Test Report No.50296846 001

Appendix D: Radiated and Mains Spurious Emission Data

(File: 50296846 001AppendixD)
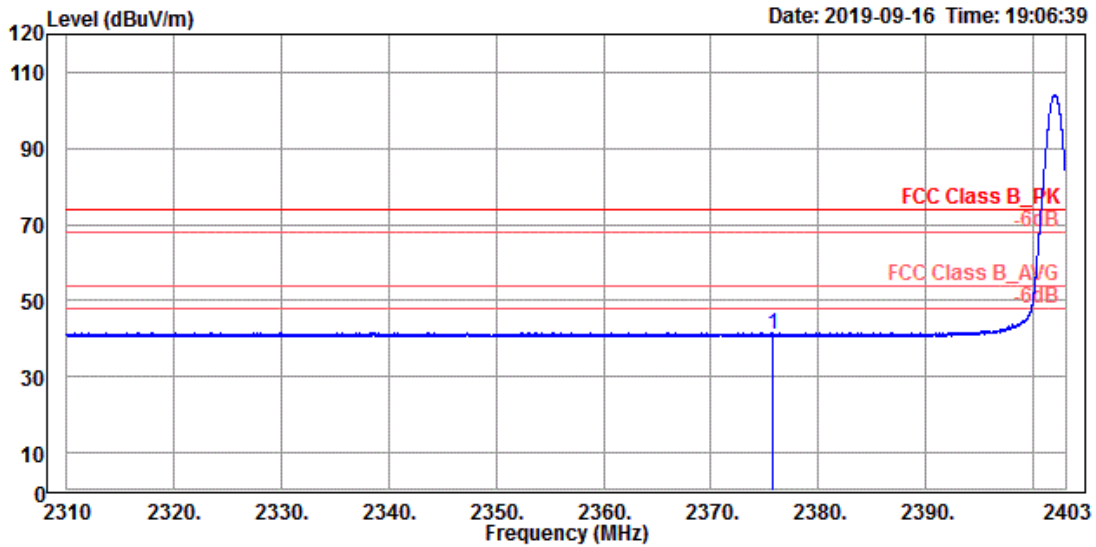

## Contents

Spurious Emissions, Band Edges

TUV Rheinland Taiwan Ltd.
11F., No. 758, Sec. 4 Bade Road. Songshan Dist, Taipei City 105
Tel:+886-2172-7000 Fax:+886-2528-0018

Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2402
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2375.681	2.95	38.05	41.00	54.00	-13.00	163	168	Average
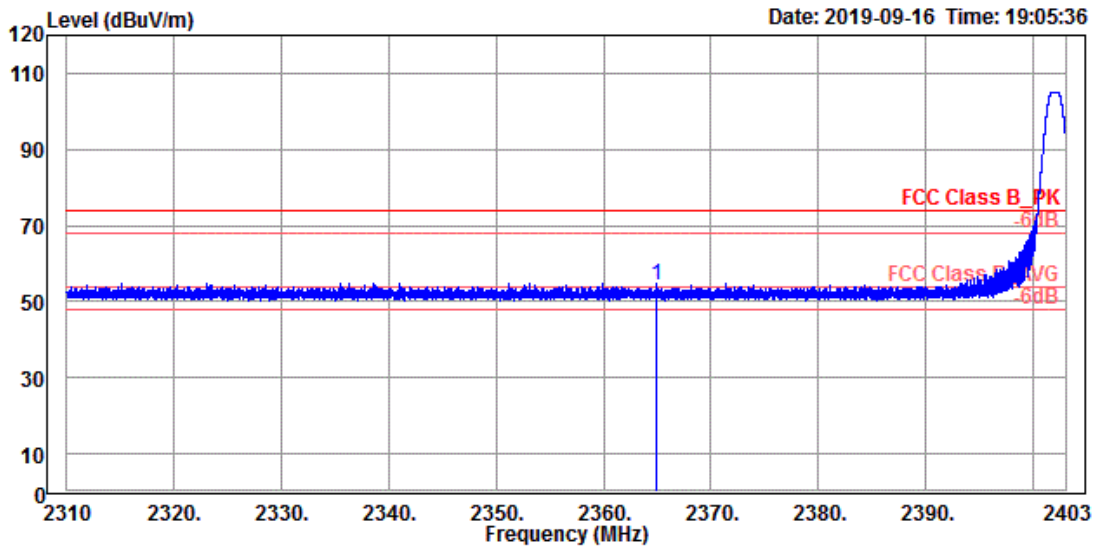
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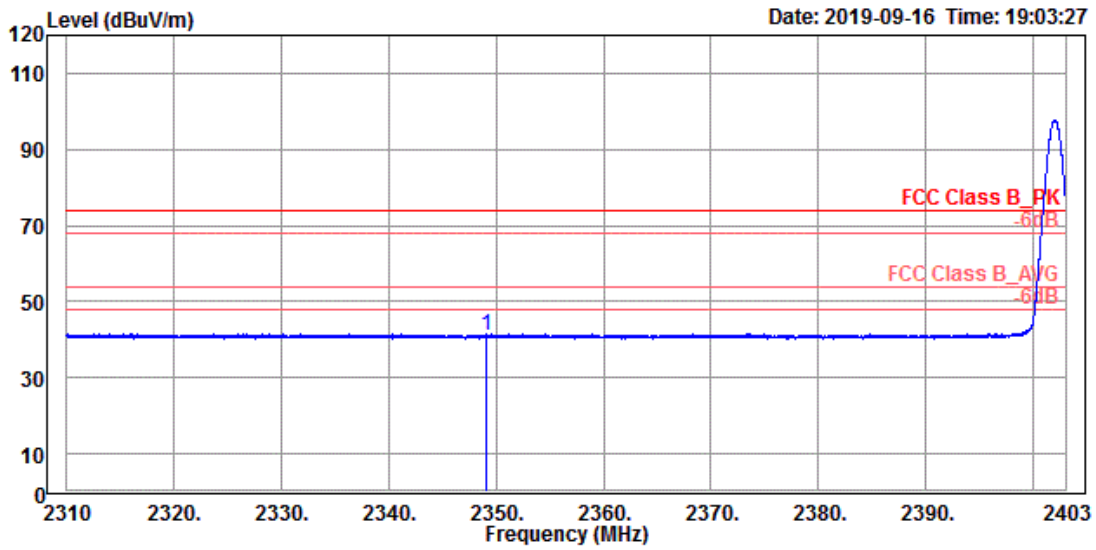Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2402
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2364.963	16.11	38.04	54.15	74.00	-19.85	163	168	Peak

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Level (dBuV/m)   Date: 2019-09-16 Time: 19:03:27
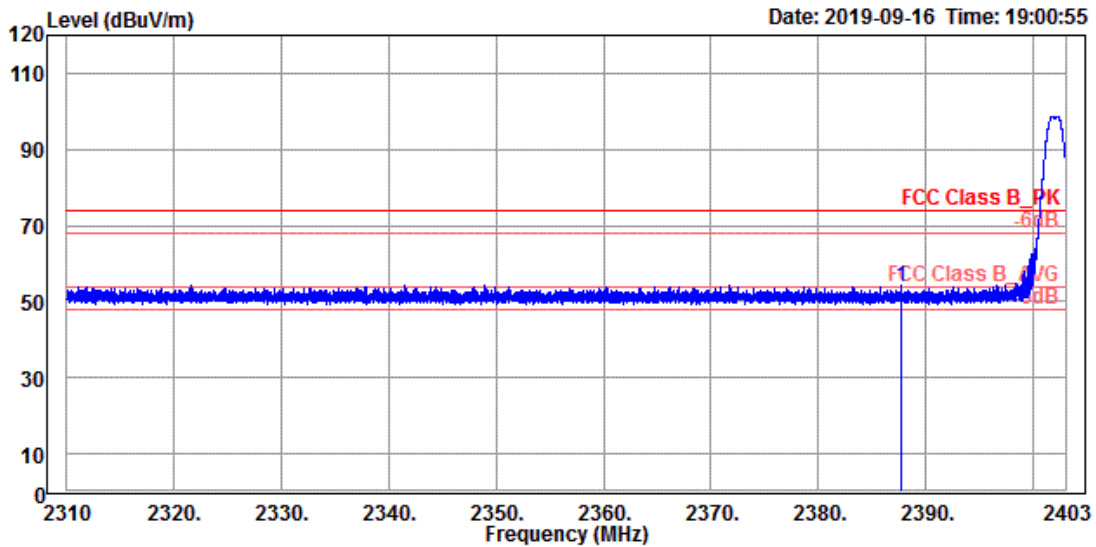
Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Vertical
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2402
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2349.044	2.90	38.02	40.92	54.00	-13.08	228	249	Average

Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Vertical
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2402
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2387.670	15.80	38.07	53.87	74.00	-20.13	228	249	Peak
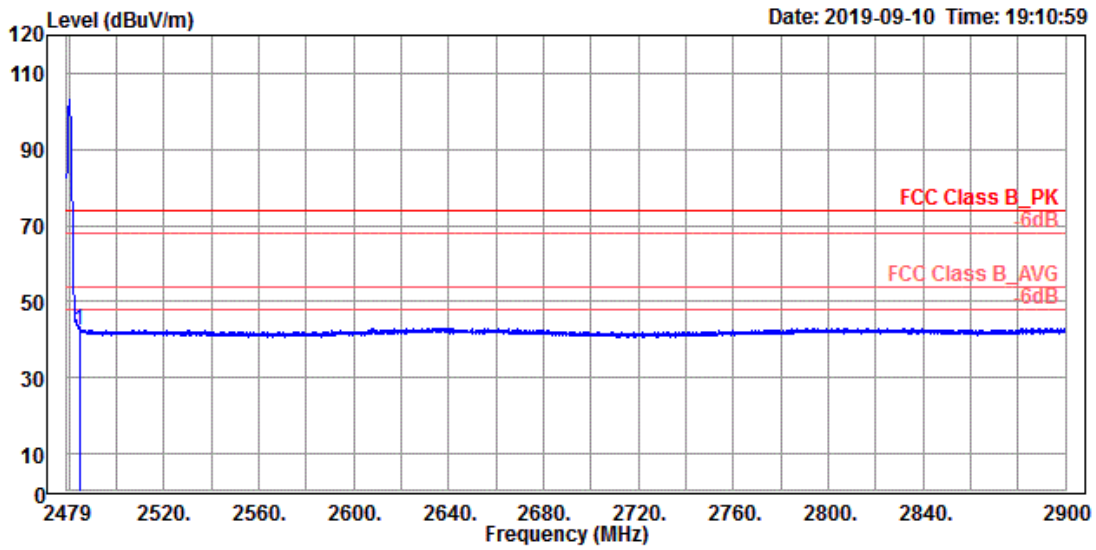
Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2480
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2484.157	4.17	38.47	42.64	54.00	-11.36	175	171	Average
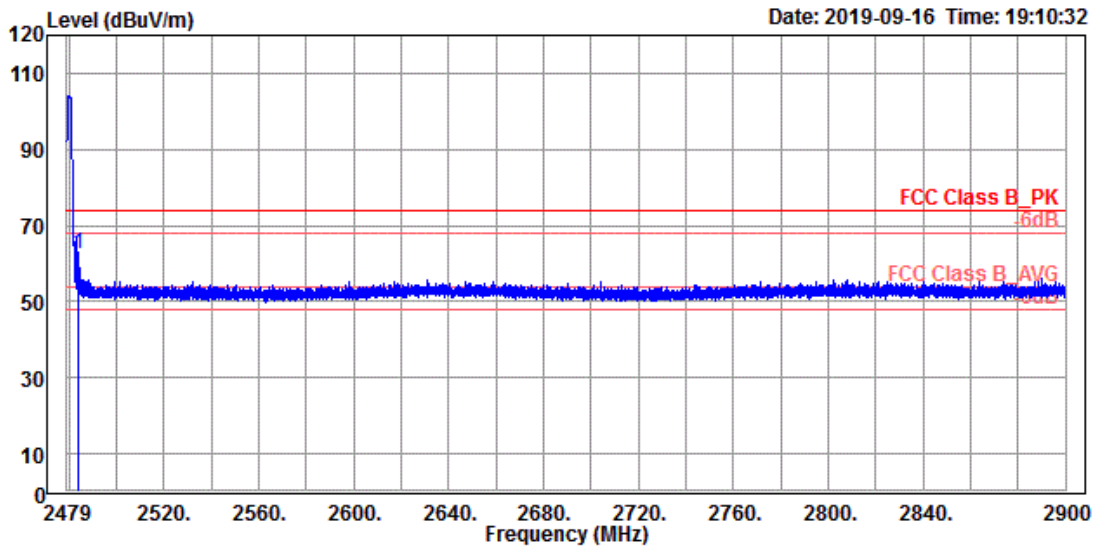
Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2480
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2483.491	23.87	38.47	62.34	74.00	-11.66	175	171	Peak
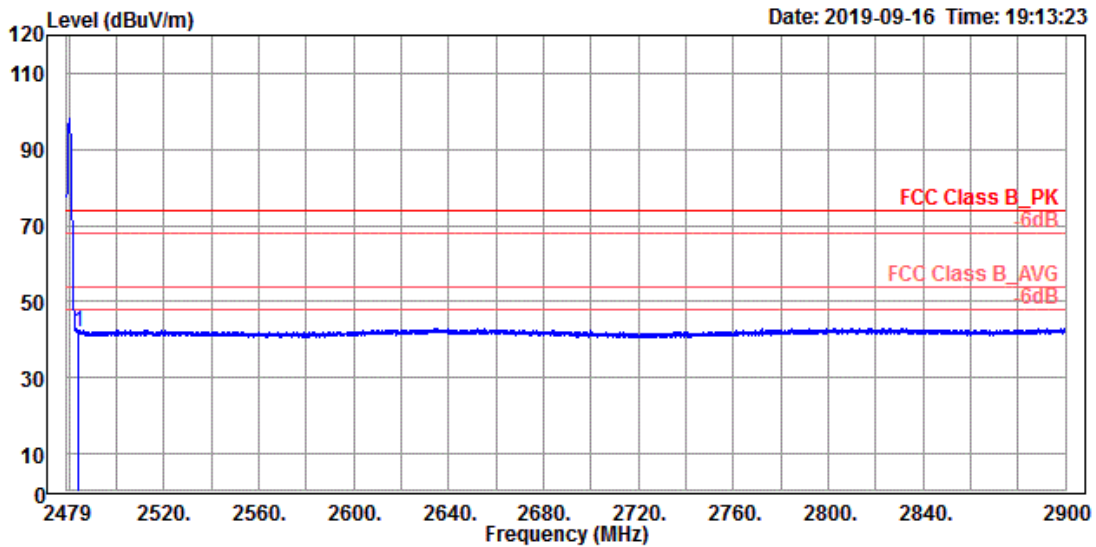
Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Vertical
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2480
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2483.736	3.31	38.47	41.78	54.00	-12.22	216	246	Average
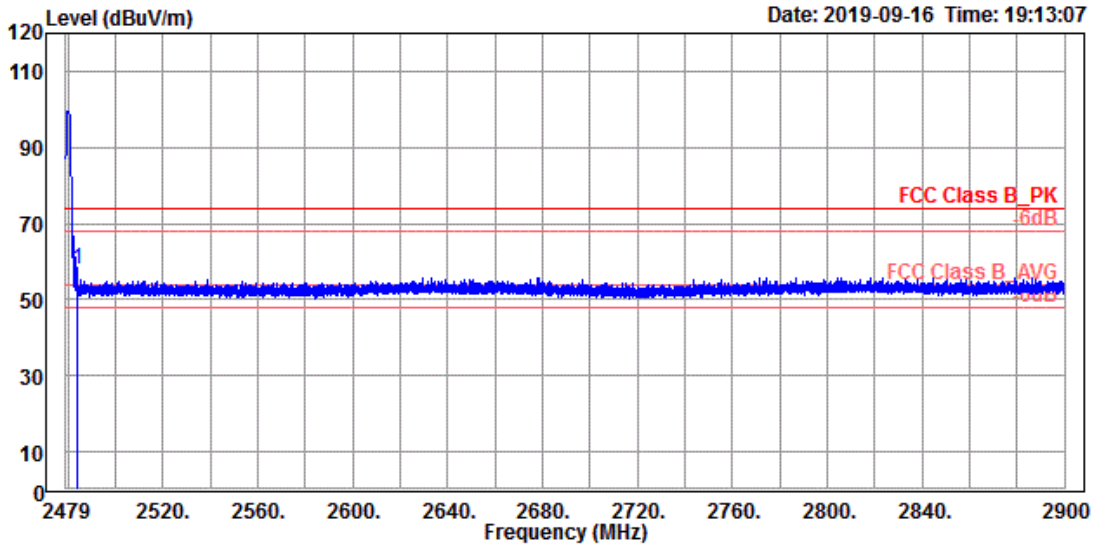
Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Vertical
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2480
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2483.491	19.30	38.47	57.77	74.00	-16.23	216	246	Peak
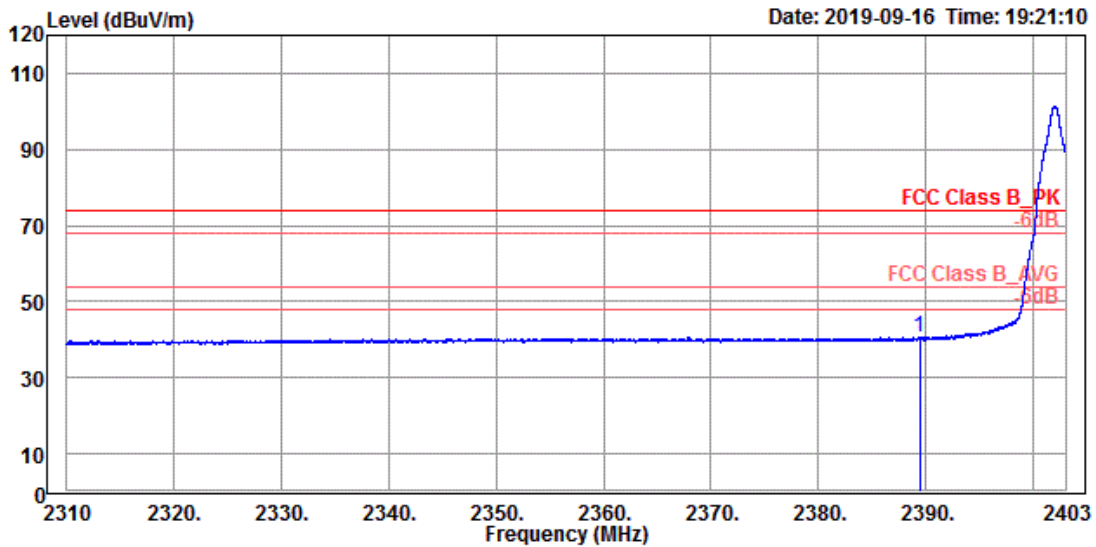
Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2402
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2389.414	3.05	37.43	40.48	54.00	-13.52	163	168	Average
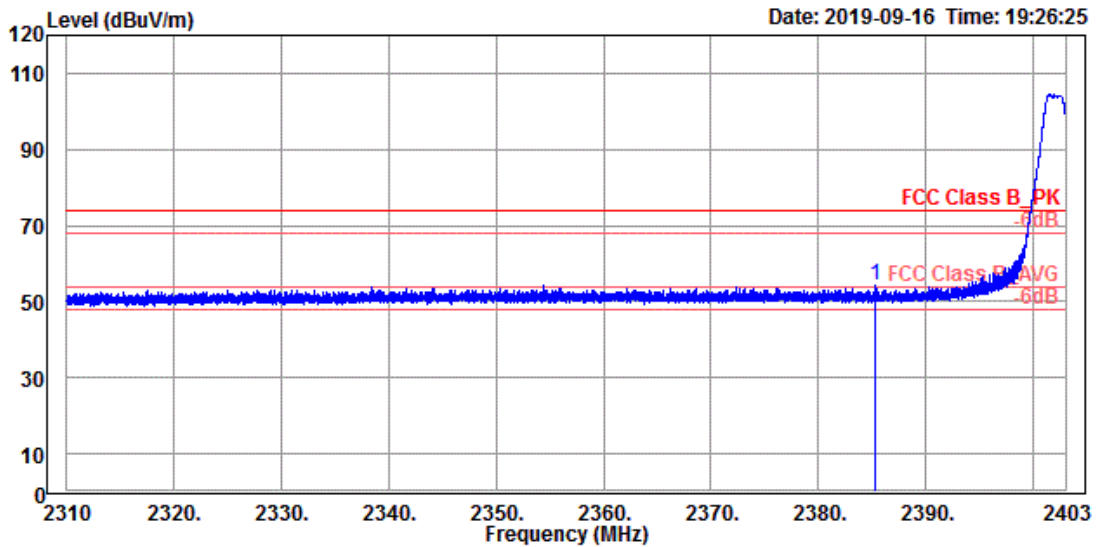
Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2402
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2385.221	16.70	37.42	54.12	74.00	-19.88	163	168	Peak
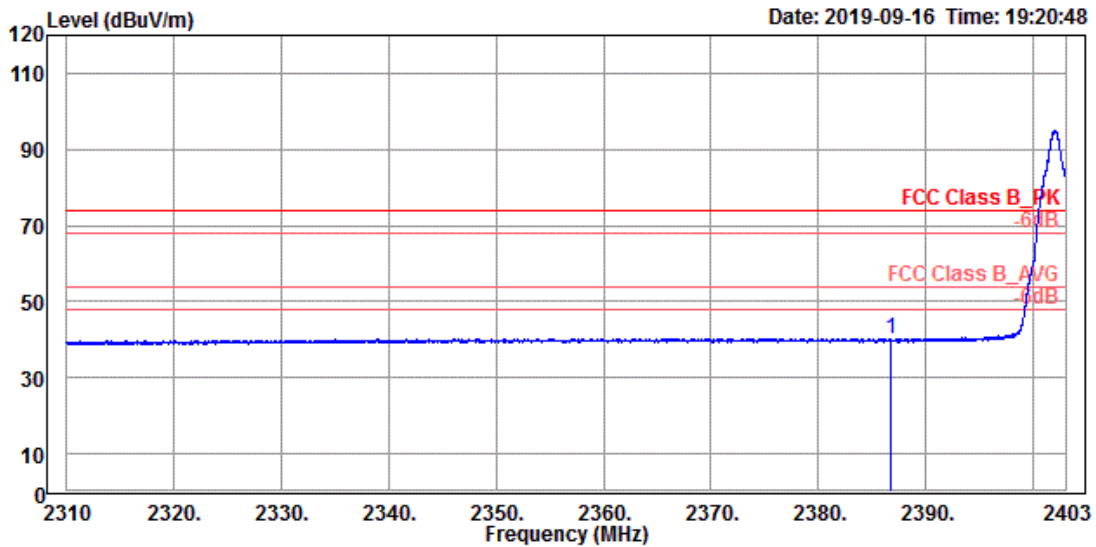
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Site          : 966B Chamber B
Condition     : FCC Class B_PK 3m Vertical
Test Engineer : Simon Tasi
Product       : Window / Door Sensor
Model NO      : HKDS1
Mode          : 2M-TX-2402
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum       : 23.5°C/67%
Plane         : X
```

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2386.764	2.96	37.42	40.38	54.00	-13.62	227	250	Average
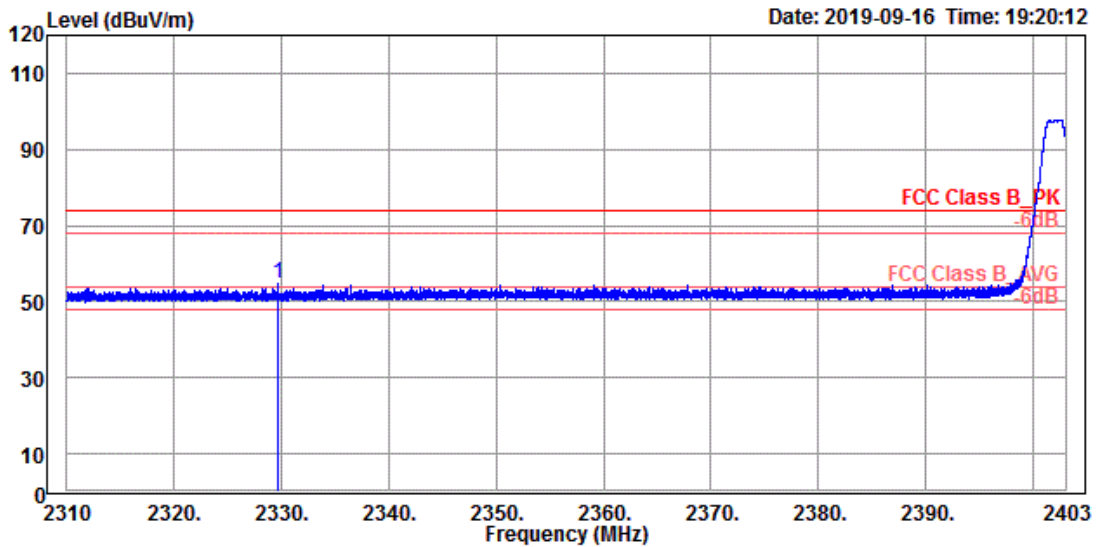
Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Vertical
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2402
Power setting: 4
Test Rating : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2329.662	17.80	36.87	54.67	74.00	-19.33	227	250	Peak
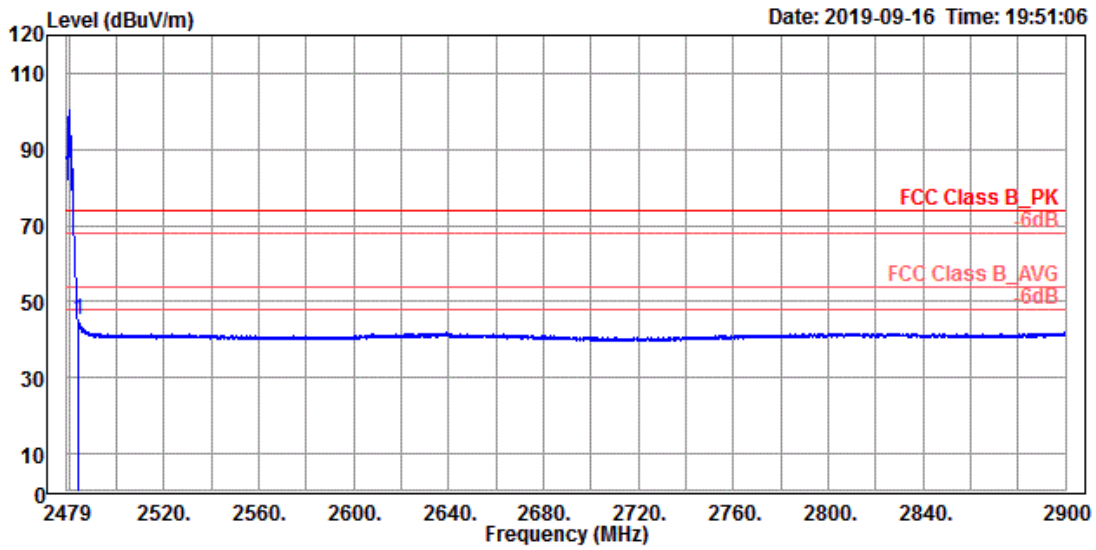
Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2480
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

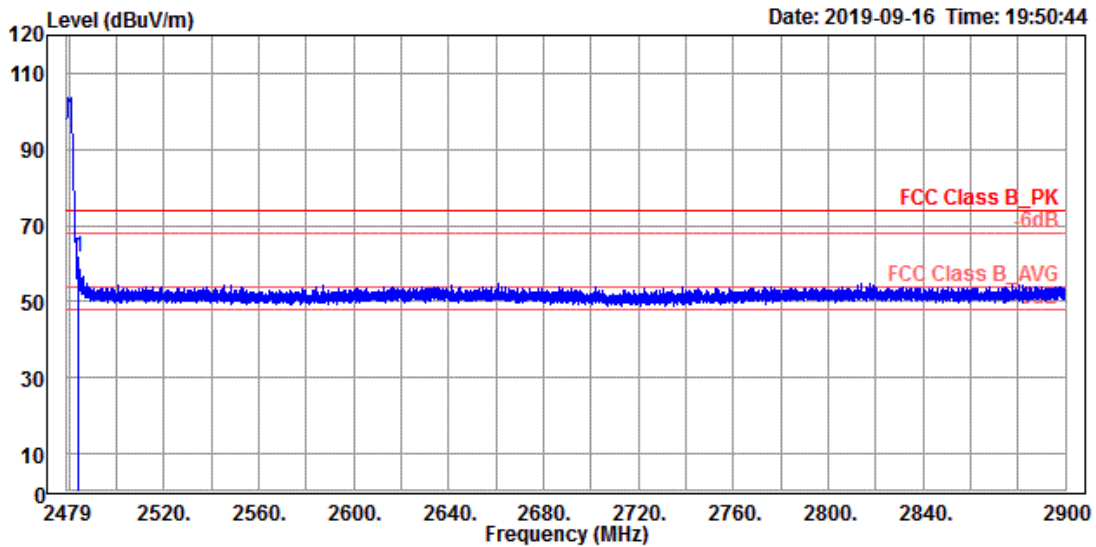|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2483.526	7.38	37.76	45.14	54.00	-8.86	175	180	Average

Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2480
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

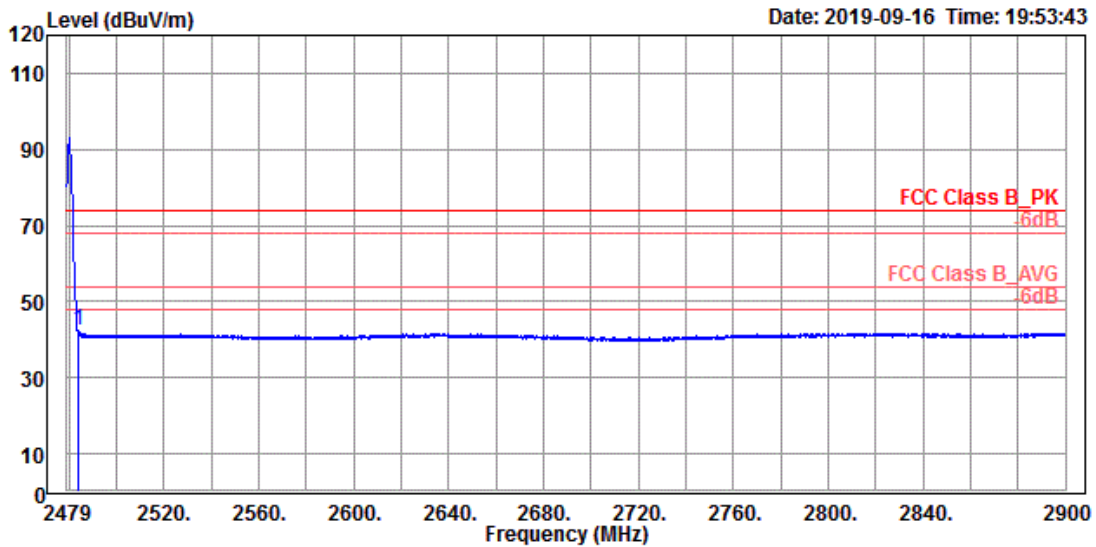|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2483.456	23.70	37.76	61.46	74.00	-12.54	175	168	Peak

Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Vertical
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2480
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

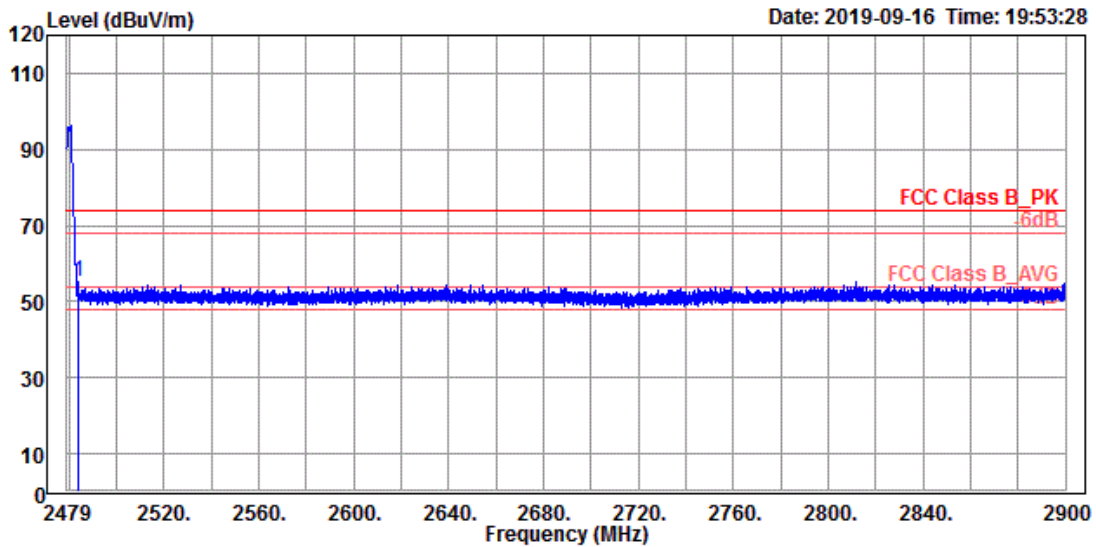|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2483.526	4.50	37.76	42.26	54.00	-11.74	115	243	Average

Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Vertical
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2480
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	2483.842	17.52	37.76	55.28	74.00	-18.72	115	243	Peak

Spurious Emissions, TX Mode, 1GHz-18GHz

TUV Rheinland Taiwan Ltd.
11F., No. 758, Sec. 4 Bade Road. Songshan Dist, Taipei City 105
Tel:+886-2172-7000 Fax:+886-2528-0018

Date: 2019-09-19 Time: 19:15:31
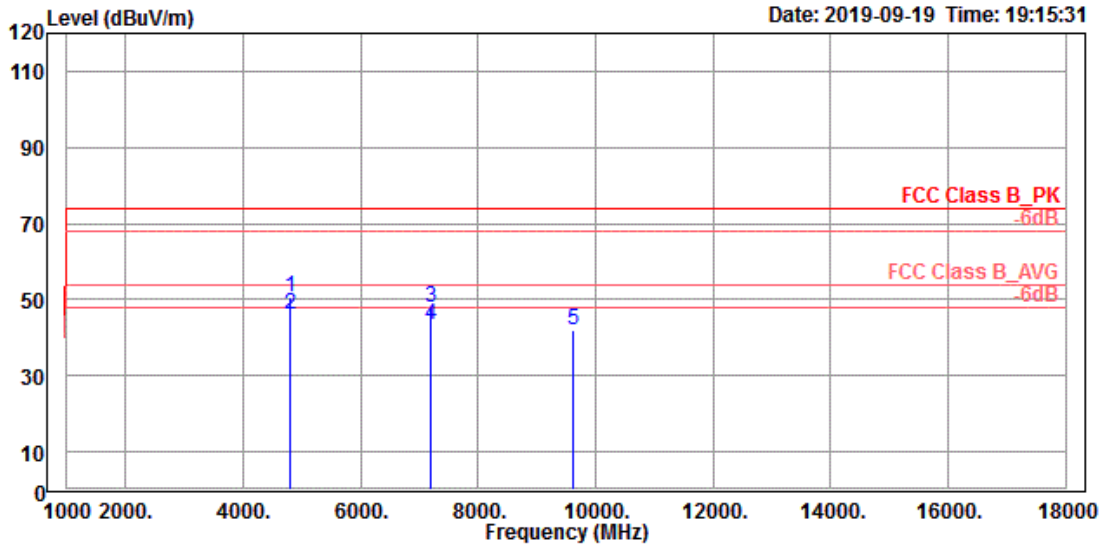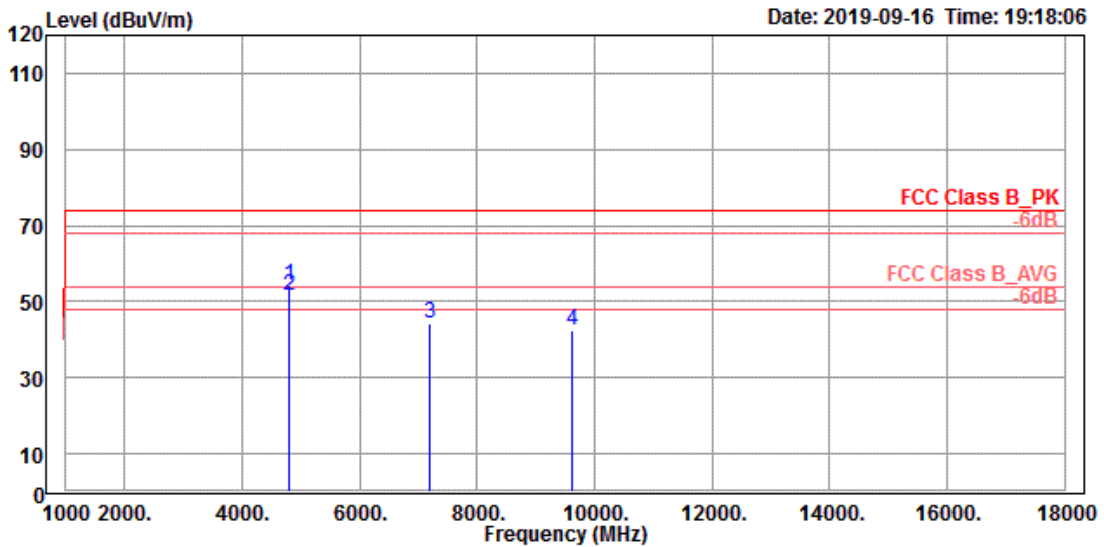
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Site            : 966B Chamber B
Condition       : FCC Class B_PK 3m Horizontal
Test Engineer: Simon Tasi
Product         : Window / Door Sensor
Model NO        : HKDS1
Mode            : 1M-TX-2402
Power setting: 4
Test Rating     : DC3.6V
Tmp/Hum         : 23.5°C/67%
Plane           : X
```

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	4804.000	50.78	-0.23	50.55	74.00	-23.45	365	198	Peak
2	4804.000	46.33	-0.23	46.10	54.00	-7.90	365	198	Average
3	7206.000	39.64	8.40	48.04	74.00	-25.96	156	265	Peak
4	7206.000	35.10	8.40	43.50	54.00	-10.50	156	265	Average
5	9608.000	32.10	10.03	42.13	74.00	-31.87	158	69	Peak

Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Vertical
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2402
Power setting: 4
Test Rating : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq MHz	Read Level dBuV	Factor dB/m	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	APos cm	TPos deg	Remark
1	4804.000	54.36	-0.23	54.13	74.00	-19.87	109	276	Peak
2 !	4804.000	51.69	-0.23	51.46	54.00	-2.54	109	276	Average
3	7206.000	35.75	8.40	44.15	74.00	-29.85	166	258	Peak
4	9608.000	32.18	10.03	42.21	74.00	-31.79	108	93	Peak
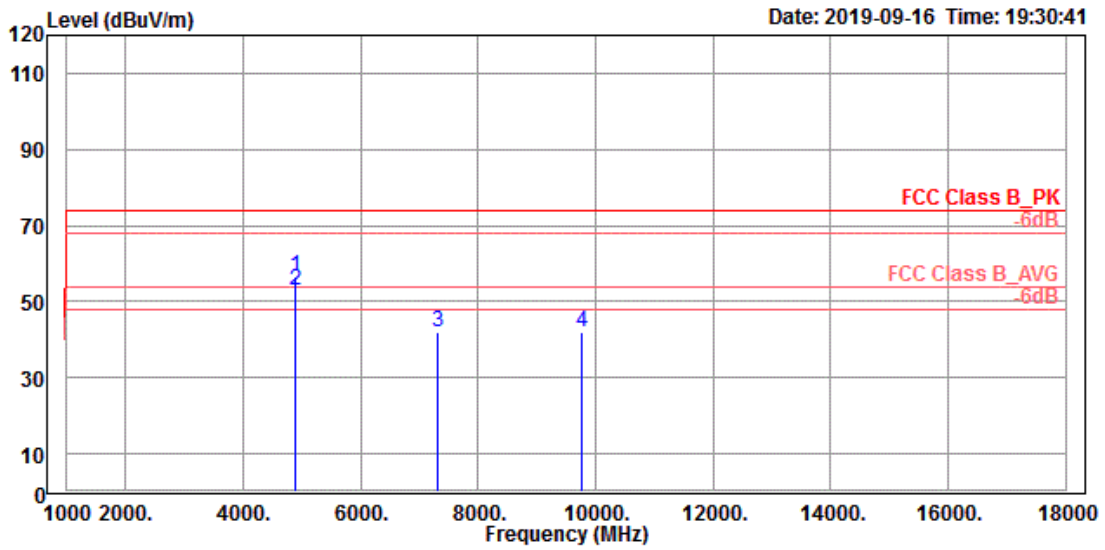
Level (dBuV/m) Date: 2019-09-16 Time: 19:30:41

Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2440
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

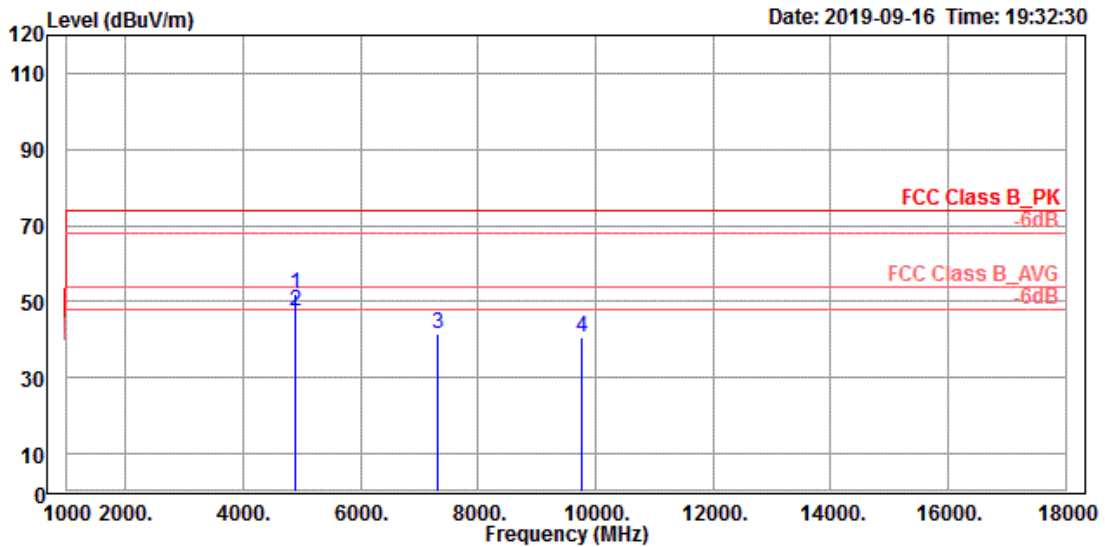|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	4880.000	56.55	-0.09	56.46	74.00	-17.54	100	274	Peak
2 !	4880.000	52.94	-0.09	52.85	54.00	-1.15	100	274	Average
3	7320.000	33.31	8.65	41.96	74.00	-32.04	125	221	Peak
4	9760.000	32.32	9.84	42.16	74.00	-31.84	148	78	Peak

Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Vertical
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2440
Power setting: 4
Test Rating : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	4880.000	51.93	-0.09	51.84	74.00	-22.16	398	1	Peak
2	4880.000	47.47	-0.09	47.38	54.00	-6.62	398	1	Average
3	7320.000	32.90	8.65	41.55	74.00	-32.45	175	68	Peak
4	9760.000	30.97	9.84	40.81	74.00	-33.19	152	189	Peak
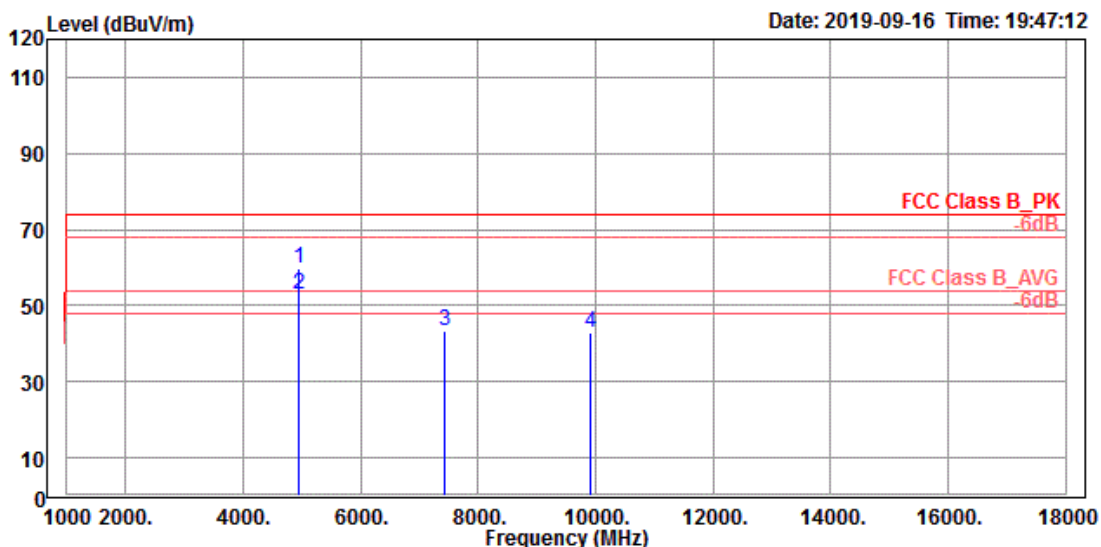
Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2480
Power setting: 3
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	4960.000	59.48	0.07	59.55	74.00	-14.45	112	293	Peak
2 !	4960.000	52.77	0.07	52.84	54.00	-1.16	112	293	Average
3	7440.000	34.12	9.01	43.13	74.00	-30.87	123	256	Peak
4	9920.000	33.41	9.64	43.05	74.00	-30.95	156	209	Peak
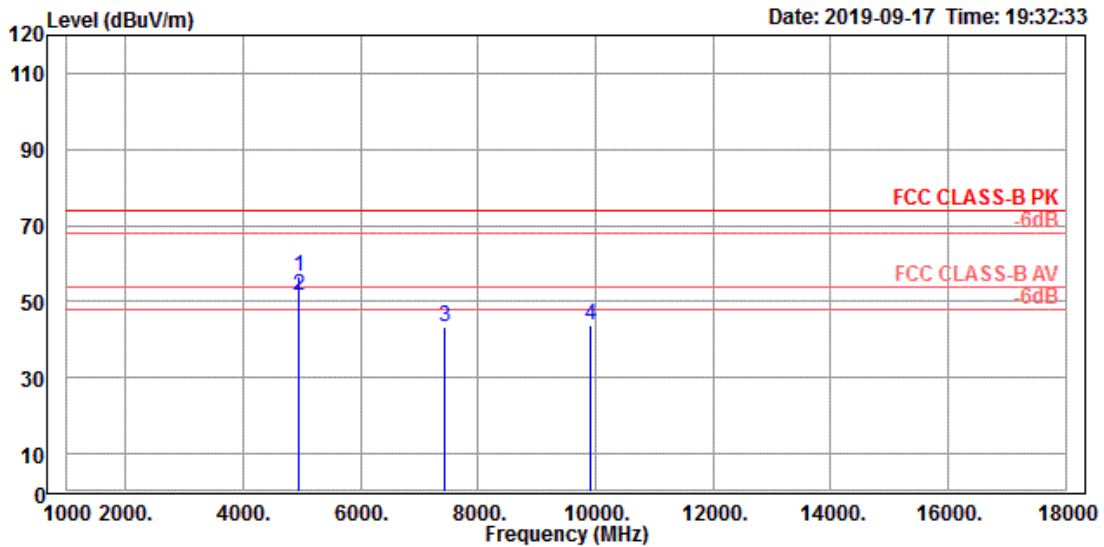
Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Vertical
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2480
Power setting : 3
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	4960.000	56.52	0.07	56.59	74.00	-17.41	108	239	Peak
2 !	4960.000	51.45	0.07	51.52	54.00	-2.48	108	239	Average
3	7440.000	34.26	9.01	43.27	74.00	-30.73	123	56	Peak
4	9920.000	33.96	9.64	43.60	74.00	-30.40	123	52	Peak
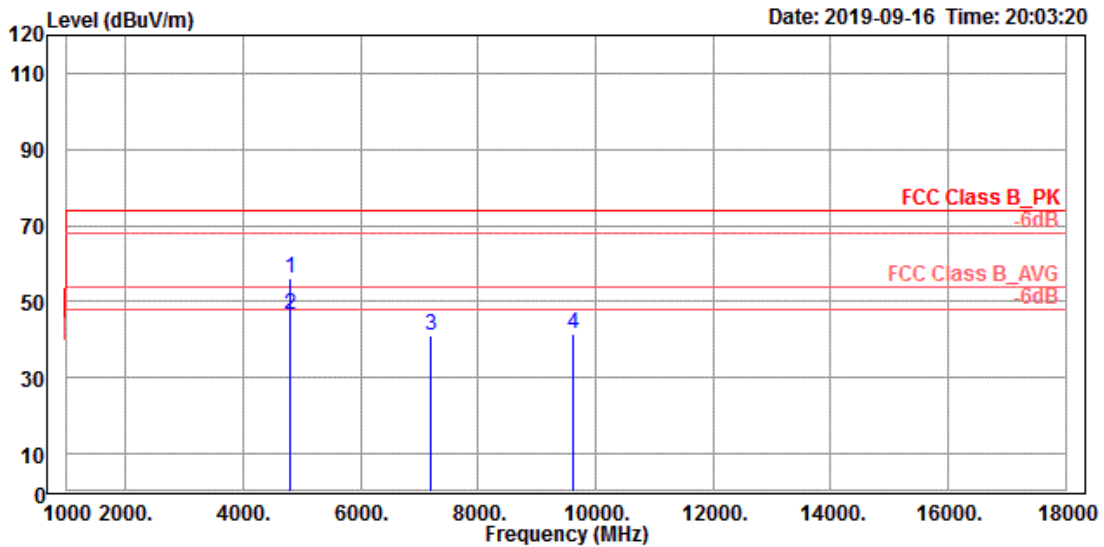
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Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2402
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

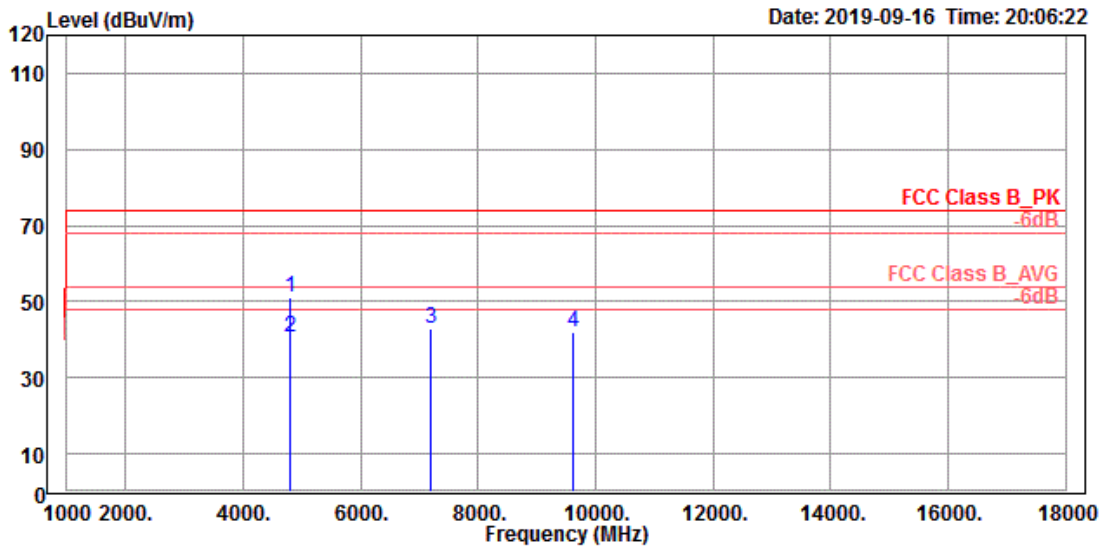|	Freq MHz	Read Level dBuV	Factor dB/m	Level dBuV/m	Limit Line dBuV/m	Over Limit dB	APos cm	TPos deg	Remark
1	4804.000	56.41	-0.23	56.18	74.00	-17.82	102	271	Peak
2	4804.000	46.70	-0.23	46.47	54.00	-7.53	102	271	Average
3	7206.000	32.78	8.40	41.18	74.00	-32.82	100	205	Peak
4	9608.000	31.61	10.03	41.64	74.00	-32.36	149	166	Peak

Site   : 966B Chamber B
Condition   : FCC Class B_PK 3m Vertical
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2402
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	4804.000	51.49	-0.23	51.26	74.00	-22.74	184	188	Peak
2	4804.000	41.05	-0.23	40.82	54.00	-13.18	184	188	Average
3	7206.000	34.55	8.40	42.95	74.00	-31.05	144	44	Peak
4	9608.000	31.76	10.03	41.79	74.00	-32.21	149	23	Peak
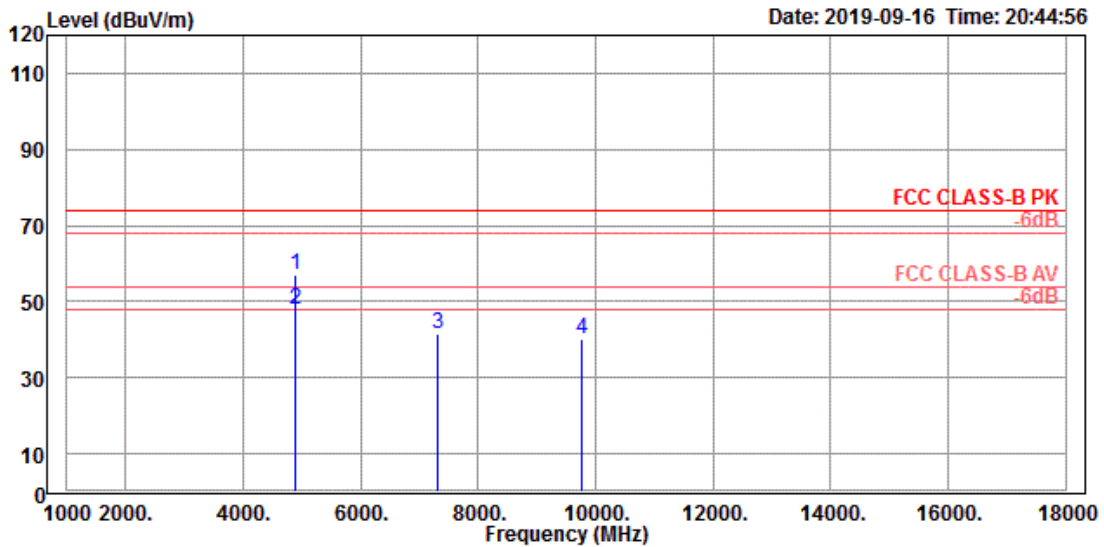
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Date: 2019-09-16 Time: 20:44:56

Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2440
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	4880.000	57.03	-0.09	56.94	74.00	-17.06	100	268	Peak
2	4880.000	47.94	-0.09	47.85	54.00	-6.15	100	268	Average
3	7320.000	32.89	8.65	41.54	74.00	-32.46	100	56	Peak
4	9760.000	30.22	9.84	40.06	74.00	-33.94	100	120	Peak

26

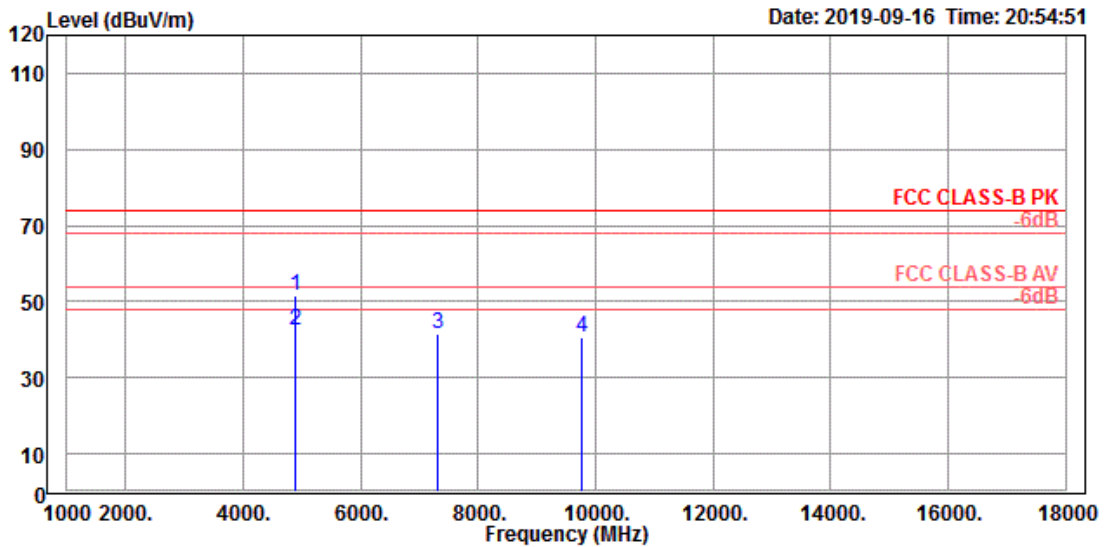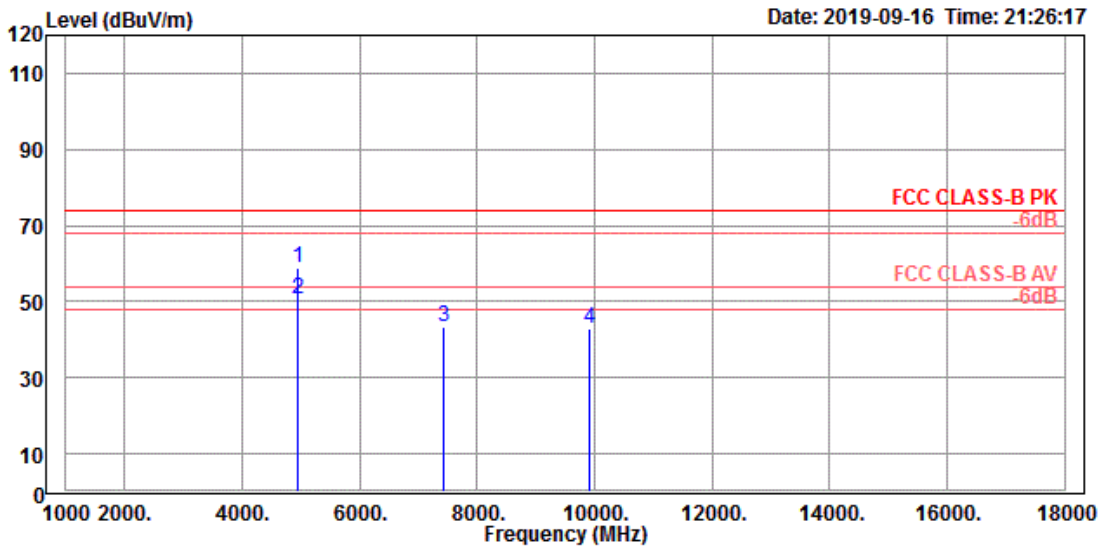Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m vertical
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2440
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	4880.000	51.68	-0.09	51.59	74.00	-22.41	100	72	Peak
2	4880.000	42.64	-0.09	42.55	54.00	-11.45	100	72	Average
3	7320.000	32.89	8.65	41.54	74.00	-32.46	123	75	Peak
4	9760.000	30.99	9.84	40.83	74.00	-33.17	100	163	Peak

Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Horizontal
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2480
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

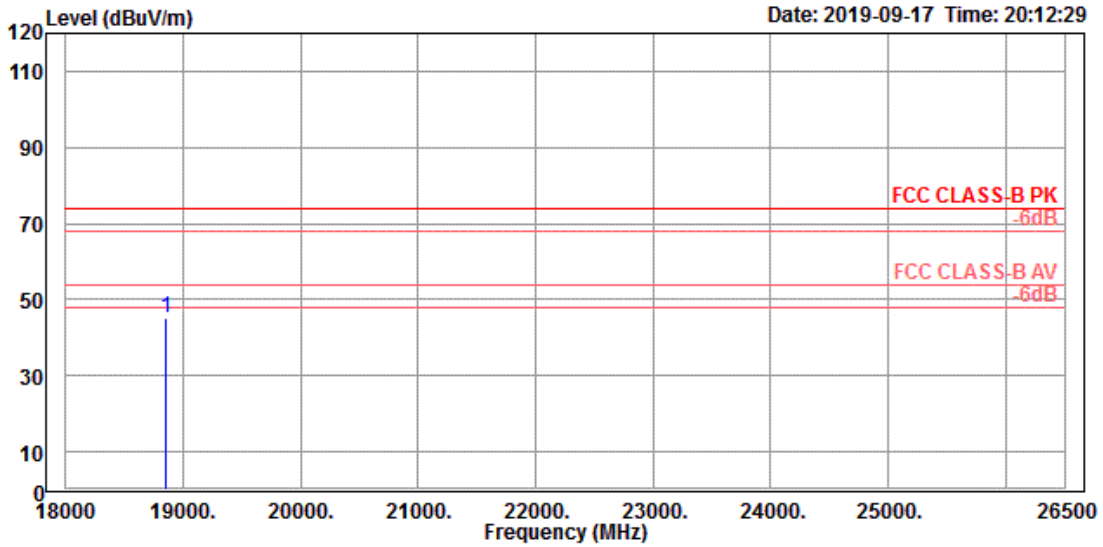|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	4960.000	58.62	0.07	58.69	74.00	-15.31	164	277	Peak
2 !	4960.000	50.63	0.07	50.70	54.00	-3.30	164	277	Average
3	7440.000	34.24	9.01	43.25	74.00	-30.75	156	122	Peak
4	9920.000	33.22	9.64	42.86	74.00	-31.14	186	25	Peak
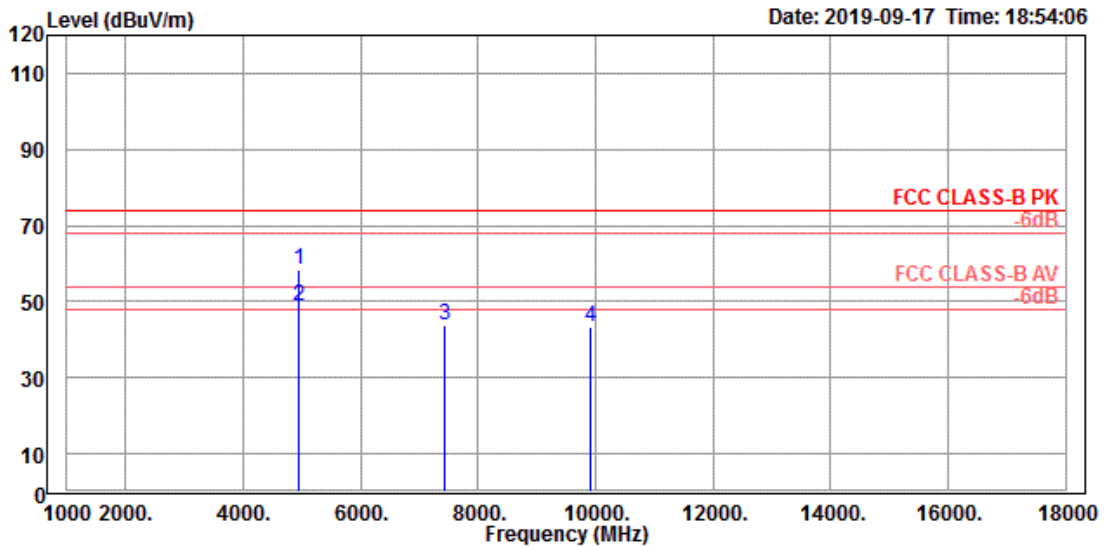
Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Vertical
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2480
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	4960.000	58.12	0.07	58.19	74.00	-15.81	108	239	Peak
2 !	4960.000	48.54	0.07	48.61	54.00	-5.39	108	239	Average
3	7440.000	34.99	9.01	44.00	74.00	-30.00	203	158	Peak
4	9920.000	33.57	9.64	43.21	74.00	-30.79	156	33	Peak

Spurious Emissions, TX Mode, 18GHz-26GHz

Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2402
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	18845.040	48.38	-2.98	45.40	74.00	-28.60	125	209	Peak
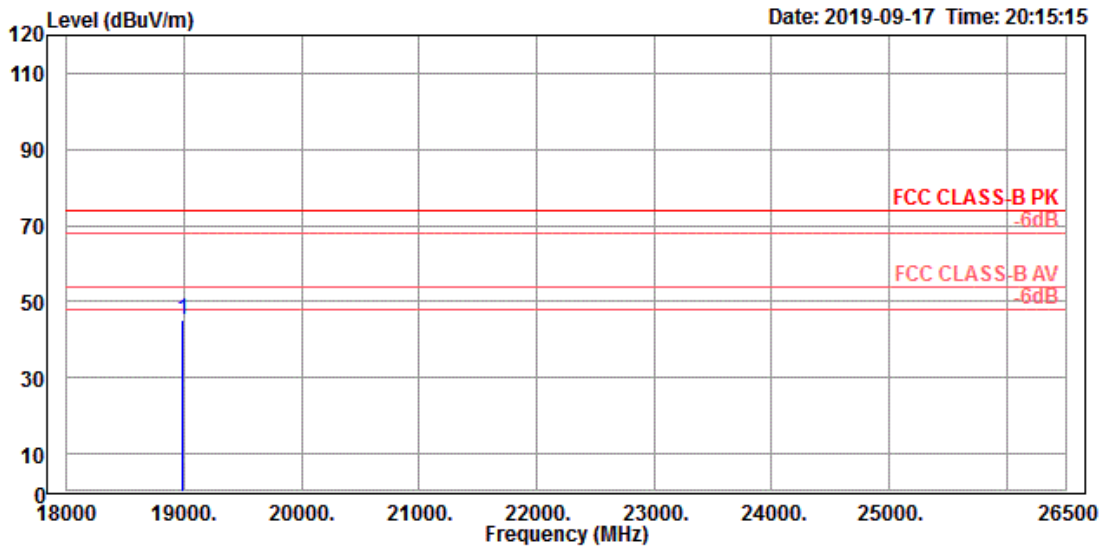
Date: 2019-09-17 Time: 20:15:15
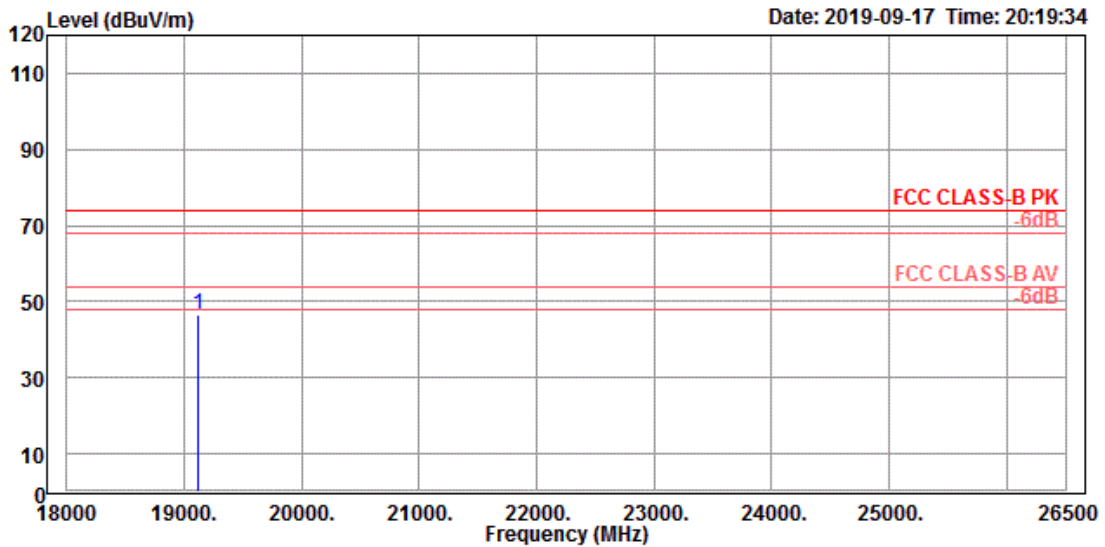
Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Vertical
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2402
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	18980.330	47.98	-2.99	44.99	74.00	-29.01	112	36	Peak

```
Site           : 966B Chamber B
Condition      : FCC CLASS-B PK 3m Horizontal
Test Engineer  : Simon Tasi
Product        : Window / Door Sensor
Model NO       : HKDS1
Mode           : 1M-TX-2440
Power setting  : 4
Test Rating    : DC3.6V
Tmp/Hum        : 23.5°C/67%
Plane          : X
```

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	19122.000	48.70	-1.94	46.76	74.00	-27.24	164	167	Peak
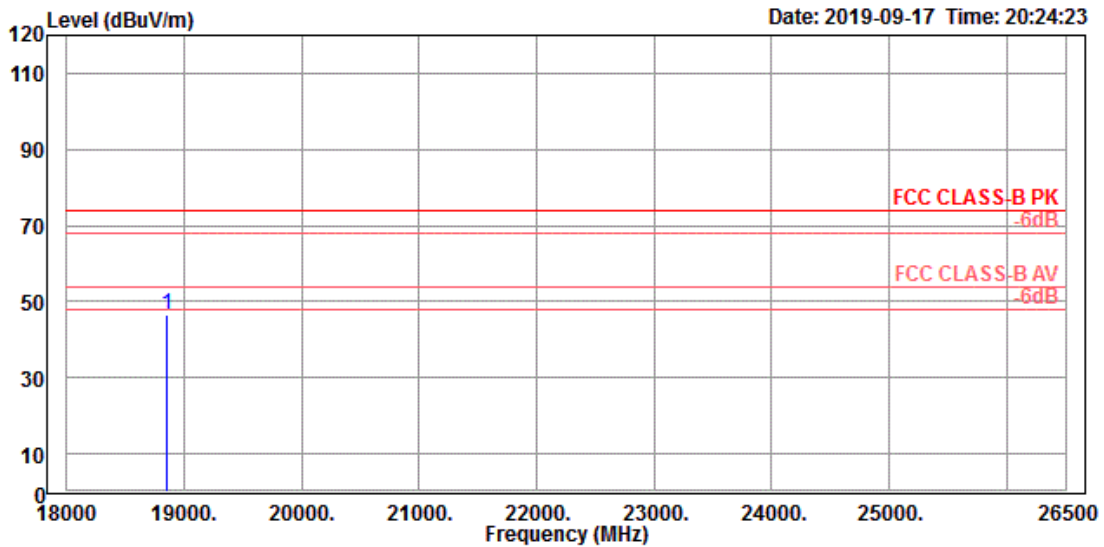
Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Vertical
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2440
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	18850.000	48.73	-2.21	46.52	74.00	-27.48	148	59	Peak
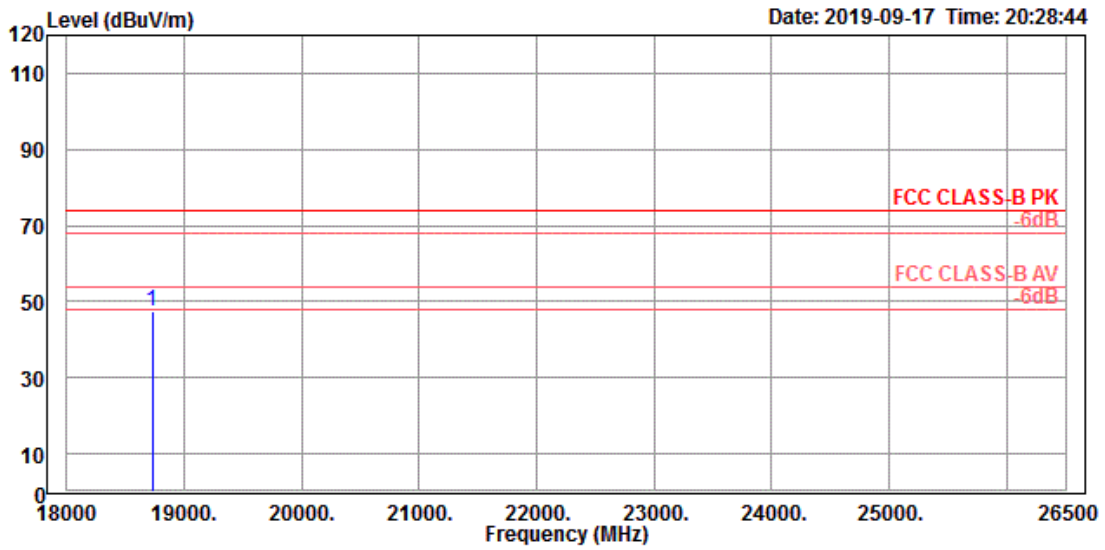
Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2480
Power setting : 3
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

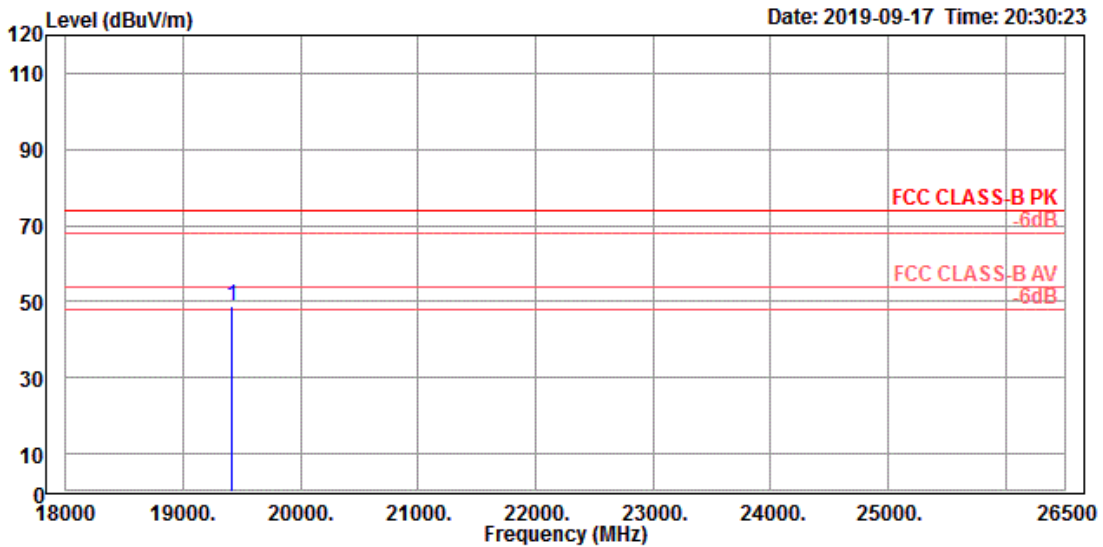|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	18724.630	49.47	-2.23	47.24	74.00	-26.76	148	217	Peak

Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Vertical
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2480
Power setting : 3
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

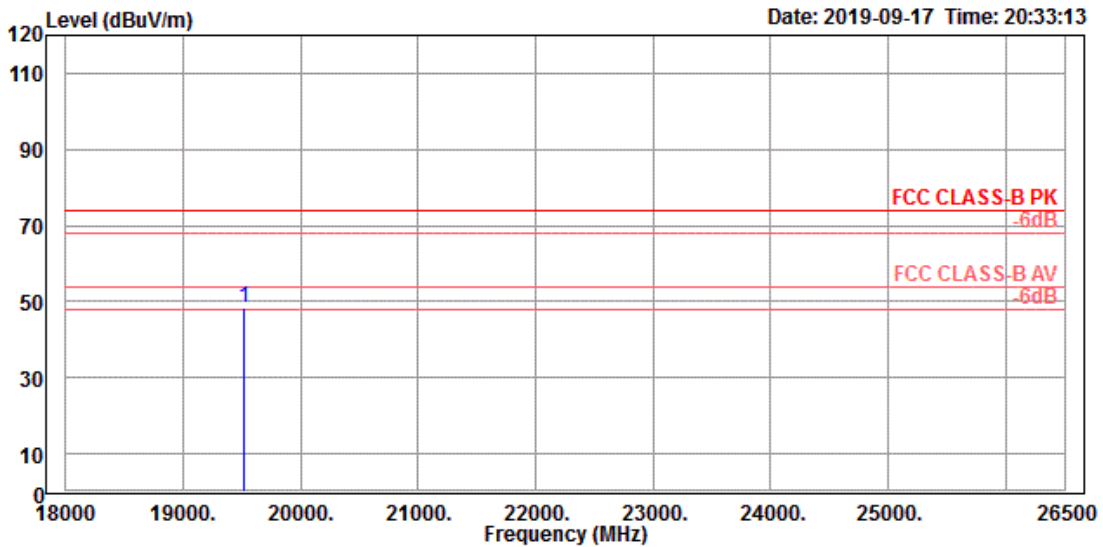|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	19406.750	50.62	-1.85	48.77	74.00	-25.23	158	134	Peak

Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Horizontal
Test Engineer   : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2402
Power setting   : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	19518.670	50.38	-1.96	48.42	74.00	-25.58	135	79	Peak

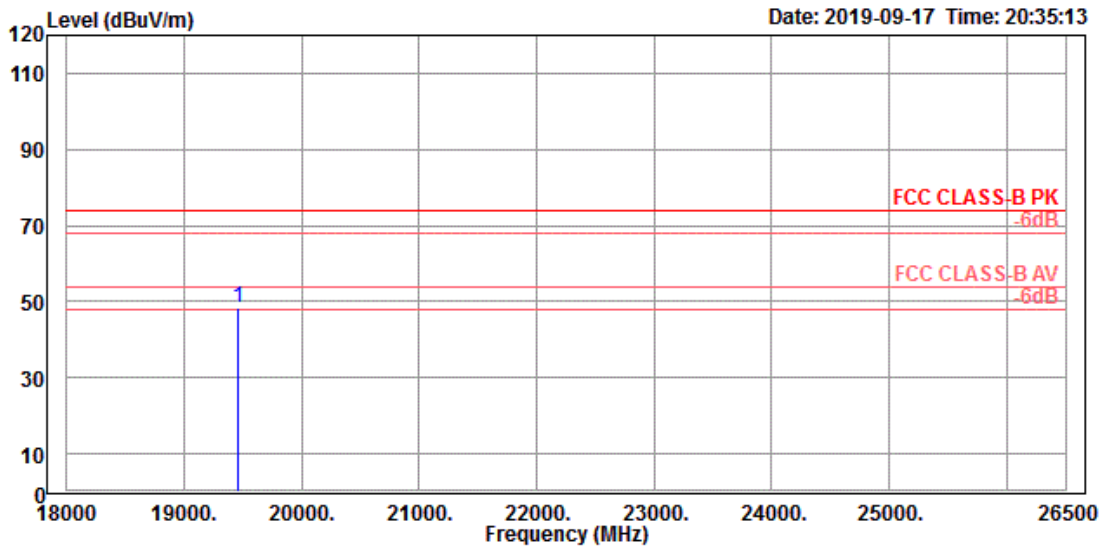Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Vertical
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2402
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	19459.170	50.45	-1.93	48.52	74.00	-25.48	125	166	Peak

Level (dBuV/m)   Date: 2019-09-17 Time: 20:42:45
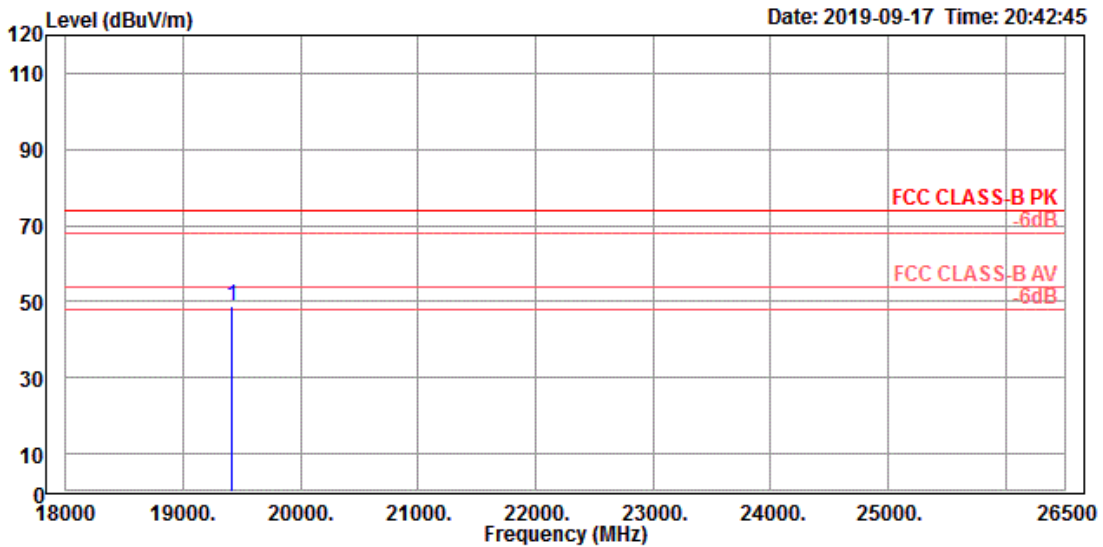


```
Site           : 966B Chamber B
Condition      : FCC CLASS-B PK 3m Horizontal
Test Engineer  : Simon Tasi
Product        : Window / Door Sensor
Model NO       : HKDS1
Mode           : 2M-TX-2480
Power setting  : 4
Test Rating    : DC3.6V
Tmp/Hum        : 23.5°C/67%
Plane          : X
```

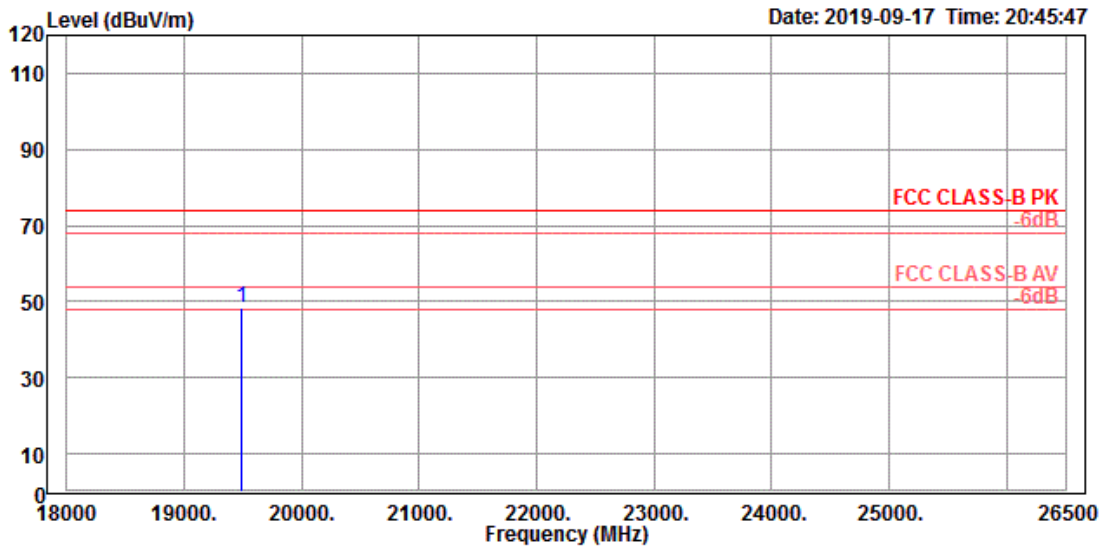|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	19411.710	50.60	-1.86	48.74	74.00	-25.26	129	58	Peak

Site   : 966B Chamber B
Condition   : FCC CLASS-B PK 3m Vertical
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2480
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	19486.080	50.36	-1.96	48.40	74.00	-25.60	133	206	Peak

Spurious Emissions, TX Mode, 30MHz-1GHz

TUV Rheinland Taiwan Ltd.
11F., No. 758, Sec. 4 Bade Road. Songshan Dist, Taipei City 105
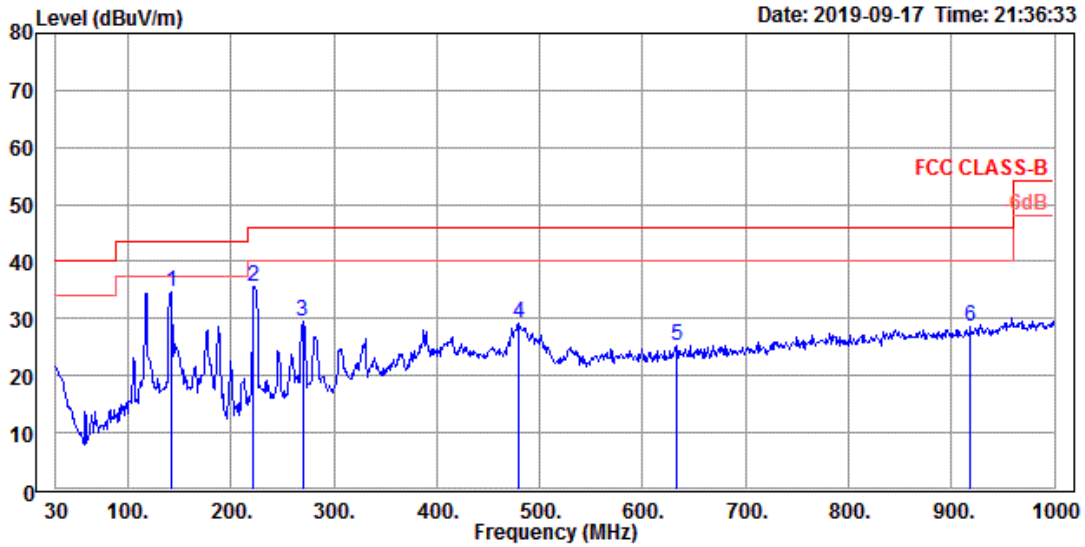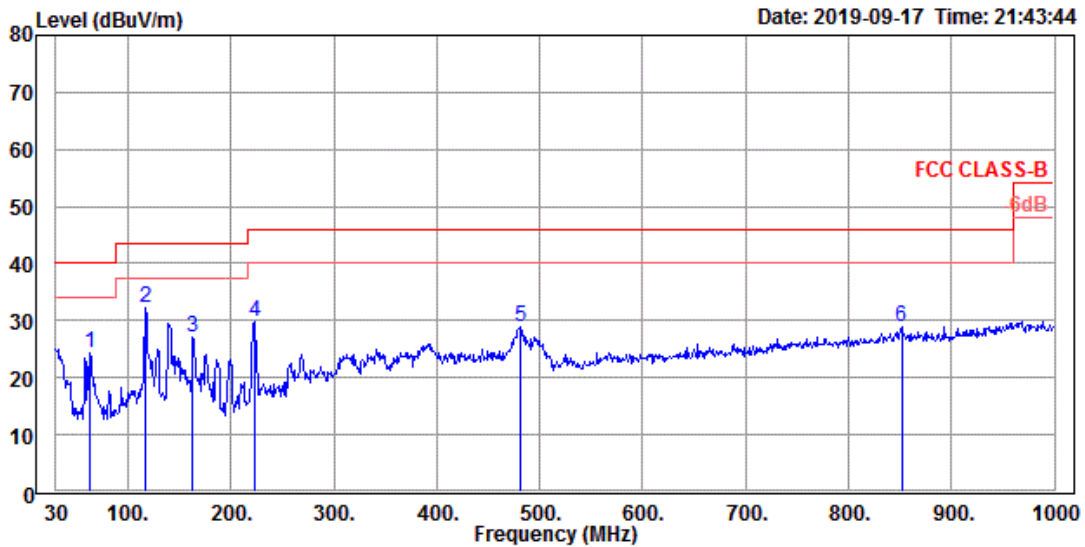Tel:+886-2172-7000 Fax:+886-2528-0018

Site   : 966B Chamber B
Condition   : FCC CLASS-B 3m Horizontal
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2440
Power setting: 4
Test Rating : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

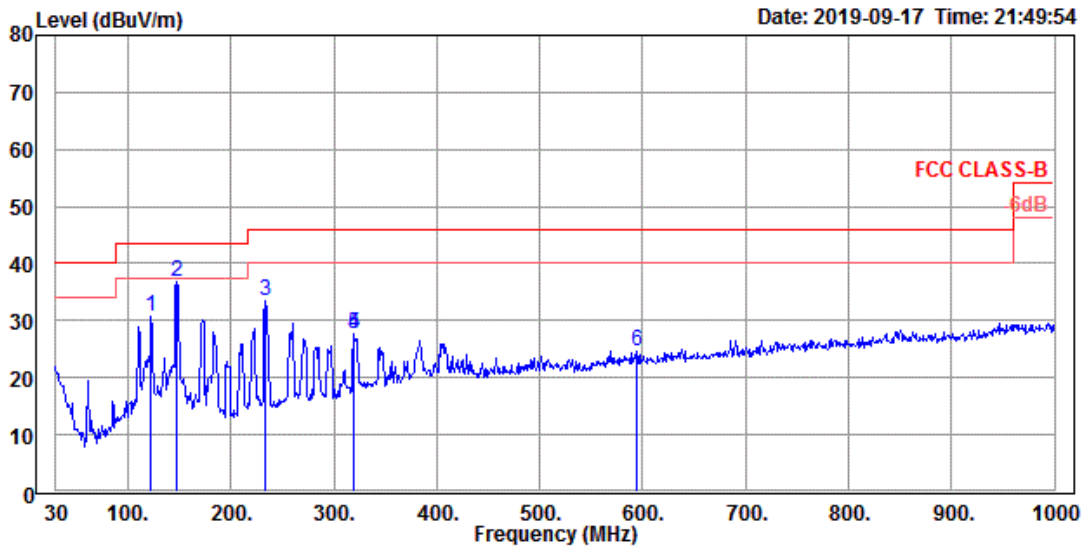|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	141.550	52.90	-18.28	34.62	43.50	-8.88	100	52	QP
2	222.060	54.87	-19.40	35.47	46.00	-10.53	100	69	QP
3	269.590	45.90	-16.35	29.55	46.00	-16.45	100	79	QP
4	480.080	41.35	-12.09	29.26	46.00	-16.74	100	155	QP
5	632.370	34.84	-9.61	25.23	46.00	-20.77	100	120	QP
6	918.520	34.55	-6.10	28.45	46.00	-17.55	100	88	QP

Site   : 966B Chamber B
Condition   : FCC CLASS-B 3m Vertical
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2440
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	62.980	49.13	-24.85	24.28	40.00	-15.72	100	53	QP
2	117.300	50.88	-18.67	32.21	43.50	-11.29	100	59	QP
3	162.890	46.18	-19.26	26.92	43.50	-16.58	100	89	QP
4	224.000	48.95	-19.23	29.72	46.00	-16.28	100	79	QP
5	481.050	40.83	-12.06	28.77	46.00	-17.23	100	256	QP
6	851.590	35.72	-6.67	29.05	46.00	-16.95	100	188	QP

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Site   : 966B Chamber B
Condition   : FCC CLASS-B 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2440
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	122.150	49.08	-18.38	30.70	43.50	-12.80	100	45	QP
2	147.370	55.34	-18.45	36.89	43.50	-6.61	100	89	QP
3	233.700	52.01	-18.54	33.47	46.00	-12.53	100	56	QP
4	320.030	43.39	-15.86	27.53	46.00	-18.47	100	161	QP
5	320.030	43.39	-15.86	27.53	46.00	-18.47	100	186	QP
6	593.570	34.99	-10.27	24.72	46.00	-21.28	100	99	QP

Level (dBuV/m)   Date: 2019-09-17 Time: 21:54:34
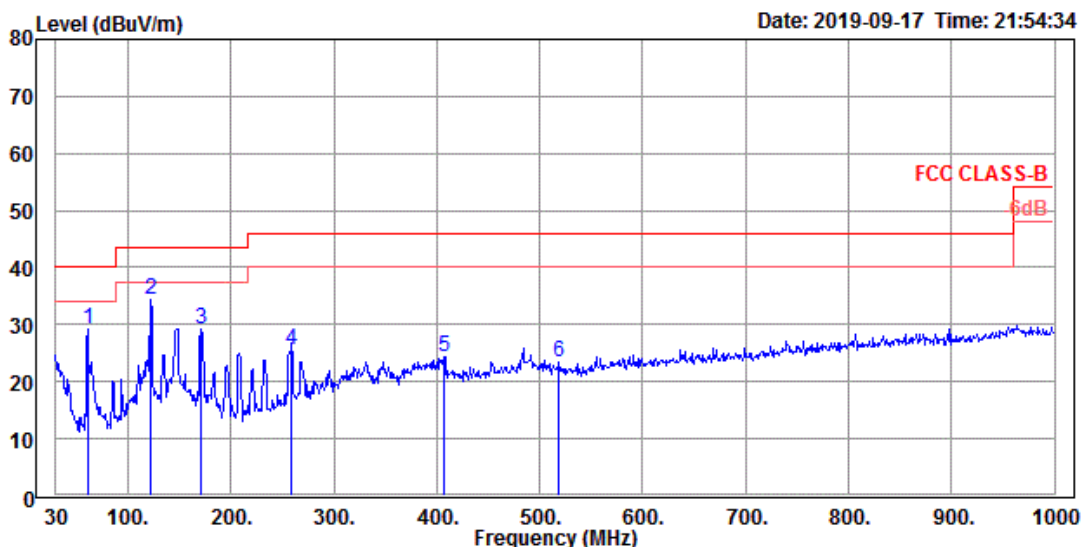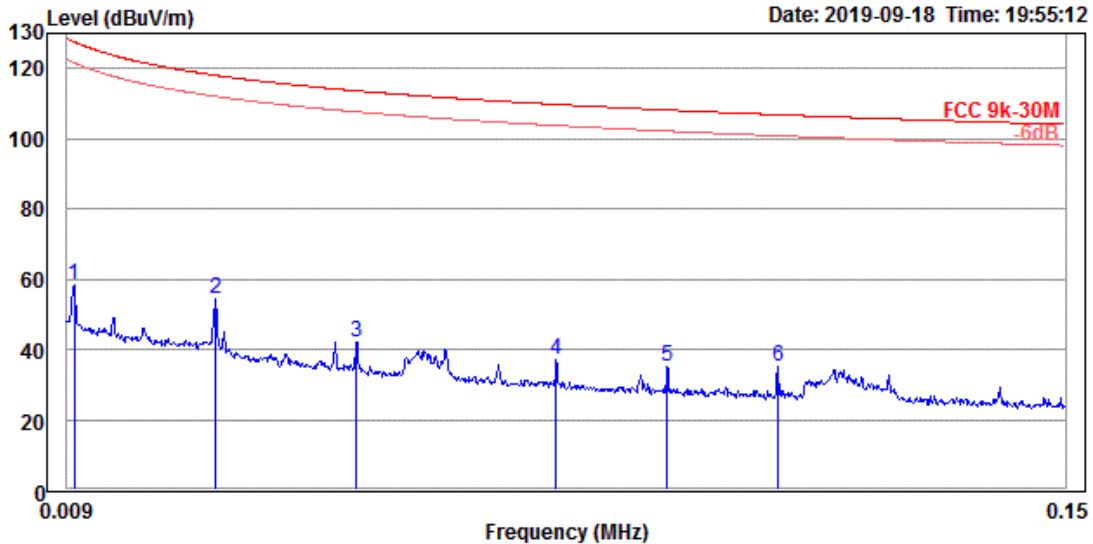
```
Site            : 966B Chamber B
Condition       : FCC CLASS-B 3m Vertical
Test Engineer   : Simon Tasi
Product         : Window / Door Sensor
Model NO        : HKDS1
Mode            : 2M-TX-2440
Power setting   : 4
Test Rating     : DC3.6V
Tmp/Hum         : 23.5°C/67%
Plane           : X
```

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	61.040	53.94	-24.77	29.17	40.00	-10.83	100	12	QP
2	121.180	52.77	-18.46	34.31	43.50	-9.19	100	36	QP
3	170.650	49.25	-20.09	29.16	43.50	-14.34	100	56	QP
4	257.950	41.86	-16.16	25.70	46.00	-20.30	100	85	QP
5	406.360	37.55	-13.22	24.33	46.00	-21.67	100	163	QP
6	518.880	34.91	-11.39	23.52	46.00	-22.48	100	32	QP

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Spurious Emissions, TX Mode, 9kHz-30MHz

Site   : 966B Chamber B
Condition   : FCC 9k-30M 3m Horizontal
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2440
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	0.010	40.23	18.03	58.26	127.60	-69.34	100	36	QP
2	0.030	35.53	18.94	54.47	118.05	-63.58	100	115	QP
3	0.050	23.12	18.85	41.97	113.63	-71.66	100	79	QP
4	0.078	18.81	18.18	36.99	109.74	-72.75	100	118	QP
5	0.094	17.46	17.80	35.26	108.16	-72.90	100	231	QP
6	0.109	17.21	17.69	34.90	106.82	-71.92	100	145	QP
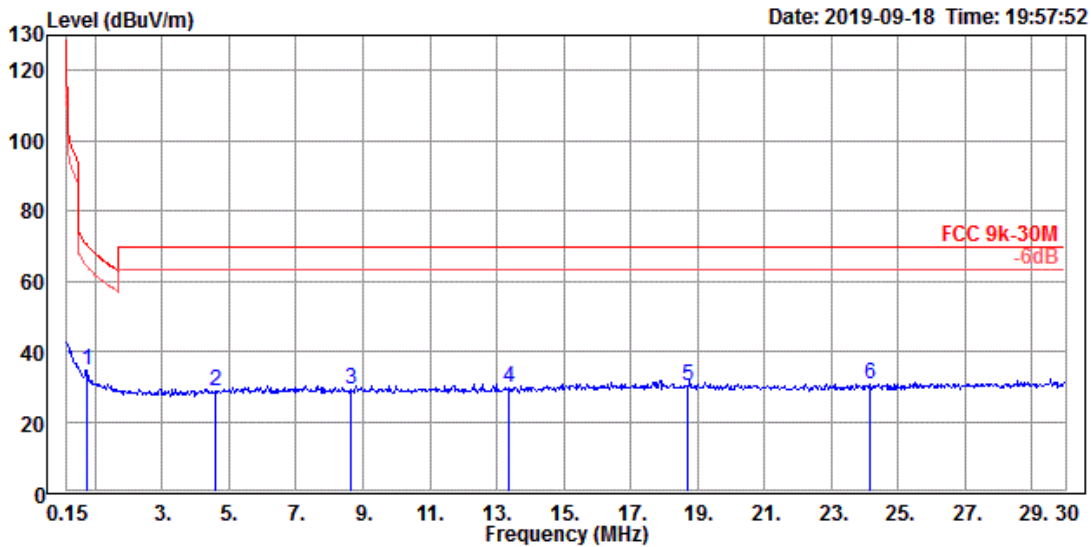
Level (dBuV/m)   Date: 2019-09-18 Time: 19:57:52
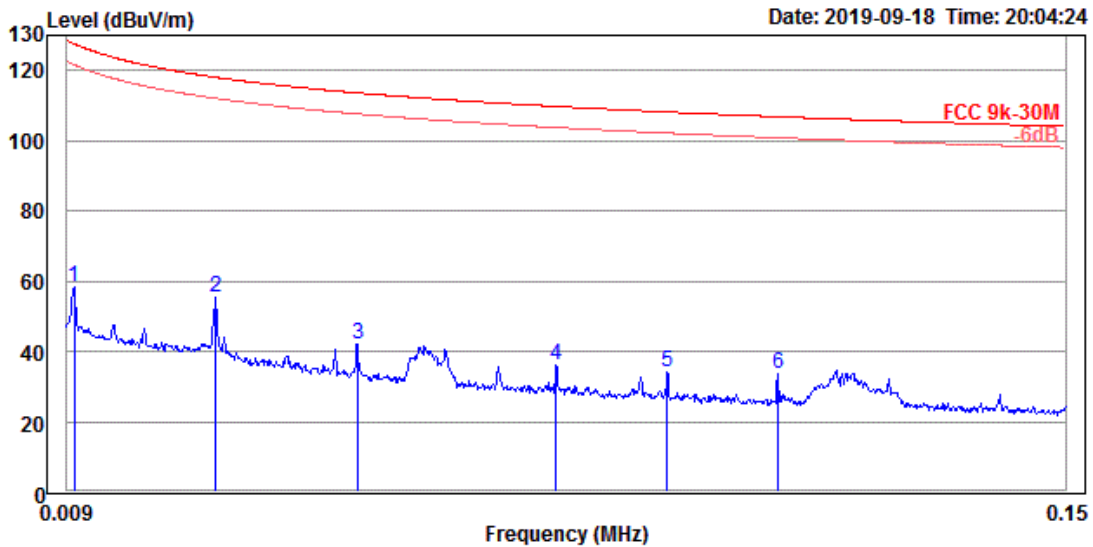
Site   : 966B Chamber B
Condition   : FCC 9k-30M 3m Horizontal
Test Engineer: Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 1M-TX-2440
Power setting: 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

|	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	0.747	16.11	18.48	34.59	70.15	-35.56	100	75	QP
2	4.598	9.66	19.14	28.80	69.50	-40.70	100	29	QP
3	8.627	9.04	20.06	29.10	69.50	-40.40	100	36	QP
4	13.374	9.12	20.66	29.78	69.50	-39.72	100	112	QP
5	18.687	9.00	21.18	30.18	69.50	-39.32	100	58	QP
6	24.149	8.97	21.51	30.48	69.50	-39.02	100	208	QP

Site   : 966B Chamber B
Condition   : FCC 9k-30M 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2440
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	0.010	40.50	18.03	58.53	127.60	-69.07	100	56	QP
2	0.030	36.46	18.94	55.40	118.05	-62.65	100	78	QP
3	0.050	23.20	18.85	42.05	113.61	-71.56	100	111	QP
4	0.078	17.95	18.18	36.13	109.74	-73.61	100	58	QP
5	0.094	16.48	17.80	34.28	108.16	-73.88	100	178	QP
6	0.109	16.05	17.69	33.74	106.82	-73.08	100	39	QP
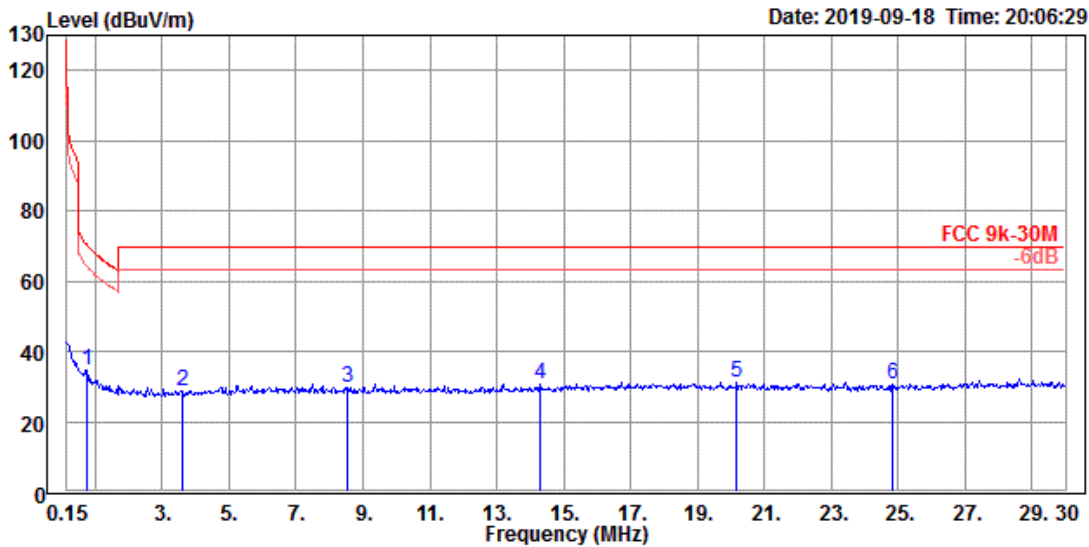
Site   : 966B Chamber B
Condition   : FCC 9k-30M 3m Horizontal
Test Engineer : Simon Tasi
Product   : Window / Door Sensor
Model NO   : HKDS1
Mode   : 2M-TX-2440
Power setting : 4
Test Rating   : DC3.6V
Tmp/Hum   : 23.5°C/67%
Plane   : X

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	APos	TPos	Remark
	MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	cm	deg	
1	0.747	16.08	18.48	34.56	70.15	-35.59	100	25	QP
2	3.583	9.96	18.76	28.72	69.50	-40.78	100	144	QP
3	8.538	9.76	20.04	29.80	69.50	-39.70	100	58	QP
4	14.299	9.81	20.76	30.57	69.50	-38.93	100	163	QP
5	20.179	9.77	21.32	31.09	69.50	-38.41	100	208	QP
6	24.836	9.17	21.53	30.70	69.50	-38.80	100	177	QP