

# Test Report No.50213901 50213903 001

## Appendix D: Radiated and Mains Spurious Emission Data

(File: 50213901 50213903AppendixD)

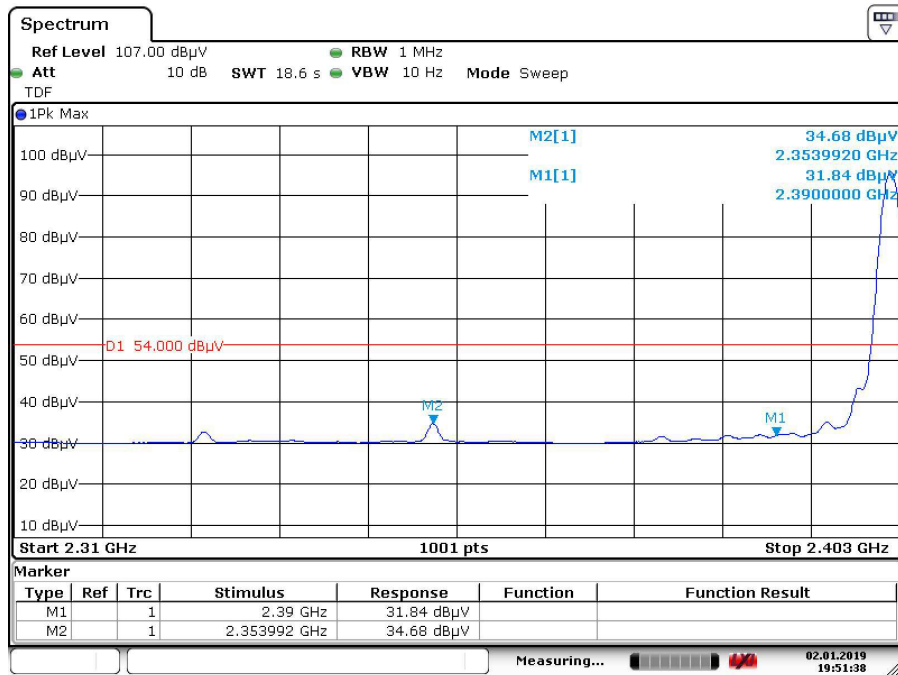
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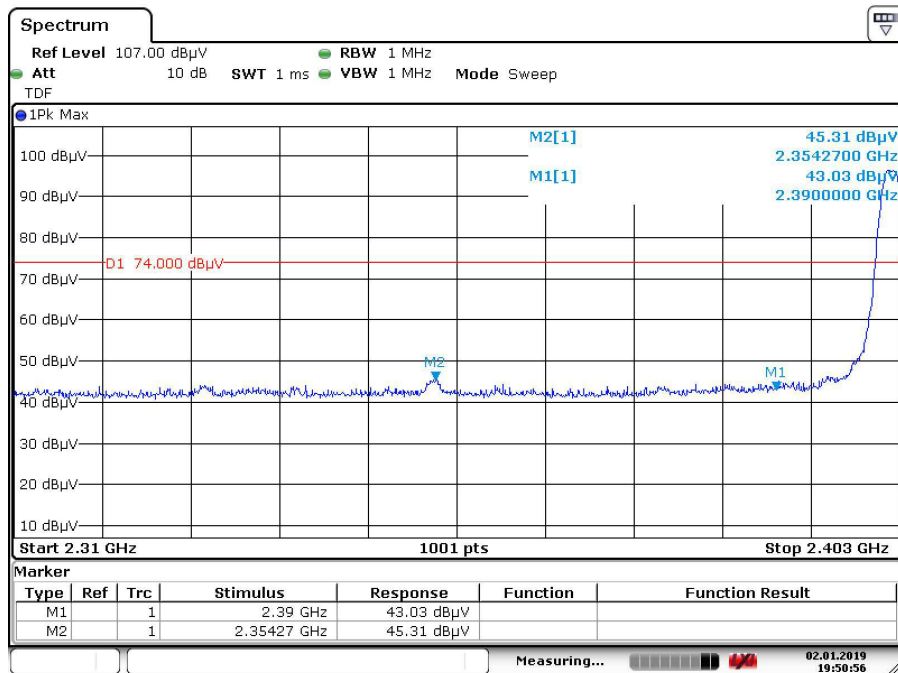
# Spurious Emissions, Band Edges, 2.35-2.5G

## Radiated Bandedge (GFSK)

Low Channel (Hor)



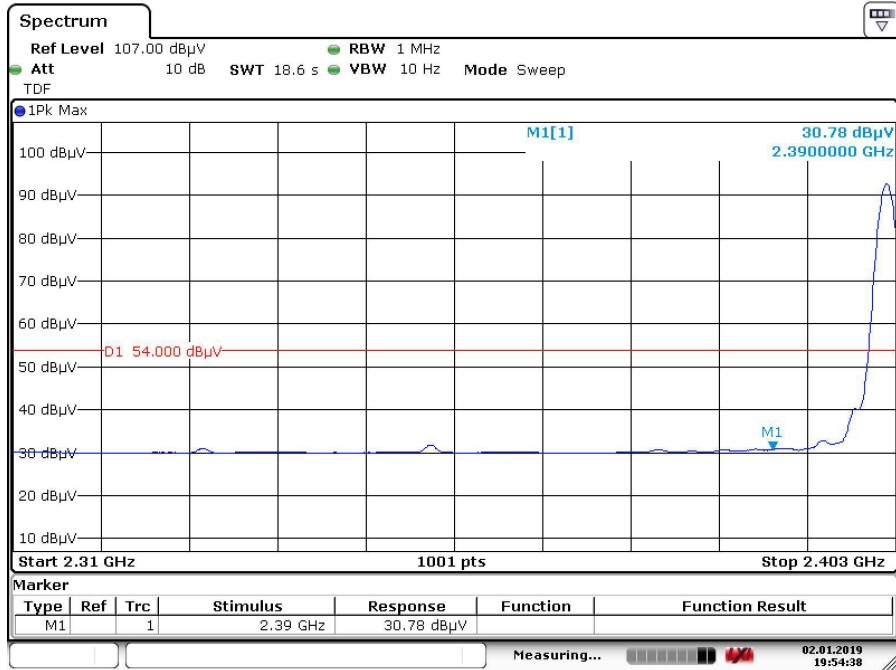
Date: 2.JAN.2019 19:51:38



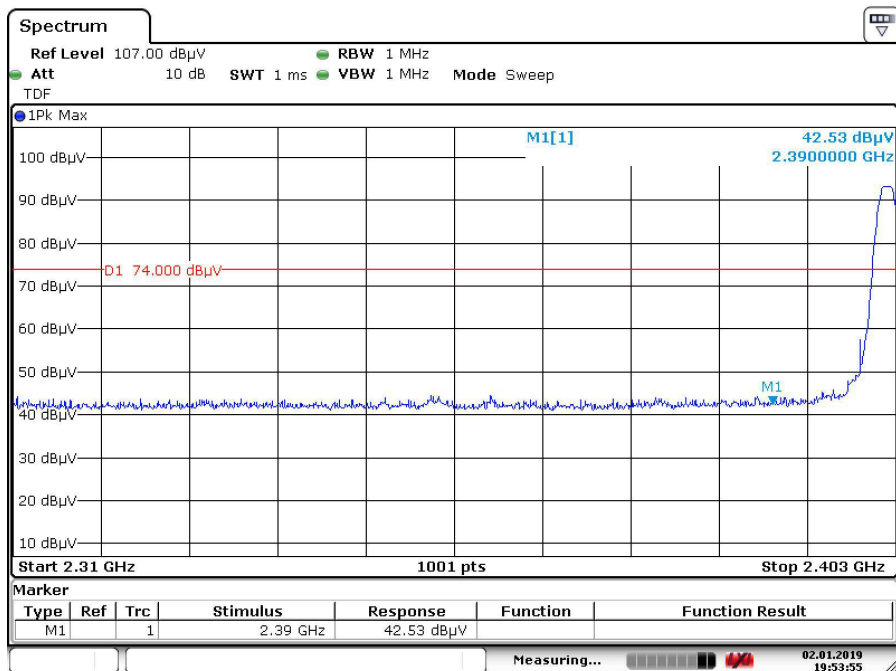
Date: 2.JAN.2019 19:50:56

# Spurious Emissions, Band Edge, 2.35-2.5G

## Low Channel (Ver)



Date: 2.JAN.2019 19:54:38

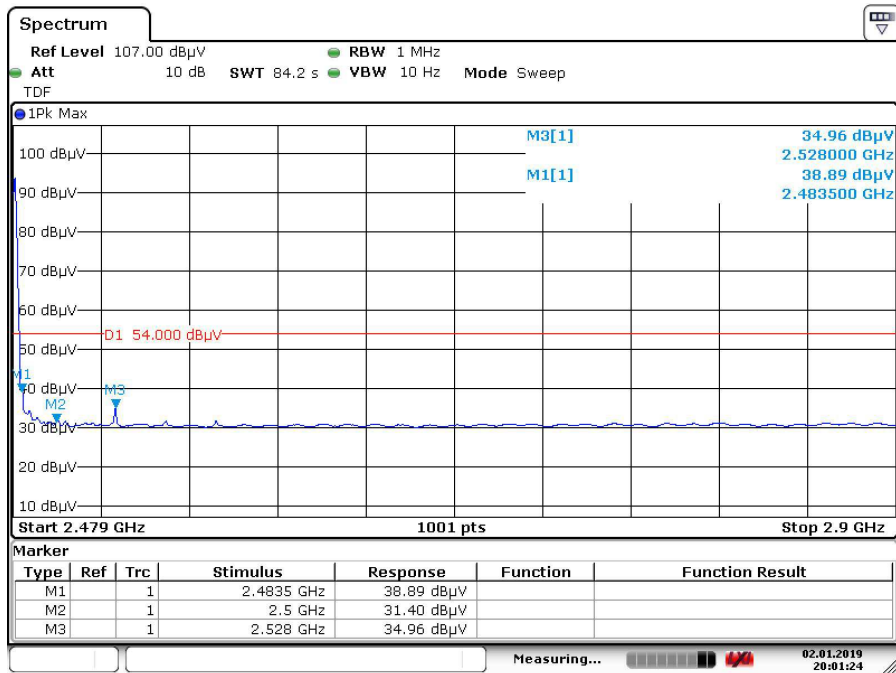


Date: 2.JAN.2019 19:53:54

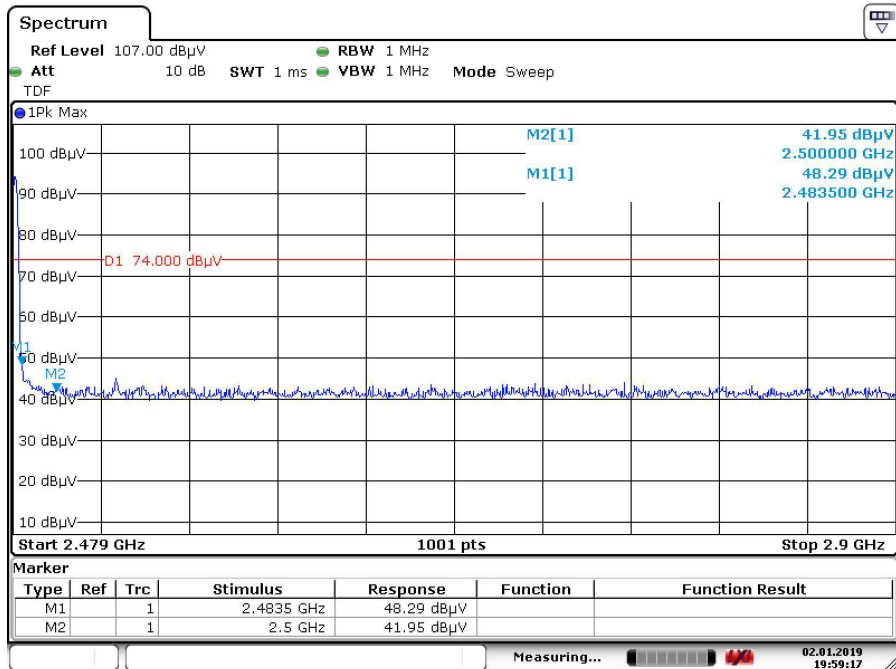
## Spurious Emissions, Band Edge, 2.35-2.5G

# Radiated Bandedge (GFSK)

## High Channel (Hor)



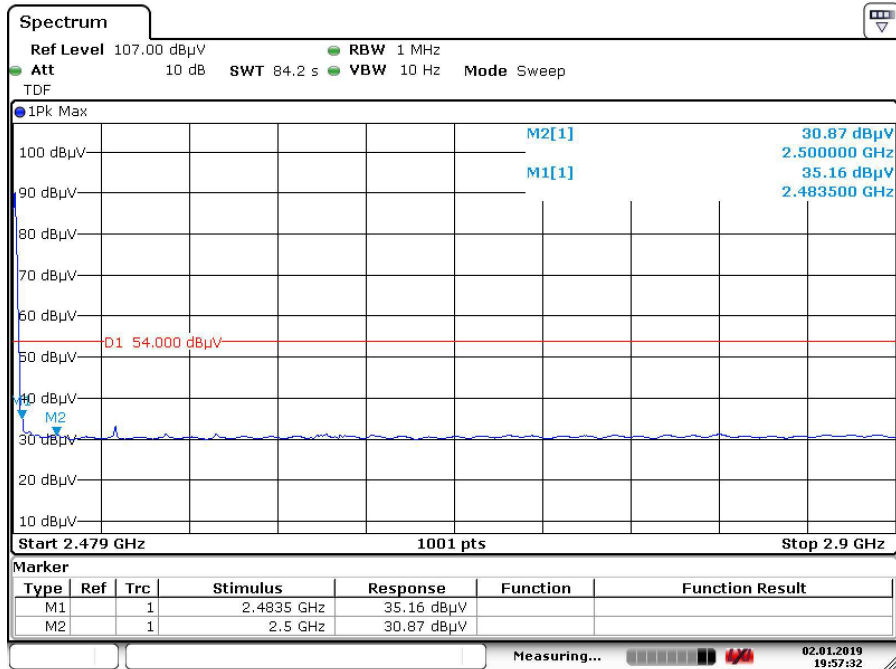
Date: 2.JAN.2019 20:01:24



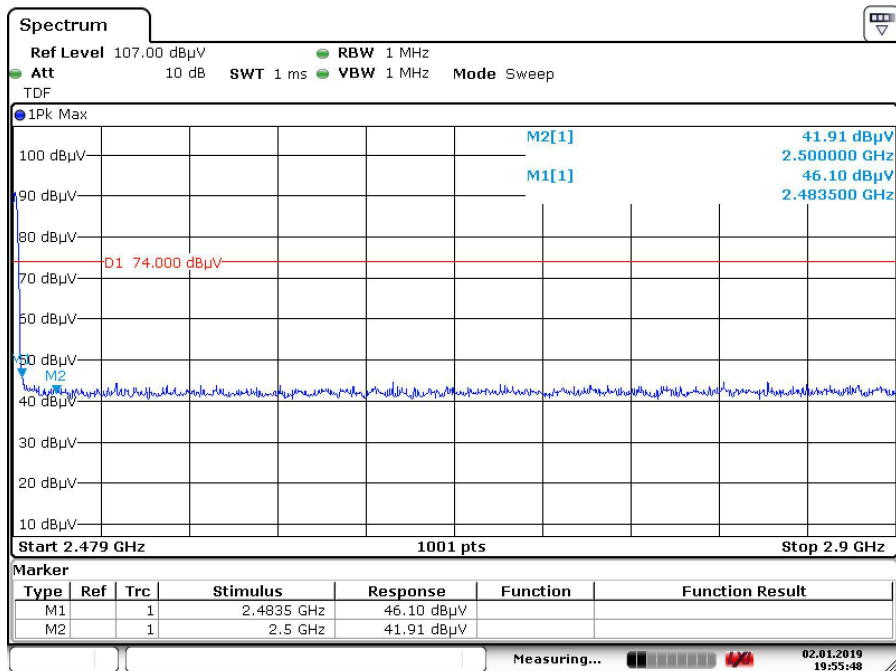
Date: 2.JAN.2019 19:59:17

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

# High Channel (Ver)



Date: 2.JAN.2019 19:57:31



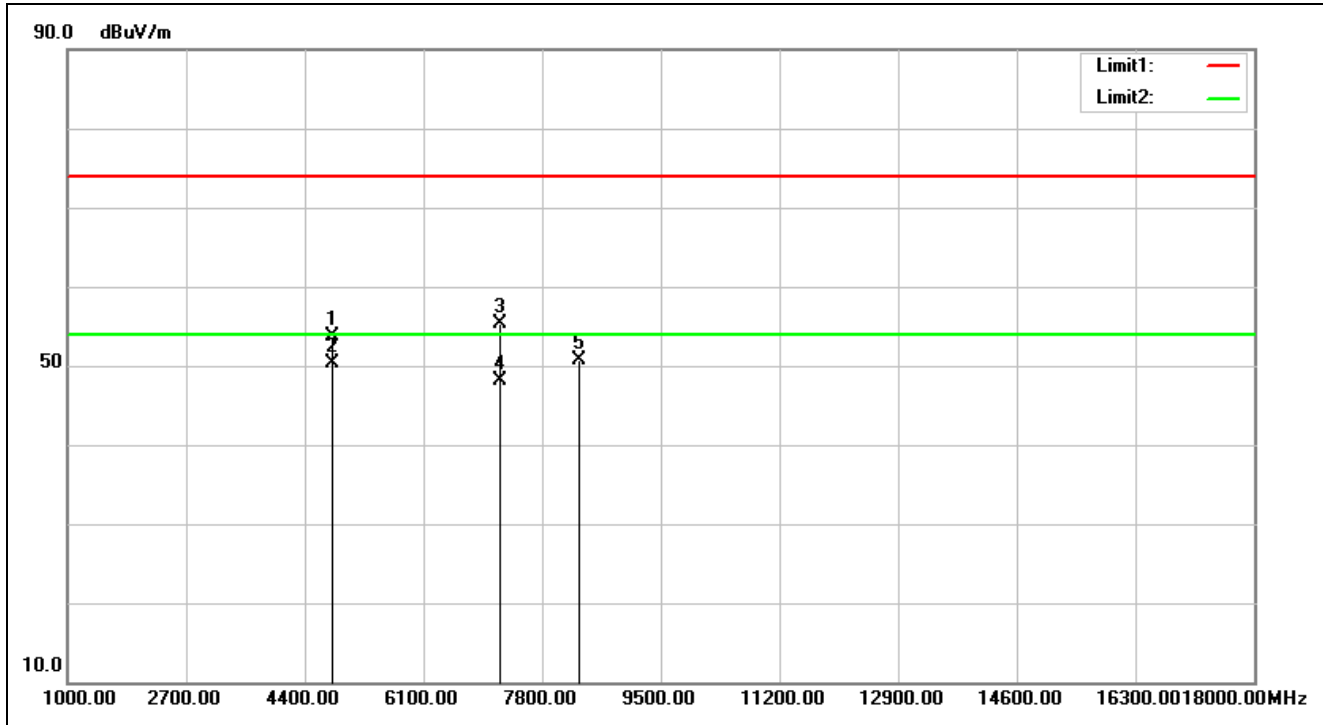
Date: 2.JAN.2019 19:55:48

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

# Spurious Emissions, TX Mode, 1-18G

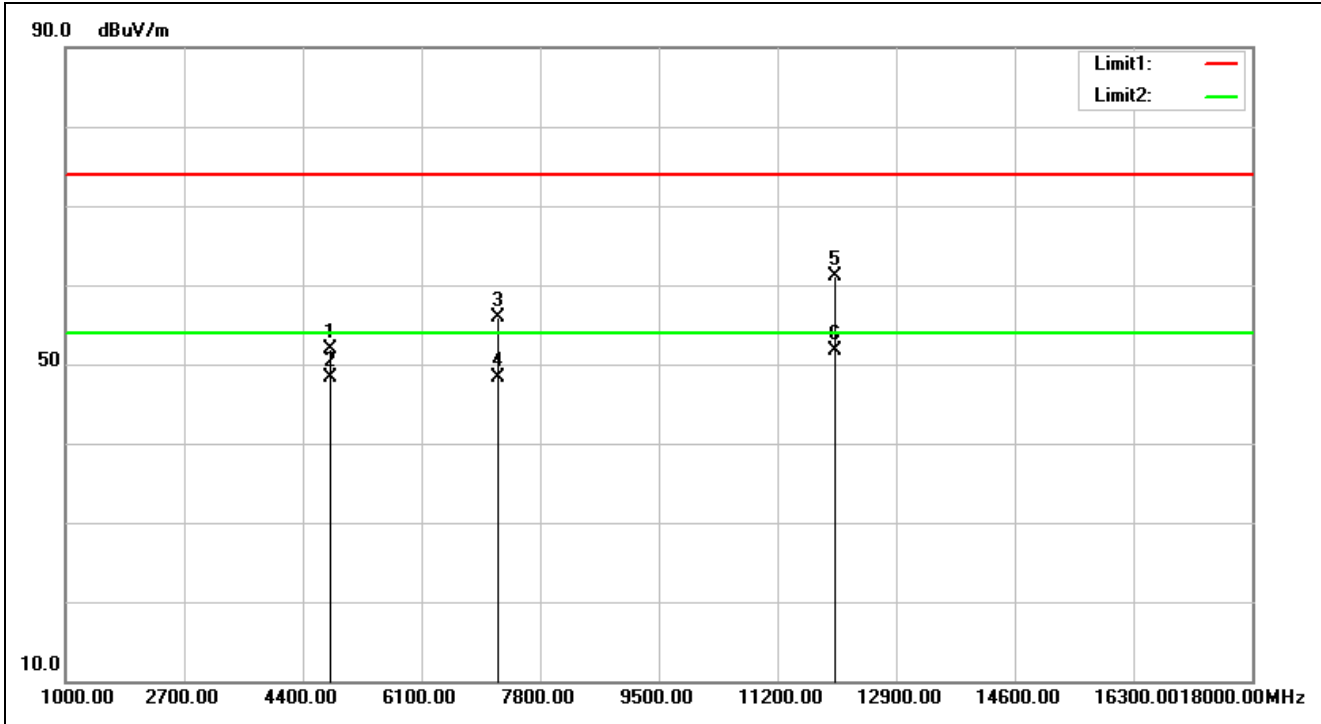


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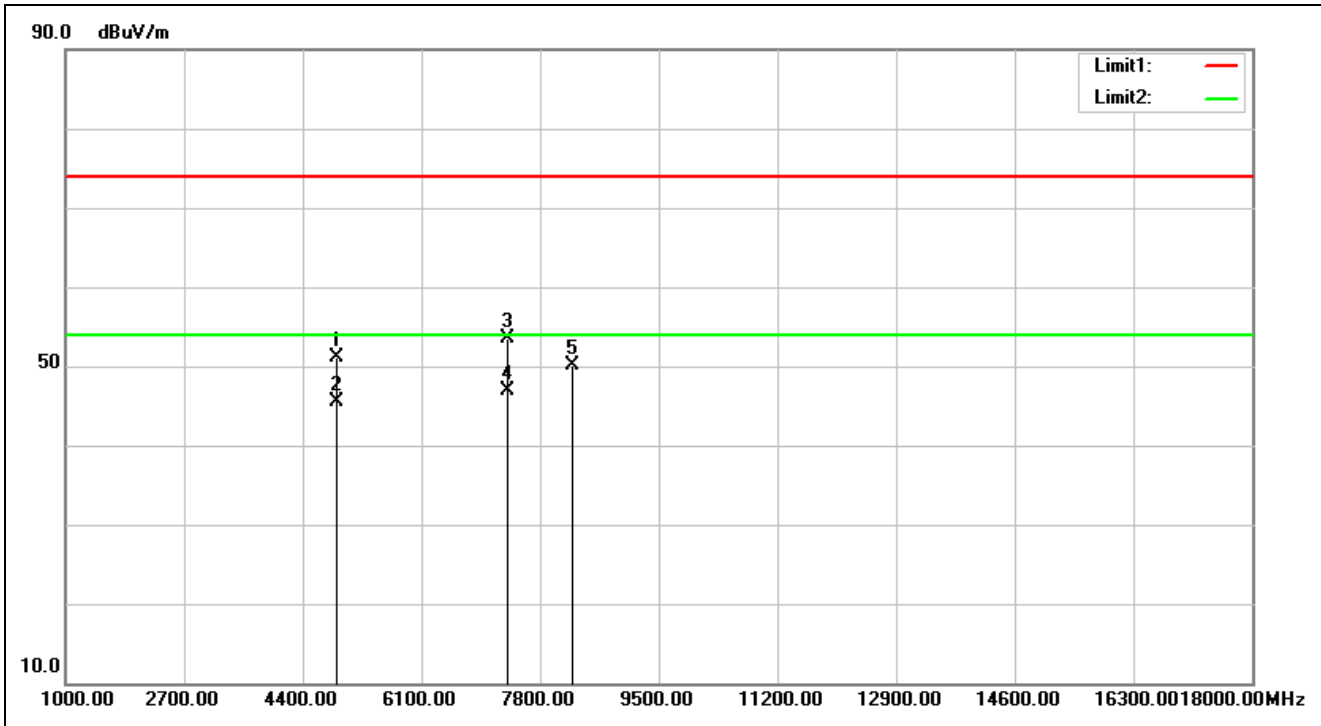
<b>Service No.:</b>	114083792(RYB080I)_NCC_LE	<b>Test Distance:</b>	3m
<b>Test Standard:</b>	NCC Above 1G PEAK	<b>Ant. Polarization:</b>	Horizontal
<b>Test item:</b>	Radiation Emission	<b>Test Time:</b>	2018/12/28 19:10:07
<b>Applicant:</b>	REYEX	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Bluetooth Module	<b>Temp.(°C)/Hum.(%):</b>	22.3(°C)/51%
<b>Model No.:</b>	RYB080I	<b>Test Engineer:</b>	Curry Chen
<b>Test Mode:</b>	TX-2402		
<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	-2.64	56.26	53.62	74.00	-20.38	peak	100	248	
2	4804.000	-2.64	52.93	50.29	54.00	-3.71	AVG	100	248	
3	7206.000	5.26	49.99	55.25	74.00	-18.75	peak	100	227	
4	7206.000	5.26	42.94	48.20	54.00	-5.80	AVG	100	227	
5	8327.000	6.30	44.50	50.80	74.00	-23.20	peak	100	359	



<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 19:11:00</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2402</b>		
<b>Remark:</b>			

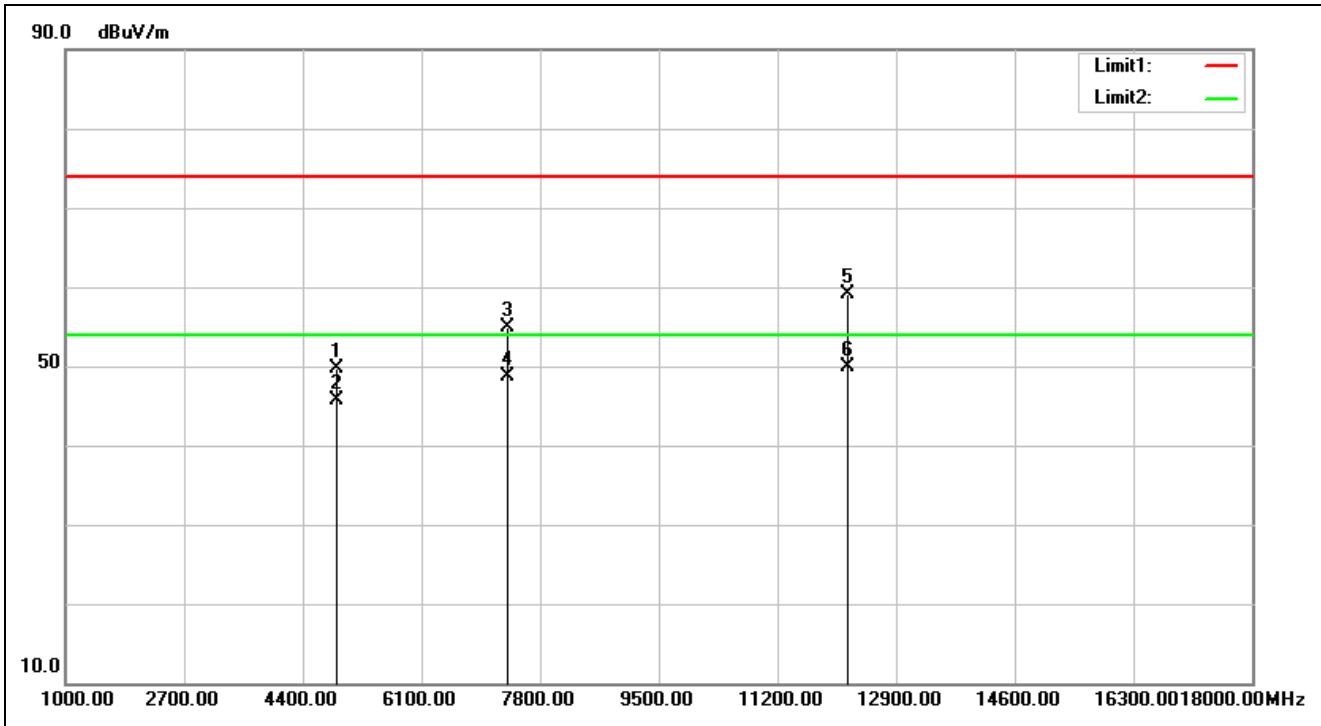
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.64	54.45	51.81	74.00	-22.19	peak	100	205	
2	4804.000	-2.64	50.93	48.29	54.00	-5.71	AVG	100	205	
3	7206.000	5.26	50.63	55.89	74.00	-18.11	peak	100	263	
4	7206.000	5.26	43.01	48.27	54.00	-5.73	AVG	100	263	
5	12010.000	6.54	54.52	61.06	74.00	-12.94	peak	100	284	
6	12010.000	6.54	45.23	51.77	54.00	-2.23	AVG	100	284	



<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 19:21:10</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2440</b>		
<b>Remark:</b>			

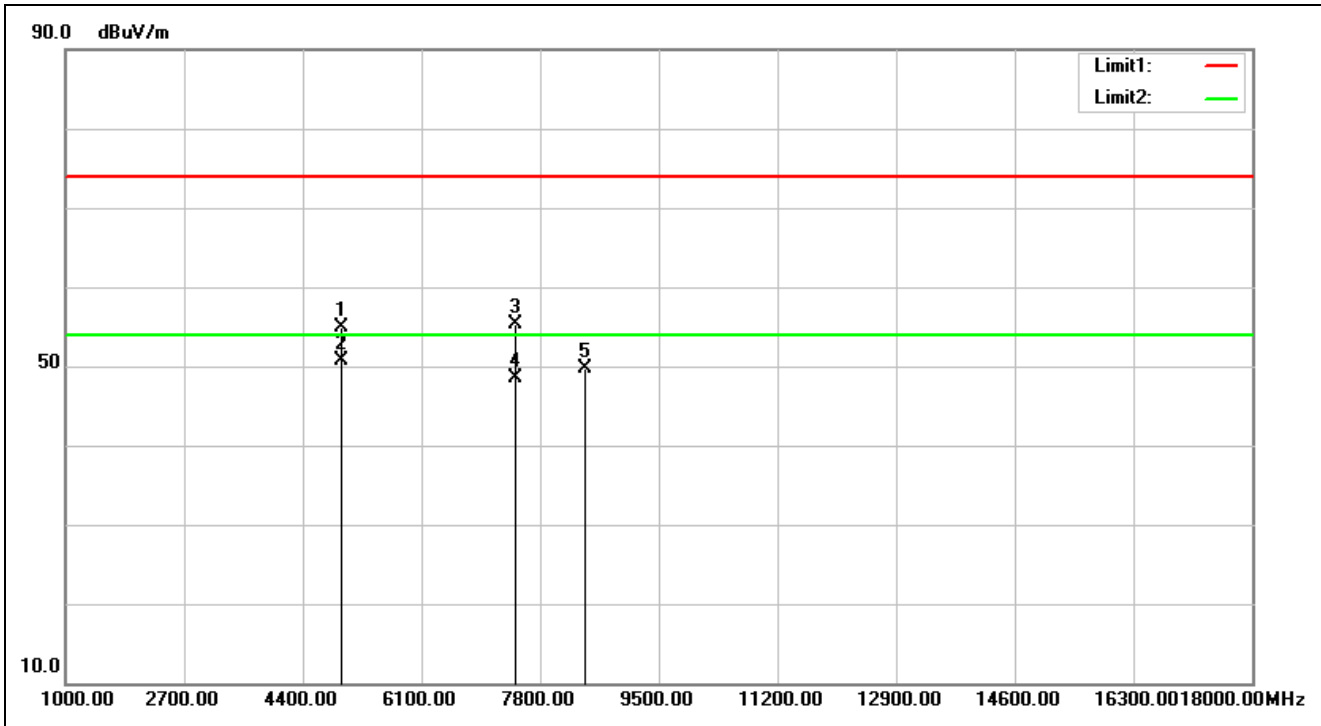
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4880.000	-2.45	53.64	51.19	74.00	-22.81	peak	100	166	
2	4880.000	-2.45	47.89	45.44	54.00	-8.56	AVG	100	166	
3	7320.000	5.54	48.01	53.55	74.00	-20.45	peak	100	46	
4	7320.000	5.54	41.31	46.85	54.00	-7.15	AVG	100	46	
5	8259.000	6.18	44.00	50.18	74.00	-23.82	peak	100	12	





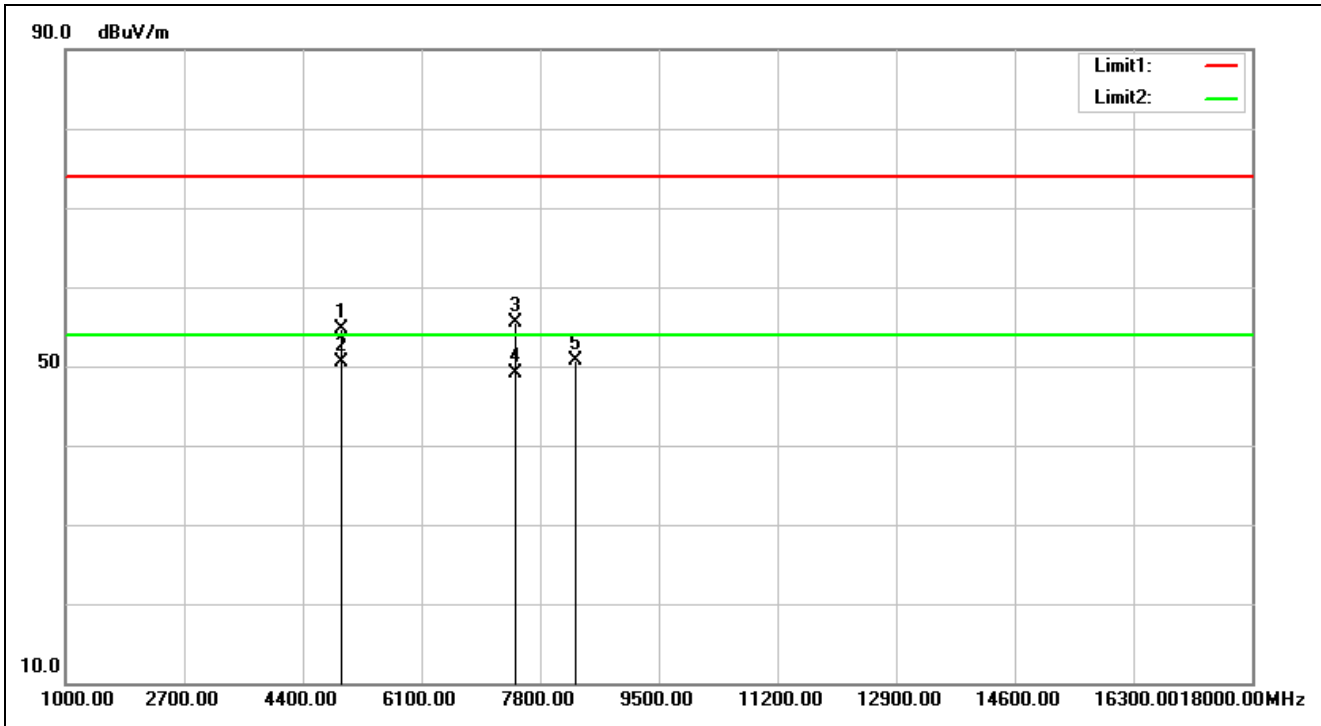
<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2018/12/28 19:22:03</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2440</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	-2.45	52.15	49.70	74.00	-24.30	peak	100	215	
2	4880.000	-2.45	48.16	45.71	54.00	-8.29	AVG	100	215	
3	7320.000	5.54	49.34	54.88	74.00	-19.12	peak	100	262	
4	7320.000	5.54	43.13	48.67	54.00	-5.33	AVG	100	262	
5	12200.000	7.41	51.60	59.01	74.00	-14.99	peak	100	287	
6	12200.000	7.41	42.40	49.81	54.00	-4.19	AVG	100	287	



<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 19:29:19</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2480</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	-2.25	57.15	54.90	74.00	-19.10	peak	100	246	
2	4960.000	-2.25	53.02	50.77	54.00	-3.23	AVG	100	246	
3	7440.000	5.83	49.42	55.25	74.00	-18.75	peak	100	178	
4	7440.000	5.83	42.67	48.50	54.00	-5.50	AVG	100	178	
5	8446.000	6.52	43.21	49.73	74.00	-24.27	peak	100	4	



<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 19:30:11</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2480</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	-2.25	56.93	54.68	74.00	-19.32	peak	100	285	
2	4960.000	-2.25	52.70	50.45	54.00	-3.55	AVG	100	285	
3	7440.000	5.83	49.75	55.58	74.00	-18.42	peak	100	264	
4	7440.000	5.83	43.24	49.07	54.00	-4.93	AVG	100	264	
5	8310.000	6.27	44.46	50.73	74.00	-23.27	peak	100	360	

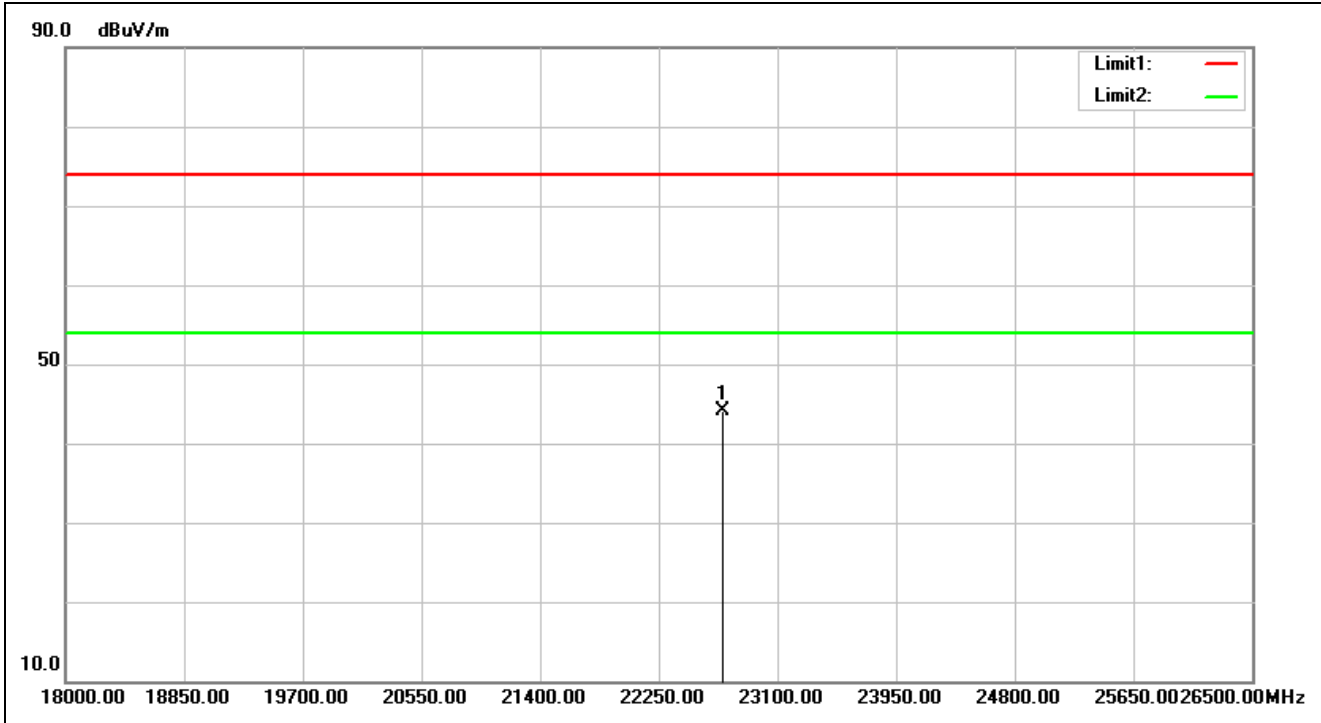
# Spurious Emissions, TX Mode, 18-26G



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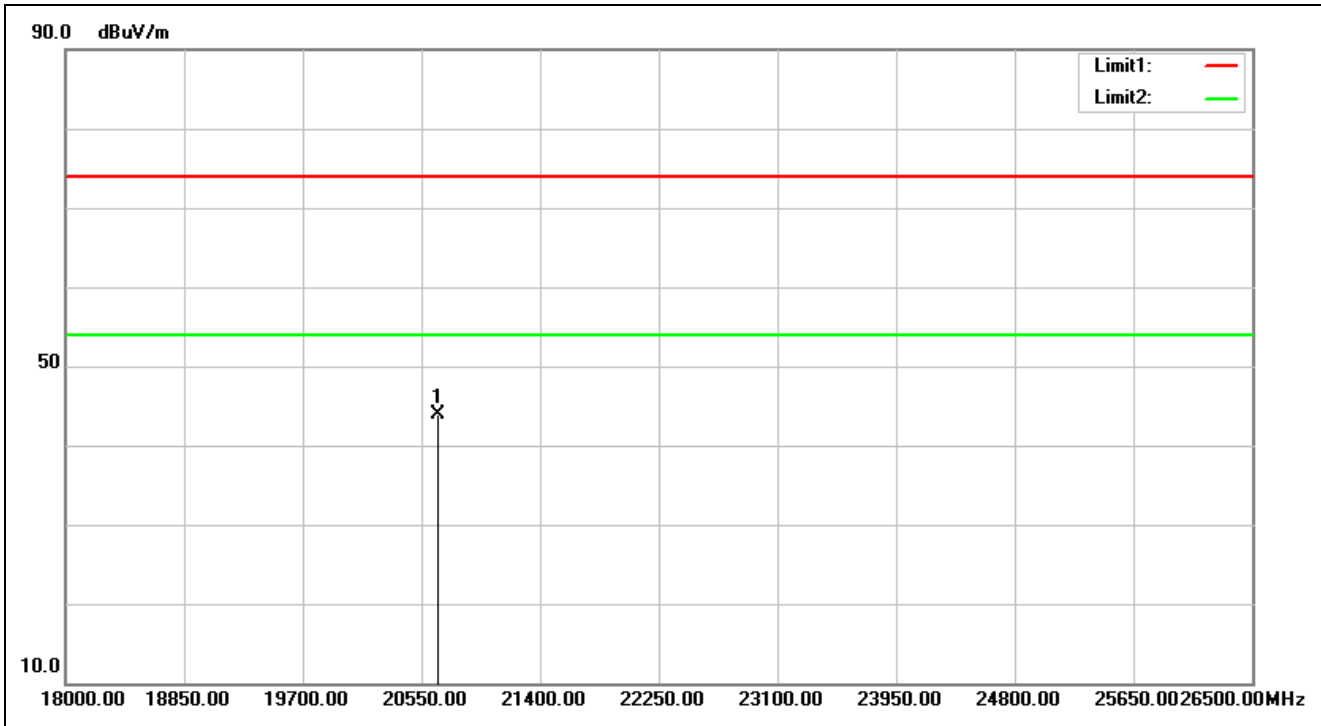
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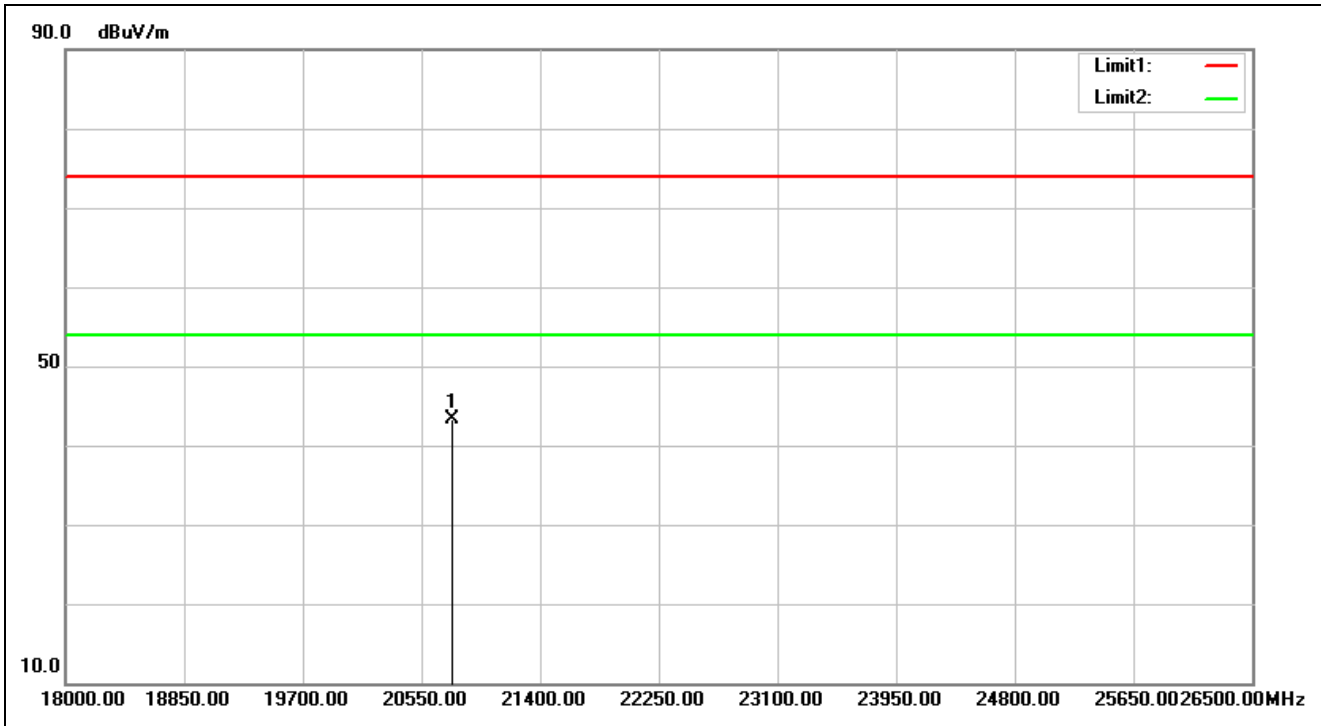
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<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2018/12/28 20:17:44</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2402</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	22709.000	4.98	39.18	44.16	74.00	-29.84	peak		0	



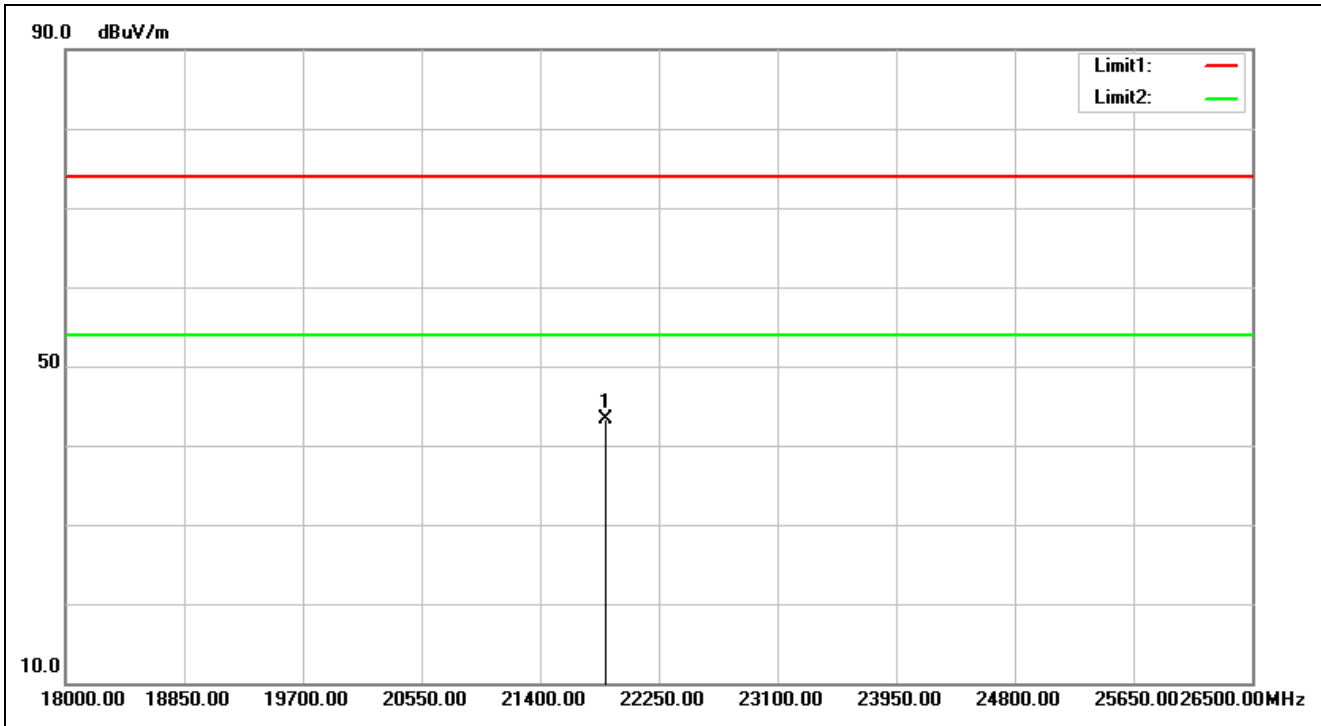
<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</b>	<b>Test Distance:</b>	<b>3m</b>
<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2018/12/28 20:17:50</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2402</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	20669.000	4.39	39.44	43.83	74.00	-30.17	peak			



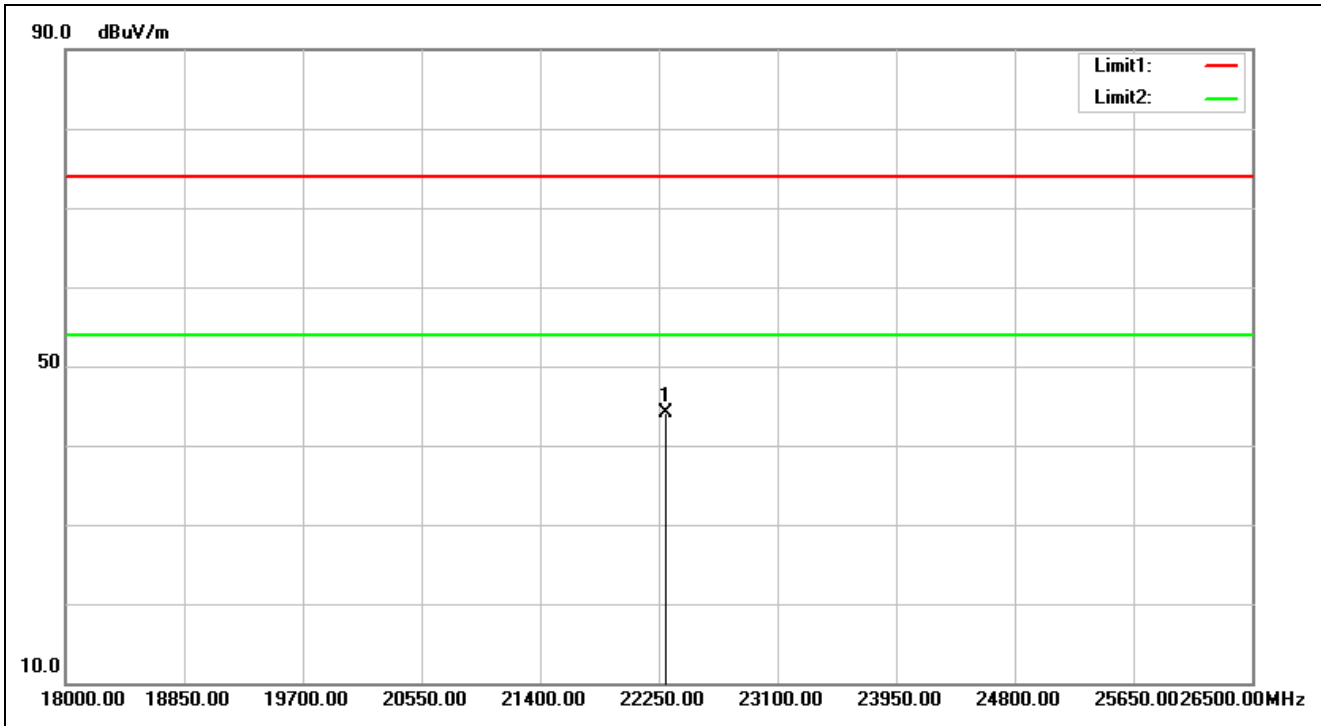
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<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Horizontal</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2018/12/28 20:18:59</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2440</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	20771.000	4.32	39.02	43.34	74.00	-30.66	peak			



<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 20:19:06</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2440</b>		
<b>Remark:</b>			

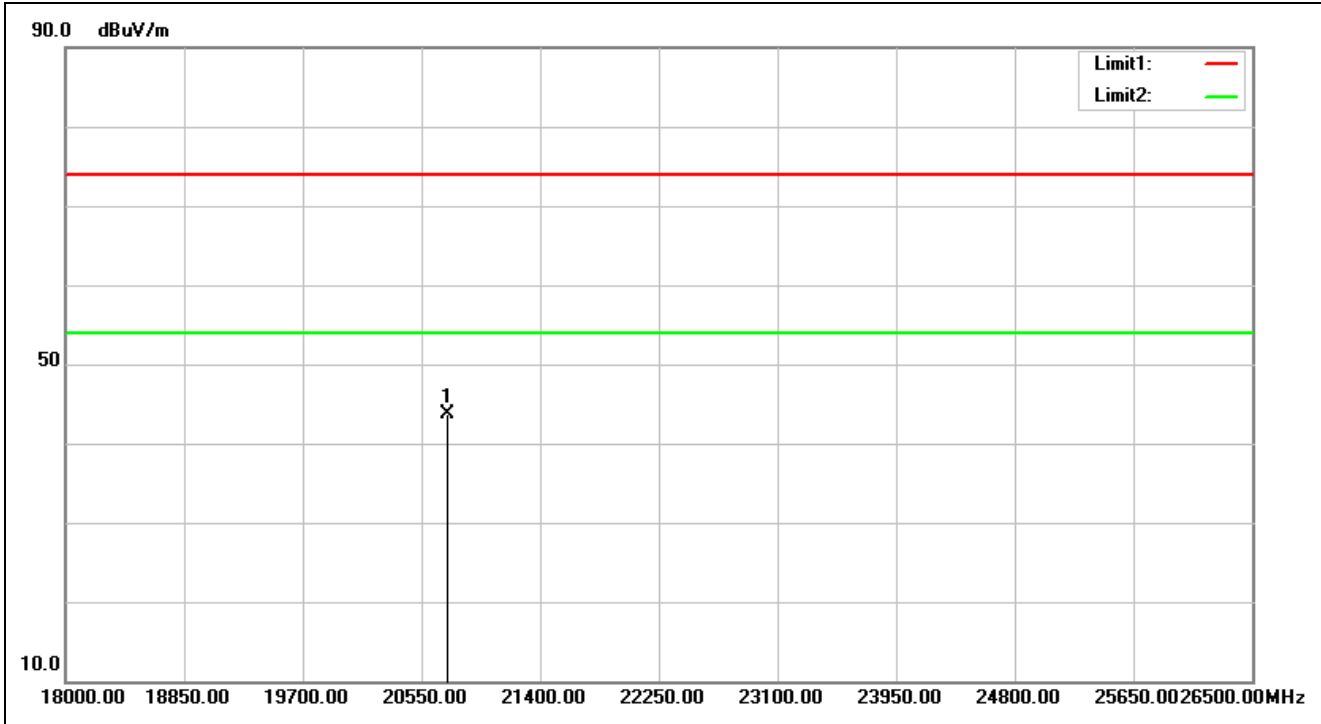
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21867.500	4.75	38.52	43.27	74.00	-30.73	peak			



<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 20:19:25</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2480</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	22301.000	4.80	39.35	44.15	74.00	-29.85	peak			





<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 20:19:31</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2480</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	20737.000	4.35	39.39	43.74	74.00	-30.26	peak			

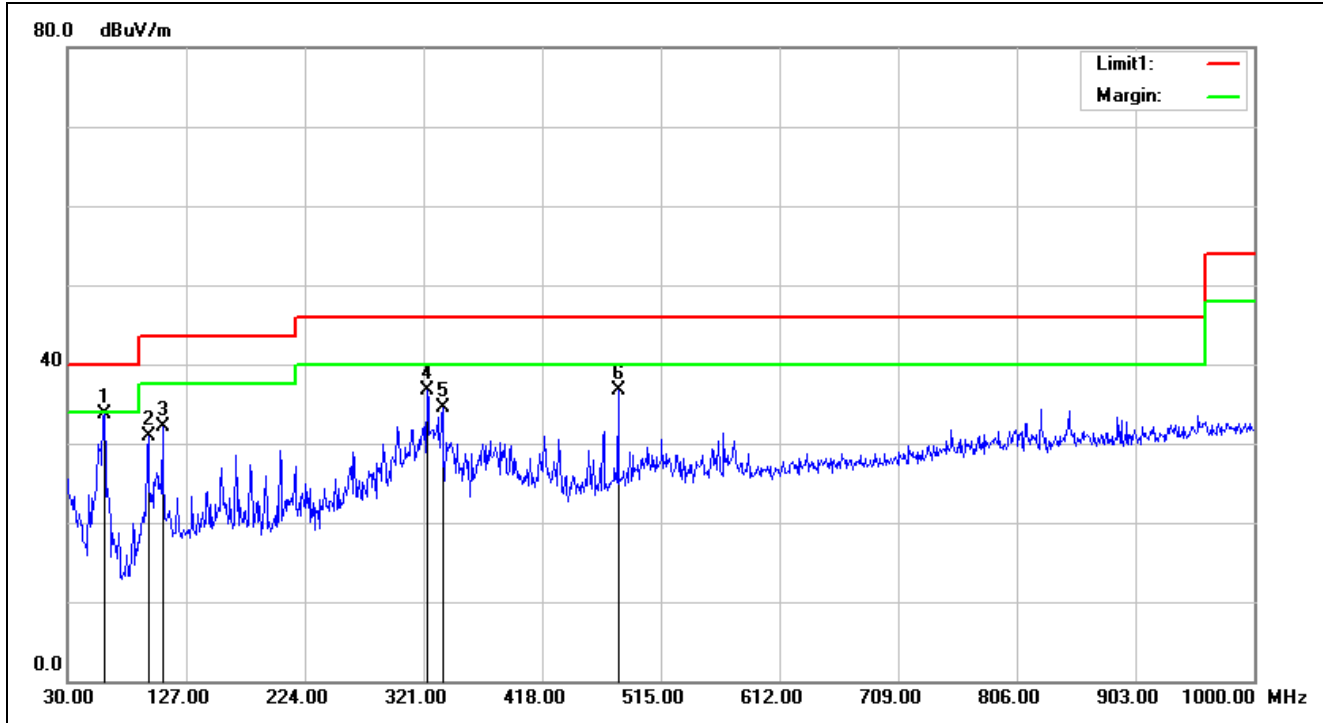
# Spurious Emissions, TX Mode, 30M-1G



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

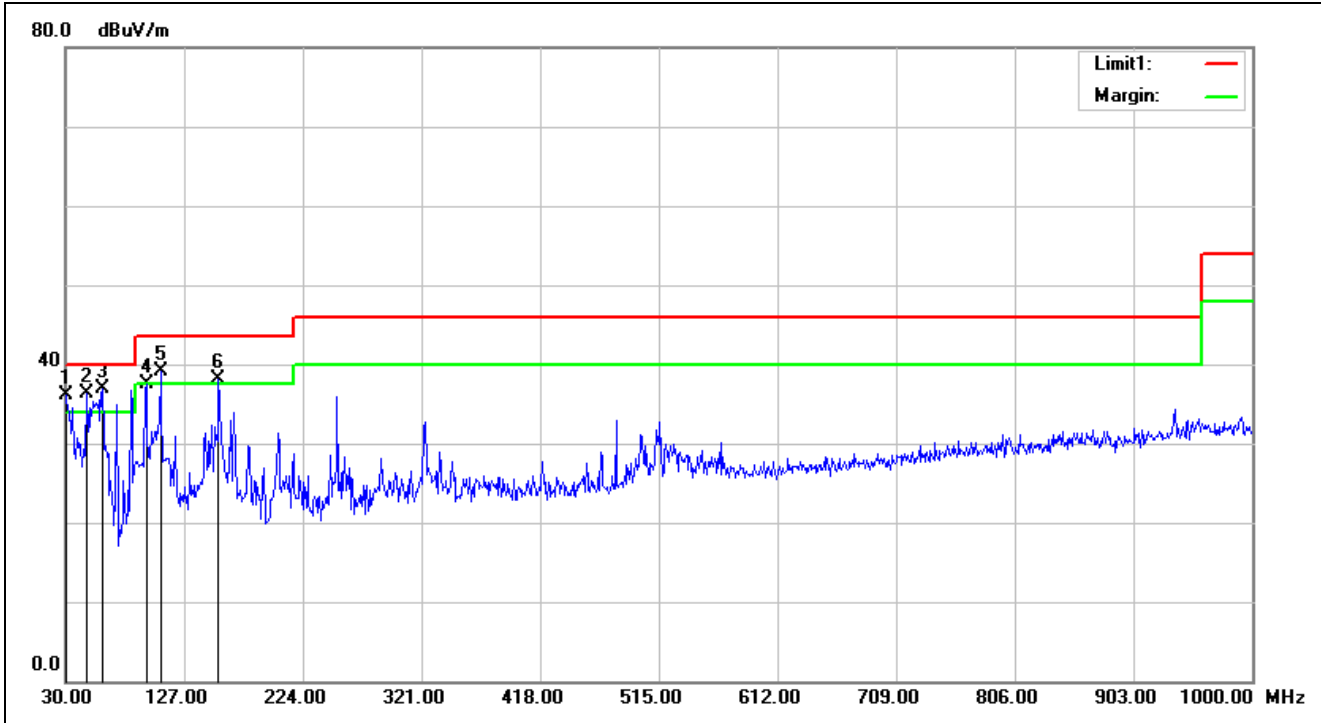
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114083792(RYB080I)_NCC_LE	Test Distance:	3m
Test Standard:	NCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/12/28 20:35:34
Applicant:	REYEX	Test Rating:	DC 3V
Product:	Bluetooth Module	Temp.(°C)/Hum.(%):	22.3(°C)/51%
Model No.:	RYB080I	Test Engineer:	Curry Chen
Test Mode:	TX-2440		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	60.0700	-13.69	47.49	33.80	40.00	-6.20	QP	100	319	
2	95.9599	-10.14	40.99	30.85	43.50	-12.65	QP	100	227	
3	107.5999	-8.49	40.69	32.20	43.50	-11.30	QP	100	240	
4	323.9100	-4.23	41.01	36.78	46.00	-9.22	QP	100	250	
5	336.5199	-3.69	38.16	34.47	46.00	-11.53	QP	100	250	
6	480.0799	-1.52	38.18	36.66	46.00	-9.34	QP	100	204	

# Spurious Emissions, TX Mode, 9k-30M



<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 20:36:27</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>TX-2440</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	30.0000	-0.03	36.17	36.14	40.00	-3.86	QP	100	341	
2	47.4600	-9.91	46.17	36.26	40.00	-3.74	QP	100	256	
3	60.0700	-13.69	50.57	36.88	40.00	-3.12	QP	100	268	
4	95.9600	-10.14	47.73	37.59	43.50	-5.91	QP	100	226	
5	107.6000	-8.49	47.58	39.09	43.50	-4.41	QP	100	206	
6	155.1300	-7.59	45.63	38.04	43.50	-5.46	QP	100	9	

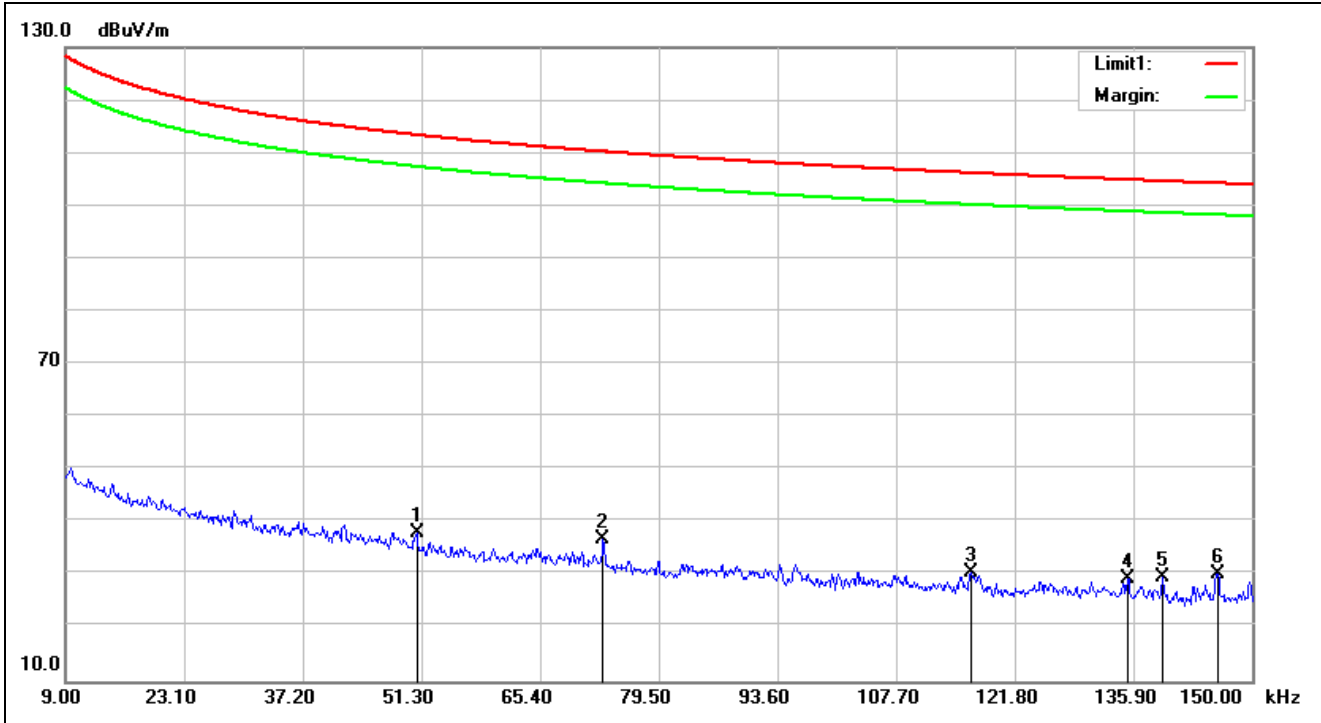
# Spurious Emissions, TX Mode, 9k-30M



TUV Rheinland Taiwan Ltd.

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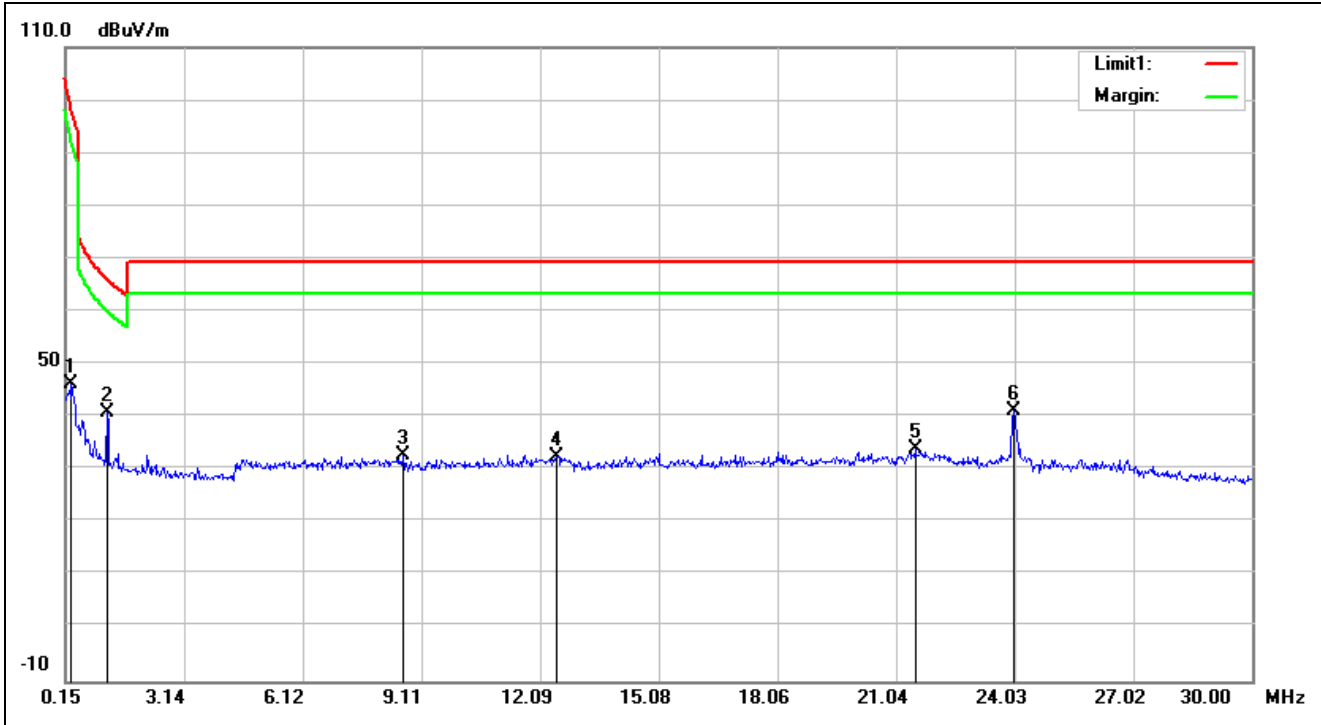
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114083792(RYB080I)_NCC_LE	Test Distance:	3m
Test Standard:	NCC2.8_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2018/12/28 20:43:30
Applicant:	REYEX	Test Rating:	DC 3V
Product:	Bluetooth Module	Temp.(°C)/Hum.(%):	22.3(°C)/51%
Model No.:	RYB080I	Test Engineer:	Curry Chen
Test Mode:	TX-2440		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0507	18.91	19.12	38.03	113.38	-75.35	QP	100	82	
2	0.0728	18.65	18.34	36.99	110.26	-73.27	QP	100	246	
3	0.1165	18.34	12.14	30.48	106.20	-75.72	QP	100	246	
4	0.1351	18.35	10.97	29.32	104.92	-75.60	QP	100	230	
5	0.1394	18.35	11.38	29.73	104.65	-74.92	QP	100	204	
6	0.1459	18.35	11.89	30.24	104.26	-74.02	QP	100	256	

# Spurious Emissions, TX Mode, 9k-30M



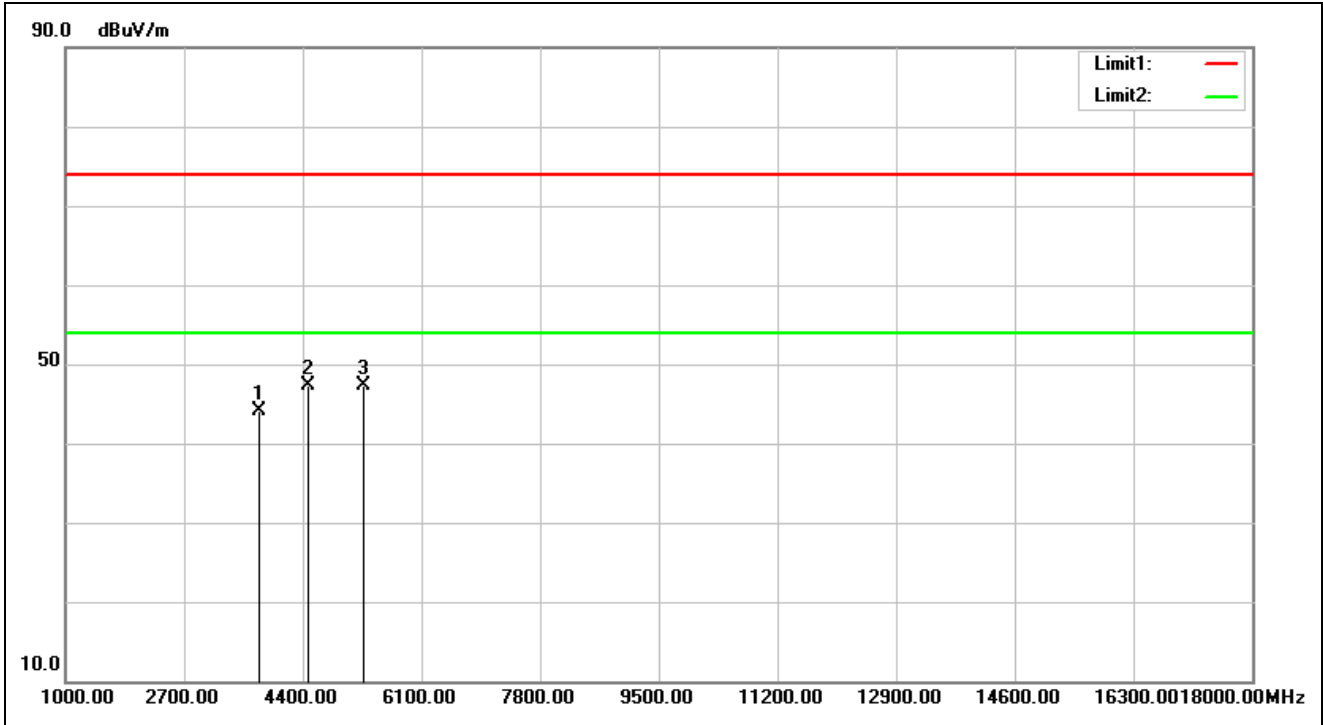
Service No.:	114083792(RYB080I)_NCC_LE	Test Distance:	3m
Test Standard:	NCC2.8_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2018/12/28 20:46:24
Applicant:	REYEX	Test Rating:	DC 3V
Product:	Bluetooth Module	Temp.(°C)/Hum.(%):	22.3(°C)/51%
Model No.:	RYB080I	Test Engineer:	Curry Chen
Test Mode:	TX-2440		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.2992	18.44	27.96	46.40	98.06	-51.66	QP	100	243	
2	1.1947	18.66	22.06	40.72	66.08	-25.36	QP	100	253	
3	8.6572	20.18	12.58	32.76	69.50	-36.74	QP	100	95	
4	12.5077	20.74	11.74	32.48	69.50	-37.02	QP	100	150	
5	21.5226	21.66	12.20	33.86	69.50	-35.64	QP	100	289	
6	24.0001	21.75	19.39	41.14	69.50	-28.36	QP	100	315	

# Spurious Emissions, RX Mode, 1-18G



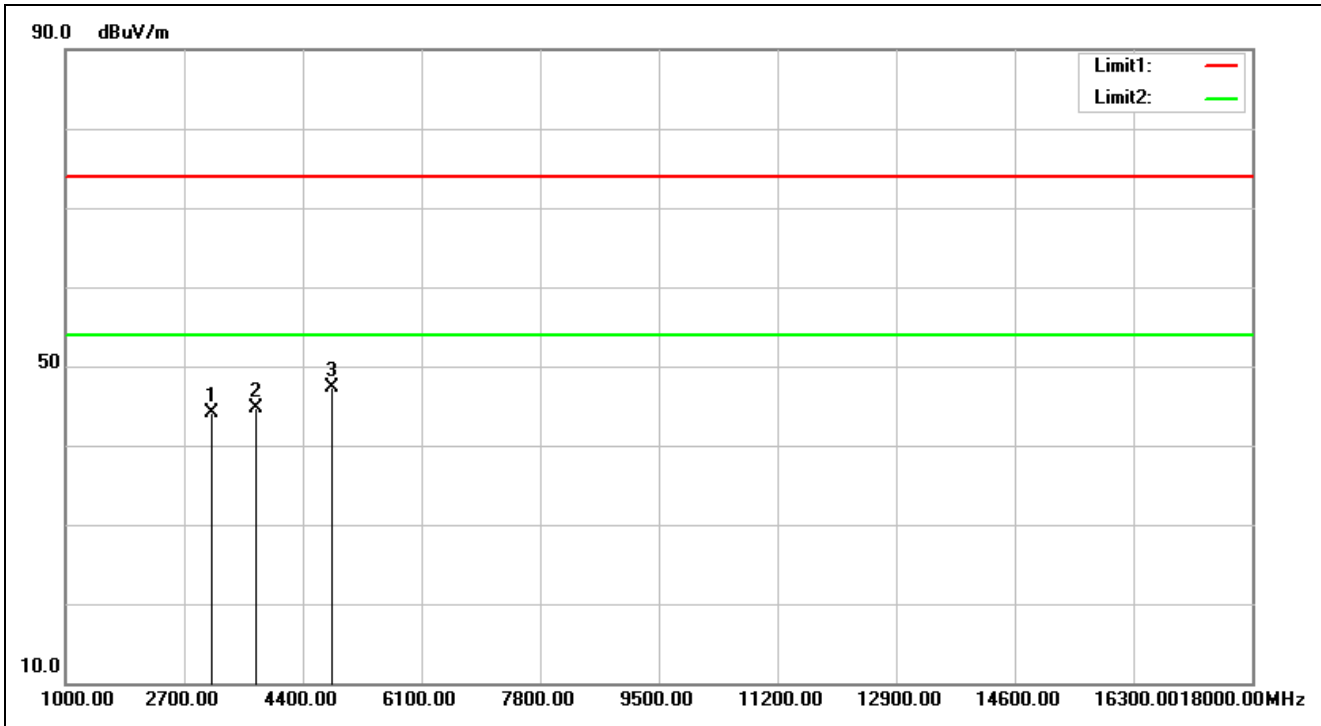
**TUV Rheinland Taiwan Ltd.**  
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 Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 20:02:25</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>RX-2440</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	3771.000	-6.25	50.34	44.09	74.00	-29.91	peak	100	137	
2	4468.000	-4.00	51.26	47.26	74.00	-26.74	peak	100	325	
3	5267.000	-1.97	49.23	47.26	74.00	-26.74	peak	100	359	

# Spurious Emissions, RX Mode, 18-26G



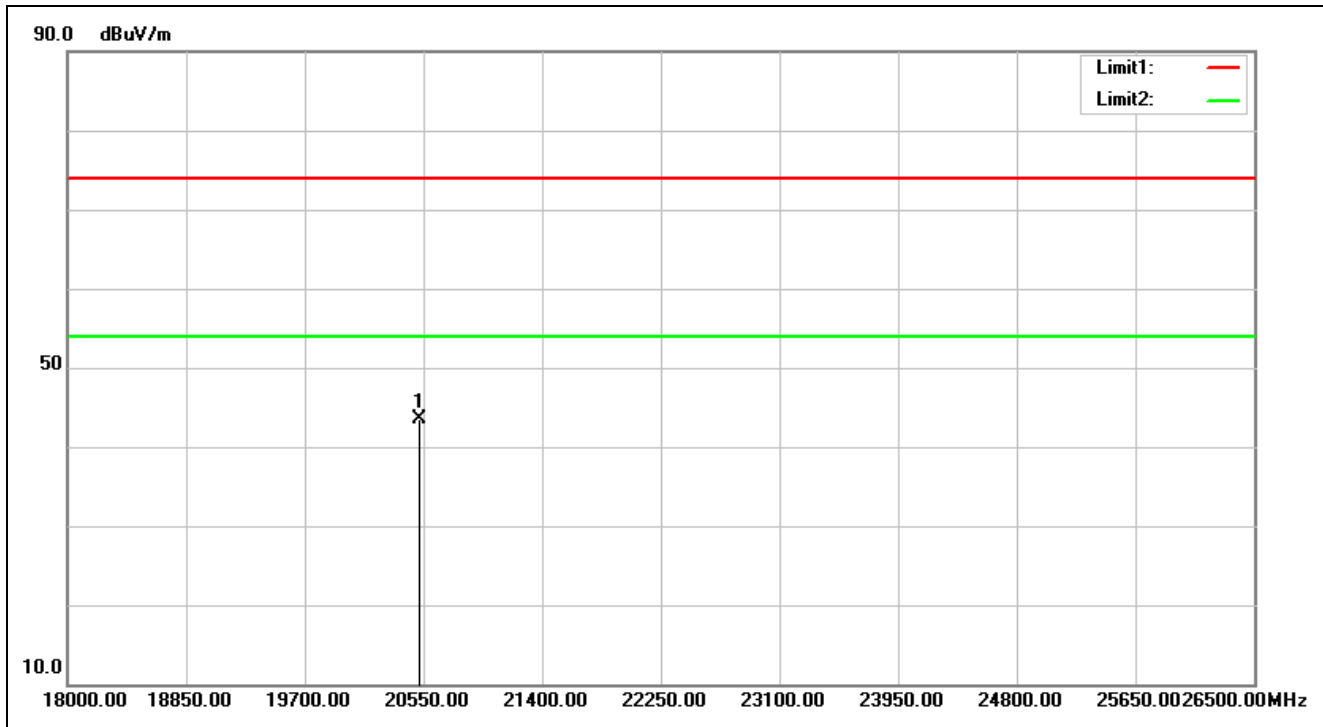
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<b>Test Standard:</b>	<b>NCC Above 1G PEAK</b>	<b>Ant. Polarization:</b>	<b>Vertical</b>
<b>Test item:</b>	<b>Radiation Emission</b>	<b>Test Time:</b>	<b>2018/12/28 20:03:17</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>RX-2440</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	3091.000	-7.19	51.25	44.06	74.00	-29.94	peak	100	104	
2	3737.000	-6.33	50.98	44.65	74.00	-29.35	peak	100	131	
3	4825.000	-3.42	50.74	47.32	74.00	-26.68	peak	100	15	

# Spurious Emissions, RX Mode, 18-26G



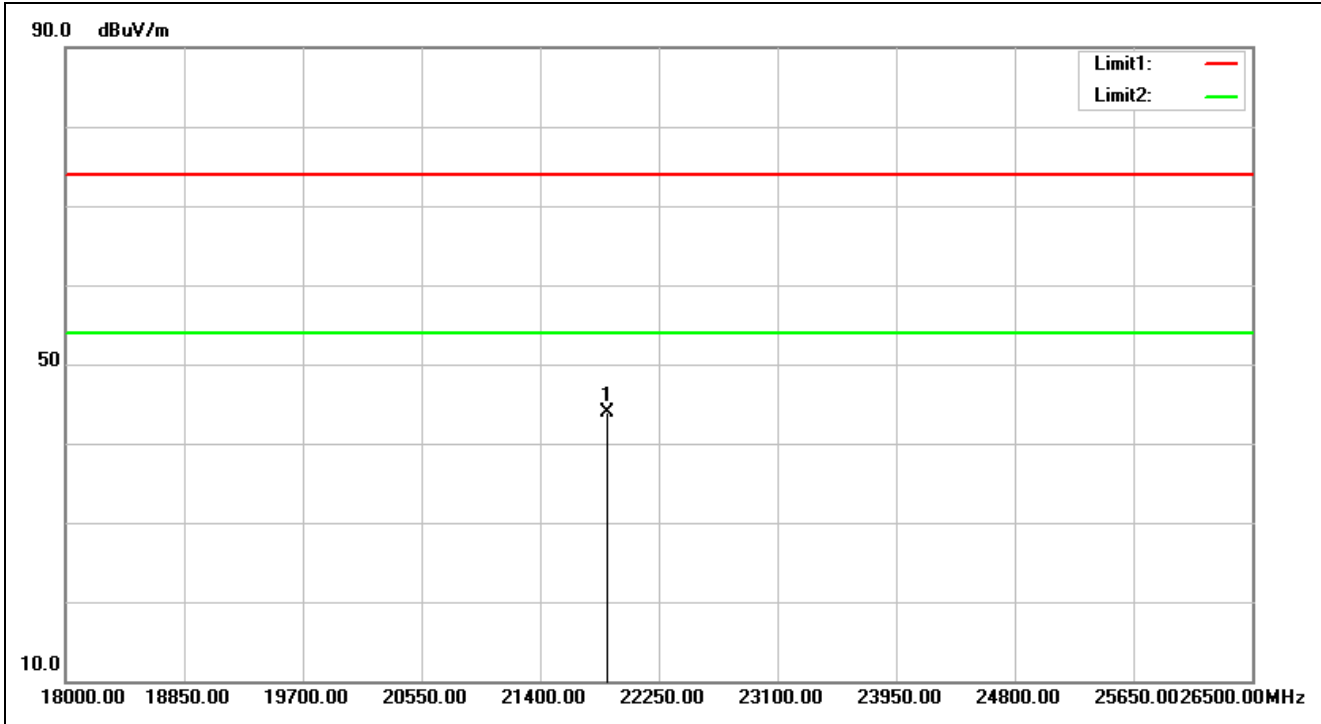
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 Tel:+886-2172-7000 fax:+886-2528-0018



<b>Service No.:</b>	114083792(RYB080I)_NCC_LE	<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>	2018/12/28 20:19:55
<b>Applicant:</b>	REYEX	<b>Test Rating:</b>	DC 3V
<b>Product:</b>	Bluetooth Module	<b>Temp.(°C)/Hum.(%):</b>	22.3(°C)/51%
<b>Model No.:</b>	RYB080I	<b>Test Engineer:</b>	Curry Chen
<b>Test Mode:</b>	RX-2440		
<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	20524.500	4.47	39.06	43.53	74.00	-30.47	peak			





<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 20:20:01</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>RX-2440</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	21876.000	4.77	39.13	43.90	74.00	-30.10	peak			

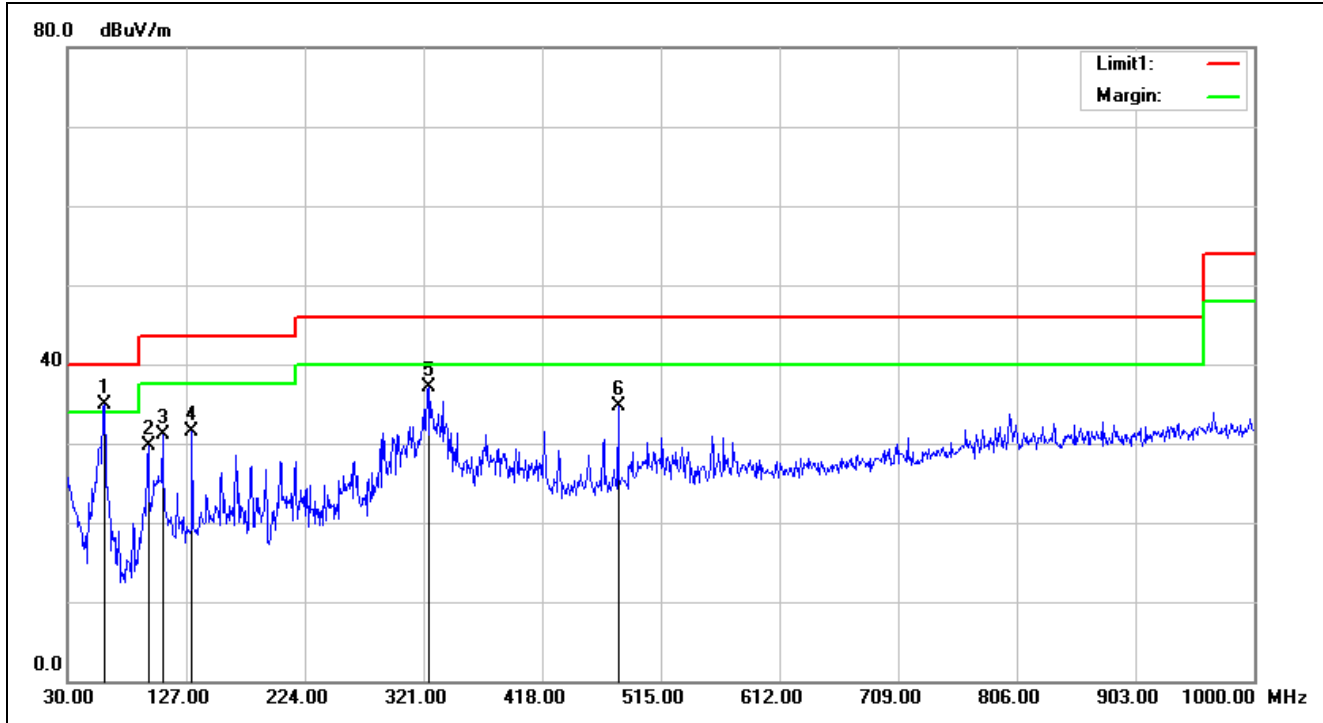
# Spurious Emissions, RX Mode, 30M-1G



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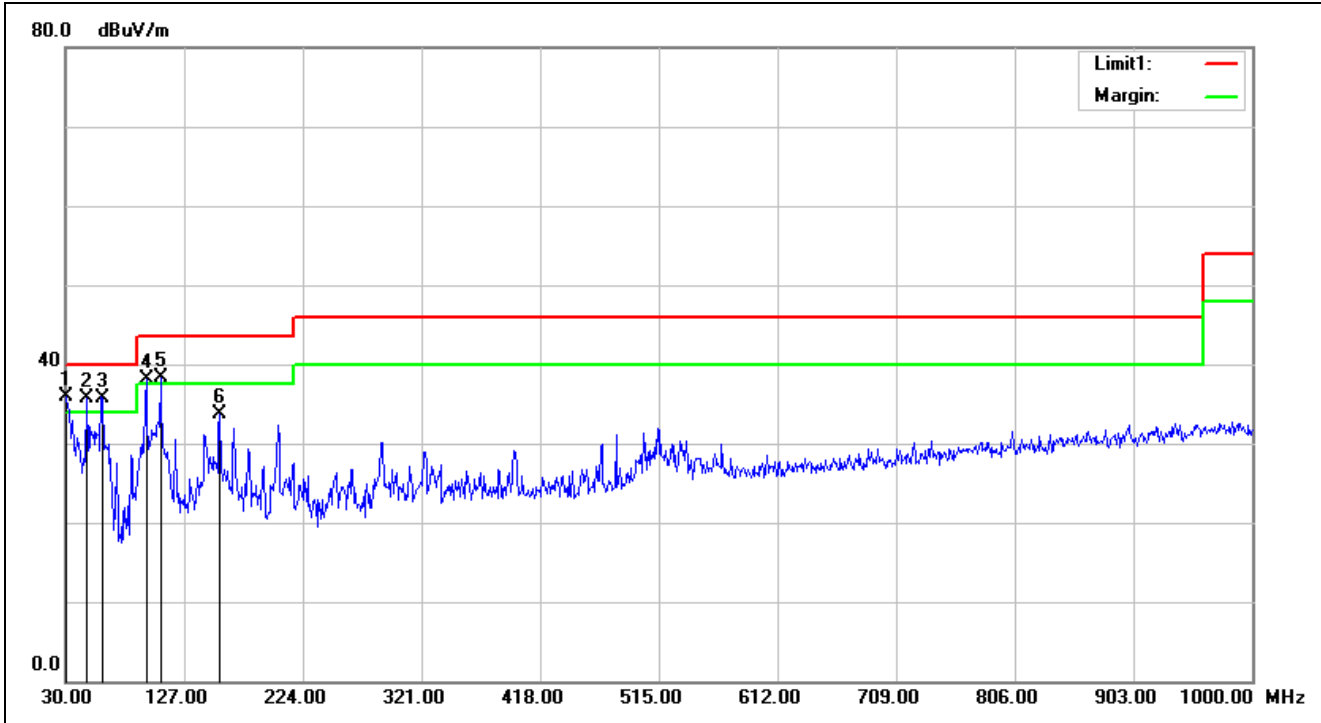
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114083792(RYB080I)_NCC_LE	Test Distance:	3m
Test Standard:	NCC Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/12/28 20:38:22
Applicant:	REYEX	Test Rating:	DC 3V
Product:	Bluetooth Module	Temp.(°C)/Hum.(%):	22.3(°C)/51%
Model No.:	RYB080I	Test Engineer:	Curry Chen
Test Mode:	RX-2440		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	60.0700	-13.69	48.56	34.87	40.00	-5.13	QP	100	295	
2	95.9599	-10.14	39.88	29.74	43.50	-13.76	QP	100	246	
3	107.5999	-8.49	39.67	31.18	43.50	-12.32	QP	100	9	
4	131.8499	-7.06	38.64	31.58	43.50	-11.92	QP	100	233	
5	324.8798	-4.18	41.26	37.08	46.00	-8.92	QP	100	239	
6	480.0799	-1.52	36.16	34.64	46.00	-11.36	QP	100	190	



<b>Service No.:</b>	<b>114083792(RYB080I)_NCC_LE</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>2018/12/28 20:39:15</b>
<b>Applicant:</b>	<b>REYEX</b>	<b>Test Rating:</b>	<b>DC 3V</b>
<b>Product:</b>	<b>Bluetooth Module</b>	<b>Temp.(°C)/Hum.(%):</b>	<b>22.3(°C)/51%</b>
<b>Model No.:</b>	<b>RYB080I</b>	<b>Test Engineer:</b>	<b>Curry Chen</b>
<b>Test Mode:</b>	<b>RX-2440</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	30.0000	-0.03	35.89	35.86	40.00	-4.14	QP	100	223	
2	47.4600	-9.91	45.56	35.65	40.00	-4.35	QP	100	256	
3	60.0700	-13.69	49.49	35.80	40.00	-4.20	QP	100	272	
4	95.9600	-10.14	48.27	38.13	43.50	-5.37	QP	100	216	
5	107.6000	-8.49	46.72	38.23	43.50	-5.27	QP	100	206	
6	156.1000	-7.68	41.42	33.74	43.50	-9.76	QP	100	196	

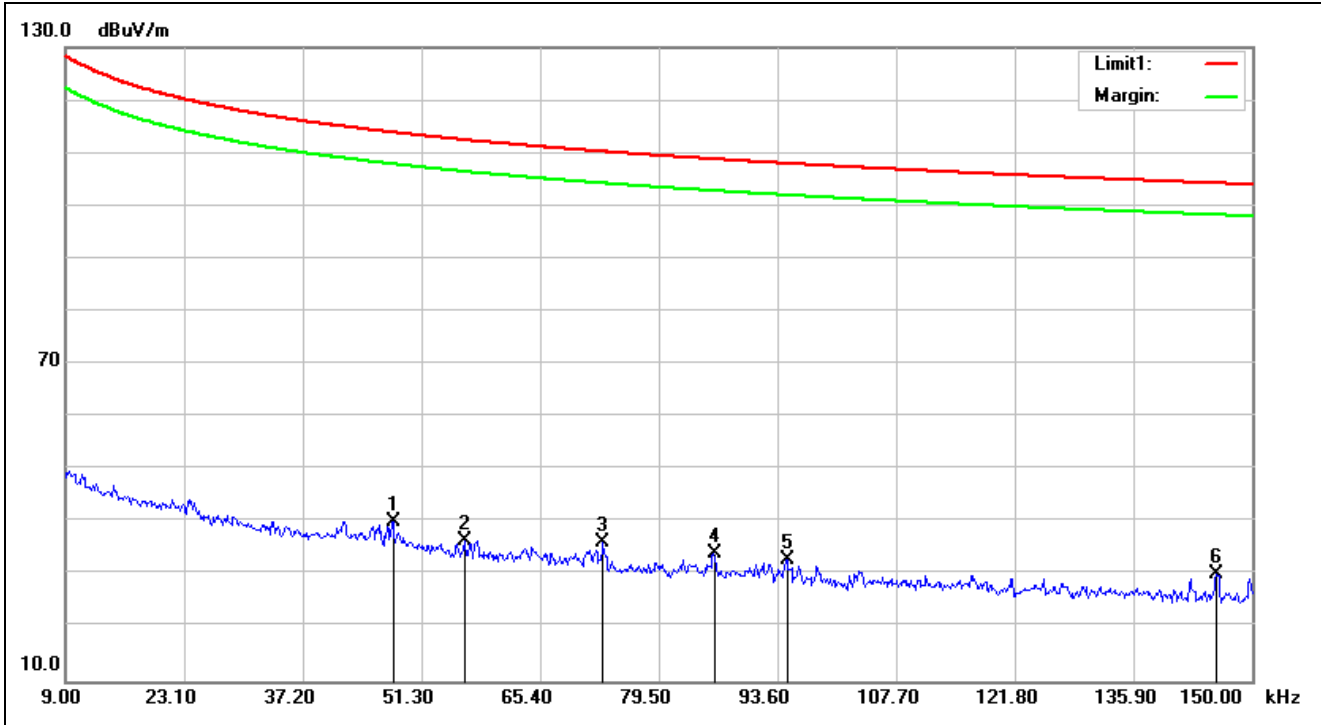
# Spurious Emissions, RX Mode, 9K-30M



TUV Rheinland Taiwan Ltd.

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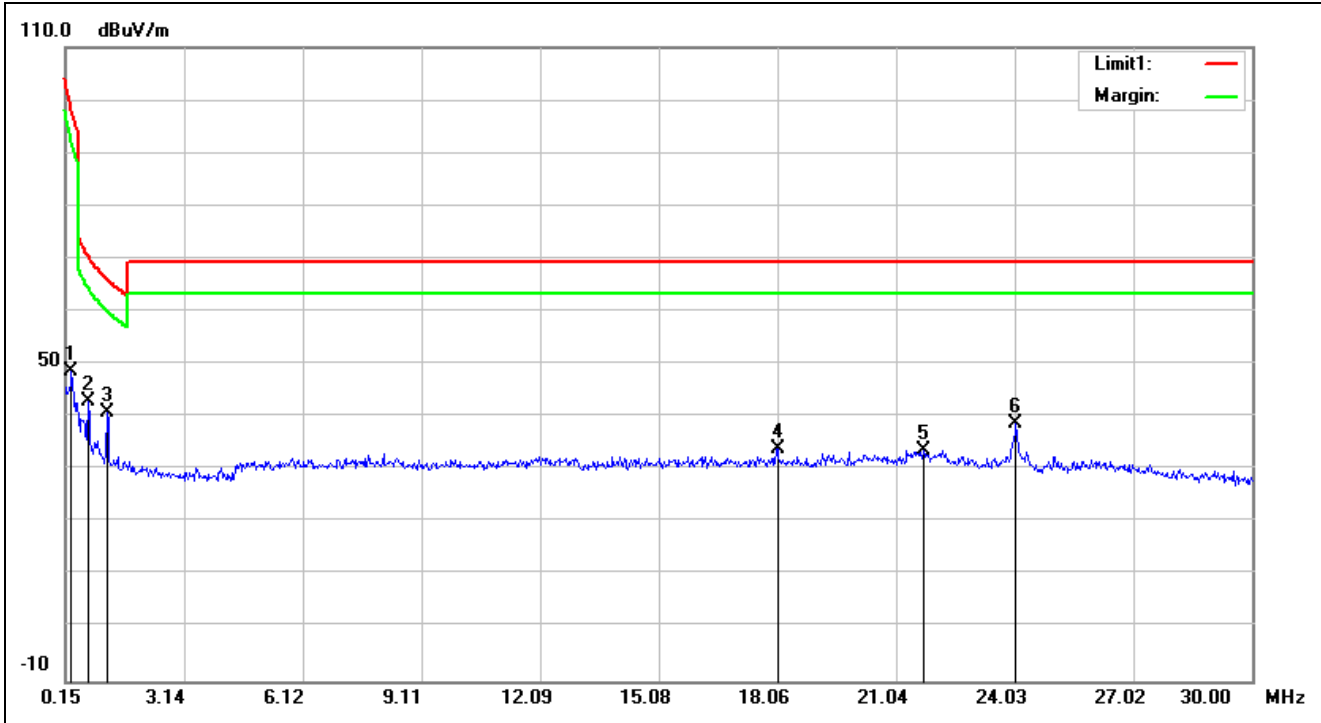
Tel:+886-2172-7000 fax:+886-2528-0018



Service No.:	114083792(RYB080I)_NCC_LE	Test Distance:	3m
Test Standard:	NCC2.8_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2018/12/28 20:44:23
Applicant:	REYEX	Test Rating:	DC 3V
Product:	Bluetooth Module	Temp.(°C)/Hum.(%):	22.3(°C)/51%
Model No.:	RYB080I	Test Engineer:	Curry Chen
Test Mode:	RX-2440		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0479	18.96	21.29	40.25	113.87	-73.62	QP	100	232	
2	0.0564	18.84	17.66	36.50	112.46	-75.96	QP	100	239	
3	0.0728	18.65	17.53	36.18	110.26	-74.08	QP	100	265	
4	0.0860	18.49	15.70	34.19	108.82	-74.63	QP	100	216	
5	0.0947	18.38	14.67	33.05	107.99	-74.94	QP	100	216	
6	0.1457	18.35	11.80	30.15	104.27	-74.12	QP	100	245	

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



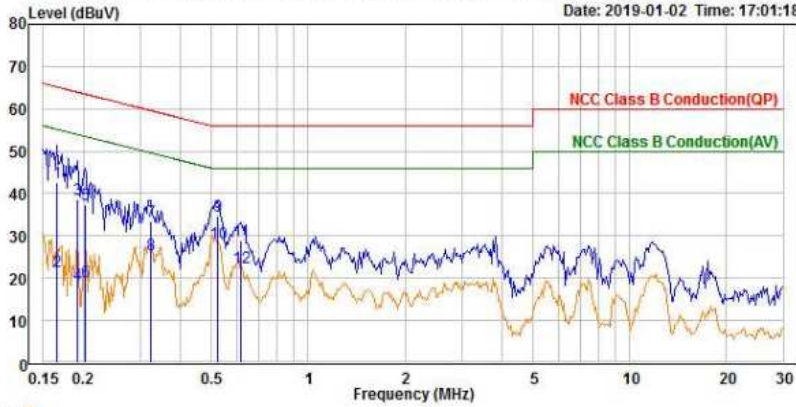
Service No.:	114083792(RYB080I)_NCC_LE	Test Distance:	3m
Test Standard:	NCC2.8_9k-1G_3m	Ant. Polarization:	
Test item:	Radiation Emission	Test Time:	2018/12/28 20:47:17
Applicant:	REYEX	Test Rating:	DC 3V
Product:	Bluetooth Module	Temp.(°C)/Hum.(%):	22.3(°C)/51%
Model No.:	RYB080I	Test Engineer:	Curry Chen
Test Mode:	RX-2440		
Remark:			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.2993	18.44	30.27	48.71	98.05	-49.34	QP	100	249	
2	0.7171	18.66	24.37	43.03	70.50	-27.47	QP	100	232	
3	1.1947	18.66	22.04	40.70	66.08	-25.38	QP	100	249	
4	18.0600	21.38	12.69	34.07	69.50	-35.43	QP	100	360	
5	21.7314	21.67	12.00	33.67	69.50	-35.83	QP	100	314	
6	24.0599	21.75	16.93	38.68	69.50	-30.82	QP	100	130	

# Mains Spurious Emissions

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Date: 2019-01-02 Time: 17:01:18

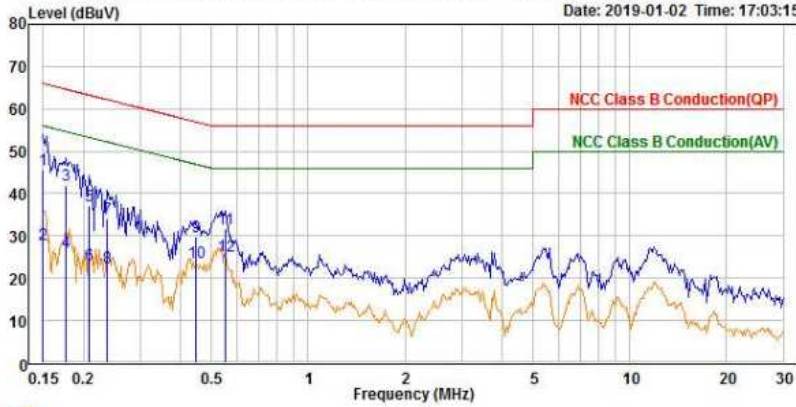


Trace: 1  
 Site : Conduction room  
 Condition : NCC Class B Conduction(QP) line1  
 Test Engineer: Curry Chen  
 Applicant : REYEX  
 Product : Bluetooth Module  
 Model No. : RYB080I  
 Test Rating : 110Vac/60Hz  
 Tmp/Hum : 19.4°C / 63%  
 Memo : AC Mains

	Read Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	0.166	32.77	9.67	42.44	65.17	-22.73	QP
2	0.166	11.85	9.67	21.52	55.17	-33.65	Average
3	0.192	29.04	9.67	38.71	63.94	-25.23	QP
4	0.192	8.79	9.67	18.46	53.94	-35.48	Average
5	0.202	27.76	9.67	37.43	63.52	-26.09	QP
6	0.202	9.52	9.67	19.19	53.52	-34.33	Average
7	0.322	23.92	9.67	33.59	59.64	-26.05	QP
8	0.322	15.95	9.67	25.62	49.64	-24.02	Average
9	0.525	24.94	9.68	34.62	56.00	-21.38	QP
10	0.525	18.72	9.68	28.40	46.00	-17.60	Average
11	0.615	19.30	9.68	28.98	56.00	-27.02	QP
12	0.615	12.80	9.68	22.48	46.00	-23.52	Average

File: C:\EMC\Report\2018\REYEX(114083792(RYB080I))\114083792(RYB080I)\_00003.EMI

Date: 2019-01-02 Time: 17:03:15



Trace: 1  
 Site : Conduction room  
 Condition : NCC Class B Conduction(QP) neutral  
 Test Engineer: Curry Chen  
 Applicant : REYEX  
 Product : Bluetooth Module  
 Model No. : RYB080I  
 Test Rating : 110Vac/60Hz  
 Tmp/Hum : 19.4°C / 63%  
 Memo : AC Mains

	Read	Limit	Over				
Freq	Level	Factor	Level	Line			
MHz	dBuV	dB	dBuV	dB			
1	0.150	36.05	9.66	45.71	66.00	-20.29	QP
2	0.150	18.36	9.66	28.02	56.00	-27.98	Average
3	0.176	32.33	9.66	41.99	64.68	-22.69	QP
4	0.176	16.60	9.66	26.26	54.68	-28.42	Average
5	0.208	27.60	9.66	37.26	63.28	-26.02	QP
6	0.208	13.58	9.66	23.24	53.28	-30.04	Average
7	0.237	24.37	9.66	34.03	62.20	-28.17	QP
8	0.237	12.92	9.66	22.58	52.20	-29.62	Average
9	0.448	20.23	9.66	29.89	56.92	-27.03	QP
10	0.448	14.04	9.66	23.70	46.92	-23.22	Average
11	0.552	22.00	9.66	31.66	56.00	-24.34	QP
12	0.552	15.55	9.66	25.21	46.00	-20.79	Average