

# Test Report No.10042740 001

## Appendix D: Radiated Spurious Emission Data

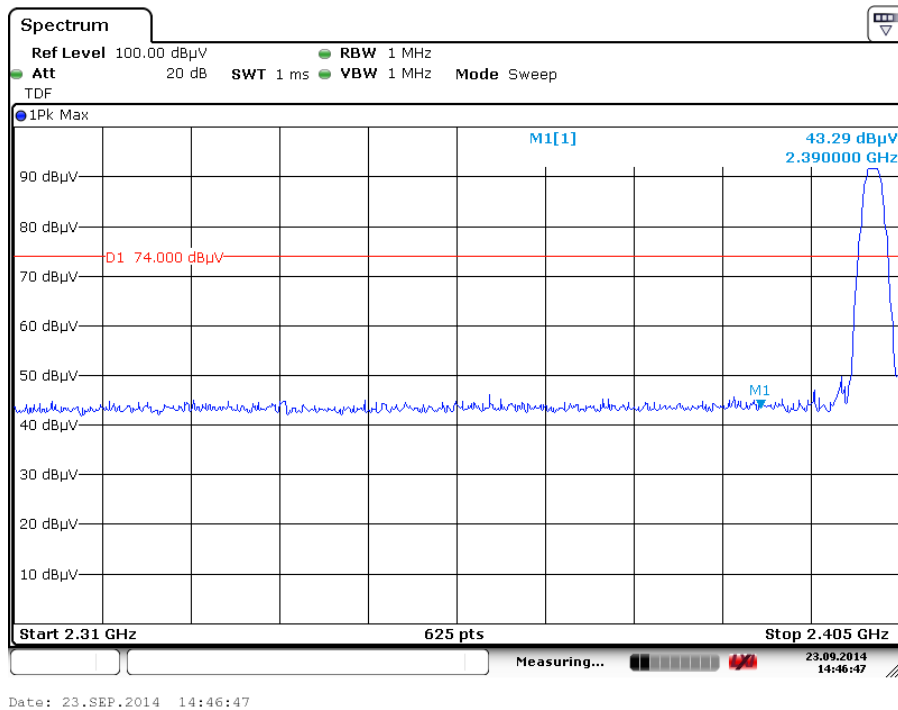
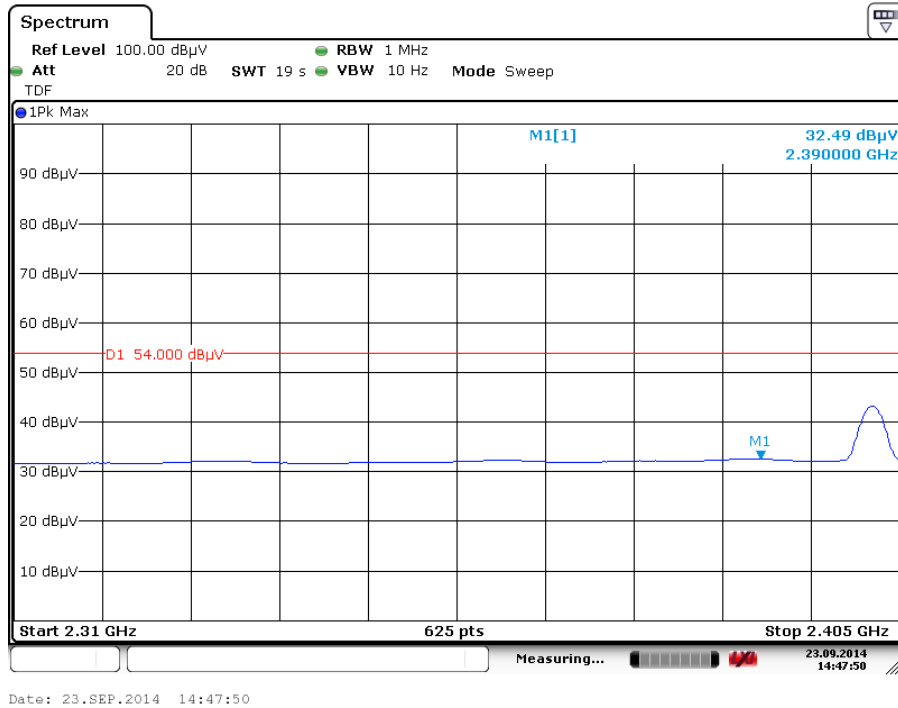
(File: 10042740AppendixD)

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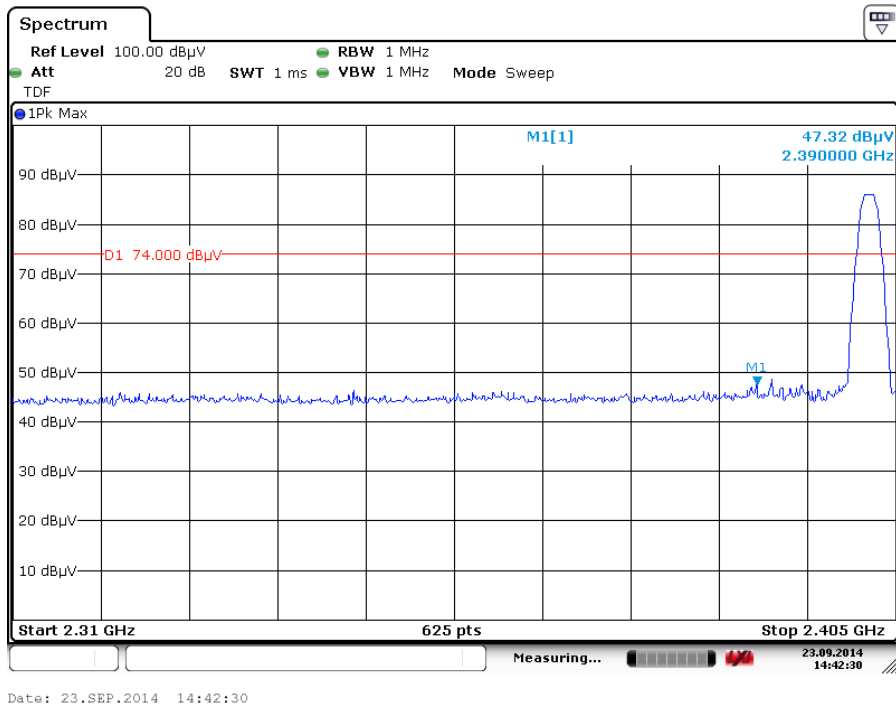
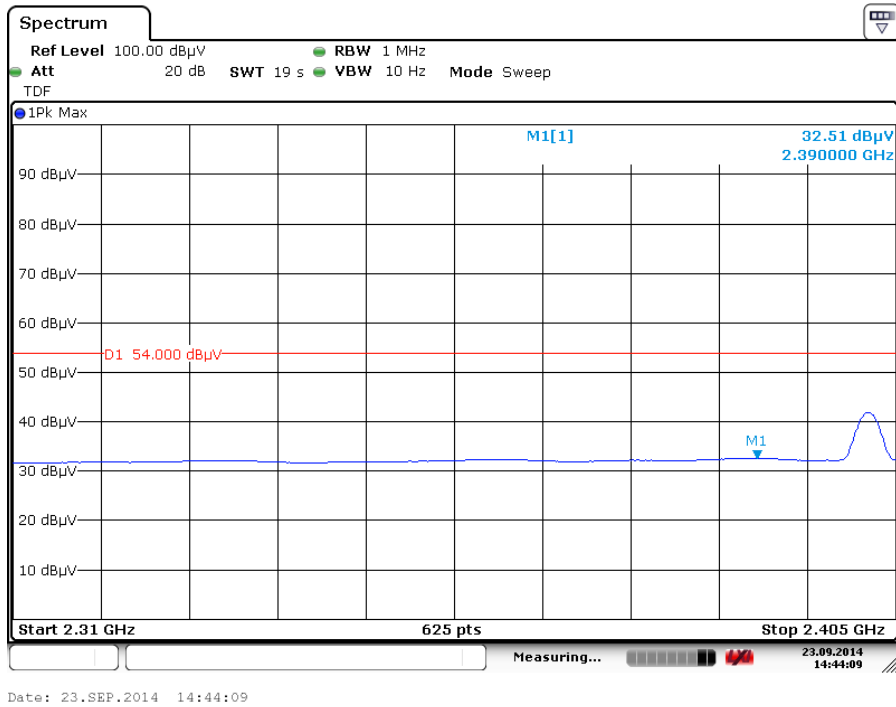
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# Radiated Bandedge (GFSK)

## Low Channel (Hor)



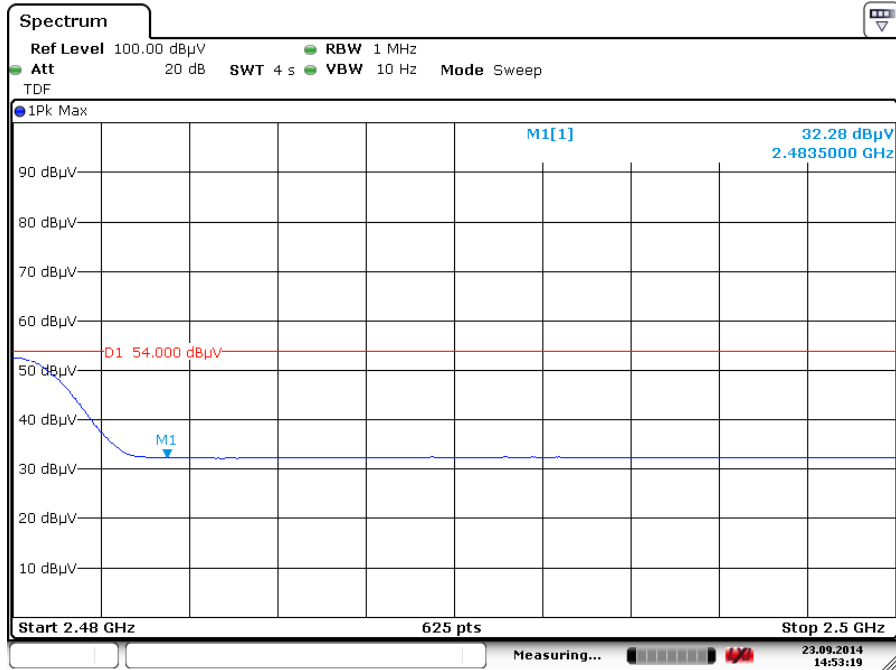
# Low Channel (Ver)



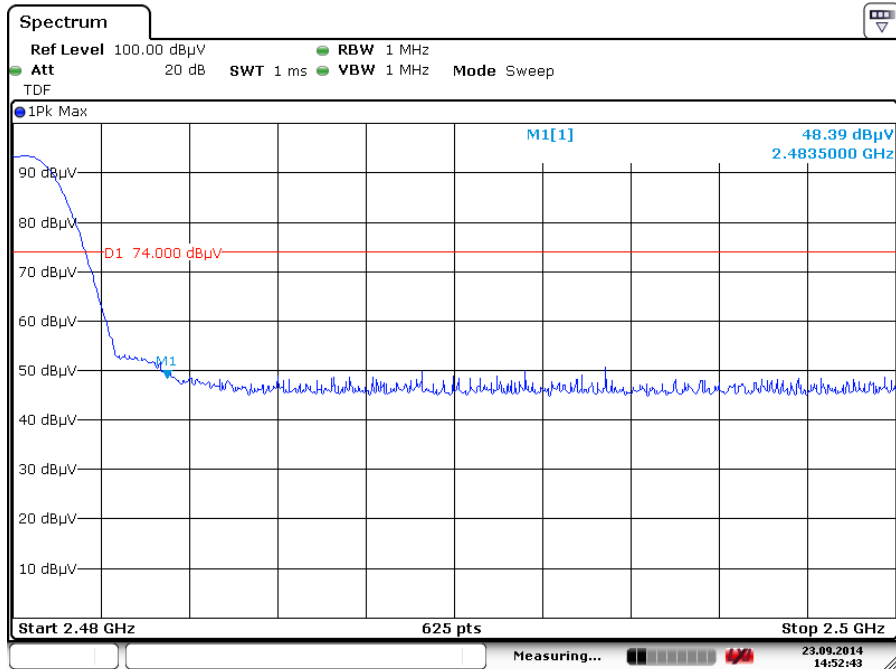
# Spurious Emissions, Band Edge, 2.35-2.5G

# Radiated Bandedge (GFSK)

## High Channel (Hor)



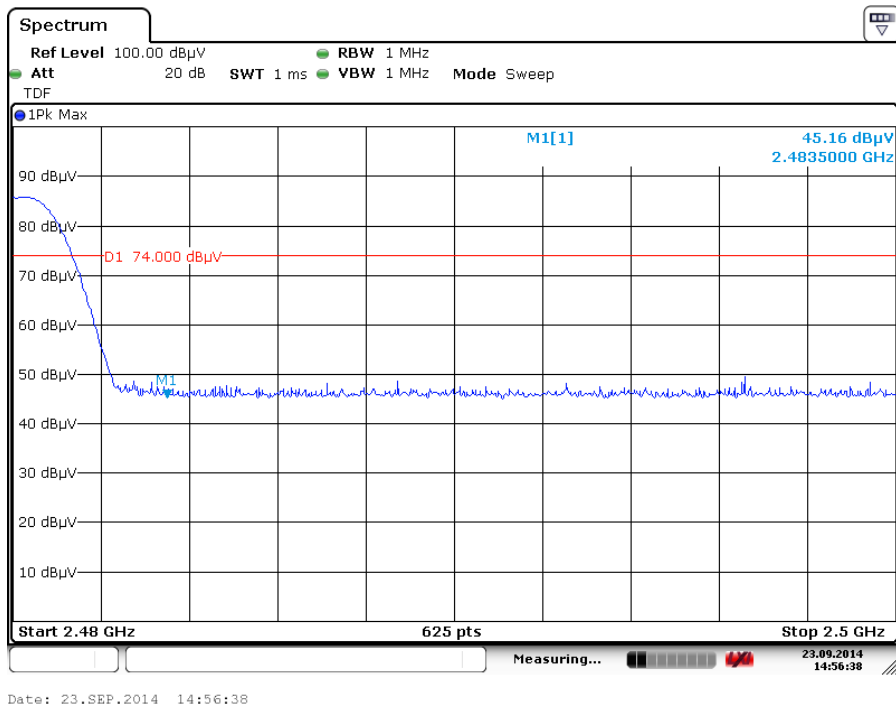
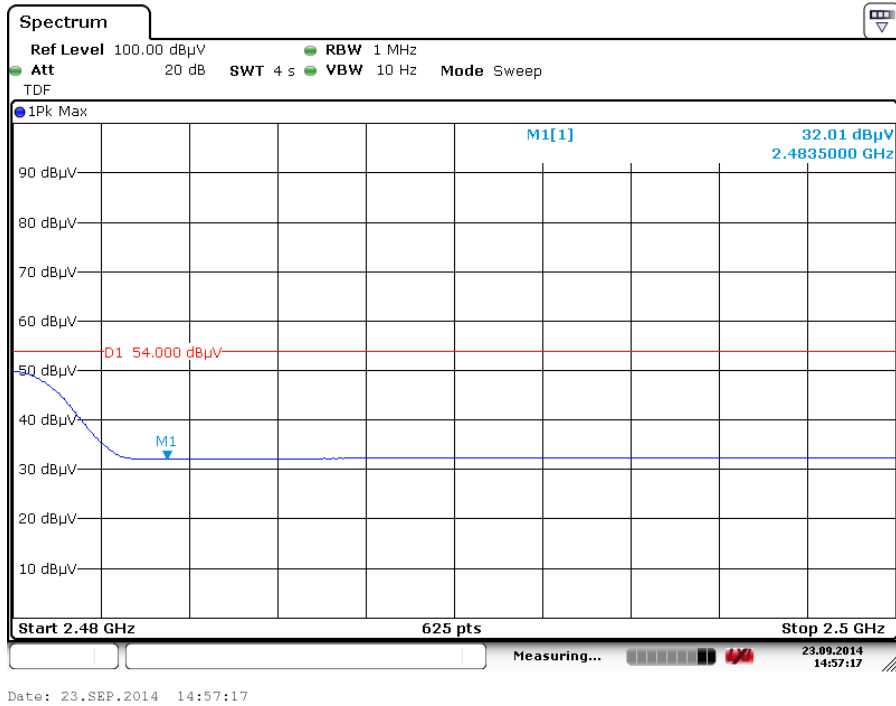
Date: 23.SEP.2014 14:53:19



Date: 23.SEP.2014 14:52:43

## Spurious Emissions, Band Edge, 2.35-2.5G

# High Channel (Ver)



# Spurious Emissions, Band Edge, 2.35-2.5G

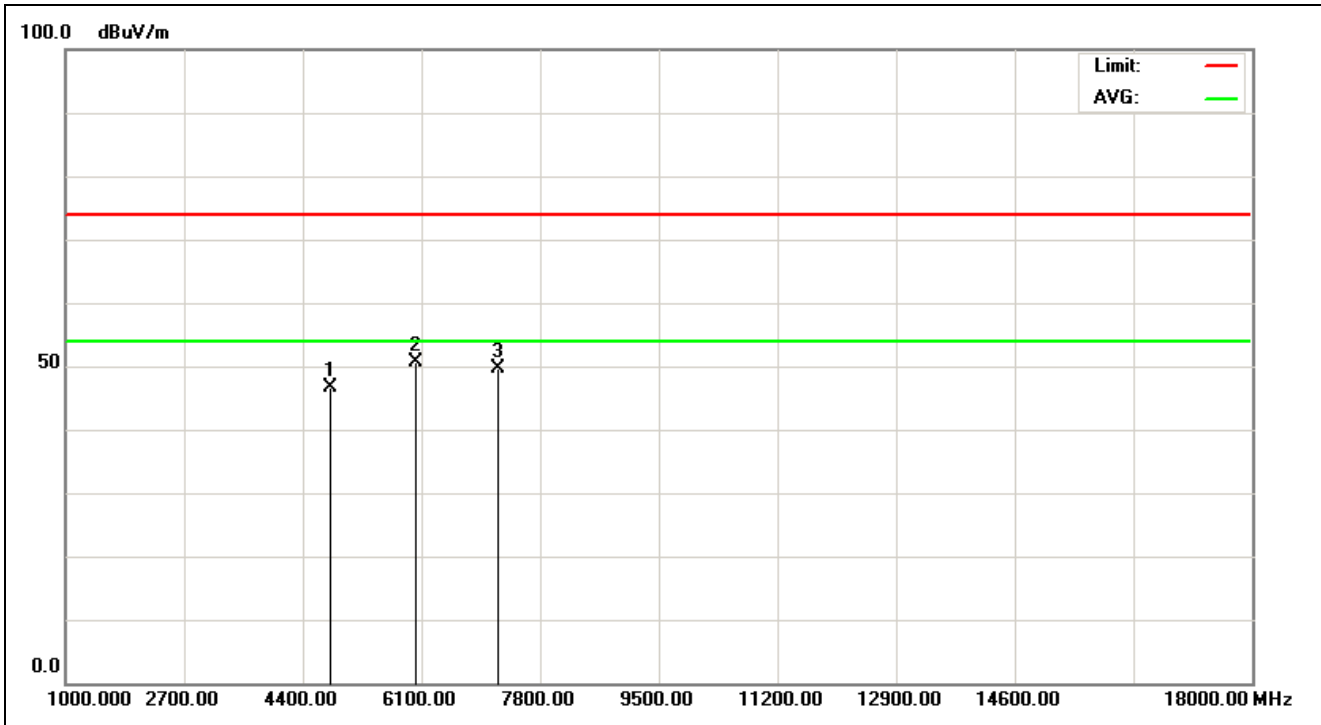
# Spurious Emissions, TX Mode, 1-18G



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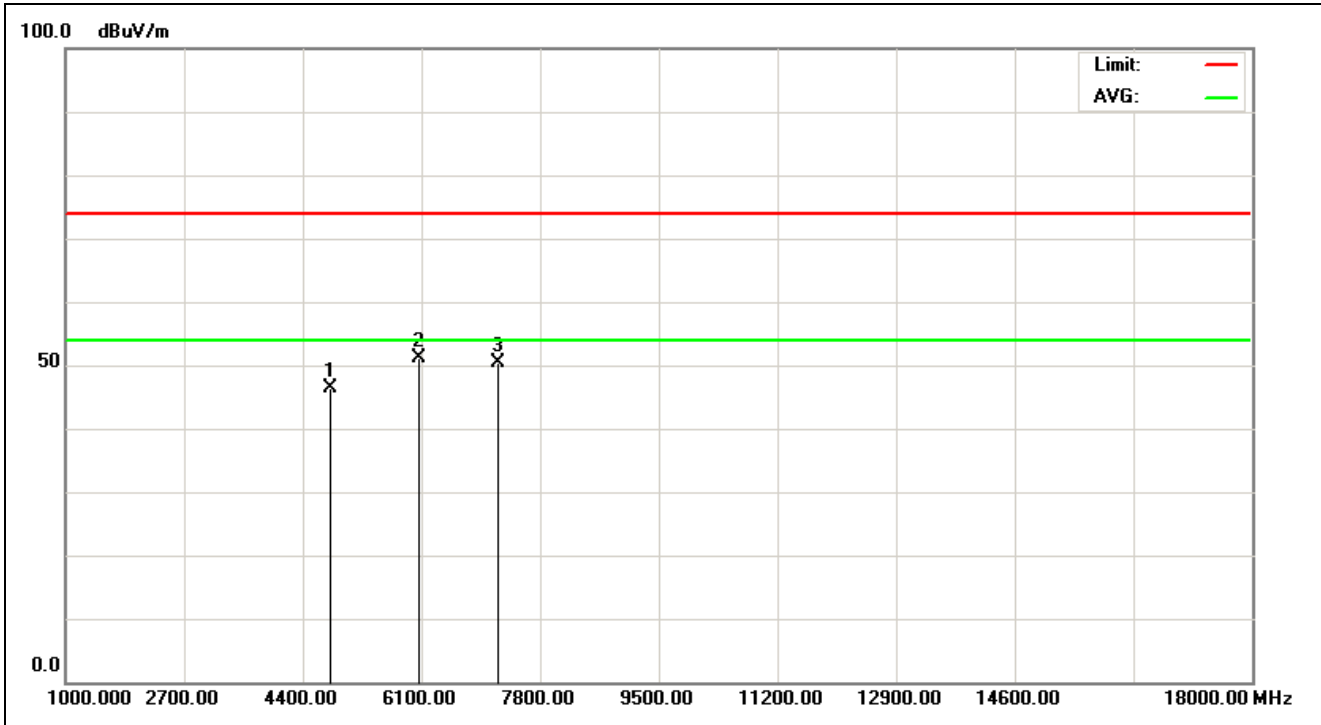
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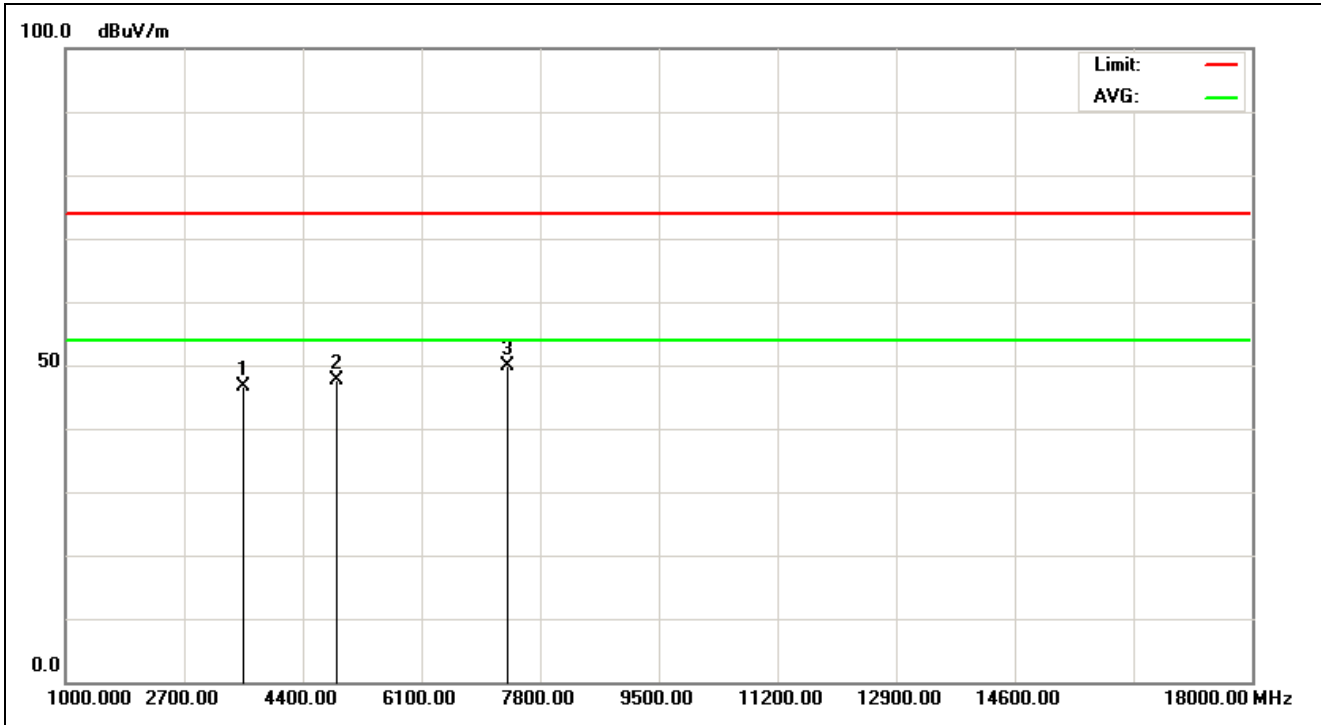
<b>Service No.:</b>	114026471	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	FCC Above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2014/9/23 15:02:06
<b>Applicant:</b>	Powertech	<b>Test Rating:</b>	DC 5V
<b>Product:</b>	Bluetooth Meridian	<b>Temp.(°C)/Hum.(%):</b>	24(°C)/55%
<b>Model No.:</b>	A02A	<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2402		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.59	49.10	46.51	74.00	-27.49	peak			
2	6012.820	3.75	46.77	50.52	74.00	-23.48	peak	100	336	
3	7206.000	5.44	44.09	49.53	74.00	-24.47	peak			



<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 15:03:08</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>CH2402</b>		
<b>Remark:</b>			

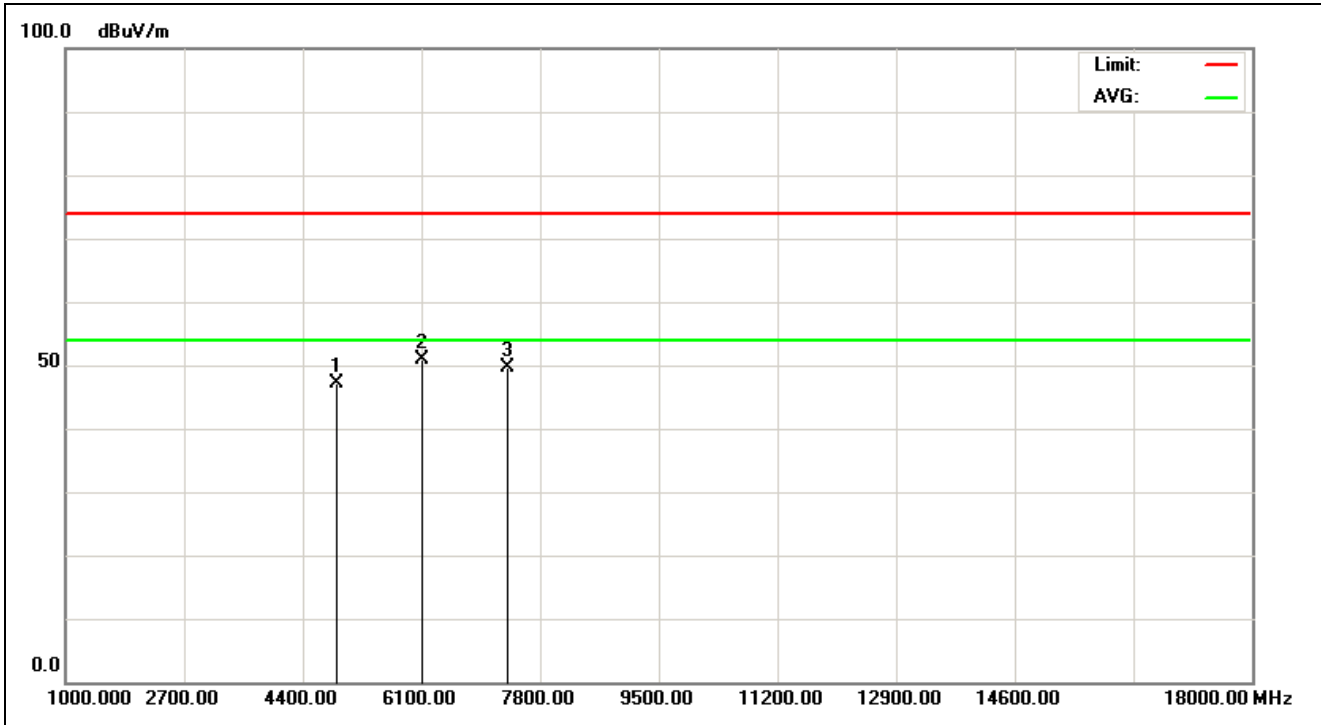
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.59	48.92	46.33	74.00	-27.67	peak			
2	6067.308	3.94	47.28	51.22	74.00	-22.78	peak	100	230	
3	7206.000	5.44	45.03	50.47	74.00	-23.53	peak			



<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 15:06:00</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>CH2442</b>		
<b>Remark:</b>			

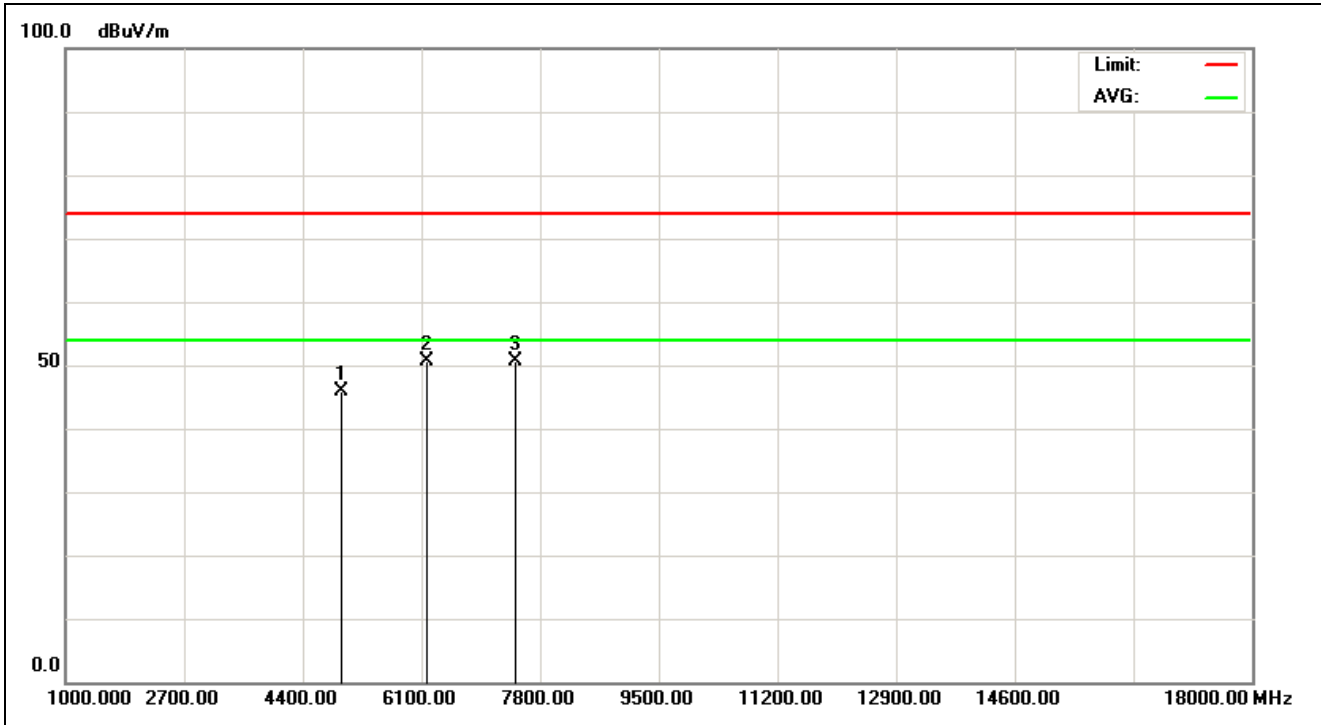
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	3560.897	-5.60	52.28	46.68	74.00	-27.32	peak	100	285	
2	4884.000	-2.38	50.03	47.65	74.00	-26.35	peak			
3	7326.000	5.78	44.20	49.98	74.00	-24.02	peak			





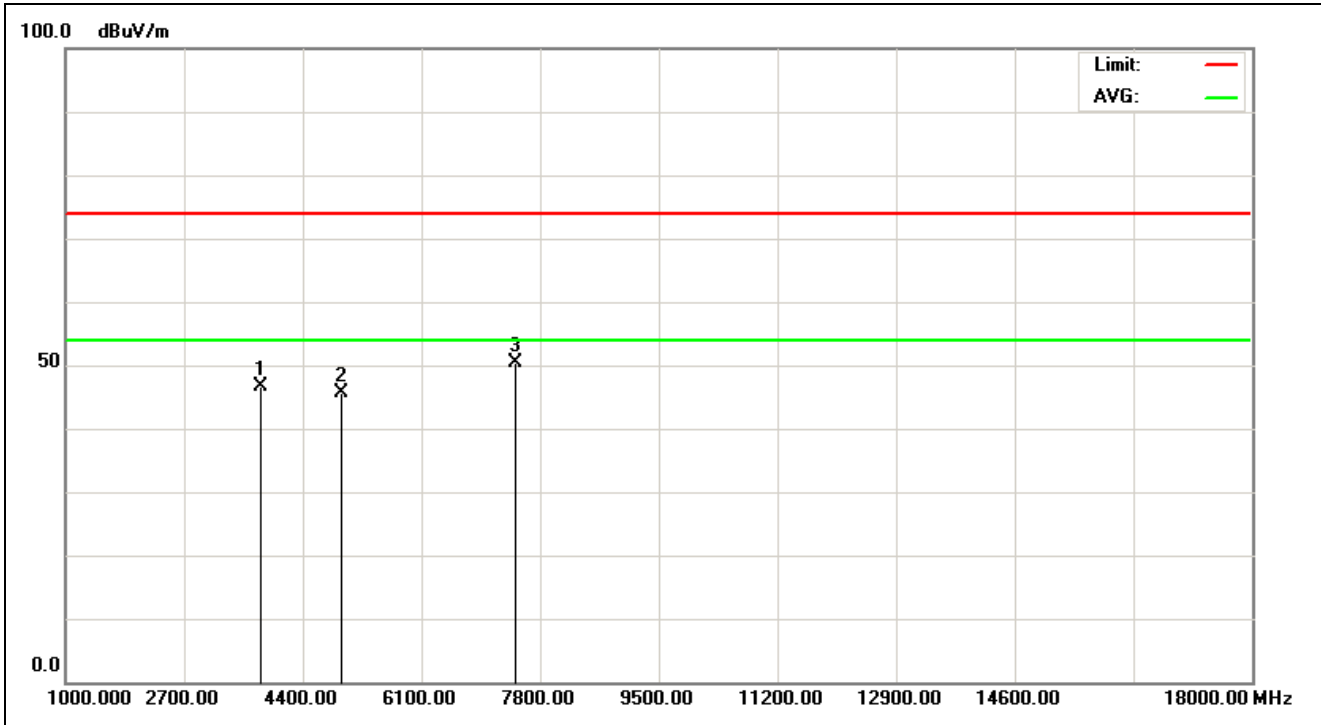
<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 15:07:02</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>CH2442</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4884.000	-2.38	49.48	47.10	74.00	-26.90	peak			
2	6121.795	4.13	46.83	50.96	74.00	-23.04	peak	100	1	
3	7326.000	5.78	43.85	49.63	74.00	-24.37	peak			



<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 14:56:57</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>CH2480</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4960.000	-2.19	48.13	45.94	74.00	-28.06	peak			
2	6176.282	4.33	46.37	50.70	74.00	-23.30	peak	100	56	
3	7440.000	6.09	44.45	50.54	74.00	-23.46	peak			



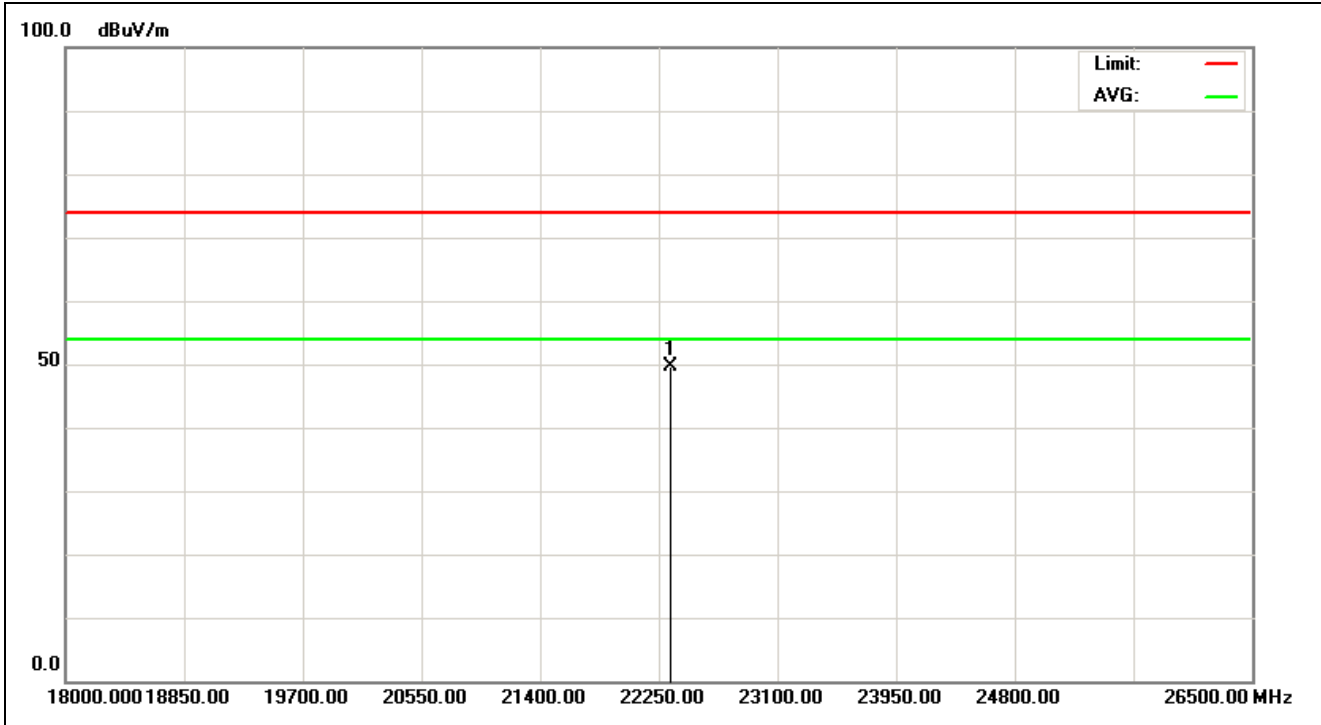
<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 14:57:59</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>CH2480</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	3806.090	-5.43	52.03	46.60	74.00	-27.40	peak	100	264	
2	4960.000	-2.19	47.90	45.71	74.00	-28.29	peak			
3	7440.000	6.09	44.35	50.44	74.00	-23.56	peak			

Spurious Emissions, TX Mode, 18-26G

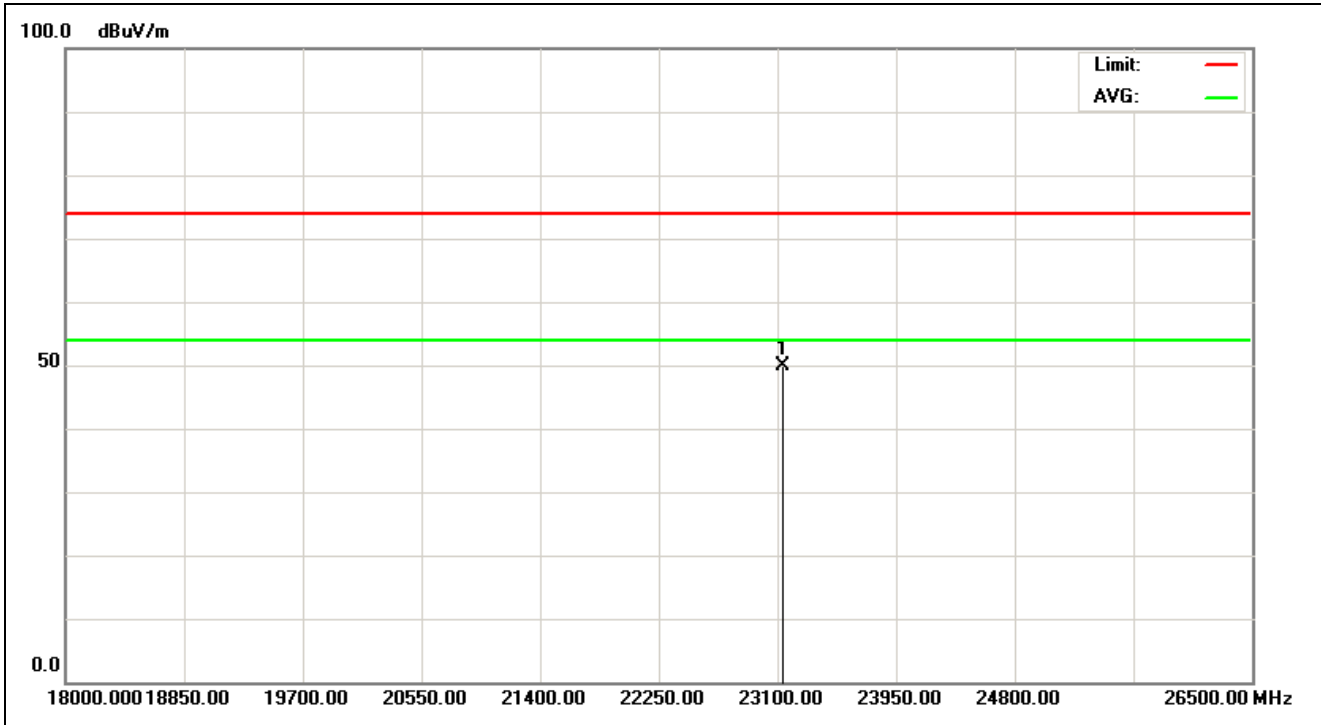


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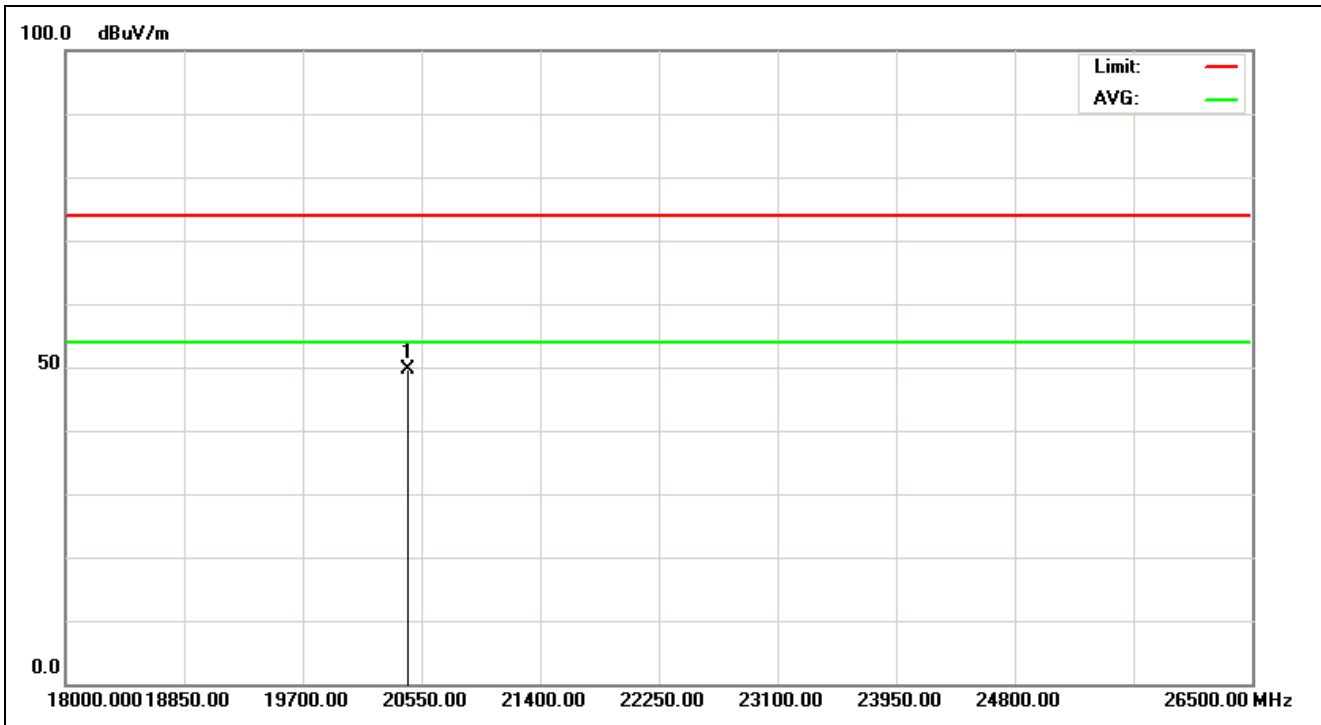
<b>Service No.:</b>	114026471	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	FCC Above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2014/9/23 15:19:24
<b>Applicant:</b>	Powertech	<b>Test Rating:</b>	DC 5V
<b>Product:</b>	Bluetooth Meridian	<b>Temp.(°C)/Hum.(%):</b>	24(°C)/55%
<b>Model No.:</b>	A02A	<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	CH2402		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22331.731	29.12	20.41	49.53	74.00	-24.47	peak			



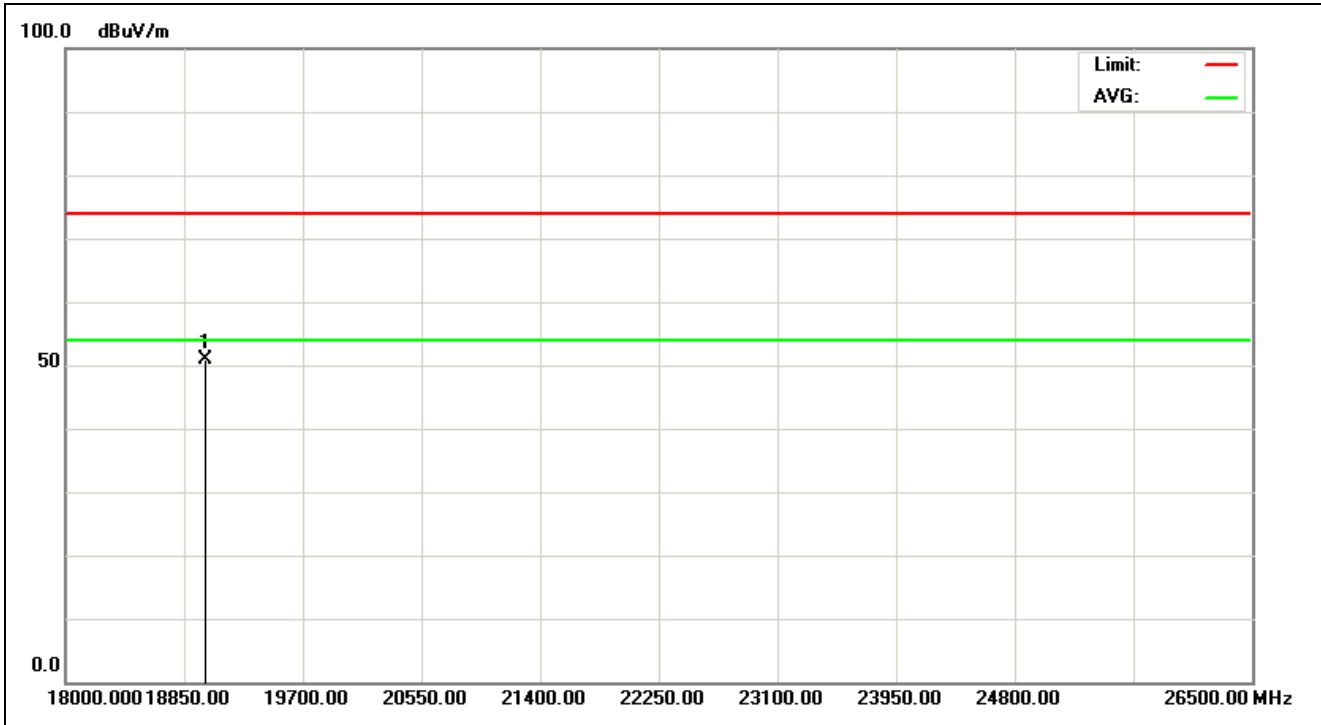
<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 15:20:11</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>CH2402</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23135.417	30.24	19.60	49.84	74.00	-24.16	peak			



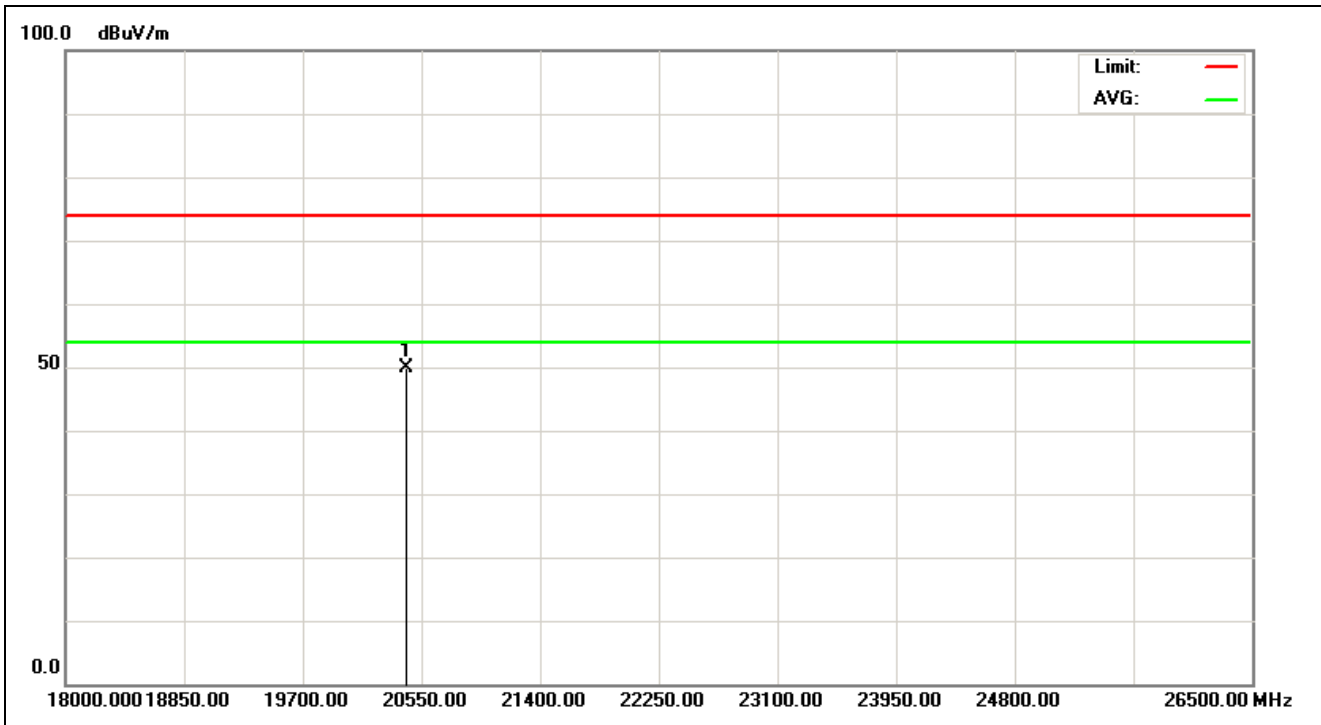
<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 15:20:44</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>CH2442</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	20451.923	29.55	20.13	49.68	74.00	-24.32	peak			



<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 15:21:13</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>CH2442</b>		
<b>Remark:</b>			

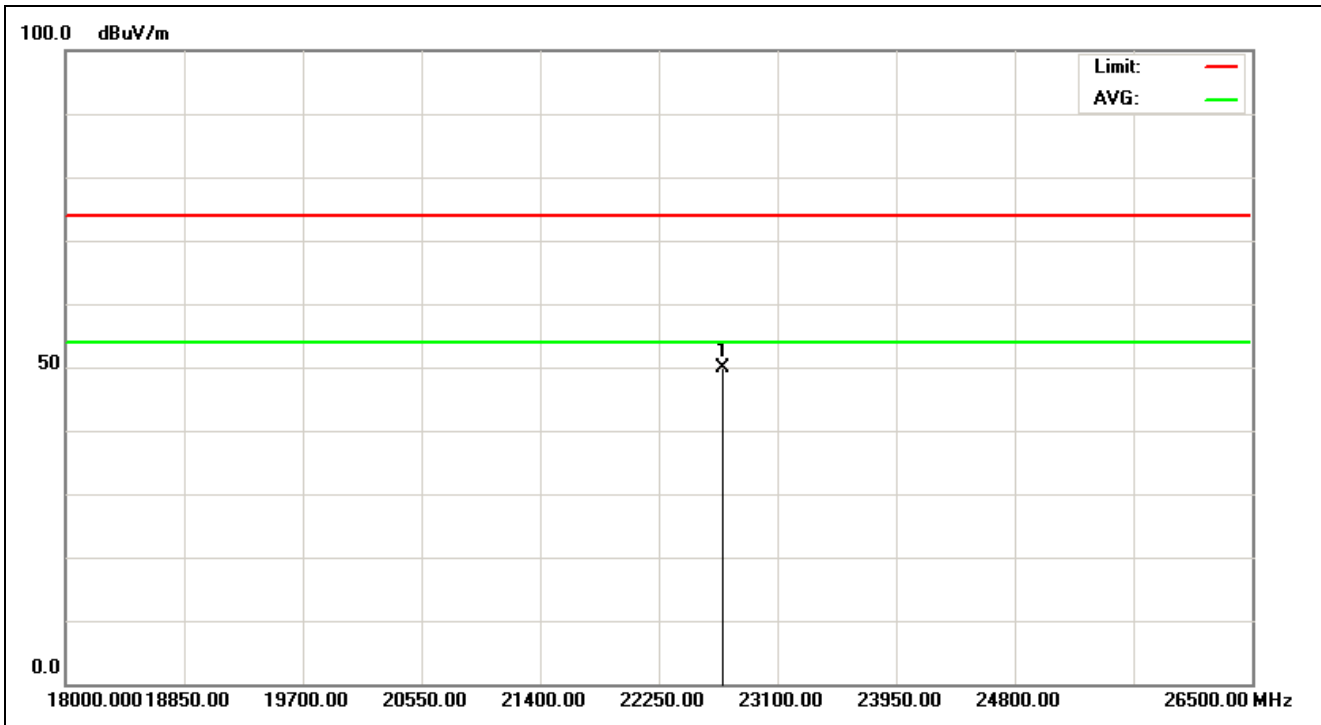
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	19008.013	29.96	21.00	50.96	74.00	-23.04	peak			



<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 15:21:51</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>CH2480</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	20438.301	29.55	20.26	49.81	74.00	-24.19	peak			





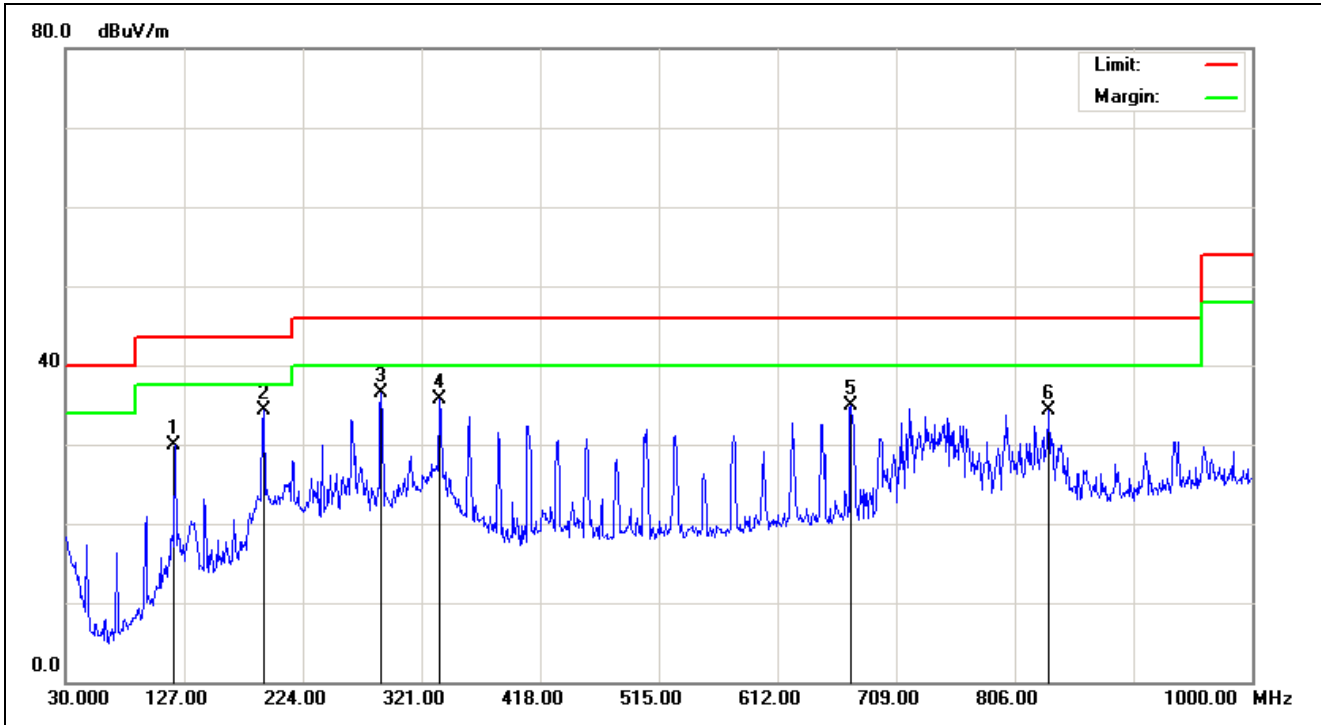
<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 15:22:37</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>CH2480</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22713.141	29.54	20.32	49.86	74.00	-24.14	peak			

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

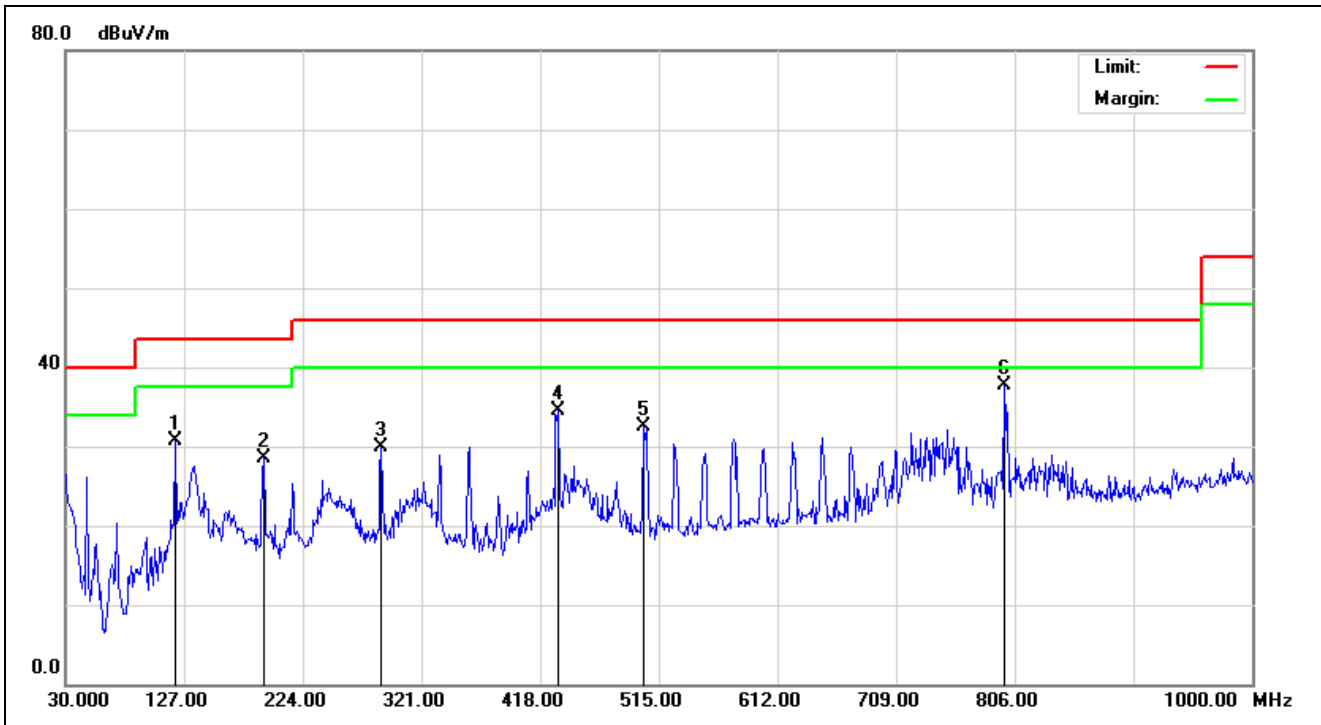


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<b>Service No.:</b>	114026471	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	FCC Class B 3M Radiation	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2014/9/23 15:35:49
<b>Applicant:</b>	Powertech	<b>Test Rating:</b>	DC 5V
<b>Product:</b>	Bluetooth Meridian	<b>Temp.(°C)/Hum.(%):</b>	24(°C)/55%
<b>Model No.:</b>	A02A	<b>Test Engineer:</b>	Hugo Chang
<b>Test Mode:</b>	TX		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	119.2399	-14.60	44.43	29.83	43.50	-13.67	QP	100	144	
2	191.9900	-16.80	51.16	34.36	43.50	-9.14	QP	100	94	
3	288.0199	-12.25	48.72	36.47	46.00	-9.53	QP	100	229	
4	335.5500	-11.16	46.84	35.68	46.00	-10.32	QP	100	165	
5	672.1399	-6.26	41.18	34.92	46.00	-11.08	QP	100	216	
6	834.1299	-3.71	37.93	34.22	46.00	-11.78	QP	100	235	



<b>Service No.:</b>	<b>114026471</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>FCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2014/9/23 15:36:52</b>
<b>Applicant:</b>	<b>Powertech</b>	<b>Test Rating:</b>	<b>DC 5V</b>
<b>Product:</b>	<b>Bluetooth Meridian</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>24(°C)/55%</b>
<b>Model No.:</b>	<b>A02A</b>	<b>Test Engineer:</b>	<b>Hugo Chang</b>
<b>Test Mode:</b>	<b>TX</b>		
<b>Remark:</b>			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	120.2100	-14.54	45.27	30.73	43.50	-12.77	QP	100	194	
2	191.9900	-16.80	45.30	28.50	43.50	-15.00	QP	100	155	
3	288.0200	-12.25	42.15	29.90	46.00	-16.10	QP	100	166	
4	432.5500	-9.59	44.16	34.57	46.00	-11.43	QP	100	176	
5	502.3900	-8.51	41.08	32.57	46.00	-13.43	QP	100	70	
6	797.2700	-4.61	42.39	37.78	46.00	-8.22	QP	100	62	