

Radiated Emission test (below 1GHz)

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-13

Tested By: Liaowanrong

EUT: Smart Lock

Model Number: KA341

Test Mode: TX Mode

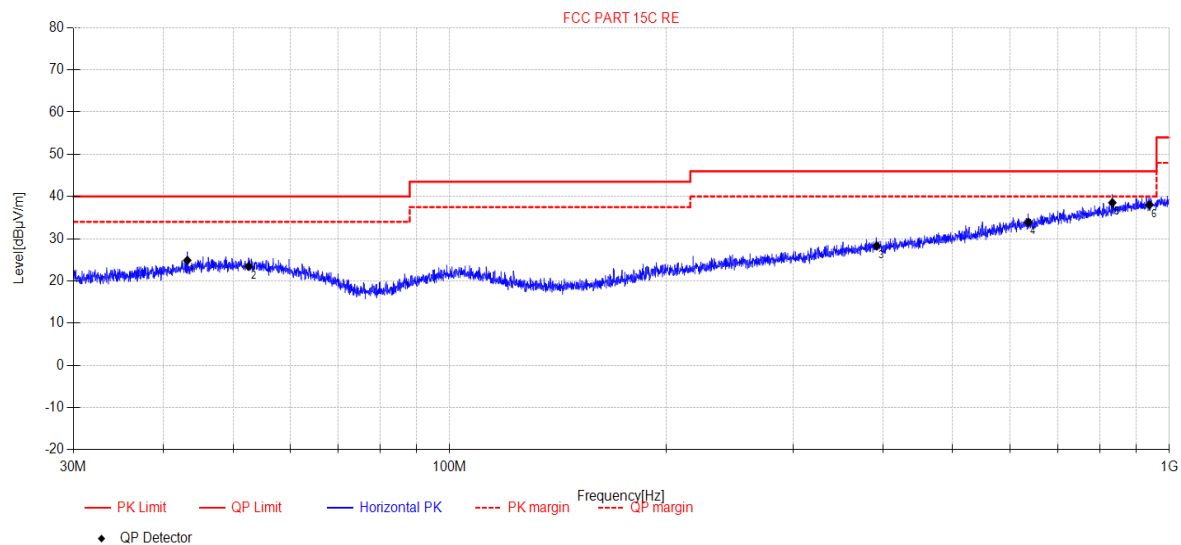
Power Supply: Battery

Condition: Temp:24.8°C;Humi:59.2%

Test Site: DDT 3# Chamber

File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC BELOW 1G\20230718-185254_H

Memo: 2.4GWIFI

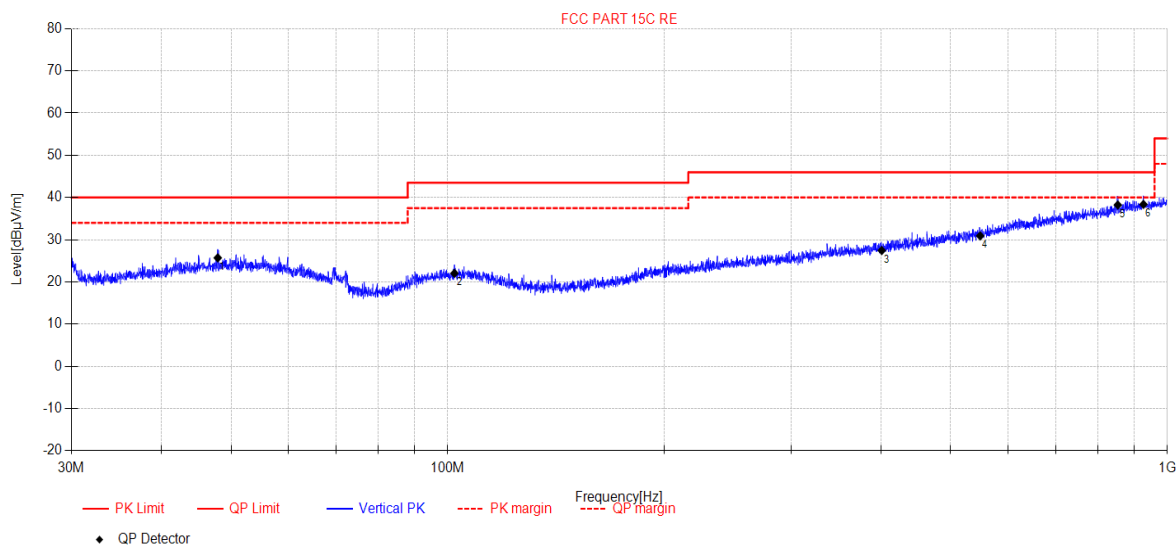


Final Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable Loss [dB]	AMP [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	43.20	7.5	12.74	4.64	0.00	24.88	40.00	15.12	QP	Horizontal
2	52.57	5.76	12.94	4.74	0.00	23.44	40.00	16.56	QP	Horizontal
3	392.17	6.39	15.24	6.66	0.00	28.29	46.00	17.71	QP	Horizontal
4	637.08	7.33	19.10	7.49	0.00	33.92	46.00	12.08	QP	Horizontal
5	833.35	8.78	21.67	8.10	0.00	38.55	46.00	7.45	QP	Horizontal
6	938.19	6.94	22.60	8.47	0.00	38.01	46.00	7.99	QP	Horizontal

Note:

1. Result Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

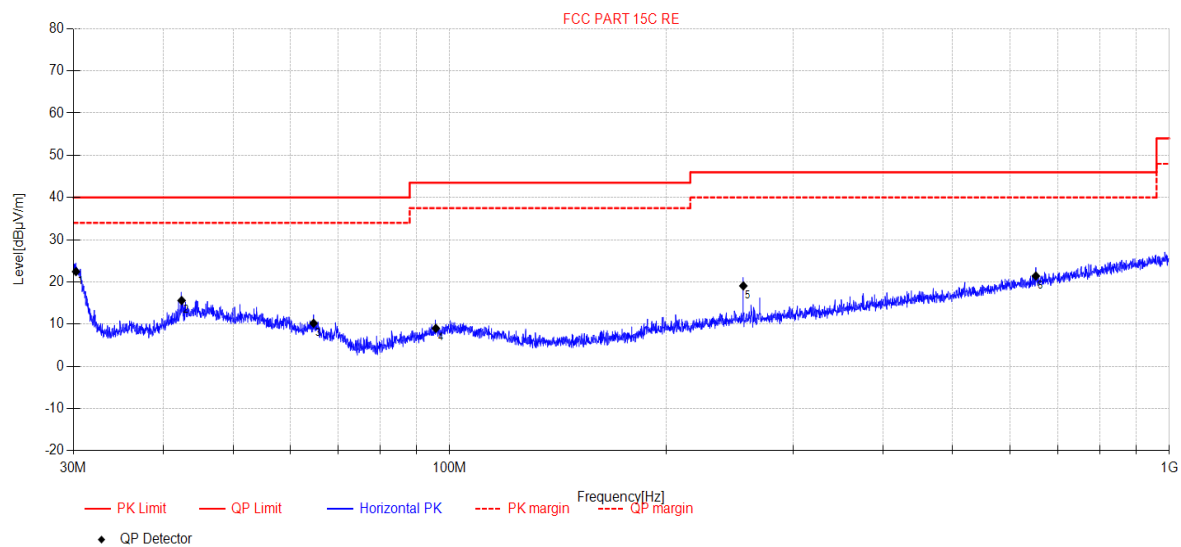
Test Date: 2023-06-13**Tested By:** Liaowanrong**EUT:** Smart Lock**Model Number:** KA341**Test Mode:** TX Mode**Power Supply:** Battery**Condition:** Temp:24.8°C;Humi:59.2%**Test Site:** DDT 3# Chamber**File Path:** d:\ts\2023 report data\Q23052517-2E KA342\FCC BELOW 1G\20230718-185338_V**Memo:** 2.4GWIFI

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable Loss [dB]	AMP [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	47.92	7.8	13.20	4.70	0.00	25.70	40.00	14.30	QP	Vertical
2	102.19	5.96	11.00	5.08	0.00	22.04	43.50	21.46	QP	Vertical
3	401.07	5.33	15.42	6.70	0.00	27.45	46.00	18.55	QP	Vertical
4	549.47	5.99	17.79	7.13	0.00	30.91	46.00	15.09	QP	Vertical
5	853.45	8.09	21.97	8.17	0.00	38.23	46.00	7.77	QP	Vertical
6	926.42	7.44	22.50	8.43	0.00	38.37	46.00	7.63	QP	Vertical

Note:

- Result Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
- Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

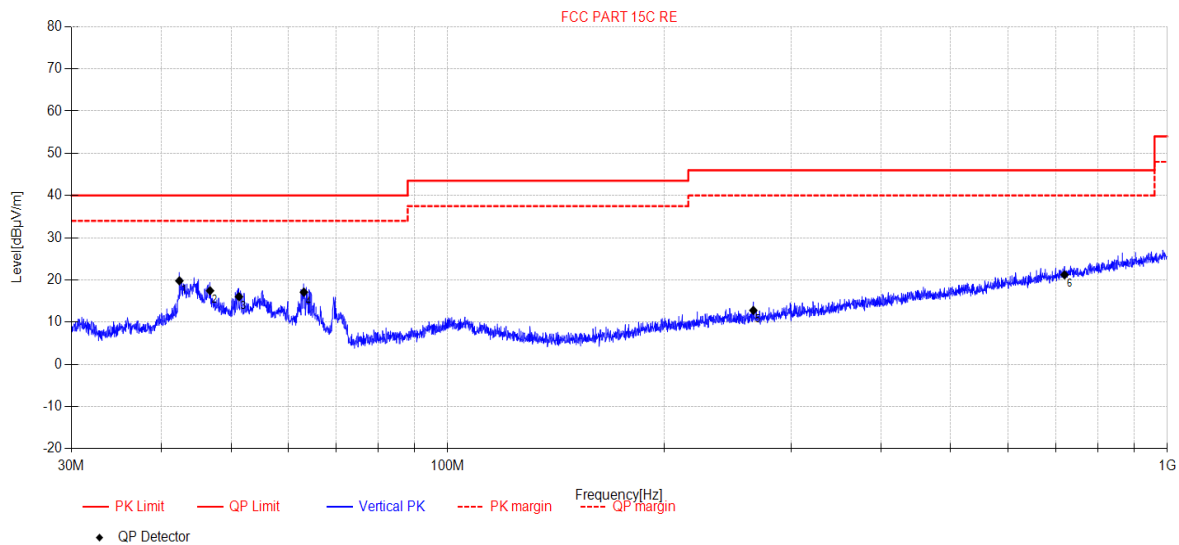
Test Date: 2023-06-12**Tested By:** Liaowanrong**EUT:** Smart Lock**Model Number:** KA342**Test Mode:** TX Mode**Power Supply:** Battery**Condition:** Temp:24.8°C;Humi:59.2%**Test Site:** DDT 3# Chamber**File Path:** d:\ts\2023 report data\Q23052517-2E KA342\FCC BELOW 1G\20230612-101251_H**Memo:** 2.4GWIFI

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable Loss [dB]	AMP [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	30.25	40.03	10.23	4.47	-32.29	22.44	40.00	17.56	QP	Horizontal
2	42.42	30.66	12.58	4.63	-32.28	15.59	40.00	24.41	QP	Horizontal
3	64.69	27.01	10.69	4.77	-32.27	10.20	40.00	29.80	QP	Horizontal
4	95.67	25.79	10.43	5.02	-32.24	9.00	43.50	34.50	QP	Horizontal
5	255.87	32.92	12.42	5.96	-32.23	19.07	46.00	26.93	QP	Horizontal
6	652.45	27.38	19.25	7.56	-32.79	21.40	46.00	24.60	QP	Horizontal

Note:

1. Result Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-12**Tested By:** Liaowanrong**EUT:** Smart Lock**Model Number:** KA342**Test Mode:** TX Mode**Power Supply:** Battery**Condition:** Temp:24.8°C;Humi:59.2%**Test Site:** DDT 3# Chamber**File Path:** d:\ts\2023 report data\Q23052517-2E KA342\FCC BELOW 1G\20230612-101336_V**Memo:** 2.4GWIFI

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV/m]	Antenna Factor [dB]	Cable Loss [dB]	AMP [dB]	Result [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	42.39	34.87	12.58	4.63	-32.28	19.80	40.00	20.20	QP	Vertical
2	46.76	31.85	13.18	4.69	-32.28	17.44	40.00	22.56	QP	Vertical
3	51.30	30.5	13.07	4.73	-32.28	16.02	40.00	23.98	QP	Vertical
4	63.13	33.53	11.07	4.77	-32.27	17.10	40.00	22.90	QP	Vertical
5	265.93	26.4	12.62	6.01	-32.25	12.78	46.00	33.22	QP	Vertical
6	719.75	25.95	20.30	7.80	-32.84	21.21	46.00	24.79	QP	Vertical

Note:

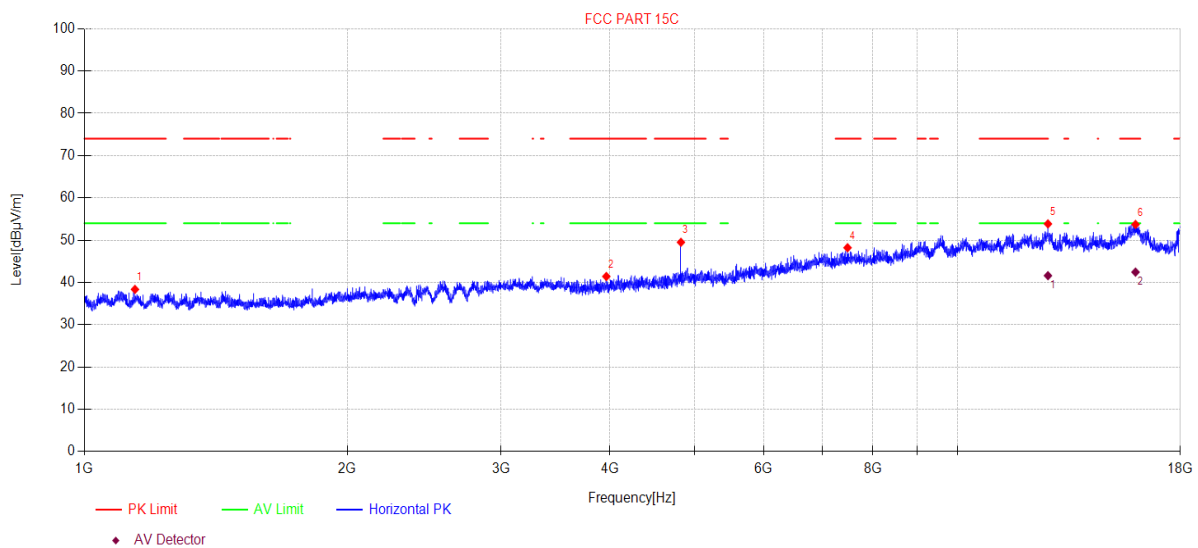
1. Result Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

Radiated Emission test (above 1GHz)

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-09 **Tested By:** Liaowanrong
EUT: Smart Lock **Model Number:** KA342
Test Mode: TX Mode **Power Supply:** Battery
Condition: Temp:25.8°C;Humi:57.2% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\35
Memo: 11B 2412

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	1142.85	48.48	2.70	25.59	-38.41	38.36	74.00	35.64	PK	Horizontal
2	3961.20	47.16	5.01	30.62	-41.38	41.41	74.00	32.59	PK	Horizontal
3	4822.83	52.83	5.43	32.39	-41.15	49.50	74.00	24.50	PK	Horizontal
4	7483.15	46.13	6.65	36.43	-41.00	48.21	74.00	25.79	PK	Horizontal
5	12695.53	44.45	9.61	39.39	-39.60	53.85	74.00	20.15	PK	Horizontal
6	15993.26	41.30	14.90	37.91	-40.40	53.71	74.00	20.29	PK	Horizontal

Final Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	12695.53	32.21	9.61	39.39	-39.60	41.61	54.00	12.39	AV	Horizontal
2	15993.26	30.03	14.90	37.91	-40.40	42.44	54.00	11.56	AV	Horizontal

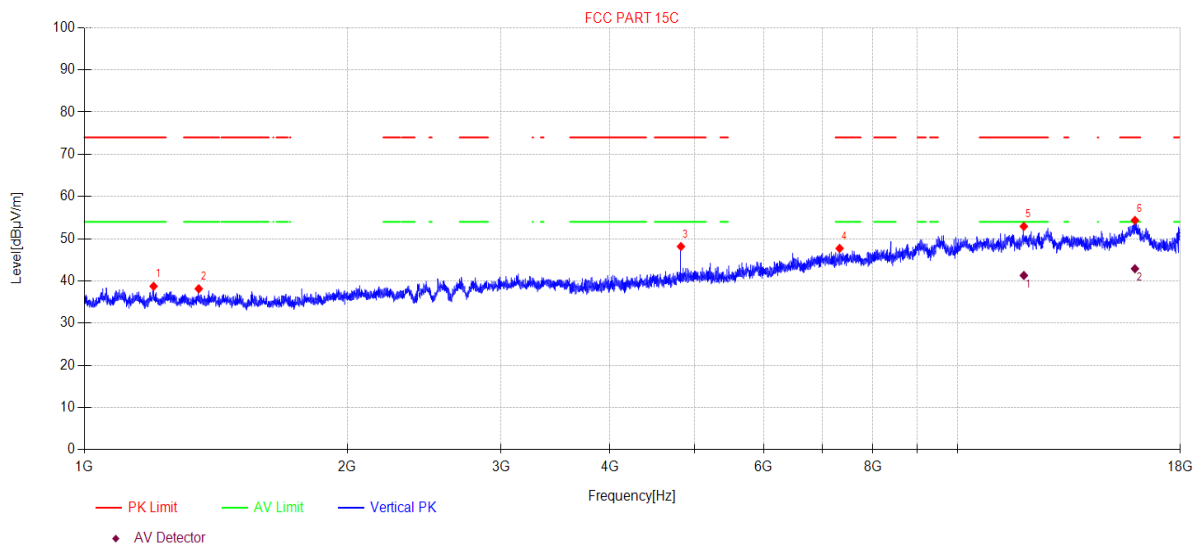
Note:

- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-09 **Tested By:** Liaowanrong
EUT: Smart Lock **Model Number:** KA342
Test Mode: TX Mode **Power Supply:** Battery
Condition: Temp:25.8°C;Humi:57.2% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\36
Memo: 11B 2412

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	1200.40	48.87	2.76	25.60	-38.50	38.73	74.00	35.27	PK	Vertical
2	1352.19	48.35	2.92	25.60	-38.73	38.14	74.00	35.86	PK	Vertical
3	4822.83	51.49	5.43	32.39	-41.15	48.16	74.00	25.84	PK	Vertical
4	7329.04	45.57	6.63	36.50	-41.00	47.70	74.00	26.30	PK	Vertical
5	11913.45	43.73	9.42	38.81	-39.04	52.92	74.00	21.08	PK	Vertical
6	15970.17	41.98	14.79	37.96	-40.38	54.35	74.00	19.65	PK	Vertical

Final Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	11913.45	32.10	9.42	38.81	-39.04	41.29	54.00	12.71	AV	Vertical
2	15970.17	30.52	14.79	37.96	-40.38	42.89	54.00	11.11	AV	Vertical

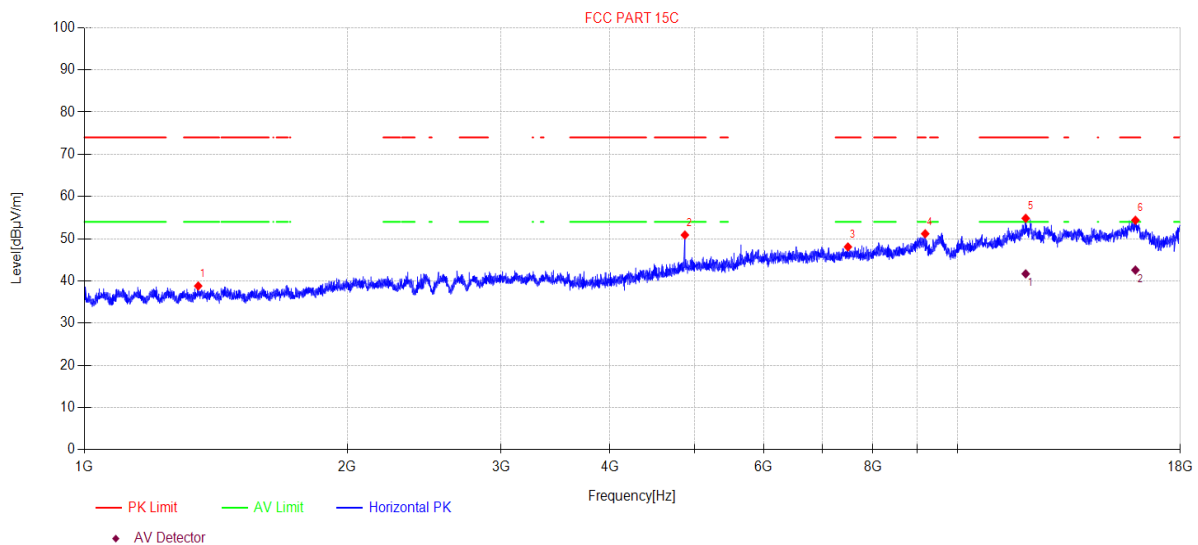
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-19 **Tested By:** Bairong
EUT: Smart Lock **Model Number:** KA342
Test Mode: TX Mode **Power Supply:** Battery
Condition: Temp:25.8°C;Humi:57.2% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\41
Memo: 11B 2437

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	1350.24	47.92	4.02	25.60	-38.73	38.81	74.00	35.19	PK	Horizontal
2	4873.27	51.86	7.61	32.55	-41.14	50.88	74.00	23.12	PK	Horizontal
3	7491.80	45.01	7.64	36.42	-41.00	48.07	74.00	25.93	PK	Horizontal
4	9184.90	43.73	8.77	38.30	-39.62	51.18	74.00	22.82	PK	Horizontal
5	11972.13	44.38	10.52	38.87	-38.94	54.83	74.00	19.17	PK	Horizontal
6	15988.64	41.01	15.83	37.92	-40.39	54.37	74.00	19.63	PK	Horizontal

Final Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	11972.13	31.23	10.52	38.87	-38.94	41.68	54.00	12.32	AV	Horizontal
2	15988.64	29.22	15.83	37.92	-40.39	42.58	54.00	11.42	AV	Horizontal

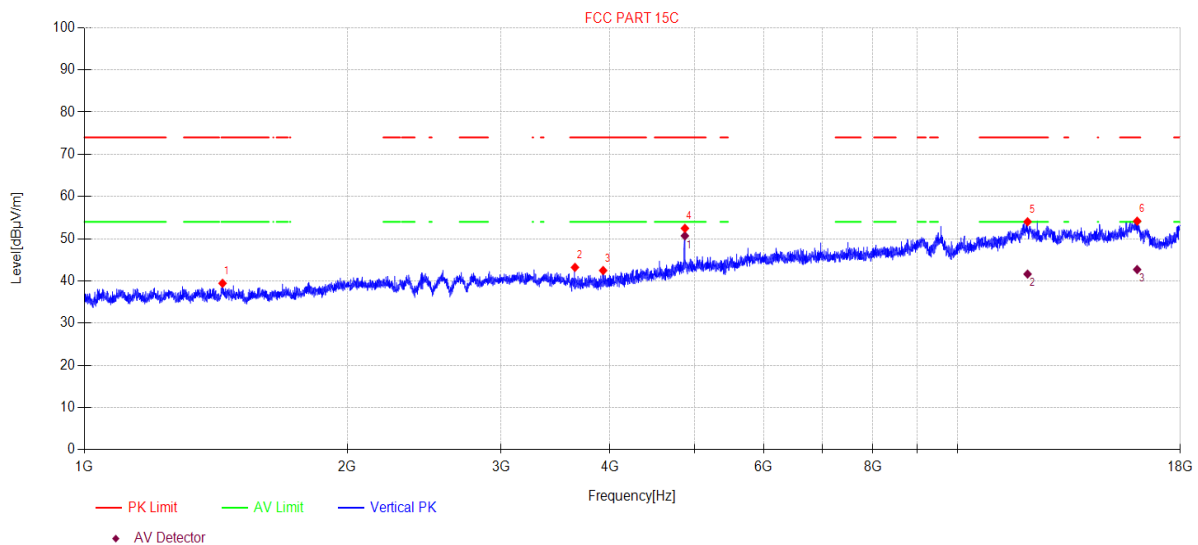
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-19 **Tested By:** Bairong
EUT: Smart Lock **Model Number:** KA342
Test Mode: TX Mode **Power Supply:** Battery
Condition: Temp:25.8°C;Humi:57.2% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\42
Memo: 11B 2437

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	1439.71	48.38	4.31	25.60	-38.86	39.43	74.00	34.57	PK	Vertical
2	3646.95	48.85	5.77	29.79	-41.19	43.22	74.00	30.78	PK	Vertical
3	3928.14	47.44	5.83	30.56	-41.36	42.47	74.00	31.53	PK	Vertical
4	4873.27	53.44	7.61	32.55	-41.14	52.46	74.00	21.54	PK	Vertical
5	12031.09	43.45	10.54	38.96	-38.93	54.02	74.00	19.98	PK	Vertical
6	16062.74	41.08	15.63	37.84	-40.39	54.16	74.00	19.84	PK	Vertical

Final Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	4873.27	51.66	7.61	32.55	-41.14	50.68	54.00	3.32	AV	Vertical
2	12031.09	31.06	10.54	38.96	-38.93	41.63	54.00	12.37	AV	Vertical
3	16062.74	29.62	15.63	37.84	-40.39	42.70	54.00	11.30	AV	Vertical

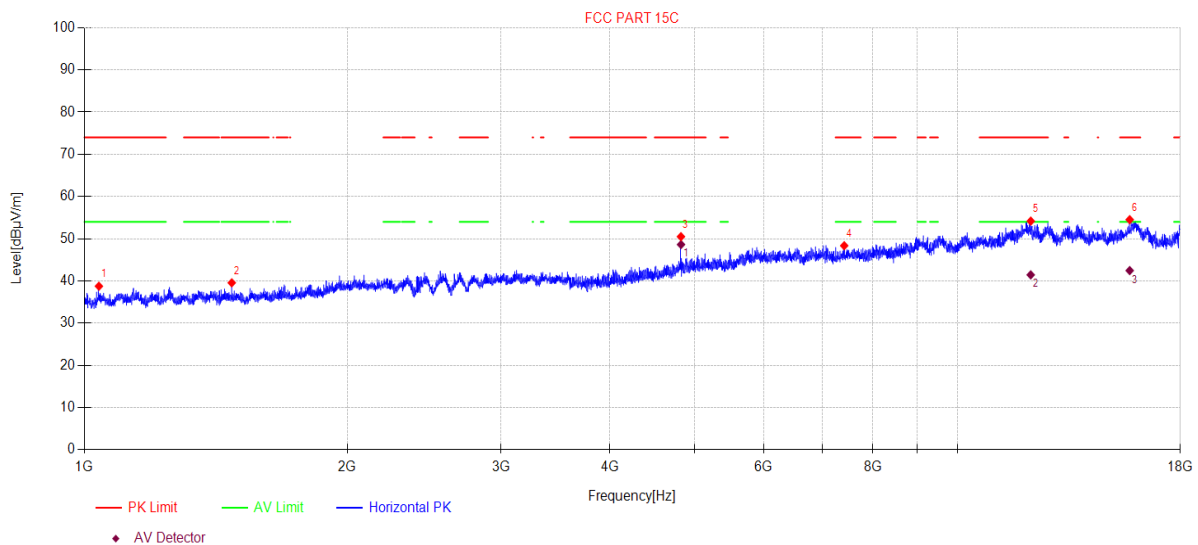
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08 **Tested By:** Liaowanrong
EUT: Smart Lock **Model Number:** KA342
Test Mode: TX Mode **Power Supply:** Battery
Condition: Temp:25.8°C;Humi:57.2% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\11
Memo: 11B 2462

Test Graph



Suspected Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	1039.19	48.49	3.04	25.48	-38.26	38.75	74.00	35.25	PK	Horizontal
2	1475.09	48.50	4.42	25.55	-38.91	39.56	74.00	34.44	PK	Horizontal
3	4822.83	51.74	7.51	32.39	-41.15	50.49	74.00	23.51	PK	Horizontal
4	7418.55	45.21	7.64	36.50	-41.00	48.35	74.00	25.65	PK	Horizontal
5	12132.35	43.57	10.54	39.10	-39.03	54.18	74.00	19.82	PK	Horizontal
6	15750.15	41.75	14.75	38.25	-40.23	54.52	74.00	19.48	PK	Horizontal

Final Data List										
NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	4823.98	49.88	7.51	32.39	-41.15	48.63	54.00	5.37	AV	Horizontal
2	12132.35	30.83	10.54	39.10	-39.03	41.44	54.00	12.56	AV	Horizontal
3	15750.15	29.69	14.75	38.25	-40.23	42.46	54.00	11.54	AV	Horizontal

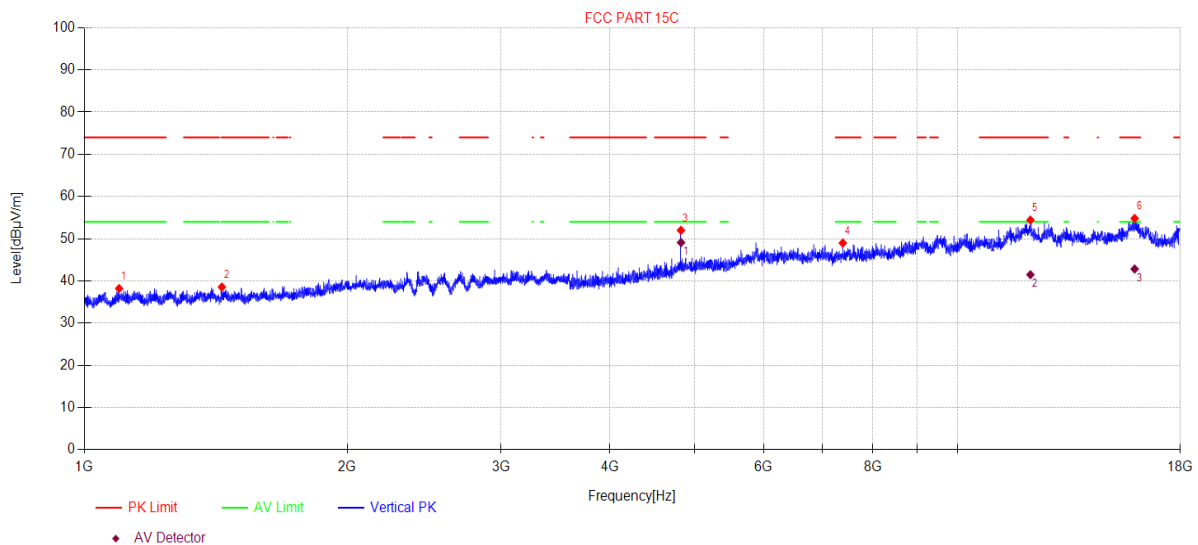
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08 **Tested By:** Liaowanrong
EUT: Smart Lock **Model Number:** KA342
Test Mode: TX Mode **Power Supply:** Battery
Condition: Temp:25.8°C;Humi:57.2% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\12
Memo: 11B 2462

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	1095.94	47.83	3.22	25.50	-38.34	38.21	74.00	35.79	PK	Vertical
2	1437.21	47.51	4.30	25.60	-38.86	38.55	74.00	35.45	PK	Vertical
3	4822.83	53.25	7.51	32.39	-41.15	52.00	74.00	22.00	PK	Vertical
4	7390.73	45.83	7.64	36.50	-41.00	48.97	74.00	25.03	PK	Vertical
5	12121.84	43.82	10.54	39.10	-39.02	54.44	74.00	19.56	PK	Vertical
6	15956.33	41.52	15.68	37.99	-40.37	54.82	74.00	19.18	PK	Vertical

Final Data List

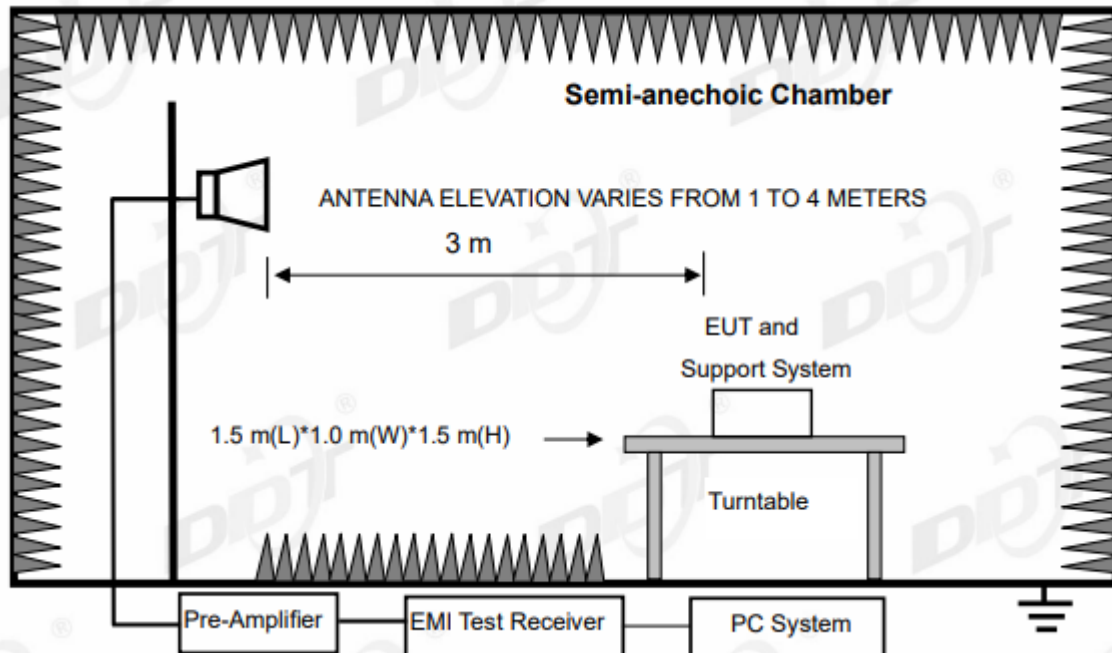
NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	4824.05	50.34	7.51	32.39	-41.15	49.09	54.00	4.91	AV	Vertical
2	12121.84	30.86	10.54	39.10	-39.02	41.48	54.00	12.52	AV	Vertical
3	15956.33	29.52	15.68	37.99	-40.37	42.82	54.00	11.18	AV	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

12. Radiated Band Edge Compliance

12.1. Block diagram of test setup



12.2. Limit

All restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions outside operation frequency band 2400 MHz to 2483.5 MHz shall be at least 20dB below the fundamental emissions or comply with FCC 15.209 limits.

12.3. Test procedure

Same with Radiated Spurious Emissions except change investigated frequency range from 2310 MHz to 2430 MHz and 2445 MHz to 2500 MHz.

12.4. Test result

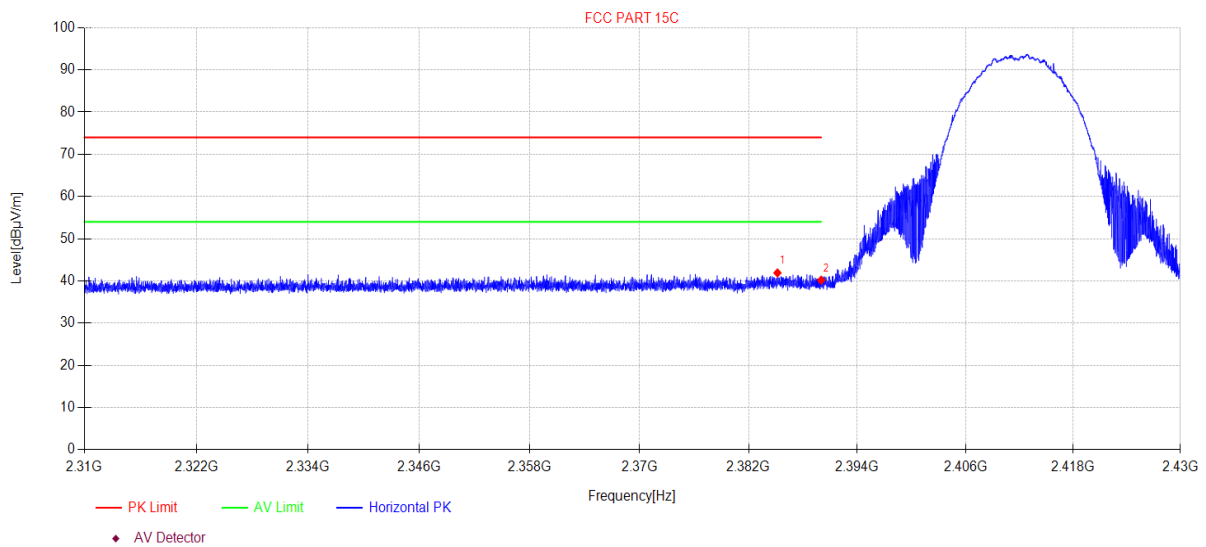
Pass. (See below detailed test result)

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08
EUT: Smart Lock
Test Mode: TX Mode
Condition: Temp:25.8°C;Humi:57.2%
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\15
Memo: 11B 2412

Tested By: Liaowanrong
Model Number: KA342
Power Supply: Battery
Test Site: DDT 3# Chamber

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2385.18	50.70	3.86	27.47	-40.12	41.91	74.00	32.09	PK	Horizontal
2	2390.00	48.97	3.87	27.48	-40.13	40.19	74.00	33.81	PK	Horizontal

Note:

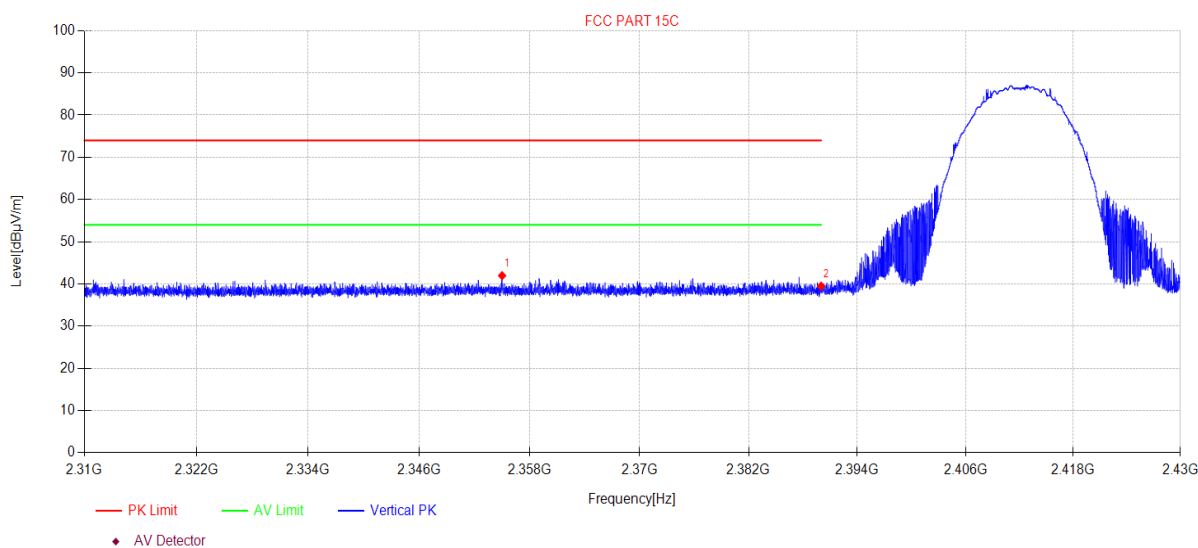
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08
EUT: Smart Lock
Test Mode: TX Mode
Condition: Temp:25.8°C;Humi:57.2%
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\16
Memo: 11B 2412

Tested By: Liaowanrong
Model Number: KA342
Power Supply: Battery
Test Site: DDT 3# Chamber

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2355.02	50.81	3.84	27.41	-40.09	41.97	74.00	32.03	PK	Vertical
2	2390.00	48.27	3.87	27.48	-40.13	39.49	74.00	34.51	PK	Vertical

Note:

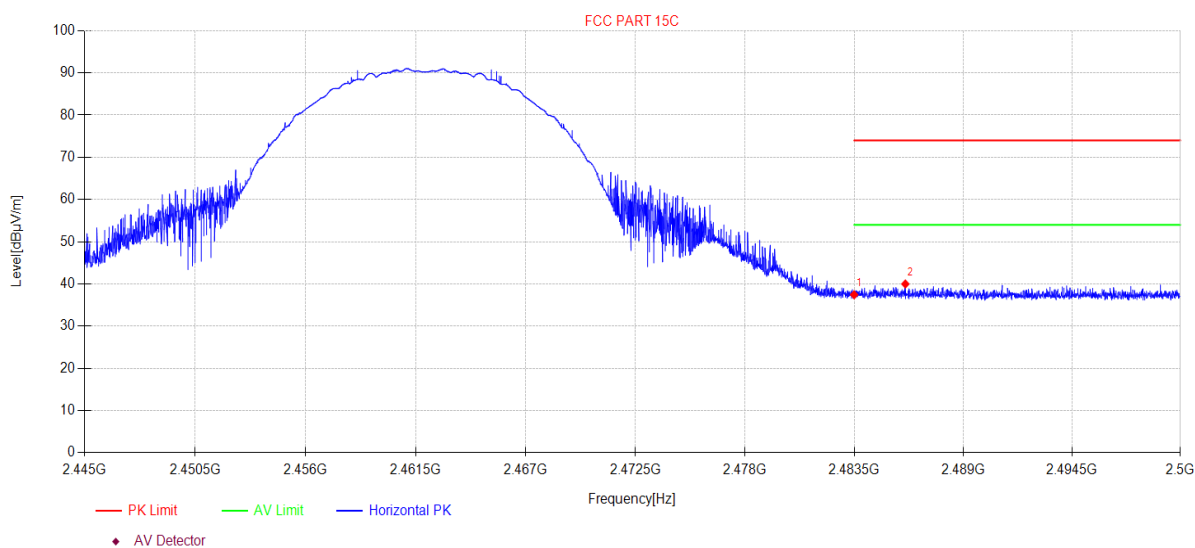
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08
EUT: Smart Lock
Test Mode: TX Mode
Condition: Temp:25.8°C;Humi:57.2%
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\43
Memo: 11B 2462

Tested By: Liaowanrong
Model Number: KA342
Power Supply: Battery
Test Site: DDT 3# Chamber

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.50	46.00	3.94	27.73	-40.23	37.44	74.00	36.56	PK	Horizontal
2	2486.09	48.54	3.94	27.74	-40.23	39.99	74.00	34.01	PK	Horizontal

Note:

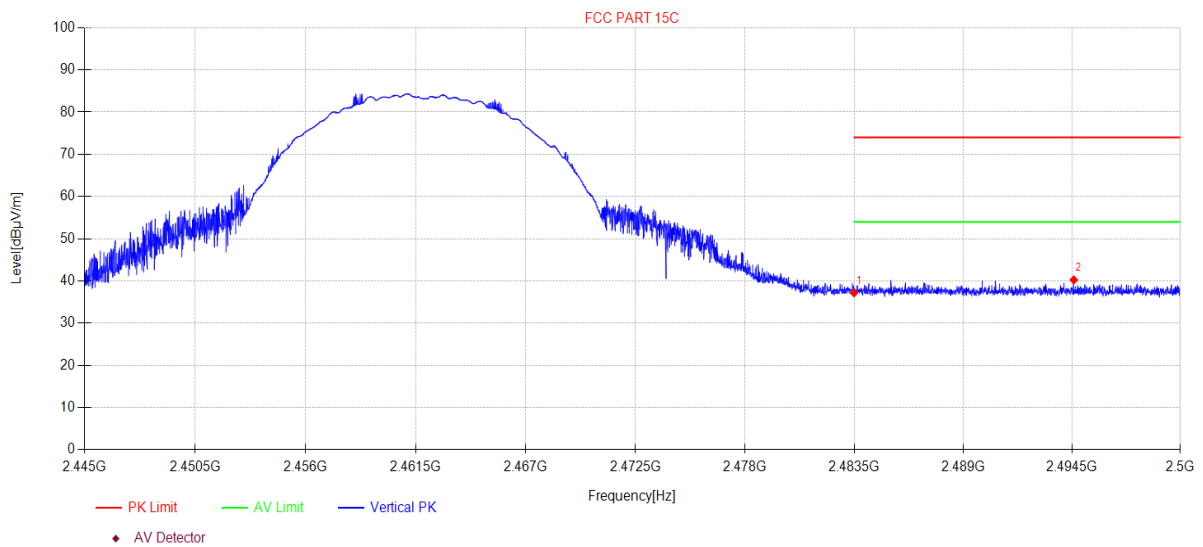
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08
EUT: Smart Lock
Test Mode: TX Mode
Condition: Temp:25.8°C;Humi:57.2%
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\44
Memo: 11B 2462

Tested By: Liaowanrong
Model Number: KA342
Power Supply: Battery
Test Site: DDT 3# Chamber

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.50	45.74	3.94	27.73	-40.23	37.18	74.00	36.82	PK	Vertical
2	2494.60	48.76	3.95	27.78	-40.24	40.25	74.00	33.75	PK	Vertical

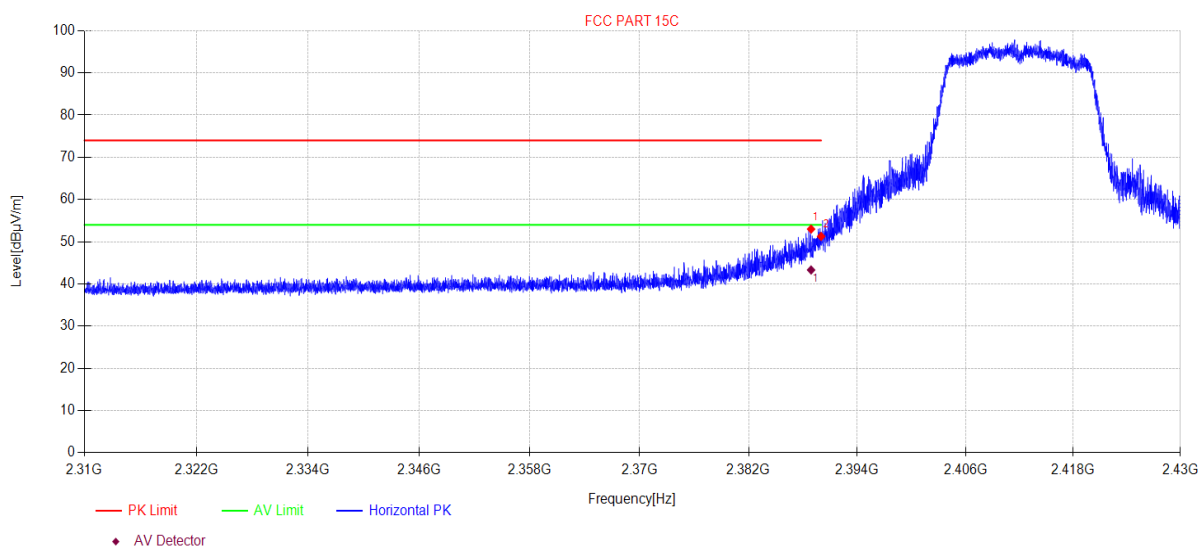
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08 **Tested By:** Liaowanrong
EUT: Smart Lock **Model Number:** KA342
Test Mode: TX Mode **Power Supply:** Battery
Condition: Temp:25.8°C;Humi:57.2% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\21
Memo: 11G 2412

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2388.89	61.77	3.87	27.48	-40.13	52.99	74.00	21.01	PK	Horizontal
2	2390.00	60.04	3.87	27.48	-40.13	51.26	74.00	22.74	PK	Horizontal

Final Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2388.89	52.09	3.87	27.48	-40.13	43.31	54.00	10.69	AV	Horizontal

Note:

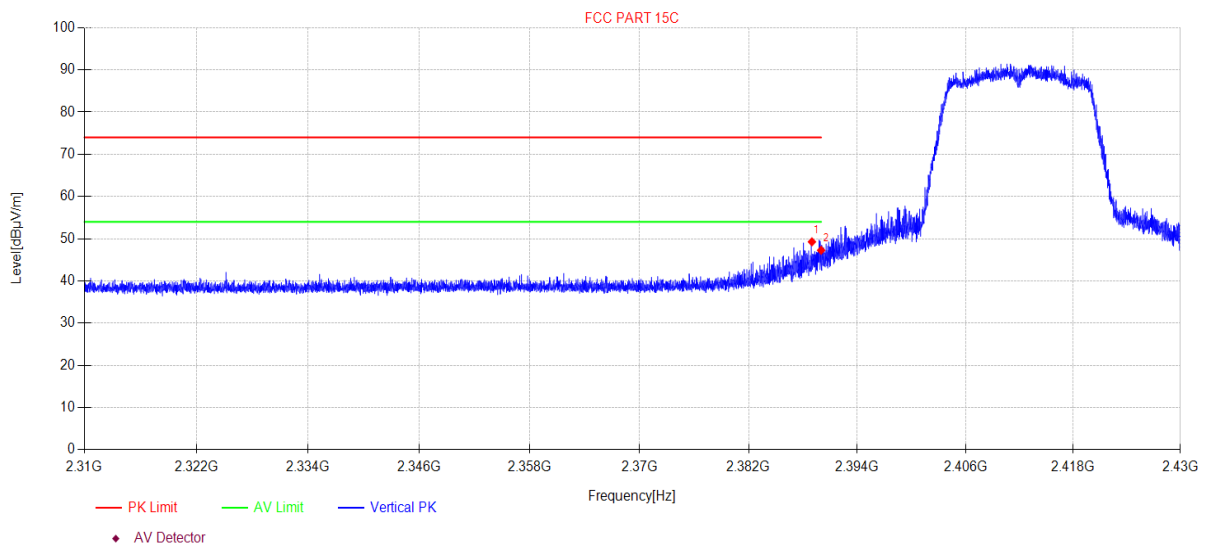
- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08
EUT: Smart Lock
Test Mode: TX Mode
Condition: Temp:25.8°C;Humi:57.2%
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\22
Memo: 11G 2412

Tested By: Liaowanrong
Model Number: KA342
Power Supply: Battery
Test Site: DDT 3# Chamber

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2388.98	58.04	3.87	27.48	-40.13	49.26	74.00	24.74	PK	Vertical
2	2390.00	56.05	3.87	27.48	-40.13	47.27	74.00	26.73	PK	Vertical

Note:

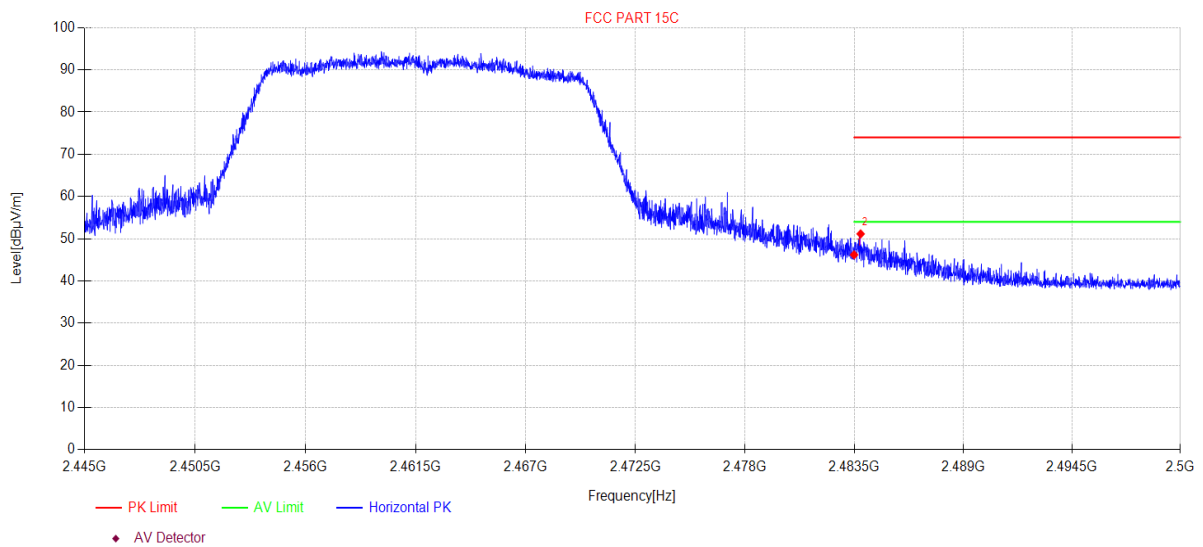
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08
EUT: Smart Lock
Test Mode: TX Mode
Condition: Temp:25.8°C;Humi:57.2%
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\25
Memo: 11G 2462

Tested By: Liaowanrong
Model Number: KA342
Power Supply: Battery
Test Site: DDT 3# Chamber

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.50	54.75	3.94	27.73	-40.23	46.19	74.00	27.81	PK	Horizontal
2	2483.83	59.70	3.94	27.74	-40.23	51.15	74.00	22.85	PK	Horizontal

Note:

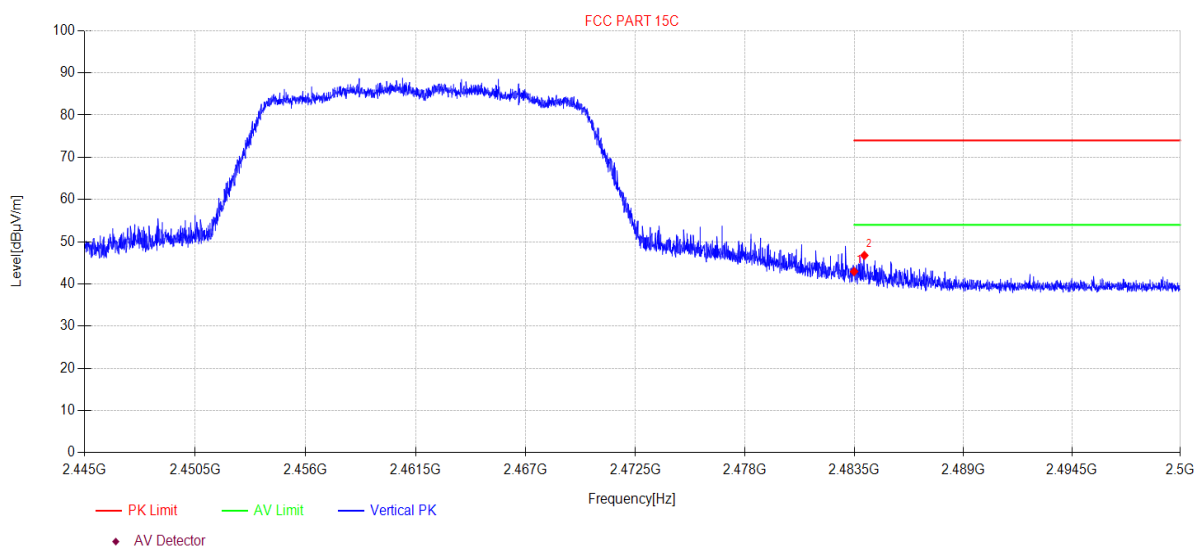
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08
EUT: Smart Lock
Test Mode: TX Mode
Condition: Temp:25.8°C;Humi:57.2%
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\26
Memo: 11G 2462

Tested By: Liaowanrong
Model Number: KA342
Power Supply: Battery
Test Site: DDT 3# Chamber

Test Graph



Suspected Data List

NO.	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.50	51.50	3.94	27.73	-40.23	42.94	74.00	31.06	PK	Vertical
2	2484.02	55.30	3.94	27.74	-40.23	46.75	74.00	27.25	PK	Vertical

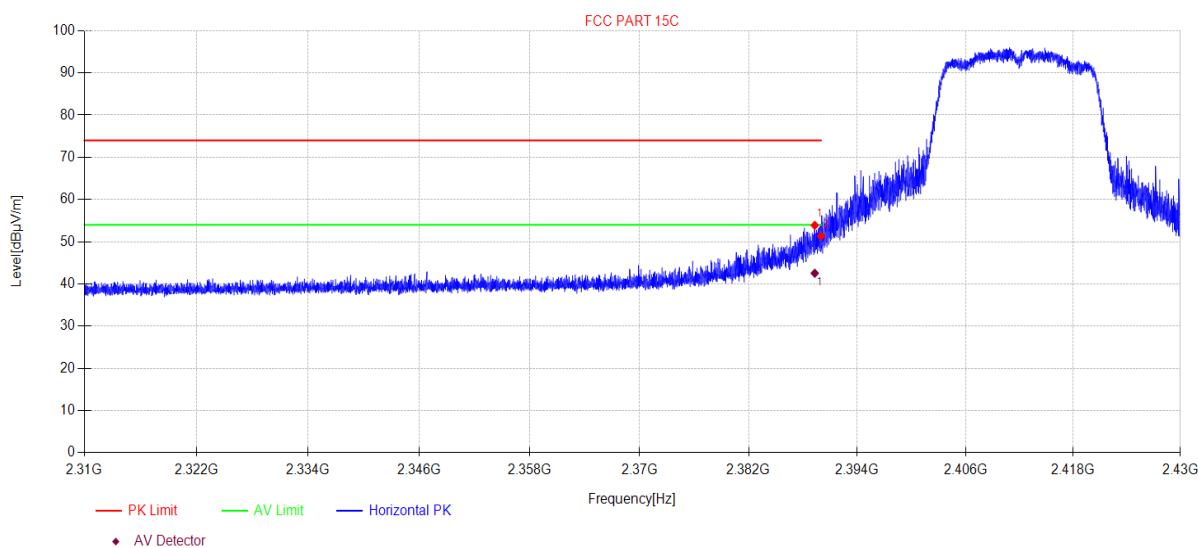
Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08 **Tested By:** Liaowanrong
EUT: Smart Lock **Model Number:** KA342
Test Mode: TX Mode **Power Supply:** Battery
Condition: Temp:25.8°C;Humi:57.2% **Test Site:** DDT 3# Chamber
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\29
Memo: 11N20SISO 2412

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2389.30	62.67	3.87	27.48	-40.13	53.89	74.00	20.11	PK	Horizontal
2	2390.00	60.10	3.87	27.48	-40.13	51.32	74.00	22.68	PK	Horizontal

Final Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2389.30	51.31	3.87	27.48	-40.13	42.53	54.00	11.47	AV	Horizontal

Note:

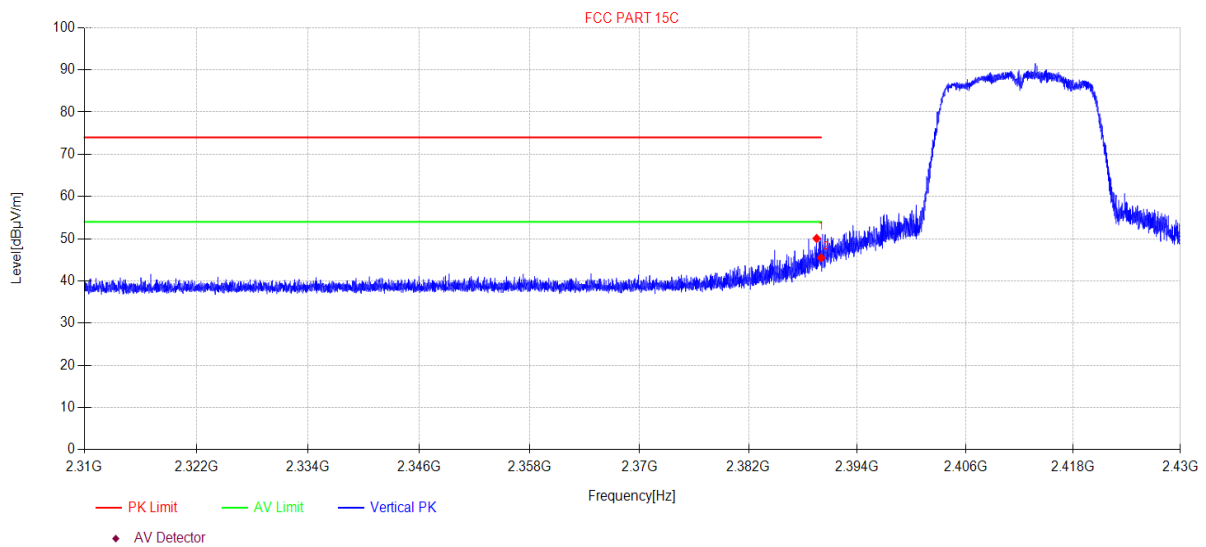
- Level = Reading + Cable loss + Antenna Factor + AMP
- If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
- Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08
EUT: Smart Lock
Test Mode: TX Mode
Condition: Temp:25.8°C;Humi:57.2%
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\30
Memo: 11N20SISO 2412

Tested By: Liaowanrong
Model Number: KA342
Power Supply: Battery
Test Site: DDT 3# Chamber

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2389.50	58.84	3.87	27.48	-40.13	50.06	74.00	23.94	PK	Vertical
2	2390.00	54.25	3.87	27.48	-40.13	45.47	74.00	28.53	PK	Vertical

Note:

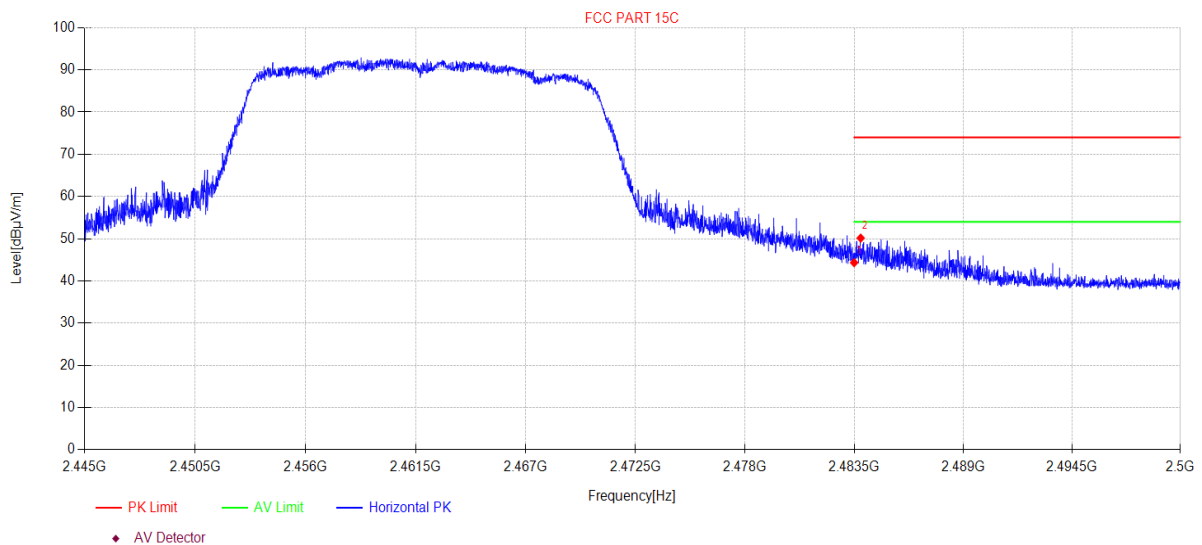
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08
EUT: Smart Lock
Test Mode: TX Mode
Condition: Temp:25.8°C;Humi:57.2%
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\33
Memo: 11N20SISO 2462

Tested By: Liaowanrong
Model Number: KA342
Power Supply: Battery
Test Site: DDT 3# Chamber

Test Graph



Suspected Data List

NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.50	52.89	3.94	27.73	-40.23	44.33	74.00	29.67	PK	Horizontal
2	2483.83	58.70	3.94	27.74	-40.23	50.15	74.00	23.85	PK	Horizontal

Note:

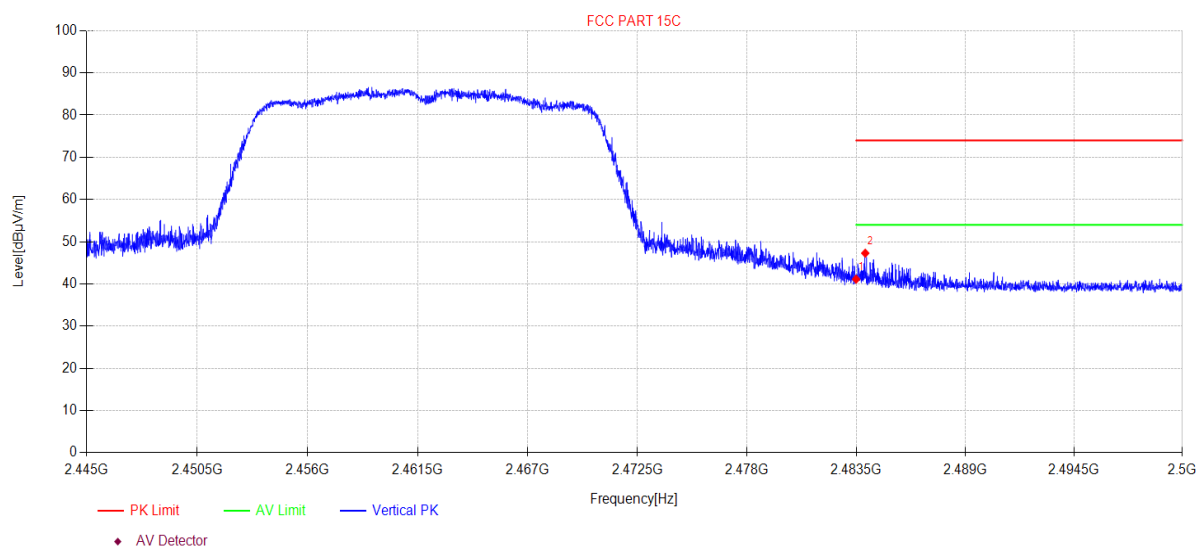
1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

TR-4-E-009 Radiated Emission Test Result

Test Date: 2023-06-08
EUT: Smart Lock
Test Mode: TX Mode
Condition: Temp:25.8°C;Humi:57.2%
File Path: d:\ts\2023 report data\Q23052517-2E KA342\FCC ABOVE 1G 2.4GWIFI\34
Memo: 11N20SISO 2462

Tested By: Liaowanrong
Model Number: KA342
Power Supply: Battery
Test Site: DDT 3# Chamber

Test Graph



Suspected Data List

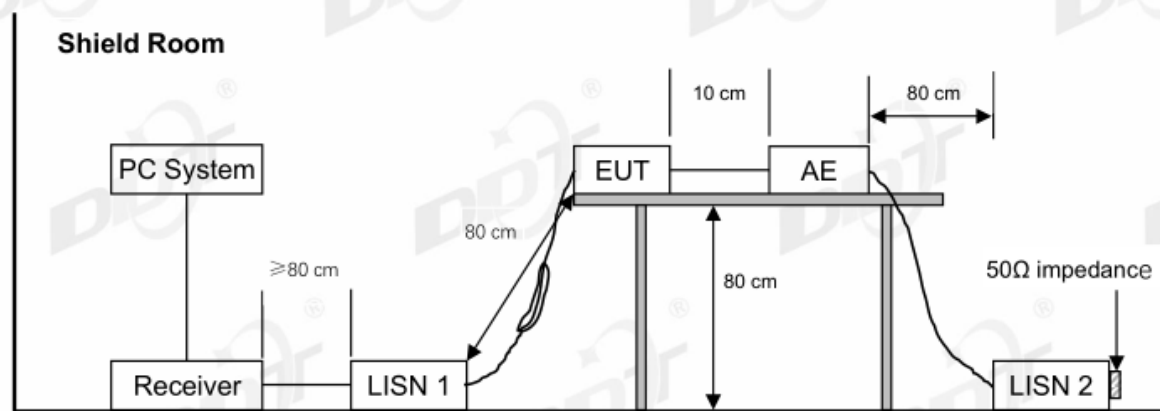
NO	Freq. [MHz]	Reading [dBμV/m]	Cable loss [dB]	Antenna Factor [dB]	AMP [dB]	Level [dBμV/m]	Limit [dBμV/m]	Margin [dB]	Detector	Polarity
1	2483.50	49.69	3.94	27.73	-40.23	41.13	74.00	32.87	PK	Vertical
2	2483.96	55.84	3.94	27.74	-40.23	47.29	74.00	26.71	PK	Vertical

Note:

1. Level = Reading + Cable loss + Antenna Factor + AMP
2. If Peak Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 1 MHz, VBW: 3 MHz, Sweep time: auto.

13. Power Line Conducted Emission

13.1. Block diagram of test setup



13.2. Power Line Conducted Emission Limits

Frequency	Quasi-Peak Level dB(μ V)	Average Level dB(μ V)
150 kHz ~ 500 kHz	66 ~ 56*	56 ~ 46*
500 kHz ~ 5 MHz	56	46
5 MHz ~ 30 MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

13.3. Test procedure

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30 MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest

emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 kHz.

13.4. Test result

N/A

This product is powered by DC.

14. Antenna Requirements

14.1. Limit

For intentional device, according to FCC 47 CFR Section 15.203, an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. And according to FCC 47 CFR Section 15.247 (b), if transmitting antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

14.2. Result

The device support 1T1R SISO, the antennas both used for this product are FPC antennas and no antenna other than that furnished by the responsible party shall be used with the device, maximum antenna gain is 2.78.

16. Photos of the EUT

Please refer to appendix I.

END OF REPORT