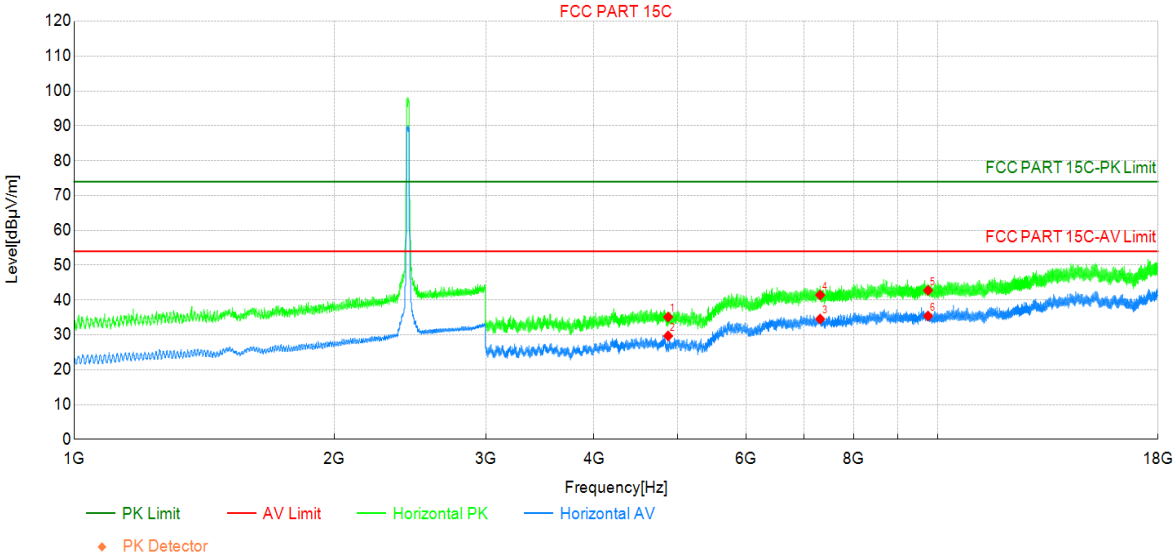
Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2437MHz by 802.11g	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



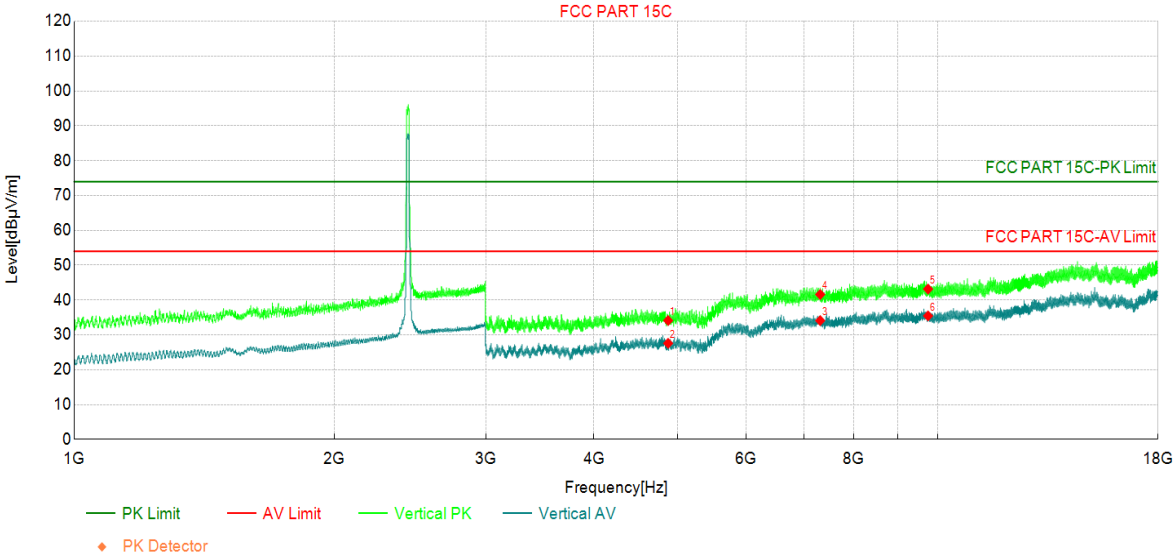
Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Det	Pol	Verdict
1	4874.00	41.20	35.12	-6.08	74.00	38.88	PK	Horizo	PASS
2	4874.00	35.76	29.68	-6.08	54.00	24.32	AV	Horizo	PASS
3	7311.00	31.68	34.55	2.87	54.00	19.45	AV	Horizo	PASS
4	7311.00	38.56	41.43	2.87	74.00	32.57	PK	Horizo	PASS
5	9748.00	36.59	42.75	6.16	74.00	31.25	PK	Horizo	PASS
6	9748.00	29.26	35.42	6.16	54.00	18.58	AV	Horizo	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2437MHz by 802.11g	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



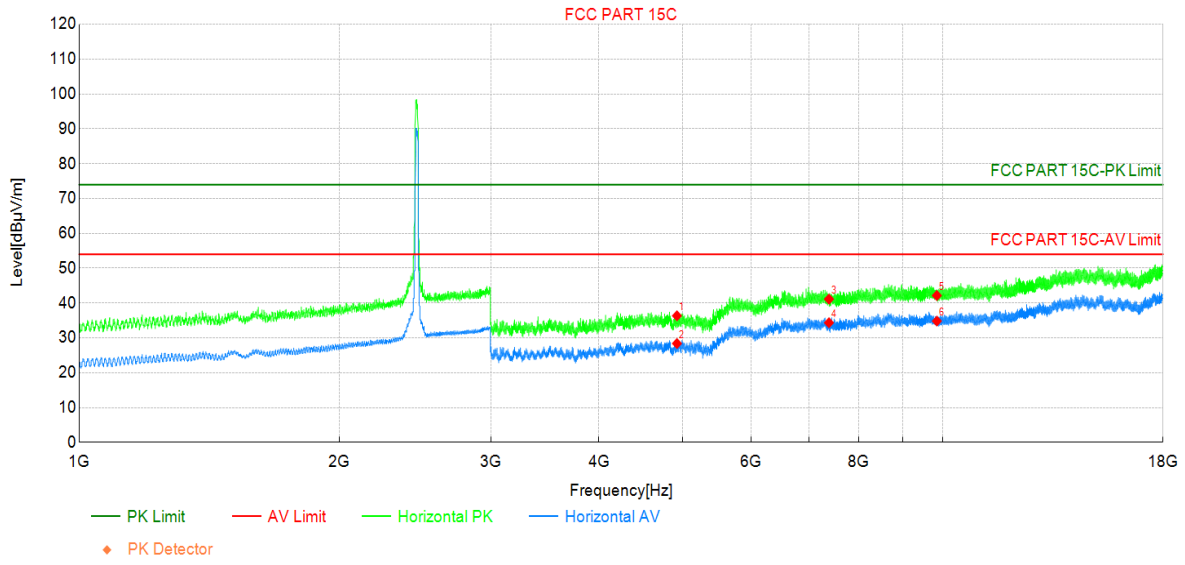
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	4874.00	40.19	34.11	-6.08	74.00	39.89	PK	Vertic	PASS
2	4874.00	33.65	27.57	-6.08	54.00	26.43	AV	Vertic	PASS
3	7311.00	31.22	34.09	2.87	54.00	19.91	AV	Vertic	PASS
4	7311.00	38.73	41.60	2.87	74.00	32.40	PK	Vertic	PASS
5	9748.00	36.99	43.15	6.16	74.00	30.85	PK	Vertic	PASS
6	9748.00	29.29	35.45	6.16	54.00	18.55	AV	Vertic	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2462MHz by 802.11g	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



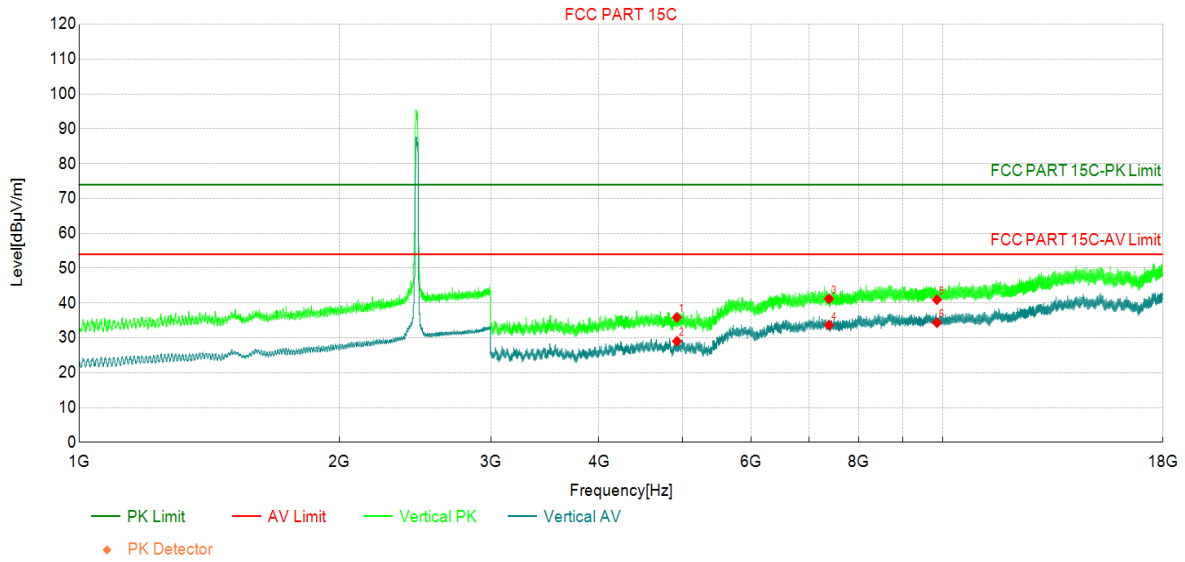
Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Det	Pol	Verdict
1	4924.00	42.09	36.33	-5.76	74.00	37.67	PK	Horizo	PASS
2	4924.00	34.14	28.38	-5.76	54.00	25.62	AV	Horizo	PASS
3	7386.00	38.83	41.13	2.30	74.00	32.87	PK	Horizo	PASS
4	7386.00	32.04	34.34	2.30	54.00	19.66	AV	Horizo	PASS
5	9848.00	36.35	42.15	5.80	74.00	31.85	PK	Horizo	PASS
6	9848.00	29.02	34.82	5.80	54.00	19.18	AV	Horizo	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode2:Transmit at 2462MHz by 802.11g	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



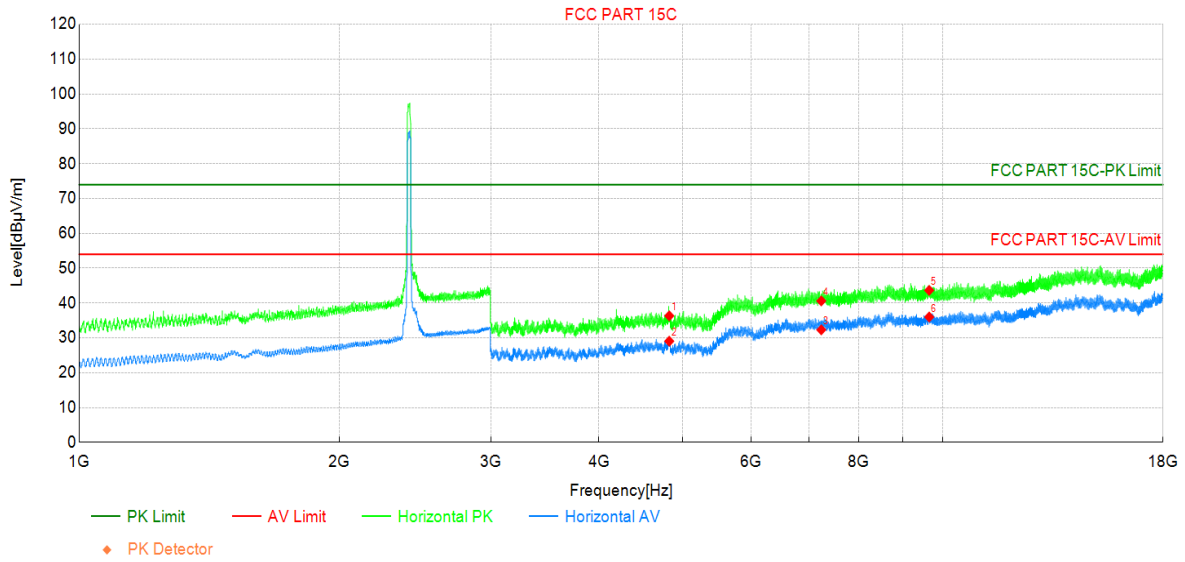
Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Det	Pol	Verdict
1	4924.00	41.64	35.88	-5.76	74.00	38.12	PK	Vertic	PASS
2	4924.00	34.77	29.01	-5.76	54.00	24.99	AV	Vertic	PASS
3	7386.00	38.91	41.21	2.30	74.00	32.79	PK	Vertic	PASS
4	7386.00	31.39	33.69	2.30	54.00	20.31	AV	Vertic	PASS
5	9848.00	35.17	40.97	5.80	74.00	33.03	PK	Vertic	PASS
6	9848.00	28.57	34.37	5.80	54.00	19.63	AV	Vertic	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2412MHz by 802.11n(20MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



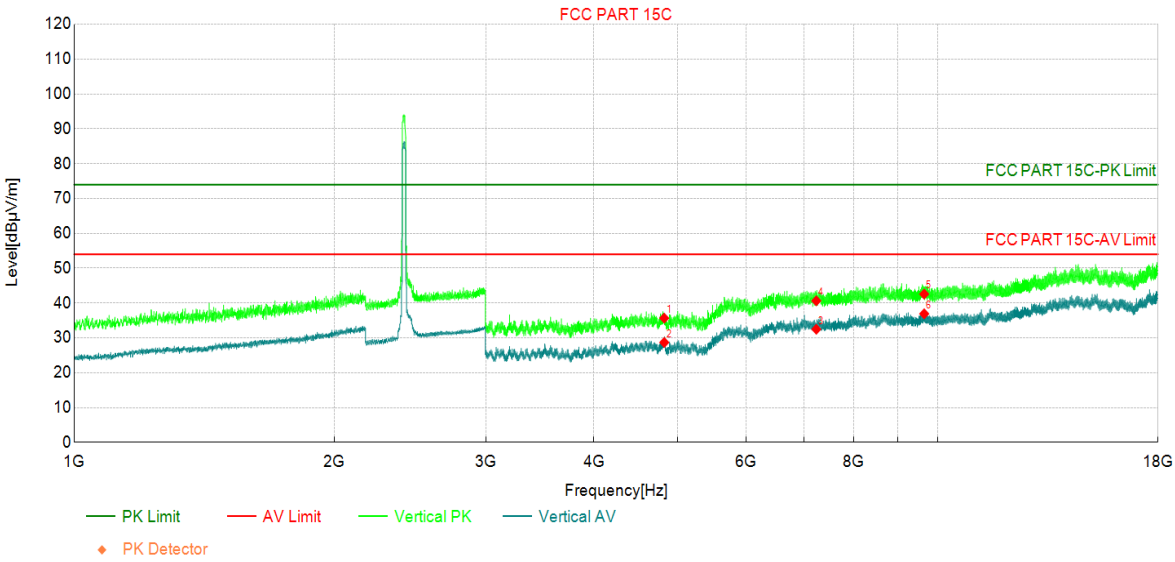
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	4824.00	42.36	36.32	-6.04	74.00	37.68	PK	Horizo	PASS
2	4824.00	35.08	29.04	-6.04	54.00	24.96	AV	Horizo	PASS
3	7236.00	29.33	32.30	2.97	54.00	21.70	AV	Horizo	PASS
4	7236.00	37.63	40.60	2.97	74.00	33.40	PK	Horizo	PASS
5	9648.00	37.55	43.63	6.08	74.00	30.37	PK	Horizo	PASS
6	9648.00	29.91	35.99	6.08	54.00	18.01	AV	Horizo	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2412MHz by 802.11n(20MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



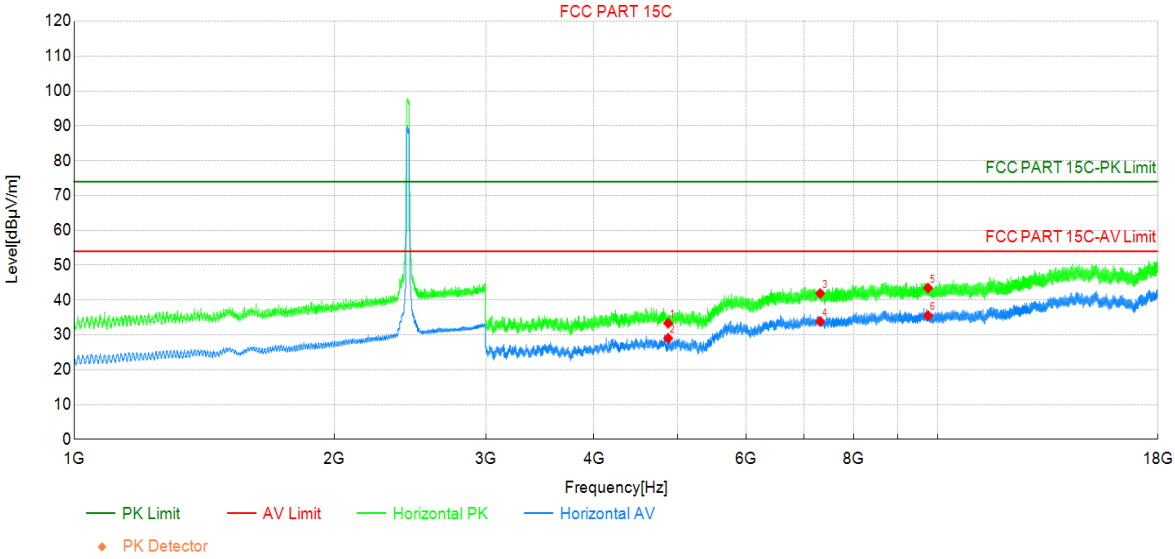
Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Det	Pol	Verdict
1	4824.00	41.69	35.65	-6.04	74.00	38.35	PK	Vertic	PASS
2	4824.00	34.72	28.68	-6.04	54.00	25.32	AV	Vertic	PASS
3	7236.00	29.50	32.47	2.97	54.00	21.53	AV	Vertic	PASS
4	7236.00	37.66	40.63	2.97	74.00	33.37	PK	Vertic	PASS
5	9648.00	36.49	42.57	6.08	74.00	31.43	PK	Vertic	PASS
6	9648.00	30.82	36.90	6.08	54.00	17.10	AV	Vertic	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2437MHz by 802.11n(20MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



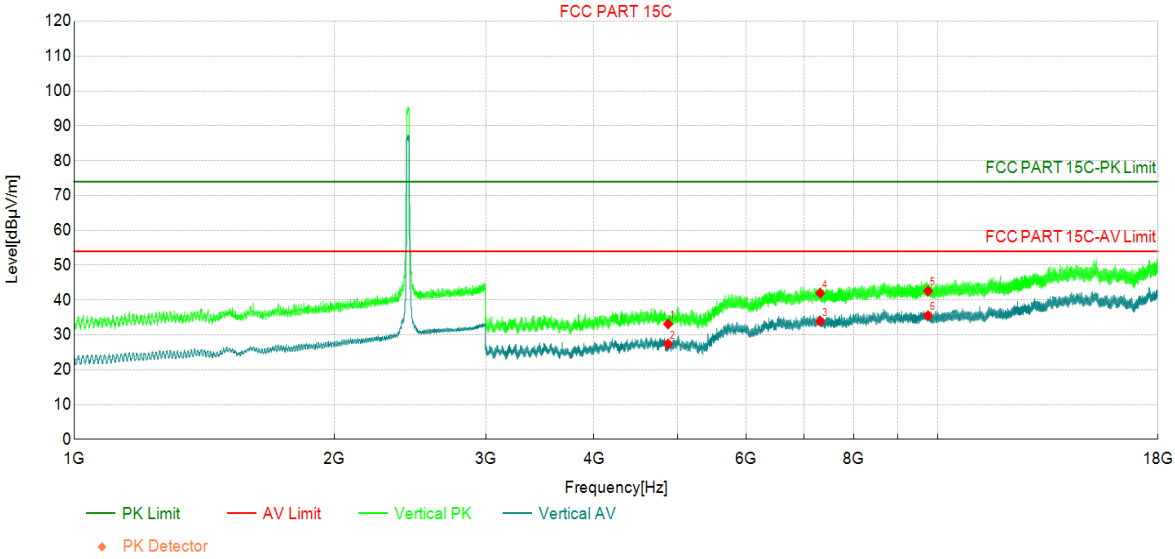
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	4874.00	39.42	33.34	-6.08	74.00	40.66	PK	Horizo	PASS
2	4874.00	35.11	29.03	-6.08	54.00	24.97	AV	Horizo	PASS
3	7311.00	38.99	41.86	2.87	74.00	32.14	PK	Horizo	PASS
4	7311.00	30.98	33.85	2.87	54.00	20.15	AV	Horizo	PASS
5	9748.00	37.27	43.43	6.16	74.00	30.57	PK	Horizo	PASS
6	9748.00	29.33	35.49	6.16	54.00	18.51	AV	Horizo	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2437MHz by 802.11n(20MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



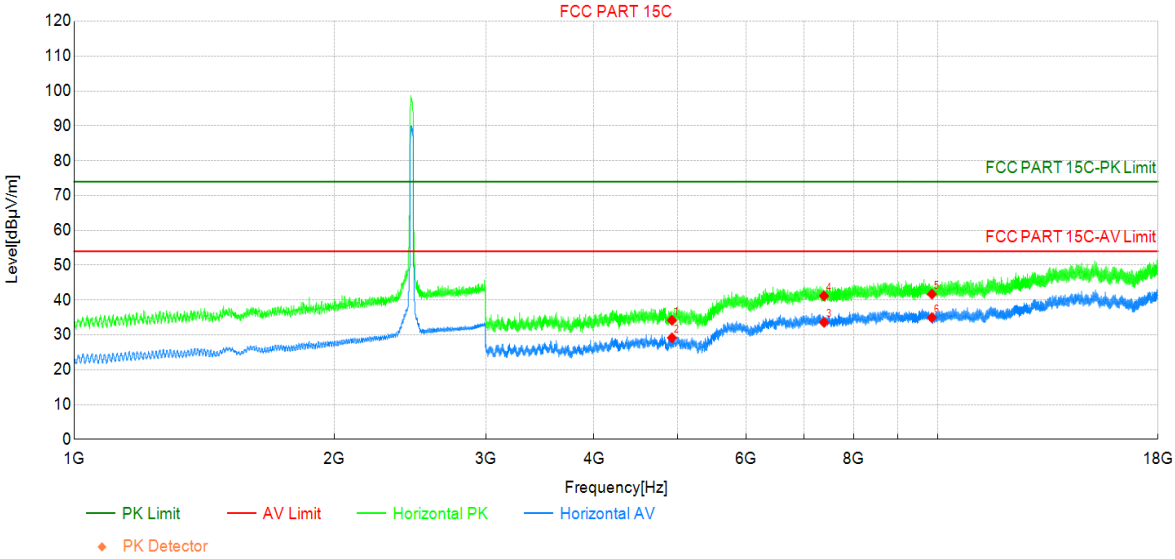
Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Det	Pol	Verdict
1	4874.00	39.21	33.13	-6.08	74.00	40.87	PK	Vertic	PASS
2	4874.00	33.48	27.40	-6.08	54.00	26.60	AV	Vertic	PASS
3	7311.00	31.06	33.93	2.87	54.00	20.07	AV	Vertic	PASS
4	7311.00	39.10	41.97	2.87	74.00	32.03	PK	Vertic	PASS
5	9748.00	36.42	42.58	6.16	74.00	31.42	PK	Vertic	PASS
6	9748.00	29.34	35.50	6.16	54.00	18.50	AV	Vertic	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2462MHz by 802.11n(20MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



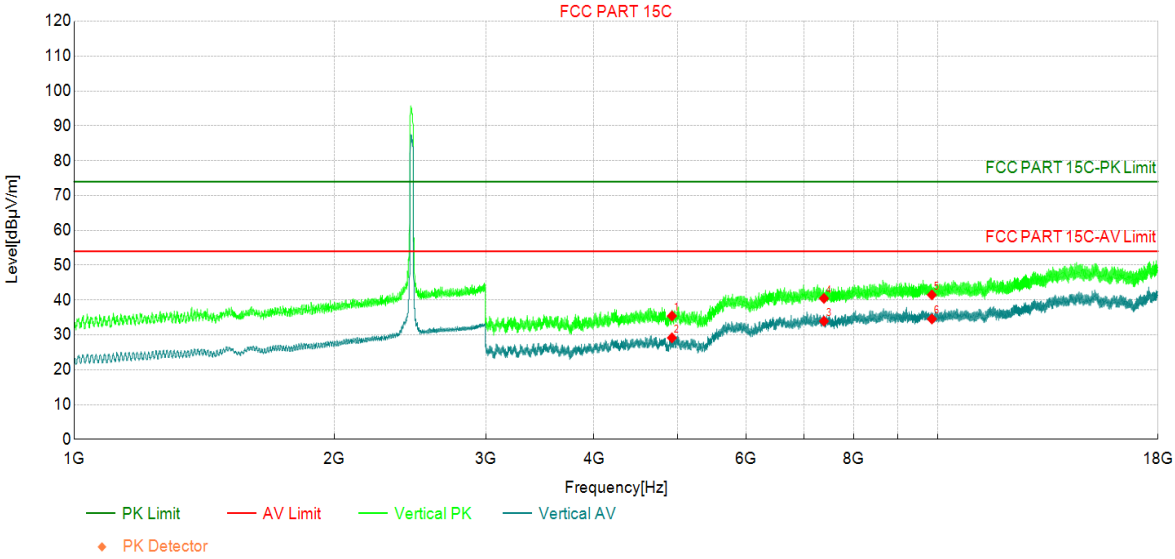
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	4924.00	39.94	34.18	-5.76	74.00	39.82	PK	Horizo	PASS
2	4924.00	34.90	29.14	-5.76	54.00	24.86	AV	Horizo	PASS
3	7386.00	31.30	33.60	2.30	54.00	20.40	AV	Horizo	PASS
4	7386.00	38.89	41.19	2.30	74.00	32.81	PK	Horizo	PASS
5	9848.00	35.89	41.69	5.80	74.00	32.31	PK	Horizo	PASS
6	9848.00	29.16	34.96	5.80	54.00	19.04	AV	Horizo	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode3:Transmit at 2462MHz by 802.11n(20MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



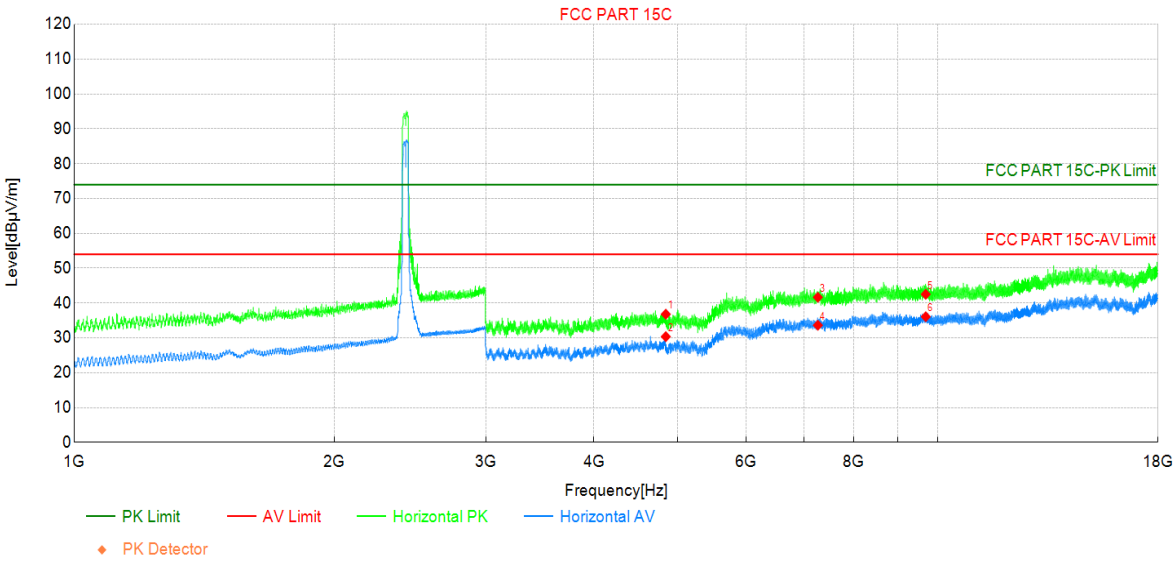
Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Det	Pol	Verdict
1	4924.00	41.19	35.43	-5.76	74.00	38.57	PK	Vertic	PASS
2	4924.00	34.89	29.13	-5.76	54.00	24.87	AV	Vertic	PASS
3	7386.00	31.63	33.93	2.30	54.00	20.07	AV	Vertic	PASS
4	7386.00	38.17	40.47	2.30	74.00	33.53	PK	Vertic	PASS
5	9848.00	35.67	41.47	5.80	74.00	32.53	PK	Vertic	PASS
6	9848.00	28.76	34.56	5.80	54.00	19.44	AV	Vertic	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2422MHz by 802.11n(40MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



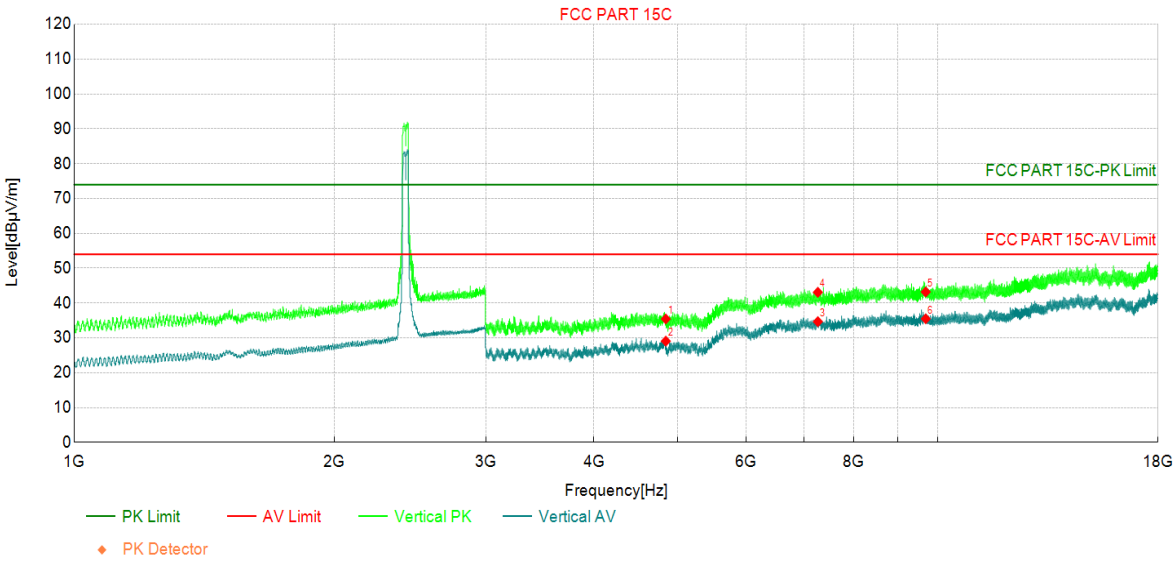
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	4844.00	42.85	36.79	-6.06	74.00	37.21	PK	Horizo	PASS
2	4844.00	36.41	30.35	-6.06	54.00	23.65	AV	Horizo	PASS
3	7266.00	38.69	41.65	2.96	74.00	32.35	PK	Horizo	PASS
4	7266.00	30.66	33.62	2.96	54.00	20.38	AV	Horizo	PASS
5	9688.00	36.29	42.51	6.22	74.00	31.49	PK	Horizo	PASS
6	9688.00	29.84	36.06	6.22	54.00	17.94	AV	Horizo	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2422MHz by 802.11n(40MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



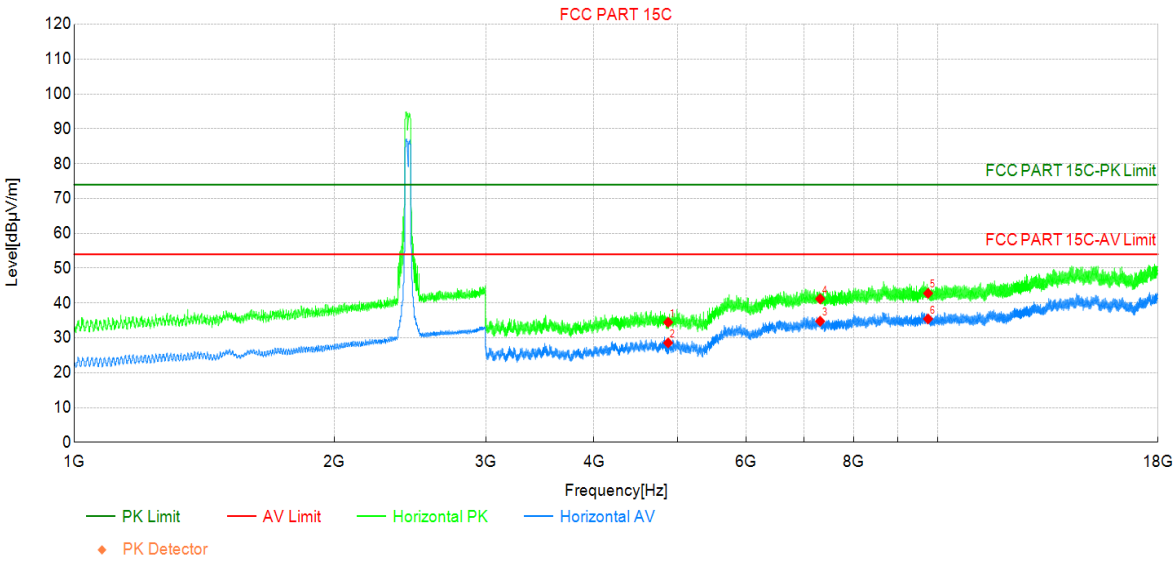
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	4844.00	41.48	35.42	-6.06	74.00	38.58	PK	Vertic	PASS
2	4844.00	35.11	29.05	-6.06	54.00	24.95	AV	Vertic	PASS
3	7266.00	31.70	34.66	2.96	54.00	19.34	AV	Vertic	PASS
4	7266.00	40.12	43.08	2.96	74.00	30.92	PK	Vertic	PASS
5	9688.00	36.96	43.18	6.22	74.00	30.82	PK	Vertic	PASS
6	9688.00	29.25	35.47	6.22	54.00	18.53	AV	Vertic	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2437MHz by 802.11n(40MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



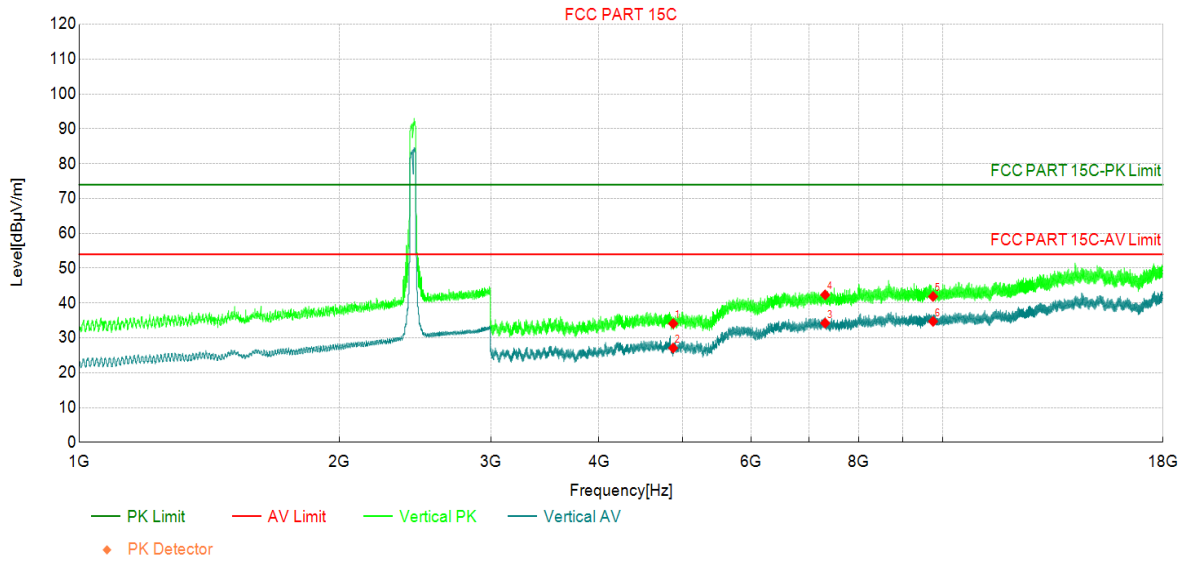
Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Det	Pol	Verdict
1	4874.00	40.55	34.47	-6.08	74.00	39.53	PK	Horizo	PASS
2	4874.00	34.63	28.55	-6.08	54.00	25.45	AV	Horizo	PASS
3	7311.00	31.90	34.77	2.87	54.00	19.23	AV	Horizo	PASS
4	7311.00	38.32	41.19	2.87	74.00	32.81	PK	Horizo	PASS
5	9748.00	36.63	42.79	6.16	74.00	31.21	PK	Horizo	PASS
6	9748.00	29.28	35.44	6.16	54.00	18.56	AV	Horizo	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2437MHz by 802.11n(40MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



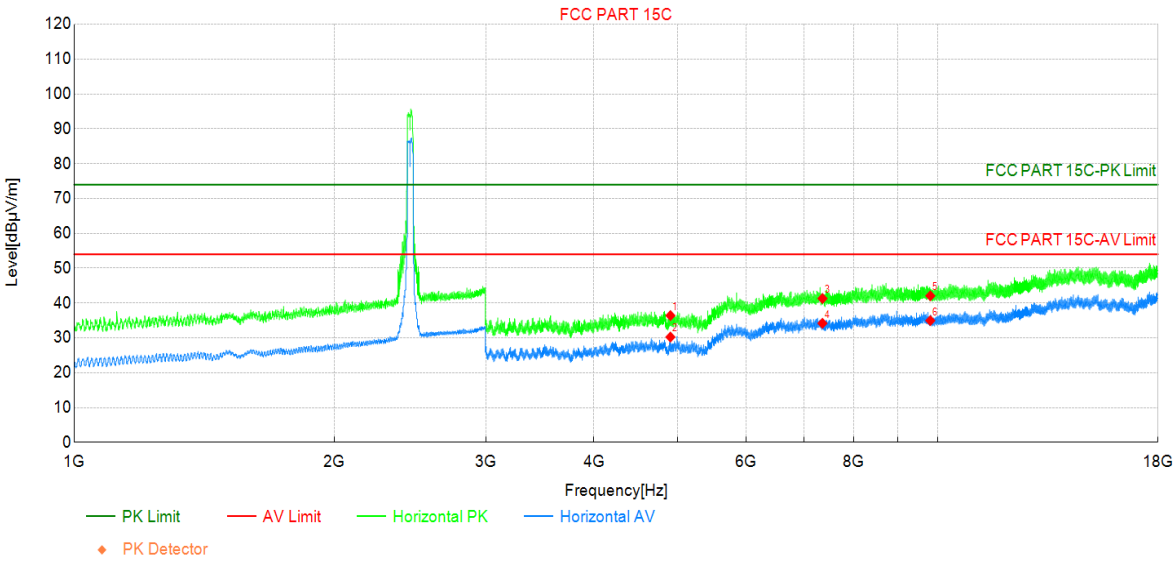
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	4874.00	40.17	34.09	-6.08	74.00	39.91	PK	Vertic	PASS
2	4874.00	33.17	27.09	-6.08	54.00	26.91	AV	Vertic	PASS
3	7311.00	31.36	34.23	2.87	54.00	19.77	AV	Vertic	PASS
4	7311.00	39.48	42.35	2.87	74.00	31.65	PK	Vertic	PASS
5	9748.00	35.72	41.88	6.16	74.00	32.12	PK	Vertic	PASS
6	9748.00	28.56	34.72	6.16	54.00	19.28	AV	Vertic	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2452MHz by 802.11n(40MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph



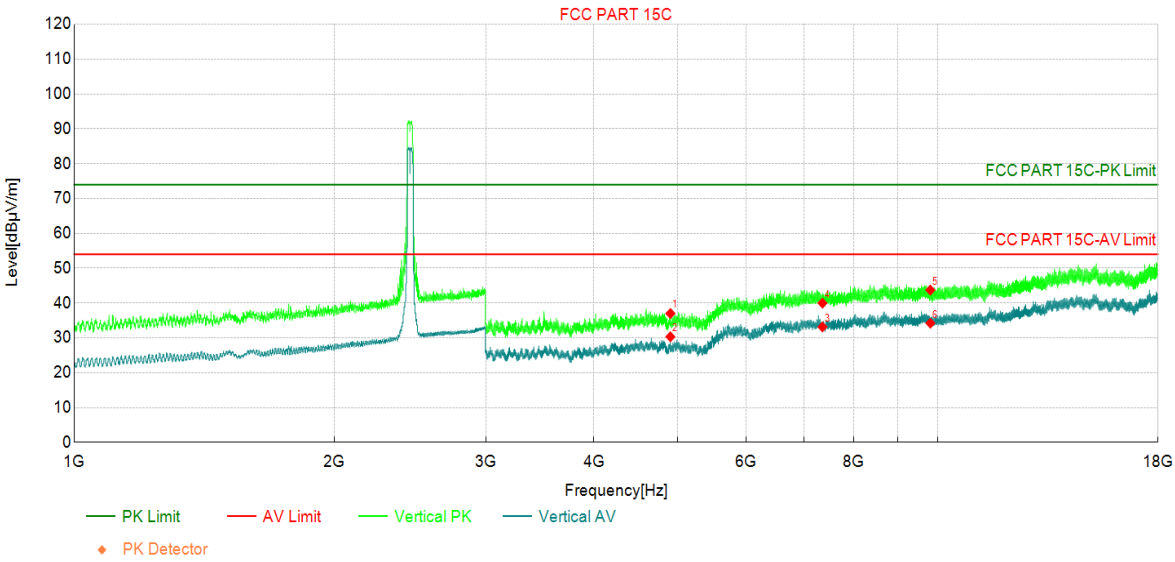
Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	4904.00	42.42	36.39	-6.03	74.00	37.61	PK	Horizo	PASS
2	4904.00	36.26	30.23	-6.03	54.00	23.77	AV	Horizo	PASS
3	7356.00	38.77	41.30	2.53	74.00	32.70	PK	Horizo	PASS
4	7356.00	31.65	34.18	2.53	54.00	19.82	AV	Horizo	PASS
5	9808.00	36.06	42.06	6.00	74.00	31.94	PK	Horizo	PASS
6	9808.00	28.95	34.95	6.00	54.00	19.05	AV	Horizo	PASS

Test Report

Project Information			
Profile:	2520983R	EUT:	Smart Controller
Mode:	Mode4:Transmit at 2452MHz by 802.11n(40MHz)	Volta	120 Vac / 60 Hz
Environment:	Temp: 25℃; Humi:60%	Engi	Reyn Chen
Test Standard:	FCC PART 15C		

Test Graph

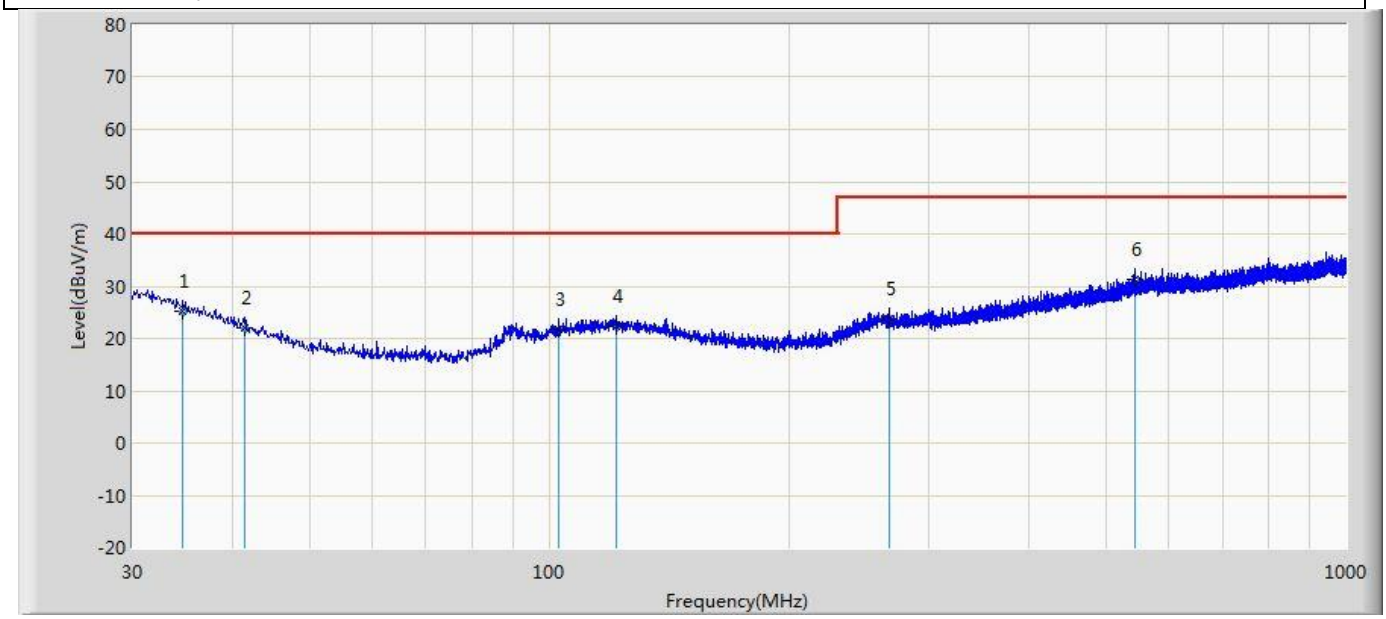


Suspected Data List

NO.	Frequency [MHz]	Reading [dBμV]	Level [dBμV/m]	Factor [dB/m]	Limit [dBμV/m]	Margin [dB]	Det	Pol	Verdict
1	4904.00	43.03	37.00	-6.03	74.00	37.00	PK	Vertic	PASS
2	4904.00	36.35	30.32	-6.03	54.00	23.68	AV	Vertic	PASS
3	7356.00	30.61	33.14	2.53	54.00	20.86	AV	Vertic	PASS
4	7356.00	37.44	39.97	2.53	74.00	34.03	PK	Vertic	PASS
5	9808.00	37.72	43.72	6.00	74.00	30.28	PK	Vertic	PASS
6	9808.00	28.21	34.21	6.00	54.00	19.79	AV	Vertic	PASS

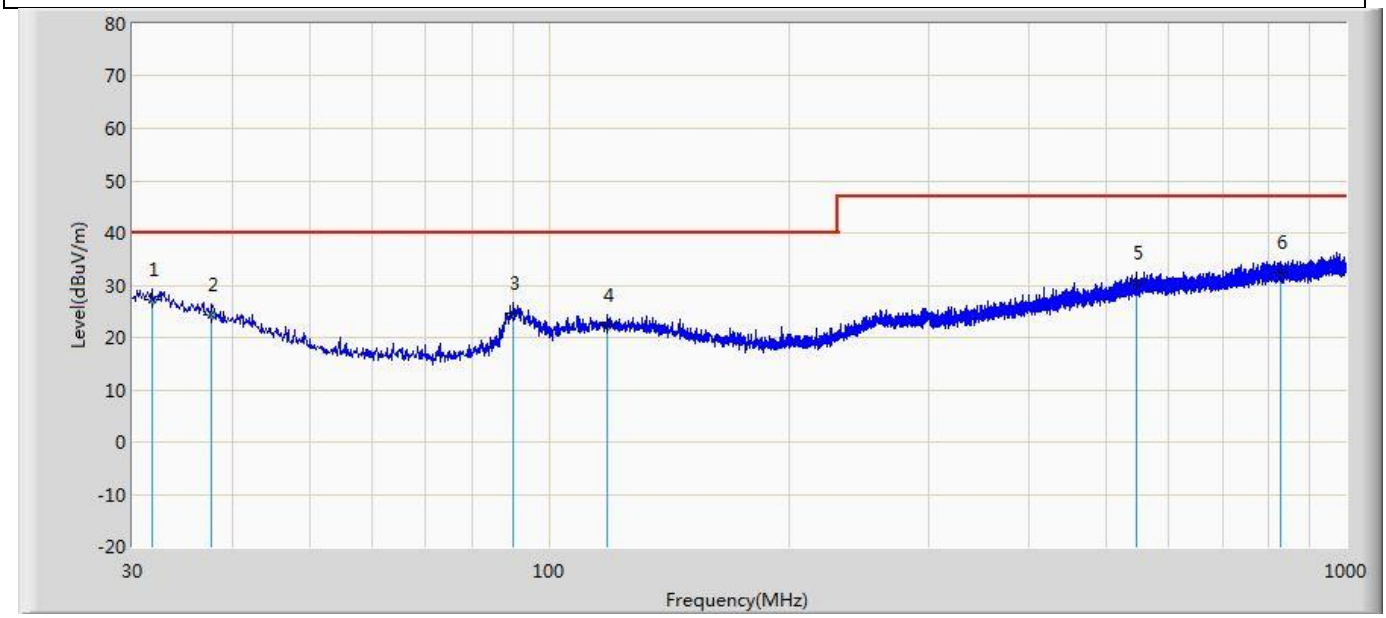
The worst case of Radiated Emission below 1GHz :

Profile: 2520983R	Page No.: 3
Engineer: Yuliu	
Site: AC2	Time: 2025/03/26
Limit: EN 55032_RE (3m)_Class B	Margin: 0
Probe: CBL6112D_27613(30-1000MHz)	Polarity: Horizontal
EUT: Smart Controller	Power: 120 Vac / 60 Hz
Note: Transmit by 802.11b	



No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	34.729	25.202	2.662	-14.798	40.000	22.540	QP
2		41.519	21.966	3.142	-18.034	40.000	18.824	QP
3		102.750	21.639	3.127	-18.361	40.000	18.512	QP
4		121.665	22.232	2.793	-17.768	40.000	19.439	QP
5		266.801	23.853	3.264	-23.147	47.000	20.589	QP
6		543.979	31.306	4.313	-15.694	47.000	26.994	QP

Profile: 2520983R	Page No.: 4
Engineer: Yuliu	
Site: AC2	Time: 2025/03/26
Limit: EN 55032_RE (3m)_Class B	Margin: 0
Probe: CBL6112D_27613(30-1000MHz)	Polarity: Vertical
EUT: Smart Controller	Power: 120 Vac / 60 Hz
Note: Transmit by 802.11b	



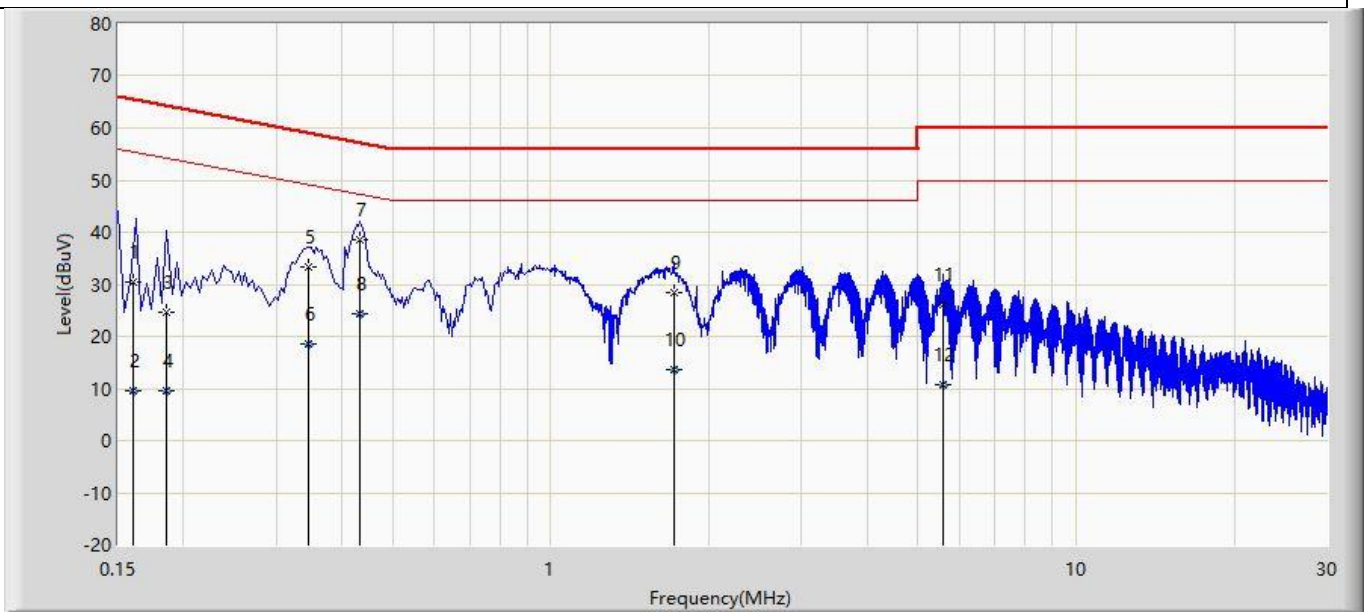
No	Mark	Frequency (MHz)	Measure Level (dBuV/m)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV/m)	Factor (dB)	Type
1	*	31.698	27.296	3.163	-12.704	40.000	24.134	QP
2		37.760	24.354	3.510	-15.646	40.000	20.844	QP
3		90.261	24.593	8.524	-15.407	40.000	16.070	QP
4		118.391	22.304	2.874	-17.696	40.000	19.429	QP
5		545.312	30.326	3.292	-16.674	47.000	27.034	QP
6		829.037	32.545	3.236	-14.455	47.000	29.308	QP

Note:

1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp)
3. The test frequency range, 9kHz~30MHz, worst case are at least 20dB below the limits, therefore no data appear in the report.
4. If the test result on peak is lower than average limit, then average measurement needn't be performed.
5. All test data above 18GHz are noise base, so no data shown in this report.
6. In the report, below 1G, only the verification test is carried out for the worst channel of 1~18G worst mode.
7. The below 1G test data was measured on the worst-case configuration selected from each transmission mode on the low and high channel.

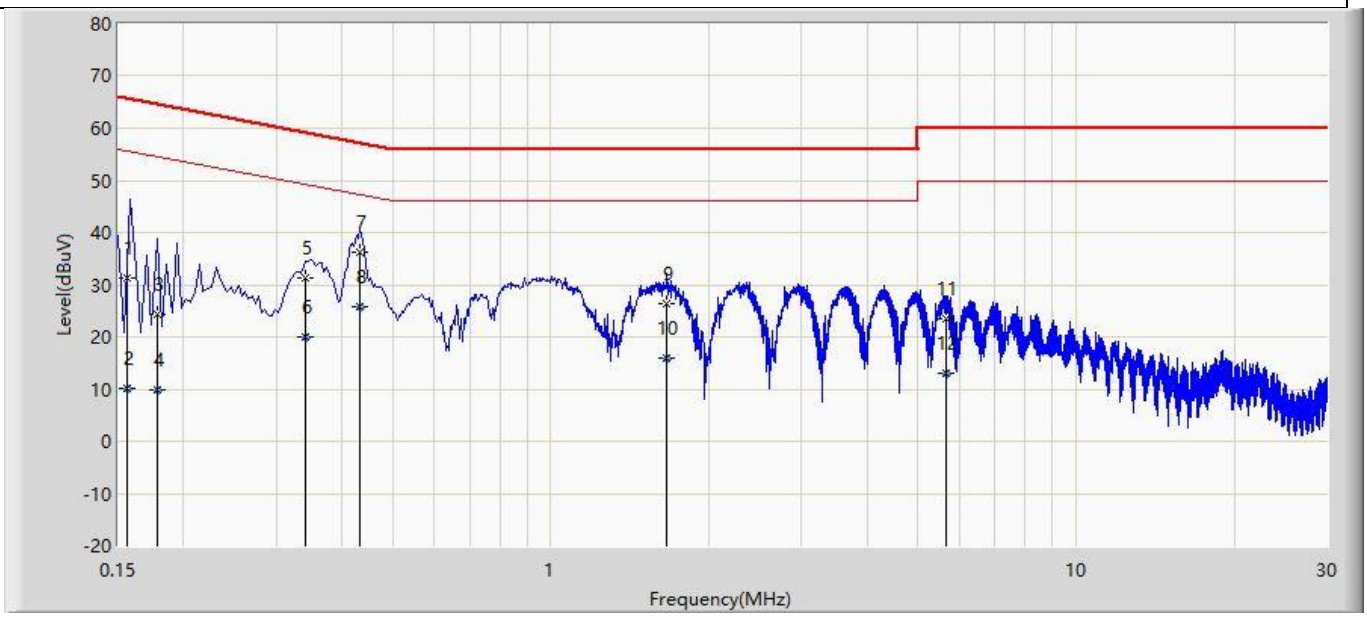
Appendix H: AC Power Line Conducted Emission

Profile: 2520983R	Page No.: 5
Engineer: Yu Liu	
Site: TR1	Time: 2025/03/26
Limit: FCC_Part 15.207	Margin: 0
Probe: ENV216_101189(0.009-30MHz)	Polarity: Line
EUT: Smart Controller	Power: 120 Vac / 60 Hz
Note: Transmit by 802.11b	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.160	30.388	20.683	-35.061	65.449	9.705	QP
2		0.160	9.613	-0.093	-45.836	55.449	9.705	AV
3		0.186	24.736	15.039	-39.478	64.213	9.696	QP
4		0.186	9.607	-0.089	-44.606	54.213	9.696	AV
5		0.346	33.382	23.663	-25.676	59.058	9.719	QP
6		0.346	18.641	8.922	-30.417	49.058	9.719	AV
7	*	0.434	38.426	28.691	-18.750	57.176	9.736	QP
8		0.434	24.401	14.666	-22.775	47.176	9.736	AV
9		1.714	28.266	18.476	-27.734	56.000	9.790	QP
10		1.714	13.597	3.808	-32.403	46.000	9.790	AV
11		5.582	26.071	16.204	-33.929	60.000	9.867	QP
12		5.582	10.777	0.910	-39.223	50.000	9.867	AV

Profile: 2520983R	Page No.: 6
Engineer: Yu Liu	
Site: TR1	Time: 2025/03/26
Limit: FCC_Part 15.207	Margin: 0
Probe: ENV216_101189(0.009-30MHz)	Polarity: Neutral
EUT: Smart Controller	Power: 120 Vac / 60 Hz
Note: Transmit by 802.11b	



No	Mark	Frequency (MHz)	Measure Level (dBuV)	Reading Level (dBuV)	Over Limit (dB)	Limit (dBuV)	Factor (dB)	Type
1		0.156	31.175	21.446	-34.481	65.656	9.728	QP
2		0.156	10.201	0.472	-45.455	55.656	9.728	AV
3		0.178	24.309	14.602	-40.270	64.578	9.707	QP
4		0.178	9.887	0.180	-44.692	54.578	9.707	AV
5		0.342	31.173	21.513	-27.981	59.155	9.660	QP
6		0.342	20.029	10.369	-29.125	49.155	9.660	AV
7	*	0.434	36.184	26.537	-20.992	57.176	9.647	QP
8		0.434	25.927	16.280	-21.249	47.176	9.647	AV
9		1.662	26.433	16.699	-29.567	56.000	9.734	QP
10		1.662	15.951	6.217	-30.049	46.000	9.734	AV
11		5.646	23.533	13.658	-36.467	60.000	9.875	QP
12		5.646	13.100	3.225	-36.900	50.000	9.875	AV

Note:
1. " * ", means this data is the worst emission level.
2. Measurement Level = Reading Level + Factor(Probe+Cable-Amp).

The End