



<TXBF Modes>

Band 4 - 5725~5850MHz

WIFI 802.11ac VHT20 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ac VHT20 CH 149 5745MHz		5645	56.51	-11.79	68.3	43.53	32.19	11.79	31	100	97	P	H	
		5698.2	68.17	-35.8	103.97	55.09	32.27	11.82	31.01	100	97	P	H	
		5719.8	78.54	-32.3	110.84	65.41	32.31	11.84	31.02	100	97	P	H	
		5724.2	87.76	-32.72	120.48	74.63	32.31	11.84	31.02	100	97	P	H	
	*	5746	117.09	-	-	103.92	32.34	11.86	31.03	100	97	P	H	
	*	5746	106.78	-	-	93.61	32.34	11.86	31.03	100	97	A	H	
														H
														H
			5607.8	60.53	-7.77	68.3	47.61	32.14	11.77	30.99	100	110	P	V
			5698.4	68.31	-35.81	104.12	55.23	32.27	11.82	31.01	100	110	P	V
			5720	78.36	-32.54	110.9	65.23	32.31	11.84	31.02	100	110	P	V
			5724.6	84.02	-37.37	121.39	70.89	32.31	11.84	31.02	100	110	P	V
	*		5747	112.29	-	-	99.12	32.34	11.86	31.03	100	110	P	V
	*		5747	102.63	-	-	89.46	32.34	11.86	31.03	100	110	A	V
														V
														V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBµV/m)	Over Limit (dB)	Limit Line (dBµV/m)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5618.8	59.94	-8.36	68.3	46.99	32.17	11.77	30.99	100	90	P	H
		5690.2	61.35	-36.72	98.07	48.27	32.27	11.82	31.01	100	90	P	H
		5719.4	66.84	-43.89	110.73	53.71	32.31	11.84	31.02	100	90	P	H
		5723.6	68.77	-50.34	119.11	55.64	32.31	11.84	31.02	100	90	P	H
	*	5785	116.37	-	-	103.15	32.39	11.88	31.05	100	90	P	H
	*	5785	107.16	-	-	93.94	32.39	11.88	31.05	100	90	A	H
		5854.4	63.84	-48.43	112.27	50.36	32.51	12.03	31.06	100	90	P	H
		5857.6	63.12	-47.05	110.17	49.64	32.51	12.03	31.06	100	90	P	H
		5877.4	61.46	-42.06	103.52	47.83	32.53	12.17	31.07	100	90	P	H
		5947.2	60.85	-7.45	68.3	46.86	32.63	12.45	31.09	100	90	P	H
802.11ac													H
VHT20													H
CH 157		5639.8	60.68	-7.62	68.3	47.7	32.19	11.79	31	112	119	P	V
5785MHz		5667	60.34	-20.58	80.92	47.29	32.24	11.82	31.01	112	119	P	V
		5713.4	61.48	-47.57	109.05	48.37	32.29	11.84	31.02	112	119	P	V
		5724.8	64.02	-57.82	121.84	50.89	32.31	11.84	31.02	112	119	P	V
	*	5785	110.8	-	-	97.58	32.39	11.88	31.05	112	119	P	V
	*	5785	101.23	-	-	88.01	32.39	11.88	31.05	112	119	A	V
		5851.4	61.15	-57.96	119.11	47.7	32.48	12.03	31.06	112	119	P	V
		5857.2	62.09	-48.19	110.28	48.61	32.51	12.03	31.06	112	119	P	V
		5908.2	60.76	-19.94	80.7	46.95	32.58	12.31	31.08	112	119	P	V
		5933.4	60.38	-7.92	68.3	46.56	32.6	12.31	31.09	112	119	P	V
													V
													V



WiFi Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ac VHT20 CH 165 5825MHz	*	5823	116.53	-	-	103.09	32.46	12.03	31.05	132	97	P	H	
	*	5823	107.57	-	-	94.13	32.46	12.03	31.05	132	97	A	H	
		5850.4	83.01	-38.38	121.39	69.56	32.48	12.03	31.06	132	97	P	H	
		5857.2	78.49	-31.79	110.28	65.01	32.51	12.03	31.06	132	97	P	H	
		5878.2	67.17	-35.75	102.92	53.54	32.53	12.17	31.07	132	97	P	H	
		5934.4	59.79	-8.51	68.3	45.97	32.6	12.31	31.09	132	97	P	H	
														H
														H
	*	5827	113.07	-	-	99.63	32.46	12.03	31.05	100	104	P	V	
	*	5827	104.62	-	-	91.18	32.46	12.03	31.05	100	104	A	V	
		5850	83.03	-39.27	122.3	69.58	32.48	12.03	31.06	100	104	P	V	
		5860.6	76.78	-32.55	109.33	63.17	32.51	12.17	31.07	100	104	P	V	
		5878.2	66.14	-36.78	102.92	52.51	32.53	12.17	31.07	100	104	P	V	
		5939.6	60.16	-8.14	68.3	46.31	32.63	12.31	31.09	100	104	P	V	
														V
													V	
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



Band 4 5725~5850MHz

WIFI 802.11ac VHT20 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ac VHT20 CH 149 5745MHz		11490	45.84	-28.16	74	45.11	40.11	18.4	57.78	100	0	P	H	
		17244	56.33	-11.97	68.3	48.69	41.7	23.14	57.2	100	0	P	H	
													H	
													H	
			11490	46.71	-27.29	74	45.98	40.11	18.4	57.78	100	0	P	V
			17244	58.89	-9.41	68.3	51.25	41.7	23.14	57.2	100	0	P	V
														V
802.11ac VHT20 CH 157 5785MHz		11570	45.9	-28.1	74	45.26	39.95	18.49	57.8	100	0	P	H	
		17365	55.44	-12.86	68.3	47.74	42.07	23.25	57.62	100	0	P	H	
													H	
													H	
			11570	46.75	-27.25	74	46.11	39.95	18.49	57.8	100	0	P	V
			17365	57.35	-10.95	68.3	49.65	42.07	23.25	57.62	100	0	P	V
														V
802.11ac VHT20 CH 165 5825MHz		11650	46.79	-27.21	74	46.21	39.8	18.58	57.8	100	0	P	H	
		17475	51.42	-16.88	68.3	43.65	42.39	23.36	57.98	100	0	P	H	
													H	
													H	
			11650	46.26	-27.74	74	45.68	39.8	18.58	57.8	100	0	P	V
			17475	51	-17.3	68.3	43.23	42.39	23.36	57.98	100	0	P	V
														V
Remark	1. No other spurious found.													
	2. All results are PASS against Peak and Average limit line.													



Band 4 5725~5850MHz

WIFI 802.11ac VHT40 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5650	65.91	-2.39	68.3	52.9	32.22	11.79	31	110	98	P	H
		5699.4	78.09	-26.77	104.86	65.01	32.27	11.82	31.01	110	98	P	H
		5719	90.85	-19.77	110.62	77.72	32.31	11.84	31.02	110	98	P	H
		5723.6	92.3	-26.81	119.11	79.17	32.31	11.84	31.02	110	98	P	H
	*	5773	113.23	-	-	100.02	32.39	11.86	31.04	110	98	P	H
	*	5773	104.33	-	-	91.12	32.39	11.86	31.04	110	98	A	H
		5851	64.83	-55.19	120.02	51.38	32.48	12.03	31.06	110	98	P	H
		5871.2	64.23	-42.13	106.36	50.6	32.53	12.17	31.07	110	98	P	H
		5882.6	62.26	-37.4	99.66	48.63	32.53	12.17	31.07	110	98	P	H
		5934.8	60.4	-7.9	68.3	46.58	32.6	12.31	31.09	110	98	P	H
802.11ac													H
VHT40													H
CH 151		5649	61.3	-7	68.3	48.32	32.19	11.79	31	100	116	P	V
5755MHz		5698.4	74.19	-29.93	104.12	61.11	32.27	11.82	31.01	100	116	P	V
		5720	85.8	-25.1	110.9	72.67	32.31	11.84	31.02	100	116	P	V
		5724.8	88.8	-33.04	121.84	75.67	32.31	11.84	31.02	100	116	P	V
	*	5753	110.45	-	-	97.26	32.36	11.86	31.03	100	116	P	V
	*	5753	102.7	-	-	89.51	32.36	11.86	31.03	100	116	A	V
		5853.4	61.82	-52.73	114.55	48.37	32.48	12.03	31.06	100	116	P	V
		5859	62.9	-46.88	109.78	49.43	32.51	12.03	31.07	100	116	P	V
		5875	61.67	-43.63	105.3	48.04	32.53	12.17	31.07	100	116	P	V
		5940.8	60.41	-7.89	68.3	46.42	32.63	12.45	31.09	100	116	P	V
													V
													V



WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5648	62.1	-6.2	68.3	49.12	32.19	11.79	31	108	98	P	H
		5696	68.1	-34.25	102.35	55.02	32.27	11.82	31.01	108	98	P	H
		5719.8	75.79	-35.05	110.84	62.66	32.31	11.84	31.02	108	98	P	H
		5725	78.59	-43.71	122.3	65.46	32.31	11.84	31.02	108	98	P	H
	*	5794	113.44	-	-	100.2	32.41	11.88	31.05	108	98	P	H
	*	5794	104.02	-	-	90.78	32.41	11.88	31.05	108	98	A	H
		5852	82.42	-35.32	117.74	68.97	32.48	12.03	31.06	108	98	P	H
		5859	80.1	-29.68	109.78	66.63	32.51	12.03	31.07	108	98	P	H
		5885.6	70.3	-27.13	97.43	56.68	32.53	12.17	31.08	108	98	P	H
		5947	61.29	-7.01	68.3	47.3	32.63	12.45	31.09	108	98	P	H
802.11ac													H
VHT40													H
CH 159		5647	60.49	-7.81	68.3	47.51	32.19	11.79	31	103	105	P	V
5795MHz		5689.6	64.17	-33.46	97.63	51.09	32.27	11.82	31.01	103	105	P	V
		5719.8	68.45	-42.39	110.84	55.32	32.31	11.84	31.02	103	105	P	V
		5724.8	70.21	-51.63	121.84	57.08	32.31	11.84	31.02	103	105	P	V
	*	5797	108.64	-	-	95.4	32.41	11.88	31.05	103	105	P	V
	*	5797	99.5	-	-	86.26	32.41	11.88	31.05	103	105	A	V
		5853.8	75.6	-38.04	113.64	62.12	32.51	12.03	31.06	103	105	P	V
		5855.2	75.14	-35.7	110.84	61.66	32.51	12.03	31.06	103	105	P	V
		5875.6	70.21	-34.64	104.85	56.58	32.53	12.17	31.07	103	105	P	V
		5925.4	60.96	-7.34	68.3	47.14	32.6	12.31	31.09	103	105	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT40 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ac VHT40 CH 151 5755MHz		11510	46.32	-27.68	74	45.57	40.1	18.45	57.8	100	0	P	H	
		17250	54.13	-14.17	68.3	46.49	41.7	23.14	57.2	100	0	P	H	
													H	
													H	
			11510	46.96	-27.04	74	46.21	40.1	18.45	57.8	100	0	P	V
			17250	55.66	-12.64	68.3	48.02	41.7	23.14	57.2	100	0	P	V
														V
802.11ac VHT40 CH 159 5795MHz		11590	46.18	-27.82	74	45.53	39.91	18.54	57.8	100	0	P	H	
		17385	52.08	-16.22	68.3	44.34	42.13	23.29	57.68	100	0	P	H	
													H	
													H	
			11590	45.64	-28.36	74	44.99	39.91	18.54	57.8	100	0	P	V
			17385	54.17	-14.13	68.3	46.43	42.13	23.29	57.68	100	0	P	V
														V
Remark	1. No other spurious found.													
	2. All results are PASS against Peak and Average limit line.													



Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Band Edge @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)
		5631.2	66.75	-1.55	68.3	53.79	32.17	11.79	31	100	98	P	H
		5699.6	82.82	-22.19	105.01	69.74	32.27	11.82	31.01	100	98	P	H
		5720	85.09	-25.81	110.9	71.96	32.31	11.84	31.02	100	98	P	H
		5721	88.53	-24.65	113.18	75.4	32.31	11.84	31.02	100	98	P	H
	*	5777	109.92	-	-	96.71	32.39	11.86	31.04	100	98	P	H
	*	5777	100.66	-	-	87.45	32.39	11.86	31.04	100	98	A	H
		5851.2	81.03	-38.53	119.56	67.58	32.48	12.03	31.06	100	98	P	H
		5856.2	80.42	-30.14	110.56	66.94	32.51	12.03	31.06	100	98	P	H
		5877.8	75.17	-28.05	103.22	61.54	32.53	12.17	31.07	100	98	P	H
		5927.2	62.58	-5.72	68.3	48.76	32.6	12.31	31.09	100	98	P	H
802.11ac													H
VHT80													H
CH 155		5620.6	65	-3.3	68.3	52.03	32.17	11.79	30.99	100	115	P	V
5775MHz		5696.6	74.78	-28.01	102.79	61.7	32.27	11.82	31.01	100	115	P	V
		5719.2	77.97	-32.71	110.68	64.84	32.31	11.84	31.02	100	115	P	V
		5720.6	83.51	-28.76	112.27	70.38	32.31	11.84	31.02	100	115	P	V
	*	5773	106.34	-	-	93.13	32.39	11.86	31.04	100	115	P	V
	*	5773	95.65	-	-	82.44	32.39	11.86	31.04	100	115	A	V
		5852	78.24	-39.5	117.74	64.79	32.48	12.03	31.06	100	115	P	V
		5860.2	78.34	-31.1	109.44	64.73	32.51	12.17	31.07	100	115	P	V
		5877.6	73.48	-29.89	103.37	59.85	32.53	12.17	31.07	100	115	P	V
		5937.8	62.45	-5.85	68.3	48.63	32.6	12.31	31.09	100	115	P	V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.												



Band 4 5725~5850MHz

WIFI 802.11ac VHT80 (Harmonic @ 3m)

WIFI Ant. 1+2	Note	Frequency (MHz)	Level (dBμV/m)	Over Limit (dB)	Limit Line (dBμV/m)	Read Level (dBμV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Ant Pos (cm)	Table Pos (deg)	Peak Avg. (P/A)	Pol. (H/V)	
802.11ac VHT80 CH 155 5775MHz		11550	45.44	-28.56	74	44.76	39.99	18.49	57.8	100	0	P	H	
		17238	58.61	-9.69	68.3	50.96	41.65	23.14	57.14	100	0	P	H	
													H	
													H	
			11550	46.25	-27.75	74	45.57	39.99	18.49	57.8	100	0	P	V
			17238	56.39	-11.91	68.3	48.74	41.65	23.14	57.14	100	0	P	V
														V
Remark	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



Emission below 1GHz

5GHz WIFI 802.11ac VHT80 (LF @ 3m)

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dB μ V/m)	(dB)	(dB μ V/m)	(dB μ V)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
		38.37	31.73	-8.27	40	42.55	20.86	0.78	32.46	100	59	P	H
		214.41	31.94	-11.56	43.5	46.56	16.06	1.7	32.38	-	-	P	H
		241.68	37.12	-8.88	46	49.86	17.76	1.83	32.33	-	-	P	H
		398.7	33.46	-12.54	46	40.97	22.18	2.68	32.37	-	-	P	H
		720	33.85	-12.15	46	35.46	26.87	3.89	32.37	-	-	P	H
		934.2	32.71	-13.29	46	29.52	29.86	4.6	31.27	-	-	P	H
													H
													H
													H
													H
													H
5GHz													H
802.11ac													H
VHT80													
LF		38.1	35.09	-4.91	40	45.35	21.42	0.78	32.46	100	138	P	V
		38.1	38.38	-1.62	40	48.64	21.42	0.78	32.46	100	138	P	V
		99.66	30.71	-12.79	43.5	46.08	16	1.06	32.43	-	-	P	V
		119.64	35.86	-7.64	43.5	49.31	17.55	1.43	32.43	-	-	P	V
		431.6	32.88	-13.12	46	39.6	22.77	2.89	32.38	-	-	P	V
		722.1	31.72	-14.28	46	33.25	26.94	3.89	32.36	-	-	P	V
													V
													V
													V
													V
													V
													V
													V
Remark	1. No other spurious found. 2. All results are PASS against limit line.												



Note symbol

*	Fundamental Frequency which can be ignored. However, the level of any unwanted emissions shall not exceed the level of the fundamental frequency.
!	Test result is over limit line.
P/A	Peak or Average
H/V	Horizontal or Vertical



A calculation example for radiated spurious emission is shown as below:

WIFI	Note	Frequency	Level	Over	Limit	Read	Antenna	Cable	Preamp	Ant	Table	Peak	Pol.
Ant.				Limit	Line	Level	Factor	Loss	Factor	Pos	Pos	Avg.	
1+2		(MHz)	(dBμV/m)	(dB)	(dBμV/m)	(dBμV)	(dB/m)	(dB)	(dB)	(cm)	(deg)	(P/A)	(H/V)
802.11b		2390	55.45	-18.55	74	54.51	32.22	4.58	35.86	103	308	P	H
CH 01		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H
2412MHz													

- Level(dBμV/m) =
Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
- Over Limit(dB) = Level(dBμV/m) – Limit Line(dBμV/m)

For Peak Limit @ 2390MHz:

- Level(dBμV/m)
= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 54.51(dBμV) – 35.86 (dB)
= 55.45 (dBμV/m)
- Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 55.45(dBμV/m) – 74(dBμV/m)
= -18.55(dB)

For Average Limit @ 2390MHz:

- Level(dBμV/m)
= Antenna Factor(dB/m) + Cable Loss(dB) + Read Level(dBμV) - Preamp Factor(dB)
= 32.22(dB/m) + 4.58(dB) + 42.6(dBμV) – 35.86 (dB)
= 43.54 (dBμV/m)
- Over Limit(dB)
= Level(dBμV/m) – Limit Line(dBμV/m)
= 43.54(dBμV/m) – 54(dBμV/m)
= -10.46(dB)

Both peak and average measured complies with the limit line, so test result is “PASS”.