	**11.36**	**11.90**	**10.21**	**17.31**	5.5	30	Pass
7	CH36	5180	**14.14**	**14.04**	**14.76**	**13.80**	**20.22**	5.5	30	Pass
7	CH44	5220	**14.06**	**13.79**	**14.44**	**13.93**	**20.08**	5.5	30	Pass
7	CH48	5240	**13.78**	**14.30**	**14.10**	**14.95**	**20.32**	5.5	30	Pass
8	CH38	5190	**12.26**	**11.38**	**12.66**	**12.22**	**18.17**	5.5	30	Pass

8	CH46	5230	**11.81**	**11.40**	**11.75**	**12.44**	**17.89**	5.5	30	Pass
9	CH42	5210	**11.19**	**11.03**	**11.66**	**11.61**	**17.40**	5.5	30	Pass

4*TX+4*RX-Beam-forming:

Mode	Channel	Test Frequency (MHz)	Peak Power Output (dBm)				Total Power (dBm)	Directional Gain (dBi)	Limit (dBm)	Result
			Ant 0	Ant 1	Ant 2	Ant 3				
1	CH36	5180	**15.14**	**14.57**	**15.14**	**14.41**	**20.85**	11.5	24.5	Pass
1	CH44	5220	**14.61**	**14.54**	**14.69**	**14.88**	**20.70**	11.5	24.5	Pass
1	CH48	5240	**14.96**	**15.41**	**15.39**	**14.46**	**21.09**	11.5	24.5	Pass
2	CH36	5180	**15.19**	**14.41**	**15.02**	**15.05**	**20.95**	11.5	24.5	Pass
2	CH44	5220	**15.10**	**14.76**	**15.33**	**15.36**	**21.16**	11.5	24.5	Pass
2	CH48	5240	**14.52**	**14.90**	**15.48**	**15.18**	**21.05**	11.5	24.5	Pass
3	CH38	5190	**12.07**	**11.27**	**12.19**	**12.06**	**17.93**	11.5	24.5	Pass
3	CH46	5230	**12.18**	**11.46**	**12.45**	**12.06**	**18.07**	11.5	24.5	Pass
4	CH36	5180	**15.44**	**13.95**	**14.81**	**14.58**	**20.75**	11.5	24.5	Pass
4	CH44	5220	**14.69**	**13.91**	**14.89**	**14.85**	**20.62**	11.5	24.5	Pass
4	CH48	5240	**14.36**	**14.46**	**14.41**	**15.31**	**20.67**	11.5	24.5	Pass
5	CH38	5190	**12.80**	**11.48**	**12.24**	**12.51**	**18.31**	11.5	24.5	Pass
5	CH46	5230	**12.42**	**11.72**	**13.13**	**12.20**	**18.42**	11.5	24.5	Pass
6	CH42	5210	**11.95**	**11.63**	**11.21**	**11.07**	**17.50**	11.5	24.5	Pass
7	CH36	5180	**14.59**	**14.63**	**14.66**	**14.17**	**20.54**	11.5	24.5	Pass
7	CH44	5220	**14.61**	**14.09**	**14.63**	**14.35**	**20.45**	11.5	24.5	Pass
7	CH48	5240	**13.93**	**13.92**	**14.51**	**14.57**	**20.26**	11.5	24.5	Pass
8	CH38	5190	**12.28**	**11.82**	**12.73**	**12.26**	**18.31**	11.5	24.5	Pass

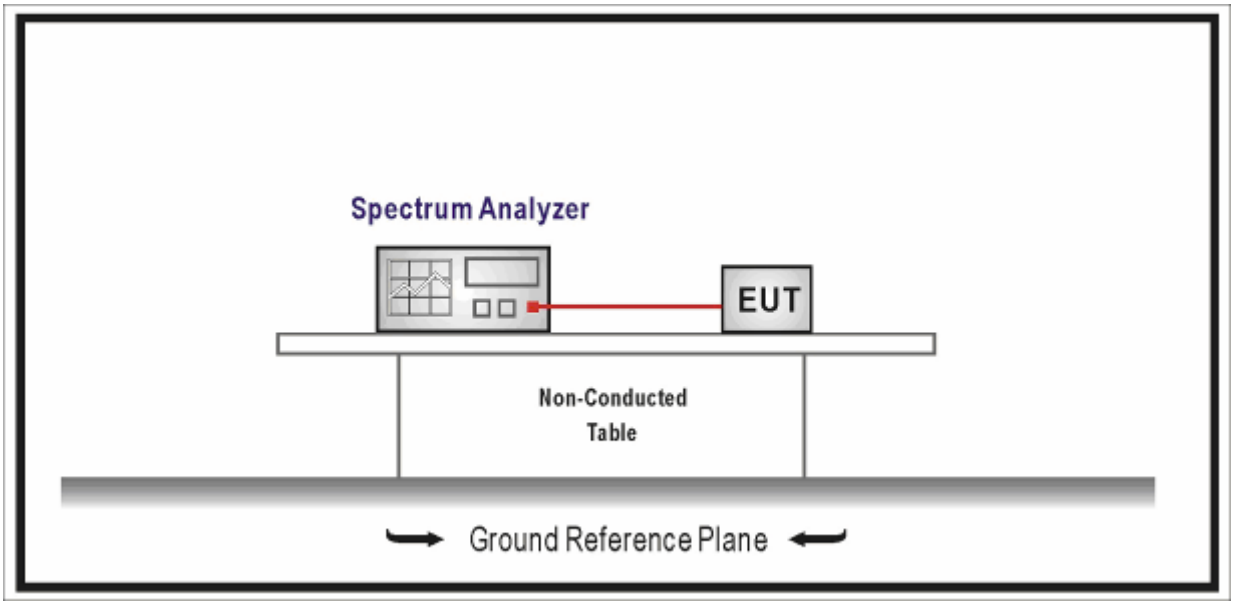
8	CH46	5230	**12.02**	**11.34**	**12.07**	**12.85**	**18.12**	11.5	24.5	Pass
9	CH42	5210	**10.79**	**10.90**	**11.11**	**10.64**	**16.88**	11.5	24.5	Pass

8. Peak Power Spectral Density

8.1. Test Equipment

Peak Power Spectral Density / TR-8					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2018.02.04	2019.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2019.04.09	2019.04.08
MXA Signal Anlyzer	Keysight	N9020A	MY56060147	2019.04.09	2019.04.08
Temperature/Humidity Meter	zhichen	ZC1-2	TR8-TH	2018.04.10	2019.04.09
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

8.2. Test Setup



8.3. Limit

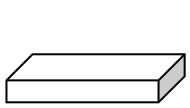
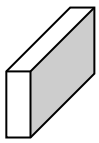
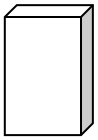
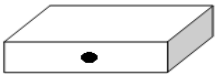
Fundamental emission output power Limit		
☒	For the band 5.15-5.25 GHz	
	☐	Outdoor access point: the maximum power spectral density shall not exceed 17 dBm/MHz. If G_{TX}>6dBi, then Pout≤17 - (G_{TX} - 6)
	☒	Indoor access point: the maximum power spectral density shall not exceed 17 dBm/MHz. If G_{TX}>6dBi, then Pout≤17 - (G_{TX} - 6)
	☐	Fixed point-to-point access points: the maximum power spectral density shall not exceed 17 dBm/MHz. If G_{TX}>23dBi, then Pout≤17 - (G_{TX} - 23)
	☐	Mobile and portable client devices: the maximum power spectral density shall not exceed 11 dBm/MHz. If G_{TX}>6dBi, then Pout≤11 - (G_{TX} - 6)
☐	For the 5.25-5.35 GHz:	
	☐	the maximum power spectral density shall not exceed 11 dBm/MHz. If G_{TX}>6dBi, then Pout≤11 - (G_{TX} - 6)
☐	For the 5.47-5.725 GHz:	
	☐	the maximum power spectral density shall not exceed 11 dBm/MHz.If G_{TX}>6dBi, then Pout≤11 - (G_{TX} - 6)
☒	For the band 5.725-5.85 GHz:	
	☒	the maximum power spectral density shall not exceed 30 dBm/500KHz. If G_{TX}>6dBi, then Pout≤30 - (G_{TX} - 6)
Note 1: G_{TX} directional gain of transmitting antennas. Note 2: P_{out} is maximum peak conducted output power.		

Directional Gain Calculations for In-Band test method				
	References Rule		Chapter	Description
☐	KDB 662911		F2)a)	Basic methodology
	☐	KDB 662911	F2)a) (i)	transmit signals are correlated
	☐	KDB 662911	F2)a) (ii)	transmit signals are uncorrelated
☐	KDB 662911		F2)b)	Sectorized antenna systems.
☐	KDB 662911		F2)c)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (i)	Cross-polarized antennas
	☐	ANSI C63.10	F2)c) (ii)	Multiple antennas
☒	KDB 662911		F2)e)	Spatial stream
	☒	KDB 662911	F2)e) (i)	Antennas have the same gain
	☐	KDB 662911	F2)e) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)e) (iii)	Antenna have the different gain with more than one spatial stream
☒	KDB 662911		F2)f)	Cyclic Delay Diversity (CDD)
	☒	KDB 662911	F2)f) (i)	Antennas have the same gain
	☐	KDB 662911	F2)f) (ii)	Antenna have the different gain with one spatial stream
	☐	KDB 662911	F2)f) (iii)	Antenna have the different gain with more than one spatial stream

8.4. Test Procedure

Fundamental emission output power Test Method			
	References Rule	Chapter	Description
☒	ANSI C63.10	12.5	Peak power spectral density
☒	FCC KDB 789033 D02v02r01	F	Maximum Power Spectral Density (PSD)

8.5. EUT test Axis definition

<table>
<tr><td>Item</td><td colspan="5">Power Spectral Density</td></tr>
<tr><td rowspan="4">Device Category</td><td>☒</td><td colspan="4">Indoor use</td></tr>
<tr><td>☐</td><td colspan="4">Outdoor use</td></tr>
<tr><td>☐</td><td colspan="4">Fix position use</td></tr>
<tr><td>☐</td><td colspan="4">Client use</td></tr>
<tr><td>Test mode</td><td colspan="5">Mode 1-9</td></tr>
<tr><td rowspan="15">Test method</td><td>☐</td><td colspan="4">Radiated</td></tr>
<tr><td rowspan="3"></td><td>X Axis</td><td>Y Axis</td><td colspan="2">Z Axis</td></tr>
<tr><td>  </td><td>  </td><td colspan="2">  </td></tr>
<tr><td>Worst Axis ☐</td><td>Worst Axis ☐</td><td colspan="2">Worst Axis ☐</td></tr>
<tr><td>☒</td><td colspan="4">Conducted</td></tr>
<tr><td>☐</td><td colspan="4">Chain 1</td></tr>
<tr><td></td><td colspan="4">  </td></tr>
<tr><td>☒</td><td colspan="2">Chain 1</td><td colspan="2">Chain 2</td></tr>
<tr><td></td><td colspan="4">  </td></tr>
<tr><td>☐</td><td>Chain 1</td><td>Chain 2</td><td colspan="2">Chain 3</td></tr>
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<tr><td>☒</td><td>Chain 1</td><td>Chain 2</td><td>Chain 3</td><td>Chain 4</td></tr>
<tr><td></td><td colspan="4">  </td></tr>
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8.6. Test Result

Product Name	:	Wireless Access Point	Power	:	AC 120V/60Hz
Test Mode	:	Mode 1~6	Test Site	:	TR8
Test Date	:	2018.05.24	Test Engineer	:	Damon

CDD:

Mode 1: Transmit by 802.11a by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH36	5180	5.964	5.838	0.24	9.15	8.5	14.5	Pass
CH44	5220	5.986	5.855	0.24	9.17	8.5	14.5	Pass
CH48	5240	5.926	6.012	0.24	9.22	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2					
CH149	5745	5.036	5.176	0.24	8.36	8.5	27.5	Pass
CH157	5785	4.714	4.793	0.24	8.00	8.5	27.5	Pass
CH165	5825	4.371	4.274	0.24	7.57	8.5	27.5	Pass

Mode 1: Transmit by 802.11a by ant 1+2+3+4										
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH36	5180	2.358	2.598	2.707	2.585	0.24	8.82	11.5	11.5	Pass
CH44	5220	1.751	1.627	1.797	1.601	0.24	7.96	11.5	11.5	Pass
CH48	5240	2.027	1.918	1.969	1.834	0.24	8.20	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH149	5745	2.654	2.570	2.683	2.719	0.24	8.92	11.5	24.5	Pass
CH157	5785	3.108	3.250	3.564	3.078	0.24	9.51	11.5	24.5	Pass
CH165	5825	3.670	3.426	3.156	3.183	0.24	9.62	11.5	24.5	Pass

Mode 2: Transmit by 802.11n(20MHz) by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH36	5180	5.601	5.344	0.26	8.74	8.5	14.5	Pass
CH44	5220	5.633	5.528	0.26	8.85	8.5	14.5	Pass
CH48	5240	5.550	5.443	0.26	8.77	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500Hz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Limit (dBm/500KHz)
		Ant1	Ant2					
CH149	5745	4.918	4.590	0.26	8.03	8.5	27.5	Pass
CH157	5785	4.270	4.349	0.26	7.58	8.5	27.5	Pass
CH165	5825	3.841	3.690	0.26	7.04	8.5	27.5	Pass

Mode 2: Transmit by 802.11n(20MHz) by ant 1+2+3+4										
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH36	5180	0.711	0.339	0.409	0.553	0.26	6.79	11.5	11.5	Pass
CH44	5220	1.142	0.921	0.921	1.100	0.26	7.30	11.5	11.5	Pass
CH48	5240	1.228	1.364	1.437	1.534	0.26	7.67	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH149	5745	2.229	2.002	2.295	2.274	0.26	8.48	11.5	24.5	Pass
CH157	5785	2.643	2.859	2.715	2.551	0.26	8.97	11.5	24.5	Pass
CH165	5825	2.675	2.883	2.679	2.693	0.26	9.01	11.5	24.5	Pass

Mode 3: Transmit by 802.11n(40MHz) by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH38	5190	-0.207	-0.293	0.43	3.19	8.5	14.5	Pass
CH46	5230	-0.040	0.438	0.43	3.65	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Limit (dBm/500KHz)
		Ant1	Ant2					
CH151	5755	-0.410	-0.531	0.43	2.97	8.5	27.5	Pass
CH159	5795	-0.309	-0.135	0.43	3.22	8.5	27.5	Pass

Mode 3: Transmit by 802.11n(40MHz) by ant 1+2+3+4										
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH38	5190	-3.908	-4.163	-4.122	-4.129	0.43	2.37	11.5	11.5	Pass
CH46	5230	-3.207	-3.478	-3.236	-3.268	0.43	3.15	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH151	5755	-0.508	-0.547	-0.587	-0.642	0.43	5.88	11.5	24.5	Pass
CH159	5795	0.876	0.879	0.798	0.946	0.43	7.33	11.5	24.5	Pass

Mode 4: Transmit by 802.11ac(20MHz) by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH36	5180	5.624	5.704	0.10	8.77	8.5	14.5	Pass
CH44	5220	5.802	5.853	0.10	8.94	8.5	14.5	Pass
CH48	5240	5.778	5.778	0.10	8.89	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Limit (dBm/500KHz)
		Ant1	Ant2					
CH149	5745	5.361	5.370	0.10	8.48	8.5	27.5	Pass
CH157	5785	4.612	4.711	0.10	7.77	8.5	27.5	Pass
CH165	5825	4.586	4.438	0.10	7.62	8.5	27.5	Pass

Mode 4: Transmit by 802.11ac(20MHz) by ant 1+2+3+4										
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH36	5180	1.002	0.834	1.054	0.921	0.10	7.07	11.5	11.5	Pass
CH44	5220	1.498	1.303	1.172	1.493	0.10	7.49	11.5	11.5	Pass
CH48	5240	1.610	1.921	1.668	1.705	0.10	7.85	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH149	5745	2.328	2.259	2.391	2.187	0.10	8.41	11.5	24.5	Pass
CH157	5785	2.696	2.737	2.909	2.992	0.10	8.96	11.5	24.5	Pass
CH165	5825	2.799	2.766	2.781	2.794	0.10	8.91	11.5	24.5	Pass

Mode 5: Transmit by 802.11ac(40MHz) by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH38	5190	-0.746	-0.675	0.32	2.62	8.5	14.5	Pass
CH46	5230	-0.041	-0.098	0.32	3.26	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2					
CH151	5755	0.027	0.035	0.32	3.36	8.5	27.5	Pass
CH159	5795	-0.209	-0.003	0.32	3.23	8.5	27.5	Pass

Mode 5: Transmit by 802.11ac(40MHz) by ant 1+2+3+4										
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH38	5190	-4.103	-4.187	-4.268	-4.212	0.32	2.15	11.5	11.5	Pass
CH46	5230	-3.749	-3.686	-3.647	-3.626	0.32	2.66	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH151	5755	-0.898	-1.168	-1.033	-0.916	0.32	5.34	11.5	24.5	Pass
CH159	5795	0.686	0.852	0.678	0.701	0.32	7.07	11.5	24.5	Pass

Mode 6: Transmit by 802.11ac(80MHz) by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH42	5210	-3.158	-3.198	0.64	0.47	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2					
CH155	5775	0.246	0.114	0.64	3.83	8.5	27.5	Pass

Mode 6: Transmit by 802.11ac(80MHz) by ant 1+2+3+4									
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH42	5210	-9.954	-9.936	-9.928	-9.980	0.64	-3.29	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH155	5775	-6.512	-6.514	-6.500	-6.228	0.64	0.22	11.5	24.5	Pass

Beamforming:

Mode 1: Transmit by 802.11a with by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH36	5180	6.088	6.005	0.25	9.31	8.5	14.5	Pass
CH44	5220	6.079	6.080	0.25	9.34	8.5	14.5	Pass
CH48	5240	5.973	5.857	0.25	9.18	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2					
CH149	5745	5.022	4.964	0.25	8.25	8.5	27.5	Pass
CH157	5785	4.841	4.626	0.25	8.00	8.5	27.5	Pass
CH165	5825	4.432	4.331	0.25	7.64	8.5	27.5	Pass

Mode 1: Transmit by 802.11a with by ant 1+2+3+4										
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH36	5180	0.179	-0.006	0.062	0.097	0.25	6.35	11.5	11.5	Pass
CH44	5220	0.374	0.285	0.190	0.406	0.25	6.59	11.5	11.5	Pass
CH48	5240	0.973	0.866	0.679	0.763	0.25	7.09	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH149	5745	1.705	1.581	1.513	1.498	0.25	7.85	11.5	24.5	Pass
CH157	5785	2.217	2.121	2.322	2.148	0.25	8.47	11.5	24.5	Pass
CH165	5825	1.994	1.862	1.689	1.945	0.25	8.14	11.5	24.5	Pass

Mode 2: Transmit by 802.11n(20MHz) with by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH36	5180	5.358	5.515	0.23	8.68	8.5	14.5	Pass
CH44	5220	5.680	5.596	0.23	8.88	8.5	14.5	Pass
CH48	5240	5.581	5.536	0.23	8.80	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2					
CH149	5745	4.934	4.714	0.23	8.07	8.5	27.5	Pass
CH157	5785	4.423	4.264	0.23	7.58	8.5	27.5	Pass
CH165	5825	3.740	4.108	0.23	7.17	8.5	27.5	Pass

Mode 2: Transmit by 802.11n(20MHz) with by ant 1+2+3+4										
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH36	5180	-0.553	-0.634	-0.381	-0.500	0.23	5.73	11.5	11.5	Pass
CH44	5220	-0.242	-0.315	-0.111	-0.163	0.23	6.04	11.5	11.5	Pass
CH48	5240	0.131	0.041	0.124	0.149	0.23	6.36	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH149	5745	0.794	0.824	0.857	0.785	0.23	7.07	11.5	24.5	Pass
CH157	5785	1.264	1.314	1.557	1.381	0.23	7.63	11.5	24.5	Pass
CH165	5825	1.266	1.745	1.705	1.635	0.23	7.84	11.5	24.5	Pass

Mode 3: Transmit by 802.11n(40MHz) with by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH38	5190	-0.151	-0.171	0.46	3.31	8.5	14.5	Pass
CH46	5230	0.637	0.352	0.46	3.97	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2					
CH151	5755	-0.376	-0.334	0.46	3.12	8.5	27.5	Pass
CH159	5795	-0.017	0.000	0.46	3.46	8.5	27.5	Pass

Mode 3: Transmit by 802.11n(40MHz) with by ant 1+2+3+4										
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH38	5190	-5.145	-5.051	-5.213	-5.011	0.46	1.38	11.5	11.5	Pass
CH46	5230	-4.296	-4.195	-4.174	-4.358	0.46	2.23	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH151	5755	-1.365	-1.173	-1.168	-0.871	0.46	5.34	11.5	24.5	Pass
CH159	5795	-1.097	-0.834	-0.852	-0.808	0.46	5.58	11.5	24.5	Pass

Mode 4: Transmit by 802.11ac(20MHz) with by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH36	5180	5.526	5.664	0.11	8.72	8.5	14.5	Pass
CH44	5220	5.743	5.733	0.11	8.86	8.5	14.5	Pass
CH48	5240	5.742	5.684	0.11	8.83	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2					
CH149	5745	5.127	5.323	0.11	8.35	8.5	27.5	Pass
CH157	5785	4.634	4.466	0.11	7.67	8.5	27.5	Pass
CH165	5825	4.484	4.450	0.11	7.59	8.5	27.5	Pass

Mode 4: Transmit by 802.11ac(20MHz) with by ant 1+2+3+4										
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH36	5180	-0.049	-0.274	-0.221	-0.273	0.11	5.93	11.5	11.5	Pass
CH44	5220	0.230	0.532	0.240	0.206	0.11	6.43	11.5	11.5	Pass
CH48	5240	0.499	0.691	0.501	0.458	0.11	6.67	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH149	5745	0.868	0.928	1.072	0.779	0.11	7.04	11.5	24.5	Pass
CH157	5785	1.364	1.466	1.392	1.236	0.11	7.50	11.5	24.5	Pass
CH165	5825	1.335	1.502	1.509	1.437	0.11	7.58	11.5	24.5	Pass

Mode 5: Transmit by 802.11ac(40MHz) with by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH38	5190	-0.826	-0.706	0.16	2.40	8.5	14.5	Pass
CH46	5230	-0.055	-0.109	0.16	3.09	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2					
CH151	5755	0.153	-0.129	0.16	3.18	8.5	27.5	Pass
CH159	5795	0.181	0.122	0.16	3.32	8.5	27.5	Pass

Mode 5: Transmit by 802.11ac(40MHz) with by ant 1+2+3+4										
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH38	5190	-4.346	-4.258	-4.055	-4.554	0.16	1.88	11.5	11.5	Pass
CH46	5230	-3.602	-3.512	-3.848	-3.754	0.16	2.50	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH151	5755	-1.436	-1.344	-1.755	-1.739	0.16	4.62	11.5	24.5	Pass
CH159	5795	-1.166	-1.120	-1.082	-1.221	0.16	5.03	11.5	24.5	Pass

Mode 6: Transmit by 802.11ac(80MHz) with by ant 1+2								
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)		Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2					
CH42	5210	-3.054	-3.345	0.27	0.08	8.5	14.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)		Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2					
CH155	5775	0.024	0.142	0.27	3.36	8.5	27.5	Pass

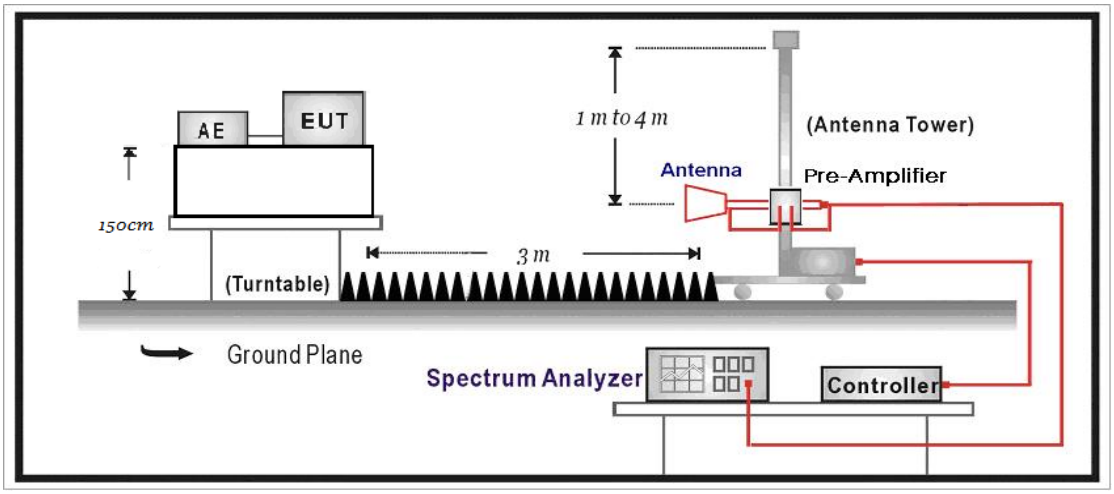
Mode 6: Transmit by 802.11ac(80MHz) with by ant 1+2+3+4									
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/MHz)				Duty factor	Total Measurement PSD (dBm/MHz)	Directional Gain (dBi)	Limit (dBm/MHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH42	5210	-7.995	-7.996	-7.898	-8.035	0.27	-1.69	11.5	11.5	Pass
Channel No.	Frequency (MHz)	Measurement Power Spectral Density (dBm/500KHz)				Duty factor	Total Measurement PSD (dBm/500kHz)	Directional Gain (dBi)	Limit (dBm/500KHz)	Result
		Ant1	Ant2	Ant3	Ant4					
CH155	5775	-6.244	-6.370	-6.327	-6.184	0.27	0.01	11.5	24.5	Pass

9. Radiated Emission Band Edge

9.1. Test Equipment

Radiated Emission Band Edge / AC-5					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
EMI Receiver	Agilent	N9038A	MY51210196	2017.07.16	2018.07.15
Pre-Amplifier	Miteq	NSP1800-25	1364185	2018.05.03	2019.05.02
DRG Horn Antenna	ETS-Lindgren	3117	00167055	2017.07.12	2018.07.11
Broad-Band Horn Antenna	Schwarzbeck	BBHA9170	294	2017.09.18	2018.09.17
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C1	2018.02.28	2019.02.27
Coaxial Cable	Huber+Suhner	SUCOFLEX 106	AC5-C2	2018.02.28	2019.02.27
Temperature/Humidity Meter	Zhichen	ZC1-2	AC5-TH	2018.01.05	2019.01.04
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

9.2. Test Setup



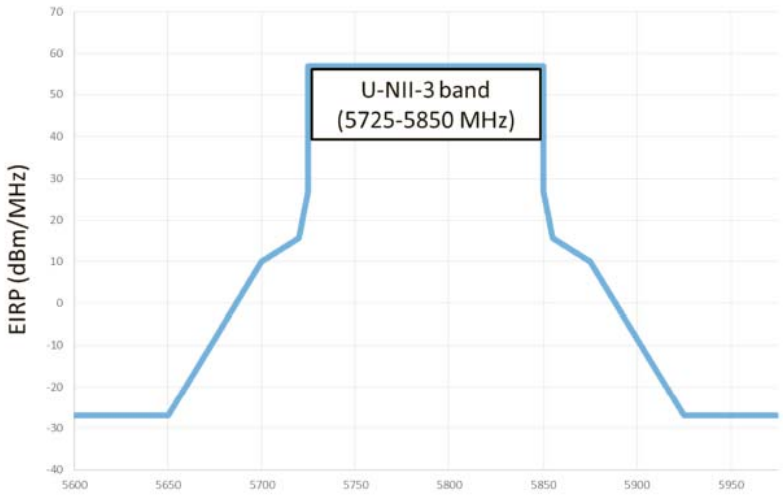
9.3. Limit

FCC Part 15 Subpart C Paragraph 15.209 (Restricted Band Emissions Limit)		
Frequency (MHz)	Distance (m)	Level (dBµV/m)
0.009-0.490	300	2400/F(kHz)
0.490-1.705	30	24000/F(kHz)
1.705-30.0	30	30
30-88	3	100**
88-216	3	150**
216-960	3	200**
Above 960	3	500

Note 1: At frequencies below 30 MHz, measurements may be performed at a distance closer than that specified in the regulations; however, an attempt should be made to avoid making measurements in the near field. Pending the development of an appropriate measurement procedure for measurements performed below 30 MHz, when performing measurements at a closer distance than specified, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade).

Note 2: At frequencies at or above 30 MHz, measurements may be performed at a distance other than what is specified provided: measurements are not made in the near field except where it can be shown that near field measurements are appropriate due to the characteristics of the device; and it can be demonstrated that the signal levels needed to be measured at the distance employed can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 meters unless it can be further demonstrated that measurements at a distance of 30 meters or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse linear-distance for field strength measurements; inverse-linear-distance-squared for power density measurements).

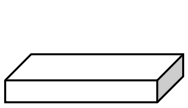
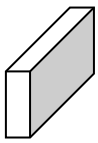
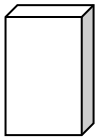
FCC Part 15 Subpart C Paragraph 15.205 (Restricted Band)			
Frequency (MHz)	Frequency (MHz)	Frequency (MHz)	Frequency (MHz)
0.090 – 0.110	16.42 – 16.423	399.9 – 410	4.5 – 5.15
0.495 – 0.505	16.69475 –16.69525	608 – 614	5.35 – 5.46
2.1735 – 2.1905	16.80425 – 16.80475	960 – 1240	7.25 – 7.75
4.125 – 4.128	25.5 – 25.67	1300 – 1427	8.025 – 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	123 – 138	2200 – 2300	14.47 – 14.5
8.291 – 8.294	149.9 – 150.05	2310 – 2390	15.35 – 16.2
8.362 – 8.366	156.52475 – 156.52525	2483.5 – 2500	17.7 – 21.4
8.37625 – 8.38675	156.7 – 156.9	2690 – 2900	22.01 – 23.12
8.81425 – 8.81475	162.0125 – 167.17	3260 – 3267	23.6 – 24.0
12.29 – 12.293	167.72 – 173.2	3332 – 3339	31.2 – 31.8
12.51975–12.52025	240 – 285	3345.8 – 3358	36.43 – 36.5
12.57675–12.57725	322 – 335.4	3600 – 4400	
13.36 – 13.41			

FCC Part 15 Subpart E Paragraph 15.407(5)(b) (Unrestricted Band Emissions Limit)		
Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	Equivalent Field Strength at 3m (dB μ V/m)
5150 - 5250	-27	68.3
5250 - 5350	-27	68.3
5470 - 5725	-27	68.3
Operating Frequency Band (MHz)	EIRP Limit (dBm/MHz)	
5725 - 5850		

9.4. Test Procedure

Test Method					
	References Rule			Chapter	Description
☐	ANSI C63.10			12.7.3	Emissions in non-restricted frequency bands
☒	ANSI C63.10			12.7.2	Emissions in restricted frequency bands
	☒	ANSI C63.10		12.7.5	Radiated emission measurements
	☒	ANSI C63.10		12.7.6	Procedure for peak unwanted emissions measurements above 1000 MHz
	☒	ANSI C63.10		12.7.7	Procedures for average unwanted emissions measurements above 1000 MHz
		☐	ANSI C63.10	12.7.7.2	Method AD (average detection)—primary method
		☒	ANSI C63.10	12.7.7.3	Method VB-A (Alternative)
	☒	ANSI C63.10		6.4	Radiated emissions from unlicensed wireless devices below 30 MHz
	☒	ANSI C63.10		6.5	Radiated emissions from unlicensed wireless devices in the frequency range of 30 MHz to 1000 MHz
	☒	ANSI C63.10		6.6	Radiated emissions from unlicensed wireless devices above 1 GHz
☐	FCC KDB 789033 D02v02r01			G.2	Unwanted Emissions that fall Outside of the Restricted Bands
☐	FCC KDB 789033 D02v02r01			G.1	Unwanted Emissions in the Restricted Bands
	☐	FCC KDB 789033 D02v02r01		G.4	Procedure for Unwanted Emissions Measurements below 1000 MHz
	☐	FCC KDB 789033 D02v02r01		G.5	Procedure for Unwanted Maximum Emissions Measurements above 1000 MHz
	☐	FCC KDB 789033 D02v02r01		G.6	Procedures for Average Unwanted Emissions Measurements above 1000 MHz
		☐	FCC KDB 789033 D02v02r01	G.6.c	Method AD (Average detection)—primary method
		☐	FCC KDB 789033 D02v02r01	G.6.d	Method VB (Averaging using reduced video bandwidth): Alternative method.

9.5. EUT test Axis definition

<table>
<tr><td>Item</td><td colspan="4">Radiated Emission Band Edge</td></tr>
<tr><td rowspan="4">Device Category</td><td>☒</td><td colspan="3">Indoor use</td></tr>
<tr><td>☐</td><td colspan="3">Outdoor use</td></tr>
<tr><td>☐</td><td colspan="3">Fix position use</td></tr>
<tr><td>☐</td><td colspan="3">Client use</td></tr>
<tr><td>Test mode</td><td colspan="4">Mode 1-9</td></tr>
<tr><td rowspan="15">Test method</td><td>☒</td><td colspan="3">Radiated</td></tr>
<tr><td rowspan="3"></td><td>X Axis</td><td>Y Axis</td><td>Z Axis</td></tr>
<tr><td>  </td><td>  </td><td>  </td></tr>
<tr><td>Worst Axis ☒</td><td>Worst Axis ☐</td><td>Worst Axis ☐</td></tr>
<tr><td>☐</td><td colspan="3">Conducted</td></tr>
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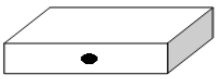
<tr><td></td><td colspan="3">  </td></tr>
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<tr><td>☐</td><td>Chain 1</td><td>Chain 2</td><td>Chain 3</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
<tr><td>☐</td><td>Chain 1</td><td>Chain 2</td><td>Chain 3</td><td>Chain 4</td></tr>
<tr><td></td><td colspan="3">  </td></tr>
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9.6. Test Result

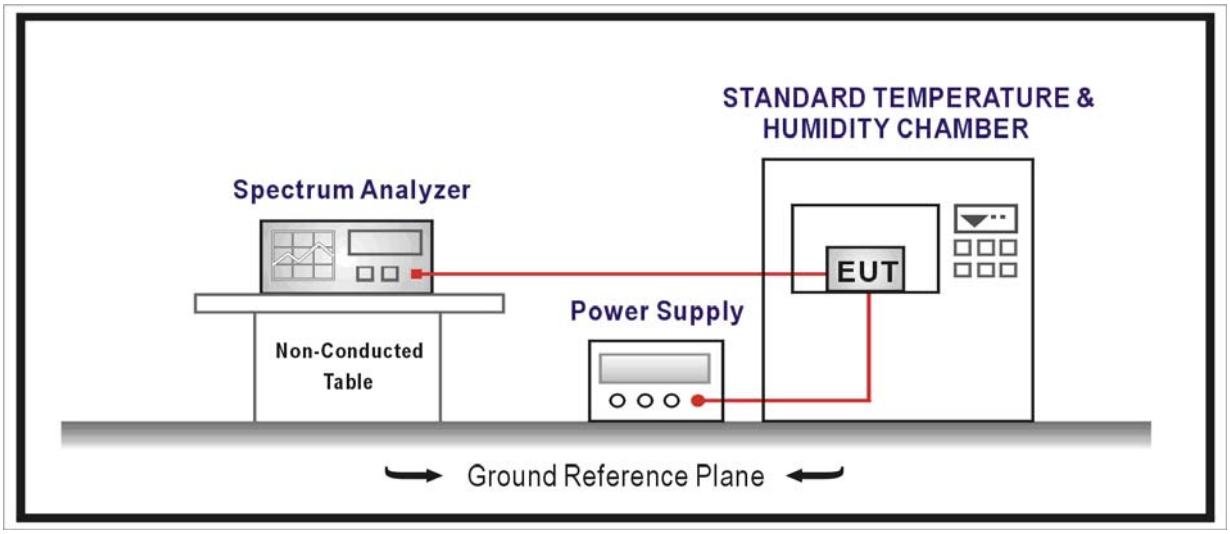
Please refer to 5G-Appendix-Bandedge

10. Frequency Stability

10.1. Test Equipment

Frequency Stability / TR-7					
Instrument	Manufacturer	Type No.	Serial No.	Cal. Date	Cal. Due Date
Spectrum Analyzer	Agilent	N9010A	MY48030494	2018.02.04	2019.02.03
EXA Spectrum Analyzer	Keysight	N9010A	MY55370495	2019.04.09	2019.04.08
MXA Signal Anlyzer	Keysight	N9020A	MY56060147	2019.04.09	2019.04.08
AC Power Supply	IDRC	CF-500TP	979422	2017.09.16	2018.09.15
DC Power Supply	IDRC	CD-035-020PR	977272	2017.09.16	2018.09.15
Programmable Temperature & Humidity Chamber	Gaoyu	TH-1P-B	WIT-05121302	2018.01.04	2019.01.03
Temperature/Humidity Meter	zhichen	ZC1-2	TR7-TH	2018.04.10	2019.04.09
Note: All equipment are calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.					

10.2. Test Setup



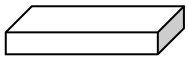
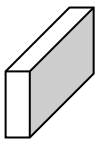
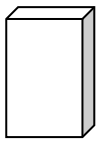
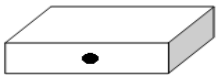
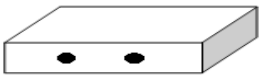
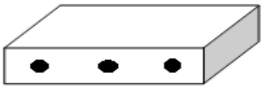
10.3. Limit

Frequency Stability Limit	
UNII Devices	
☒	In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.
IEEE Std. 802.11n-2009	
☒	The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz band and ± 25ppm maximum for the 2.4 GHz band.

10.4. Test Procedure

Frequency Stability Test Method				
	References Rule		Chapter	Description
☒	ANSI C63.10		6.8	Frequency stability tests
	☒	ANSI C63.10	6.8.1	Frequency stability with respect to ambient temperature
	☒	ANSI C63.10	6.8.2	Frequency stability when varying supply voltage

10.5. EUT test Axis definition

Item	Frequency Stability	
Device Category	☒	Indoor use
	☐	Outdoor use
	☐	Fix position use
	☐	Client use
Test mode	Mode 1-9	
Test method	☐	Radiated
	X Axis	Y Axis	Z Axis
			
	Worst Axis ☐	Worst Axis ☐	Worst Axis ☐
	☒	Conducted
	☐	Chain 1
	
	☒	Chain 1	Chain 2
	
	☐	Chain 1	Chain 2	Chain 3
	
	☒	Chain 1	Chain 2	Chain 3	Chain 4
	

10.6. Test Result

Product Name	:	Wireless Access Point	Power	:	AC 120V/60Hz
Test Mode	:	Carrier Wave	Test Site	:	TR8
Test Date	:	2018.05.20	Test Engineer	:	Damon

Frequency Stability under Temperature at 0min

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	ppm	Limit
-30	5220.000	79	0.015	±20
-20	5220.000	215	0.041	±20
-10	5220.000	137	0.026	±20
0	5220.000	-10	-0.002	±20
10	5220.000	33	0.006	±20
20	5220.000	-70	-0.013	±20
30	5220.000	-74	-0.014	±20
40	5220.000	49	0.009	±20
50	5220.000	-3	-0.001	±20

Frequency Stability under Temperature at 2min

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	ppm	Limit
-30	5220.000	-210	-0.040	±20
-20	5220.000	-156	-0.030	±20
-10	5220.000	-37	-0.007	±20
0	5220.000	90	0.017	±20
10	5220.000	-90	-0.017	±20
20	5220.000	-119	-0.023	±20
30	5220.000	107	0.020	±20
40	5220.000	-86	-0.016	±20
50	5220.000	-94	-0.018	±20

Frequency Stability under Temperature at 5min

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	ppm	Limit
-30	5220.000	-129	-0.025	±20
-20	5220.000	-122	-0.023	±20
-10	5220.000	107	0.020	±20
0	5220.000	-88	-0.017	±20
10	5220.000	113	0.022	±20
20	5220.000	179	0.034	±20
30	5220.000	161	0.031	±20
40	5220.000	-95	-0.018	±20
50	5220.000	-91	-0.017	±20

Frequency Stability under Temperature at 10min

Temperature Interval (℃)	Test Frequency (MHz)	Deviation (Hz)	ppm	Limit
-30	5220.000	123	0.024	±20
-20	5220.000	105	0.020	±20
-10	5220.000	94	0.018	±20
0	5220.000	99	0.019	±20
10	5220.000	-100	-0.019	±20
20	5220.000	148	0.028	±20
30	5220.000	-123	-0.024	±20
40	5220.000	118	0.023	±20
50	5220.000	-94	-0.018	±20

Frequency Stability under Voltage

AC Voltage (V)	Test Frequency (MHz)	Deviation (Hz)	ppm	Limit
102	5220.000	114	0.022	±20
120	5220.000	-105	-0.020	±20
138	5220.000	163	0.031	±20

11. Antenna Requirement

11.1. Limit

Antenna Requirement Limit
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited. This requirement does not apply to carrier current devices or to devices operated under the provisions of §15.211, §15.213, §15.217, §15.219, or §15.221. Further, this requirement does not apply to intentional radiators that must be professionally installed, such as perimeter protection systems and some field disturbance sensors, or to other intentional radiators which, in accordance with §15.31(d), must be measured at the installation site. However, the installer shall be responsible for ensuring that the proper antenna is employed so that the limits in this part are not exceeded.

11.2. Antenna Connector Construction

Antenna Connector Construction	
☐	The use of a permanently attached antenna
☐	The antenna use of a unique coupling to the intentional radiator
☒	The use of a nonstandard antenna jack or electrical connector
Please refer to the attached document “Internal Photograph” to show the antenna connector.	

The End