



Band 4 - 5725~5850MHz

WIFI 802.11n HT20 (Band Edge @ 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 )	( dBμV/m )	( dB )	( dBμV/m )	( dBμV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	(P/A)	(H/V)	
802.11n HT20 CH 149 5745MHz		5620.6	50.01	-18.19	68.2	38.72	34.6	11.95	35.26	100	18	P	H	
		5666	51.31	-28.77	80.08	39.98	34.6	12	35.27	100	18	P	H	
		5720	55.08	-55.72	110.8	43.7	34.6	12.06	35.28	100	18	P	H	
		5722.6	58.75	-57.98	116.73	47.37	34.6	12.06	35.28	100	18	P	H	
	*	5745	110.3	-	-	98.88	34.6	12.11	35.29	100	18	P	H	
	*	5745	101.72	-	-	90.3	34.6	12.11	35.29	100	18	A	H	
														H
														H
			5618.8	51.52	-16.68	68.2	40.29	34.6	11.89	35.26	272	262	P	V
			5696.8	52.14	-50.7	102.84	40.82	34.6	12	35.28	272	262	P	V
			5719.4	53.77	-56.86	110.63	42.39	34.6	12.06	35.28	272	262	P	V
			5723	53.27	-64.37	117.64	41.89	34.6	12.06	35.28	272	262	P	V
	*		5745	107.01	-	-	95.59	34.6	12.11	35.29	272	262	P	V
	*		5745	99.55	-	-	88.13	34.6	12.11	35.29	272	262	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 )	
802.11n HT20 CH 157 5785MHz		5622.8	49.8	-18.4	68.2	38.51	34.6	11.95	35.26	103	27	P	H	
		5682.4	50.8	-41.41	92.21	39.48	34.6	12	35.28	103	27	P	H	
		5704.4	50.96	-55.47	106.43	39.58	34.6	12.06	35.28	103	27	P	H	
		5724.4	51.93	-68.9	120.83	40.55	34.6	12.06	35.28	103	27	P	H	
	*	5785	106.92	-	-	95.45	34.6	12.17	35.3	103	27	P	H	
	*	5785	99.68	-	-	88.21	34.6	12.17	35.3	103	27	A	H	
		5850.2	49.43	-72.31	121.74	37.86	34.6	12.28	35.31	103	27	P	H	
		5861.4	49.91	-59.1	109.01	38.23	34.6	12.39	35.31	103	27	P	H	
		5890.2	50.87	-43.05	93.92	39.2	34.6	12.39	35.32	103	27	P	H	
		5949.6	51.01	-17.19	68.2	39.12	34.6	12.62	35.33	103	27	P	H	
														H
														H
			5619.8	50.79	-17.41	68.2	39.56	34.6	11.89	35.26	268	279	P	V
			5656.2	50.19	-22.62	72.81	38.91	34.6	11.95	35.27	268	279	P	V
			5712.8	51.26	-57.53	108.79	39.88	34.6	12.06	35.28	268	279	P	V
			5722.6	50.12	-66.61	116.73	38.74	34.6	12.06	35.28	268	279	P	V
	*		5785	107.03	-	-	95.56	34.6	12.17	35.3	268	279	P	V
	*		5785	99.68	-	-	88.21	34.6	12.17	35.3	268	279	A	V
			5851.6	50.05	-68.5	118.55	38.48	34.6	12.28	35.31	268	279	P	V
			5873.8	51.1	-54.44	105.54	39.42	34.6	12.39	35.31	268	279	P	V
		5911.8	50.86	-27.08	77.94	39.07	34.6	12.51	35.32	268	279	P	V	
		5943.6	52.66	-15.54	68.2	40.77	34.6	12.62	35.33	268	279	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 )	
802.11n HT20 CH 165 5825MHz	*	5825	107.13	-	-	95.56	34.6	12.28	35.31	102	348	P	H	
	*	5825	100.08	-	-	88.51	34.6	12.28	35.31	102	348	A	H	
		5850.8	52.34	-68.04	120.38	40.77	34.6	12.28	35.31	102	348	P	H	
		5869	52.97	-53.91	106.88	41.29	34.6	12.39	35.31	102	348	P	H	
		5881.6	51.53	-48.77	100.3	39.86	34.6	12.39	35.32	102	348	P	H	
		5936.2	50.36	-17.84	68.2	38.58	34.6	12.51	35.33	102	348	P	H	
														H
														H
	*	5825	107.37	-	-	95.8	34.6	12.28	35.31	277	281	P	V	
	*	5825	100.26	-	-	88.69	34.6	12.28	35.31	277	281	A	V	
		5850.8	52.67	-67.71	120.38	41.1	34.6	12.28	35.31	277	281	P	V	
		5866.6	53.74	-53.81	107.55	42.06	34.6	12.39	35.31	277	281	P	V	
		5898.4	50.48	-37.37	87.85	38.81	34.6	12.39	35.32	277	281	P	V	
		5933.6	50.25	-17.95	68.2	38.47	34.6	12.51	35.33	277	281	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 802.11n HT20 (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 )	
802.11n HT20 CH 149 5745MHz		11490	42.8	-31.2	74	43.71	39.27	17.16	57.34	100	0	P	H	
		17235	54.61	-13.59	68.2	47.31	42.43	20.76	55.89	100	0	P	H	
													H	
													H	
			11490	43.6	-30.4	74	44.51	39.27	17.16	57.34	100	0	P	V
			17235	47.19	-21.01	68.2	39.89	42.43	20.76	55.89	100	0	P	V
														V
802.11n HT20 CH 157 5785MHz		11570	41.48	-32.52	74	42.31	39.2	17.16	57.19	100	0	P	H	
		17355	51.61	-16.59	68.2	44.47	42.24	20.84	55.94	100	0	P	H	
													H	
													H	
			11570	42.38	-31.62	74	43.21	39.2	17.16	57.19	100	0	P	V
			17352	48.64	-19.56	68.2	41.5	42.24	20.84	55.94	100	0	P	V
														V
802.11n HT20 CH 165 5825MHz		11650	42.75	-31.25	74	43.56	39.11	17.16	57.08	100	0	P	H	
		17475	49.77	-18.43	68.2	42.78	42.05	20.93	55.99	100	0	P	H	
													H	
													H	
			11650	42.23	-31.77	74	43.04	39.11	17.16	57.08	100	0	P	V
			17475	50.03	-18.17	68.2	43.04	42.05	20.93	55.99	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 802.11n HT40 (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 )
		5649.2	51.38	-16.82	68.2	40.1	34.6	11.95	35.27	100	18	P	H
		5693	52.93	-47.11	100.04	41.61	34.6	12	35.28	100	18	P	H
		5718.6	57.11	-53.3	110.41	45.73	34.6	12.06	35.28	100	18	P	H
		5724.6	56.99	-64.3	121.29	45.61	34.6	12.06	35.28	100	18	P	H
	*	5755	107.05	-	-	95.63	34.6	12.11	35.29	100	18	P	H
	*	5755	99.26	-	-	87.84	34.6	12.11	35.29	100	18	A	H
		5850	50.02	-72.18	122.2	38.45	34.6	12.28	35.31	100	18	P	H
		5874.8	49.1	-56.16	105.26	37.42	34.6	12.39	35.31	100	18	P	H
		5917.8	51.21	-22.3	73.51	39.42	34.6	12.51	35.32	100	18	P	H
		5925	50.49	-17.71	68.2	38.71	34.6	12.51	35.33	100	18	P	H
802.11n													H
HT40													H
CH 151		5629.6	51.73	-16.47	68.2	40.45	34.6	11.95	35.27	247	263	P	V
5755MHz		5698.8	53.84	-50.48	104.32	42.52	34.6	12	35.28	247	263	P	V
		5716.4	54.91	-54.88	109.79	43.53	34.6	12.06	35.28	247	263	P	V
		5724.4	55.4	-65.43	120.83	44.02	34.6	12.06	35.28	247	263	P	V
	*	5755	103.87	-	-	92.45	34.6	12.11	35.29	247	263	P	V
	*	5755	96.3	-	-	84.88	34.6	12.11	35.29	247	263	A	V
		5854.8	49.52	-61.74	111.26	37.95	34.6	12.28	35.31	247	263	P	V
		5860.2	51.07	-58.27	109.34	39.39	34.6	12.39	35.31	247	263	P	V
		5911.2	51.23	-27.15	78.38	39.44	34.6	12.51	35.32	247	263	P	V
		5926.2	50.13	-18.07	68.2	38.35	34.6	12.51	35.33	247	263	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 )	
802.11n HT40 CH 159 5795MHz		5633.8	50.56	-17.64	68.2	39.28	34.6	11.95	35.27	100	348	P	H	
		5663.6	50.67	-27.63	78.3	39.34	34.6	12	35.27	100	348	P	H	
		5703.6	49.88	-56.33	106.21	38.5	34.6	12.06	35.28	100	348	P	H	
		5721.4	49.07	-64.92	113.99	37.69	34.6	12.06	35.28	100	348	P	H	
	*	5795	103.9	-	-	92.43	34.6	12.17	35.3	100	348	P	H	
	*	5795	95.87	-	-	84.4	34.6	12.17	35.3	100	348	A	H	
		5852.2	50.58	-66.6	117.18	39.01	34.6	12.28	35.31	100	348	P	H	
		5874.4	50.69	-54.68	105.37	39.01	34.6	12.39	35.31	100	348	P	H	
		5922.8	50.49	-19.33	69.82	38.7	34.6	12.51	35.32	100	348	P	H	
		5949.6	49.88	-18.32	68.2	37.99	34.6	12.62	35.33	100	348	P	H	
														H
														H
			5621.8	50.07	-18.13	68.2	38.78	34.6	11.95	35.26	277	280	P	V
			5664.2	50.8	-27.94	78.74	39.47	34.6	12	35.27	277	280	P	V
			5714	50.23	-58.89	109.12	38.85	34.6	12.06	35.28	277	280	P	V
			5724	50.96	-68.96	119.92	39.58	34.6	12.06	35.28	277	280	P	V
	*		5795	104.08	-	-	92.61	34.6	12.17	35.3	277	280	P	V
	*		5795	96.64	-	-	85.17	34.6	12.17	35.3	277	280	A	V
			5853.6	49.41	-64.58	113.99	37.84	34.6	12.28	35.31	277	280	P	V
			5860	50.71	-58.69	109.4	39.14	34.6	12.28	35.31	277	280	P	V
		5889.2	50.86	-43.8	94.66	39.19	34.6	12.39	35.32	277	280	P	V	
		5942.6	50.24	-17.96	68.2	38.35	34.6	12.62	35.33	277	280	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 802.11n HT40 (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 )
802.11n HT40 CH 151 5755MHz		11510	42.44	-31.56	74	43.28	39.3	17.16	57.3	100	0	P	H
		17265	53.11	-15.09	68.2	45.86	42.37	20.79	55.91	100	4	P	H
													H
													H
		11510	44.24	-29.76	74	45.08	39.3	17.16	57.3	100	0	P	V
		17265	47.18	-21.02	68.2	39.93	42.37	20.79	55.91	100	0	P	V
													V
													V
802.11n HT40 CH 159 5795MHz		11590	41.05	-32.95	74	41.87	39.18	17.16	57.16	100	0	P	H
		17385	54.25	-13.95	68.2	47.14	42.19	20.87	55.95	100	4	P	H
													H
													H
		11590	41.78	-32.22	74	42.6	39.18	17.16	57.16	100	0	P	V
		17385	47.24	-20.96	68.2	40.13	42.19	20.87	55.95	100	0	P	V
													V
													V
<b>Remark</b>	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 )
		5646.8	49.6	-18.6	68.2	38.32	34.6	11.95	35.27	100	43	P	H
		5699	53.24	-51.22	104.46	41.92	34.6	12	35.28	100	43	P	H
		5719.6	55.64	-55.05	110.69	44.26	34.6	12.06	35.28	100	43	P	H
		5723.6	55.77	-63.24	119.01	44.39	34.6	12.06	35.28	100	43	P	H
	*	5775	102.16	-	-	90.75	34.6	12.11	35.3	100	43	P	H
	*	5775	94.63	-	-	83.22	34.6	12.11	35.3	100	43	A	H
		5853.6	50.97	-63.02	113.99	39.4	34.6	12.28	35.31	100	43	P	H
		5858.4	52.88	-56.97	109.85	41.31	34.6	12.28	35.31	100	43	P	H
		5887.8	51.75	-43.95	95.7	40.08	34.6	12.39	35.32	100	43	P	H
		5949	51.15	-17.05	68.2	39.26	34.6	12.62	35.33	100	43	P	H
802.11ac													H
VHT80													H
CH 155		5618.4	49.26	-18.94	68.2	38.03	34.6	11.89	35.26	243	260	P	V
5775MHz		5695	52.02	-49.49	101.51	40.7	34.6	12	35.28	243	260	P	V
		5711.2	52.9	-55.44	108.34	41.52	34.6	12.06	35.28	243	260	P	V
		5721	53.16	-59.92	113.08	41.78	34.6	12.06	35.28	243	260	P	V
	*	5775	100.35	-	-	88.94	34.6	12.11	35.3	243	260	P	V
	*	5775	92.56	-	-	81.15	34.6	12.11	35.3	243	260	A	V
		5851.2	50.21	-69.25	119.46	38.64	34.6	12.28	35.31	243	260	P	V
		5855.6	51.08	-59.55	110.63	39.51	34.6	12.28	35.31	243	260	P	V
		5902.2	50.58	-34.45	85.03	38.79	34.6	12.51	35.32	243	260	P	V
		5926.4	49.36	-18.84	68.2	37.58	34.6	12.51	35.33	243	260	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	41.23	-32.77	74	42.06	39.23	17.16	57.22	100	0	P	H	
		17325	49.32	-18.88	68.2	42.15	42.29	20.81	55.93	100	0	P	H	
													H	
													H	
			11550	42.03	-31.97	74	42.86	39.23	17.16	57.22	100	0	P	V
			17325	46.63	-21.57	68.2	39.46	42.29	20.81	55.93	100	0	P	V
														V
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against Peak and Average limit line.													



Emission below 1GHz

5GHz WIFI 802.11n HT20 (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 )	( dBµV/m )	( dB )	( dBµV/m )	( dBµV )	( dB/m )	( dB )	( dB )	( cm )	( deg )	( P/A )	( H/V )	
5GHz 802.11n HT20 LF		30.27	27.55	-12.45	40	31.83	26	1.07	31.35	-	-	P	H	
		81.57	24.68	-15.32	40	40.93	14.02	1.28	31.55	-	-	P	H	
		187.14	29.69	-13.81	43.5	43.84	15.47	1.87	31.49	-	-	P	H	
		477.1	26.75	-19.25	46	31.07	23.69	3.04	31.05	-	-	P	H	
		731.9	29.81	-16.19	46	29.83	26.92	3.74	30.68	-	-	P	H	
		955.2	33.99	-12.01	46	30.24	30.21	4.07	30.53	100	0	P	H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
													H	
			34.86	33.25	-6.75	40	40.29	23.3	1.07	31.41	100	85	P	V
			48.36	27.93	-12.07	40	42.52	15.93	1.07	31.59	-	-	P	V
			110.46	31.66	-11.84	43.5	44.28	17.35	1.55	31.52	-	-	P	V
			522.6	26.76	-19.24	46	30.21	24.38	3.14	30.97	-	-	P	V
			734.7	30.31	-15.69	46	30.29	26.95	3.74	30.67	-	-	P	V
		951.7	34.22	-11.78	46	30.48	30.2	4.07	30.53	-	-	P	V	
													V	
													V	
													V	
													V	
													V	
													V	
<b>Remark</b>	1. No other spurious found. 2. All results are PASS against limit line.													



**Note symbol**

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



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													
2412MHz		2390	43.54	-10.46	54	42.6	32.22	4.58	35.86	103	308	A	H

- 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”.**