

Test Report No.10051116 001

Appendix D: Radiated and Mains Spurious Emission Data

(File: 10051116AppendixD)

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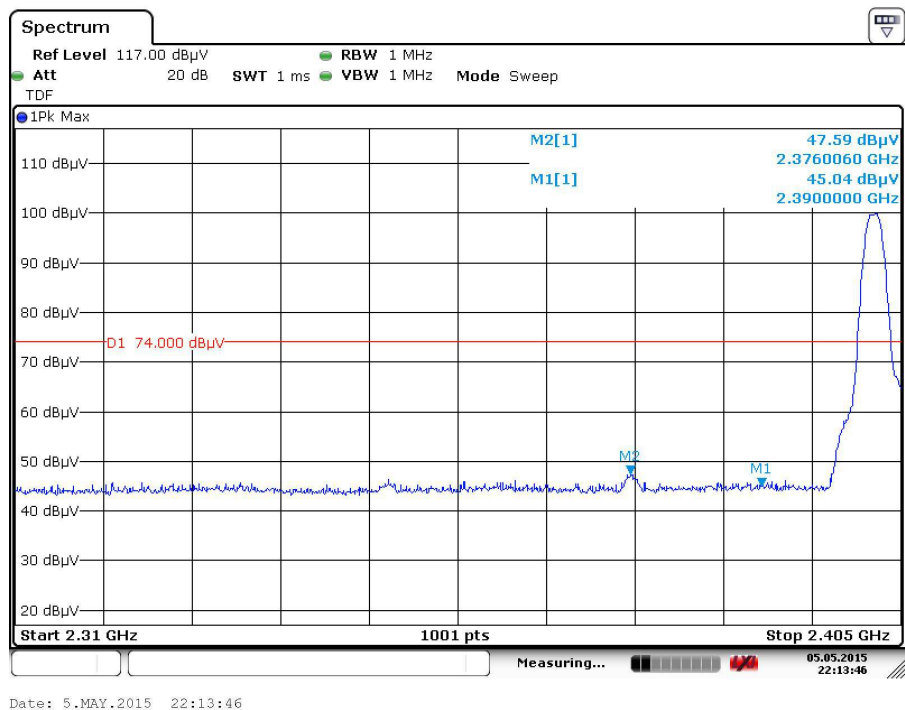
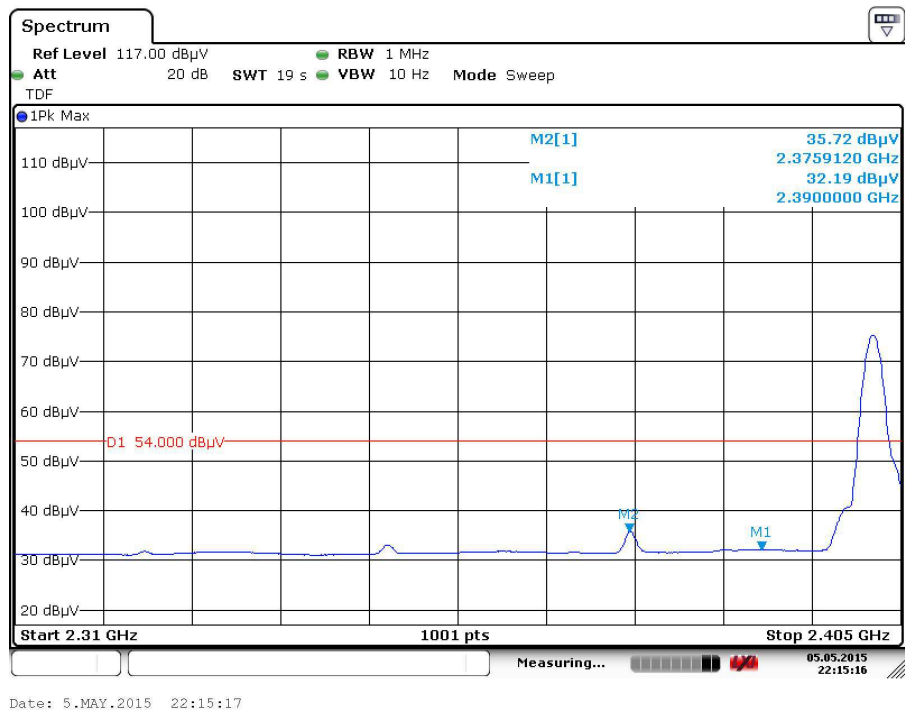
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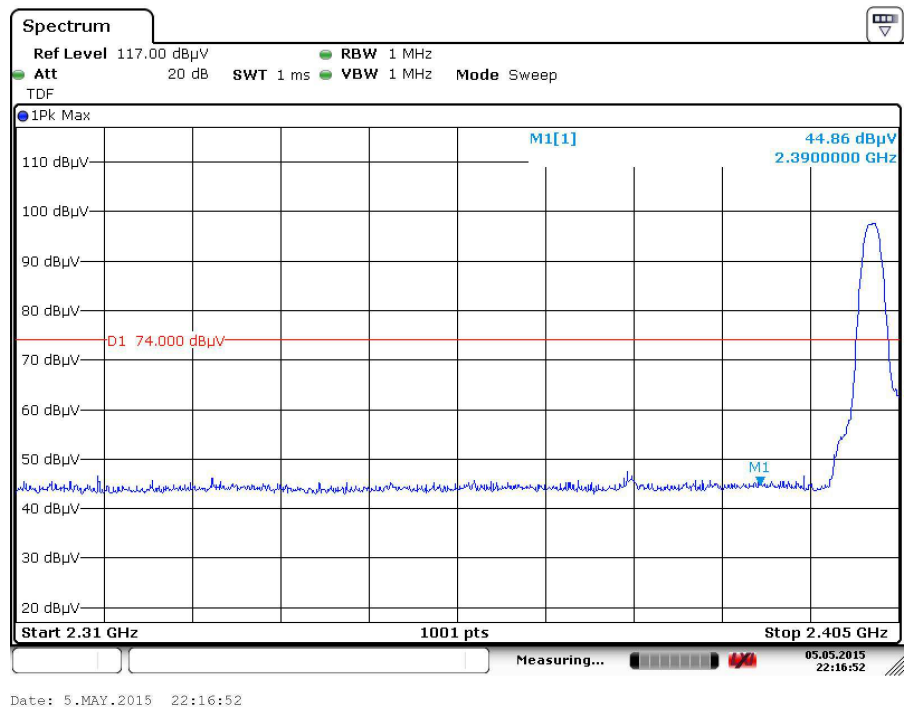
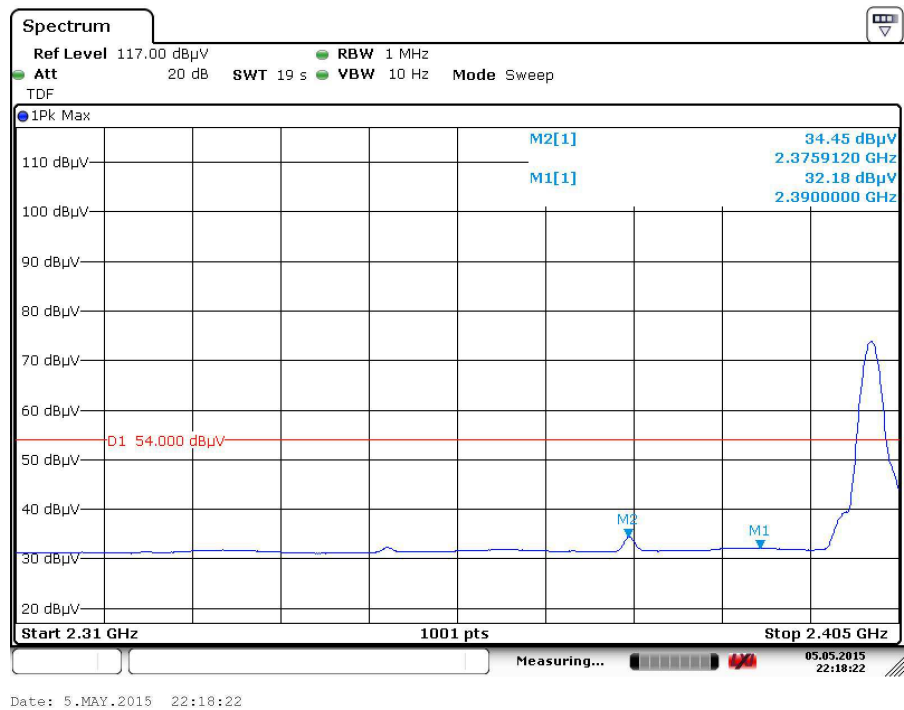
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Radiated Bandedge (GFSK)

Low Channel (Hor)



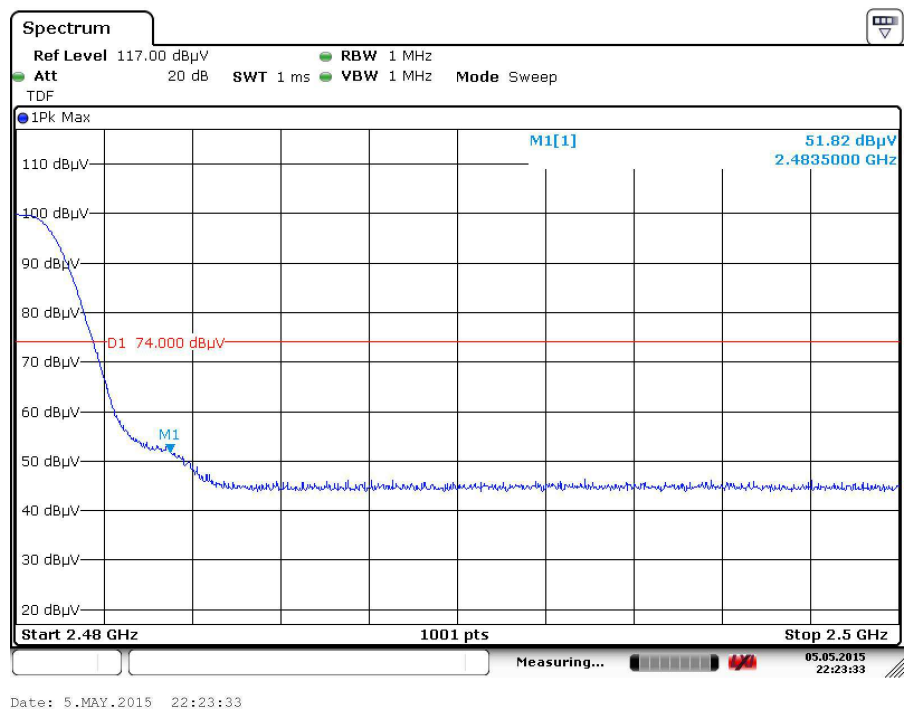
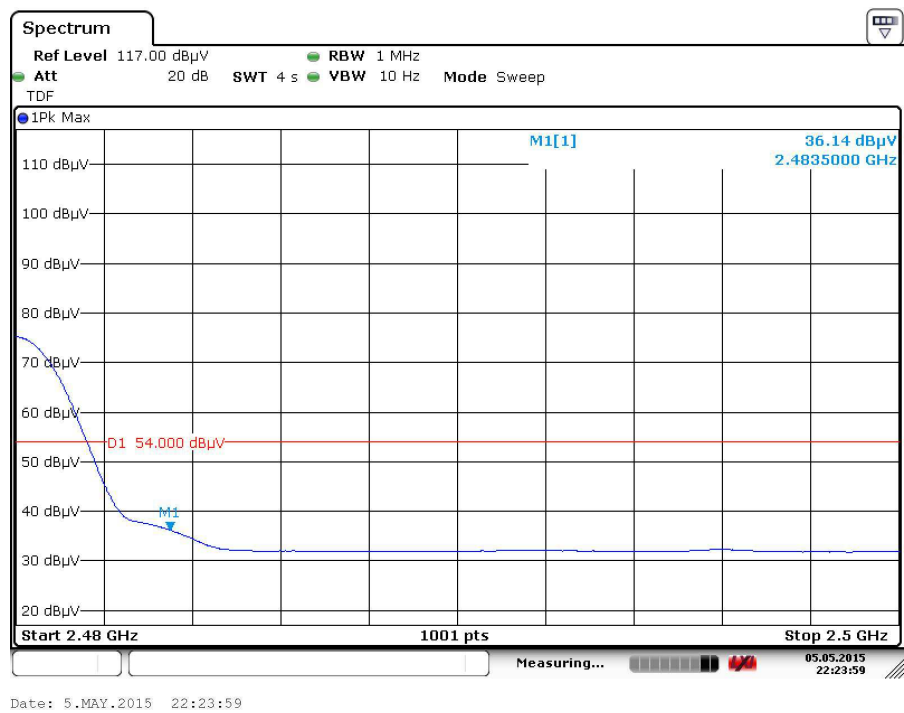
Low Channel (Ver)



Spurious Emissions, Band Edge, 2.35-2.5G

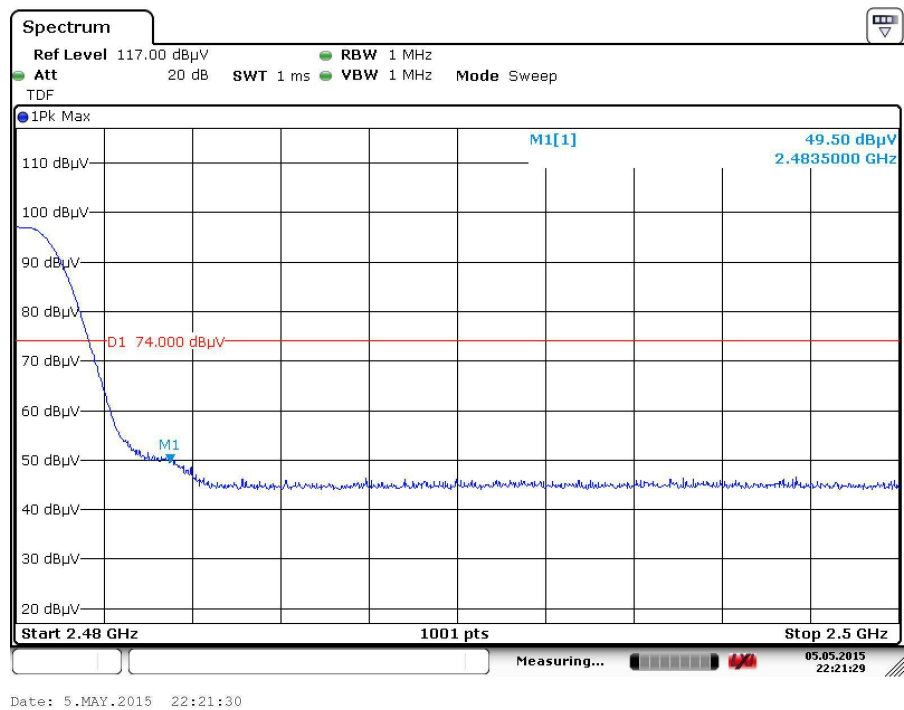
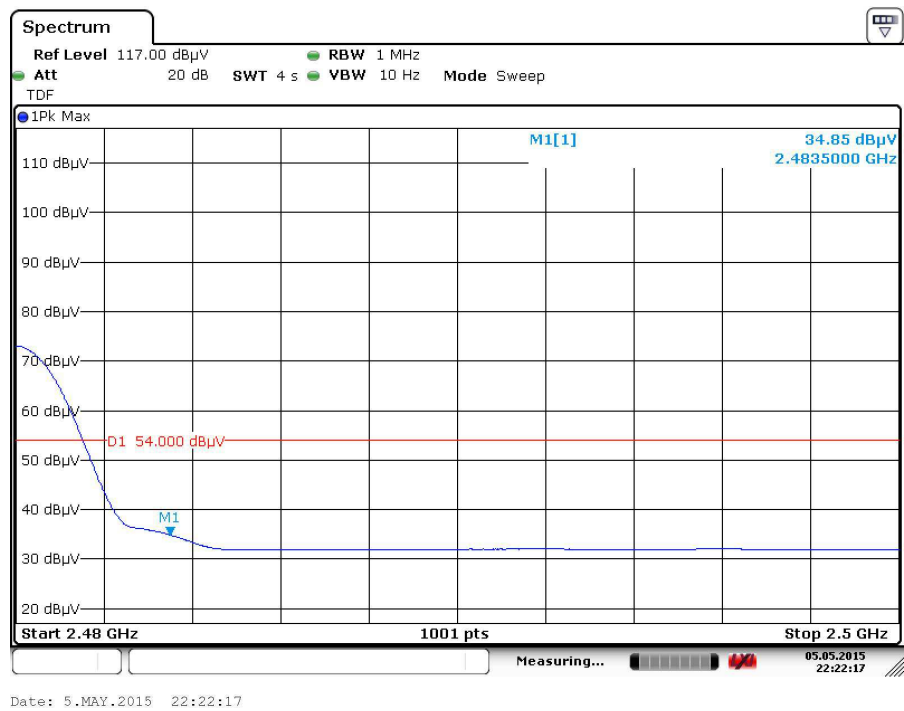
Radiated Bandedge (GFSK)

High Channel (Hor)



Spurious Emissions, Band Edge, 2.35-2.5G

High Channel (Ver)



Spurious Emissions, Band Edge, 2.35-2.5G

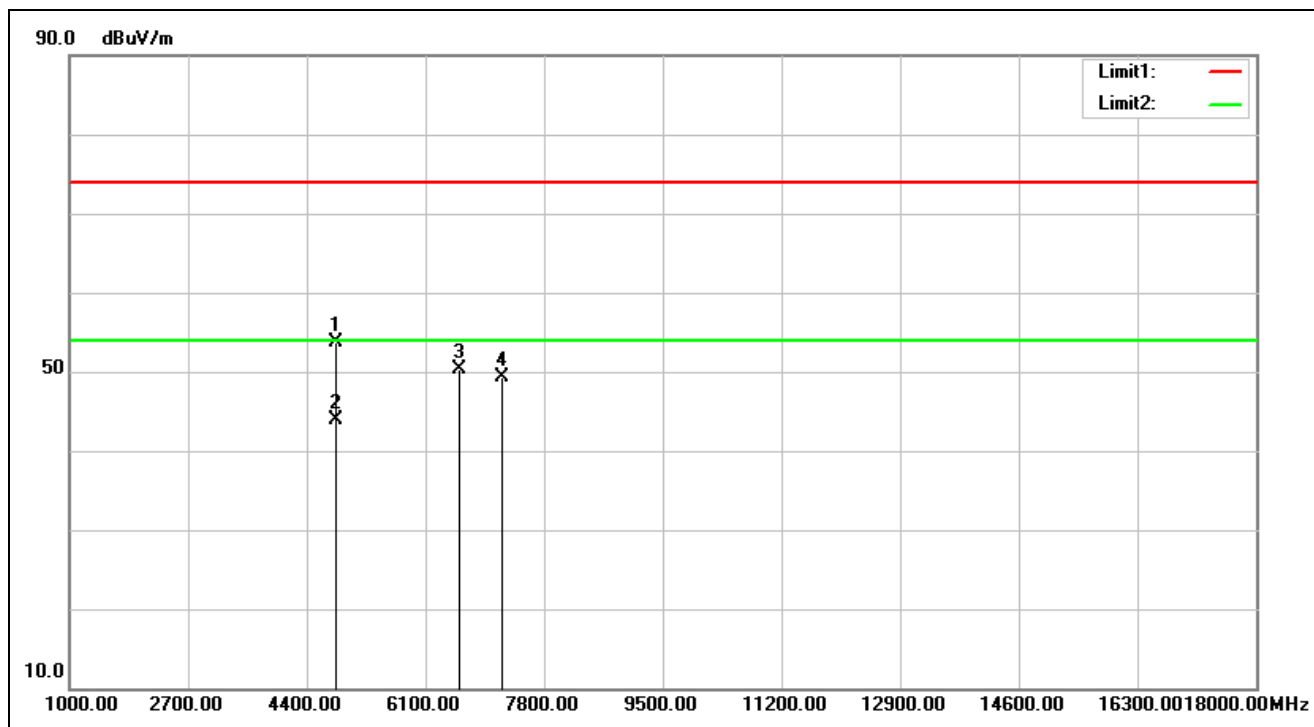
Spurious Emissions, TX Mode, 1-18G



TUV Taiwan

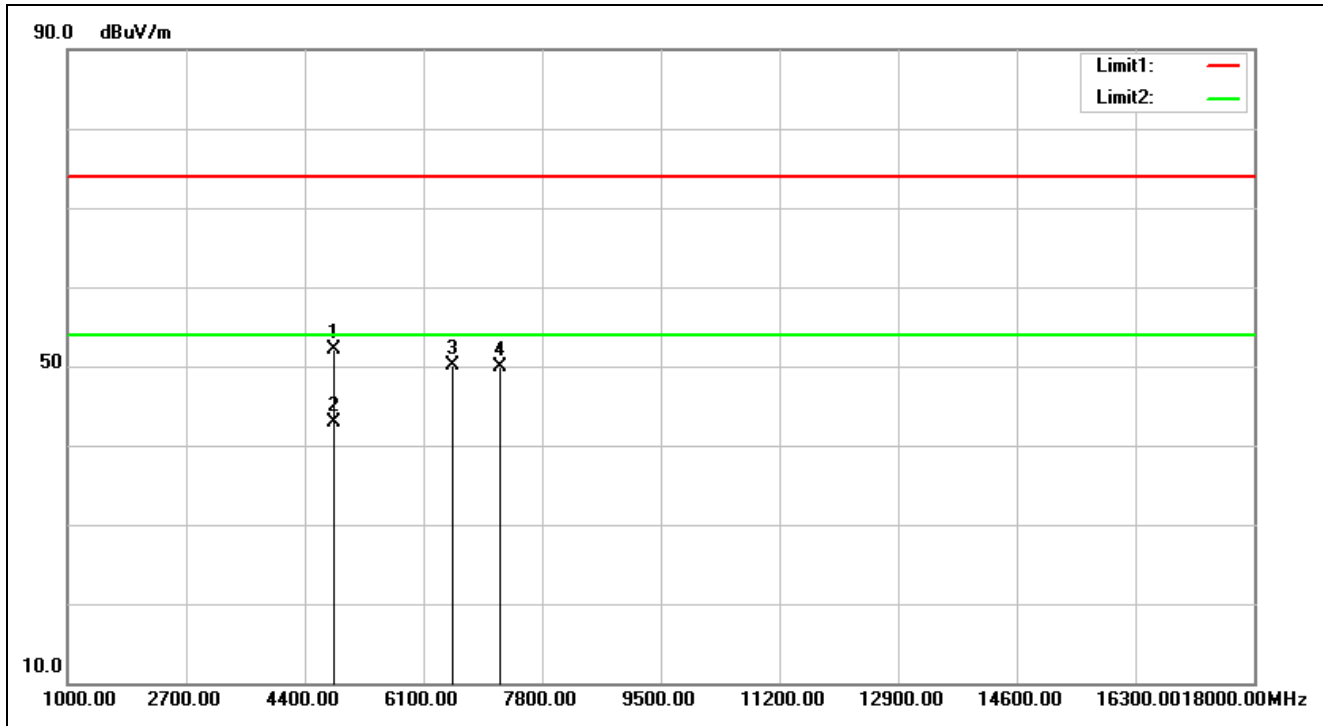
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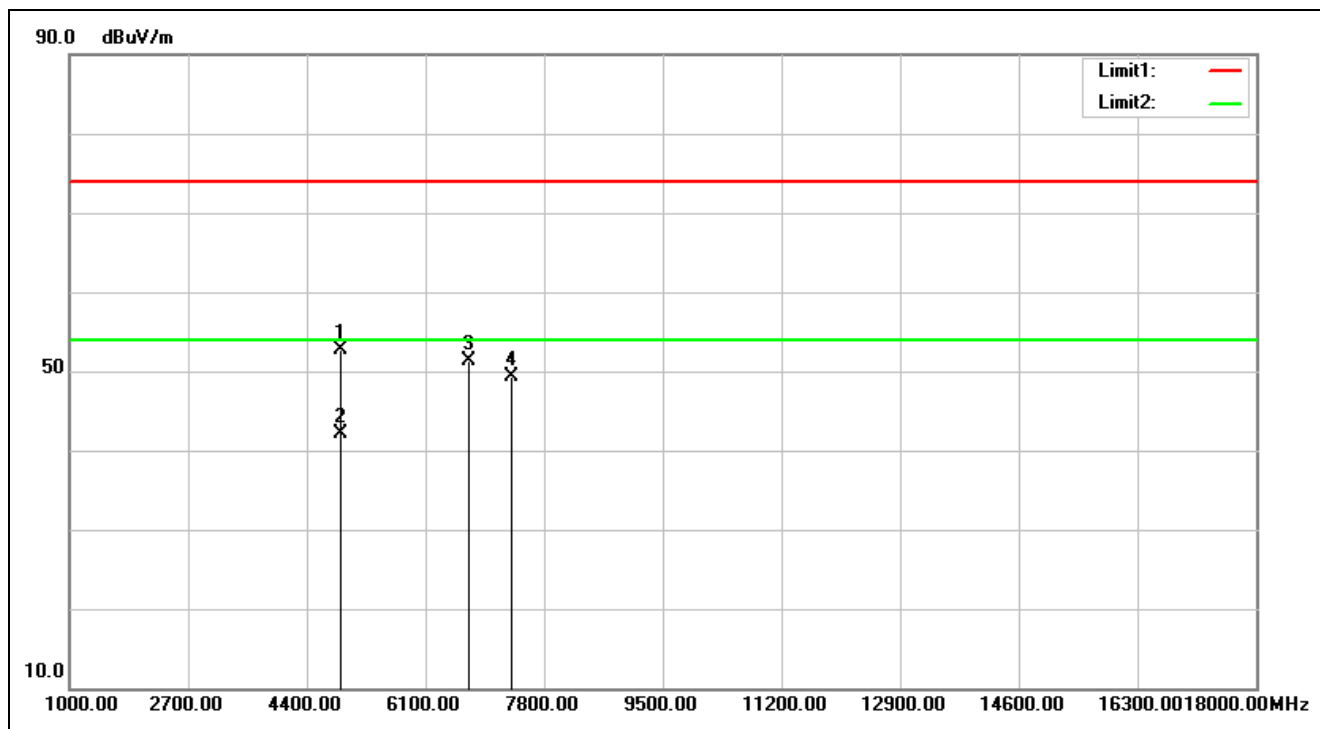
Service No.:	114033077-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/5/5 22:40:38
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%)	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.35	56.04	53.69	74.00	-20.31	peak	100	177	
2	4804.000	-2.35	46.29	43.94	54.00	-10.06	AVG	100	177	
3	6576.000	5.91	44.41	50.32	74.00	-23.68	peak	100	6	
4	7206.000	5.78	43.45	49.23	74.00	-24.77	peak			



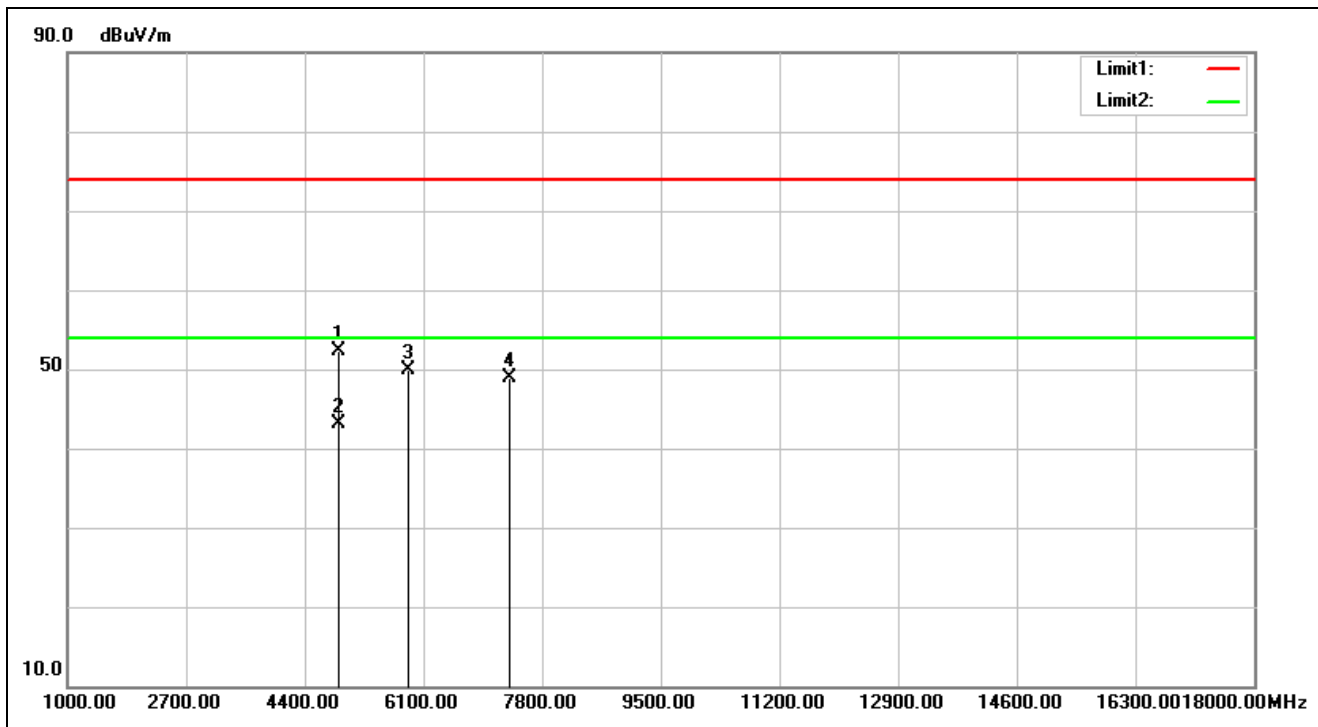
Service No.:	114033077-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/5/5 22:41:40
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%):	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.35	54.52	52.17	74.00	-21.83	peak	100	166	
2	4804.000	-2.35	45.35	43.00	54.00	-11.00	AVG	100	166	
3	6508.000	6.02	44.08	50.10	74.00	-23.90	peak	100	28	
4	7206.000	5.78	44.07	49.85	74.00	-24.15	peak		0	



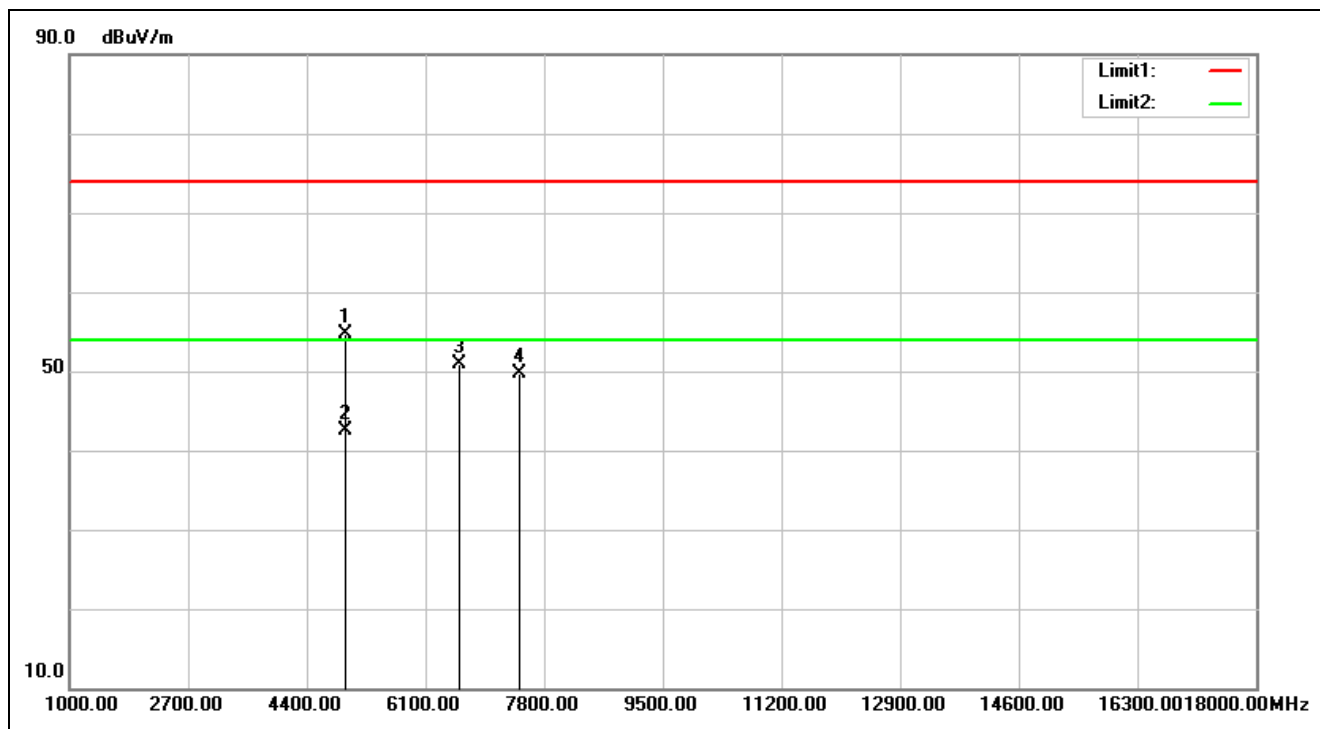
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/5/5 22:35:06
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%)	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2442-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4884.000	-2.15	54.89	52.74	74.00	-21.26	peak	100	92	
2	4884.000	-2.15	44.21	42.06	54.00	-11.94	AVG	100	92	
3	6729.000	5.64	45.67	51.31	74.00	-22.69	peak	100	360	
4	7326.000	6.14	43.11	49.25	74.00	-24.75	peak			



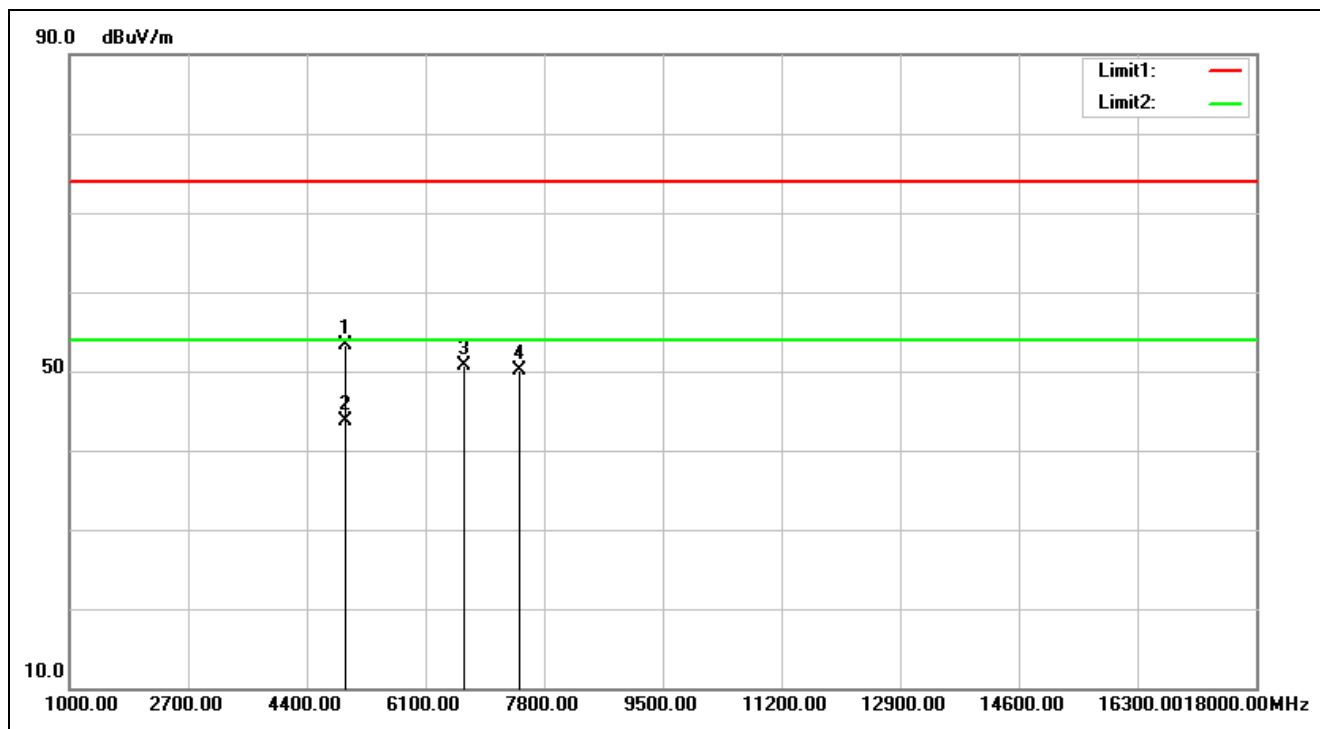
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/5/5 22:36:09
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%):	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2442-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4884.000	-2.15	54.48	52.33	74.00	-21.67	peak	100	164	
2	4884.000	-2.15	45.18	43.03	54.00	-10.97	AVG	100	164	
3	5879.000	3.30	46.56	49.86	74.00	-24.14	peak	100	205	
4	7326.000	6.14	42.76	48.90	74.00	-25.10	peak			



Service No.:	114033077-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/5/5 22:27:22
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%):	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4960.000	-1.97	56.71	54.74	74.00	-19.26	peak	100	175	
2	4960.000	-1.97	44.55	42.58	54.00	-11.42	AVG	100	175	
3	6576.000	5.91	45.01	50.92	74.00	-23.08	peak	100	136	
4	7440.000	6.47	43.19	49.66	74.00	-24.34	peak		0	



Service No.:	114033077-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/5/5 22:28:25
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%)	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4960.000	-1.97	55.34	53.37	74.00	-20.63	peak	100	210	
2	4960.000	-1.97	45.68	43.71	54.00	-10.29	AVG	100	210	
3	6644.000	5.79	44.96	50.75	74.00	-23.25	peak	100	180	
4	7440.000	6.47	43.60	50.07	74.00	-23.93	peak			

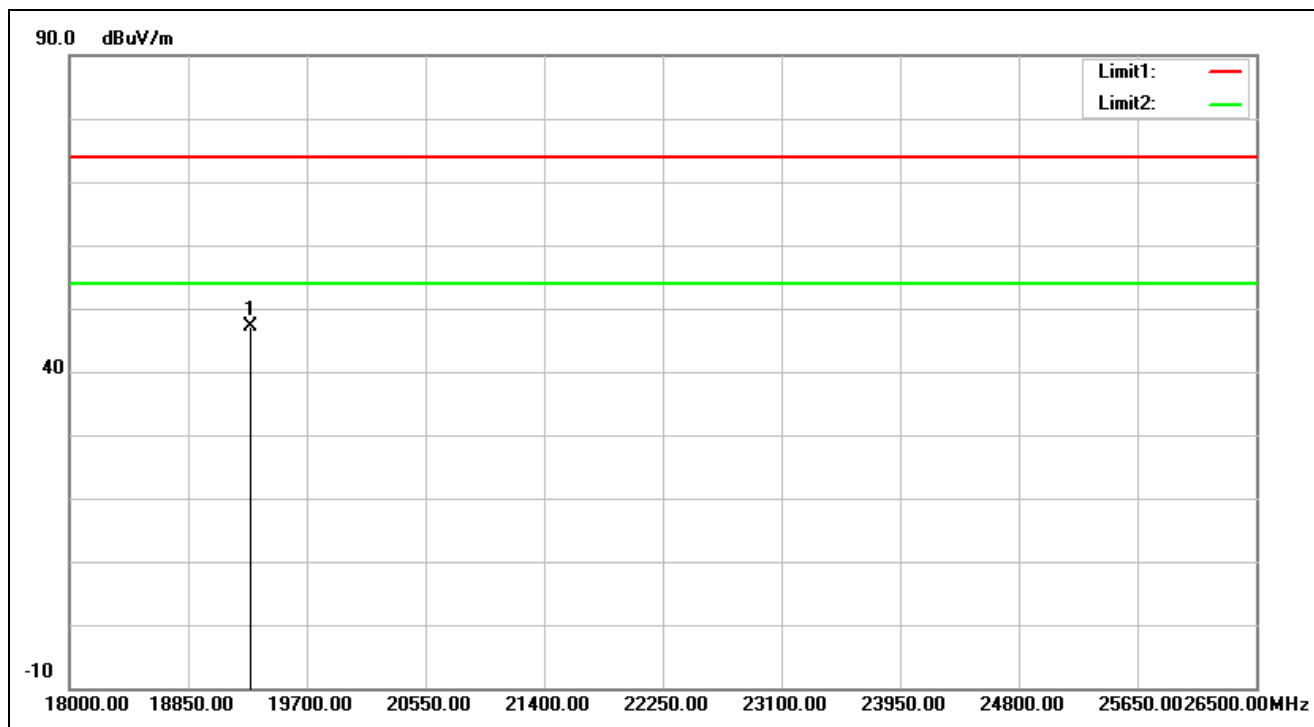
Spurious Emissions, TX Mode, 18-26G



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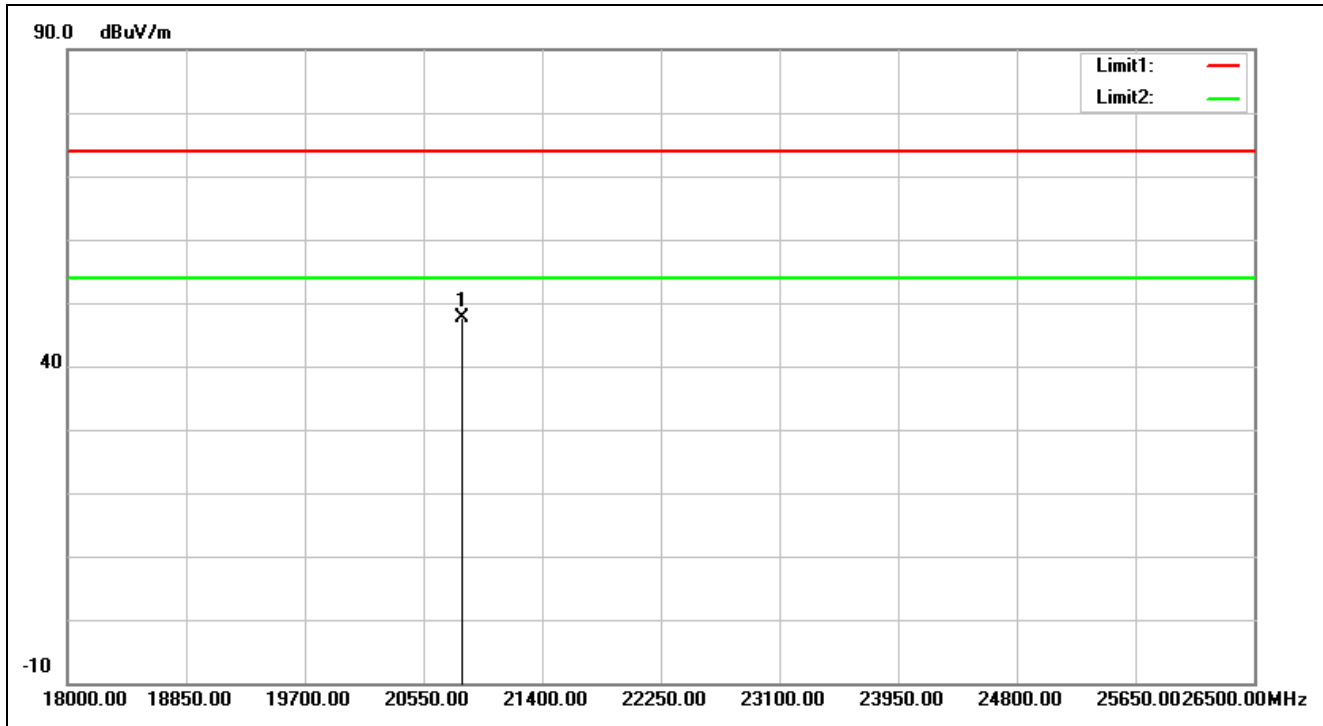
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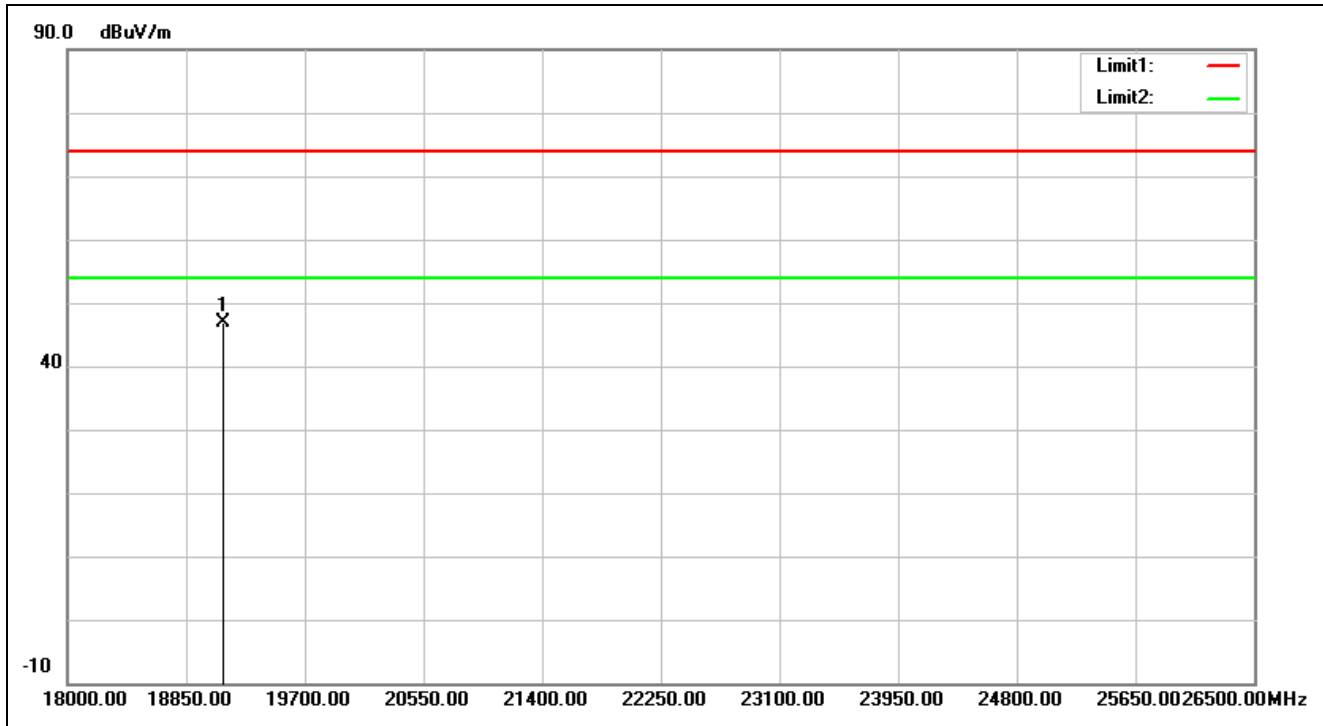
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/5/6 19:34:36
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%)	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	19292.000	28.93	18.31	47.24	74.00	-26.76	peak	100	46	



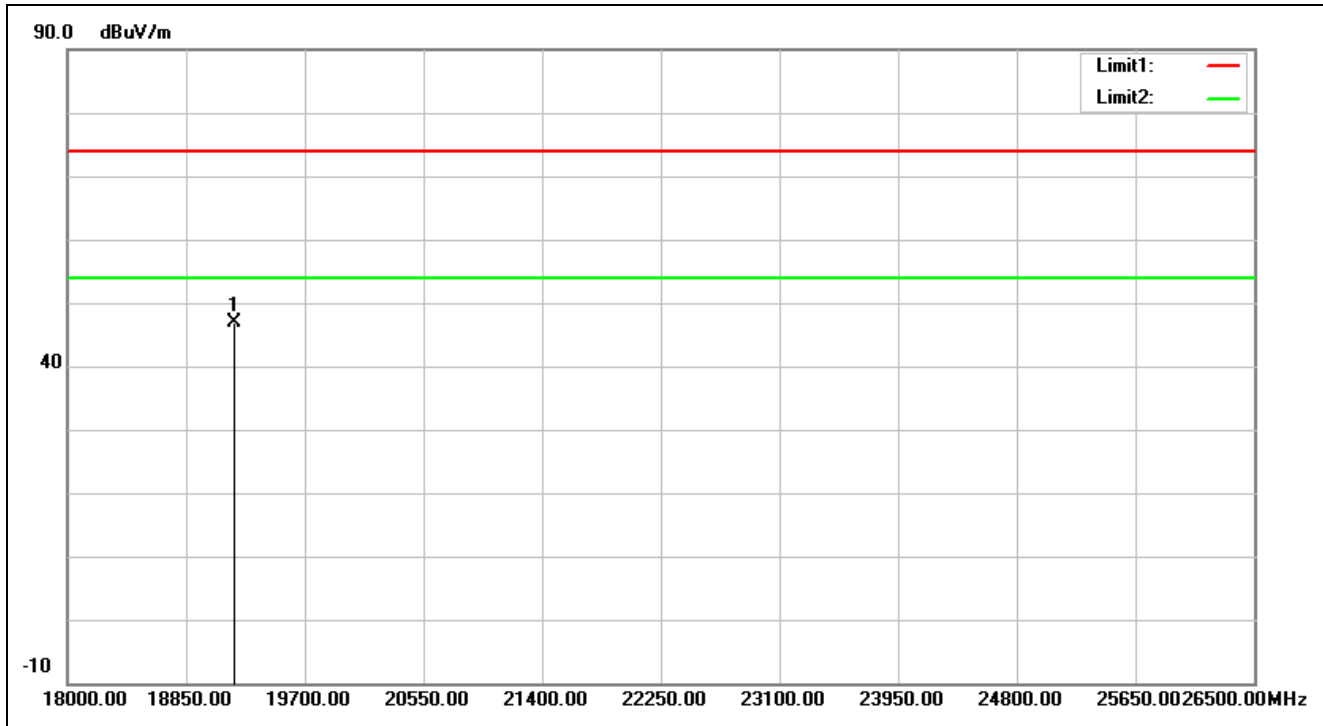
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/5/6 19:34:50
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%):	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2402-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	20822.000	29.32	18.33	47.65	74.00	-26.35	peak	100	203	



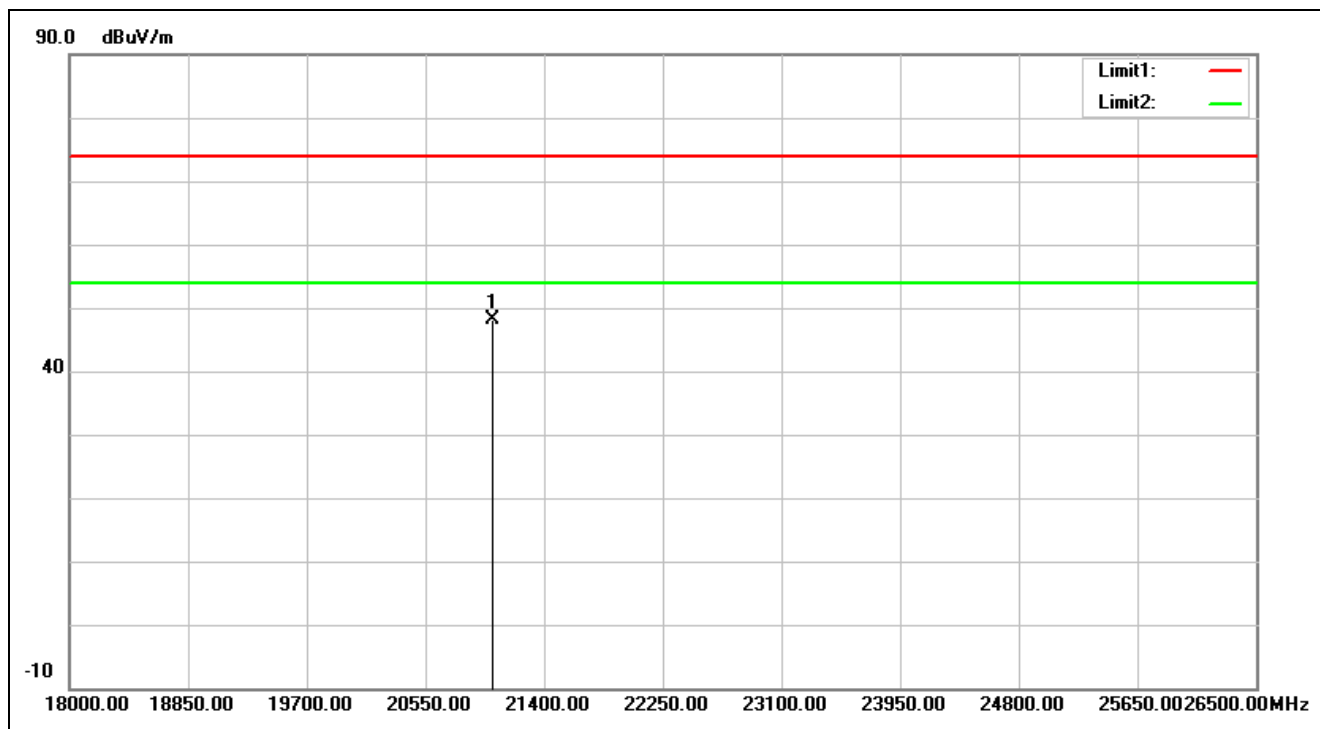
Service No.:	114033077-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/5/6 19:35:00
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%):	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2442-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	19113.500	28.90	17.87	46.77	74.00	-27.23	peak	100	176	



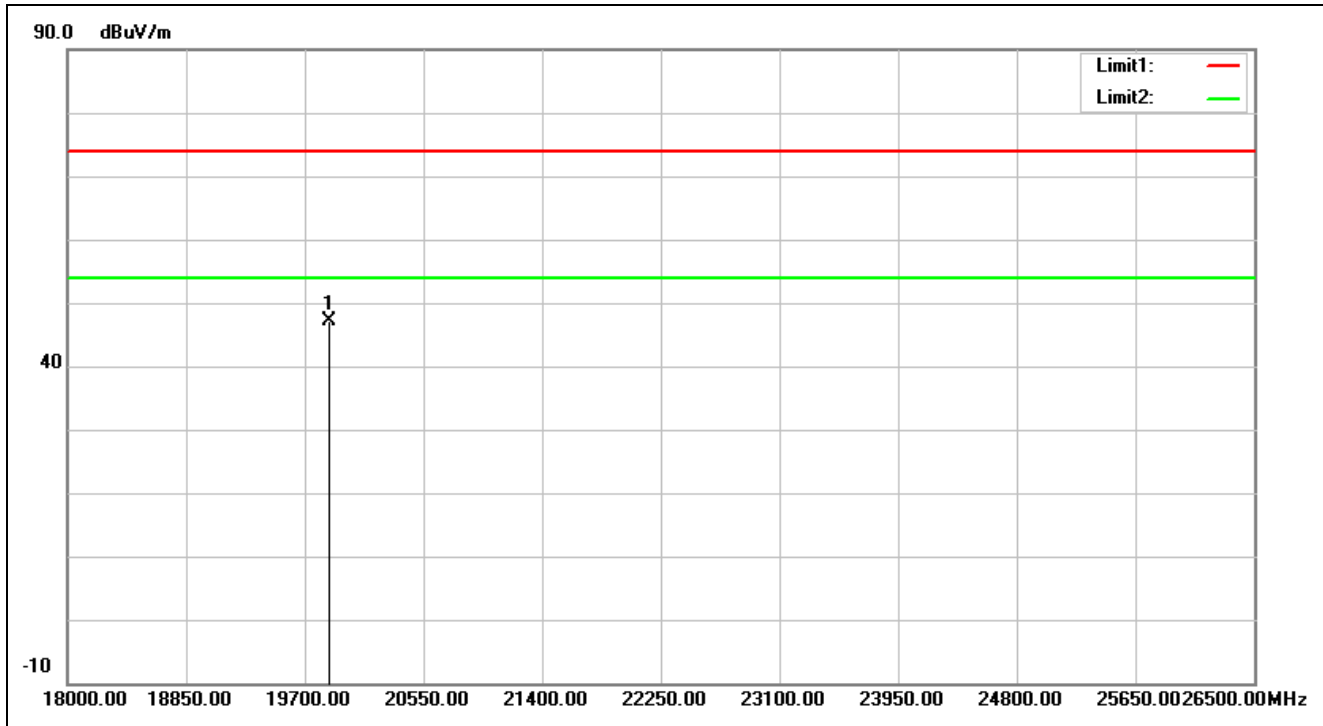
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Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/5/6 19:35:12
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%):	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2442-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	19190.000	28.91	18.06	46.97	74.00	-27.03	peak	100	46	



Service No.:	114033077-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/5/6 19:35:57
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%)	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21034.500	29.33	18.69	48.02	74.00	-25.98	peak			



Service No.:	114033077-FCC	Test Distance:	3m
Test Standard:	FCC Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/5/6 19:36:10
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%):	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2480-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	19870.000	28.93	18.19	47.12	74.00	-26.88	peak			

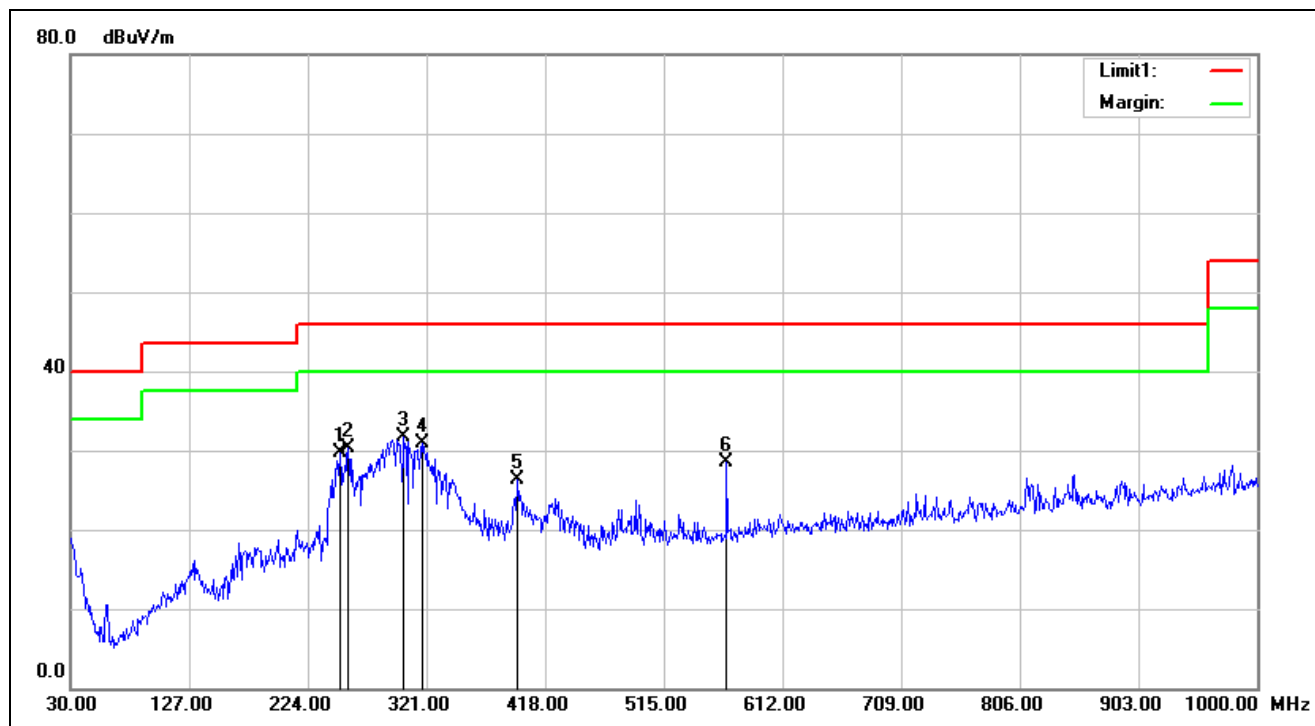
Spurious Emissions, TX Mode, 30M-1G



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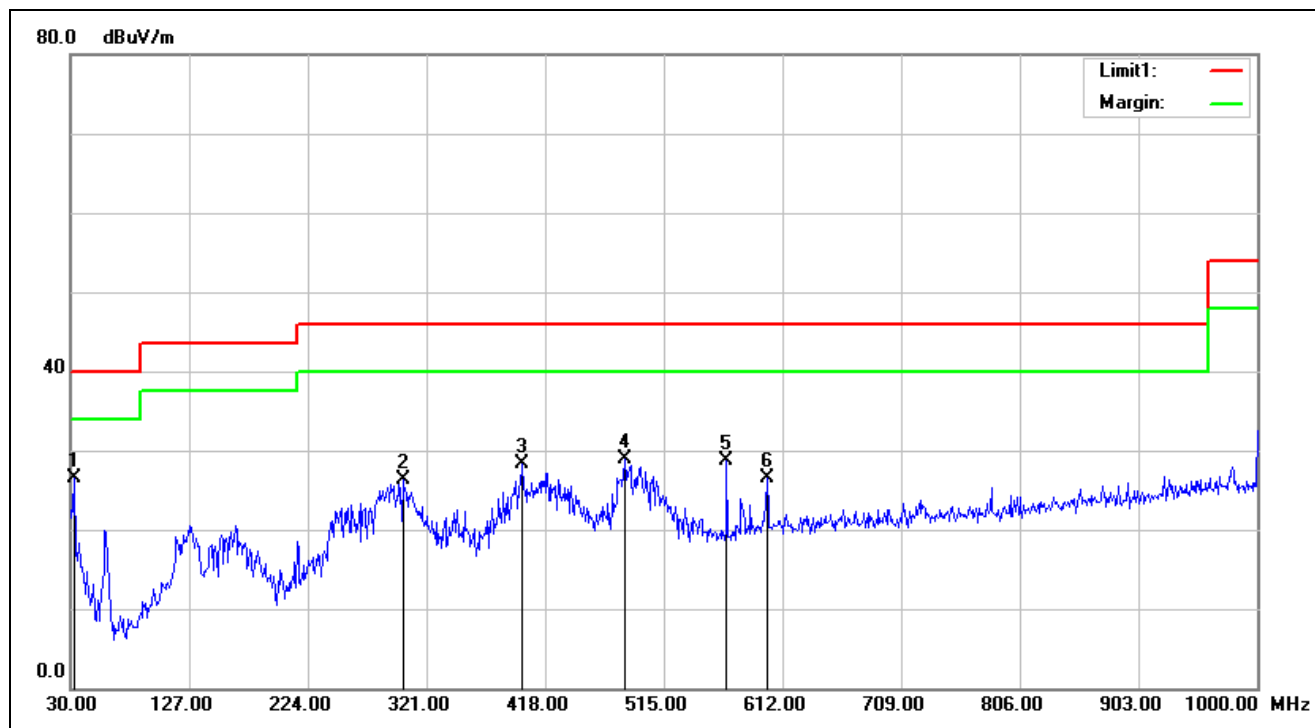
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114033077-FCC	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/5/6 19:08:04
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%):	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2442-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	250.1900	-11.61	41.24	29.63	46.00	-16.37	QP	100	237	
2	256.9800	-11.04	41.28	30.24	46.00	-15.76	QP	100	237	
3	302.5700	-10.43	42.08	31.65	46.00	-14.35	QP	100	267	
4	317.1200	-10.12	41.08	30.96	46.00	-15.04	QP	100	229	
5	395.6900	-8.72	34.95	26.23	46.00	-19.77	QP	100	3	
6	566.4100	-6.63	35.09	28.46	46.00	-17.54	QP	100	205	

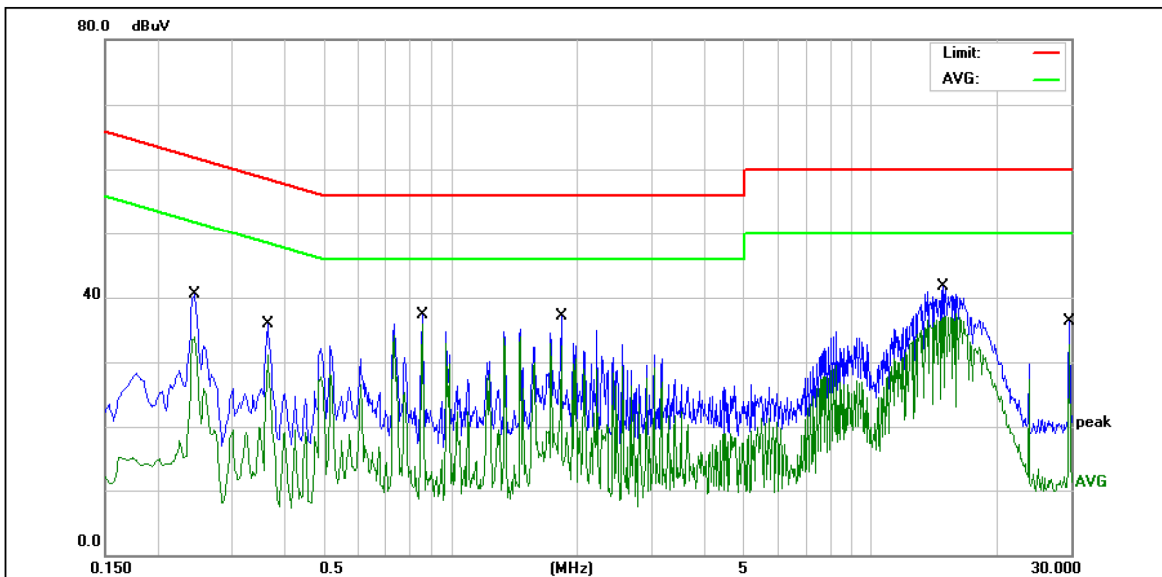
Spurious Emissions, Mains, 150kHz - 30MHz



Service No.:	114033077-FCC	Test Distance:	3m
Test Standard:	FCC Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/5/6 19:09:08
Applicant:	Bluetooth Special Interest Group, Inc.	Test Rating:	
Product:	Bluetooth PTS 4.1 USB dongle	Temp.(°C)/Hum.(%)	21.1(°C)/56%
Model No.:	VD-3SIG	Test Engineer:	Sam Su
Test Mode:	2442-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	32.9100	-7.44	33.93	26.49	40.00	-13.51	QP	100	346	
2	301.6000	-10.45	36.84	26.39	46.00	-19.61	QP	100	283	
3	399.5700	-8.67	36.96	28.29	46.00	-17.71	QP	100	338	
4	482.9900	-7.51	36.41	28.90	46.00	-17.10	QP	100	181	
5	566.4100	-6.63	35.41	28.78	46.00	-17.22	QP	100	165	
6	599.3900	-5.98	32.53	26.55	46.00	-19.45	QP	100	19	

Mains Spurious Emissions



Service No.: 114033077-EMC

Test Standard: FCC Class B Conduction(QP)

Test item: Conducted Emission

Phase: L1

Applicant: Vencer

Temp.(°C)/Hum.(%): 23(°C) / 43 %

Product: Bluetooth USB Dongle

Power Rating: AC 120V/60Hz

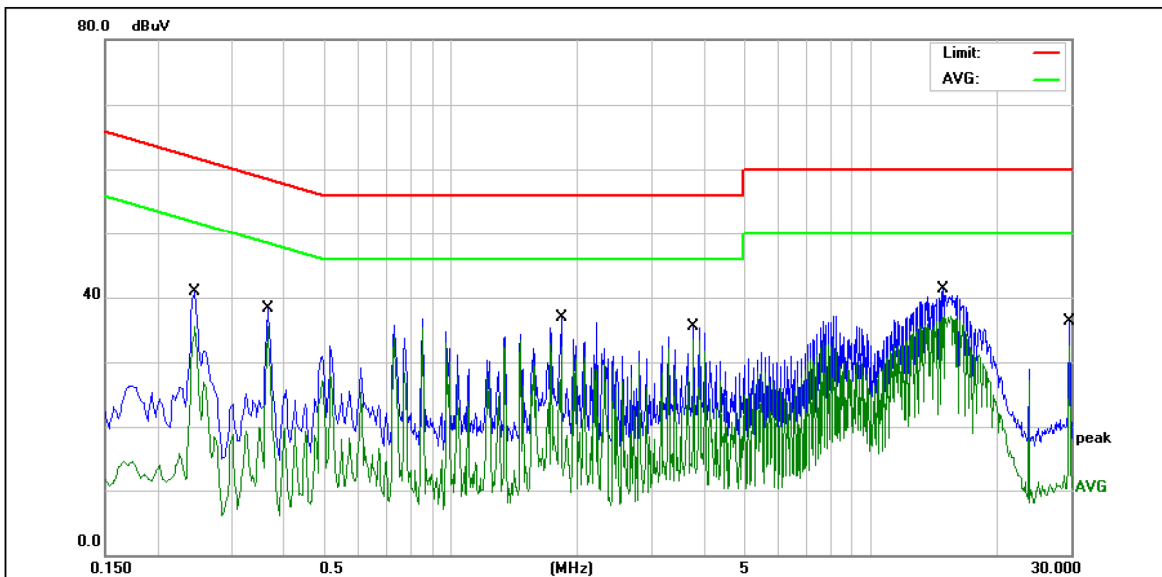
Model No.: XXX

Test Engineer: Hugo Chang

Test Mode: Normal operation

Remark:

No.	Frequency (MHz)	Factor ()	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.2460	9.63	29.36	38.99	61.89	-22.90	QP	P	
2	0.2460	9.63	23.17	32.80	51.89	-19.09	AVG	P	
3	0.3660	9.63	24.35	33.98	58.59	-24.61	QP	P	
4	0.3660	9.63	21.24	30.87	48.59	-17.72	AVG	P	
5	0.8540	9.63	26.21	35.84	56.00	-20.16	QP	P	
6	0.8540	9.63	26.27	35.90	46.00	-10.10	AVG	P	
7	1.8340	9.64	25.11	34.75	56.00	-21.25	QP	P	
8	1.8340	9.64	22.07	31.71	46.00	-14.29	AVG	P	
9	14.8940	9.82	28.76	38.58	60.00	-21.42	QP	P	
10	14.8940	9.82	26.12	35.94	50.00	-14.06	AVG	P	
11	29.7020	9.88	23.57	33.45	60.00	-26.55	QP	P	
12	29.7020	9.88	21.25	31.13	50.00	-18.87	AVG	P	



Service No.: 114033077-EMC

Test Standard: FCC Class B Conduction(QP)

Test item: Conducted Emission

Phase: N

Applicant: Vencer

Temp.(°C)/Hum.(%): 23(°C) / 43 %

Product: Bluetooth USB Dongle

Power Rating: AC 120V/60Hz

Model No.: XXX

Test Engineer: Hugo Chang

Test Mode: Normal operation

Remark:

No.	Frequency (MHz)	Factor ()	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.2460	9.65	29.71	39.36	61.89	-22.53	QP	P	
2	0.2460	9.65	24.27	33.92	51.89	-17.97	AVG	P	
3	0.3660	9.64	27.24	36.88	58.59	-21.71	QP	P	
4	0.3660	9.64	25.07	34.71	48.59	-13.88	AVG	P	
5	1.8340	9.66	26.34	36.00	56.00	-20.00	QP	P	
6	1.8340	9.66	22.78	32.44	46.00	-13.56	AVG	P	
7	3.7860	9.68	24.06	33.74	56.00	-22.26	QP	P	
8	3.7860	9.68	23.49	33.17	46.00	-12.83	AVG	P	
9	14.8980	9.87	27.40	37.27	60.00	-22.73	QP	P	
10	14.8980	9.87	24.35	34.22	50.00	-15.78	AVG	P	
11	29.7020	10.09	23.62	33.71	60.00	-26.29	QP	P	
12	29.7020	10.09	21.28	31.37	50.00	-18.63	AVG	P	