

A.4 POWER SPECTRAL DENSITY

Test Date	2023/11/06 ~ 07	Temp./Hum.	24°C/57 ~ 58%
Cable Loss	1.93dB	Tested By	Harry Huang
Test Voltage	AC 120V 60Hz (Via AC Adapter)		

A.4.1 Power Spectral Density Result

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Max. Power Spectral Density (dBm/1MHz) <small>Note 3</small>	Limit
			AUX	Main			
802.11a	1	5180	3.266	2.800	N/A	3.266	11 dBm/MHz
		5200	3.485	2.985		3.485	
		5240	3.879	3.810		3.879	
	2A	5260	4.212	3.953		4.212	
		5300	3.755	3.402		3.755	
		5320	3.632	3.570		3.632	
	2C	5500	3.785	3.802		3.802	
		5580	4.323	3.810		4.323	
		5700	4.474	3.906		4.474	
		5720	4.941	4.414		4.941	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Duty Cycle Factor 10log(1/X)	Max. Power Spectral Density (dBm/500kHz) <small>Note 4</small>	Limit
			AUX	Main			
802.11a	3 ^{Note2}	5745	1.495	0.214	N/A	1.495	30dBm/500 kHz
		5785	1.453	0.327		1.453	
		5825	1.096	-0.628		1.096	

Note :1. All results have been included cable loss.

2. BWCF 7dB (100kHz converted to 500kHz) has been included in the test result.

For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1.93dB+7dB=8.93dB

3. Max. Power Spectral Density (dBm/1MHz) = Max of each PSD (dBm/1MHz) + Duty Cycle Factor(dB) when duty cycle is less than 98%.

4. Max. Power Spectral Density (dBm/500kHz) = Max of each PSD (dBm/500kHz) + Duty Cycle Factor(dB) when duty cycle is less than 98%.

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) <small>Note 3</small>	Limit
			AUX	Main			
802.11n-HT20	1	5180	2.759	2.065	N/A	5.436	11 dBm/MHz
		5200	3.046	2.589		5.834	
		5240	3.213	3.035		6.135	
	2A	5260	3.333	3.181		6.268	
		5300	3.065	2.512		5.808	
		5320	3.284	2.720		6.021	
	2C	5500	3.198	2.359		5.809	
		5580	3.310	2.522		5.944	
		5700	3.141	2.497		5.841	
		5720	3.558	3.289		6.436	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/500kHz) <small>Note 4</small>	Limit
			AUX	Main			
802.11n-HT20	3 ^{Note2}	5745	1.302	0.878	N/A	4.105	30dBm/500 kHz
		5785	1.072	0.945		4.019	
		5825	0.154	0.524		3.353	

- Note :1. All results have been included cable loss.
2. BWCF 7dB (100kHz converted to 500kHz) has been included in the test result.
 For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1.93dB+7dB=8.93dB
3. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.
4. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/500kHz) = Sum to individual PSD (dBm/500kHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) <small>Note 3</small>	Limit
			AUX	Main			
802.11n-HT40	1	5190	-0.063	-2.066	N/A	2.060	11 dBm/MHz
		5230	0.744	-0.912		3.005	
	2A	5270	0.928	-0.488		3.288	
		5310	-0.499	-1.767		1.923	
	2C	5510	0.979	-0.899		3.151	
		5550	0.991	-0.713		3.232	
		5670	0.906	-1.126		3.018	
		5710	1.294	-0.583		3.466	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/500kHz) <small>Note 4</small>	Limit
			AUX	Main			
802.11n-HT40	3 ^{Note2}	5755	-1.228	-2.848	N/A	2.060	30dBm/500 kHz
		5795	-1.396	-2.922		3.005	

Note :1. All results have been included cable loss.

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For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1.93dB+7dB=8.93dB

3. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

4. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/500kHz) = Sum to individual PSD (dBm/500kHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) <small>Note 3</small>	Limit
			AUX	Main			
802.11ac-VHT80	1	5210	-4.255	-3.011	N/A	-0.578	11 dBm/MHz
	2A	5290	-4.118	-2.279		-0.092	
	2C	5530	-3.673	-2.077		0.208	
		5610	-3.035	-1.524		0.796	
		5690	-2.244	-1.006		1.429	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/500kHz) <small>Note 4</small>	Limit
			AUX	Main			
802.11ac-VHT80	3 <small>Note2</small>	5775	-4.784	-3.750	N/A	-1.226	30dBm/500 kHz

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) <small>Note 3</small>	Limit
			AUX	Main			
802.11ac-VHT160	1/2A	5250	-9.430	-10.432	N/A	-6.892	11 dBm/MHz
	2C	5570	-7.485	-7.230		-4.345	

Note :1. All results have been included cable loss.

2. BWCF 7dB (100kHz converted to 500kHz) has been included in the test result.

For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1.93dB+7dB=8.93dB

3. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

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Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) <small>Note 3</small>	Limit
			AUX	Main			
802.11ax-HE20	1	5180	3.435	2.033	N/A	5.801	11 dBm/MHz
		5200	3.158	2.087		5.666	
		5240	3.501	2.806		6.178	
	2A	5260	3.689	2.643		6.208	
		5300	3.405	2.116		5.818	
		5320	3.345	2.041		5.752	
	2C	5500	3.075	1.757		5.476	
		5580	3.357	1.768		5.645	
		5700	3.636	1.462		5.694	
		5720	3.762	2.237		6.076	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/500kHz) <small>Note 4</small>	Limit
			AUX	Main			
802.11ax-HE20	3 ^{Note2}	5745	0.097	-0.694	N/A	2.730	30dBm/500 kHz
		5785	-0.344	-0.543		2.568	
		5825	-0.009	-1.211		2.442	

Note :1. All results have been included cable loss.

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For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1.93dB+7dB=8.93dB

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Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) <small>Note 3</small>	Limit
			AUX	Main			
802.11ax-HE40	1	5190	-0.601	-0.009	N/A	2.715	11 dBm/MHz
		5230	0.354	1.166		3.789	
	2A	5270	0.658	1.271		3.986	
		5310	-0.962	-0.076		2.514	
	2C	5510	0.315	1.115		3.744	
		5550	0.797	1.184		4.005	
		5670	0.377	1.068		3.747	
		5710	1.243	1.814		4.548	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/500kHz) <small>Note 4</small>	Limit
			AUX	Main			
802.11ax-HE40	3 ^{Note2}	5755	-2.208	-1.442	N/A	1.202	30dBm/500 kHz
		5795	-2.560	-1.768		0.864	

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For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1.93dB+7dB=8.93dB

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			AUX	Main			
802.11ax-HE80	1	5210	-4.423	-3.258	N/A	-0.791	11 dBm/MHz
	2A	5290	-4.232	-2.476		-0.256	
	2C	5530	-3.326	-2.010		0.392	
		5610	-2.838	-1.374		0.966	
		5690	-2.158	-1.196		1.360	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/500kHz) <small>Note 4</small>	Limit
			AUX	Main			
802.11ax-HE80	3 <small>Note2</small>	5775	-5.349	-4.393	N/A	-1.834	30dBm/500 kHz

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm/1MHz) <small>Note 3</small>	Limit
			AUX	Main			
802.11ax-HE160	1/2A	5250	-9.588	-10.355	N/A	-6.944	11 dBm/MHz
	2C	5570	-7.499	-7.263		-4.369	

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Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 3	Limit
				AUX	Main			
802.11ax-HE20	1	5180	26/0	4.614	4.307	N/A	7.474	11 dBm/MHz
			52/37	5.924	5.421	N/A	8.690	
			106/53	5.696	4.845	N/A	8.302	
	2A	5320	26/8	4.884	4.073	N/A	7.508	
			52/40	6.091	5.566	N/A	8.847	
			106/54	5.142	4.518	N/A	7.851	
	2C	5500	26/0	4.879	3.366	N/A	7.198	
			52/37	5.894	4.539	N/A	8.279	
			106/53	4.615	3.450	N/A	7.082	
		5700	26/8	5.069	3.471	N/A	7.353	
			52/40	6.327	4.439	N/A	8.495	
			106/54	5.926	4.285	N/A	8.193	

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/500kHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 4	Limit
				AUX	Main			
802.11ax-HE20	3 ^{Note2}	5745	26/0	7.697	6.404	N/A	10.109	30dBm/ 500 kHz
			52/37	2.616	1.537	N/A	5.120	
			106/53	3.985	2.614	N/A	6.364	
		5825	26/8	8.211	6.252	N/A	10.351	
			52/40	3.420	1.485	N/A	5.570	
			106/54	3.692	2.069	N/A	5.966	

Note :1. All results have been included cable loss.

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				AUX	Main			
802.11ax-HE40	1	5190	242/61	3.542	4.598	N/A	7.112	11 dBm/MHz
	2A	5310	242/62	3.523	2.407		6.011	
	2C	5510	242/61	3.510	2.969		6.004	
		5670	242/62	4.330	3.750		7.060	

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				AUX	Main			
802.11ax-HE40	3 ^{Note2}	5755	242/61	0.636	0.348	N/A	3.505	30dBm/500 kHz
		5795	242/62	0.555	0.903		3.743	

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				AUX	Main			
802.11ax-HE80	1	5210	484/65	-1.793	0.080	N/A	2.254	11 dBm/MHz
	2A	5290	484/66	-3.801	-2.054		0.170	
	2C	5530	484/65	-1.127	0.792		2.948	
		5610	484/66	0.164	1.496		3.891	

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				AUX	Main			
802.11ax-HE80	3 ^{Note2}	5775	484/65	-2.022	-1.665	N/A	1.170	30dBm/500 kHz
		5775	484/66	-2.143	-1.153		1.390	

Mode	U-NII Band	Centre Frequency (MHz)	RU Configuration	Power Spectral Density (dBm/1MHz)		Duty Cycle Factor 10log(1/X)	Total Power Spectral Density (dBm) Note 3	Limit
				AUX	Main			
802.11ax-HE160	1/2A	5250	996/67	-4.308	-5.304	N/A	-1.767	11 dBm/MHz
			996/S67	-5.549	-7.282		-3.319	
	2C	5570	996/67	-4.711	-4.584		-1.637	
			996/S67	-1.305	-1.569		1.575	

Note :1. All results have been included cable loss.

2. BWCF 7dB (100kHz converted to 500kHz) has been included in the test result.

For UNII Band 3, Ref Offset of measured plot: Cable Loss (dB) + BWCF (dB)= 1.93dB+7dB=8.93dB

3. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/1MHz) = Sum to individual PSD (dBm/1MHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

4. According to KDB 662911 D01 E)2)a), Total Power Spectral Density (dBm/500kHz) = Sum to individual PSD (dBm/500kHz) + Duty Cycle Factor (dB) when duty cycle is less than 98%.

A.4.2 Measurement Plots































