Test Report No.50063978 001

Appendix D: Radiated Emission Data

(File: 50063978AppendixD)

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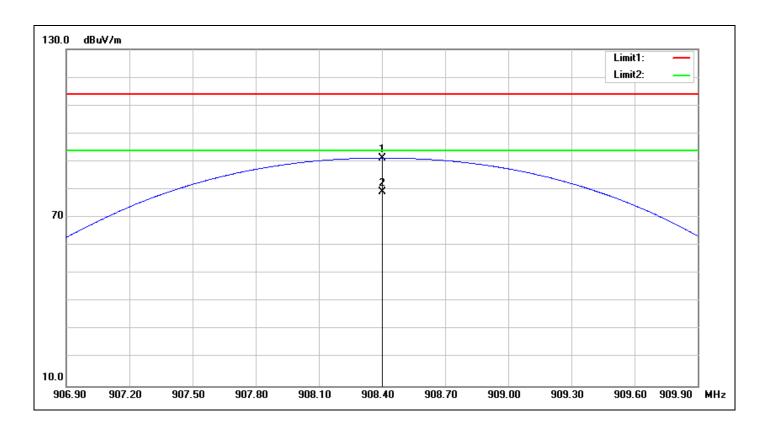
Radiated Emissions, Fundamental



TUV Taiwan

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

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



Service No.: 114054603(PL2-ZW)-FCC Test Distance: 3m

Test Standard: FCC 15.249_908.4_3m PK Ant. Polarization: Horizontal

Test item: Radiation Emission Test Time: 2016/11/24 21:13:58

Applicant: Tong Lung Test Rating: DC 6V

Product: TOUCHPAD ELECTRONIC DEADBOLT Temp.(°C)/Hum.(%): 22.1(°C)/54%

LOCK

Model No.: PL2-ZW Test Engineer: Kai Wang

Test Mode: 908.4MHz-Tx

Remark:

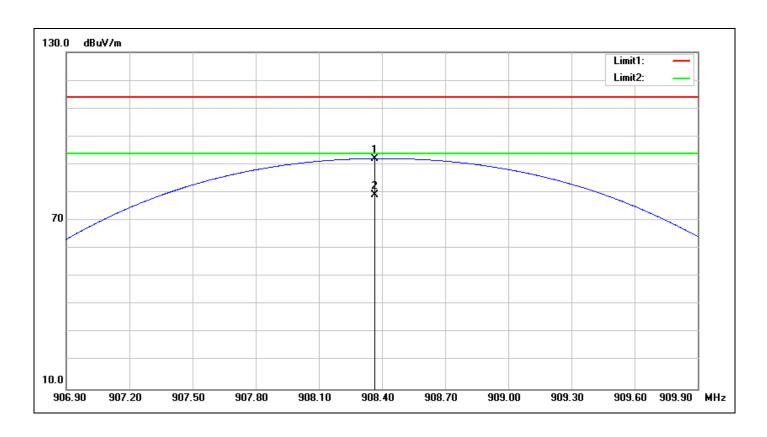
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	908.4000	0.00	91.22	91.22	114.00	-22.78	peak	146	0	
2	908.4000	0.00	79.05	79.05	94.00	-14.95	AVG	146	0	

Remark: Duty Factor = -7.78, thus the average result would be 83.44 dBuV/m.



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Service No.: 114054603(PL2-ZW)-FCC Test Distance: 3m

Test Standard: FCC 15.249_908.4_3m PK Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2016/11/24 21:17:34

Applicant: Tong Lung Test Rating: DC 6V

Product: TOUCHPAD ELECTRONIC DEADBOLT Temp.(°C)/Hum.(%): 22.1(°C)/54%

LOCK

Model No.: PL2-ZW Test Engineer: Kai Wang

Test Mode: 908.4MHz-Tx

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	908.3670	0.00	92.10	92.10	114.00	-21.90	peak	100	136	
2	908.3670	0.00	79.12	79.12	94.00	-14.88	AVG	100	136	

Remark: Duty Factor = -7.78, thus the average result would be 84.32 dBuV/m.

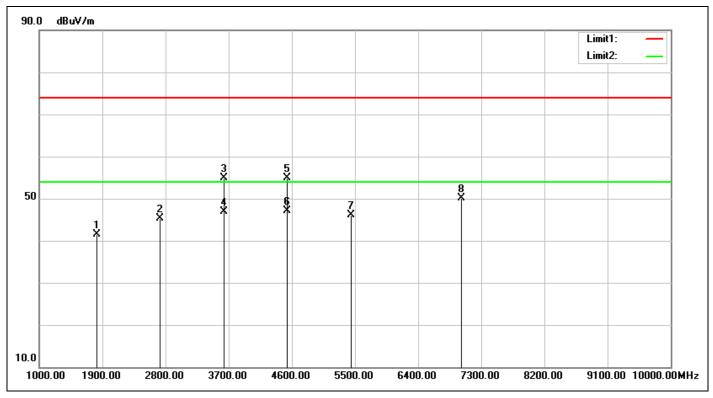
Spurious Emissions, TX Mode, 1-10G



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Service No.: 114054603(PL2-ZW)-FCC Test Distance: 3m

Test Standard: FCC Above 1G PEAK Ant. Polarization: Horizontal

Test item: Radiation Emission Test Time: 2016/11/24 16:45:53

Applicant: Tong Lung Test Rating: DC 6V

Product: TOUCHPAD ELECTRONIC DEADBOLT Temp.(°C)/Hum.(%): 22.1(°C)/54%

LOCK

Model No.: PL2-ZW Test Engineer: Kai Wang

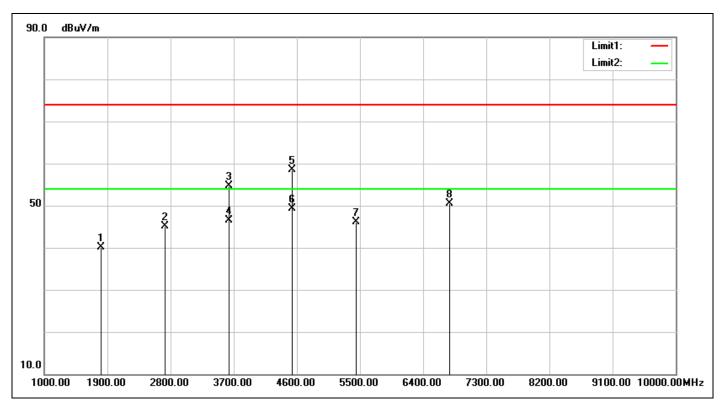
Test Mode: 908.4MHz-Tx

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	1816.800	-8.31	49.83	41.52	74.00	-32.48	peak	100	0	
2	2725.200	-7.30	52.56	45.26	74.00	-28.74	peak	100	163	
3	3633.600	-5.73	60.62	54.89	74.00	-19.11	peak	156	360	
4	3633.600	-5.73	52.68	46.95	54.00	-7.05	AVG	156	360	
5	4542.000	-3.22	58.16	54.94	74.00	-19.06	peak	175	332	
6	4542.000	-3.22	50.27	47.05	54.00	-6.95	AVG	175	332	
7	5450.400	0.18	45.84	46.02	74.00	-27.98	peak	100	91	
8	7021.000	5.04	45.08	50.12	74.00	-23.88	peak	100	271	



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Service No.: 114054603(PL2-ZW)-FCC Test Distance: 3m

Test Standard: FCC Above 1G PEAK Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2016/11/24 16:50:56

Applicant: Tong Lung Test Rating: DC 6V

Product: TOUCHPAD ELECTRONIC DEADBOLT Temp.(°C)/Hum.(%): 22.1(°C)/54%

LOCK

Model No.: PL2-ZW Test Engineer: Kai Wang

Test Mode: 908.4MHz-Tx

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	1816.800	-8.31	48.45	40.14	74.00	-33.86	peak	100	0	
2	2725.200	-7.30	52.40	45.10	74.00	-28.90	peak	100	307	
3	3633.600	-5.73	60.43	54.70	74.00	-19.30	peak	100	92	
4	3633.600	-5.73	52.23	46.50	54.00	-7.50	AVG	100	92	
5	4542.000	-3.22	61.75	58.53	74.00	-15.47	peak	100	275	
6	4542.000	-3.22	52.54	49.32	54.00	-4.68	AVG	100	275	
7	5450.400	0.18	45.89	46.07	74.00	-27.93	peak	100	103	
8	6778.000	5.22	45.38	50.60	74.00	-23.40	peak	100	114	

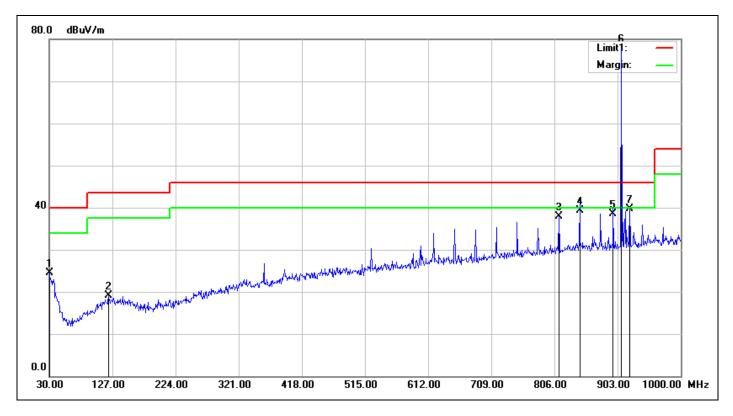
Spurious Emissions, TX Mode, 30M-1G



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Service No.: 114054603(PL2-ZW)-FCC Test Distance: 3m

Test Standard: FCC Class B 3M Radiation Ant. Polarization: Horizontal

Test item: Radiation Emission Test Time: 2016/11/24 19:56:10

Applicant: Tong Lung Test Rating: DC 6V

Product: TOUCHPAD ELECTRONIC DEADBOLT Temp.(°C)/Hum.(%): 22.1(°C)/54%

LOCK

Model No.: PL2-ZW Test Engineer: Kai Wang

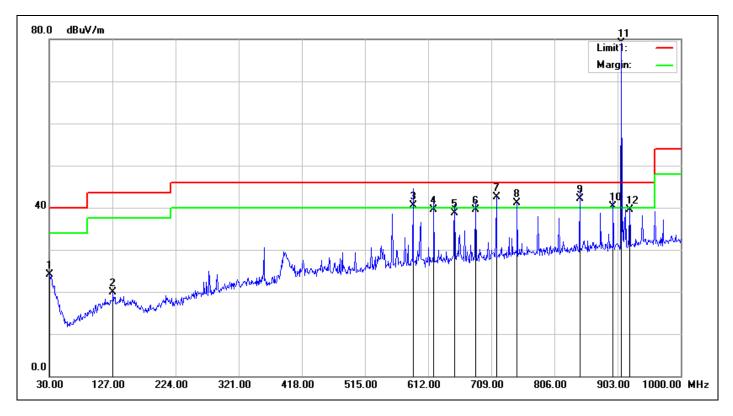
Test Mode: 908.4MHz-Tx

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	30.0000	-0.07	24.58	24.51	40.00	-15.49	QP	111	0	
2	121.1800	-7.28	26.39	19.11	43.50	-24.39	QP	200	326	
3	812.7900	3.04	34.81	37.85	46.00	-8.15	QP	100	360	
4	844.8000	3.60	35.76	39.36	46.00	-6.64	QP	100	174	
5	896.2100	4.12	34.33	38.45	46.00	-7.55	QP	139	0	
6	908.4000	4.37	73.60	77.97	46.00	31.97	QP	139	0	908.4MHz-Tx
7	921.4300	4.68	34.95	39.63	46.00	-6.37	QP	200	89	



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Service No.: 114054603(PL2-ZW)-FCC Test Distance: 3m

Test Standard: FCC Class B 3M Radiation Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2016/11/24 19:58:29

Applicant: Tong Lung Test Rating: DC 6V

Product: TOUCHPAD ELECTRONIC DEADBOLT Temp.(°C)/Hum.(%): 22.1(°C)/54%

LOCK

Model No.: PL2-ZW Test Engineer: Kai Wang

Test Mode: 908.4MHz-Tx

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	30.9700	-0.62	24.70	24.08	40.00	-15.92	QP	100	0	
2	127.9700	-7.04	27.01	19.97	43.50	-23.53	QP	200	56	
3	588.7200	-0.17	40.64	40.47	46.00	-5.53	QP	100	237	
4	620.7300	0.23	39.21	39.44	46.00	-6.56	QP	100	320	
5	652.7400	0.58	38.17	38.75	46.00	-7.25	QP	100	0	
6	684.7500	0.91	38.50	39.41	46.00	-6.59	QP	164	0	
7	716.7600	1.49	41.09	42.58	46.00	-3.42	QP	146	0	
8	748.7700	2.31	38.85	41.16	46.00	-4.84	QP	150	0	

9	844.8000	3.60	38.41	42.01	46.00	-3.99	QP	123	0	
10	896.2100	4.12	36.26	40.38	46.00	-5.62	QP	100	149	
11	908.4000	4.37	74.75	79.12	46.00	33.12	QP	100	138	908.4MHz-Tx
12	921.4300	4.68	34.74	39.42	46.00	-6.58	QP	100	99	

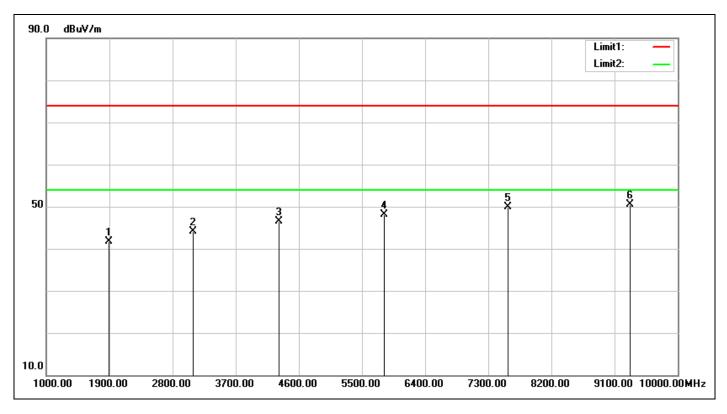
Spurious Emissions, RX Mode, 1-10G



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Service No.: 114054603(PL2-ZW)-FCC Test Distance: 3m

Test Standard: FCC Above 1G PEAK Ant. Polarization: Horizontal

Test item: Radiation Emission Test Time: 2016/11/24 19:05:54

Applicant: Tong Lung Test Rating: DC 6V

Product: TOUCHPAD ELECTRONIC DEADBOLT Temp.(°C)/Hum.(%): 22.1(°C)/54%

LOCK

Model No.: PL2-ZW Test Engineer: Kai Wang

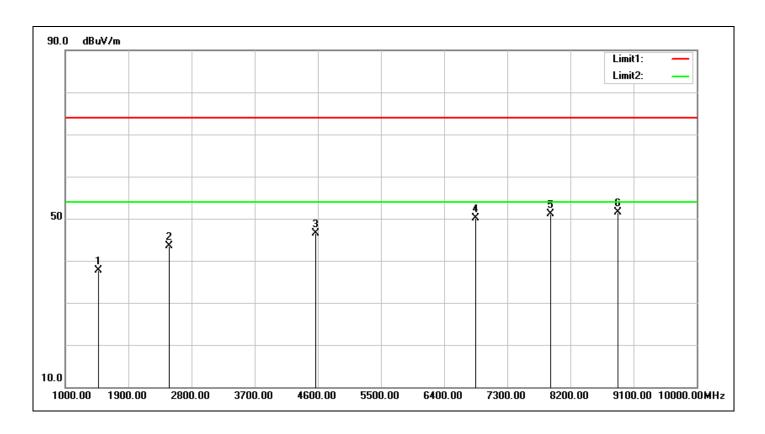
Test Mode: 908.4MHz-Rx

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	1891.000	-8.80	50.47	41.67	74.00	-32.33	peak	105	177	
2	3097.000	-7.05	51.19	44.14	74.00	-29.86	peak	200	177	
3	4321.000	-4.46	51.05	46.59	74.00	-27.41	peak	100	224	
4	5815.000	1.60	46.47	48.07	74.00	-25.93	peak	100	16	
5	7579.000	5.37	44.59	49.96	74.00	-24.04	peak	200	108	
6	9325.000	5.63	44.88	50.51	74.00	-23.49	peak	127	221	



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Service No.: 114054603(PL2-ZW)-FCC Test Distance: 3m

Test Standard: FCC Above 1G PEAK Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2016/11/24 19:10:57

Applicant: Tong Lung Test Rating: DC 6V

Product: TOUCHPAD ELECTRONIC DEADBOLT Temp.(°C)/Hum.(%): 22.1(°C)/54%

LOCK

Model No.: PL2-ZW Test Engineer: Kai Wang

Test Mode: 908.4MHz-Rx

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	1468.000	-11.21	48.94	37.73	74.00	-36.27	peak	139	153	
2	2476.000	-7.94	51.35	43.41	74.00	-30.59	peak	160	59	
3	4573.000	-3.70	50.26	46.56	74.00	-27.44	peak	100	338	
4	6850.000	4.10	46.08	50.18	74.00	-23.82	peak	100	95	
5	7912.000	5.33	45.70	51.03	74.00	-22.97	peak	187	208	
6	8875.000	5.77	45.72	51.49	74.00	-22.51	peak	101	258	

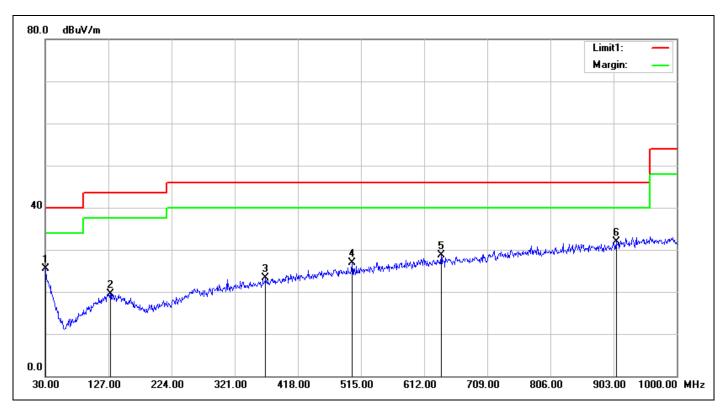
Spurious Emissions, RX Mode, 30M-1G



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



Service No.: 114054603(PL2-ZW)-FCC Test Distance: 3m

Test Standard: FCC Class B 3M Radiation Ant. Polarization: Horizontal

Test item: Radiation Emission Test Time: 2016/11/24 16:17:56

Applicant: Tong Lung Test Rating: DC 6V

Product: TOUCHPAD ELECTRONIC DEADBOLT Temp.(°C)/Hum.(%): 22.1(°C)/54%

LOCK

Model No.: PL2-ZW Test Engineer: Kai Wang

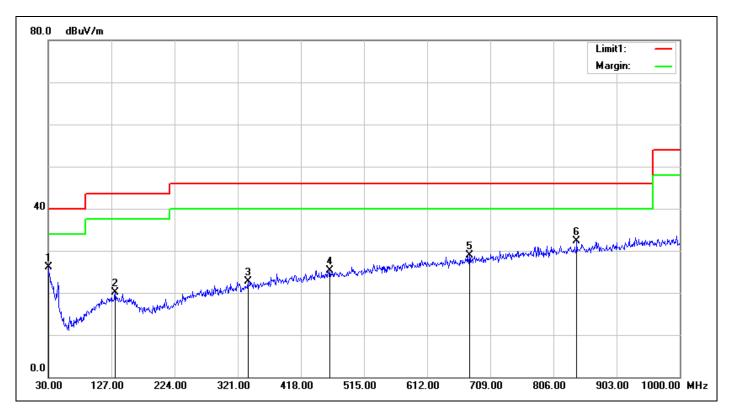
Test Mode: 908.4MHz-Rx

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	30.9700	-0.62	26.20	25.58	40.00	-14.42	QP	300	138	
2	129.9100	-6.96	26.48	19.52	43.50	-23.98	QP	200	312	
3	368.5299	-3.17	26.45	23.28	46.00	-22.72	QP	100	260	
4	501.4200	-1.35	28.19	26.84	46.00	-19.16	QP	200	196	
5	638.1900	0.41	28.33	28.74	46.00	-17.26	QP	155	360	
6	906.8800	4.32	27.51	31.83	46.00	-14.17	QP	400	114	



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Service No.: 114054603(PL2-ZW)-FCC Test Distance: 3m

Test Standard: FCC Class B 3M Radiation Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2016/11/24 16:21:16

Applicant: Tong Lung Test Rating: DC 6V

Product: TOUCHPAD ELECTRONIC DEADBOLT Temp.(°C)/Hum.(%): 22.1(°C)/54%

LOCK

Model No.: PL2-ZW Test Engineer: Kai Wang

Test Mode: 908.4MHz-Rx

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	30.0000	-0.07	26.22	26.15	40.00	-13.85	QP	100	238	
2	132.8200	-6.97	27.03	20.06	43.50	-23.44	QP	162	360	
3	336.5200	-3.73	26.47	22.74	46.00	-23.26	QP	184	360	
4	462.6200	-1.84	27.20	25.36	46.00	-20.64	QP	100	12	
5	676.9900	0.83	28.07	28.90	46.00	-17.10	QP	200	208	
6	841.8900	3.55	28.75	32.30	46.00	-13.70	QP	100	26	