

Test Report No.50093754 001

Appendix D: Radiated Spurious Emission Data

(File: 50093754AppendixD)

Contents

Radiated Emissions, Fundamental.....	2
Spurious Emissions, TX Mode, 1-10G.....	4
Spurious Emissions, TX Mode, 30M-1G	6
Spurious Emissions, TX Mode, 150K-30M	8
Spurious Emissions, TX Mode, 9K-150K.....	9
Spurious Emissions, RX Mode, 1-10G	10
Spurious Emissions, RX Mode, 30M-1G.....	12
Spurious Emissions, RX Mode, 150K-30M.....	14
Spurious Emissions, RX Mode, 9K-150K.....	15

Radiated Emissions, Fundamental

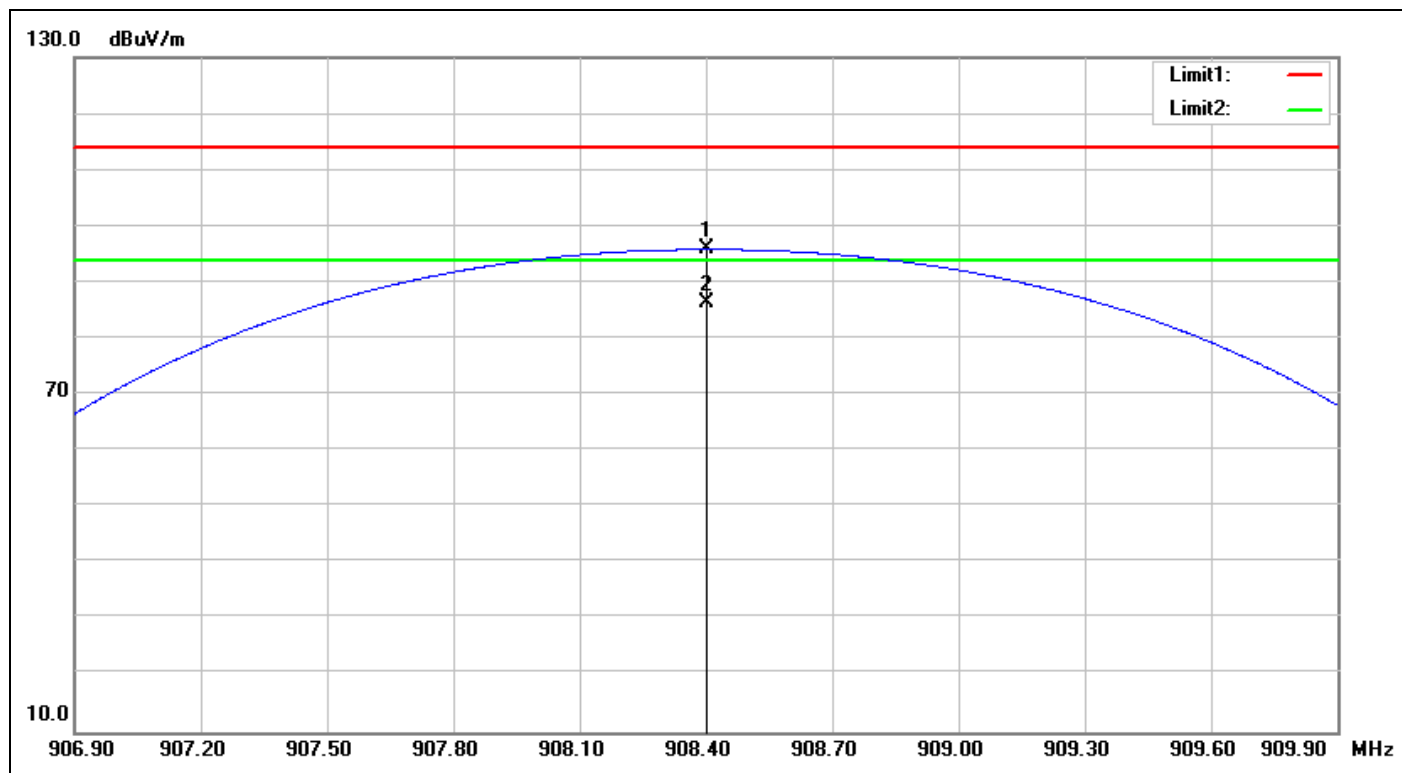
Radiated Emissions, Fundamental



TUV Taiwan

11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

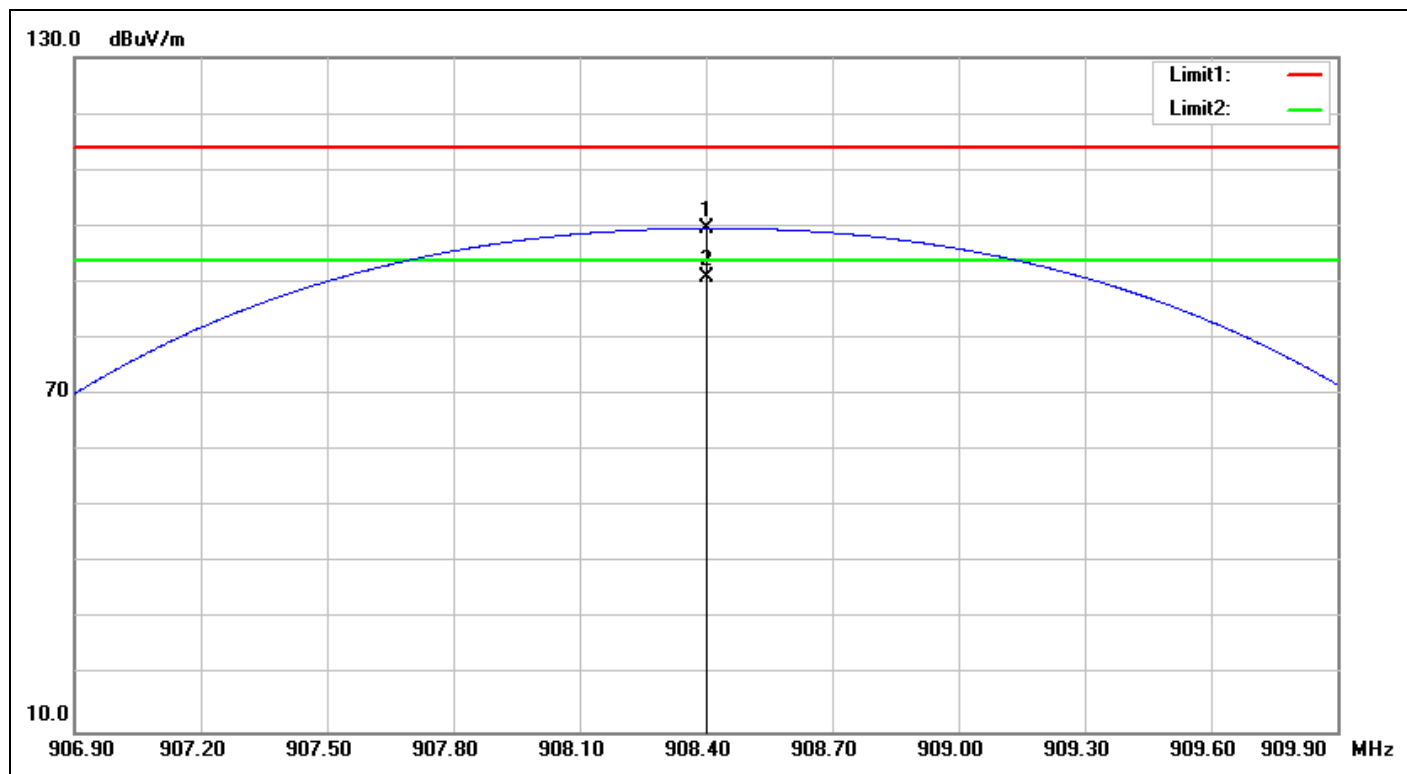
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC 15.249_3m PK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2017/7/12 18:14:08
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	908.4000	4.39	91.45	95.84	114.00	-18.16	peak	200	296	
2	908.4000	4.39	82.11	86.50	94.00	-7.50	AVG	200	296	

Radiated Emissions, Fundamental



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC 15.249_3m PK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2017/7/12 18:20:17
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	908.4000	4.39	95.19	99.58	114.00	-14.42	peak	100	208	
2	908.4000	4.39	86.34	90.73	94.00	-3.27	AVG	100	208	

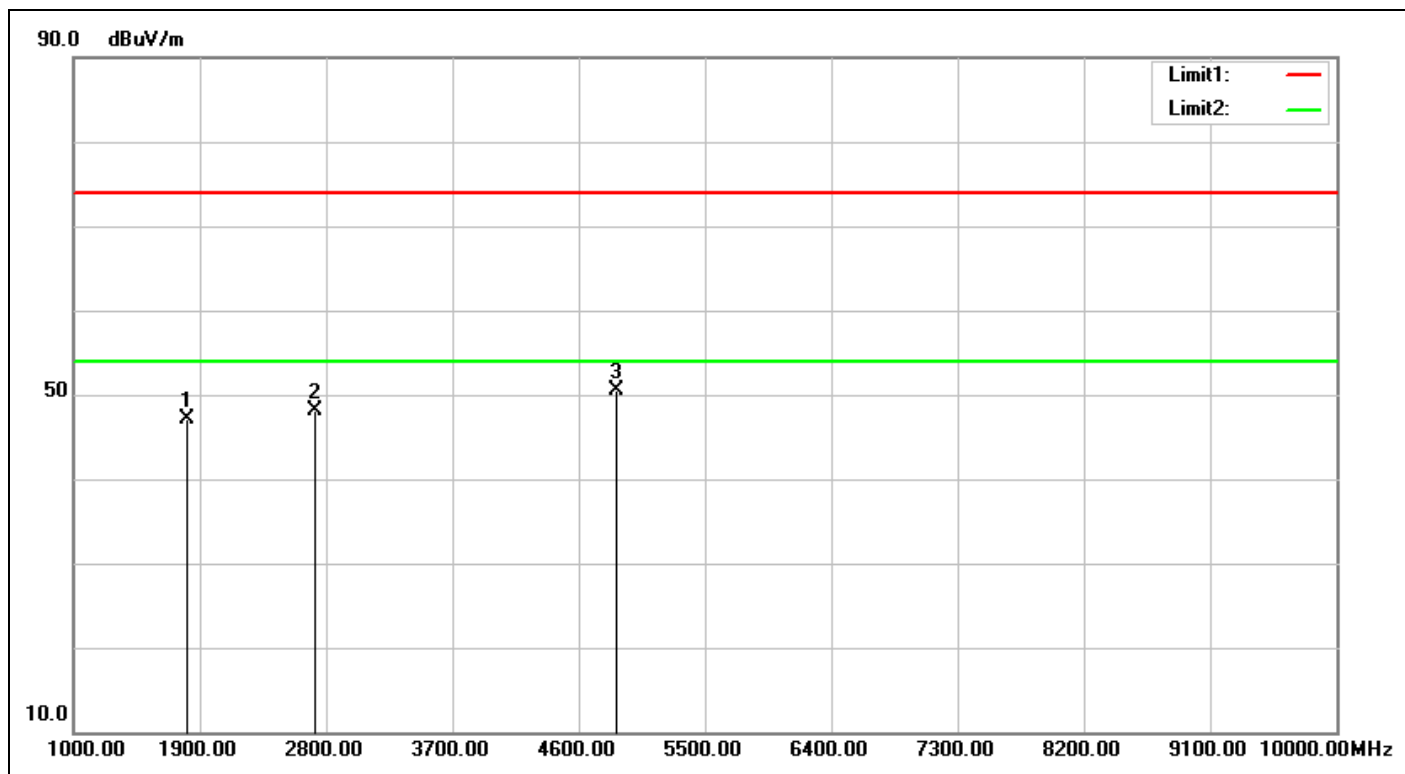
Spurious Emissions, TX Mode, 1-10G



TUV Taiwan

11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

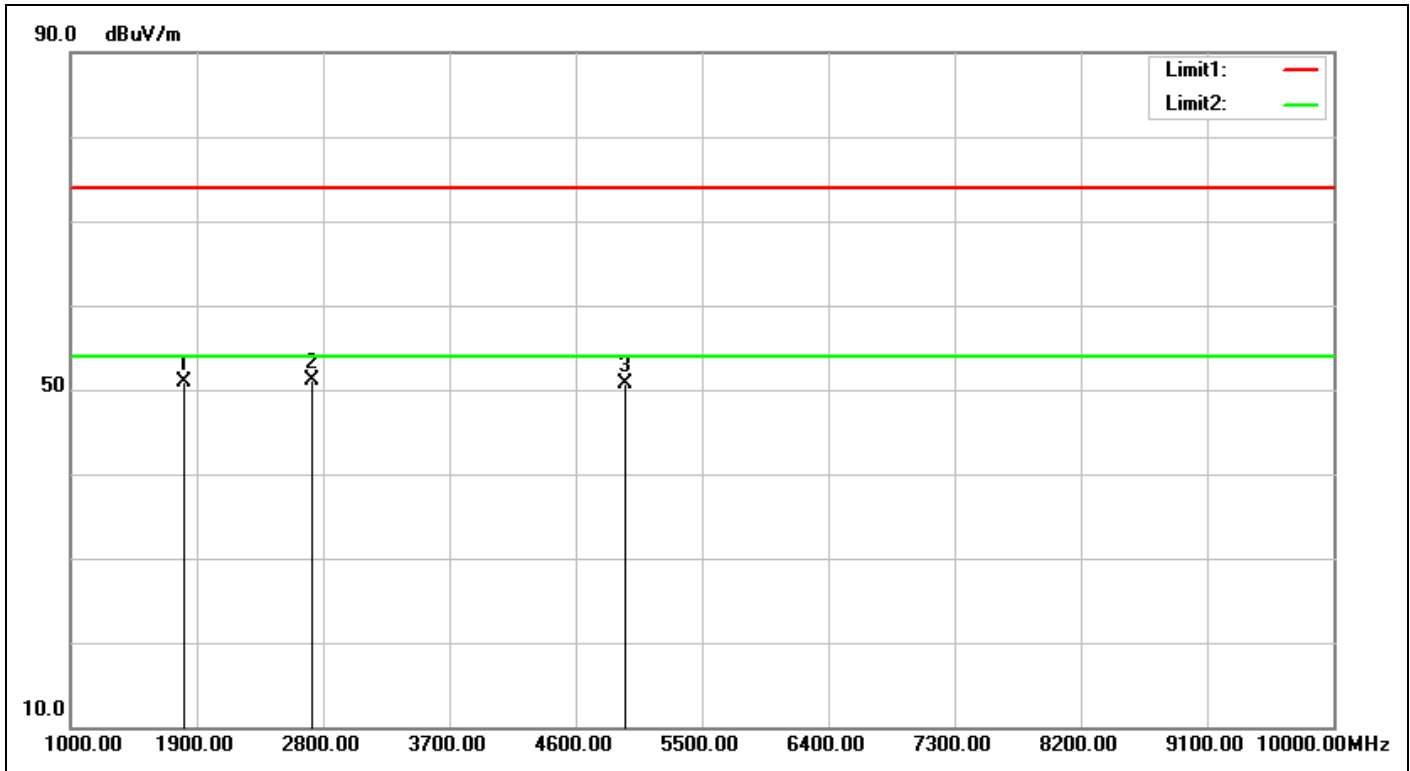
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2017/7/11 22:19:43
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1816.800	-7.38	54.57	47.19	74.00	-26.81	peak	100	360	
2	2725.200	-5.30	53.41	48.11	74.00	-25.89	peak	100	60	
3	4870.000	-0.24	50.73	50.49	74.00	-23.51	peak	100	204	

Spurious Emissions, TX Mode, 30M-1G



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2017/7/11 22:20:46
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	1816.800	-7.38	58.28	50.90	74.00	-23.10	peak	100	194	
2	2725.200	-5.30	56.50	51.20	74.00	-22.80	peak	100	164	
3	4951.000	-0.10	50.88	50.78	74.00	-23.22	peak	100	108	

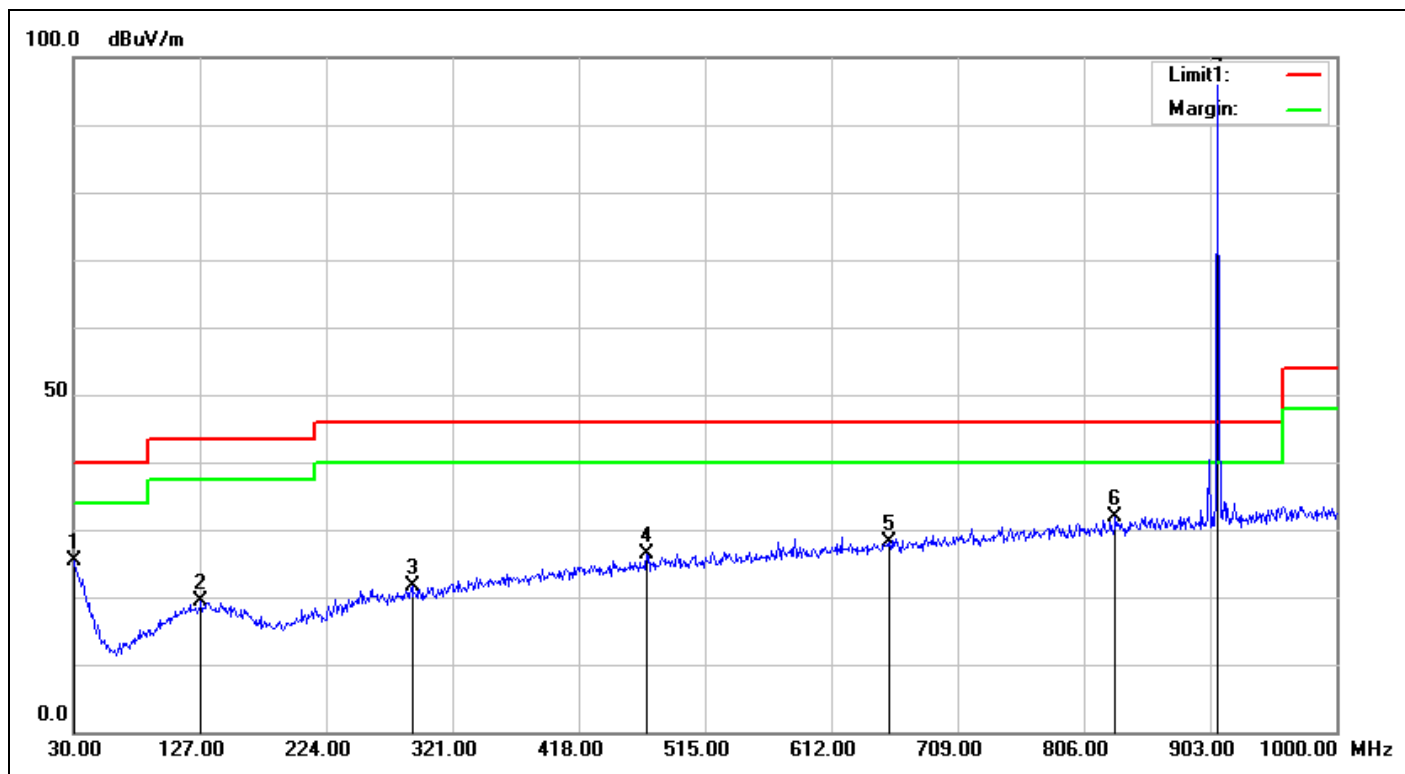
Spurious Emissions, TX Mode, 30M-1G



TUV Taiwan

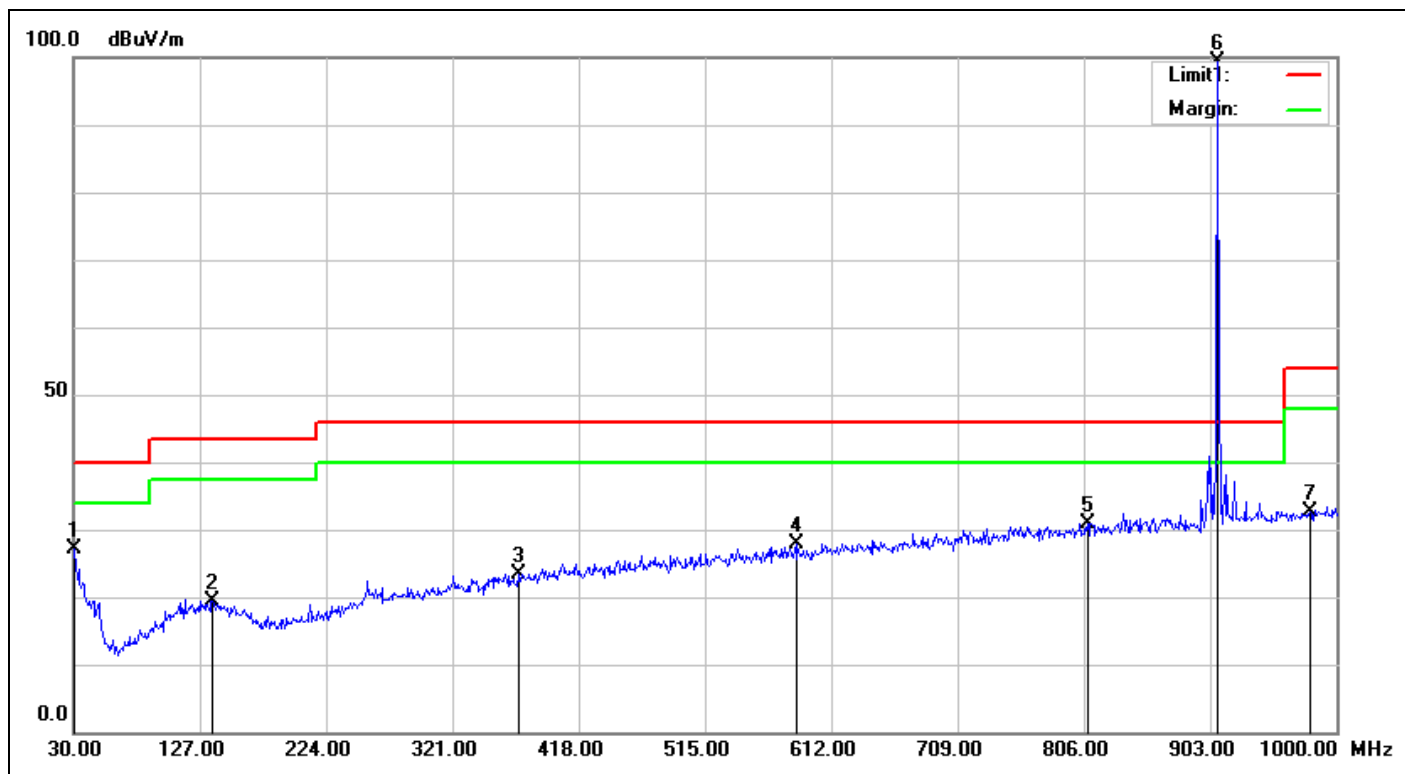
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2017/7/11 20:30:49
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.0000	-0.08	25.45	25.37	40.00	-14.63	QP	300	179	
2	127.9699	-7.10	26.57	19.47	43.50	-24.03	QP	400	248	
3	289.9599	-4.79	26.31	21.52	46.00	-24.48	QP	200	221	
4	470.3799	-1.66	27.96	26.30	46.00	-19.70	QP	101	278	
5	656.6200	0.60	27.64	28.24	46.00	-17.76	QP	100	227	
6	830.2500	3.38	28.41	31.79	46.00	-14.21	QP	200	269	
7	908.4000	4.39	91.44	95.83	46.00	49.83	QP	101	108	Tx



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2017/7/11 20:36:08
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.0000	-0.08	27.12	27.04	40.00	-12.96	QP	300	40	
2	136.7000	-7.04	26.49	19.45	43.50	-24.05	QP	200	179	
3	371.4400	-3.04	26.49	23.45	46.00	-22.55	QP	150	247	
4	584.8400	-0.26	28.10	27.84	46.00	-18.16	QP	200	166	
5	808.9099	3.01	27.98	30.99	46.00	-15.01	QP	100	349	
6	908.4000	4.39	95.07	99.46	46.00	53.46	QP	100	189	Tx
7	979.6300	5.64	27.03	32.67	54.00	-21.33	QP	100	142	

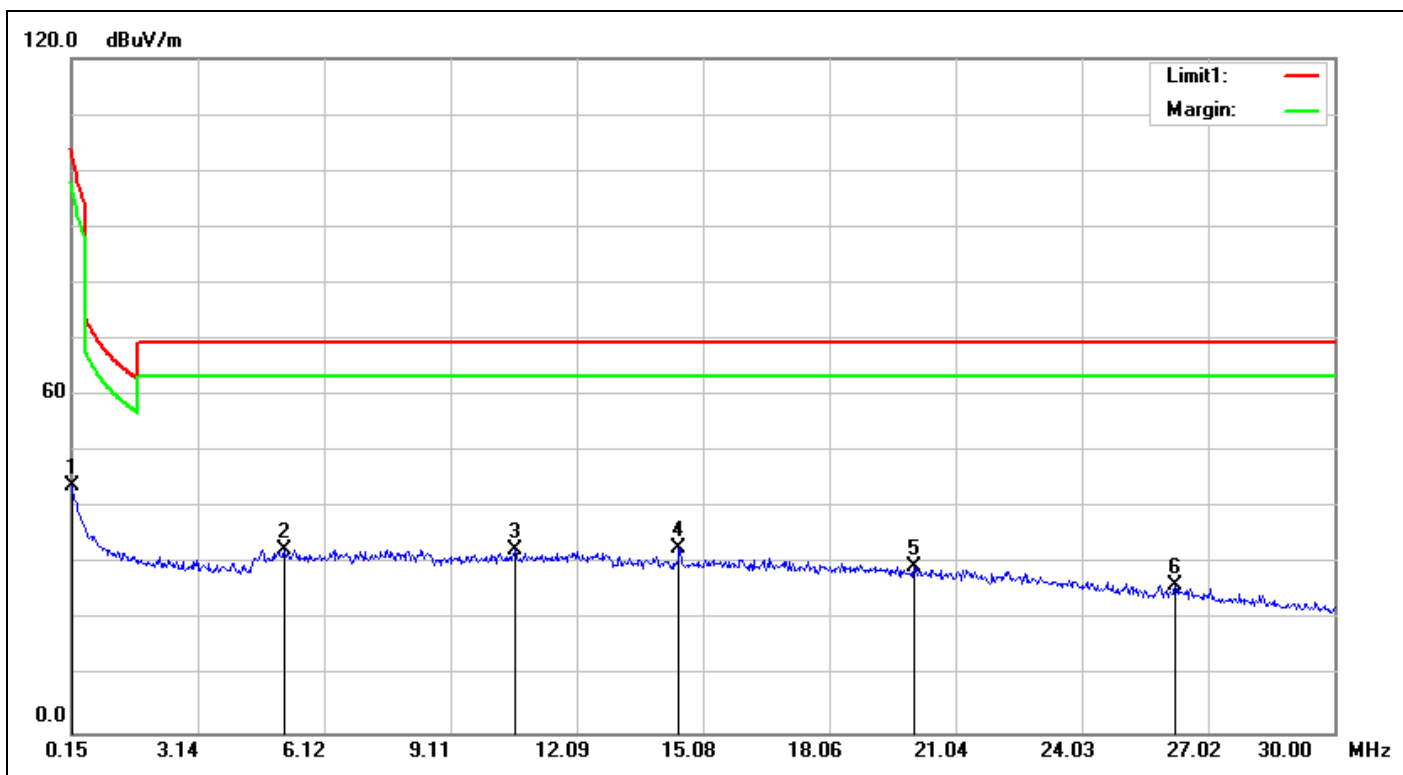
Spurious Emissions, TX Mode, 150K-30M



TUV Taiwan

11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel: +886-2172-7000 fax: +886-2528-0018



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC15.209_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2017/7/11 20:57:03
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1500	19.08	24.75	43.83	104.02	-60.19	QP	100	291	
2	5.1648	19.77	12.81	32.58	69.50	-36.92	QP	100	204	
3	10.6273	20.33	12.08	32.41	69.50	-37.09	QP	100	272	
4	14.5078	21.02	11.73	32.75	69.50	-36.75	QP	100	168	
5	20.0600	21.99	7.58	29.57	69.50	-39.93	QP	100	139	
6	26.2389	22.40	3.72	26.12	69.50	-43.38	QP	100	127	

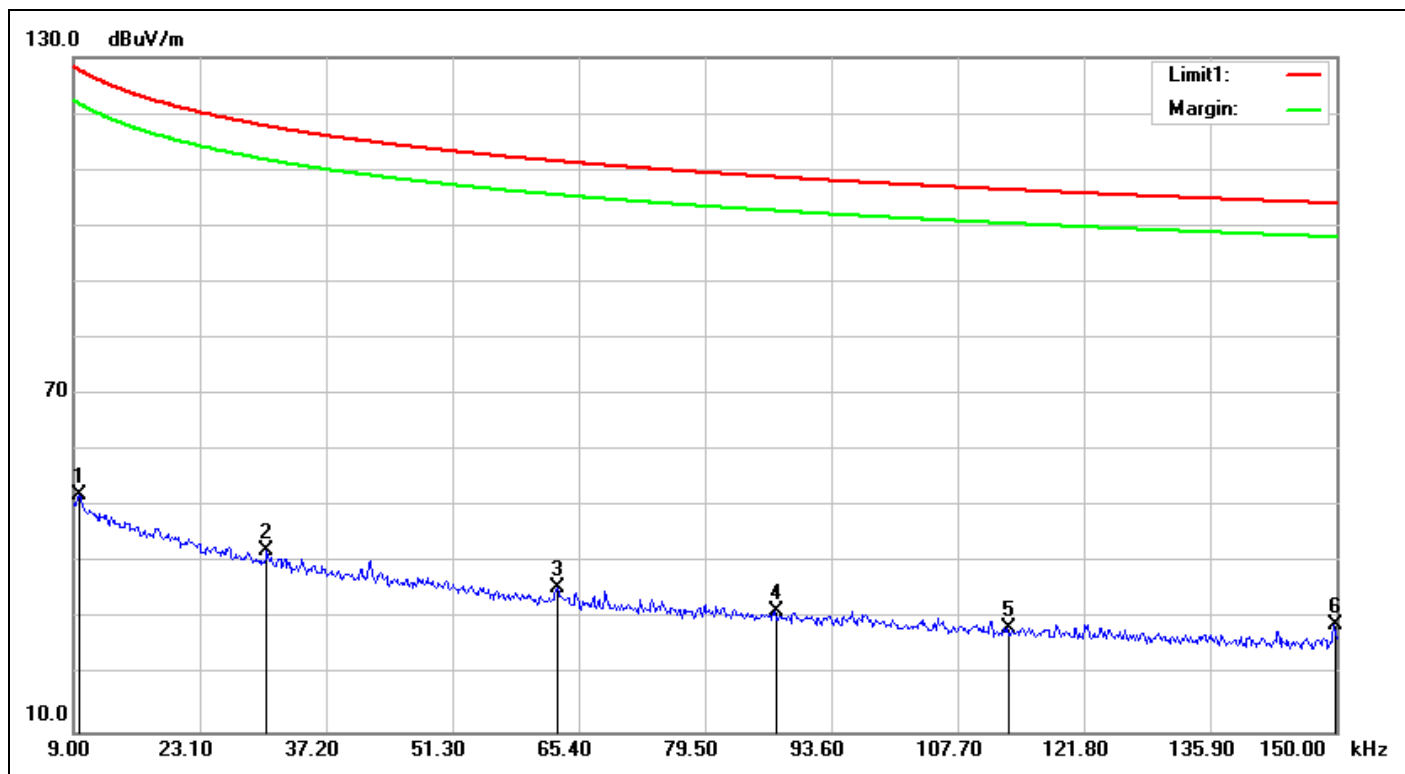
Spurious Emissions, TX Mode, 9K-150K



TUV Taiwan

11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC15.209_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2017/7/11 20:54:13
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0096	19.80	32.31	52.11	127.75	-75.64	QP	100	139	
2	0.0306	20.10	22.03	42.13	117.74	-75.61	QP	100	201	
3	0.0629	19.35	16.31	35.66	111.52	-75.86	QP	100	115	
4	0.0873	19.21	12.10	31.31	108.69	-77.38	QP	100	86	
5	0.1132	19.12	9.35	28.47	106.45	-77.98	QP	100	216	
6	0.1497	19.08	10.07	29.15	104.03	-74.88	QP	100	92	

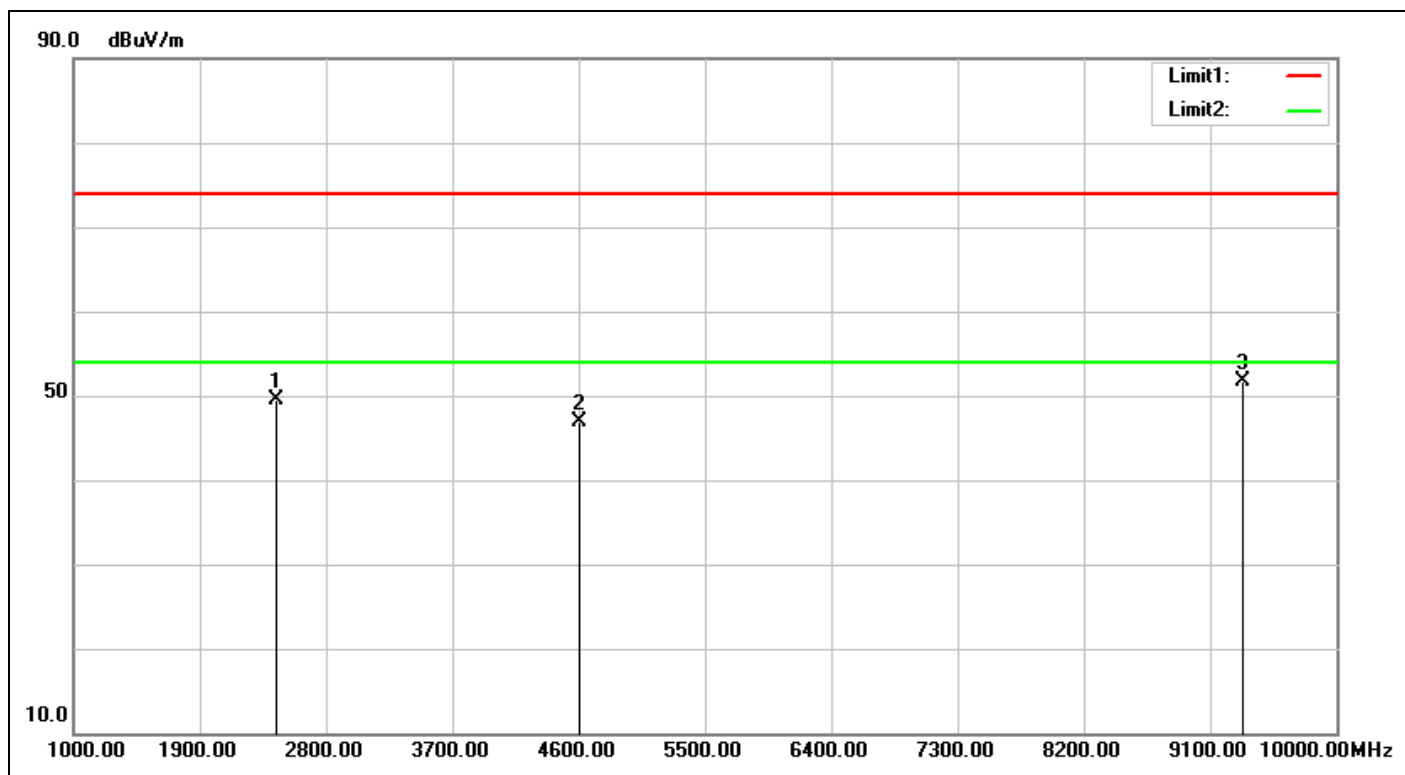
Spurious Emissions, RX Mode, 1-10G



TUV Taiwan

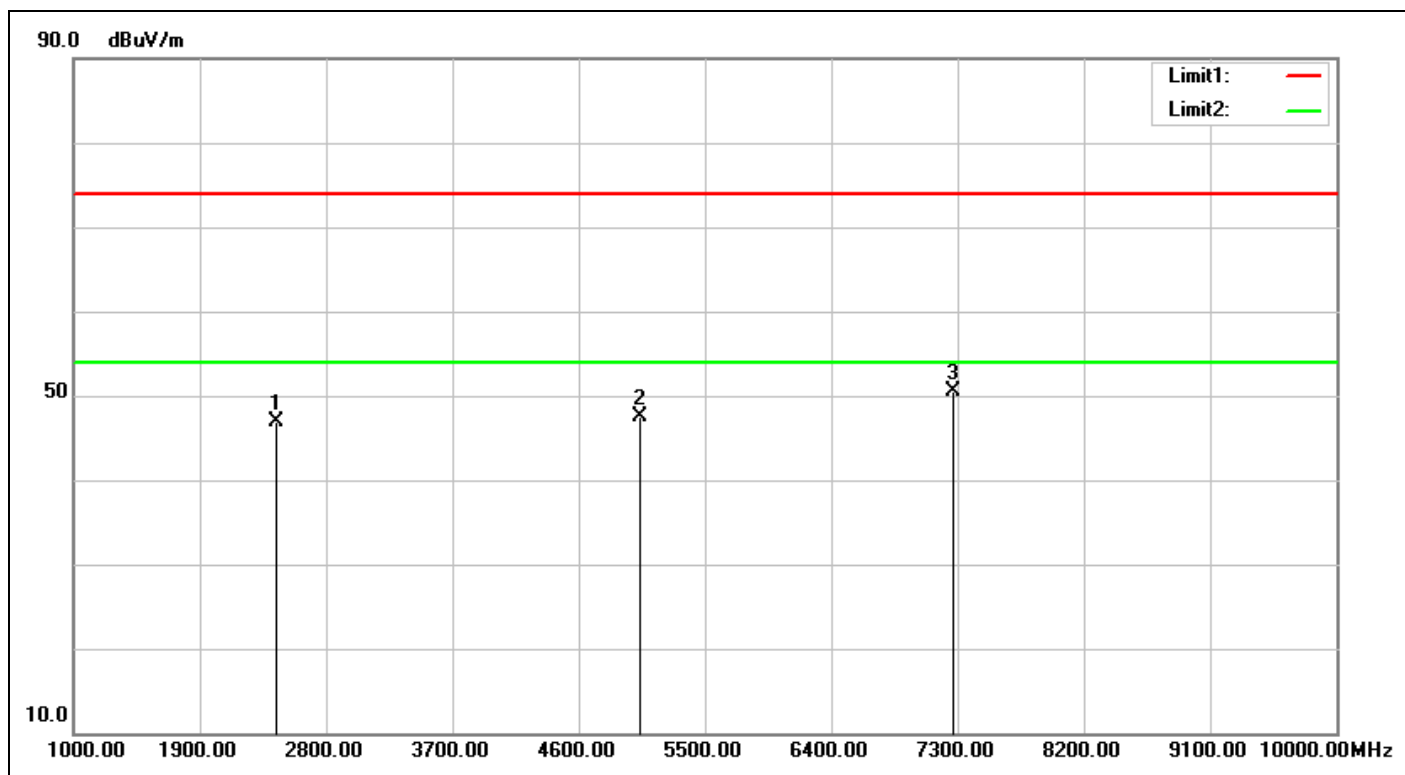
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

Tel: +886-2172-7000 fax: +886-2528-0018



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2017/7/11 17:33:43
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%)	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	2449.000	-7.94	57.48	49.54	74.00	-24.46	peak	100	114	
2	4600.000	-3.69	50.59	46.90	74.00	-27.10	peak	100	17	
3	9334.000	5.64	46.13	51.77	74.00	-22.23	peak	100	64	



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2017/7/11 17:31:44
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%)	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	2440.000	-7.94	54.88	46.94	74.00	-27.06	peak	100	224	
2	5032.000	-3.08	50.66	47.58	74.00	-26.42	peak	100	78	
3	7273.000	4.75	45.82	50.57	74.00	-23.43	peak	100	141	

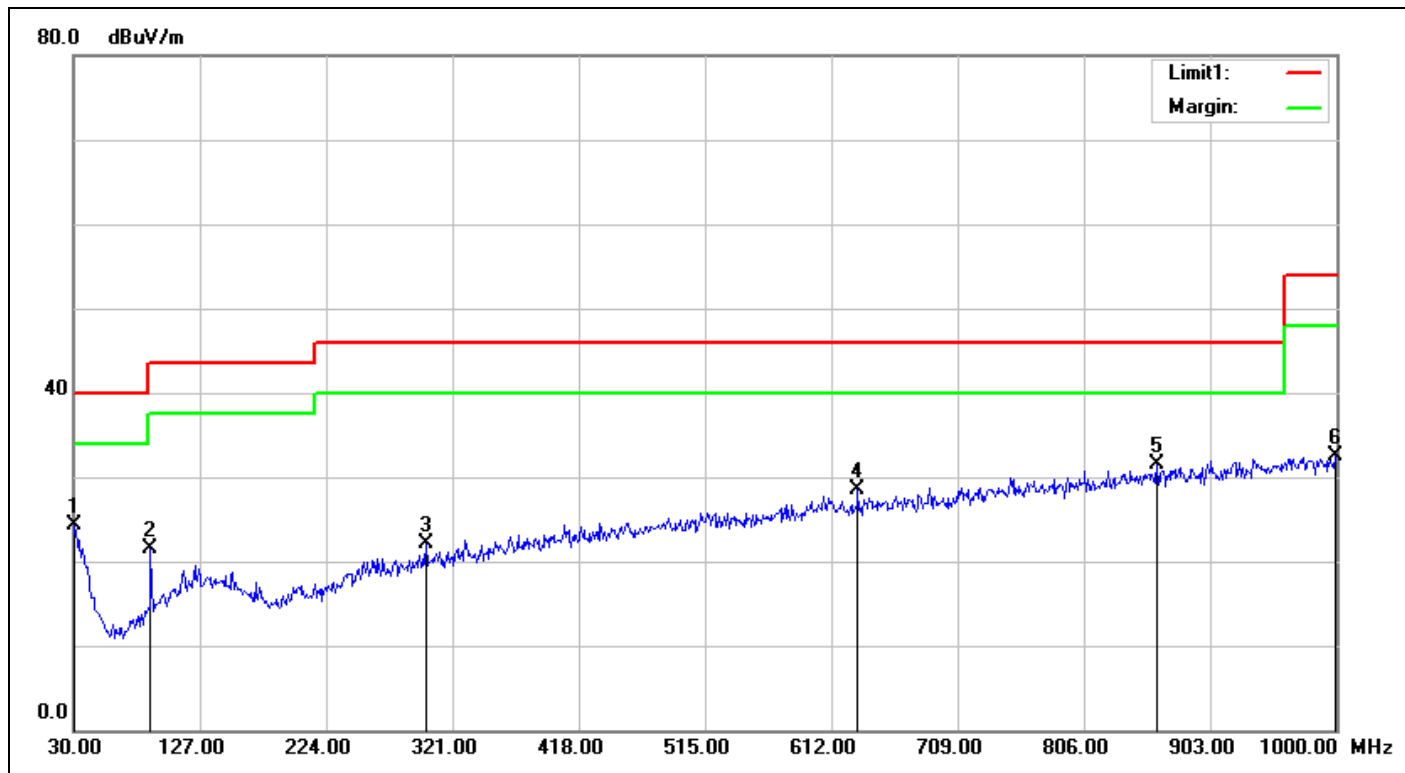
Spurious Emissions, RX Mode, 30M-1G



TUV Taiwan

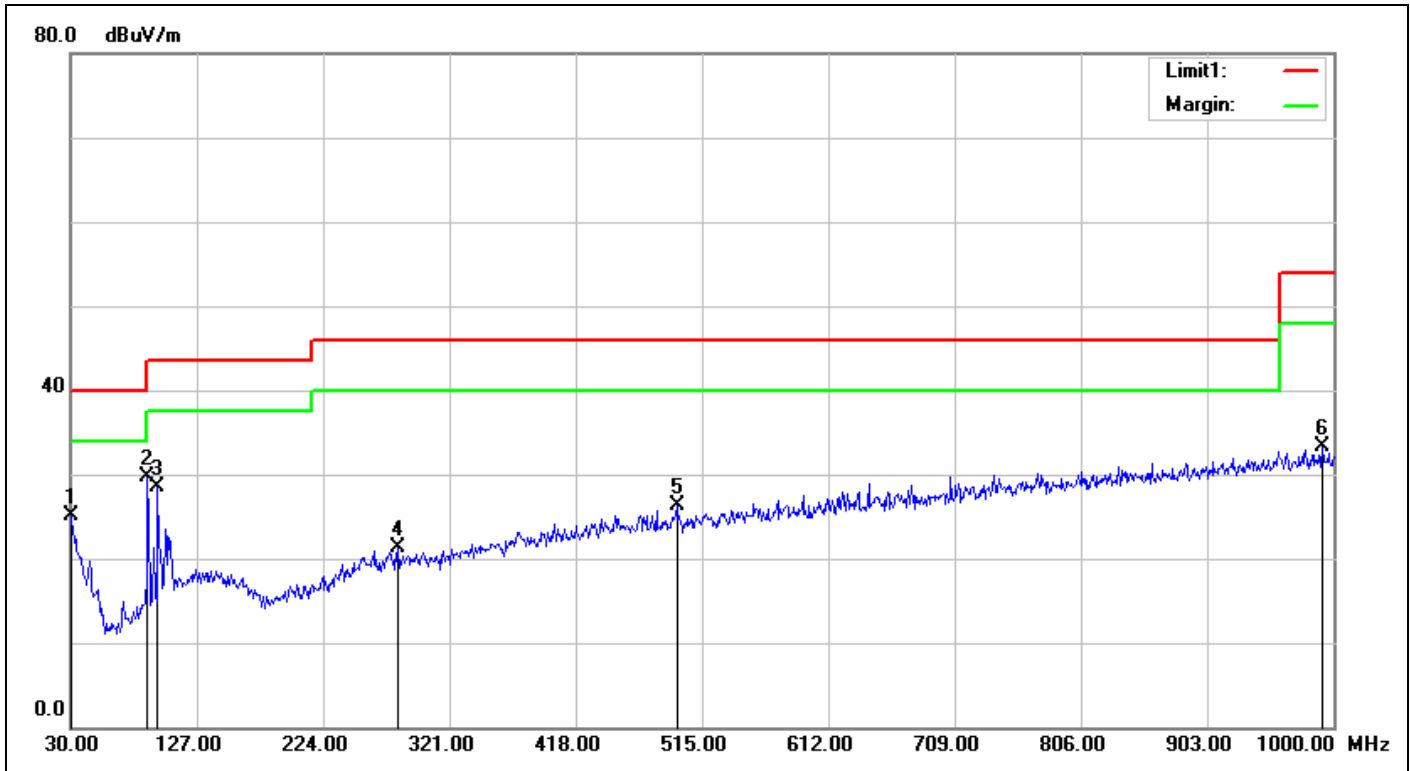
11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105

Tel: +886-2172-7000 fax: +886-2528-0018



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2017/7/11 17:30:47
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.0000	-0.08	24.42	24.34	40.00	-15.66	QP	100	322	
2	89.1700	-10.99	32.59	21.60	43.50	-21.90	QP	100	141	
3	300.6298	-4.52	26.64	22.12	46.00	-23.88	QP	100	120	
4	632.3700	0.30	28.20	28.50	46.00	-17.50	QP	100	213	
5	862.2599	3.83	27.75	31.58	46.00	-14.42	QP	100	56	
6	999.0299	5.79	26.81	32.60	54.00	-21.40	QP	100	320	



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2017/7/11 20:32:21
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	30.0000	-0.08	25.24	25.16	40.00	-14.84	QP	100	3	
2	89.1700	-10.99	40.73	29.74	43.50	-13.76	QP	100	45	
3	96.9300	-9.96	38.50	28.54	43.50	-14.96	QP	100	229	
4	281.2300	-5.08	26.31	21.23	46.00	-24.77	QP	100	304	
5	495.6000	-1.36	27.71	26.35	46.00	-19.65	QP	100	120	
6	991.2700	5.72	27.57	33.29	54.00	-20.71	QP	100	30	

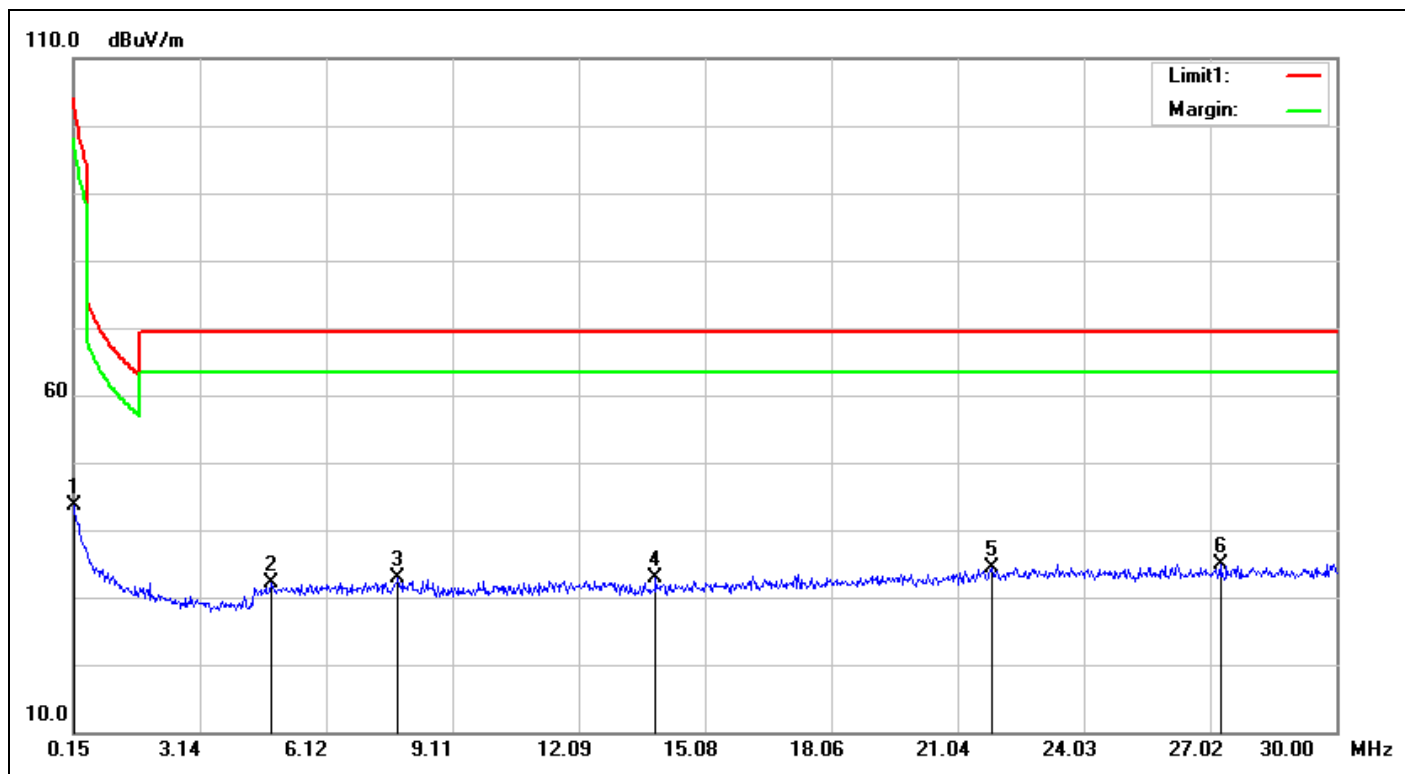
Spurious Emissions, RX Mode, 150K-30M



TUV Taiwan

11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC15.209_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2017/7/11 17:56:10
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1500	18.80	24.81	43.61	104.08	-60.47	QP	100	25	
2	4.8365	19.54	12.47	32.01	69.50	-37.49	QP	100	303	
3	7.8215	20.04	12.73	32.77	69.50	-36.73	QP	100	248	
4	13.9109	20.84	12.04	32.88	69.50	-36.62	QP	100	118	
5	21.8510	21.68	12.59	34.27	69.50	-35.23	QP	100	330	
6	27.2538	22.08	12.69	34.77	69.50	-34.73	QP	100	11	

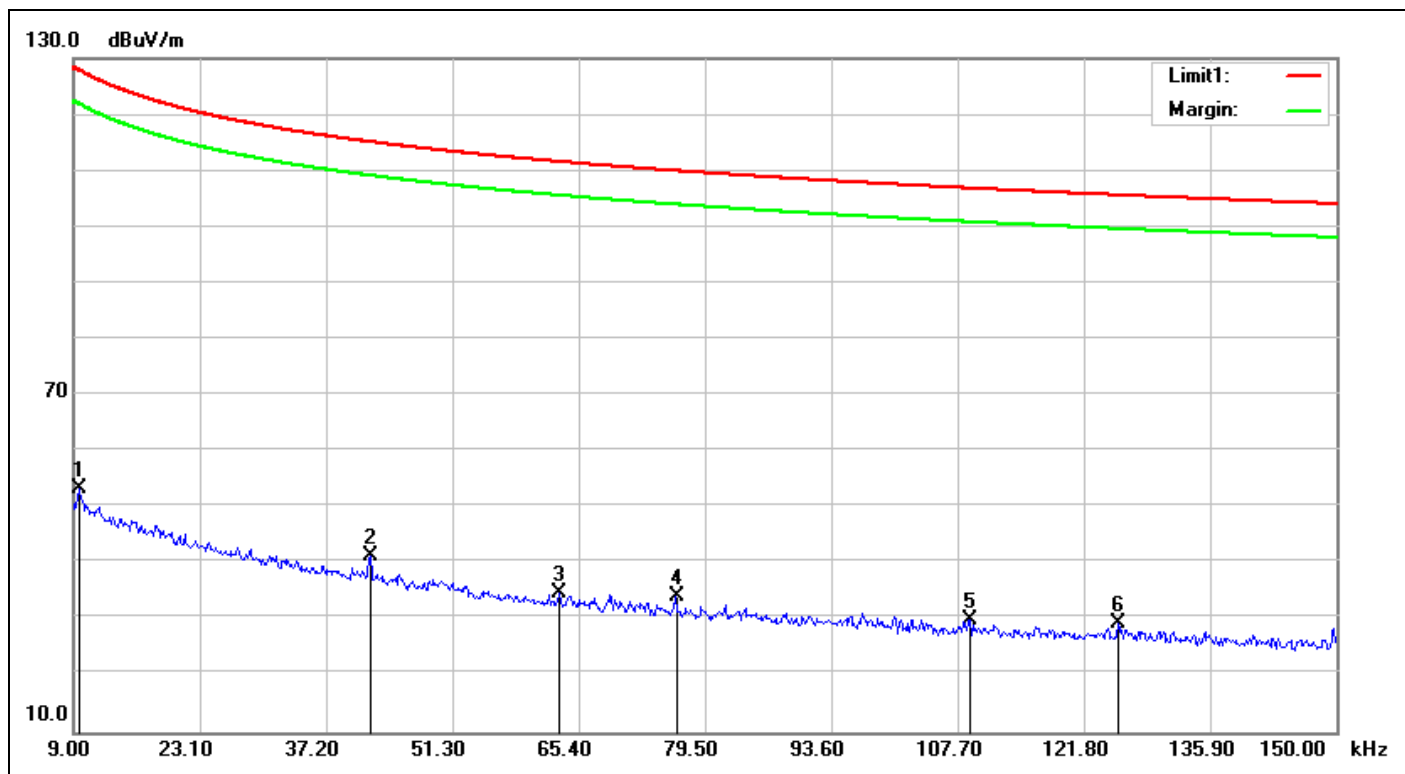
Spurious Emissions, RX Mode, 9K-150K



TUV Taiwan

11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114065885	Test Distance:	3m
Test Standard:	FCC15.209_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2017/7/11 17:54:13
Applicant:	Tong Lung	Test Rating:	DC 6V
Product:	TOUCHPAD ELECTRONIC DEADBOLT LOCK	Temp.(°C)/Hum.(%):	23.4(°C)/51%
Model No.:	PL2-ZW	Test Engineer:	Kai Wang
Test Mode:	908.4		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0096	20.01	33.27	53.28	127.94	-74.66	QP	100	93	
2	0.0421	19.62	21.59	41.21	115.11	-73.90	QP	100	314	
3	0.0631	19.13	15.70	34.83	111.59	-76.76	QP	100	253	
4	0.0763	19.02	15.00	34.02	109.94	-75.92	QP	100	51	
5	0.1091	18.83	11.26	30.09	106.84	-76.75	QP	100	160	
6	0.1256	18.81	10.46	29.27	105.62	-76.35	QP	100	152	