

A.4 POWER SPECTRAL DENSITY

Test Date	2022/07/14 ~ 20	Temp./Hum.	24-25°C/48-50%
Cable Loss	1.0dB	Tested By	Kuper Hsu
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 $10\log(1/X)$	Max. Power Spectral Density (dBm/1MHz) <small>Note 3</small>	Limit
			AUX	Main			
802.11a	1	5180	4.741	4.343	0.110	4.851	11 dBm/MHz
		5200	4.654	4.361		4.764	
		5240	4.558	4.204		4.668	
	2A	5260	4.508	4.035		4.618	
		5300	4.722	4.518		4.832	
		5320	4.928	4.396		5.038	
	2C	5500	4.868	4.499		4.978	
		5580	4.322	3.936		4.432	
		5700	4.836	4.257		4.946	
		5720	5.027	4.724		5.137	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Duty Cycle Factor $10\log(1/X)$	Max. Power Spectral Density (dBm/500kHz) <small>Note 4</small>	Limit
			AUX	Main			
802.11a	3 ^{Note2}	5745	3.029	2.469	0.110	3.139	30dBm/500 kHz
		5785	2.640	2.396		2.750	
		5825	2.776	2.731		2.886	

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

2. BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

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	4.442	3.636	N/A	7.068	11 dBm/MHz
		5200	4.397	3.524		6.993	
		5240	3.944	3.328		6.657	
	2A	5260	4.067	3.369		6.742	
		5300	4.291	3.695		7.014	
		5320	4.208	3.727		6.984	
	2C	5500	4.256	3.945		7.114	
		5580	3.721	3.079		6.422	
		5700	4.428	3.754		7.114	
		5720	4.503	3.935		7.239	

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	2.092	2.571	N/A	5.348	30dBm/500 kHz
		5785	2.136	1.971		5.065	
		5825	2.273	2.851		5.582	

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

2. BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

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 $10\log(1/X)$	Total Power Spectral Density (dBm/1MHz) <small>Note 3</small>	Limit
			AUX	Main			
802.11n-HT40	1	5190	0.966	0.804	N/A	3.896	11 dBm/MHz
		5230	1.050	0.533		3.809	
	2A	5270	1.040	0.783		3.924	
		5310	1.065	0.572		3.836	
	2C	5510	1.129	0.537		3.853	
		5550	1.078	0.400		3.763	
		5670	1.157	0.329		3.773	
		5710	1.259	0.870		4.079	

Mode	U-NII Band	Centre Frequency (MHz)	Power Spectral Density (dBm/500kHz)		Duty Cycle Factor $10\log(1/X)$	Total Power Spectral Density (dBm/500kHz) <small>Note 4</small>	Limit
			AUX	Main			
802.11n-HT40	3 ^{Note2}	5755	-1.447	-1.741	N/A	1.419	30dBm/500 kHz
		5795	-1.546	-1.765		1.356	

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

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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	-3.320	-3.426	N/A	-0.362	11 dBm/MHz
	2A	5290	-2.253	-1.776		1.002	
	2C	5530	-2.098	-2.211		0.856	
		5610	-2.273	-1.927		0.914	
		5690	-1.716	-1.841		1.232	

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>Note 2</small>	5775	-4.901	-4.741	N/A	-1.810	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	-8.943	-9.170	N/A	-5.948	11 dBm/MHz
	2C	5570	-5.390	-5.570		-2.372	

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

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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			
802.11ax-HE20	1	5180	4.589	3.888	N/A	7.355	11 dBm/MHz
		5200	4.540	3.555		7.178	
		5240	4.220	3.644		7.044	
	2A	5260	4.203	3.783		7.100	
		5300	4.370	3.946		7.265	
		5320	4.527	3.869		7.313	
	2C	5500	4.817	3.999		7.530	
		5580	3.908	3.178		6.661	
		5700	4.291	3.735		7.124	
		5720	4.670	4.235		7.560	

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	1.122	0.615	N/A	3.978	30dBm/500 kHz
		5785	1.024	0.886		4.058	
		5825	1.010	0.466		3.849	

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

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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			
802.11ax-HE40	1	5190	0.560	0.643	N/A	3.612	11 dBm/MHz
		5230	0.516	0.130		3.338	
	2A	5270	0.543	0.353		3.459	
		5310	0.712	0.302		3.522	
	2C	5510	0.654	0.417		3.547	
		5550	0.677	0.050		3.385	
		5670	0.937	0.152		3.573	
		5710	1.007	0.435		3.741	

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	-2.654	-3.030	N/A	0.172	30dBm/500 kHz
		5795	-2.535	-2.947		0.274	

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

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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			
802.11ax-HE80	1	5210	-3.726	-3.700	N/A	-0.703	11 dBm/MHz
	2A	5290	-2.381	-2.444		0.598	
	2C	5530	-2.358	-2.535		0.565	
		5610	-2.658	-2.839		0.263	
		5690	-2.333	-2.782		0.459	

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	-6.014	-6.117	N/A	-3.055	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	-9.263	-9.313	0.128	-6.150	11 dBm/MHz
	2C	5570	-5.647	-5.640		-2.505	

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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)	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	6.734	6.472	0.141	9.756	11 dBm/MHz
			52/37	7.439	7.344		10.543	
			106/53	6.758	6.241		9.658	
	2A	5320	26/8	6.945	6.534		9.896	
			52/40	7.464	7.579		10.673	
			106/54	6.722	6.146		9.595	
	2C	5500	26/0	7.081	6.677		10.035	
			52/37	7.742	7.677		10.861	
			106/53	6.725	6.155		9.601	
		5700	26/8	6.870	6.357		9.772	
			52/40	7.512	6.907		10.371	
			106/54	7.648	6.763		10.379	

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	9.713	9.690	0.141	12.853	30dBm/500 kHz
			52/37	6.459	6.199		9.482	
			106/53	4.297	3.705		7.162	
		5825	26/8	9.799	9.518		12.812	
			52/40	4.080	3.903		7.144	
			106/54	3.828	3.644		6.888	

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

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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)	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-HE40	1	5190	242/61	4.229	3.599	N/A	6.936	11 dBm/MHz
	2A	5310	242/62	4.291	3.547		6.945	
	2C	5510	242/61	4.692	4.509		7.167	
		5670	242/62	4.577	4.052		7.333	

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-HE40	3 ^{Note2}	5755	242/61	1.609	1.134	N/A	4.388	30dBm/500 kHz
		5795	242/62	1.361	1.076		4.231	

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-HE80	1	5210	484/65	0.944	0.718	N/A	3.843	11 dBm/MHz
	2A	5290	484/66	-2.244	-2.414		0.682	
	2C	5530	484/65	0.599	0.419		3.520	
		5610	484/66	0.692	-0.101		3.324	

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-HE80	3 ^{Note2}	5775	484/65	-2.267	-2.847	N/A	0.463	30dBm/500 kHz
		5290	484/66	-2.671	-2.715		0.317	

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	-3.172	-3.232	N/A	-0.192	11 dBm/MHz
			996/S67	-5.226	-5.213		-2.209	
	2C	5570	996/67	-2.999	-3.393		-0.181	
			996/S67	-1.527	-2.663		0.952	

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

2. BWCF 6.99dB (100kHz converted to 500kHz) has been included in the test result.

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































