

Test Report No.50259361 001

Appendix D: Radiated and Mains Spurious Emission Data

(File: 50259361AppendixD)

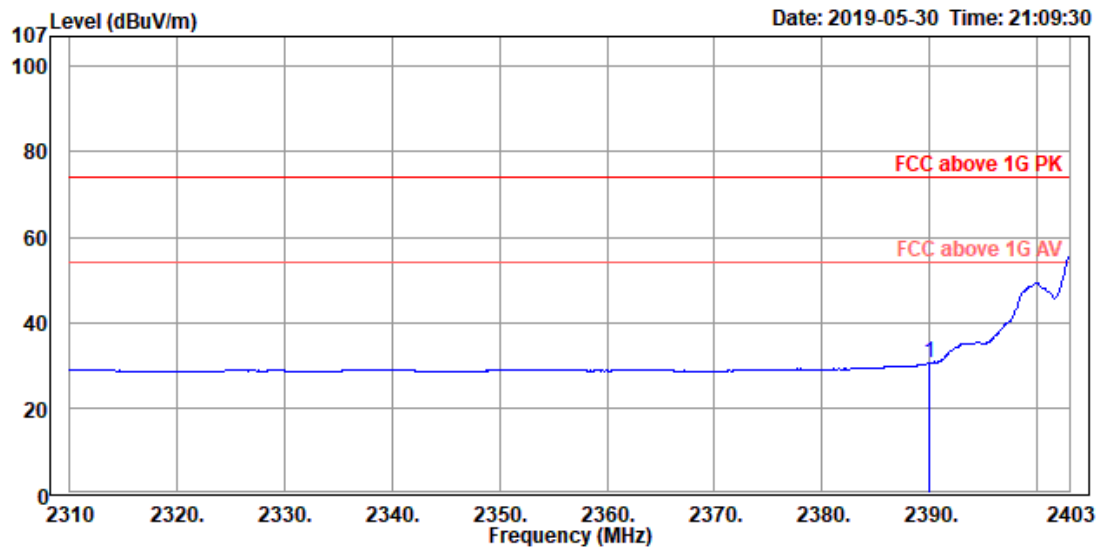
Contents

Spurious Emissions, Band Edges, 2.35-2.5G	2
Spurious Emissions, TX Mode, 1-18G	10
Spurious Emissions, TX Mode, 18-26G	16
Spurious Emissions, TX Mode, 30M-1G	22
Spurious Emissions, TX Mode, 9k-30M	24
Spurious Emissions, Mains, 150kHz - 30MHz	26

Spurious Emissions, Band Edges, 2.35-2.5G

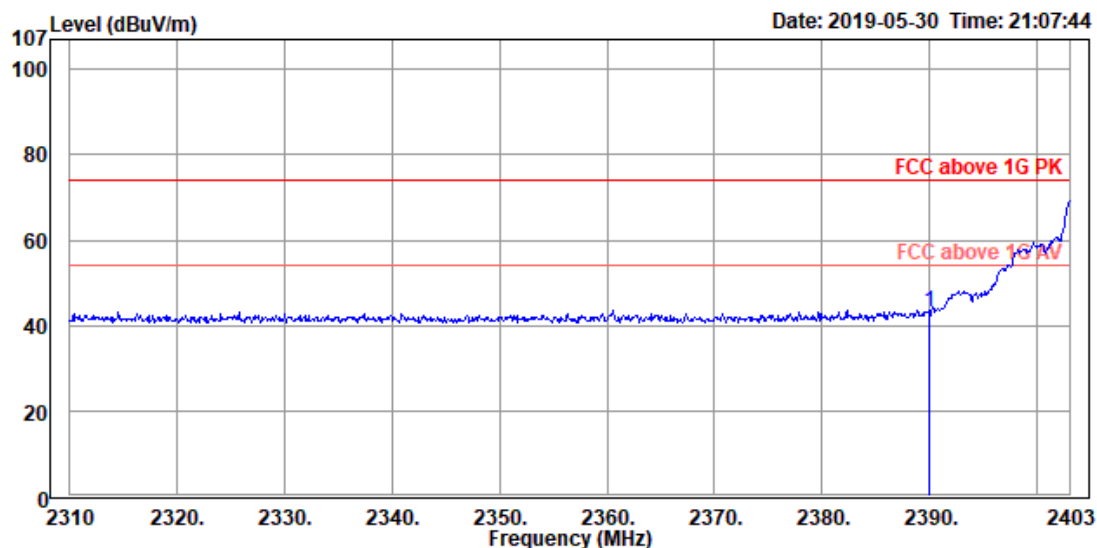


TUV Rheinland Taiwan Ltd.
11F., No.758, Sec. 4 Bade Road. Songshan Dist, Taipei City 105
Tel:+886-2172-7000 Fax:+886-2528-0018



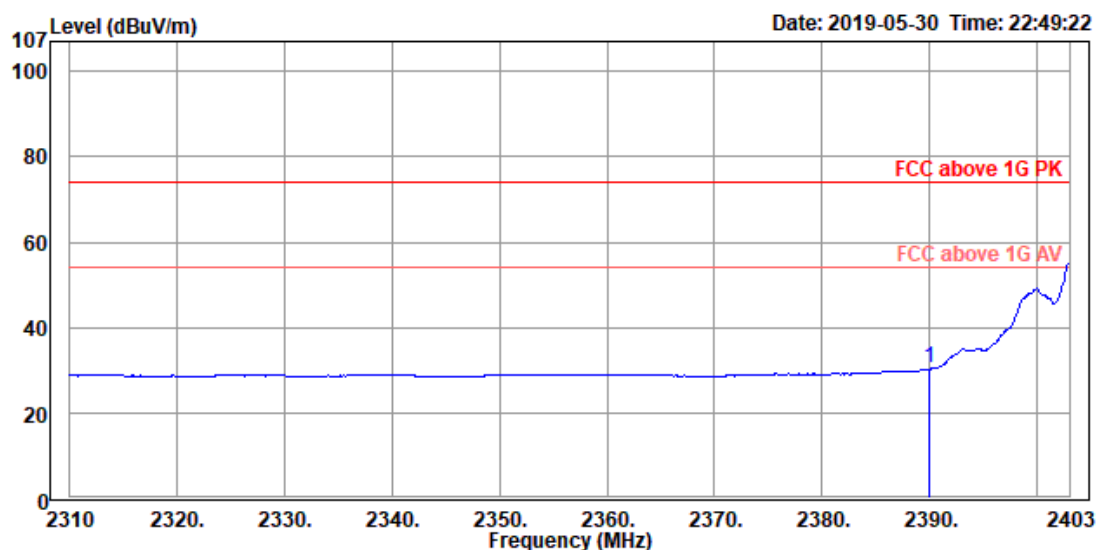
Site : 966A Chamber A
Condition : FCC above 1G PK 3m Horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Bandedge-2405.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2390.000	30.45	38.55	-8.10	74.00	-43.55	100	188	Average	



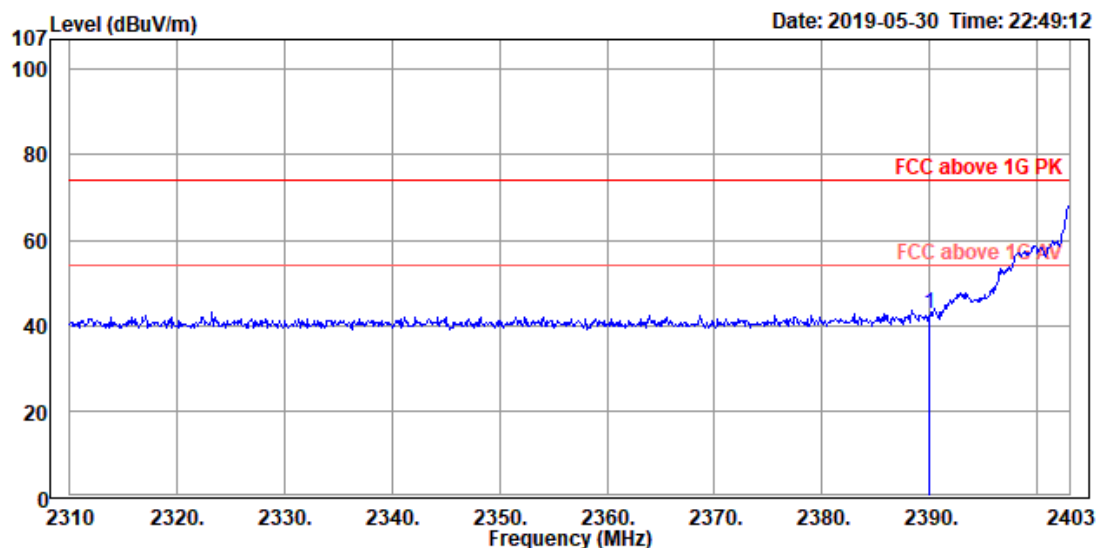
Site : 966A Chamber A
Condition : FCC above 1G PK 3m Horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Bandedge-2405.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2390.000	43.30	51.40	-8.10	74.00	-30.70	100	188	Peak	



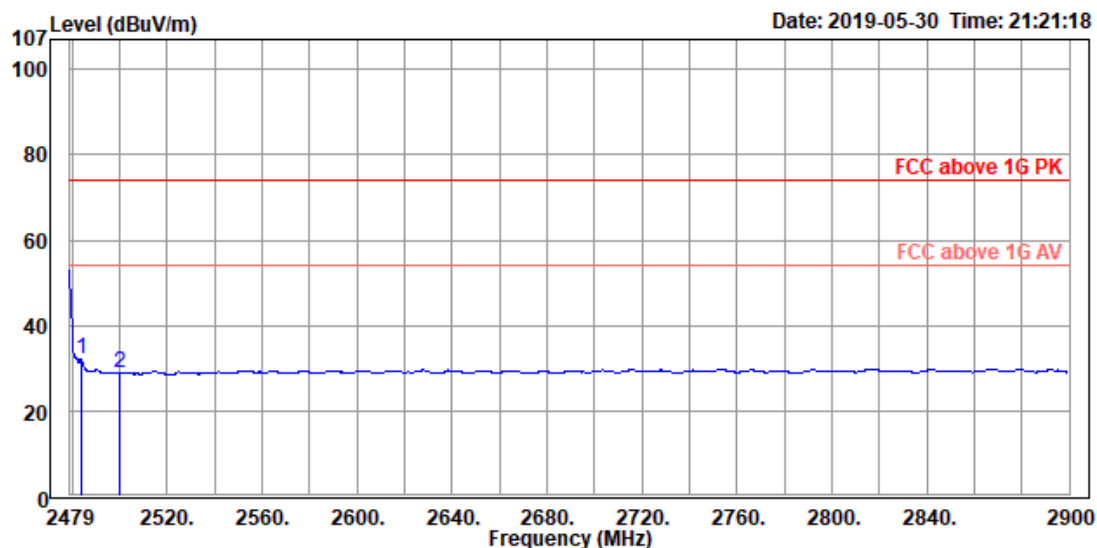
Site : 966A Chamber A
Condition : FCC above 1G PK 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Bandedge-2405.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2390.000	30.64	38.74	-8.10	74.00	-43.36	121	254	Average	



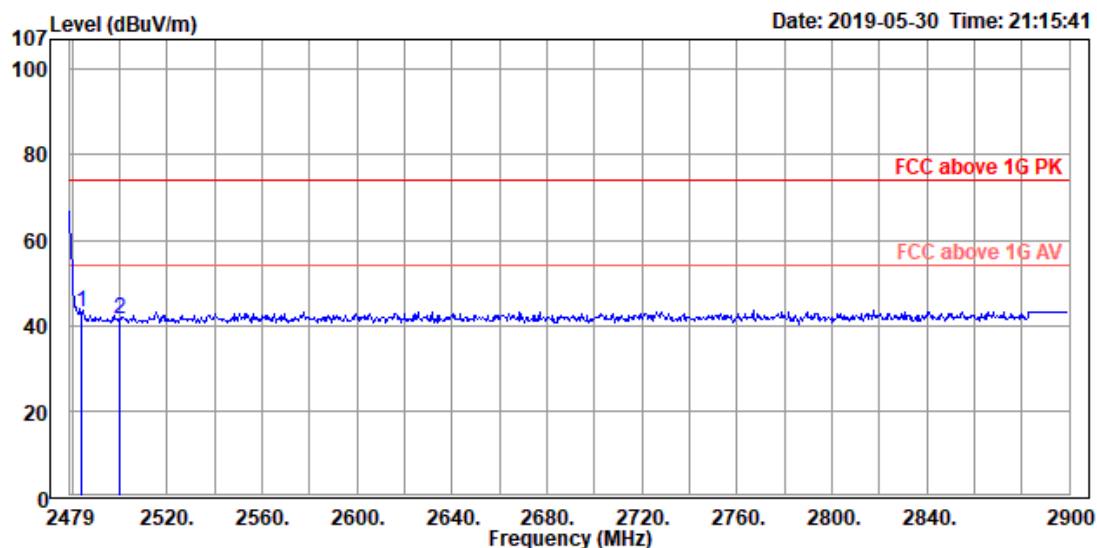
Site : 966A Chamber A
Condition : FCC above 1G PK 3m Vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Bandedge-2405.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2390.000	42.82	50.92	-8.10	74.00	-31.18	121	254	Peak	



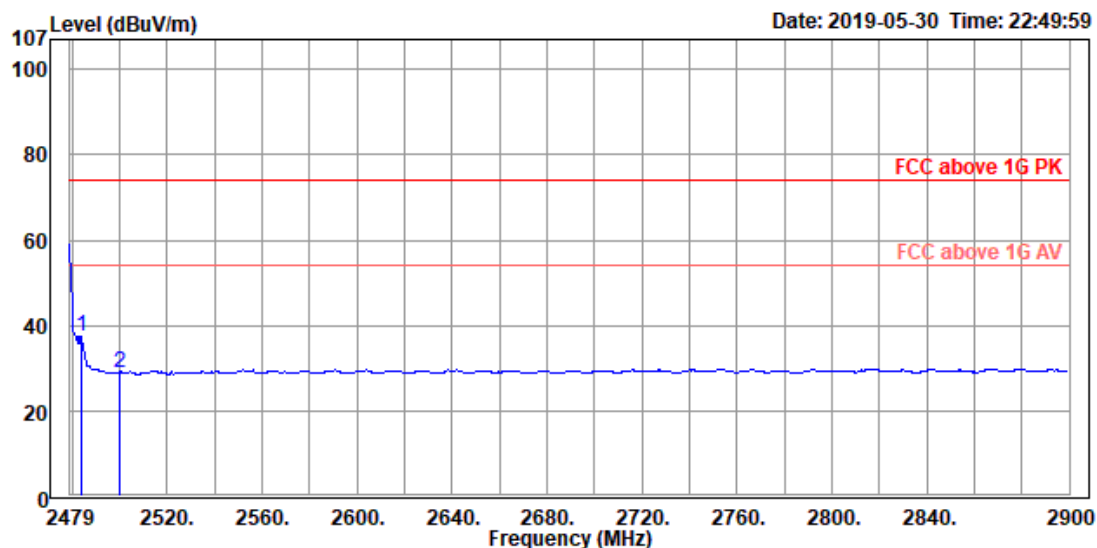
Site : 966A Chamber A
Condition : FCC above 1G PK 3m Horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Bandedge-2477.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2483.500	32.20	40.29	-8.09	74.00	-41.80	100	208	Average	
2	2500.000	29.00	37.09	-8.09	74.00	-45.00	100	208	Average	



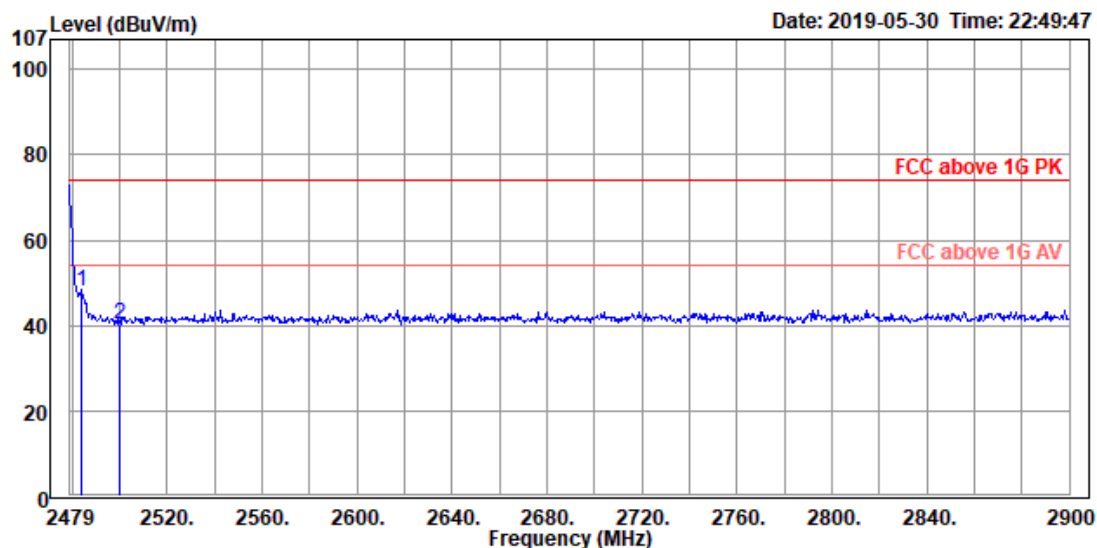
Site : 966A Chamber A
Condition : FCC above 1G PK 3m Horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Bandedge-2477.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2483.500	43.03	51.12	-8.09	74.00	-30.97	100	208	Peak	
2	2500.000	41.43	49.52	-8.09	74.00	-32.57	100	208	Peak	



Site : 966A Chamber A
Condition : FCC above 1G PK 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Bandedge-2477.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2483.500	37.29	45.38	-8.09	74.00	-36.71	103	262	Average	
2	2500.000	29.07	37.16	-8.09	74.00	-44.93	103	262	Average	



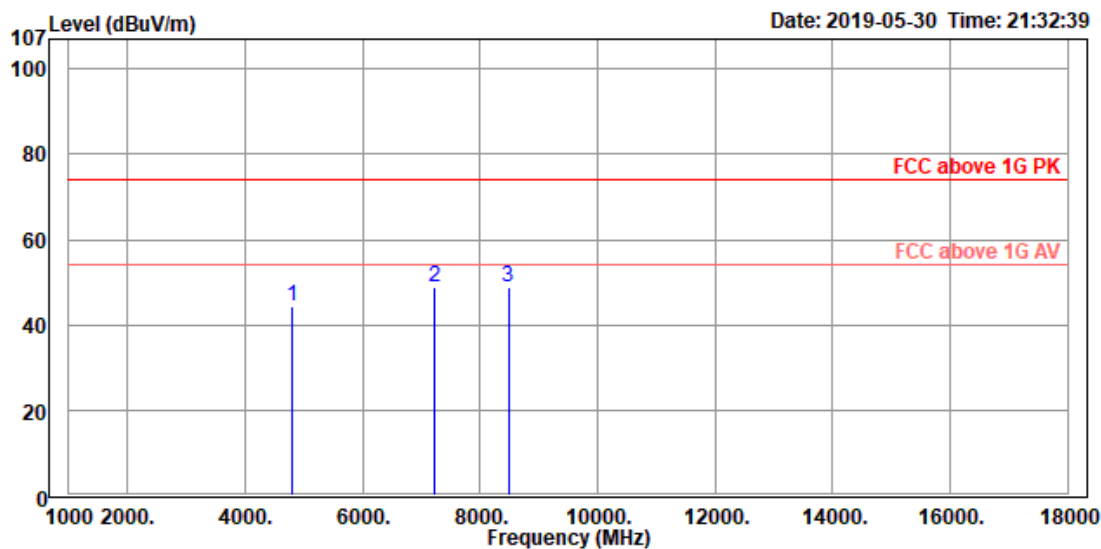
Site : 966A Chamber A
Condition : FCC above 1G PK 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Bandedge-2477.35
Memo : X(側立)

	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Note
	MHz	dBuV/m	Level	Factor	Line	Limit			
			dBuV	dB/m	dBuV/m	dB	cm	deg	
1	2483.631	47.82	55.91	-8.09	74.00	-26.18	103	262	Peak
2	2500.000	40.37	48.46	-8.09	74.00	-33.63	103	262	Peak

Spurious Emissions, TX Mode, 1-18G

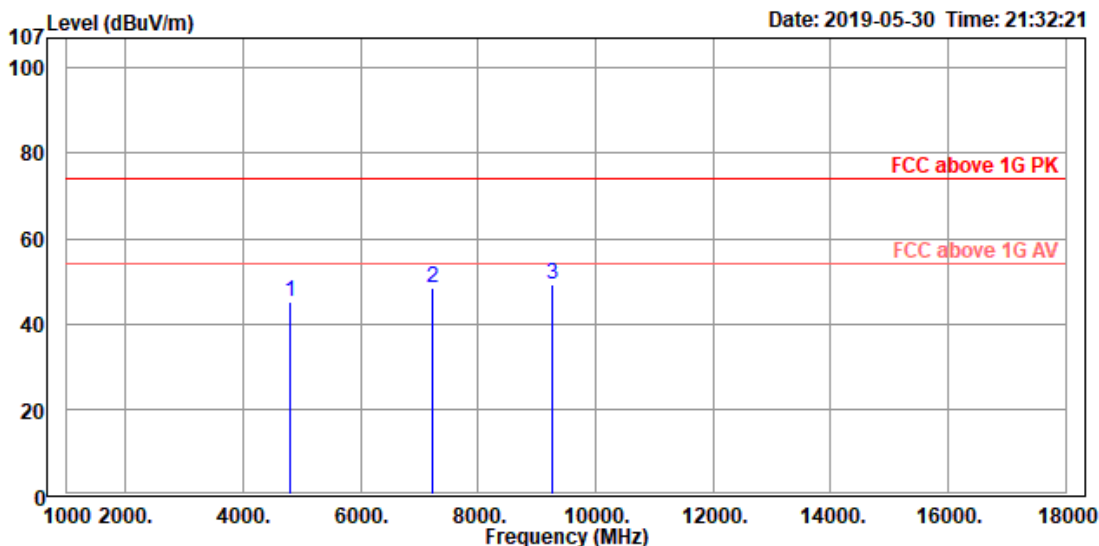


TUV Rheinland Taiwan Ltd.
11F., No.758, Sec. 4 Bade Road. Songshan Dist, Taipei City 105
Tel:+886-2172-7000 Fax:+886-2528-0018



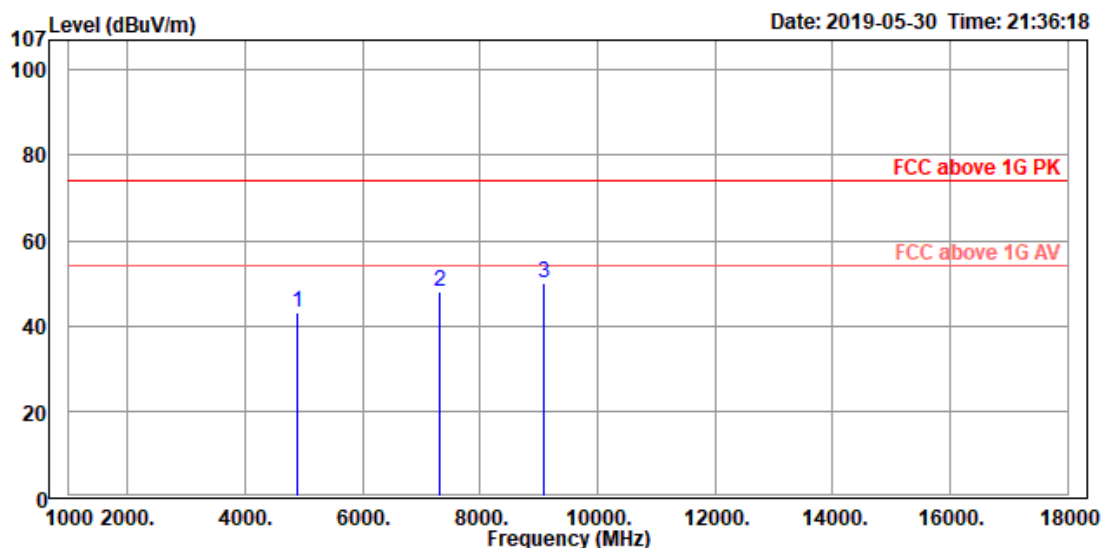
Site : 966A Chamber A
Condition : FCC above 1G PK 3m horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2405.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	4810.700	44.34	46.97	-2.63	74.00	-29.66	100	33	Peak	
2	7216.050	48.74	43.47	5.27	74.00	-25.26	100	39	Peak	
3	8480.000	49.02	42.44	6.58	74.00	-24.98	100	190	Peak	



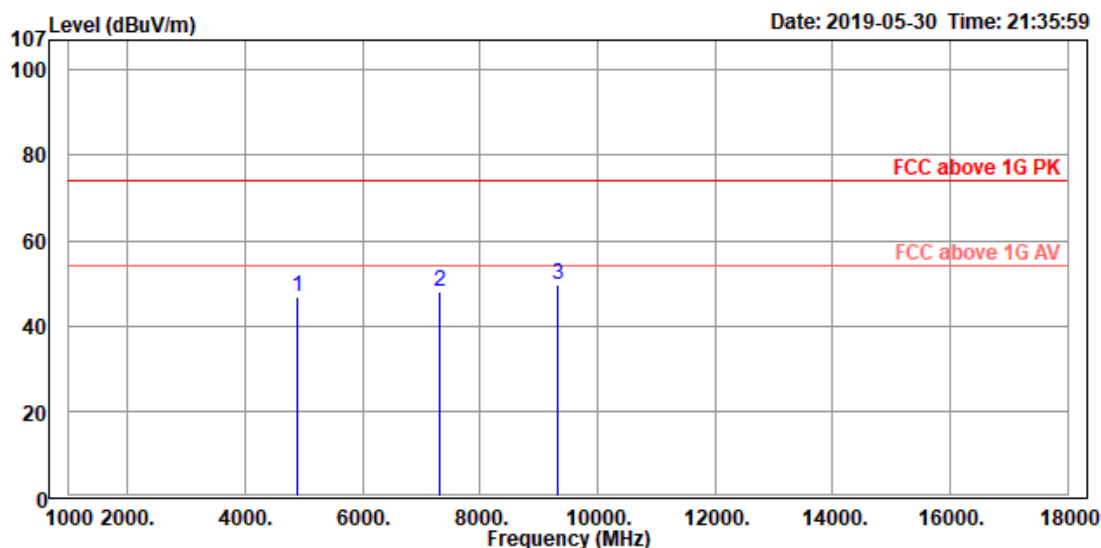
Site : 966A Chamber A
Condition : FCC above 1G PK 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2405.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	4810.700	45.29	47.92	-2.63	74.00	-28.71	100		1 Peak	
2	7216.050	48.23	42.96	5.27	74.00	-25.77	100		213 Peak	
3	9262.000	49.35	42.86	6.49	74.00	-24.65	100		354 Peak	



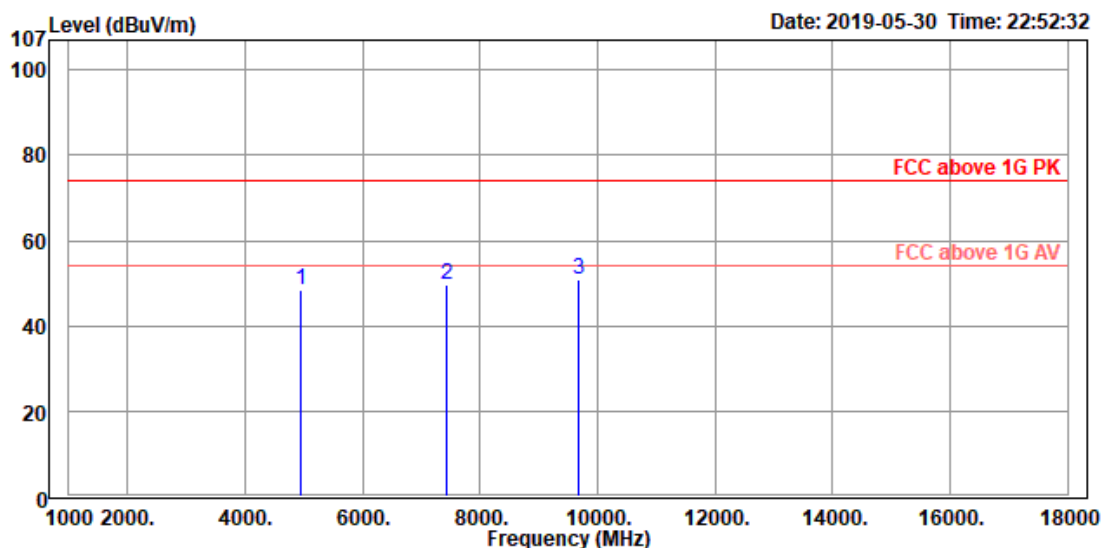
Site : 966A Chamber A
Condition : FCC above 1G PK 3m horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2439.35
Memo : X(側立)

	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Note
	MHz	dBuV/m	Level	Factor	Line	Limit			
			dBuV	dB/m	dBuV/m	dB	cm	deg	
1	4878.700	43.30	45.75	-2.45	74.00	-30.70	100	2 Peak	
2	7318.050	47.89	42.36	5.53	74.00	-26.11	100	25 Peak	
3	9092.000	50.09	43.52	6.57	74.00	-23.91	100	2 Peak	



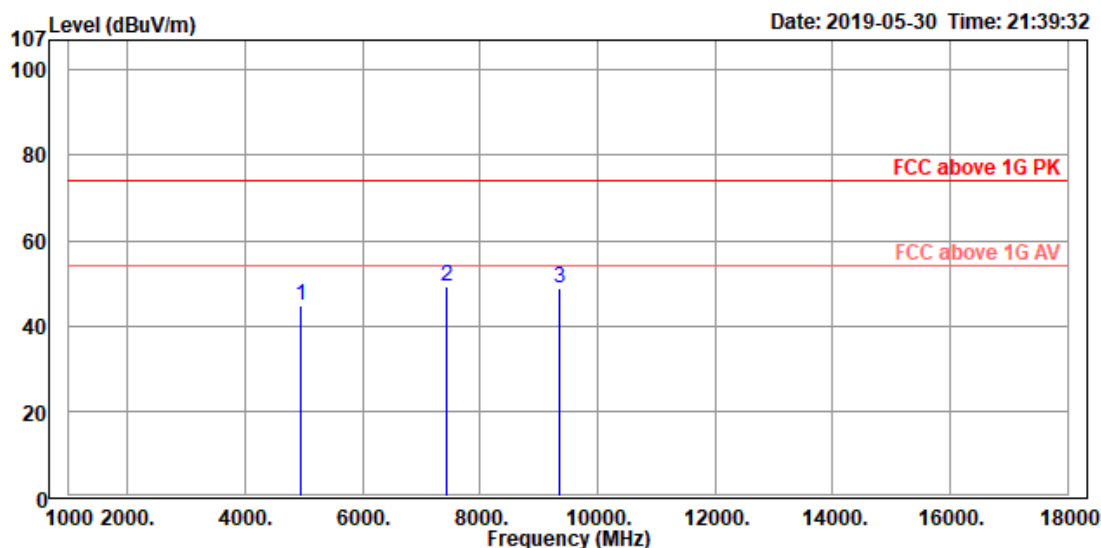
Site : 966A Chamber A
Condition : FCC above 1G PK 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2439.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	4878.700	46.66	49.11	-2.45	74.00	-27.34	100	7	Peak	
2	7318.050	48.06	42.53	5.53	74.00	-25.94	100	244	Peak	
3	9313.000	49.72	43.24	6.48	74.00	-24.28	100	358	Peak	



Site : 966A Chamber A
Condition : FCC above 1G PK 3m horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2477.35
Memo : X(側立)

	Freq	Level	Read	Limit	Over	APos	TPos	Remark	Note
	MHz	dBuV/m	Level	Factor	Line	Limit			
			dBuV	dB/m	dBuV/m	dB	cm	deg	
1	4954.700	48.35	50.61	-2.26	74.00	-25.65	100	87	Peak
2	7432.050	49.83	44.02	5.81	74.00	-24.17	100	67	Peak
3	9670.000	50.66	44.49	6.17	74.00	-23.34	100	318	Peak



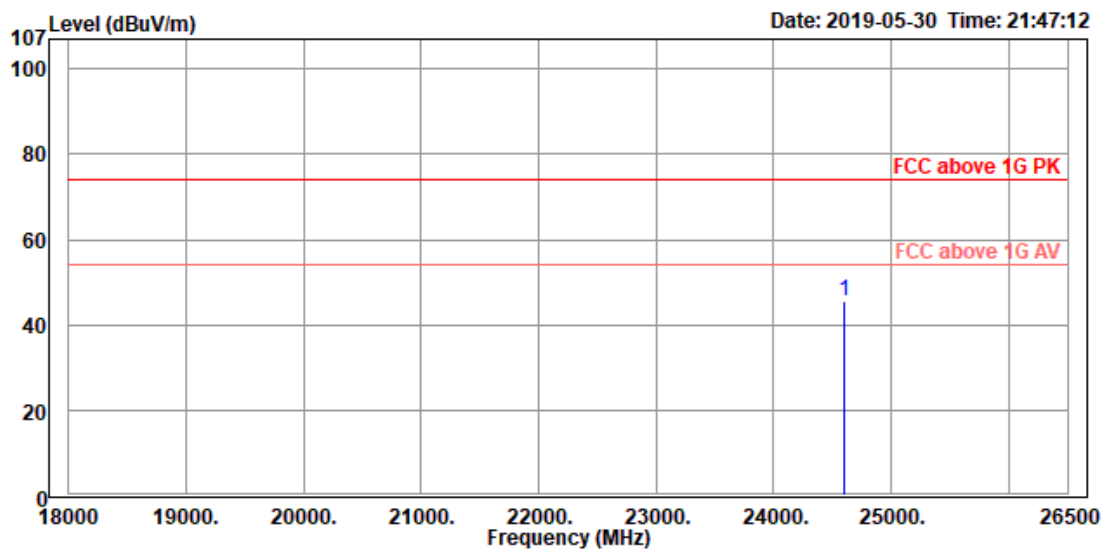
Site : 966A Chamber A
Condition : FCC above 1G PK 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2477.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	4954.700	44.56	46.82	-2.26	74.00	-29.44	100	13	Peak	
2	7432.050	49.06	43.25	5.81	74.00	-24.94	100	345	Peak	
3	9347.000	48.98	42.52	6.46	74.00	-25.02	100	243	Peak	

Spurious Emissions, TX Mode, 18-26G

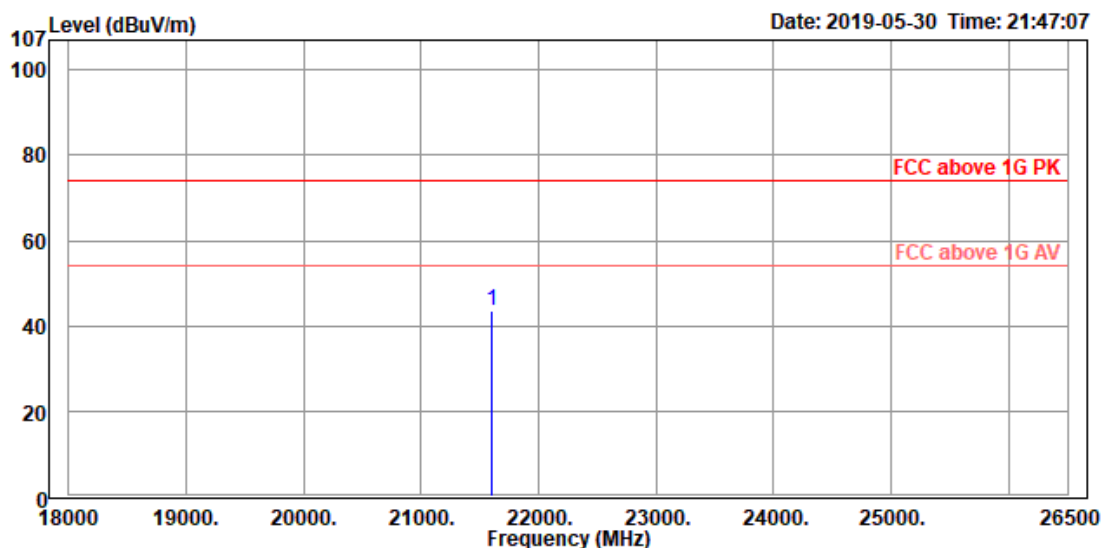


TUV Rheinland Taiwan Ltd.
11F., No. 758, Sec. 4 Bade Road. Songshan Dist, Taipei City 105
Tel:+886-2172-7000 Fax:+886-2528-0018



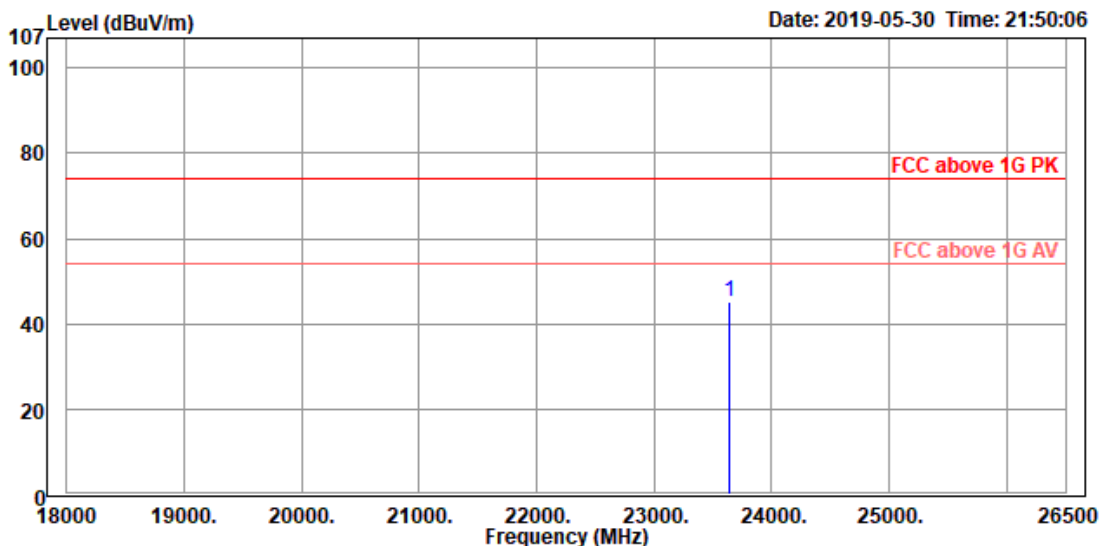
Site : 966A Chamber A
Condition : FCC above 1G PK 3m horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2405.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	24604.500	45.48	40.39	5.09	74.00	-28.52	100	92	Peak	



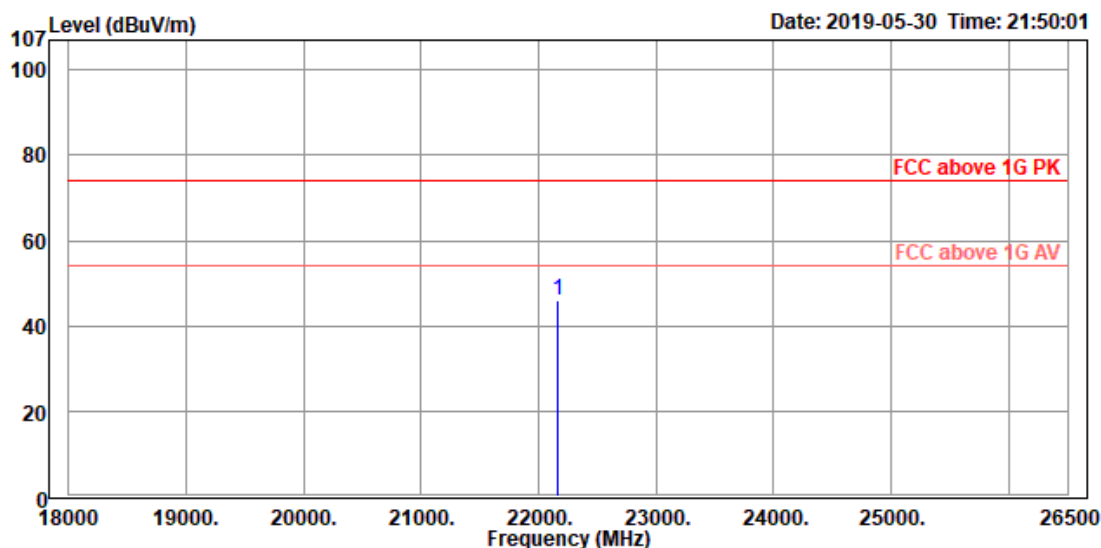
Site : 966A Chamber A
Condition : FCC above 1G PK 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2405.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	21604.000	43.35	39.03	4.32	74.00	-30.65	100	26	Peak	



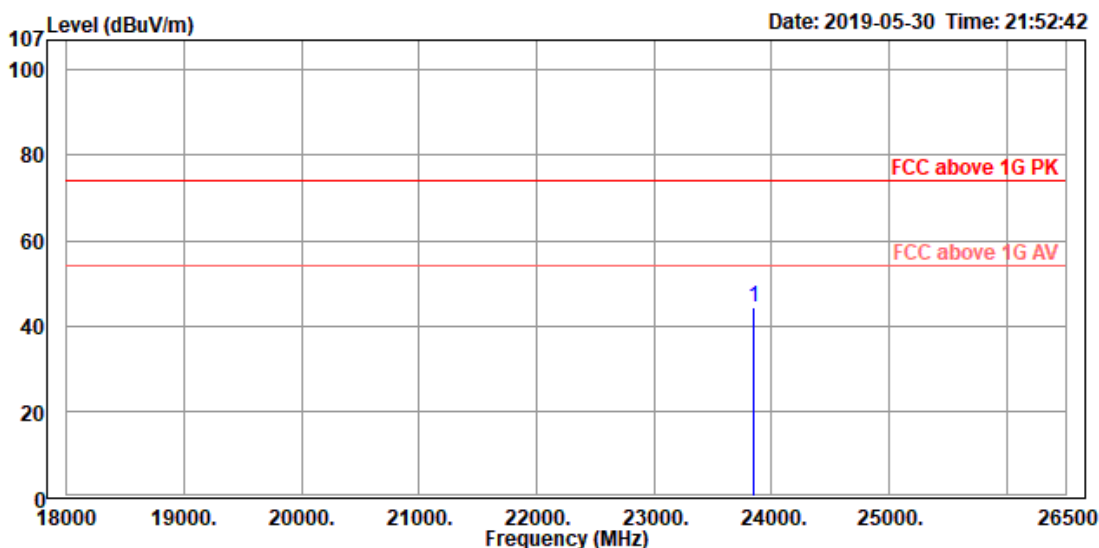
Site : 966A Chamber A
Condition : FCC above 1G PK 3m horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2439.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	23635.500	45.06	39.79	5.27	74.00	-28.94	100	4	Peak	



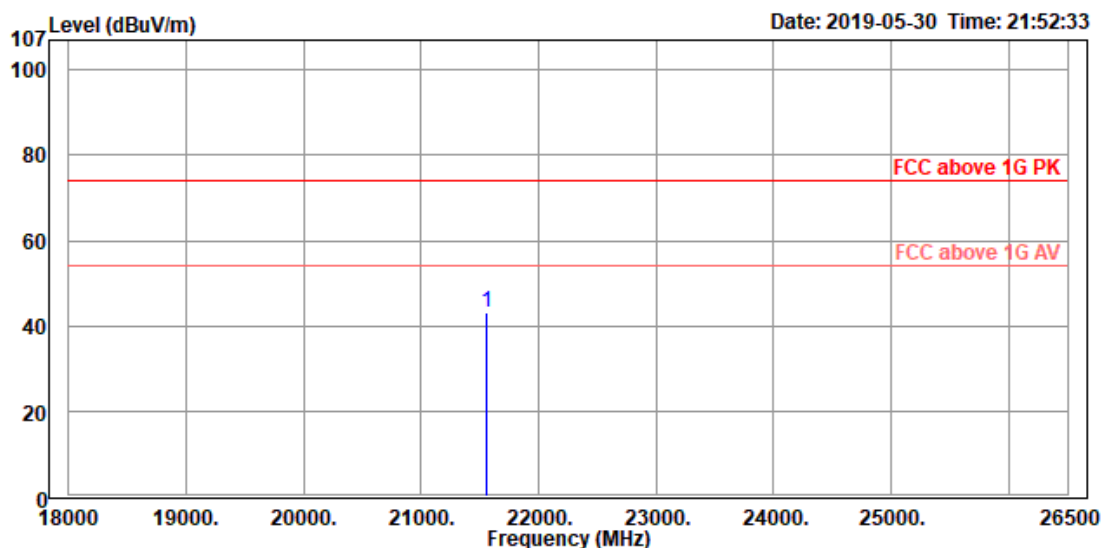
Site : 966A Chamber A
Condition : FCC above 1G PK 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2439.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	22165.000	46.12	41.49	4.63	74.00	-27.88	100	112	Peak	



Site : 966A Chamber A
Condition : FCC above 1G PK 3m horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2477.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	23848.000	44.28	38.99	5.29	74.00	-29.72	100	164	Peak	



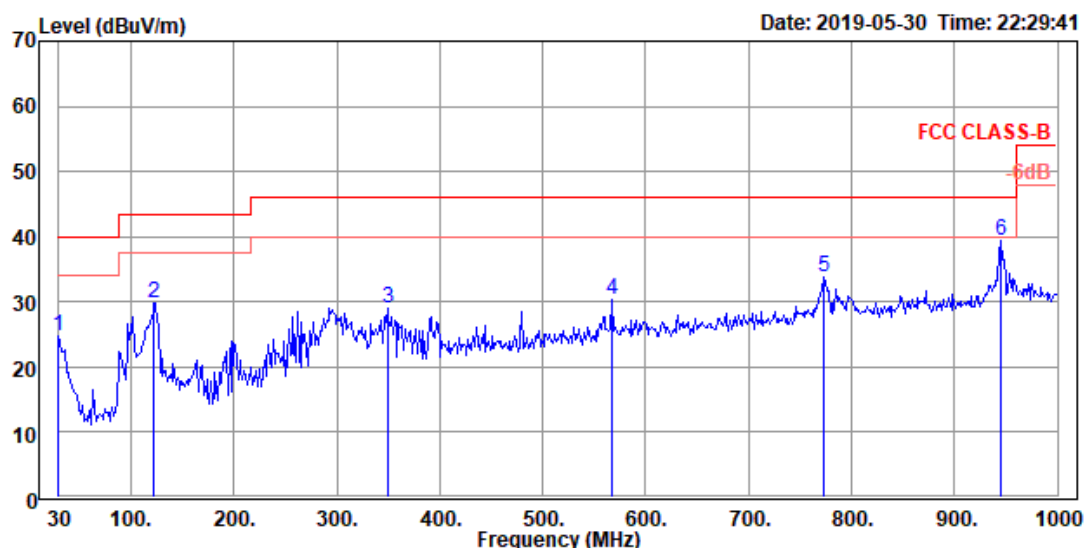
Site : 966A Chamber A
Condition : FCC above 1G PK 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : Harmonic-2477.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	21553.000	42.98	38.65	4.33	74.00	-31.02	100	345	Peak	

Spurious Emissions, TX Mode, 30M-1G

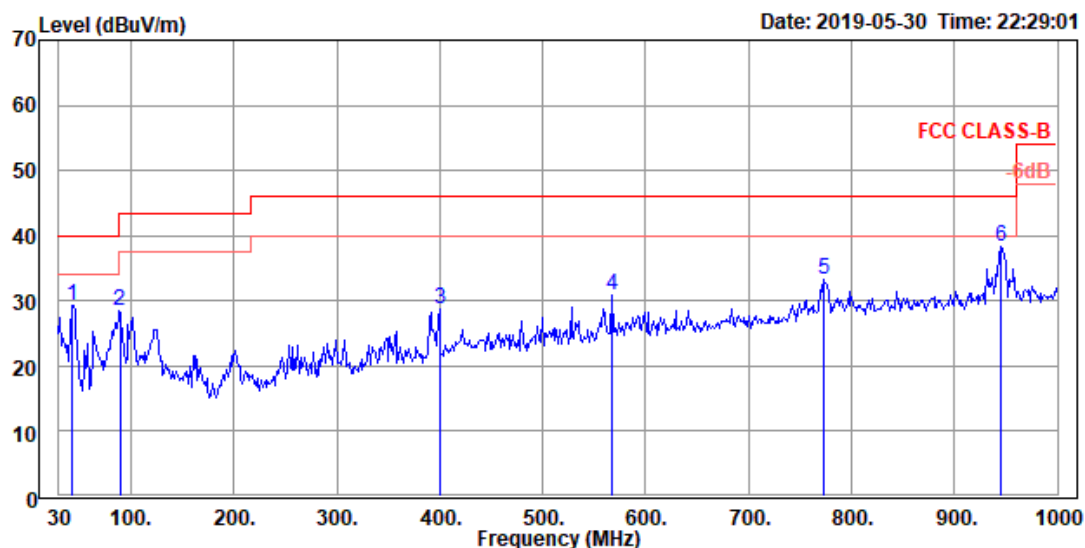


TUV Rheinland Taiwan Ltd.
11F., No.758, Sec. 4 Bade Road. Songshan Dist, Taipei City 105
Tel:+886-2172-7000 Fax:+886-2528-0018



Site : 966A Chamber A
Condition : FCC CLASS-B 3m horizontal
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : TX-2439.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	30.000	24.70	24.73	-0.03	40.00	-15.30	100	291	QP	
2	122.783	29.75	37.00	-7.25	43.50	-13.75	111	149	QP	
3	349.116	29.06	32.42	-3.36	46.00	-16.94	100	123	QP	
4	567.015	30.40	30.32	0.08	46.00	-15.60	108	269	QP	
5	773.667	33.85	31.10	2.75	46.00	-12.15	100	117	QP	
6	945.174	39.42	33.93	5.49	46.00	-6.58	100	164	QP	



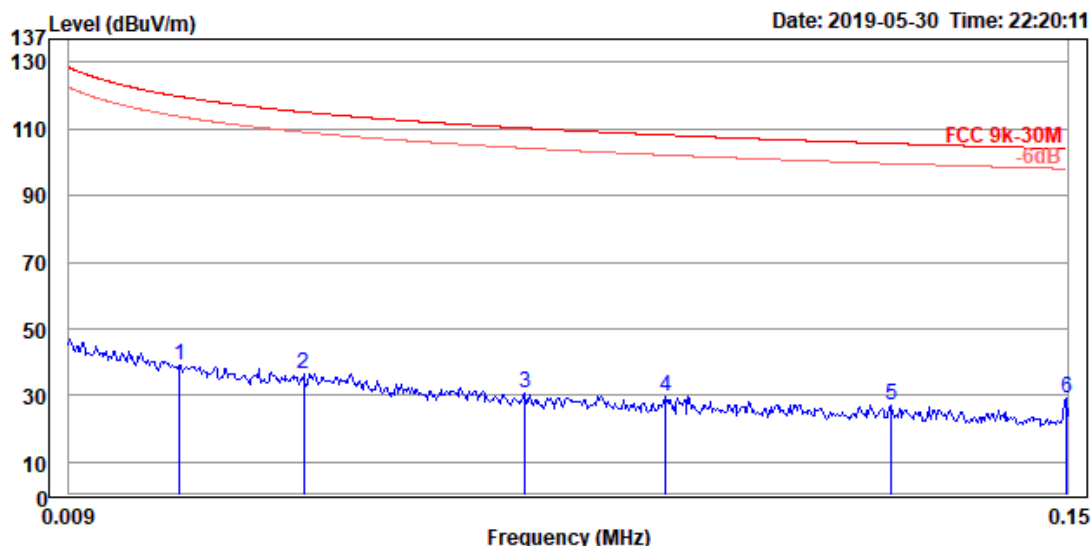
Site : 966A Chamber A
Condition : FCC CLASS-B 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : TX-2439.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	42.652	29.34	36.59	-7.25	40.00	-10.66	100	340	QP	
2	89.043	28.53	39.52	-10.99	43.50	-14.97	131	81	QP	
3	399.725	28.87	31.19	-2.32	46.00	-17.13	100	289	QP	
4	567.015	30.99	30.91	0.08	46.00	-15.01	100	243	QP	
5	773.667	33.18	30.43	2.75	46.00	-12.82	108	154	QP	
6	945.174	38.21	32.72	5.49	46.00	-7.79	100	170	QP	

Spurious Emissions, TX Mode, 9k-30M

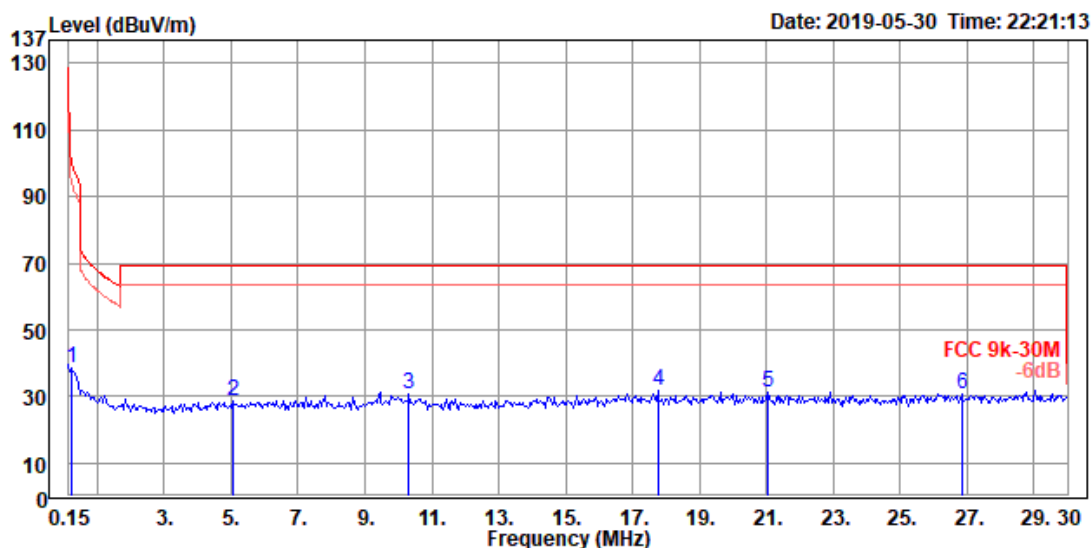


TUV Rheinland Taiwan Ltd.
11F., No.758, Sec. 4 Bade Road. Songshan Dist, Taipei City 105
Tel:+886-2172-7000 Fax:+886-2528-0018



Site : 966A Chamber A
Condition : FCC 9k-30M 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : TX-2439.35
Memo : X(側立)

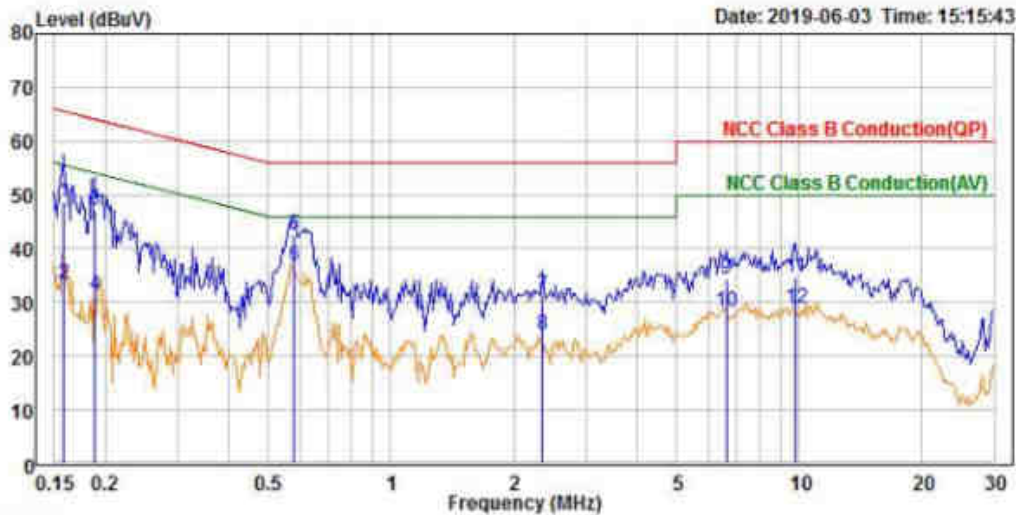
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.025	39.33	20.23	19.10	119.80	-80.47	100	62	QP	
2	0.042	36.70	17.62	19.08	115.11	-78.41	100	303	QP	
3	0.073	30.85	12.21	18.64	110.28	-79.43	100	158	QP	
4	0.093	29.69	11.29	18.40	108.21	-78.52	100	169	QP	
5	0.125	27.28	8.94	18.34	105.65	-78.37	100	332	QP	
6	0.150	29.27	10.92	18.35	104.09	-74.82	100	261	QP	



Site : 966A Chamber A
Condition : FCC 9k-30M 3m vertical
Test Engineer: Kevin Kuo
Product : Cloud Flight Wireless USB Dongle
Model No. : HXS-HSDG2
Test Rating : DC 5V
Tmp/Hum : 22 °C / 57 %
Power Setting: 0x08(預設)
Mode : TX-2439.35
Memo : X(側立)

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.237	38.77	20.36	18.41	100.12	-61.35	100	81	QP	
2	5.038	28.50	9.02	19.48	69.50	-41.00	100	252	QP	
3	10.316	30.83	10.36	20.47	69.50	-38.67	100	39	QP	
4	17.757	31.61	10.27	21.34	69.50	-37.89	100	20	QP	
5	21.045	31.33	9.69	21.64	69.50	-38.17	100	11	QP	
6	26.842	30.59	8.73	21.86	69.50	-38.91	100	105	QP	

Mains Spurious Emissions



Trace: 1

Site : Conduction room

Condition : NCC Class B Conduction(QP) line1

Test Engineer: Kai Wang

Applicant : Kingston

Product : HyperX Cloud Fight Wireless USB Dongle

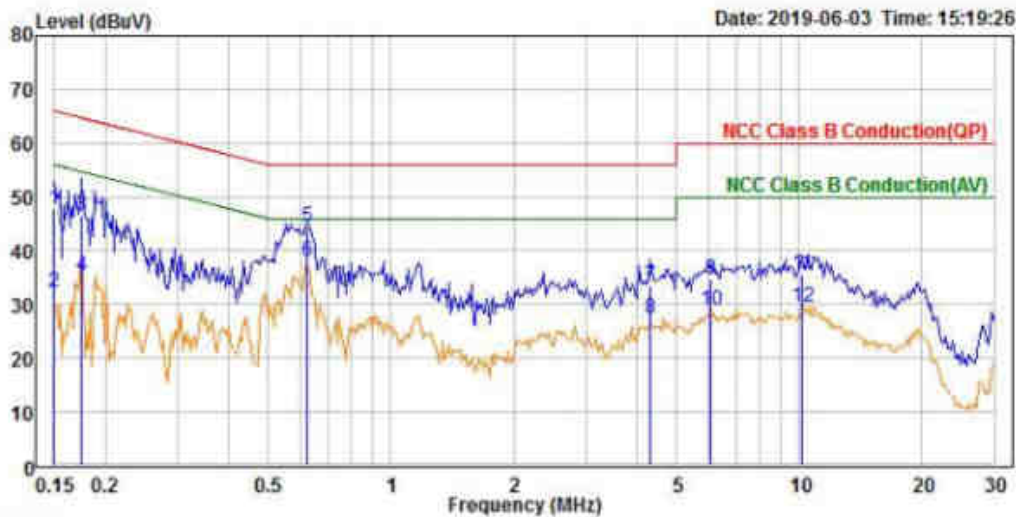
Model No. : HXS-HSDG2

Test Rating : 110Vac/60Hz

Temp/Hum : 22.8°C/39%

Memo : (a) AC Mains

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.158	39.09	9.68	48.77	65.59	-16.82	QP
2	0.158	23.90	9.68	33.58	55.59	-22.01	Average
3	0.189	37.57	9.68	47.25	64.10	-16.85	QP
4	0.189	21.72	9.68	31.40	54.10	-22.70	Average
5	0.580	32.81	9.69	42.50	56.00	-13.50	QP
6	0.580	27.17	9.69	36.86	46.00	-9.14	Average
7	2.355	21.61	9.72	31.33	56.00	-24.67	QP
8	2.355	14.18	9.72	23.90	46.00	-22.10	Average
9	6.621	24.62	9.79	34.41	60.00	-25.59	QP
10	6.621	18.52	9.79	28.31	50.00	-21.69	Average
11	9.756	24.76	9.83	34.59	60.00	-25.41	QP
12	9.756	19.13	9.83	28.96	50.00	-21.04	Average



Trace: 1

Site : Conduction room

Condition : NCC Class B Conduction(QP) neutral

Test Engineer: Kai Wang

Applicant : Kingston

Product : HyperX Cloud Fight Wireless USB Dongle

Model No. : HXS-HSDG2

Test Rating : 110Vac/60Hz

Tmp/Hum : 22.8°C/39%

Memo : (a) AC Mains

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.150	38.06	9.68	47.74	66.00	-18.26	QP
2	0.150	22.63	9.68	32.31	56.00	-23.69	Average
3	0.174	36.73	9.68	46.41	64.76	-18.35	QP
4	0.174	25.46	9.68	35.14	54.76	-19.62	Average
5	0.621	34.67	9.68	44.35	56.00	-11.65	QP
6	0.621	28.24	9.68	37.92	46.00	-8.08	Average
7	4.318	23.57	9.76	33.33	56.00	-22.67	QP
8	4.318	17.66	9.76	27.42	46.00	-18.58	Average
9	6.054	25.00	9.79	34.79	60.00	-25.21	QP
10	6.054	19.12	9.79	28.91	50.00	-21.09	Average
11	10.152	25.62	9.84	35.46	60.00	-24.54	QP
12	10.152	19.65	9.84	29.49	50.00	-20.51	Average