## Test Report No.10053160 001

### Appendix D: Radiated and Mains Spurious Emission Data

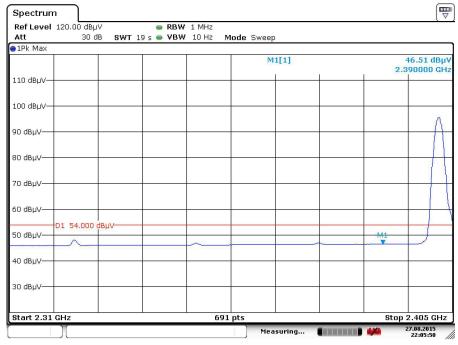
(File: 10053160AppendixD)

#### Contents

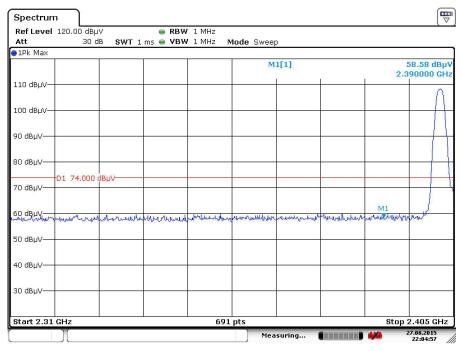
Spurious Emissions, Band Edges, 2.35-2.5G	2
Spurious Emissions, TX Mode, 1-18G	
Spurious Emissions, TX Mode, 18-26G	22
Spurious Emissions, TX Mode, 30M-1G	34
Spurious Emissions, Mains, 150kHz - 30MHz	36

## Radiated Bandedge (GFSK)

#### Low Channel (Hor)

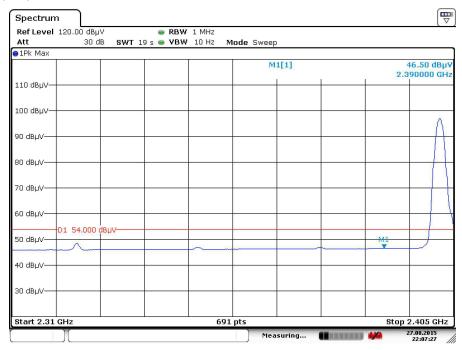


Date: 27.AUG.2015 22:05:50

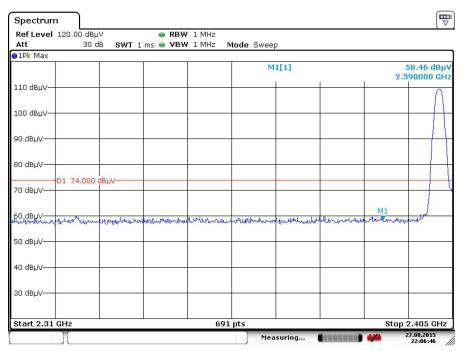


Date: 27.AUG.2015 22:04:57

#### Low Channel (Ver)



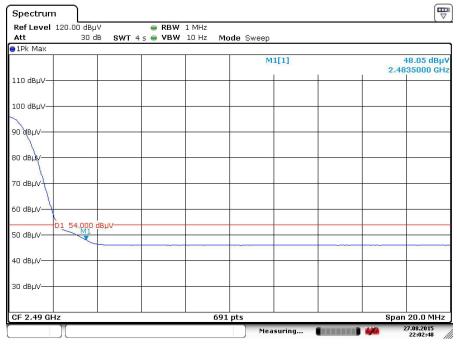
Date: 27.AUG.2015 22:07:26



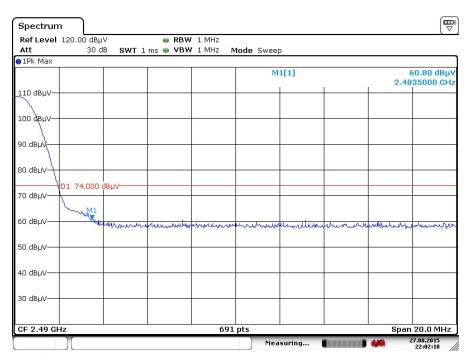
Date: 27.AUG.2015 22:06:46

## Radiated Bandedge (GFSK)

#### **High Channel (Hor)**

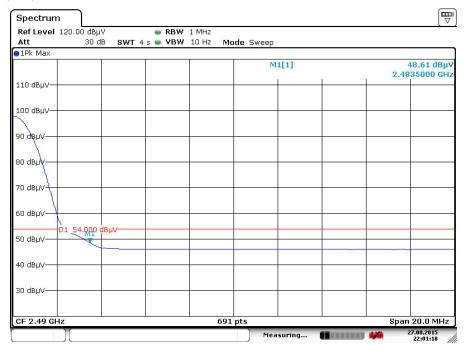


Date: 27.AUG.2015 22:02:48

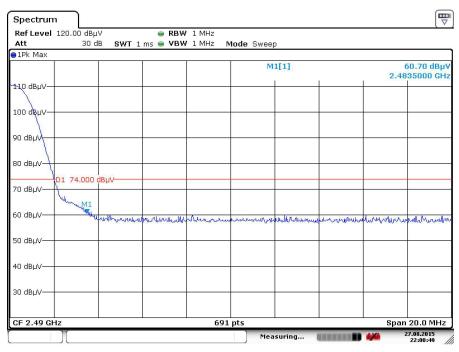


Date: 27.AUG.2015 22:02:18

#### **High Channel (Ver)**



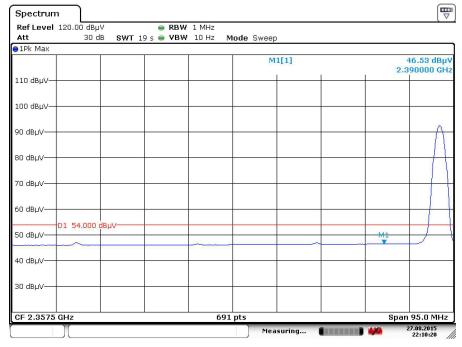
Date: 27.AUG.2015 22:01:17



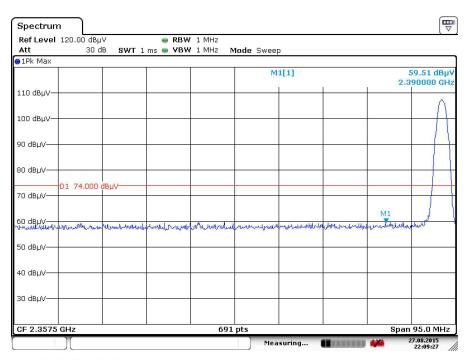
Date: 27.AUG.2015 22:00:49

## Radiated Bandedge (8DPSK)

#### Low Channel (Hor)

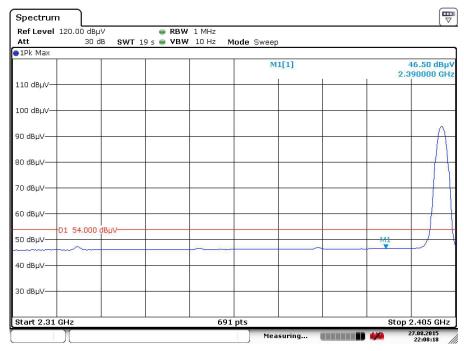


Date: 27.AUG.2015 22:10:19

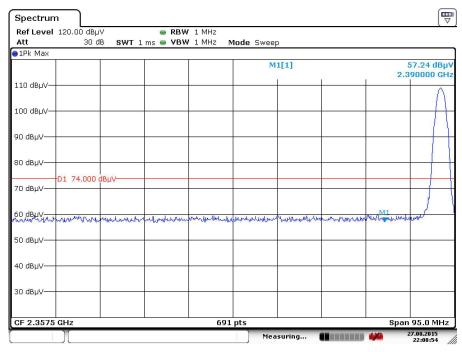


Date: 27.AUG.2015 22:09:27

#### Low Channel (Ver)



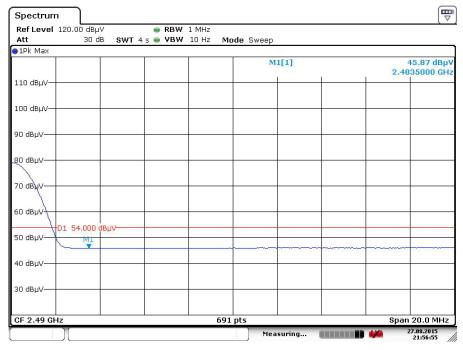
Date: 27.AUG.2015 22:08:18



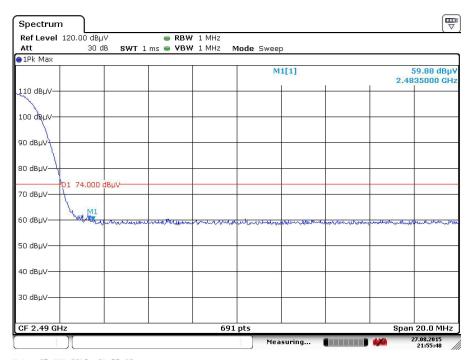
Date: 27.AUG.2015 22:08:54

## Radiated Bandedge (8DPSK)

#### **High Channel (Hor)**

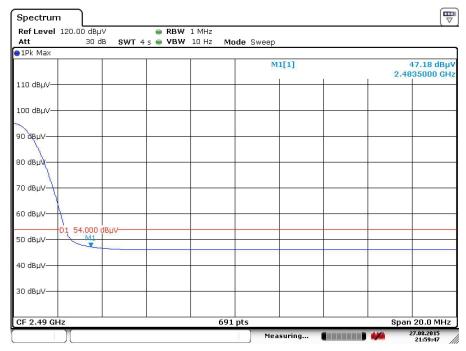


Date: 27.AUG.2015 21:56:55

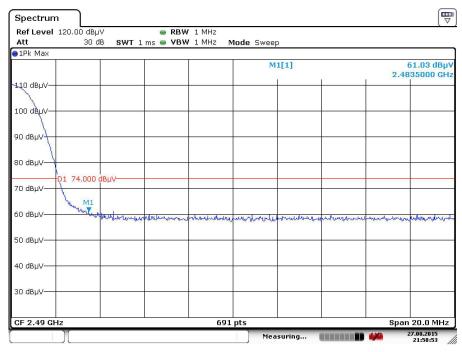


Date: 27.AUG.2015 21:55:48

#### **High Channel (Ver)**



Date: 27.AUG.2015 21:59:47



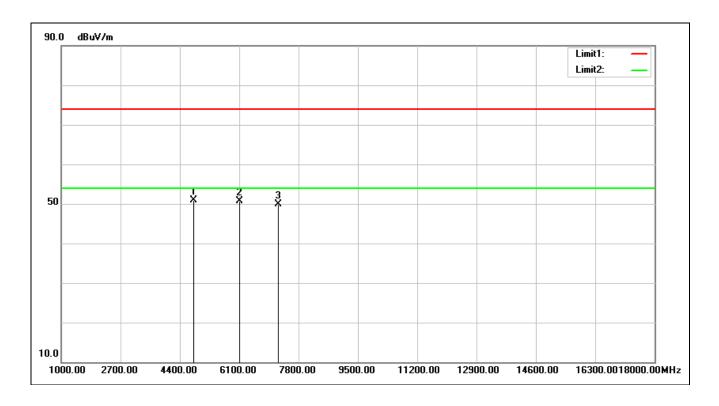
Date: 27.AUG.2015 21:58:53



#### **TUV Taiwan**

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

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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 20:47:25

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

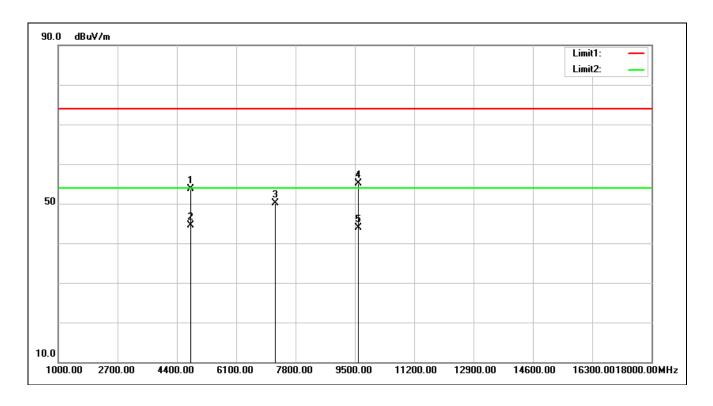
**Test Mode:** 1DH5-2402

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4804.000	-3.16	54.12	50.96	74.00	-23.04	peak	100	208	
2	6117.000	3.49	47.19	50.68	74.00	-23.32	peak	100	50	
3	7206.000	4.74	45.24	49.98	74.00	-24.02	peak		0	





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 20:48:27

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

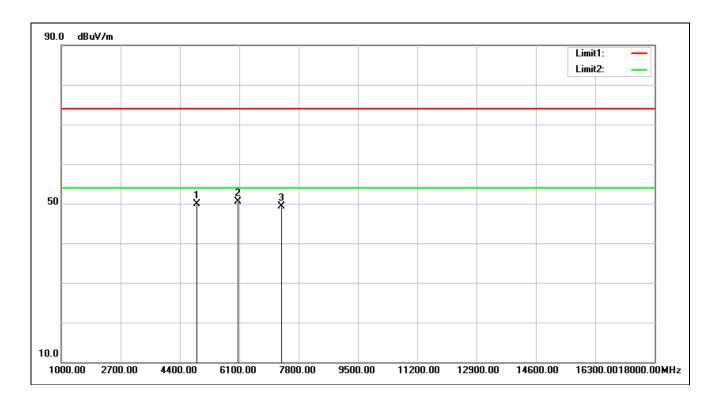
**Test Mode:** 1DH5-2402

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4804.000	-3.16	56.92	53.76	74.00	-20.24	peak	100	238	
2	4804.000	-3.16	47.71	44.55	54.00	-9.45	AVG	100	238	
3	7206.000	4.74	45.43	50.17	74.00	-23.83	peak			
4	9608.000	5.68	49.35	55.03	74.00	-18.97	peak	100	94	
5	9608.000	5.68	38.20	43.88	54.00	-10.12	AVG	100	94	





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 20:58:17

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

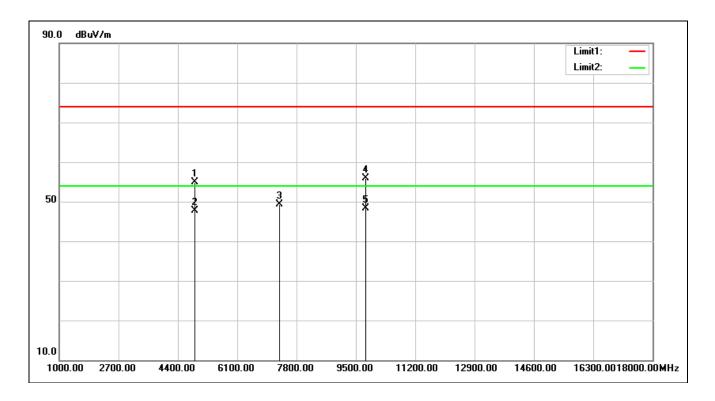
**Test Mode:** 1DH5-2441

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4882.000	-2.16	52.03	49.87	74.00	-24.13	peak	100	199	
2	6066.000	4.34	46.11	50.45	74.00	-23.55	peak	100	332	
3	7323.000	6.13	43.13	49.26	74.00	-24.74	peak			





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 20:59:20

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ C)/59%

Model No.: VD-2104 Test Engineer: George Yang

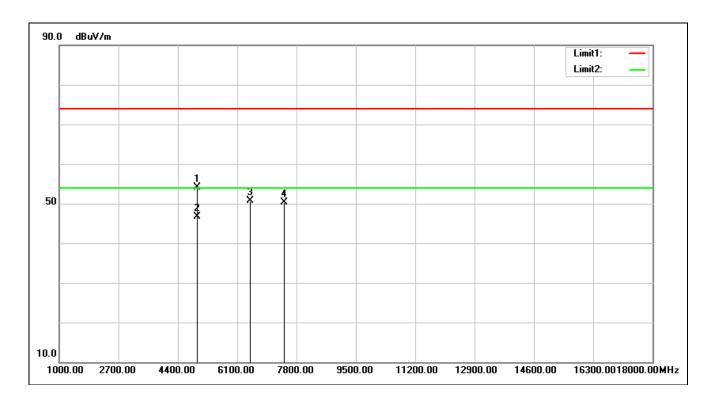
**Test Mode:** 1DH5-2441

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4882.000	-2.16	57.02	54.86	74.00	-19.14	peak	100	233	
2	4882.000	-2.16	49.96	47.80	54.00	-6.20	AVG	100	233	
3	7323.000	6.13	43.25	49.38	74.00	-24.62	peak			
4	9764.000	6.39	49.49	55.88	74.00	-18.12	peak	100	86	
5	9764.000	6.39	41.91	48.30	54.00	-5.70	AVG	100	86	





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 21:11:45

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.(°C)/Hum.(%): 23.1(°C)/59%

Model No.: VD-2104 Test Engineer: George Yang

**Test Mode:** 1DH5-2480

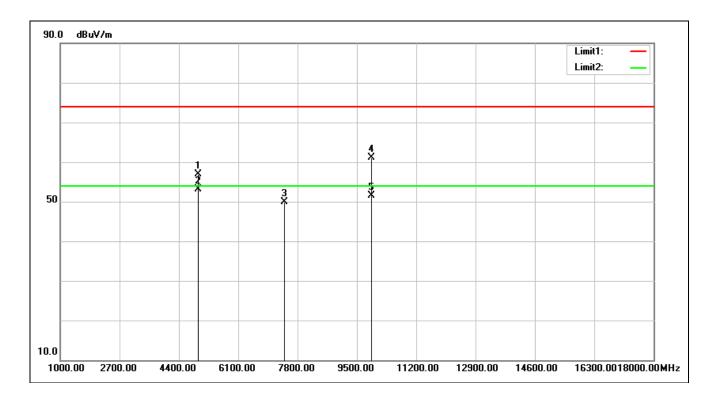
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4960.000	-1.97	56.10	54.13	74.00	-19.87	peak	100	224	
2	4960.000	-1.97	48.77	46.80	54.00	-7.20	AVG	100	224	
3	6474.000	5.93	44.73	50.66	74.00	-23.34	peak	100	268	
4	7440.000	6.47	43.83	50.30	74.00	-23.70	peak			

#### **TUV Taiwan**



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

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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 21:12:47

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

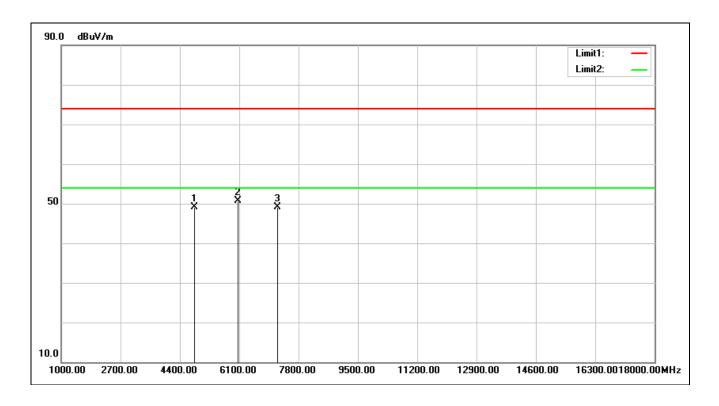
**Test Mode:** 1DH5-2480

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4960.000	-1.97	58.92	56.95	74.00	-17.05	peak	100	222	
2	4960.000	-1.97	55.16	53.19	54.00	-0.81	AVG	100	222	
3	7440.000	6.47	43.34	49.81	74.00	-24.19	peak			
4	9920.000	6.05	55.01	61.06	74.00	-12.94	peak	100	108	
5	9920.000	6.05	45.47	51.52	54.00	-2.48	AVG	100	108	





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 21:24:23

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.(°C)/Hum.(%): 23.1(°C)/59%

Model No.: VD-2104 Test Engineer: George Yang

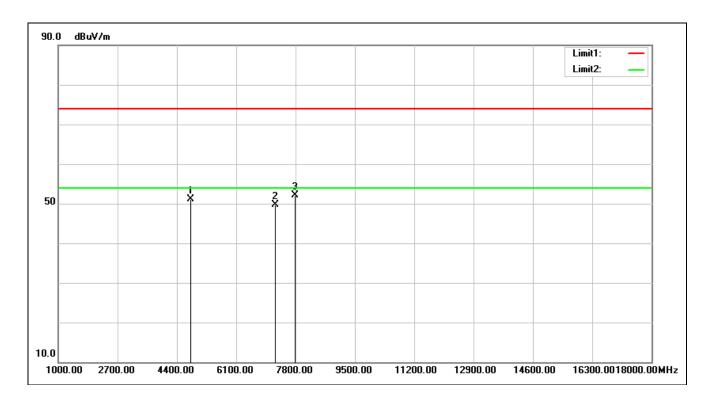
**Test Mode: 3DH5-2402** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4804.000	-2.35	51.43	49.08	74.00	-24.92	peak	100	227	
2	6066.000	4.34	46.34	50.68	74.00	-23.32	peak	100	274	
3	7206.000	5.78	43.36	49.14	74.00	-24.86	peak			





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 21:25:26

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.(°C)/Hum.(%): 23.1(°C)/59%

Model No.: VD-2104 Test Engineer: George Yang

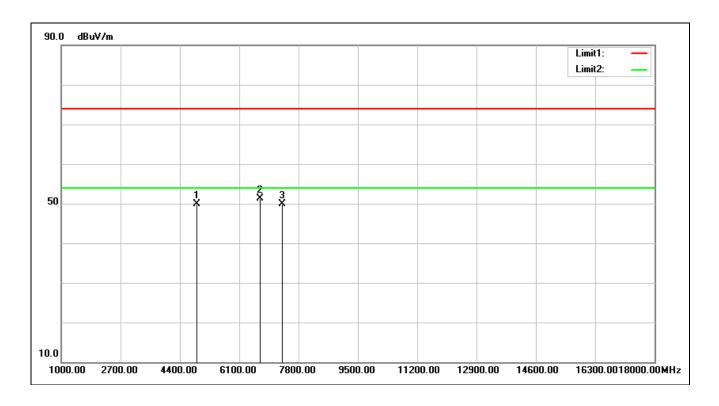
**Test Mode: 3DH5-2402** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4804.000	-2.35	53.46	51.11	74.00	-22.89	peak	100	214	
2	7206.000	5.78	43.99	49.77	74.00	-24.23	peak			
3	7783.000	6.60	45.55	52.15	74.00	-21.85	peak	100	222	





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Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 21:30:27

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.(°C)/Hum.(%): 23.1(°C)/59%

Model No.: VD-2104 Test Engineer: George Yang

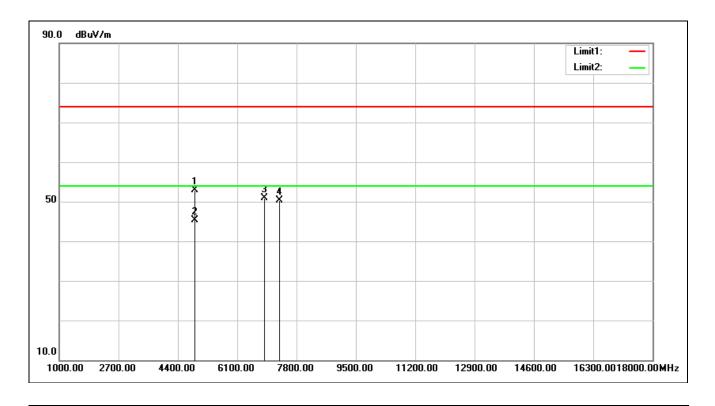
**Test Mode: 3DH5-2441** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4882.000	-2.16	52.05	49.89	74.00	-24.11	peak	100	224	
2	6695.000	5.70	45.52	51.22	74.00	-22.78	peak	100	86	
3	7323.000	6.13	43.87	50.00	74.00	-24.00	peak			





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 21:31:30

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

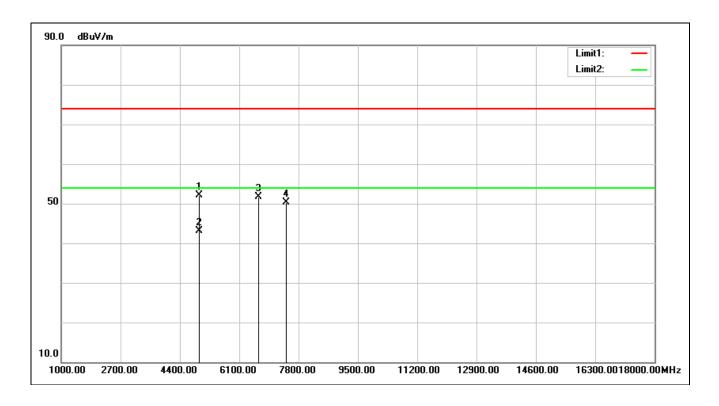
**Test Mode: 3DH5-2441** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4882.000	-2.16	55.02	52.86	74.00	-21.14	peak	100	236	
2	4882.000	-2.16	47.41	45.25	54.00	-8.75	AVG	100	236	
3	6882.000	5.37	45.56	50.93	74.00	-23.07	peak	100	222	
4	7323.000	6.13	44.08	50.21	74.00	-23.79	peak			





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 21:36:19

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.(°C)/Hum.(%): 23.1(°C)/59%

Model No.: VD-2104 Test Engineer: George Yang

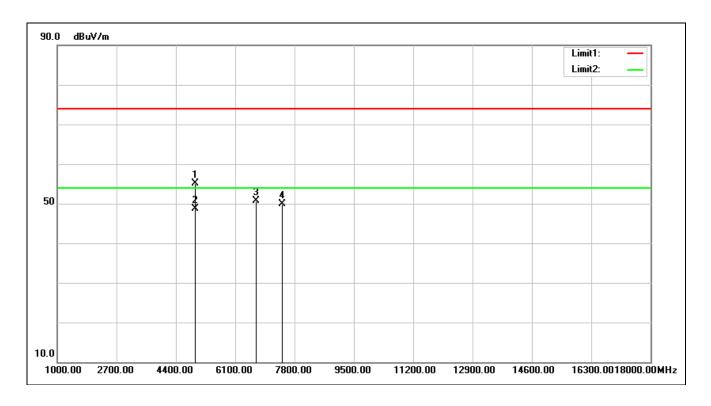
**Test Mode: 3DH5-2480** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4960.000	-1.97	54.10	52.13	74.00	-21.87	peak	100	224	
2	4960.000	-1.97	45.01	43.04	54.00	-10.96	AVG	100	224	
3	6644.000	5.79	45.92	51.71	74.00	-22.29	peak	100	58	
4	7440.000	6.47	43.78	50.25	74.00	-23.75	peak			





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/27 21:37:21

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.(°C)/Hum.(%): 23.1(°C)/59%

Model No.: VD-2104 Test Engineer: George Yang

**Test Mode: 3DH5-2480** 

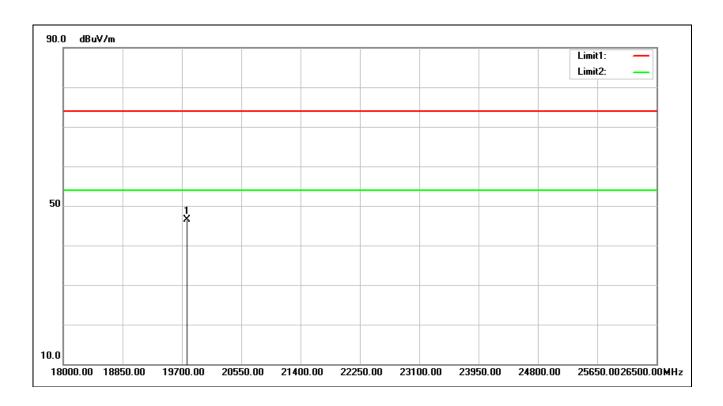
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	4960.000	-1.97	57.10	55.13	74.00	-18.87	peak	100	219	
2	4960.000	-1.97	50.64	48.67	54.00	-5.33	AVG	100	219	
3	6695.000	5.70	45.03	50.73	74.00	-23.27	peak	100	269	
4	7440.000	6.47	43.38	49.85	74.00	-24.15	peak			



#### **TUV Taiwan**

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

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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 17:58:04

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.(°C)/Hum.(%): 23.1(°C)/59%

Model No.: VD-2104 Test Engineer: George Yang

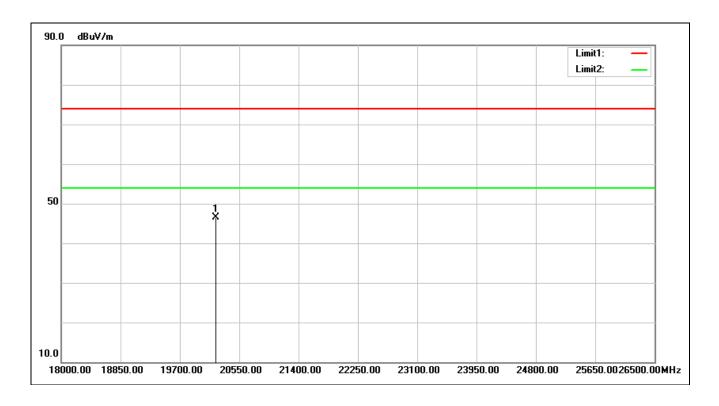
**Test Mode:** 1DH5-2402

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	19776.500	28.94	17.54	46.48	74.00	-27.52	peak		0	





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 17:58:20

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

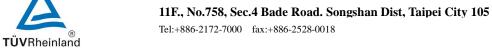
Model No.: VD-2104 Test Engineer: George Yang

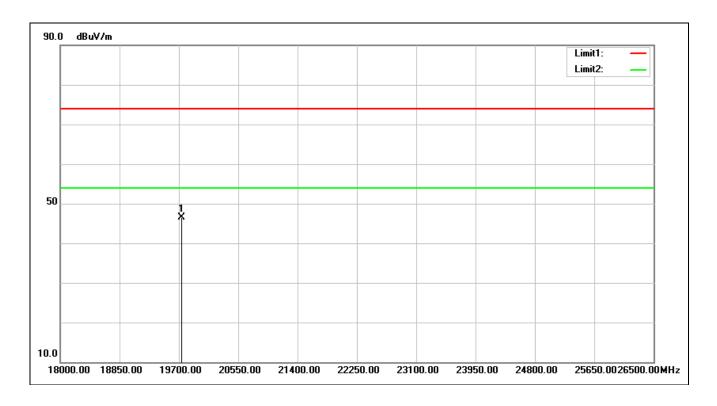
**Test Mode:** 1DH5-2402

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	20210.000	29.06	17.43	46.49	74.00	-27.51	peak			



#### **TUV Taiwan**





Service No.: 114036792-FCC **Test Distance:** 3m

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

Test item: **Radiation Emission Test Time:** 2015/9/3 17:58:44

**Applicant:** Vencer **Test Rating:** DC 5V

**Product:** Temp.(℃)/Hum.(%): Bluetooth 4.0 classI USB Dongle 23.1(°C)/59%

Model No.: VD-2104 **Test Engineer: George Yang** 

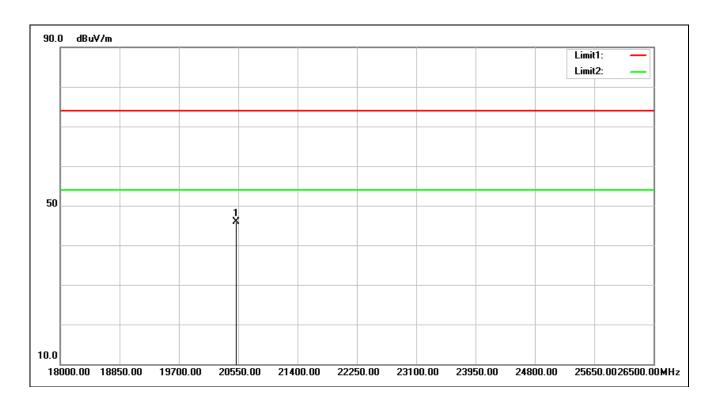
**Test Mode:** 1DH5-2441

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	19742.500	28.95	17.54	46.49	74.00	-27.51	peak			





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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 17:58:58

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

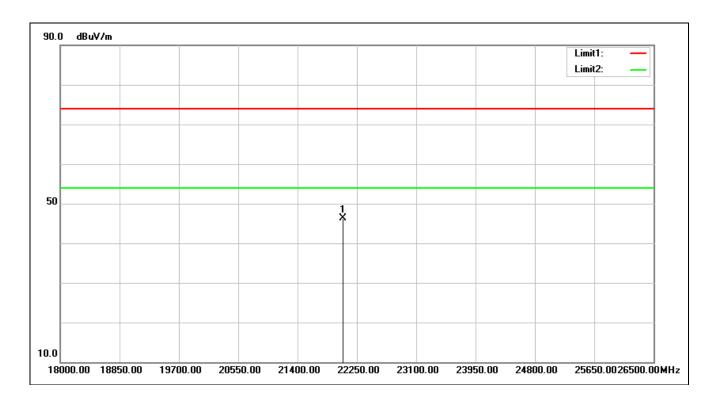
**Test Mode:** 1DH5-2441

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	20524.500	29.24	16.69	45.93	74.00	-28.07	peak			





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Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 17:59:15

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

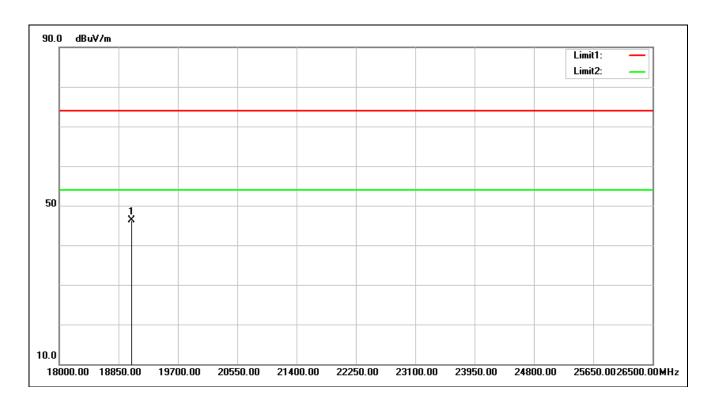
**Test Mode:** 1DH5-2480

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	22054.500	28.52	17.69	46.21	74.00	-27.79	peak			





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Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 17:59:26

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

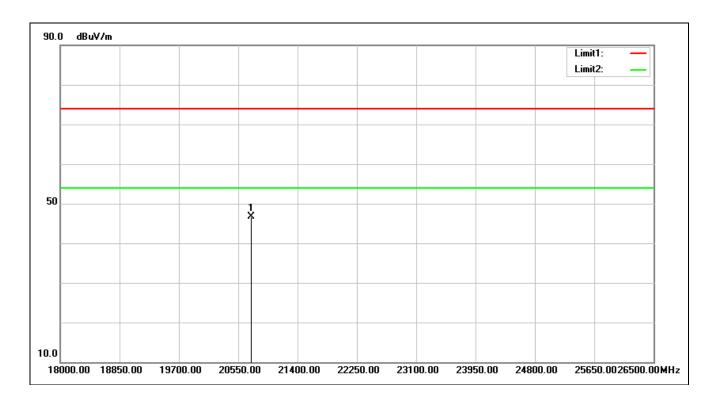
**Test Mode:** 1DH5-2480

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	19037.000	28.90	17.46	46.36	74.00	-27.64	peak			





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Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 17:59:52

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.(°C)/Hum.(%): 23.1(°C)/59%

Model No.: VD-2104 Test Engineer: George Yang

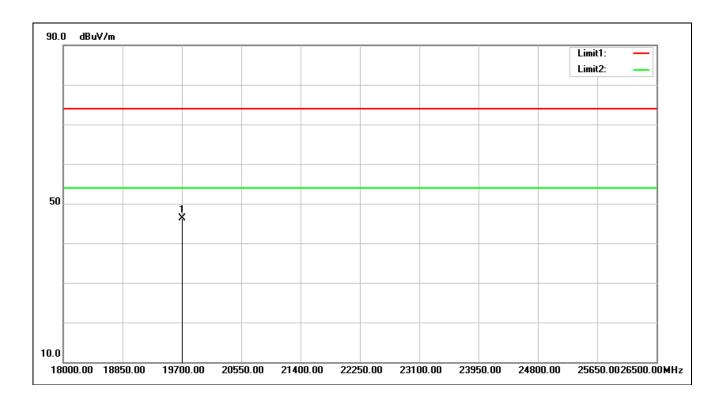
**Test Mode: 3DH5-2402** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	20737.000	29.30	17.46	46.76	74.00	-27.24	peak			





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Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 18:00:01

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

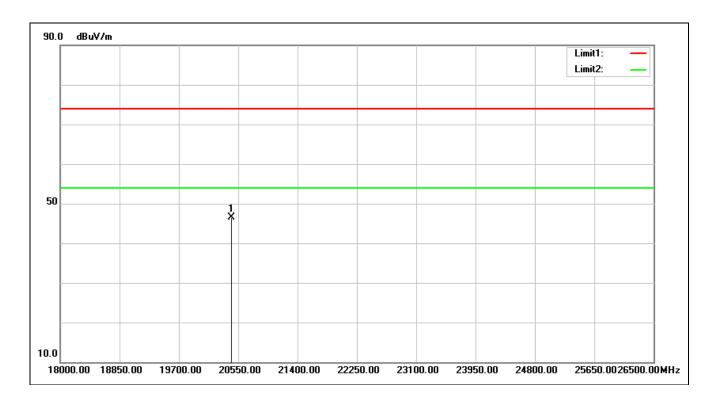
**Test Mode: 3DH5-2402** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	19708.500	28.94	17.40	46.34	74.00	-27.66	peak			





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Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 18:00:56

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.(°C)/Hum.(%): 23.1(°C)/59%

Model No.: VD-2104 Test Engineer: George Yang

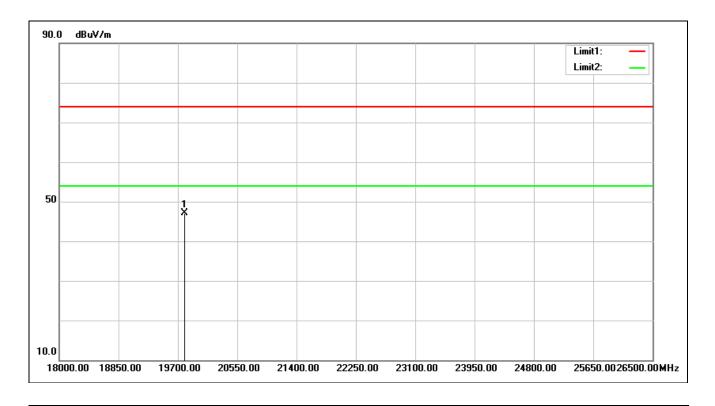
**Test Mode: 3DH5-2441** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	20456.500	29.22	17.21	46.43	74.00	-27.57	peak			





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Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 18:01:15

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

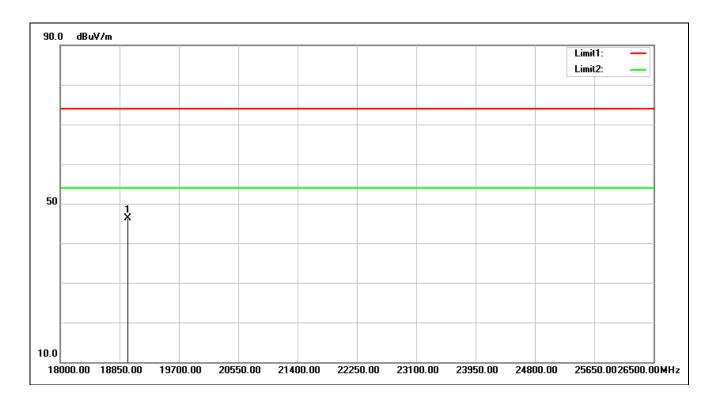
**Test Mode: 3DH5-2441** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark	
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )		
1	19793.500	28.94	18.19	47.13	74.00	-26.87	peak				





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Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 18:01:32

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ )/59%

Model No.: VD-2104 Test Engineer: George Yang

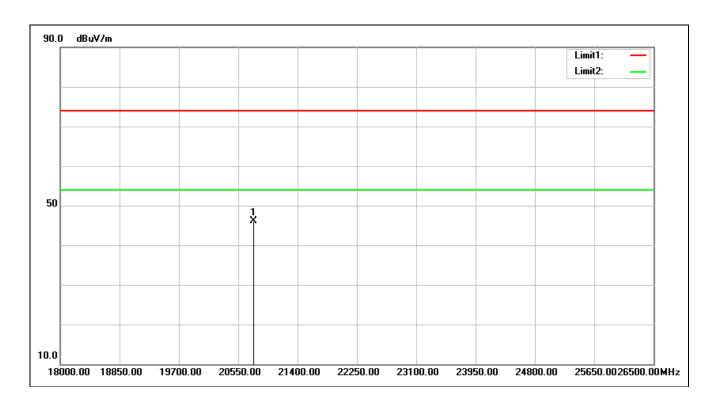
**Test Mode: 3DH5-2480** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	18969.000	28.85	17.43	46.28	74.00	-27.72	peak			





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Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/9/3 18:01:42

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ C)/59%

Model No.: VD-2104 Test Engineer: George Yang

**Test Mode: 3DH5-2480** 

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	20771.000	29.30	16.78	46.08	74.00	-27.92	peak			

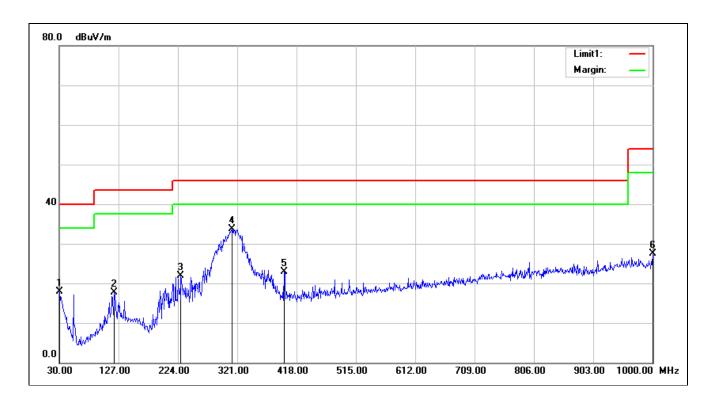
#### Spurious Emissions, TX Mode, 30M-1G



#### **TUV Taiwan**

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

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



**Service No.:** 114036792-FCC

Test Standard: FCC Class B 3M Radiation

**Test item:** Radiation Emission

**Applicant:** Vencer

Product: Bluetooth 4.0 classI USB Dongle

Model No.: VD-2104

Test Mode: 1DH5-2441-TX

Remark:

Test Distance:	3m
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Ant. Polarization: Horizontal

Test Time: 2015/8/28 15:15:38

Test Rating: DC 5V

Temp.(°C)/Hum.(%): 23.1(°C)/59%

**Test Engineer:** George Yang

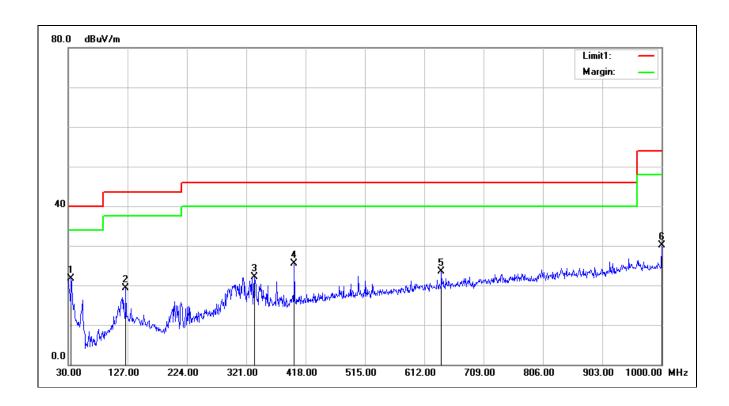
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	30.9699	-8.18	26.13	17.95	40.00	-22.05	QP	100	96	
2	120.2099	-14.65	32.41	17.76	43.50	-25.74	QP	100	301	
3	228.8499	-15.16	37.13	21.97	46.00	-24.03	QP	100	208	
4	312.2699	-11.74	45.37	33.63	46.00	-12.37	QP	100	147	
5	397.6298	-10.09	32.99	22.90	46.00	-23.10	QP	100	41	
6	1000.0000	-1.24	28.67	27.43	54.00	-26.57	QP	100	240	

# TÜVRheinland

#### **TUV Taiwan**

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

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



Service No.: 114036792-FCC Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2015/8/28 15:16:41

Applicant: Vencer Test Rating: DC 5V

Product: Bluetooth 4.0 classI USB Dongle Temp.( $^{\circ}$ C)/Hum.( $^{\circ}$ ): 23.1( $^{\circ}$ C)/59%

Model No.: VD-2104 Test Engineer: George Yang

Test Mode: 1DH5-2441-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	( • )	
1	34.8500	-10.41	32.05	21.64	40.00	-18.36	QP	100	285	
2	124.0900	-14.54	33.78	19.24	43.50	-24.26	QP	100	11	
3	334.5799	-11.20	33.21	22.01	46.00	-23.99	QP	100	210	
4	399.5700	-10.07	35.61	25.54	46.00	-20.46	QP	100	186	
5	640.1300	-6.66	30.23	23.57	46.00	-22.43	QP	100	72	
6	1000.0000	-1.24	31.27	30.03	54.00	-23.97	QP	100	189	

## Mains Spurious Emissions



#### **TUV Rheinland Taiwan**

Site: Conduction

11F.,No.758,Sec. 4,Bade Rd.,Songshan Dist.,Taipei 105,Taiwan

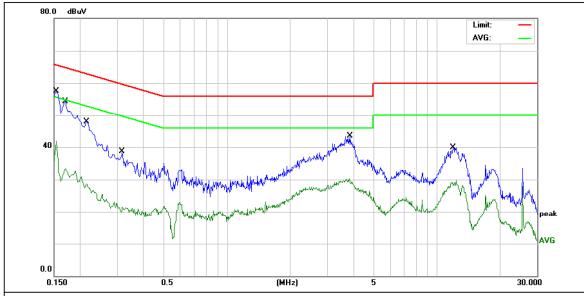
Tel:+886-2-2172-7000 Fax:+886-2-2528-0018

Test Time: 2015/8/15

Phase:

L1

16:17:31



Service No.: 114036792-EMC

Test Standard: FCC Class B Conduction(QP)

Test item: Conducted Emission

Applicant: Vencer Temp.( $^{\circ}$ )/Hum.( $^{\circ}$ ): 25.4( $^{\circ}$ ) / 45 %

Product: Bluetooth 4.0 Class I USB Dongle Power Rating: DC 5V

Model No.: VD-2104 Test Engineer: Kai Wang

Test Mode: (a)Normal operation (with BT mouse)

No.	Frequency (MHz)	Factor ()	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1539	9.65	40.70	50.35	65.78	-15.43	QP	Р	
2	0.1539	9.65	21.99	31.64	55.78	-24.14	AVG	Р	
3	0.1700	9.65	38.46	48.11	64.96	-16.85	QP	Р	
4	0.1700	9.65	22.26	31.91	54.96	-23.05	AVG	Р	
5	0.2140	9.63	31.45	41.08	63.04	-21.96	QP	Р	
6	0.2140	9.63	16.10	25.73	53.04	-27.31	AVG	Р	
7	0.3180	9.63	20.71	30.34	59.76	-29.42	QP	Р	
8	0.3180	9.63	10.36	19.99	49.76	-29.77	AVG	Р	
9	3.8420	9.66	27.32	36.98	56.00	-19.02	QP	А	
10	3.8420	9.66	18.20	27.86	46.00	-18.14	AVG	Р	
11	11.9740	9.78	22.09	31.87	60.00	-28.13	QP	Р	
12	11.9740	9.78	16.23	26.01	50.00	-23.99	AVG	Р	



#### **TUV Rheinland Taiwan**

Site: Conduction

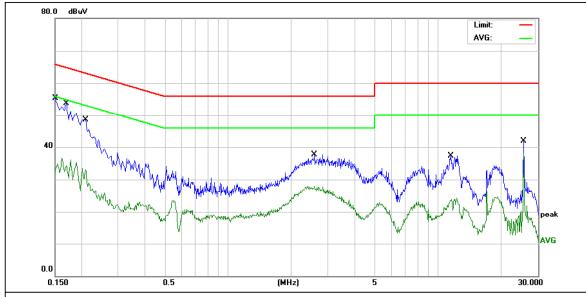
11F.,No.758,Sec. 4,Bade Rd.,Songshan Dist.,Taipei 105,Taiwan

Tel:+886-2-2172-7000 Fax:+886-2-2528-0018

Test Time: 2015/8/15

Phase:

16:22:11



Service No.: 114036792-EMC

Test Standard: FCC Class B Conduction(QP)

Test item: Conducted Emission

 Applicant:
 Vencer
 Temp.(℃)/Hum.(%):
 25.4(℃) / 45 %

Product: Bluetooth 4.0 Class I USB Dongle Power Rating: DC 5V

Model No.: VD-2104 Test Engineer: Kai Wang

Test Mode: (a)Normal operation (with BT mouse)

No.	Frequency (MHz)	Factor ()	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	9.66	44.34	54.00	65.99	-11.99	QP	Р	
2	0.1500	9.66	25.06	34.72	55.99	-21.27	AVG	Р	
3	0.1700	9.66	39.39	49.05	64.96	-15.91	QP	Р	
4	0.1700	9.66	19.87	29.53	54.96	-25.43	AVG	Р	
5	0.2100	9.65	34.93	44.58	63.20	-18.62	QP	Р	
6	0.2100	9.65	18.29	27.94	53.20	-25.26	AVG	Р	
7	2.5860	9.67	23.80	33.47	56.00	-22.53	QP	Р	
8	2.5860	9.67	18.17	27.84	46.00	-18.16	AVG	Р	
9	11.5579	9.82	17.79	27.61	60.00	-32.39	QP	Р	
10	11.5579	9.82	10.06	19.88	50.00	-30.12	AVG	Р	_
11	25.6700	10.05	30.94	40.99	60.00	-19.01	QP	Р	
12	25.6700	10.05	26.80	36.85	50.00	-13.15	AVG	Р	