

# Test Report No.10053523 10053524 001

## Appendix D: Radiated and Mains Spurious Emission Data

(File: 10053523 10053524AppendixD)

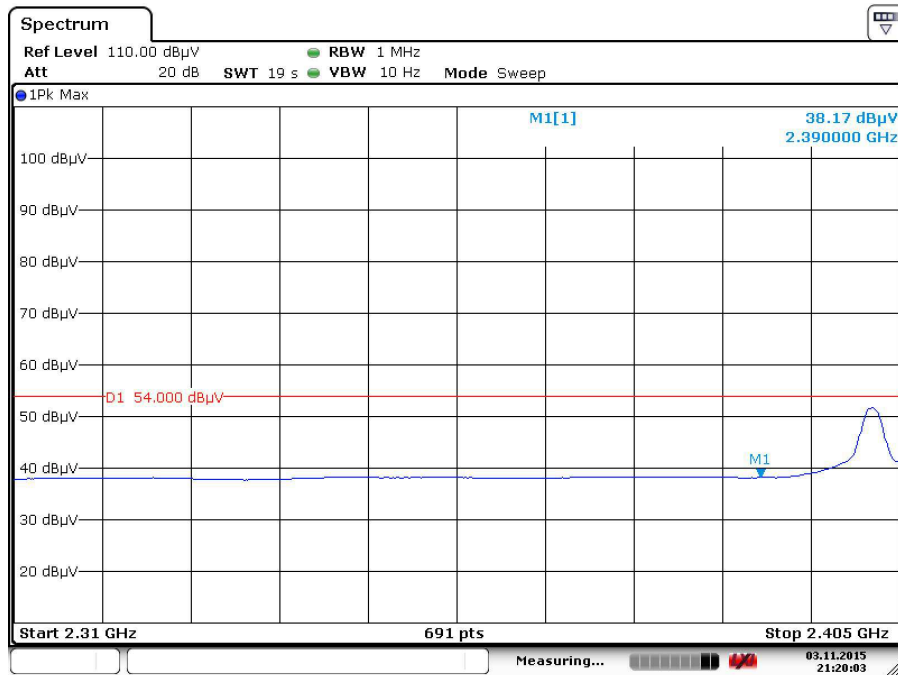
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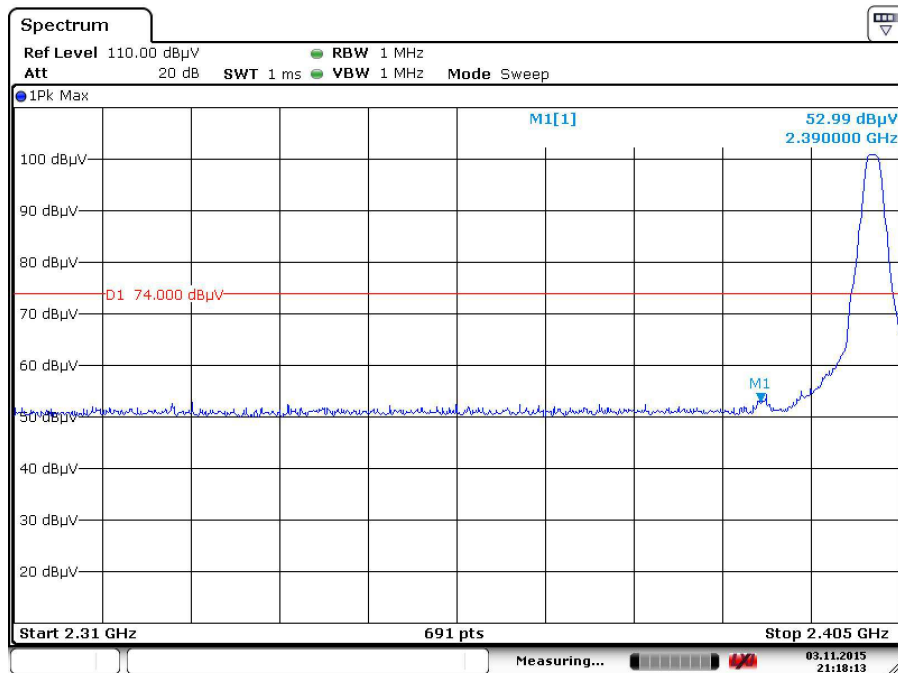
# Spurious Emissions, Band Edges, 2.35-2.5G

## Radiated Bandedge (GFSK)

### Low Channel (Hor)



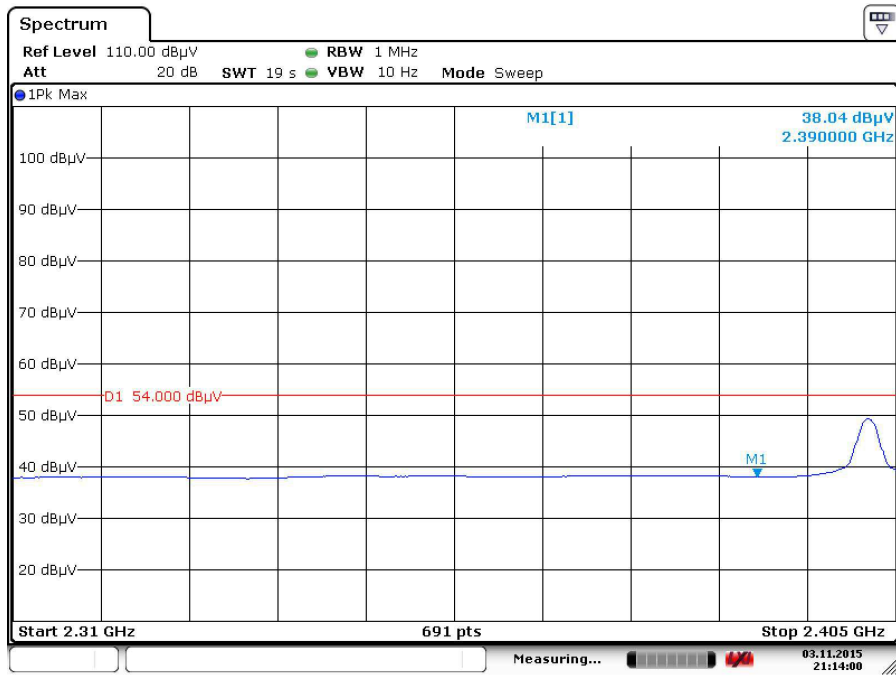
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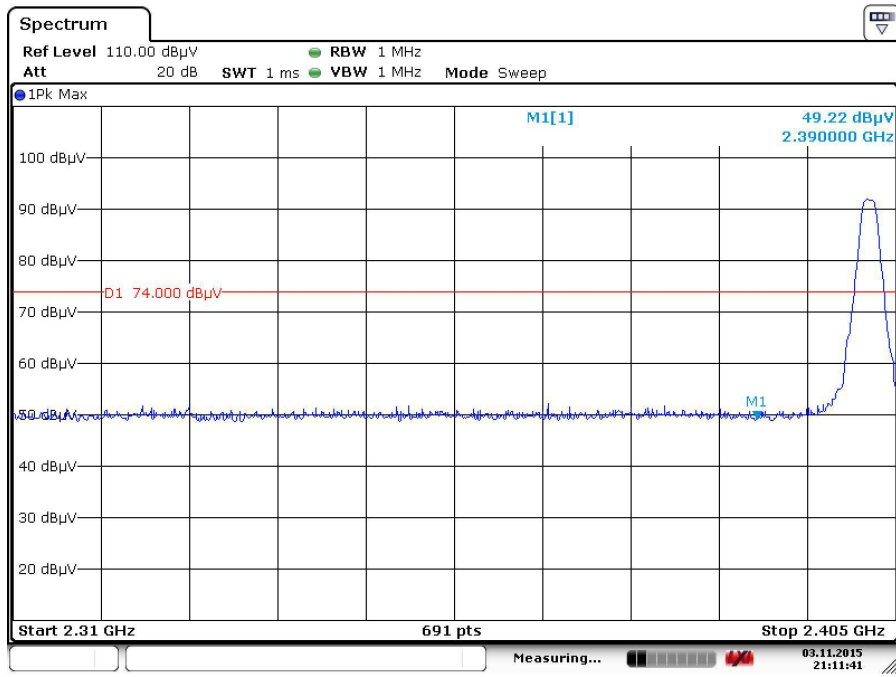
Date: 3.NOV.2015 21:18:12

# Spurious Emissions, Band Edge, 2.35-2.5G

# Low Channel (Ver)



Date: 3.NOV.2015 21:13:59

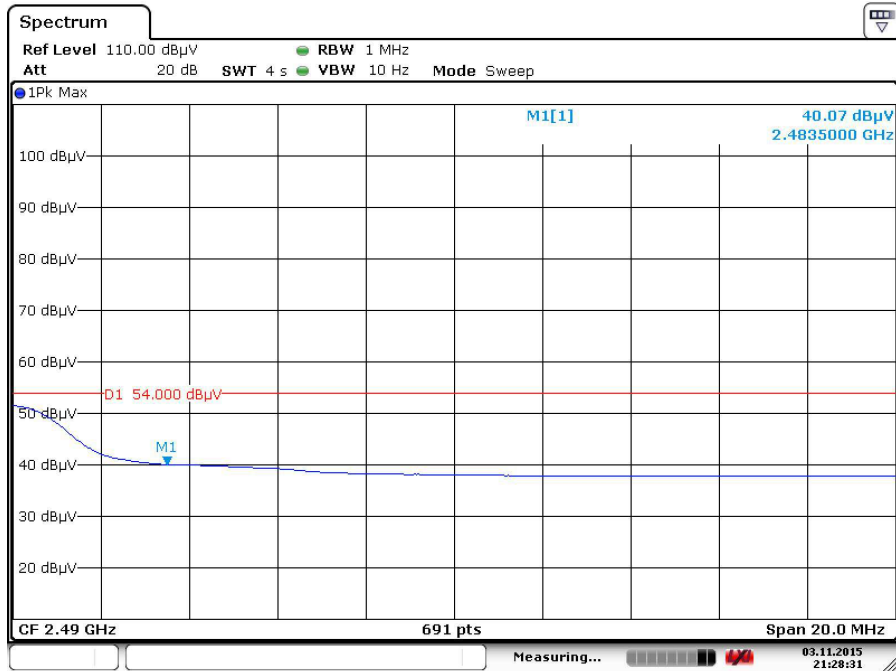


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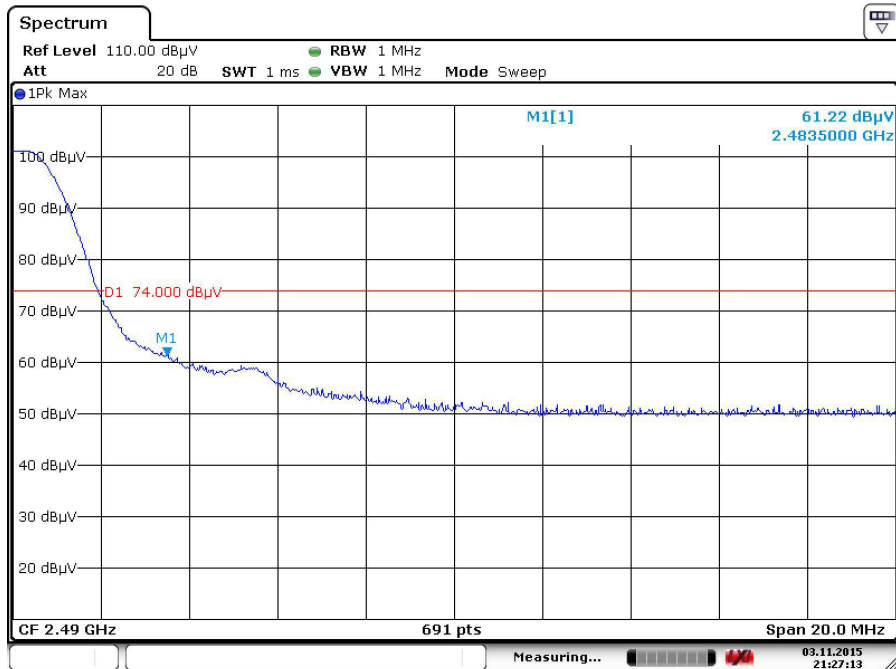
# Spurious Emissions, Band Edge, 2.35-2.5G

# Radiated Bandedge (GFSK)

## High Channel (Hor)



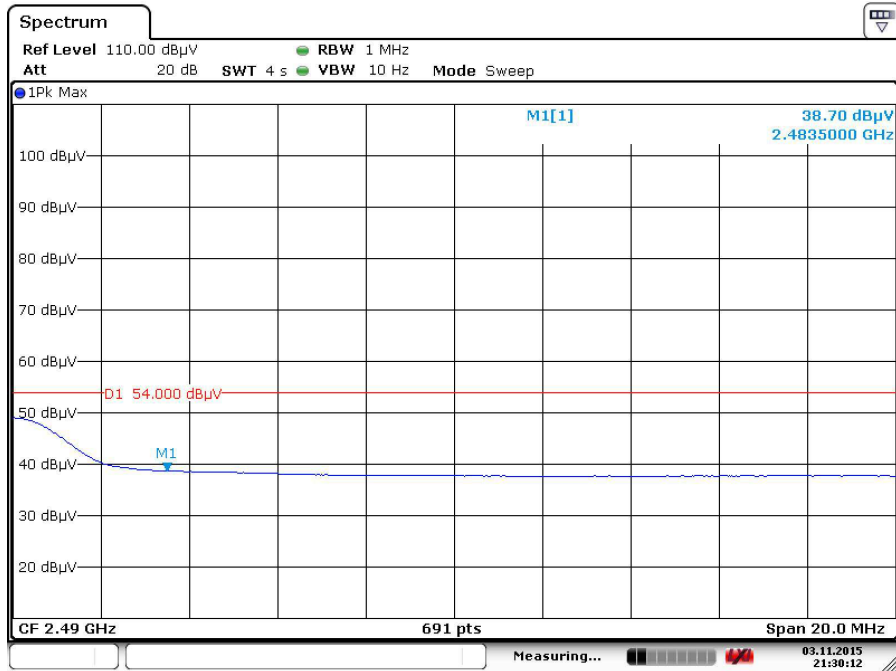
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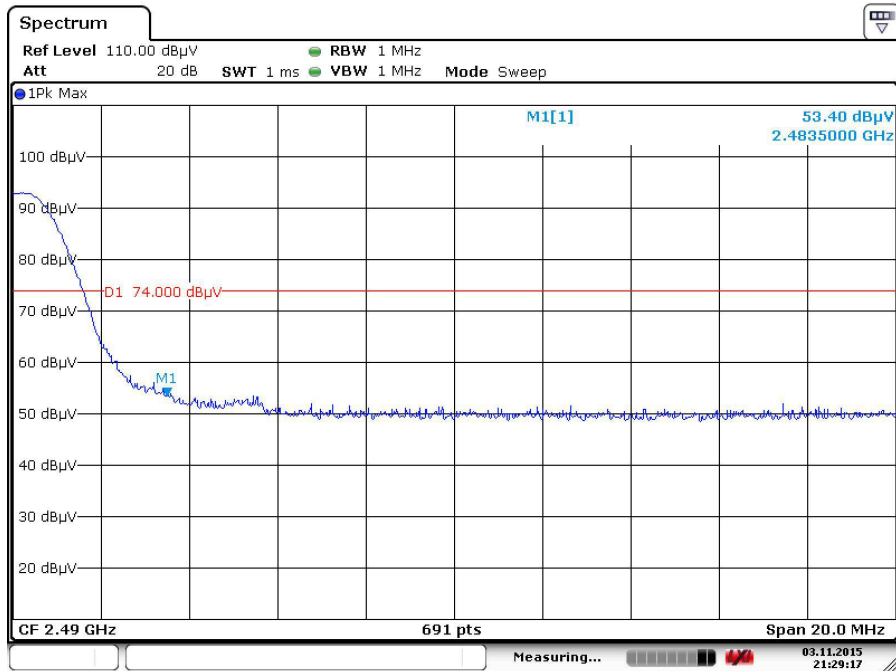
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## Spurious Emissions, Band Edge, 2.35-2.5G

# High Channel (Ver)



Date: 3.NOV.2015 21:30:12



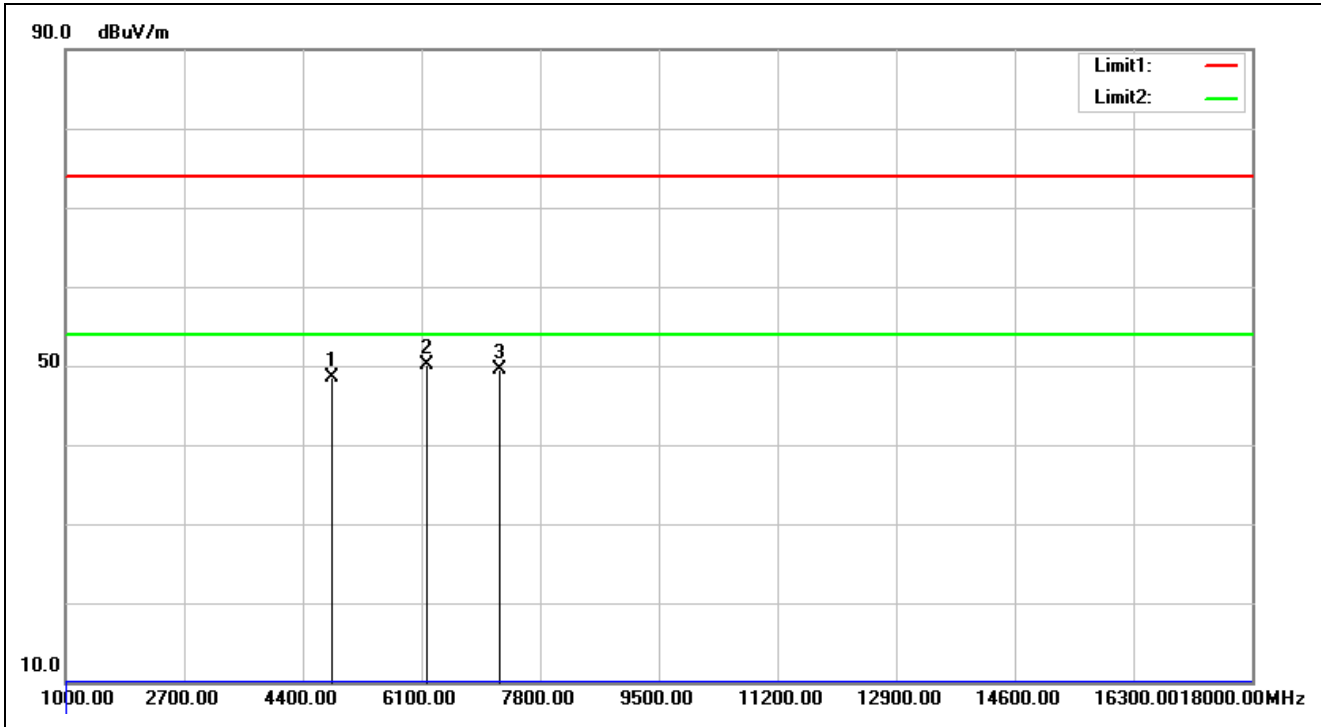
Date: 3.NOV.2015 21:29:17

# Spurious Emissions, Band Edge, 2.35-2.5G

# Spurious Emissions, TX Mode, 1-18G

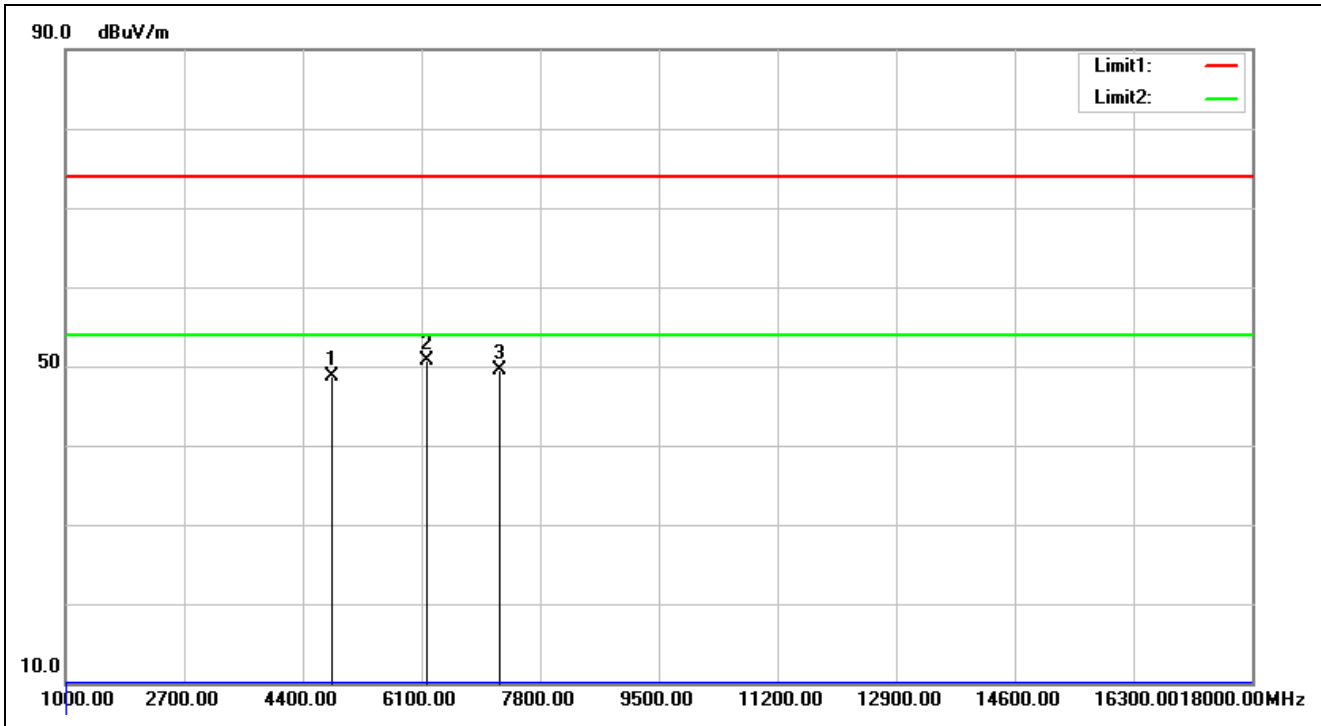


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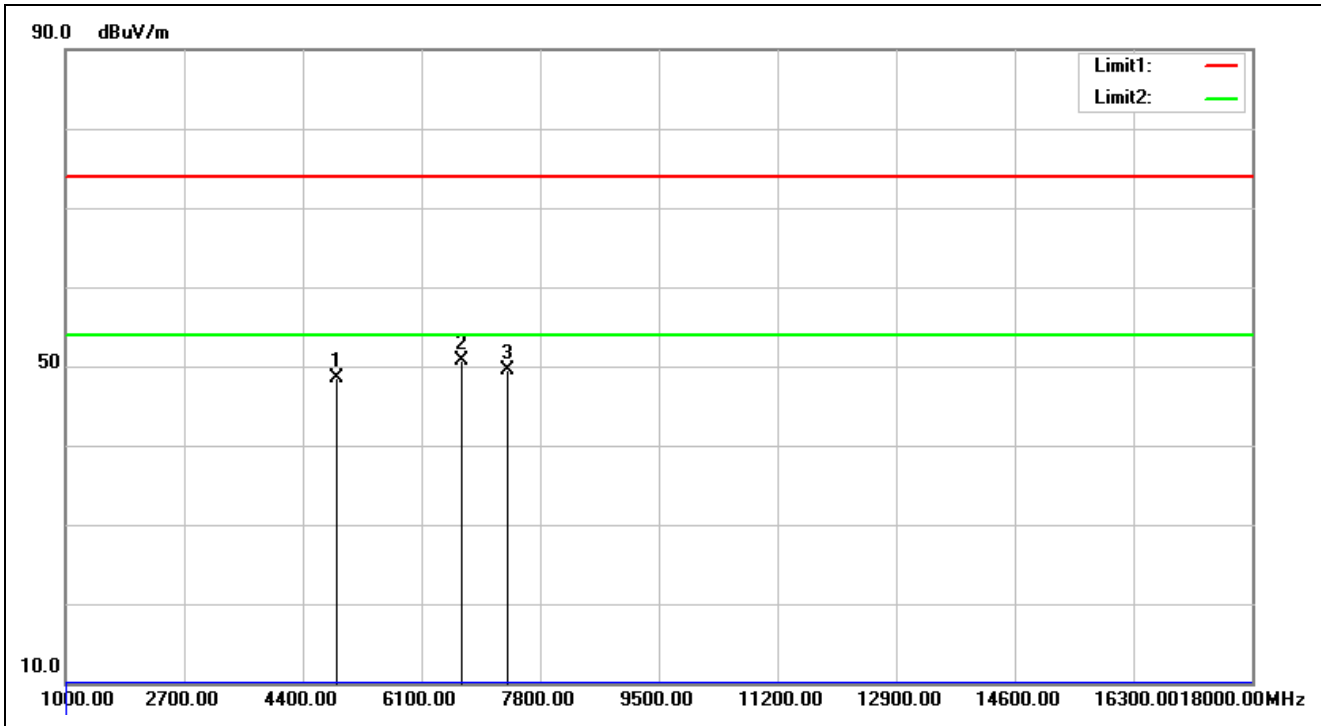
<b>Service No.:</b>	114035791-NCC	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	NCC Above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2015/11/3 20:38:33
<b>Applicant:</b>	Microchip	<b>Test Rating:</b>	DC 3.3V
<b>Product:</b>	Bluetooth module	<b>Temp.(°C)/Hum.(%):</b>	19.5(°C)/67%
<b>Model No.:</b>	BM70abcSeFC2,RN4870	<b>Test Engineer:</b>	George Yang
<b>Test Mode:</b>	2402-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	4804.000	3.60	44.92	48.52	74.00	-25.48	peak		0	
2	6168.000	6.21	43.99	50.20	74.00	-23.80	peak	100	349	
3	7206.000	5.18	44.28	49.46	74.00	-24.54	peak		0	



<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 20:39:35</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2402-TX</b>		
<b>Remark:</b>			

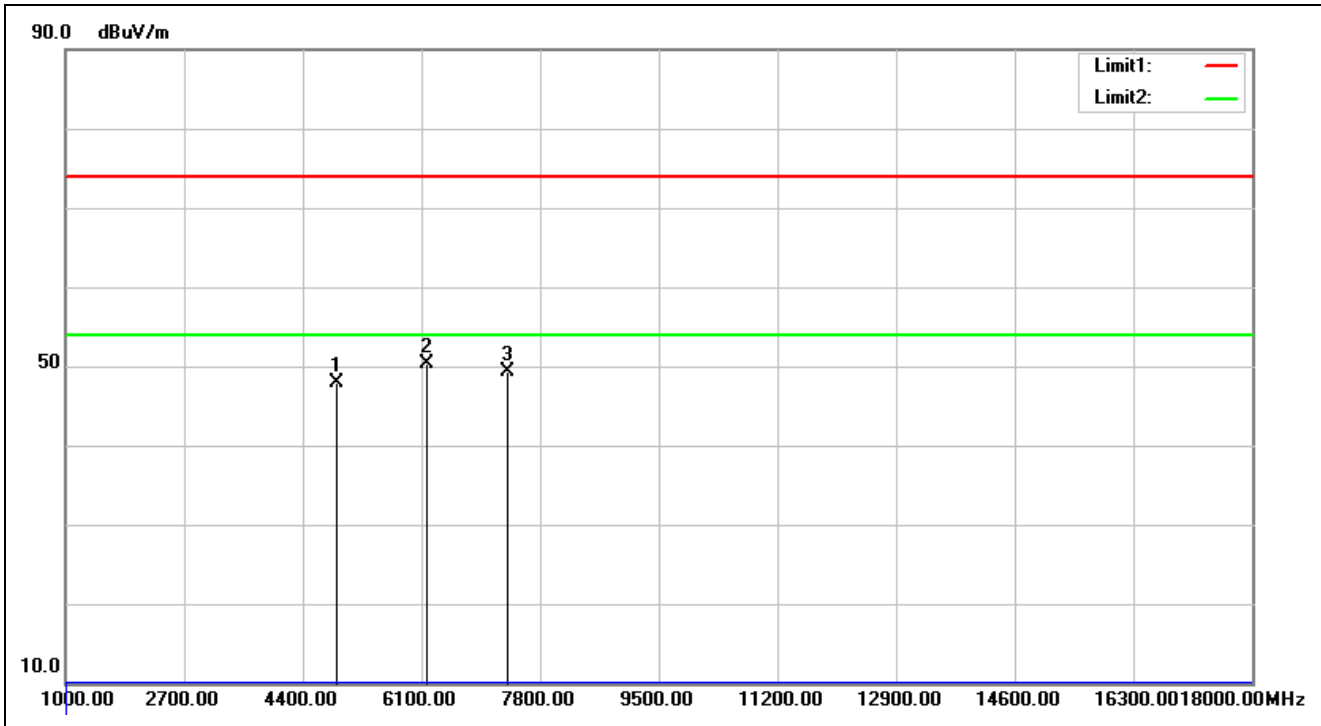
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	3.60	45.15	48.75	74.00	-25.25	peak			
2	6185.000	6.22	44.50	50.72	74.00	-23.28	peak	100	201	
3	7206.000	5.18	44.39	49.57	74.00	-24.43	peak			



<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 20:43:36</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-TX</b>		
<b>Remark:</b>			

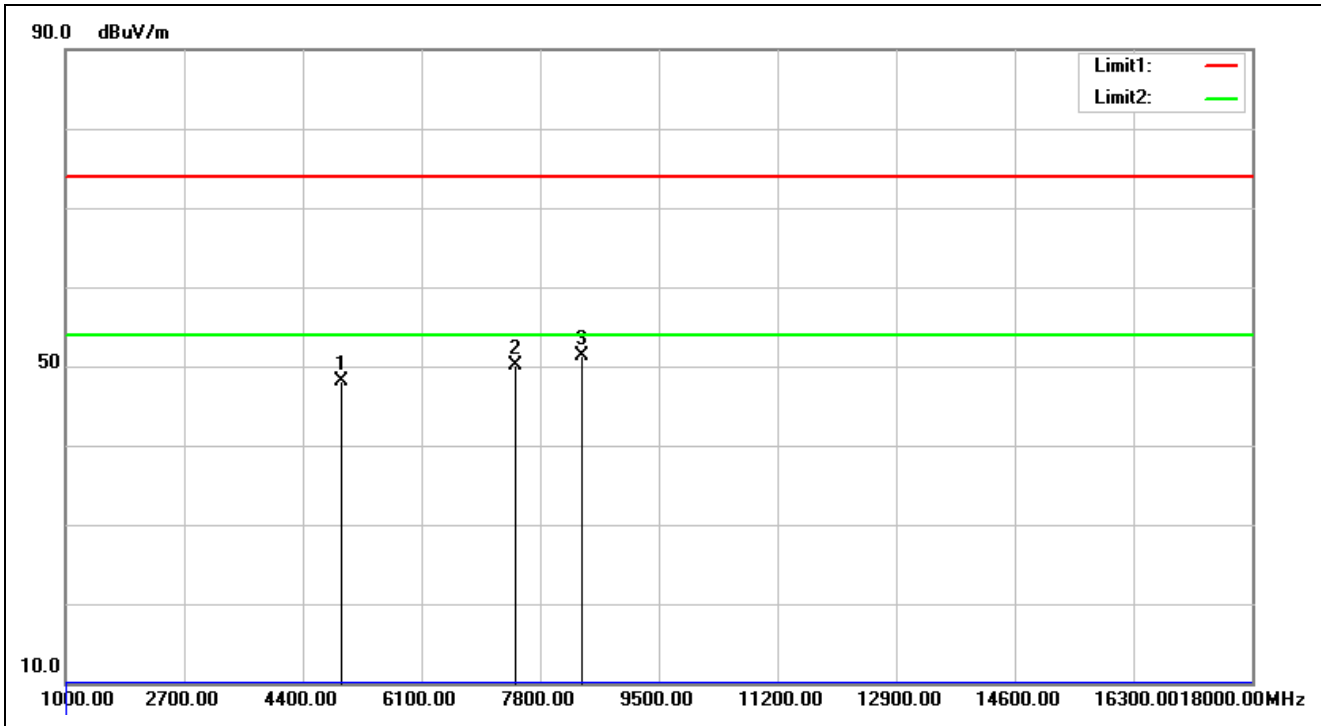
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth ( ° )	Remark
1	4880.000	3.89	44.68	48.57	74.00	-25.43	peak			
2	6678.000	5.94	44.84	50.78	74.00	-23.22	peak	100	293	
3	7320.000	5.15	44.35	49.50	74.00	-24.50	peak			





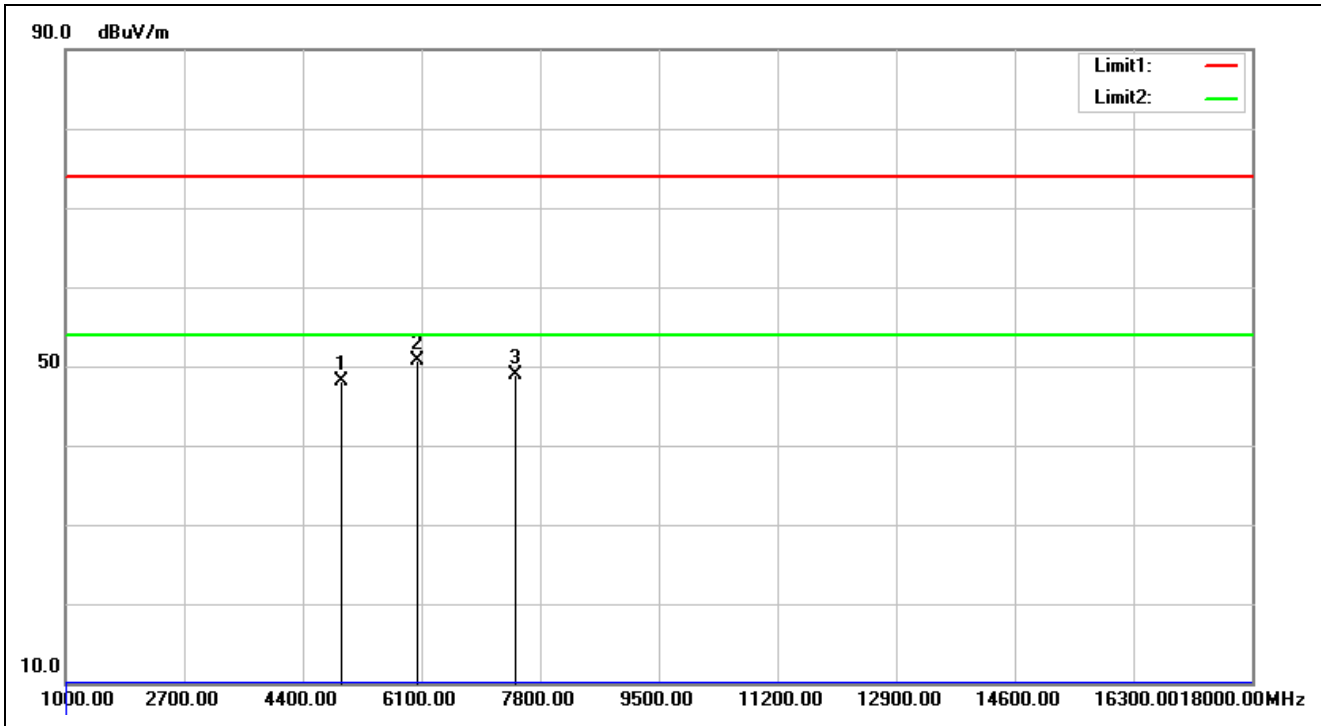
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<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 20:44:39</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-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	4880.000	3.89	44.01	47.90	74.00	-26.10	peak			
2	6185.000	6.22	44.11	50.33	74.00	-23.67	peak	100	89	
3	7320.000	5.15	44.19	49.34	74.00	-24.66	peak			



<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 20:48:29</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2480-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	4960.000	4.19	43.85	48.04	74.00	-25.96	peak			
2	7440.000	5.10	45.00	50.10	74.00	-23.90	peak			
3	8395.000	5.06	46.32	51.38	74.00	-22.62	peak	100	233	



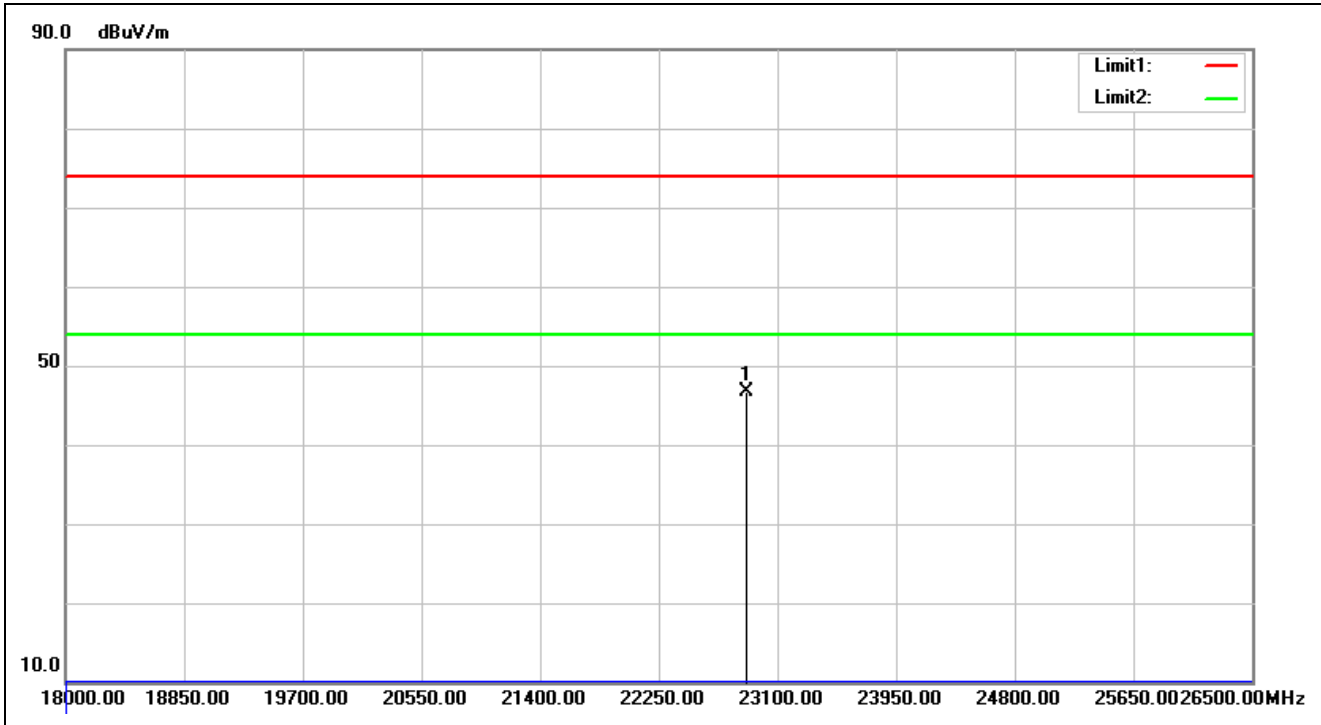
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<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 20:49:32</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2480-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	4960.000	4.19	43.82	48.01	74.00	-25.99	peak			
2	6032.000	6.17	44.54	50.71	74.00	-23.29	peak	100	180	
3	7440.000	5.10	43.81	48.91	74.00	-25.09	peak			

# Spurious Emissions, TX Mode, 18-26G

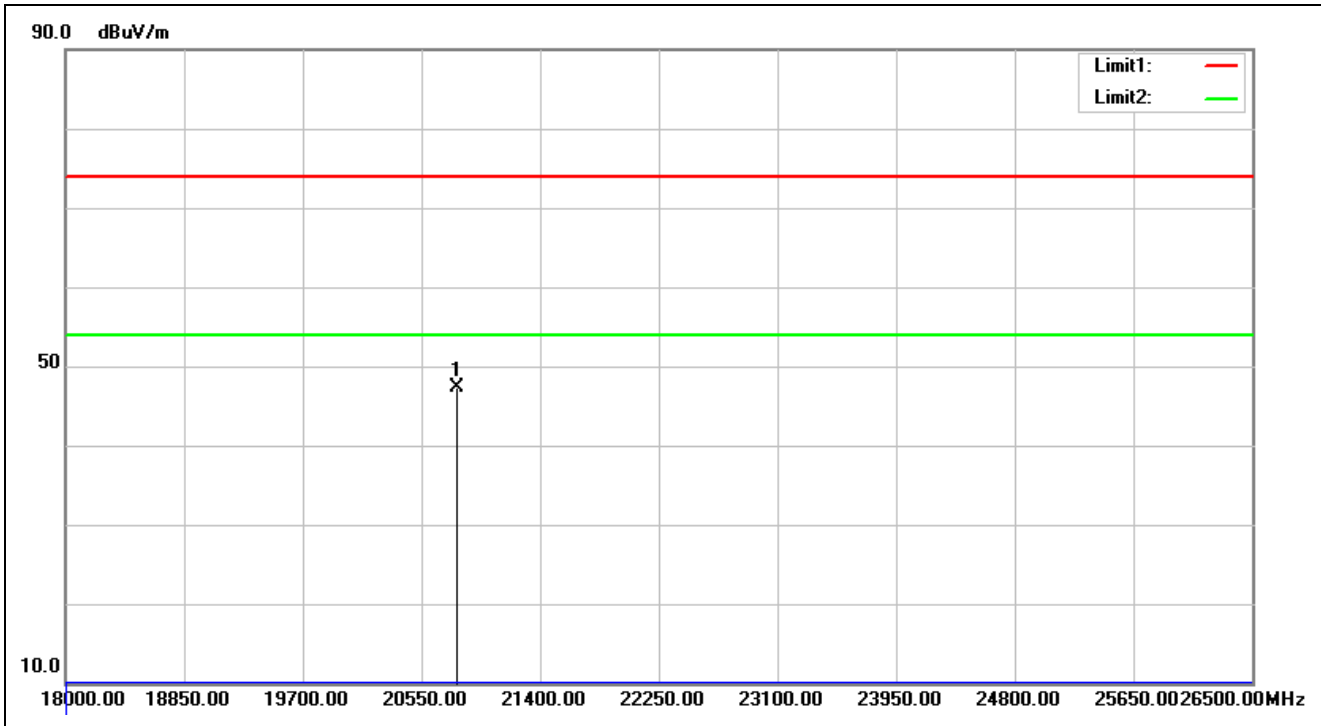


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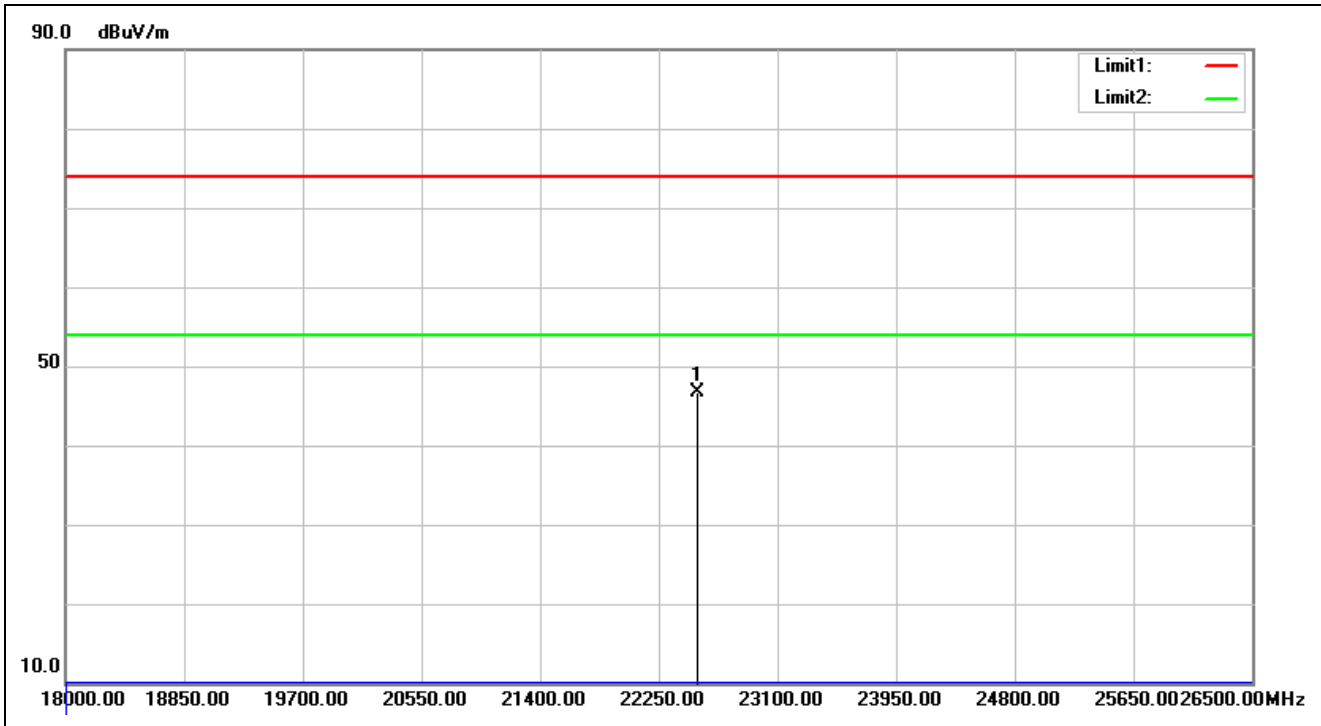
<b>Service No.:</b>	114035791-NCC	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	NCC Above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2015/11/3 21:38:58
<b>Applicant:</b>	Microchip	<b>Test Rating:</b>	DC 3.3V
<b>Product:</b>	Bluetooth module	<b>Temp.(°C)/Hum.(%):</b>	19.5(°C)/67%
<b>Model No.:</b>	BM70abcSeFC2,RN4870	<b>Test Engineer:</b>	George Yang
<b>Test Mode:</b>	2402-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	22879.000	0.58	46.12	46.70	74.00	-27.30	peak		0	



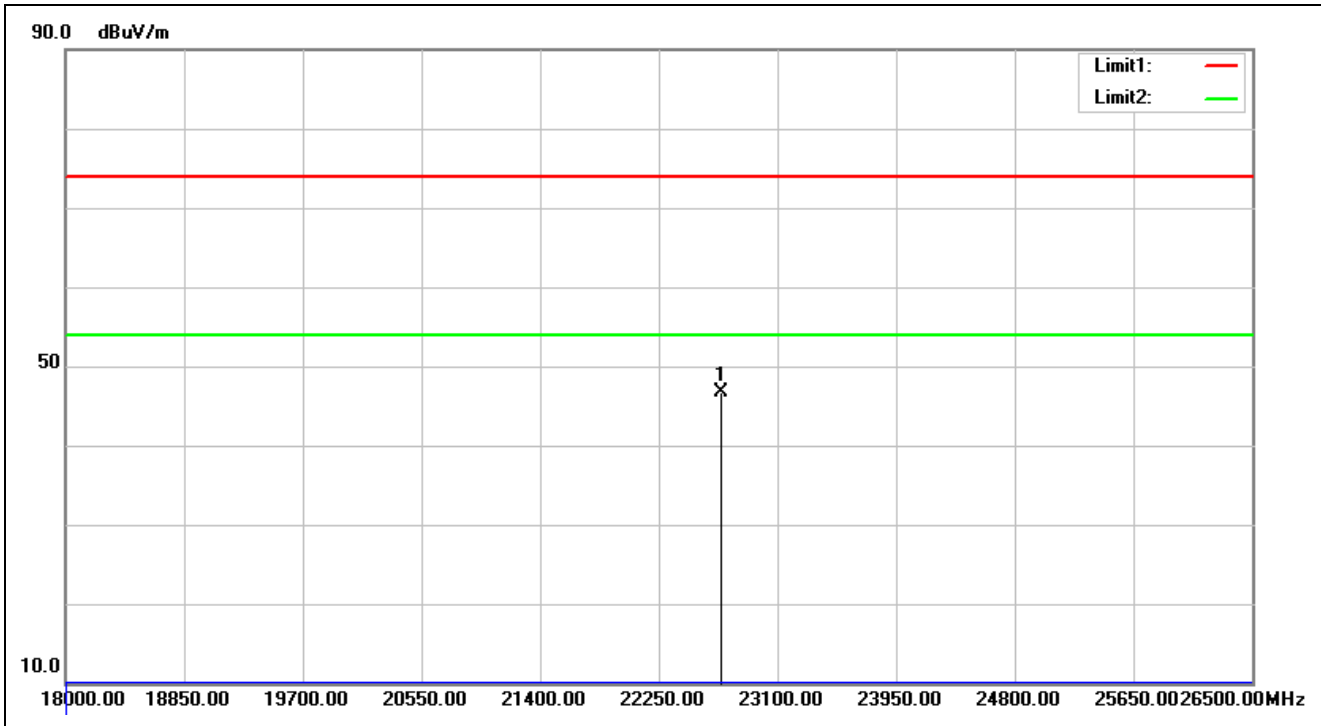
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<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 21:39:10</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2402-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	20805.000	-0.53	47.75	47.22	74.00	-26.78	peak			



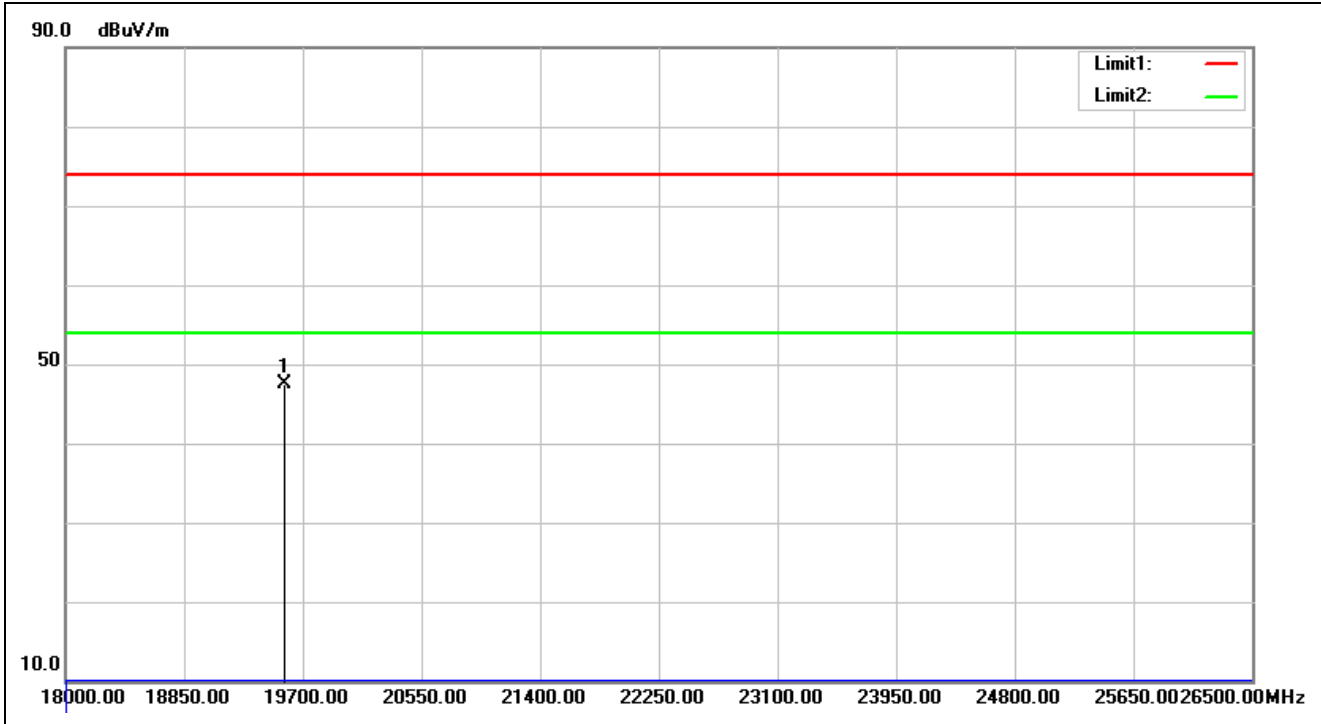
<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 21:39:26</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-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	22530.500	-0.27	46.97	46.70	74.00	-27.30	peak			



<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 21:39:36</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-TX</b>		
<b>Remark:</b>			

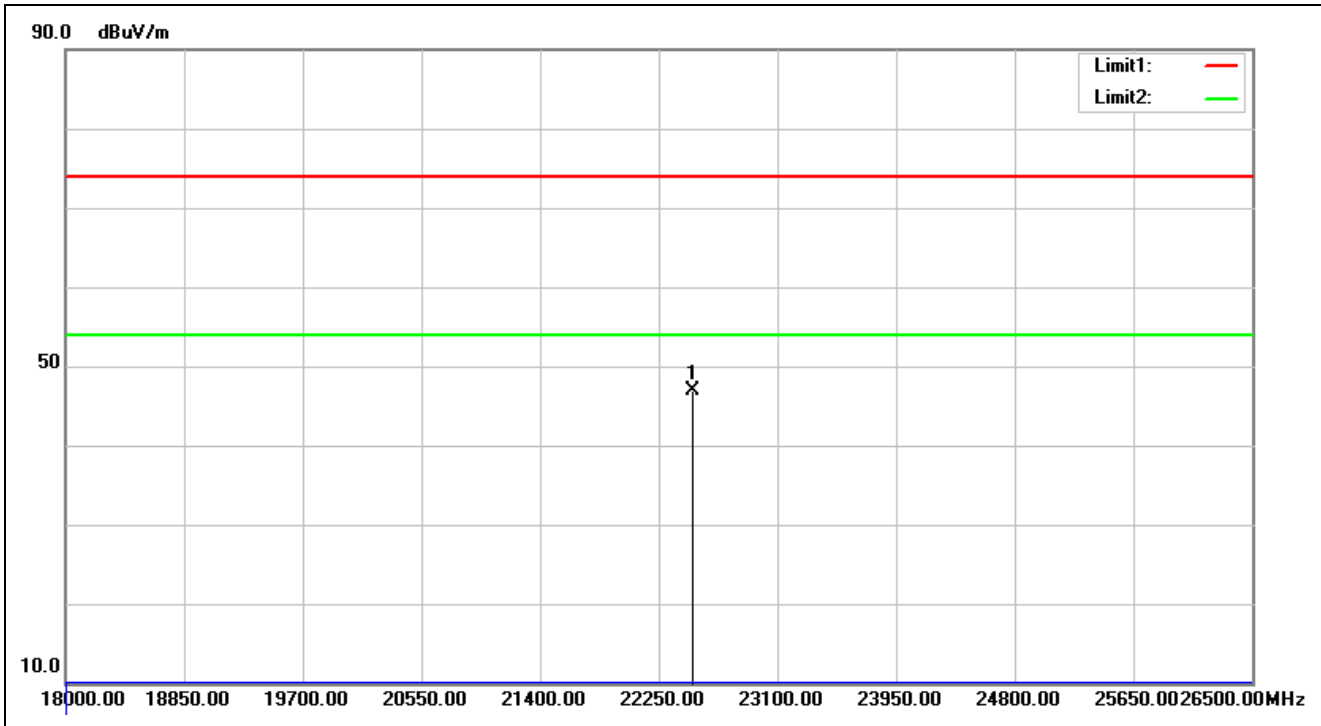
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22692.000	0.13	46.67	46.80	74.00	-27.20	peak			



<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 21:39:50</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2480-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	19564.000	-1.20	48.70	47.50	74.00	-26.50	peak			





<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 21:40:00</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2480-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	22488.000	-0.37	47.26	46.89	74.00	-27.11	peak			

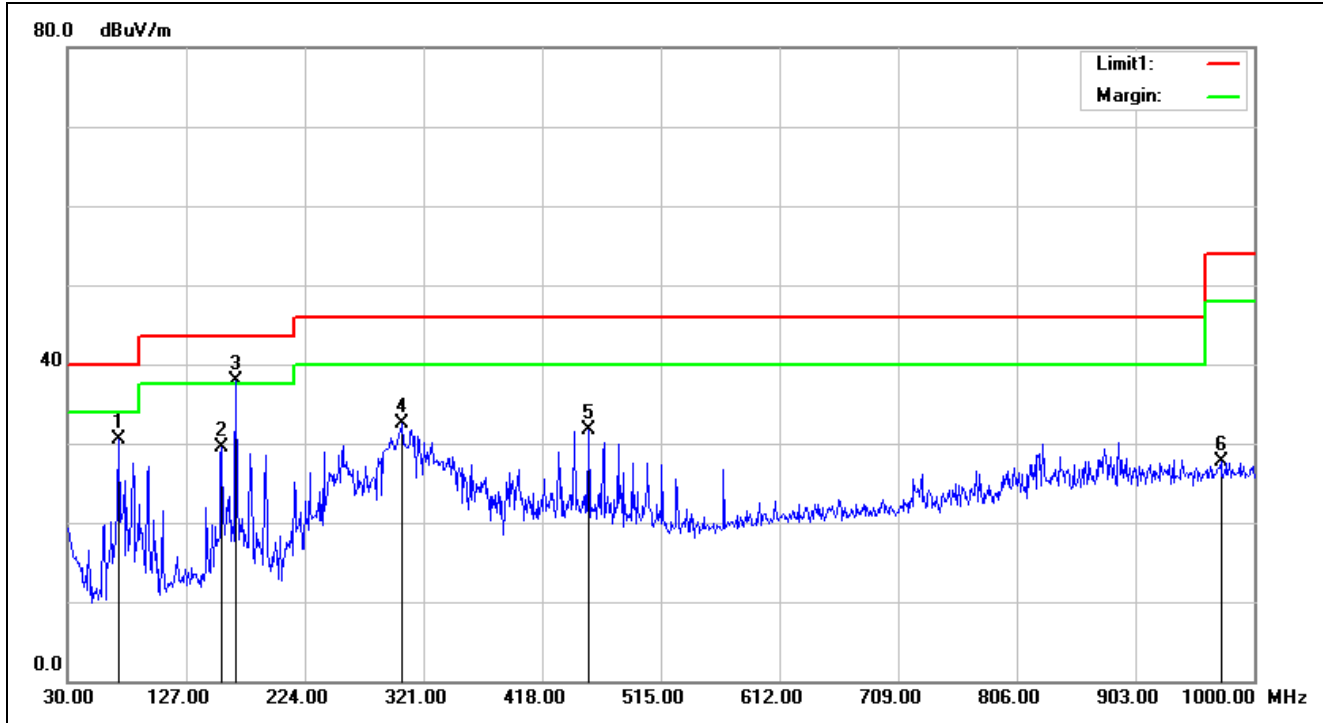
# Spurious Emissions, TX Mode, 30M-1G



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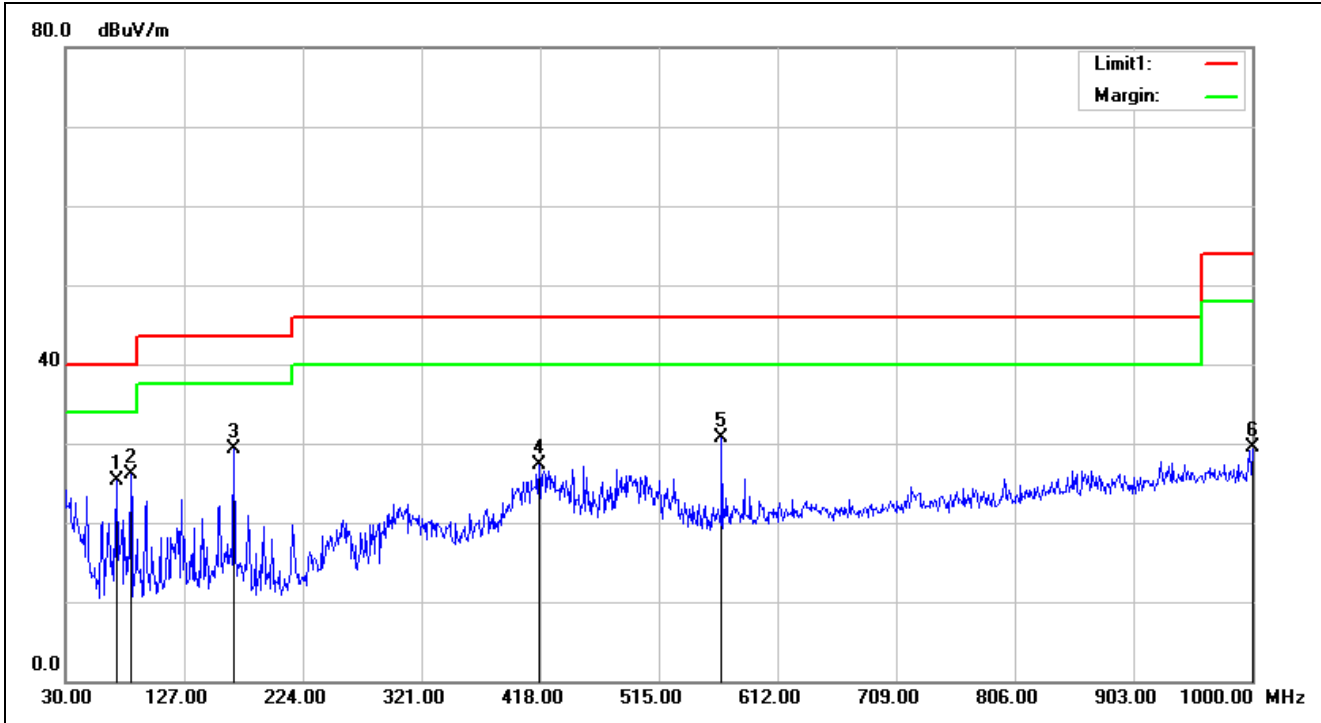
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Service No.:	114035791-NCC	Test Distance:	3m
Test Standard:	NCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/11/3 19:39:50
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	Bluetooth module	Temp.(°C)/Hum.(%):	19.5(°C)/67%
Model No.:	BM70abcSeFC2,RN4870	Test Engineer:	George Yang
Test Mode:	2440-TX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	71.7099	-18.64	49.14	30.50	40.00	-9.50	QP	100	154	
2	156.1000	-13.63	43.07	29.44	43.50	-14.06	QP	100	212	
3	167.7400	-14.60	52.59	37.99	43.50	-5.51	QP	100	214	
4	303.5400	-10.40	42.94	32.54	46.00	-13.46	QP	100	225	
5	455.8300	-7.95	39.70	31.75	46.00	-14.25	QP	100	30	
6	972.8400	-0.28	27.94	27.66	54.00	-26.34	QP	100	360	

# Spurious Emissions, RX Mode, 1-18G



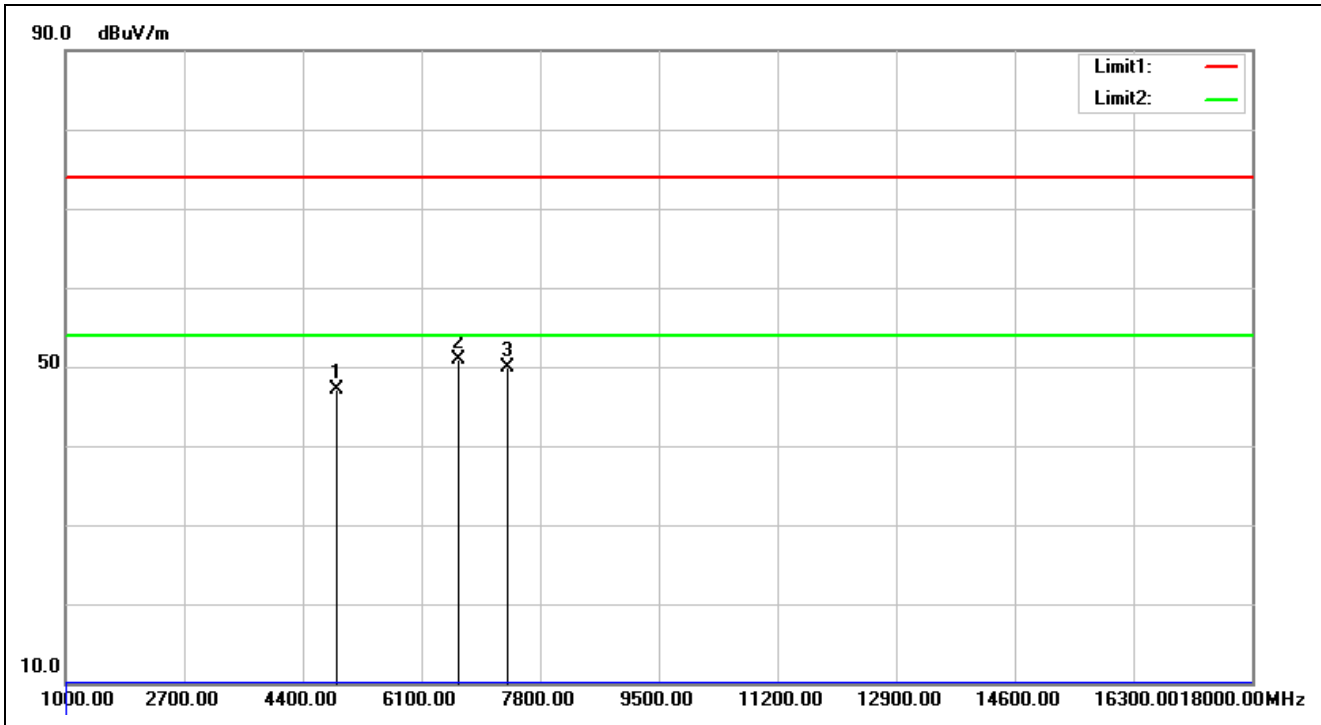
<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Class B 3M Radiation</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 19:40:53</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-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	71.7099	-18.64	44.04	25.40	40.00	-14.60	QP	100	229	
2	83.3500	-17.33	43.50	26.17	40.00	-13.83	QP	100	253	
3	167.7400	-14.60	43.85	29.25	43.50	-14.25	QP	100	165	
4	417.0299	-8.46	35.72	27.26	46.00	-18.74	QP	100	181	
5	566.4100	-6.66	37.32	30.66	46.00	-15.34	QP	100	149	
6	1000.0000	0.01	29.55	29.56	54.00	-24.44	QP	100	301	

# Spurious Emissions, RX Mode, 1-18G

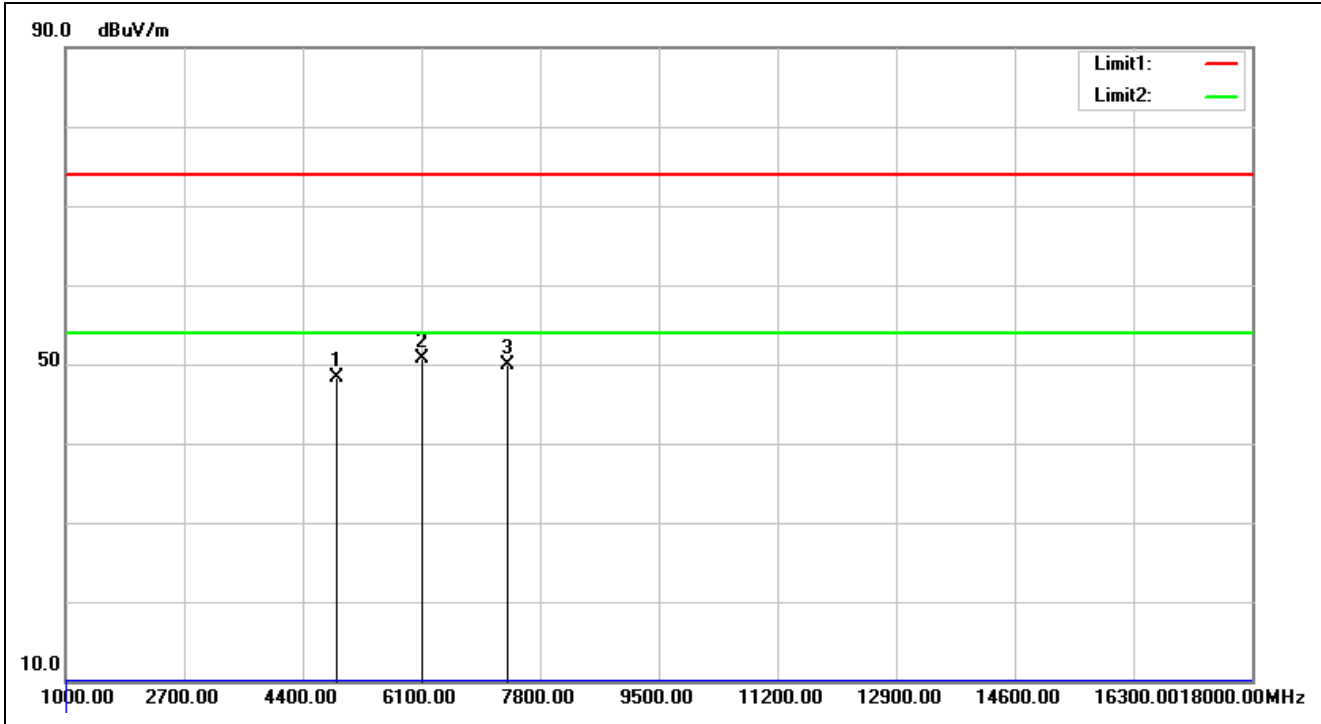


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<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 20:57:31</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-RX</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	4880.000	3.89	43.26	47.15	74.00	-26.85	peak		0	
2	6627.000	6.05	44.81	50.86	74.00	-23.14	peak	100	21	
3	7320.000	5.15	44.72	49.87	74.00	-24.13	peak		0	



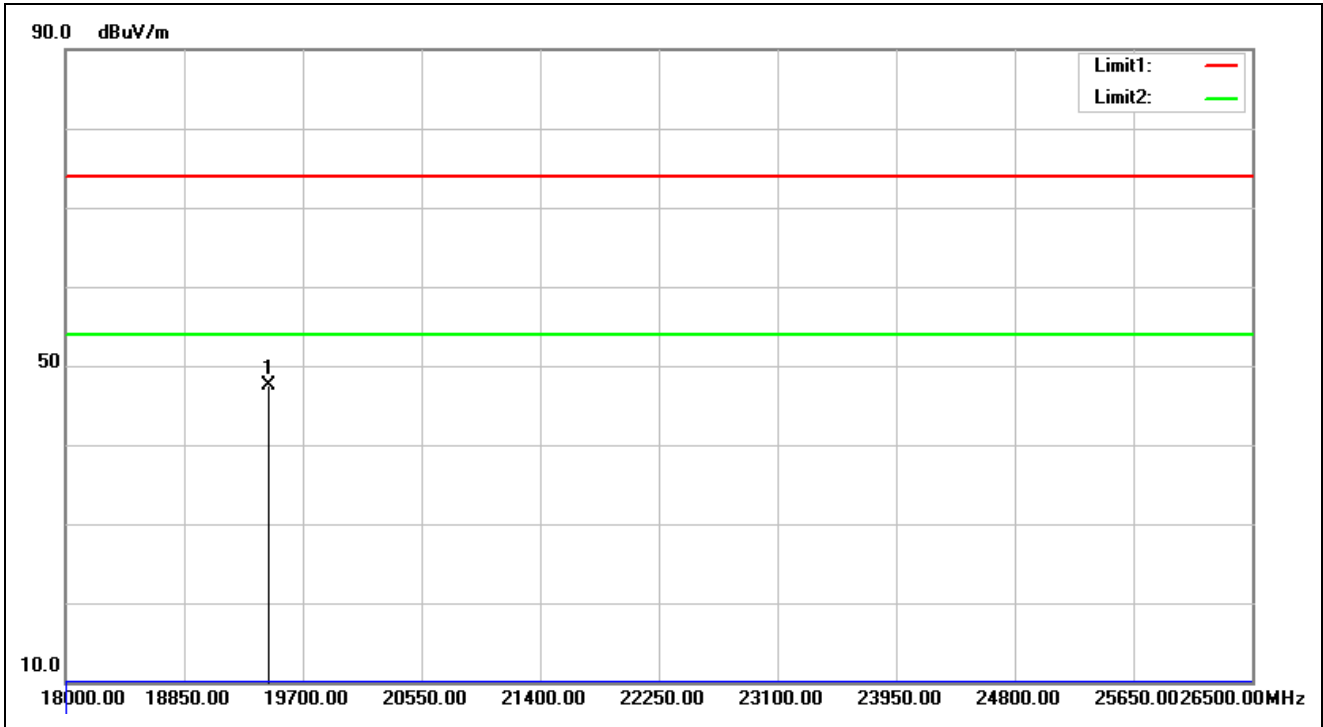
<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 20:58:34</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-RX</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	4880.000	3.89	44.46	48.35	74.00	-25.65	peak			
2	6100.000	6.19	44.42	50.61	74.00	-23.39	peak	100	337	
3	7320.000	5.15	44.83	49.98	74.00	-24.02	peak			

# Spurious Emissions, RX Mode, 18-26G

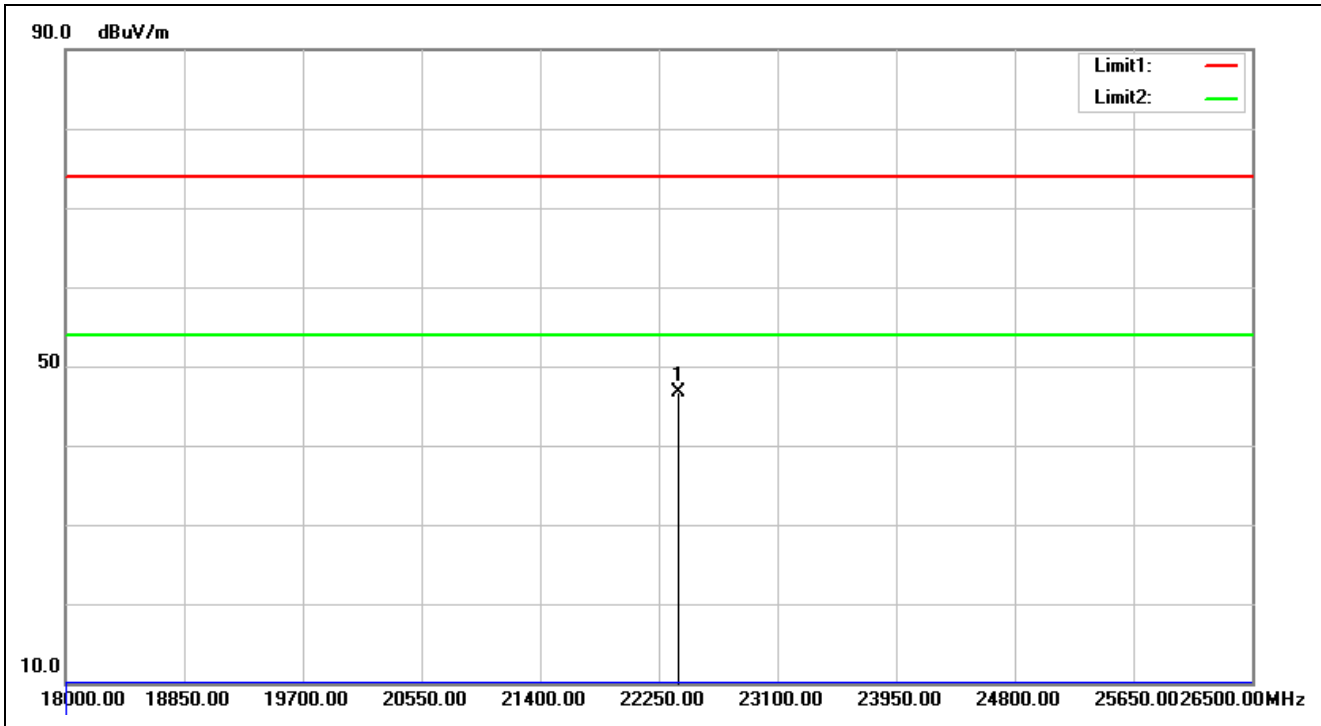


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<b>Service No.:</b>	114035791-NCC	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	NCC Above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2015/11/3 21:32:29
<b>Applicant:</b>	Microchip	<b>Test Rating:</b>	DC 3.3V
<b>Product:</b>	Bluetooth module	<b>Temp.(°C)/Hum.(%):</b>	19.5(°C)/67%
<b>Model No.:</b>	BM70abcSeFC2,RN4870	<b>Test Engineer:</b>	George Yang
<b>Test Mode:</b>	2440-RX		
<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	19453.500	-1.26	48.76	47.50	74.00	-26.50	peak		0	



<b>Service No.:</b>	<b>114035791-NCC</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2015/11/3 21:32:43</b>
<b>Applicant:</b>	<b>Microchip</b>	<b>Test Rating:</b>	<b>DC 3.3V</b>
<b>Product:</b>	<b>Bluetooth module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>19.5(°C)/67%</b>
<b>Model No.:</b>	<b>BM70abcSeFC2,RN4870</b>	<b>Test Engineer:</b>	<b>George Yang</b>
<b>Test Mode:</b>	<b>2440-RX</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	22386.000	-0.62	47.26	46.64	74.00	-27.36	peak			

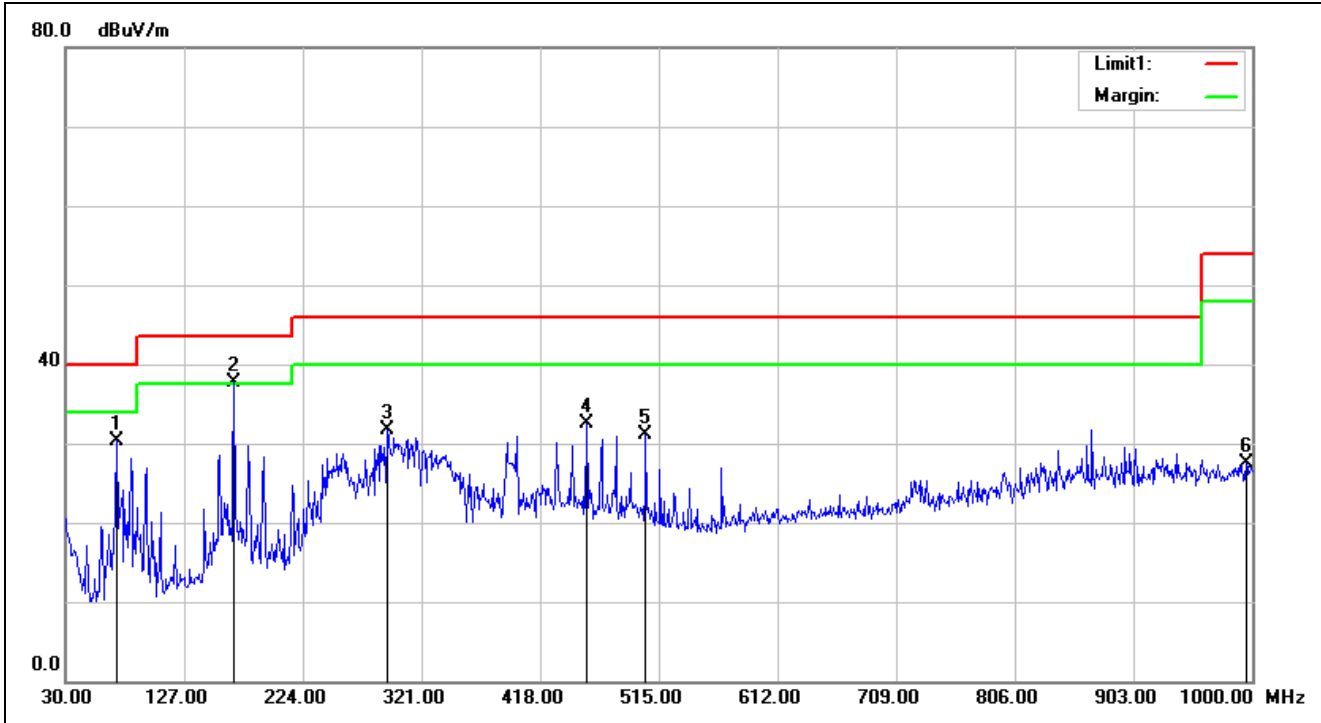
# Spurious Emissions, RX Mode, 30M-1G



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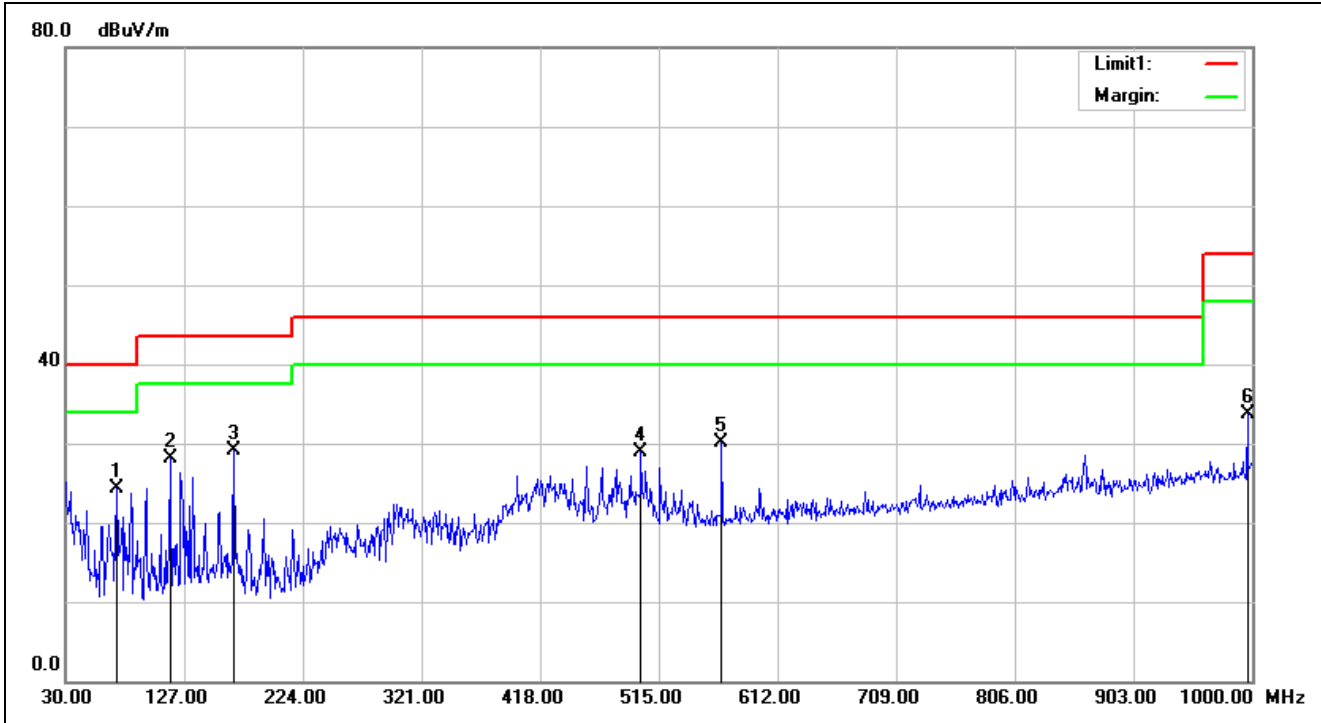


Service No.:	114035791-NCC	Test Distance:	3m
Test Standard:	NCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2015/11/3 19:45:32
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	Bluetooth module	Temp.(°C)/Hum.(%):	19.5(°C)/67%
Model No.:	BM70abcSeFC2,RN4870	Test Engineer:	George Yang
Test Mode:	2440-RX		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	71.7099	-18.64	48.86	30.22	40.00	-9.78	QP	100	325	
2	167.7400	-14.60	52.36	37.76	43.50	-5.74	QP	100	213	
3	292.8700	-10.59	42.29	31.70	46.00	-14.30	QP	100	234	
4	455.8300	-7.95	40.53	32.58	46.00	-13.42	QP	100	45	
5	504.3300	-7.27	38.34	31.07	46.00	-14.93	QP	100	213	
6	995.1500	-0.04	27.64	27.60	54.00	-26.40	QP	100	317	

## Spurious Emissions, Mains, 150kHz - 30MHz

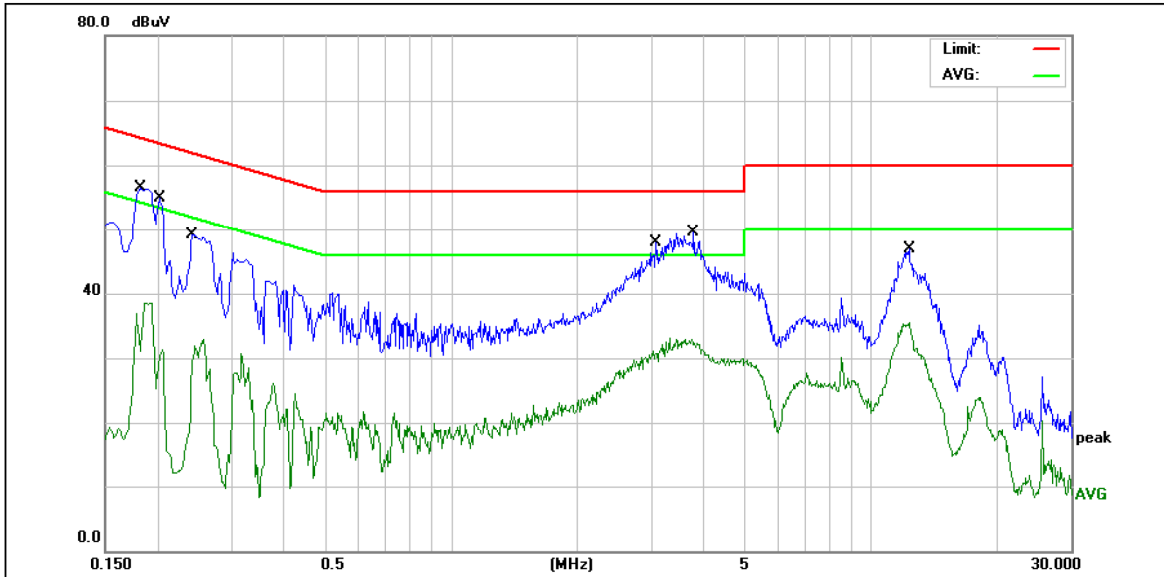




Service No.:	114035791-NCC	Test Distance:	3m
Test Standard:	NCC Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2015/11/3 19:46:36
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	Bluetooth module	Temp.(°C)/Hum.(%):	19.5(°C)/67%
Model No.:	BM70abcSeFC2,RN4870	Test Engineer:	George Yang
Test Mode:	2440-RX		
Remark:			

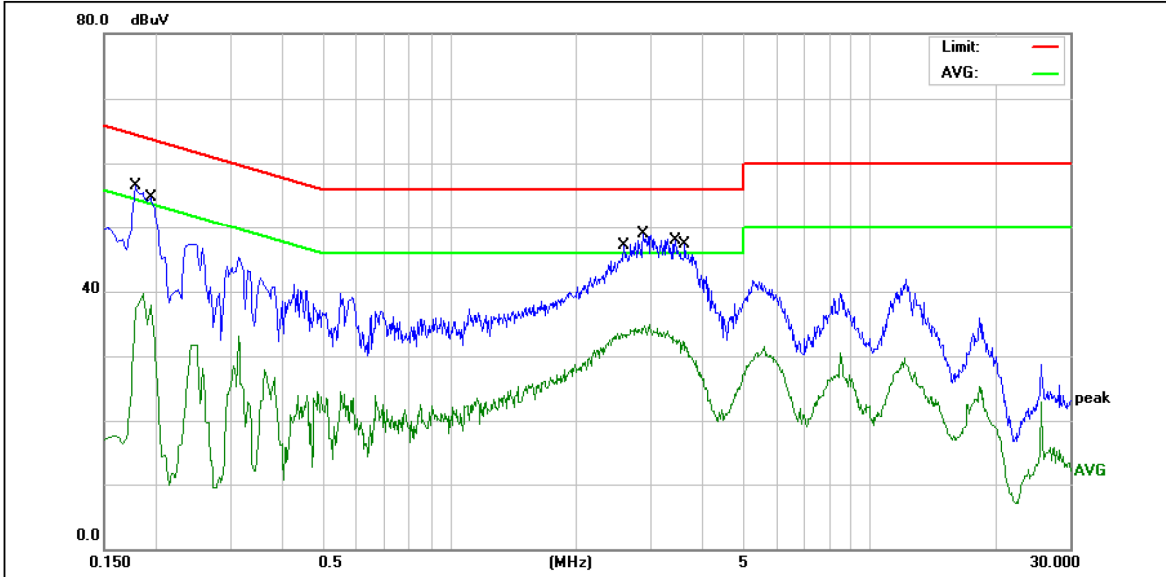
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	71.7100	-18.64	42.86	24.22	40.00	-15.78	QP	100	251	
2	115.3600	-13.27	41.33	28.06	43.50	-15.44	QP	100	273	
3	167.7400	-14.60	43.78	29.18	43.50	-14.32	QP	100	174	
4	500.4500	-7.30	36.29	28.99	46.00	-17.01	QP	100	187	
5	566.4100	-6.66	36.72	30.06	46.00	-15.94	QP	100	140	
6	996.1200	-0.03	33.69	33.66	54.00	-20.34	QP	100	310	

# Mains Spurious Emissions



Service No.: 114035791  
 Test Standard: FCC Class B Conduction(QP)  
 Test item: Conducted Emission Phase: L1  
 Applicant: Microchip Temp.(°C)/Hum.(%): 23.7(°C) / 51 %  
 Product: Bluetooth Module Power Rating: DC 5V  
 Model No.: BM70 Test Engineer: Sam Su  
 Test Mode: Normal link  
 Remark:

No.	Frequency (MHz)	Factor ()	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1819	9.63	45.20	54.83	64.39	-9.56	QP	P	
2	0.1819	9.63	26.45	36.08	54.39	-18.31	AVG	P	
3	0.2020	9.63	40.53	50.16	63.52	-13.36	QP	P	
4	0.2020	9.63	17.14	26.77	53.52	-26.75	AVG	P	
5	0.2420	9.63	36.74	46.37	62.02	-15.65	QP	P	
6	0.2420	9.63	18.96	28.59	52.02	-23.43	AVG	P	
7	3.0900	9.67	29.69	39.36	56.00	-16.64	QP	P	
8	3.0900	9.67	19.15	28.82	46.00	-17.18	AVG	P	
9	3.7860	9.66	32.05	41.71	56.00	-14.29	QP	P	
10	3.7860	9.66	20.95	30.61	46.00	-15.39	AVG	P	
11	12.3380	9.79	29.99	39.78	60.00	-20.22	QP	P	
12	12.3380	9.79	23.04	32.83	50.00	-17.17	AVG	P	



Service No.: 114035791  
 Test Standard: FCC Class B Conduction(QP)  
 Test item: Conducted Emission Phase: N  
 Applicant: Microchip Temp.(°C)/Hum.(%): 23.7(°C) / 51 %  
 Product: Bluetooth Module Power Rating: DC 5V  
 Model No.: BM70 Test Engineer: Sam Su  
 Test Mode: Normal link  
 Remark:

No.	Frequency (MHz)	Factor ()	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1780	9.65	44.14	53.79	64.57	-10.78	QP	P	
2	0.1780	9.65	25.84	35.49	54.57	-19.08	AVG	P	
3	0.1940	9.65	41.88	51.53	63.86	-12.33	QP	P	
4	0.1940	9.65	22.43	32.08	53.86	-21.78	AVG	P	
5	2.5980	9.67	30.61	40.28	56.00	-15.72	QP	P	
6	2.5980	9.67	22.78	32.45	46.00	-13.55	AVG	P	
7	2.8900	9.68	31.75	41.43	56.00	-14.57	QP	P	
8	2.8900	9.68	23.31	32.99	46.00	-13.01	AVG	P	
9	3.4420	9.69	30.06	39.75	56.00	-16.25	QP	P	
10	3.4420	9.69	21.09	30.78	46.00	-15.22	AVG	P	
11	3.6260	9.69	29.52	39.21	56.00	-16.79	QP	P	
12	3.6260	9.69	19.71	29.40	46.00	-16.60	AVG	P	