

Test Report No.50142288 001

Appendix D: Radiated and Mains Spurious Emission Data

(File: 50142288AppendixD)

Contents

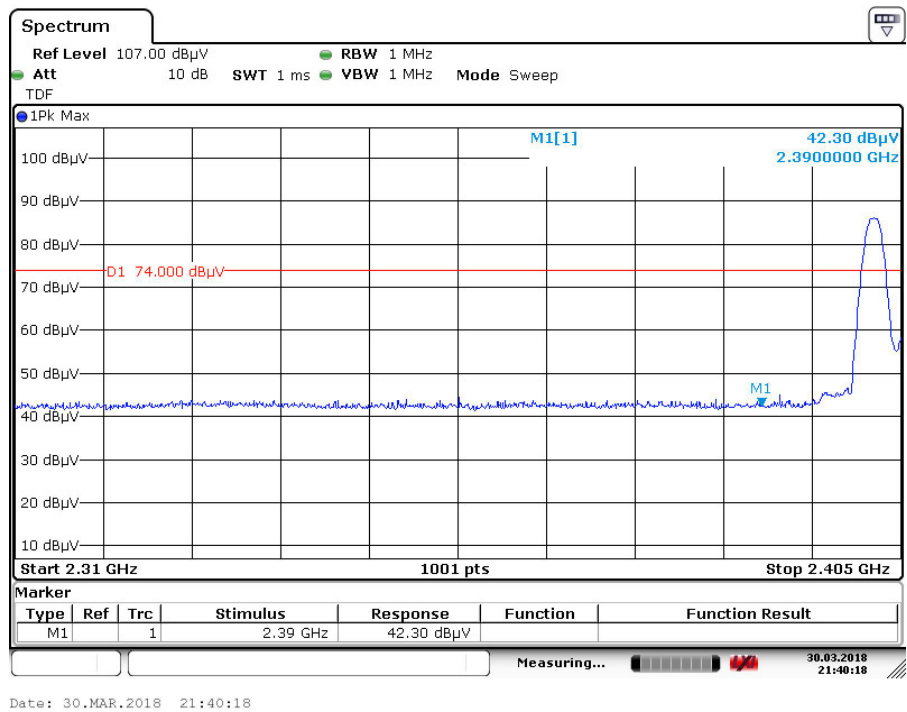
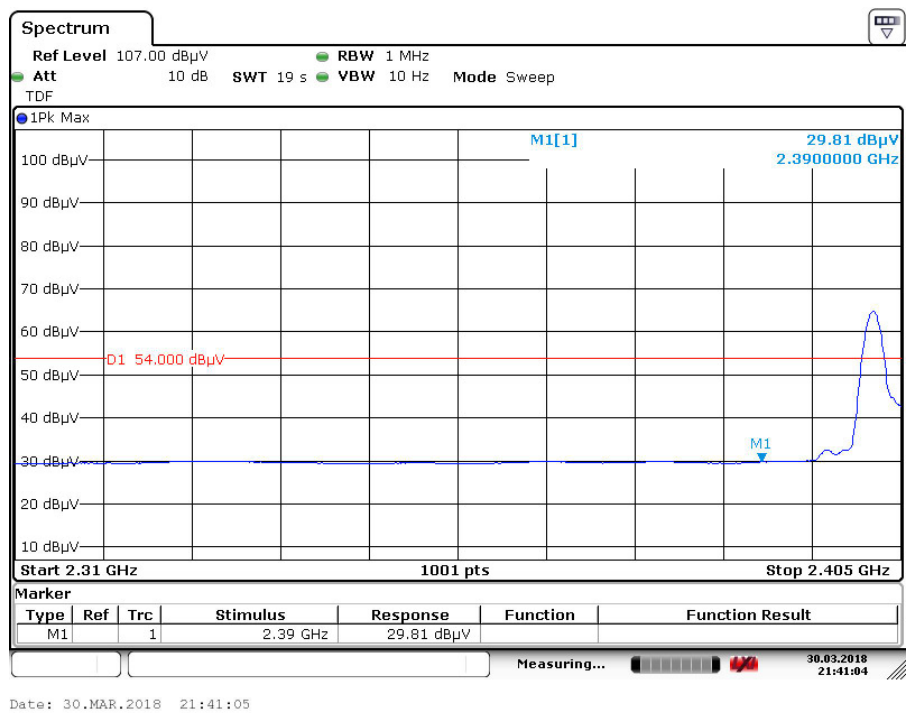
RFA-02-5-C7H1-ANT.....	3
Spurious Emissions, Band Edges, 2.35-2.5G	3
Spurious Emissions, TX Mode, 1-18G.....	8
Spurious Emissions, TX Mode, 18-26G.....	14
Spurious Emissions, TX Mode, 30M-1G	20
Spurious Emissions, TX Mode, 9k-30M	22
Spurious Emissions, RX Mode, 1-18G	24
Spurious Emissions, RX Mode, 18-26G.....	26
Spurious Emissions, RX Mode, 30M-1G	28
Spurious Emissions, RX Mode, 9K-30M	30
RFPCA381013IMAB701-ANT.....	32
Spurious Emissions, Band Edges, 2.35-2.5G	32
Spurious Emissions, TX Mode, 1-18G.....	37
Spurious Emissions, TX Mode, 18-26G.....	43
Spurious Emissions, TX Mode, 30M-1G	49
Spurious Emissions, TX Mode, 9k-30M	51
Spurious Emissions, RX Mode, 1-18G	53
Spurious Emissions, RX Mode, 18-26G.....	55
Spurious Emissions, RX Mode, 30M-1G	57
Spurious Emissions, RX Mode, 9K-30M	59
Mains	61

RFA-02-5-C7H1-ANT

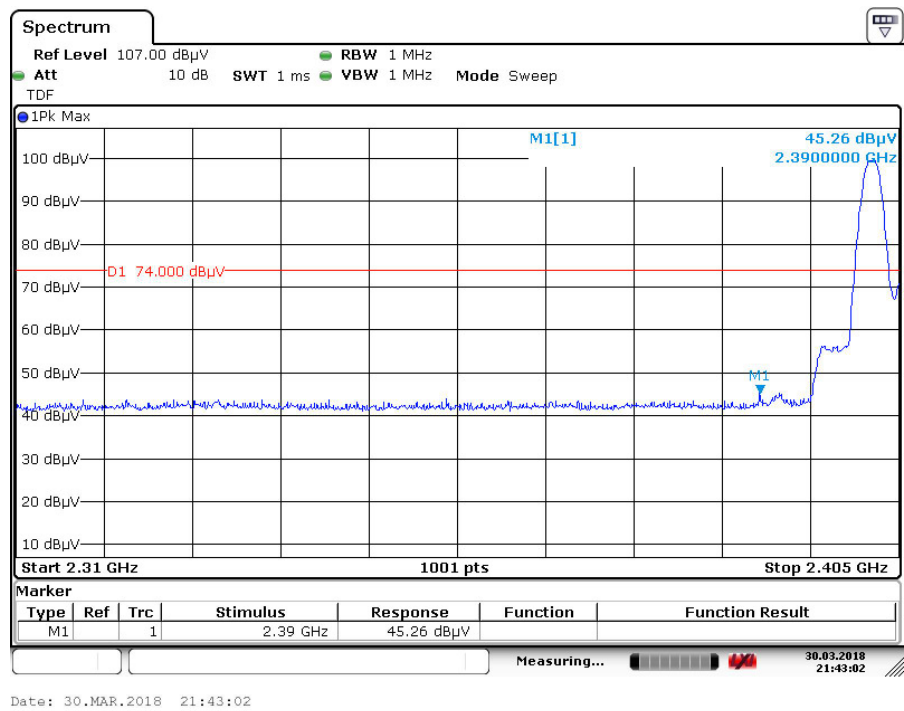
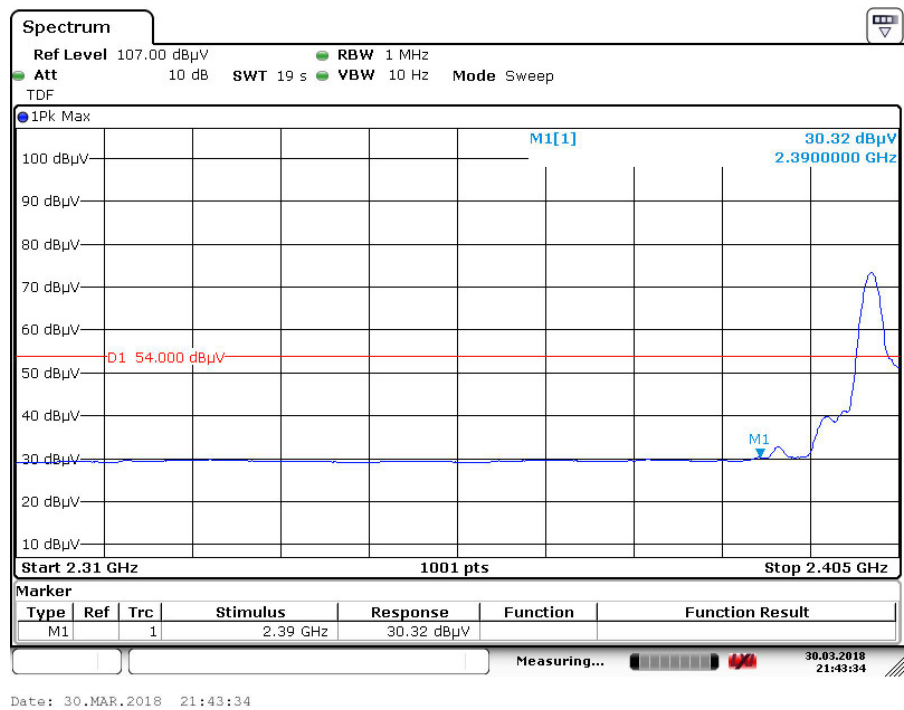
Spurious Emissions, Band Edges, 2.35-2.5G

Radiated Bandedge (GFSK)

Low Channel (Hor)

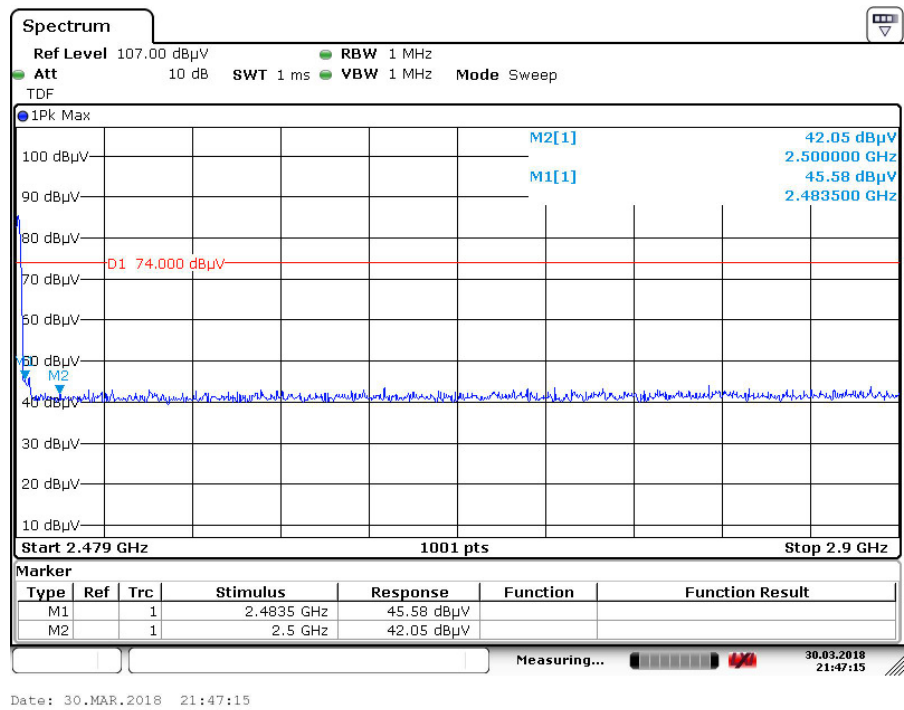
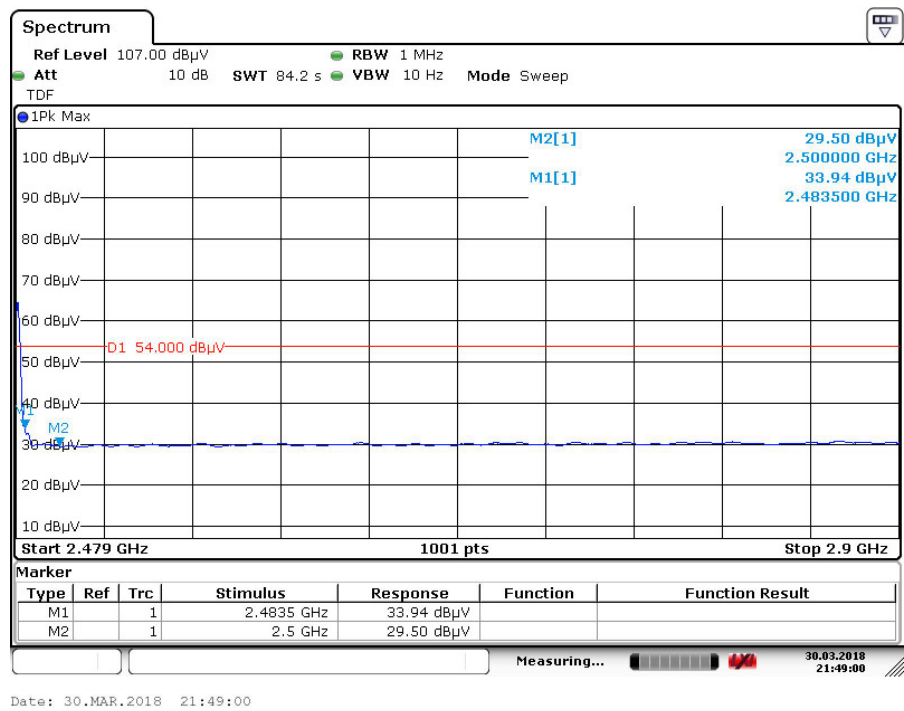


Low Channel (Ver)

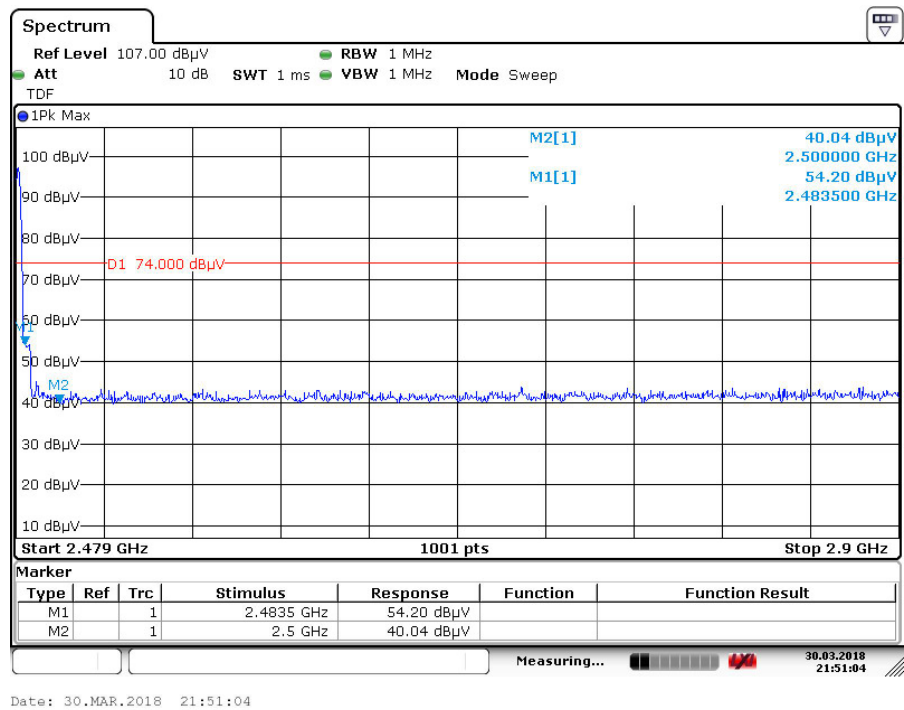
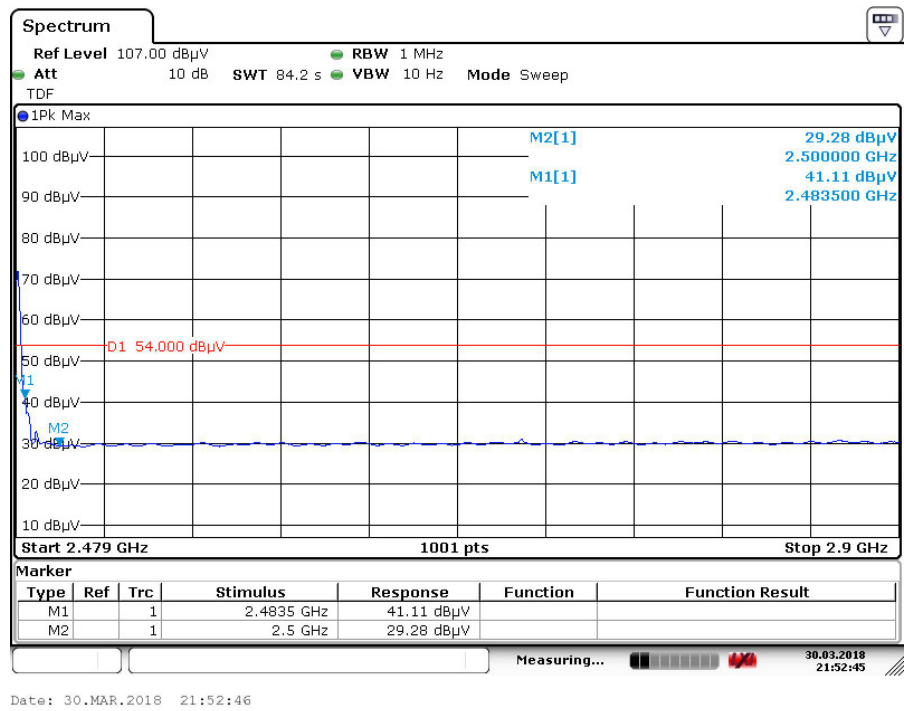


Radiated Bandedge (GFSK)

High Channel (Hor)



High Channel (Ver)



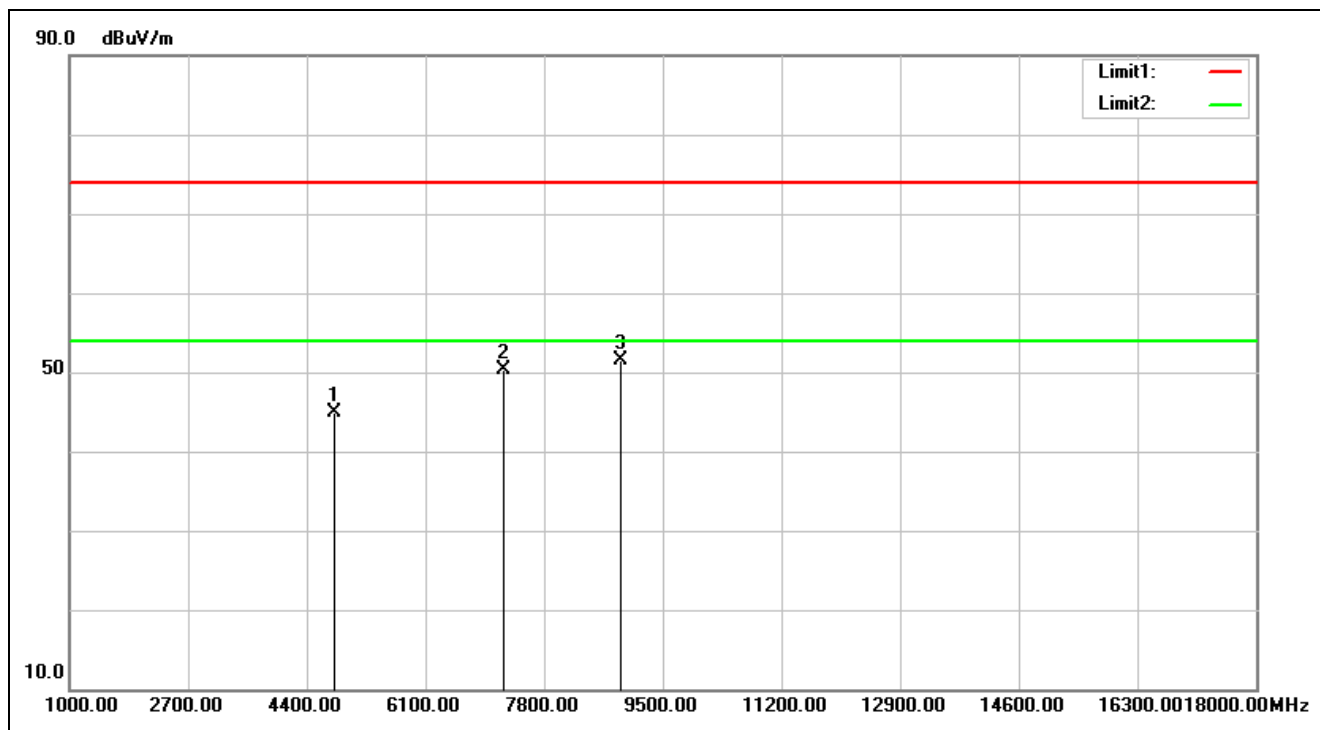
Spurious Emissions, TX Mode, 1-18G



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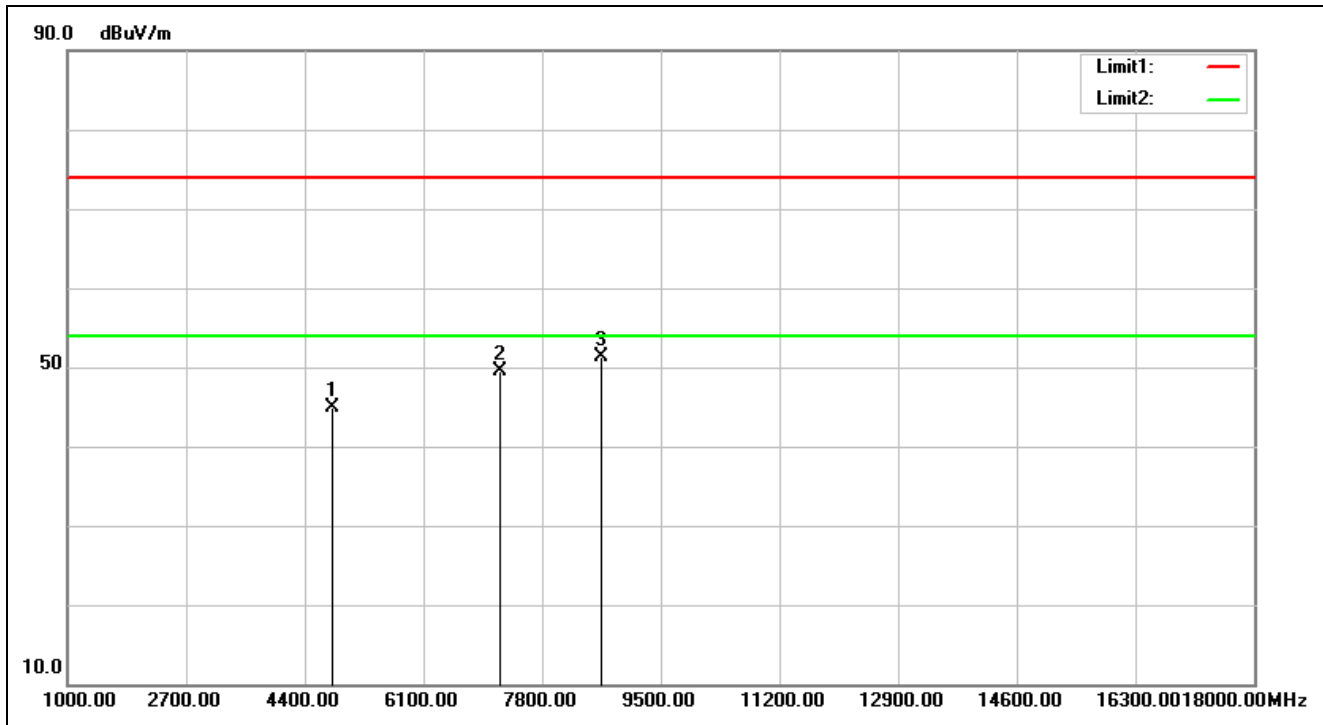
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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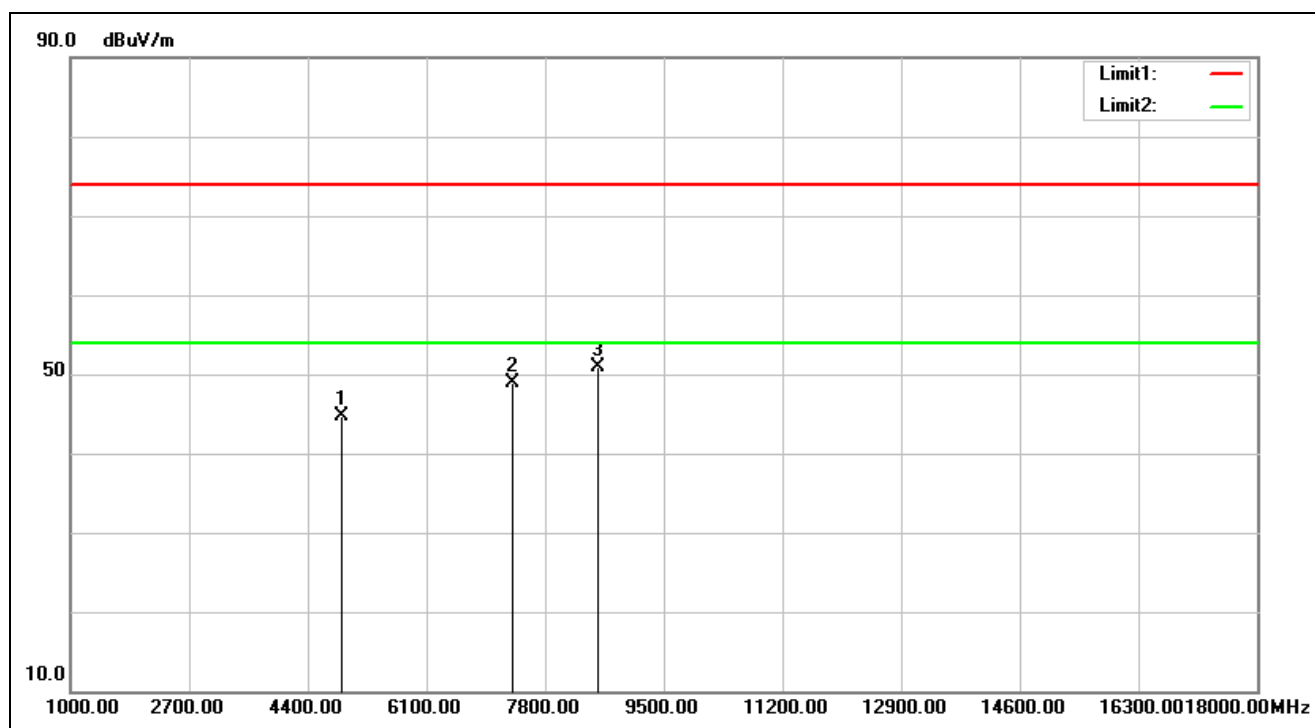
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/30 21:47:06
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	21(°C)/60%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2402-TX		
Remark:	Power Setting -5 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.72	47.69	44.97	74.00	-29.03	peak		0	
2	7206.000	5.25	45.04	50.29	74.00	-23.71	peak		0	
3	8905.000	6.42	45.12	51.54	74.00	-22.46	peak	100	16	



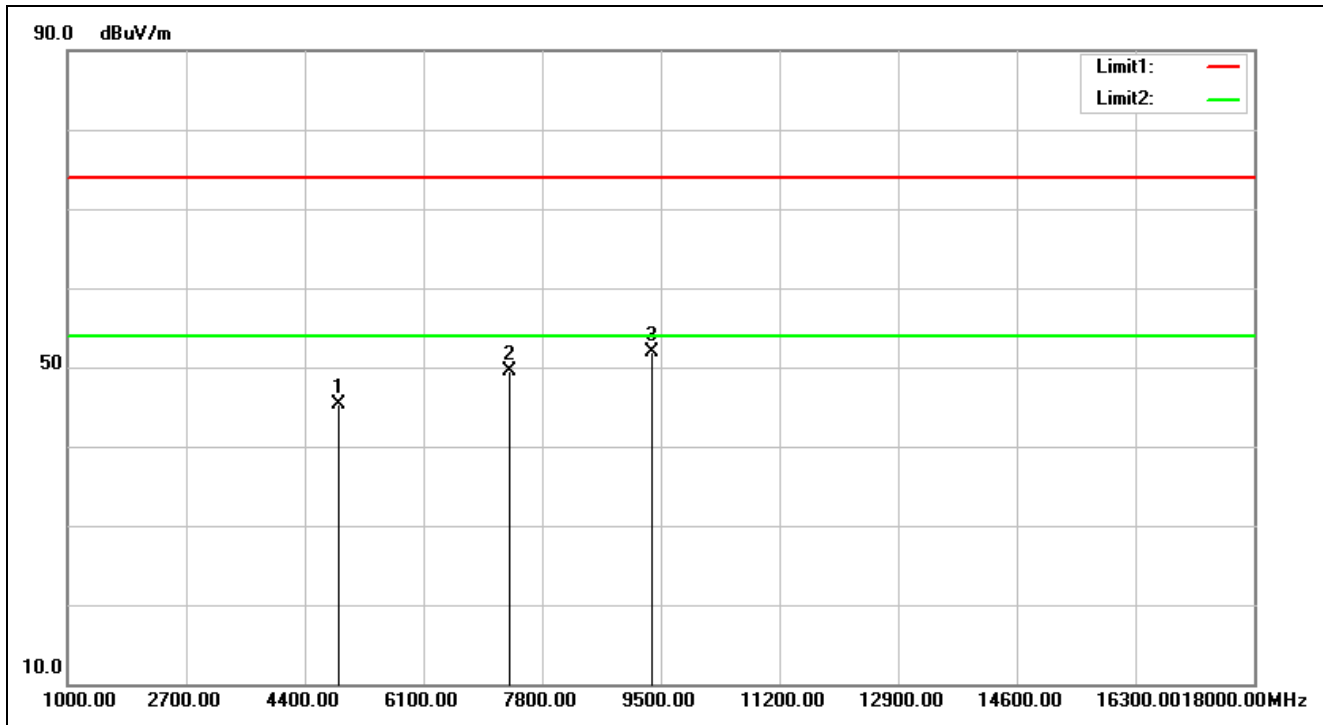
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/30 21:48:02
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	21(°C)/60%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2402-TX		
Remark:	Power Setting -5 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.72	47.63	44.91	74.00	-29.09	peak			
2	7206.000	5.25	44.34	49.59	74.00	-24.41	peak			
3	8650.000	6.40	44.92	51.32	74.00	-22.68	peak	100	179	



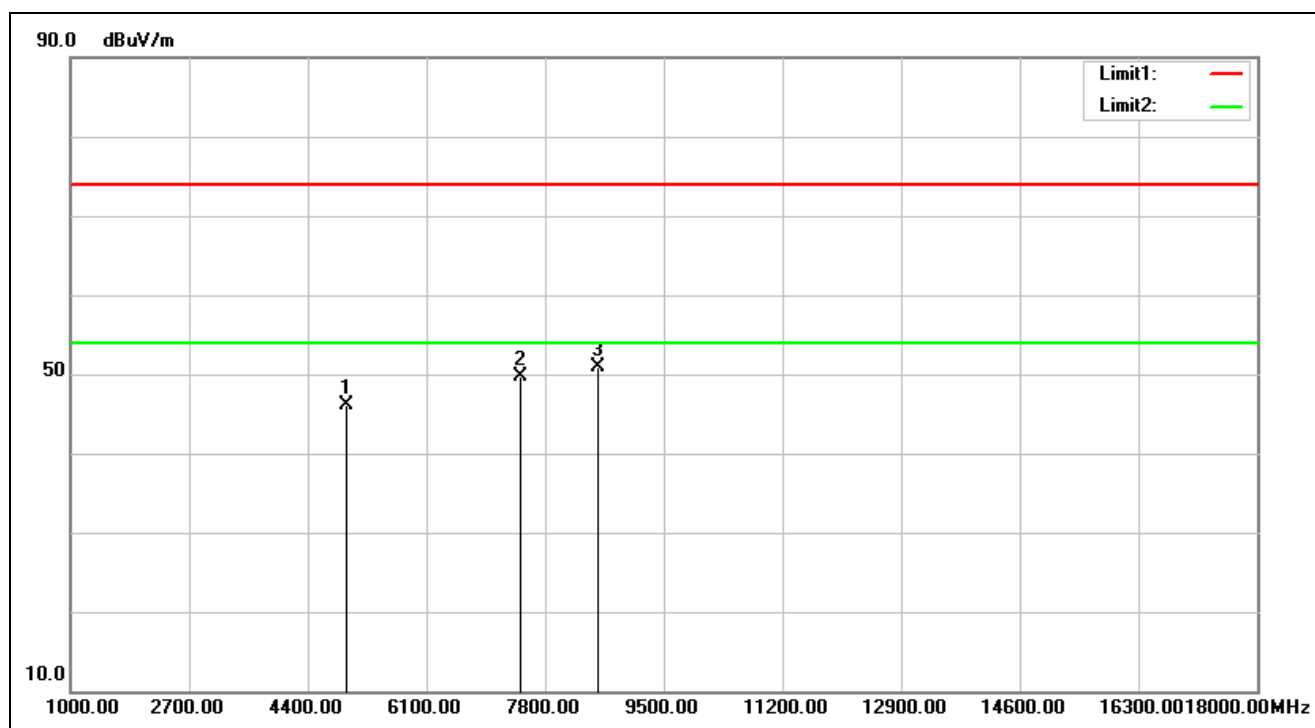
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/30 21:51:21
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	21(°C)/60%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4880.000	-2.50	47.29	44.79	74.00	-29.21	peak			
2	7320.000	5.54	43.41	48.95	74.00	-25.05	peak			
3	8548.000	6.38	44.61	50.99	74.00	-23.01	peak	100	347	



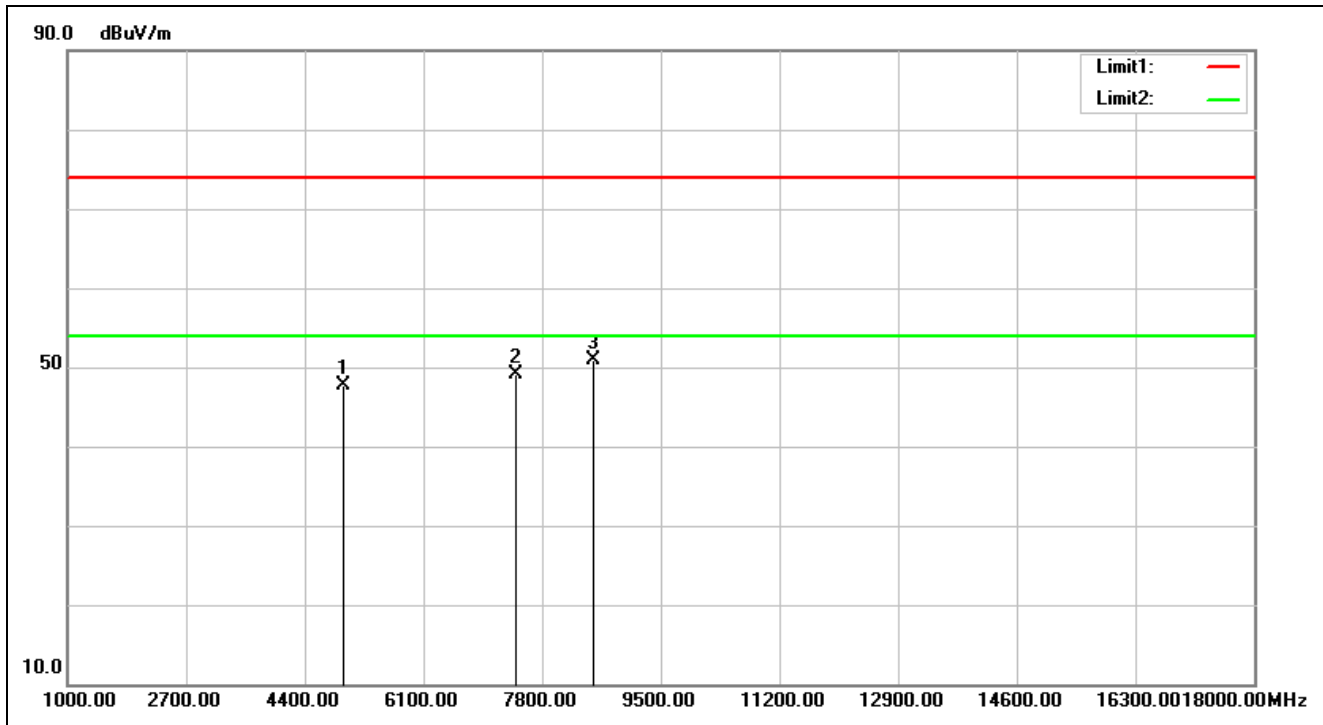
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/30 21:52:18
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4880.000	-2.50	47.88	45.38	74.00	-28.62	peak			
2	7320.000	5.54	43.91	49.45	74.00	-24.55	peak			
3	9364.000	6.53	45.39	51.92	74.00	-22.08	peak	100	179	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/30 21:54:47
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	21(°C)/60%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2480-TX		
Remark:	Power Setting -5 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4960.000	-2.28	48.42	46.14	74.00	-27.86	peak			
2	7440.000	5.84	43.86	49.70	74.00	-24.30	peak			
3	8548.000	6.38	44.44	50.82	74.00	-23.18	peak	100	275	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/30 21:55:43
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	21(°C)/60%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2480-TX		
Remark:	Power Setting -5 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4960.000	-2.28	50.08	47.80	74.00	-26.20	peak			
2	7440.000	5.84	43.18	49.02	74.00	-24.98	peak			
3	8531.000	6.38	44.51	50.89	74.00	-23.11	peak	100	351	

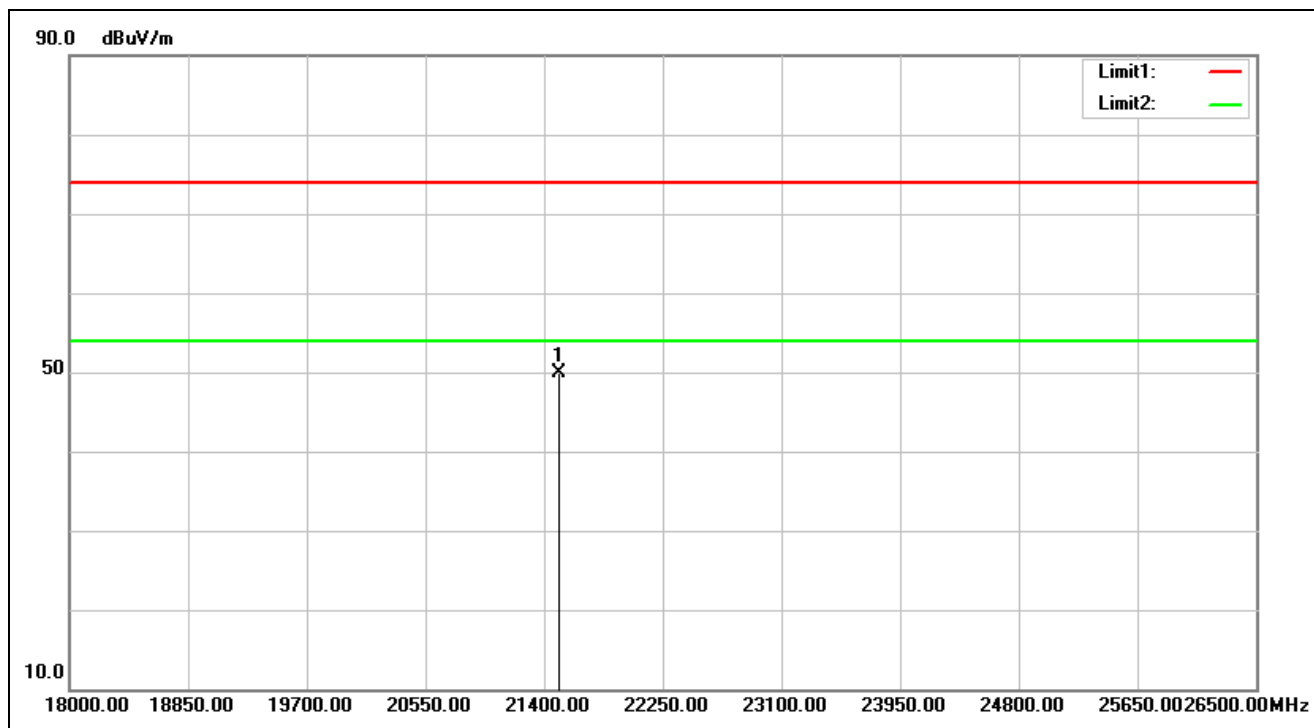
Spurious Emissions, TX Mode, 18-26G



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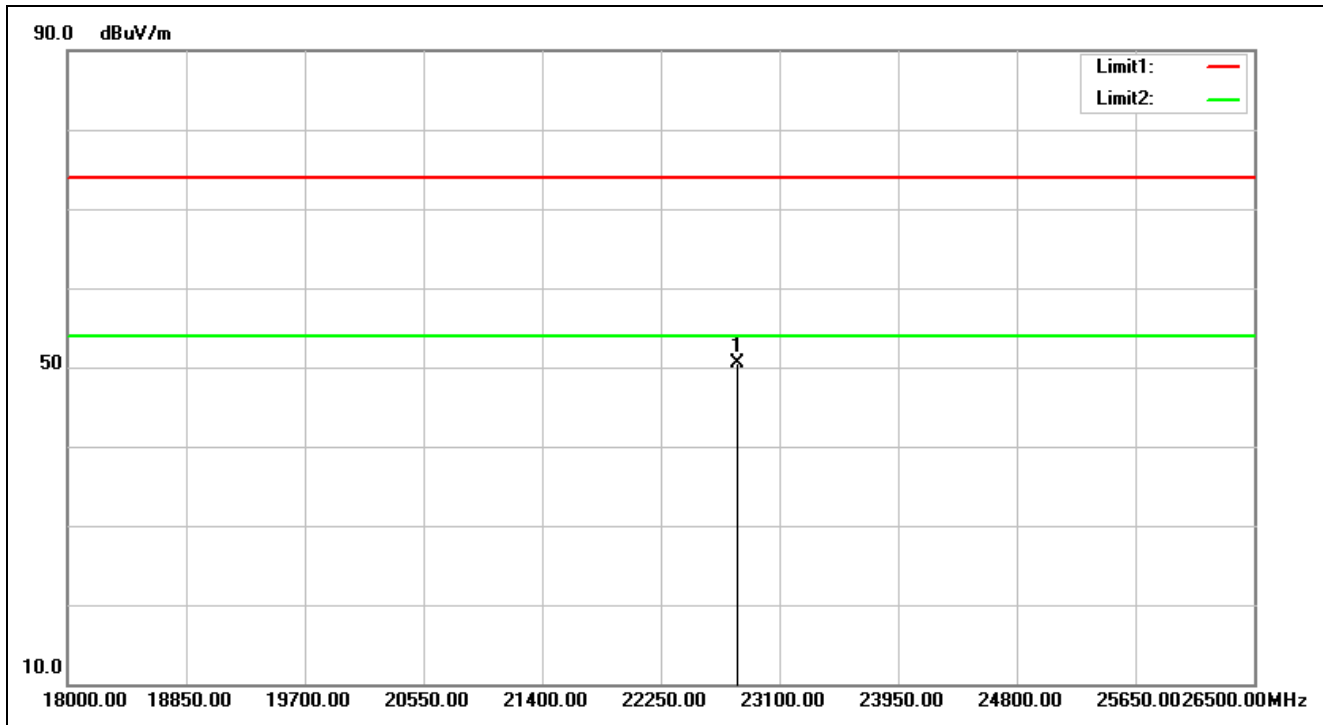
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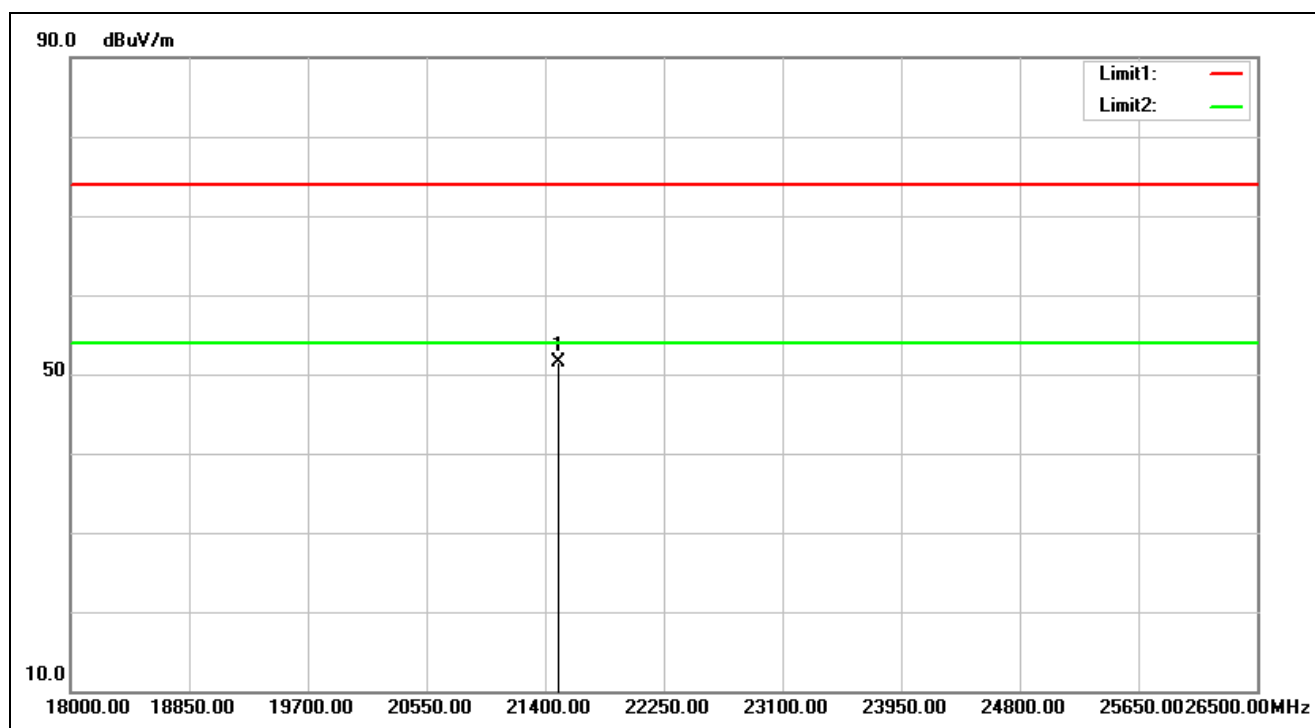
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Test item:	Radiation Emission	Test Time:	2018/4/2 16:43:45
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2402-TX		
Remark:	Power Setting -5 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21502.000	32.89	17.00	49.89	74.00	-24.11	peak		0	



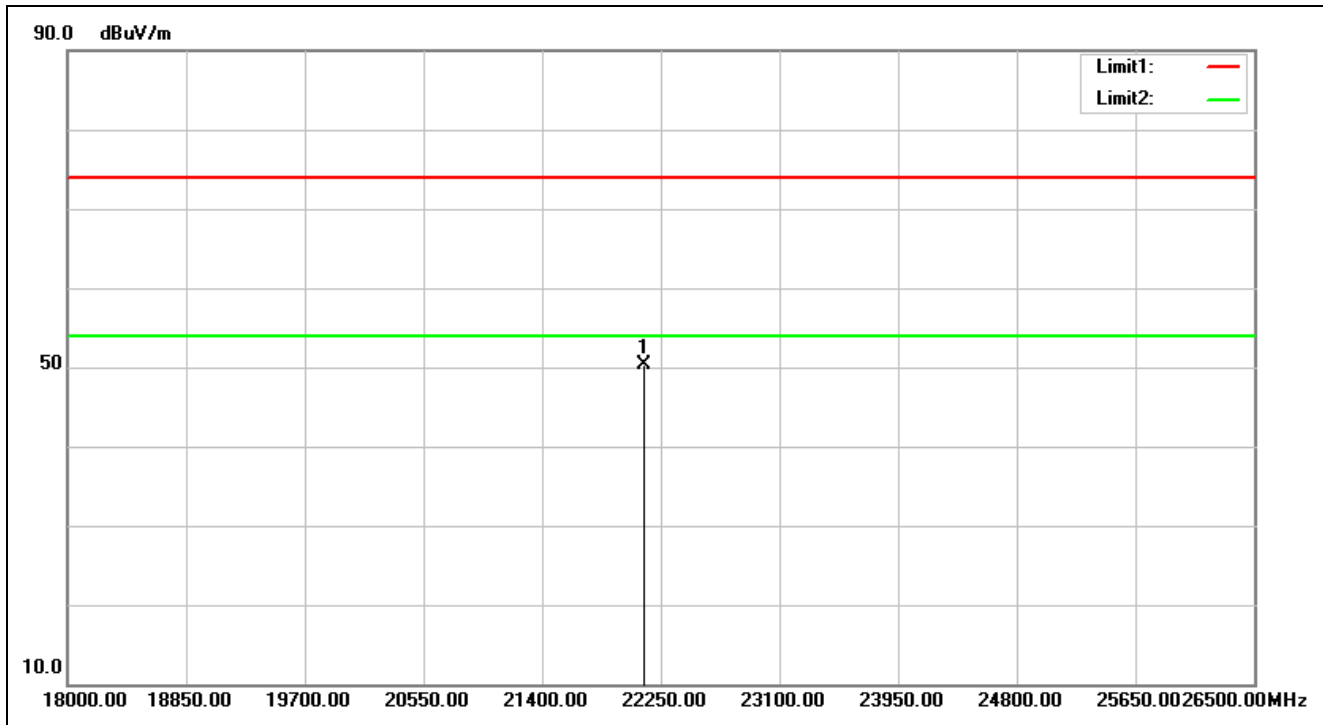
Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:43:52
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2402-TX		
Remark:	Power Setting -5 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22802.500	32.74	17.70	50.44	74.00	-23.56	peak			



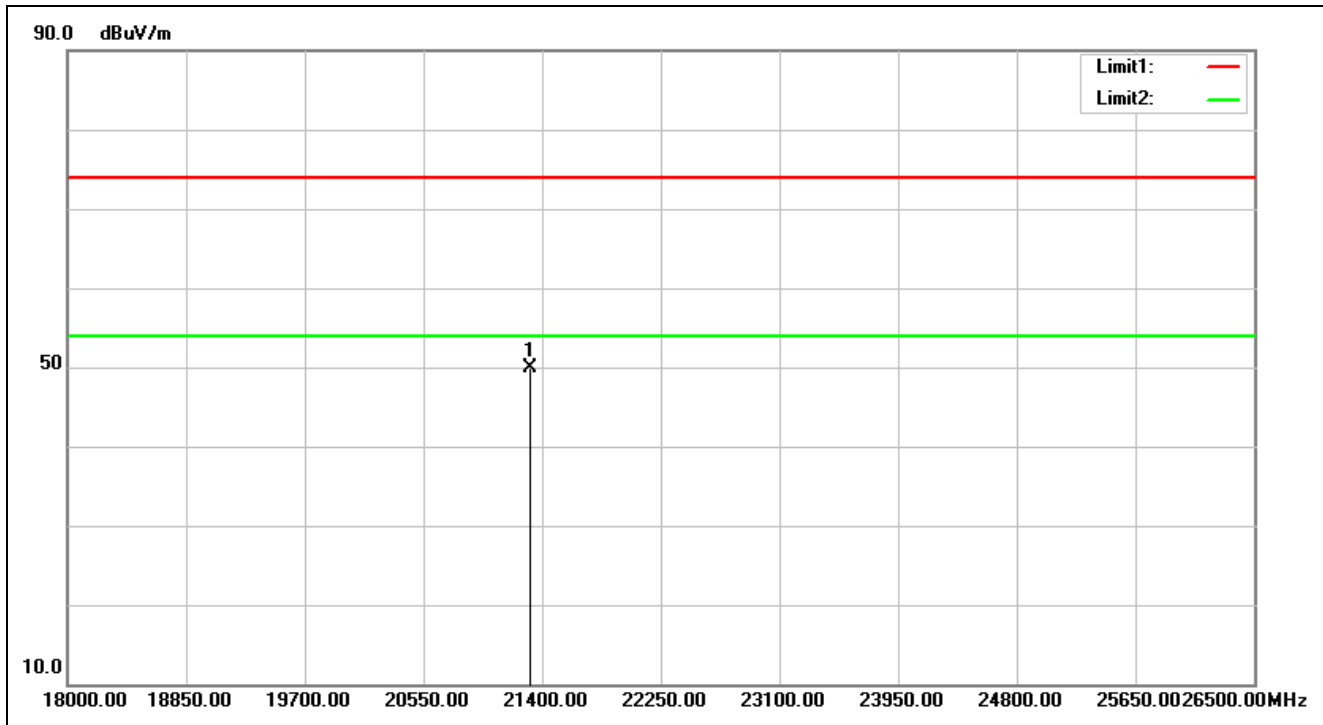
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:44:14
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21493.500	32.89	18.64	51.53	74.00	-22.47	peak			



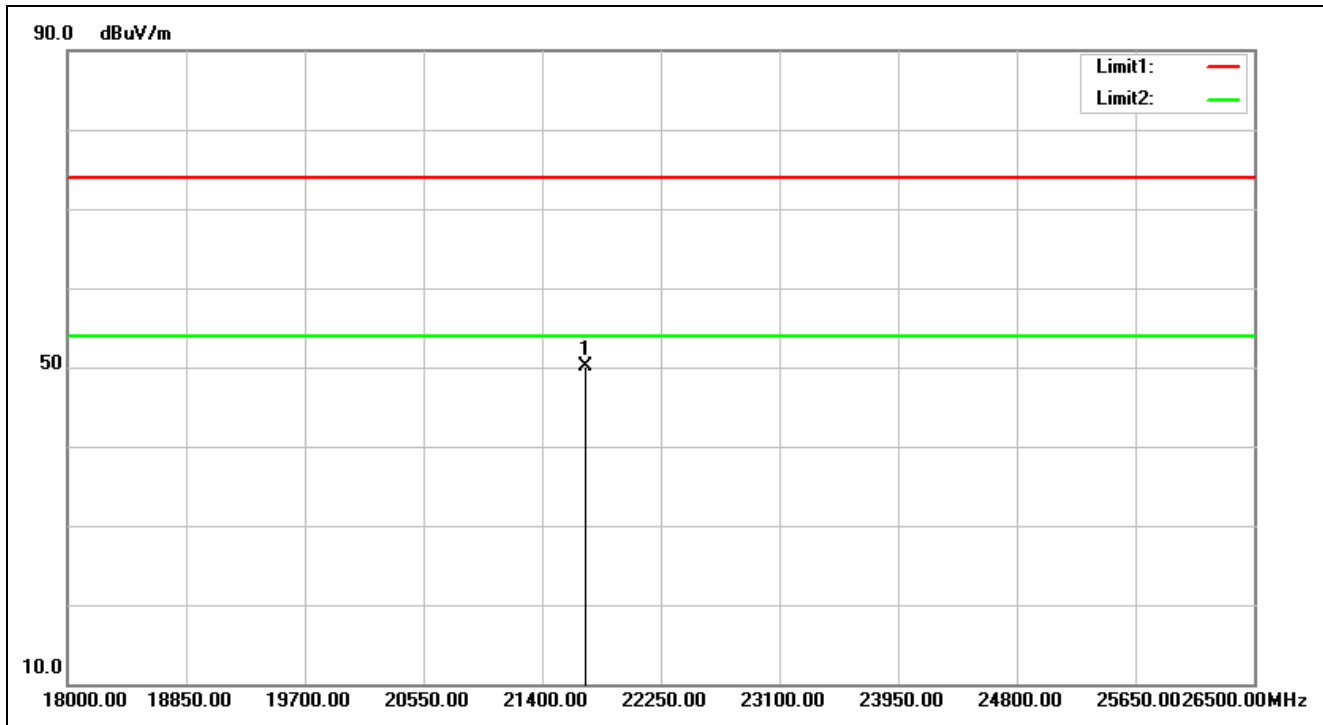
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:44:20
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22131.000	32.59	17.75	50.34	74.00	-23.66	peak			



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:44:41
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2480-TX		
Remark:	Power Setting -5 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21315.000	32.72	17.12	49.84	74.00	-24.16	peak			



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:44:47
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2480-TX		
Remark:	Power Setting -5 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21714.500	32.76	17.27	50.03	74.00	-23.97	peak			

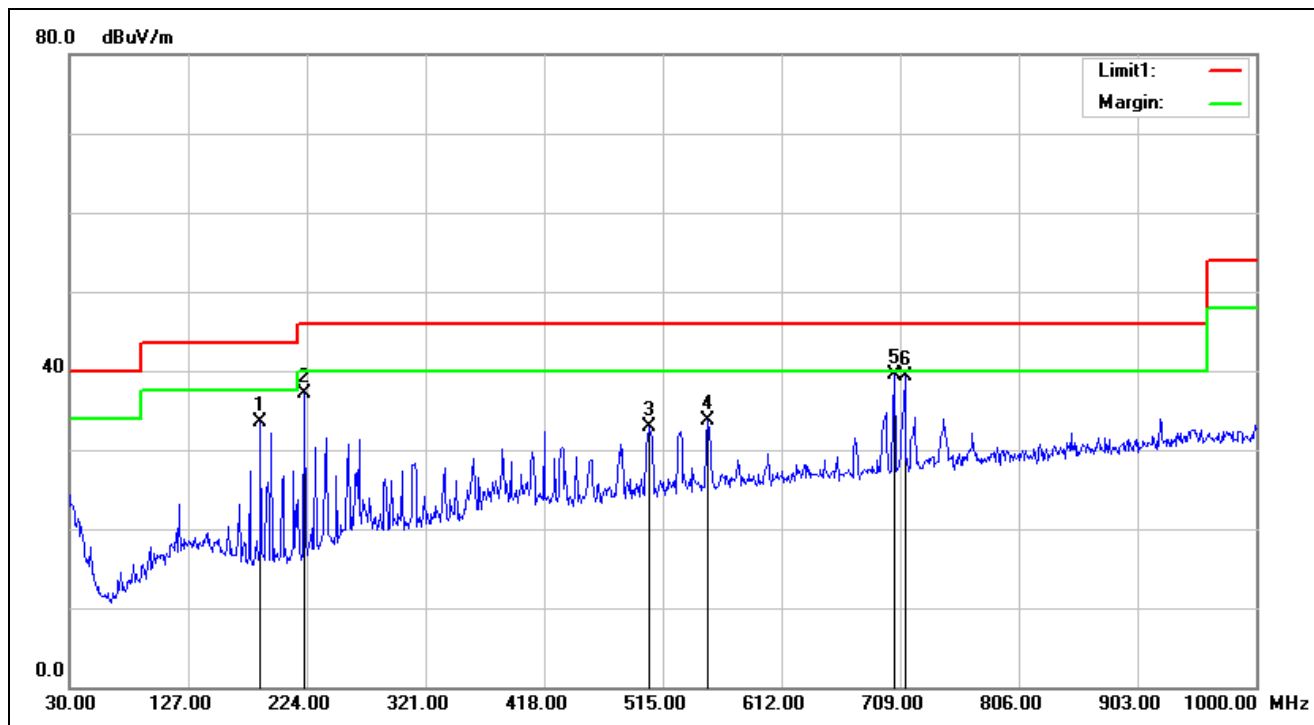
Spurious Emissions, TX Mode, 30M-1G



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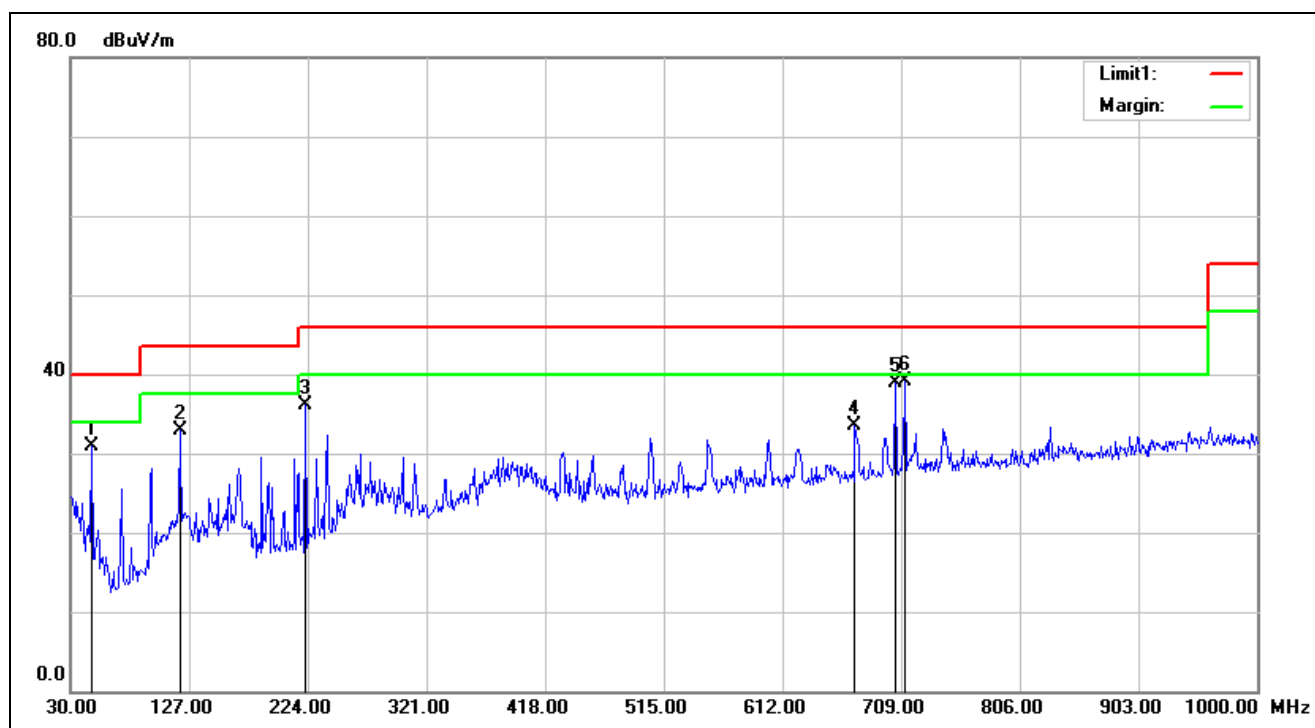
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Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 18:28:15
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	186.1699	-9.59	43.09	33.50	43.50	-10.00	QP	100	234	
2	222.0600	-8.15	45.22	37.07	46.00	-8.93	QP	100	131	
3	504.3300	-1.11	34.10	32.99	46.00	-13.01	QP	100	167	
4	551.8600	-0.44	34.09	33.65	46.00	-12.35	QP	100	161	
5	704.1500	1.35	38.17	39.52	46.00	-6.48	QP	100	110	
6	712.8800	1.55	37.76	39.31	46.00	-6.69	QP	100	126	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 18:29:13
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	47.4600	-10.07	40.94	30.87	40.00	-9.13	QP	100	358	
2	119.2400	-7.50	40.42	32.92	43.50	-10.58	QP	100	120	
3	222.0600	-8.15	44.34	36.19	46.00	-9.81	QP	100	108	
4	671.1700	0.84	32.59	33.43	46.00	-12.57	QP	100	165	
5	704.1500	1.35	37.56	38.91	46.00	-7.09	QP	100	87	
6	711.9100	1.53	37.51	39.04	46.00	-6.96	QP	100	33	

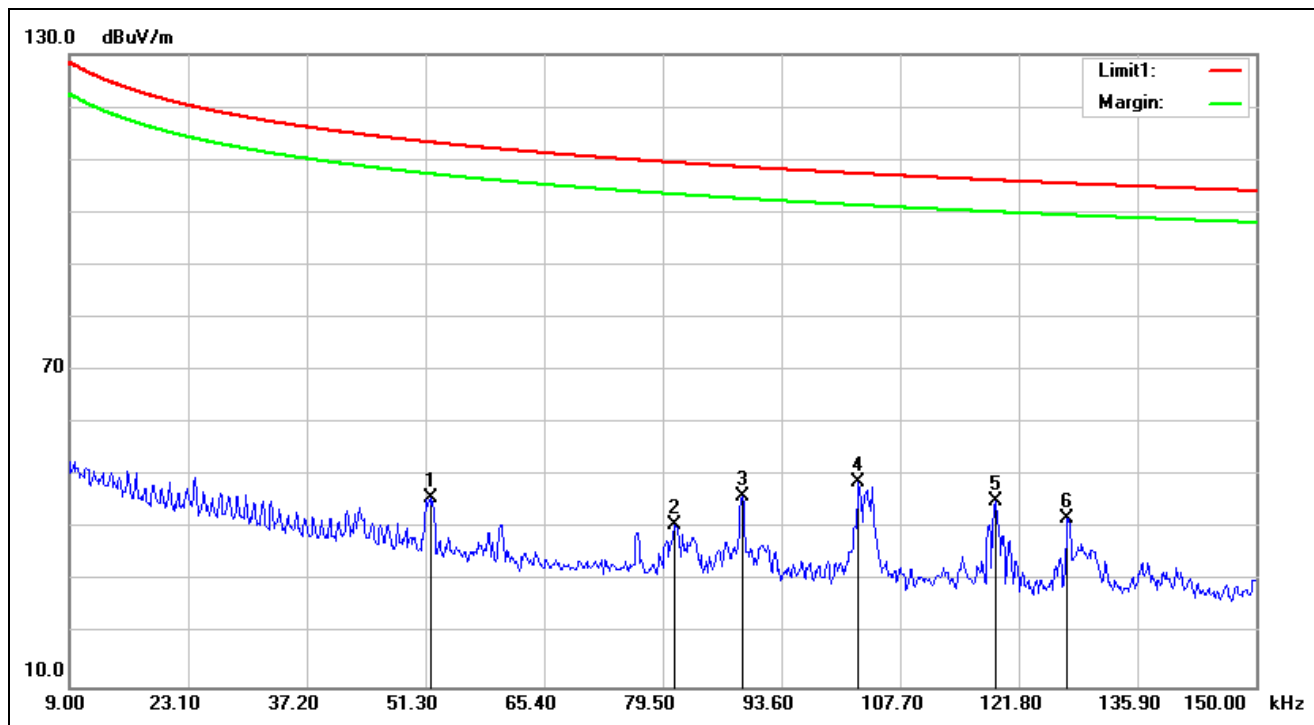
Spurious Emissions, TX Mode, 9k-30M



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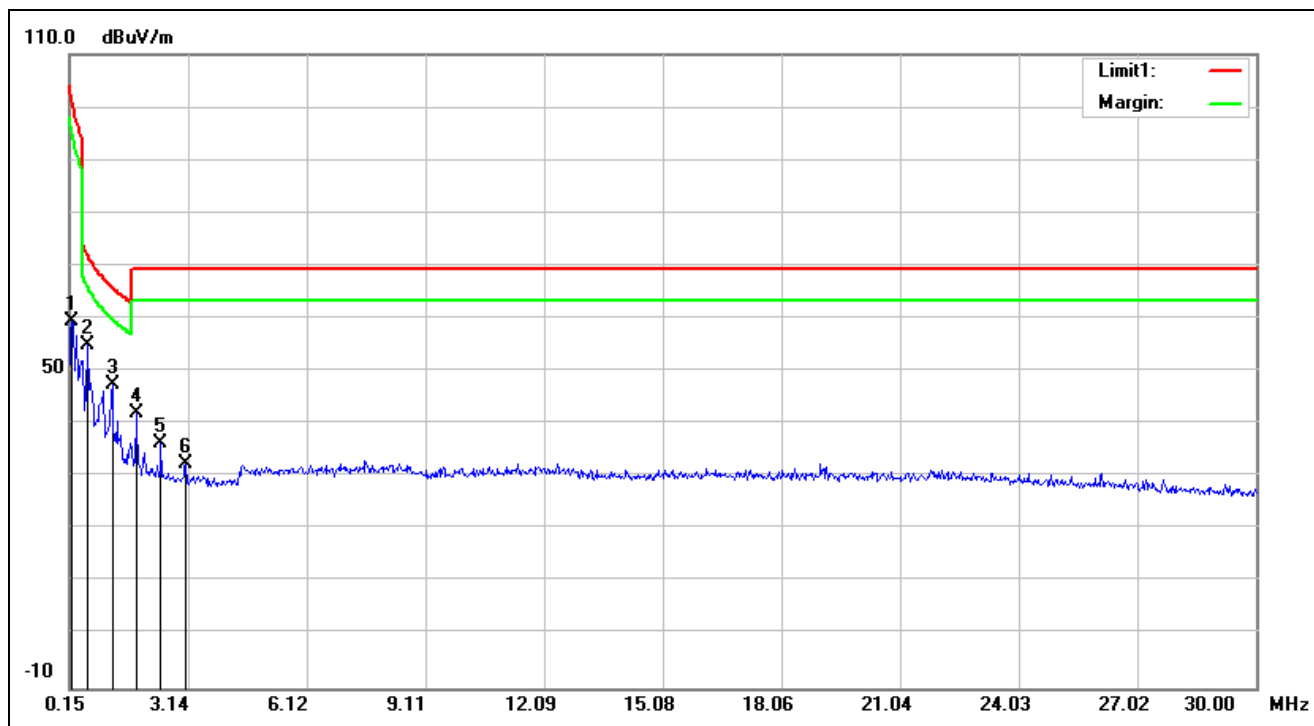
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/2 19:14:14
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0518	19.42	26.56	45.98	113.31	-67.33	QP	100	190	
2	0.0809	19.24	21.48	40.72	109.44	-68.72	QP	100	181	
3	0.0889	19.20	26.94	46.14	108.62	-62.48	QP	100	190	
4	0.1027	19.13	29.69	48.82	107.37	-58.55	QP	100	190	
5	0.1189	19.11	26.02	45.13	106.09	-60.96	QP	100	186	
6	0.1275	19.10	22.88	41.98	105.49	-63.51	QP	100	286	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/2 19:21:05
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFA-02-5-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.2097	19.03	40.33	59.36	101.17	-41.81	QP	100	180	
2	0.5977	18.88	36.03	54.91	72.08	-17.17	QP	100	174	
3	1.2246	18.92	28.67	47.59	65.87	-18.28	QP	100	177	
4	1.8216	18.79	23.25	42.04	69.50	-27.46	QP	100	201	
5	2.4484	18.65	17.57	36.22	69.50	-33.28	QP	100	174	
6	3.0753	18.57	13.84	32.41	69.50	-37.09	QP	100	180	

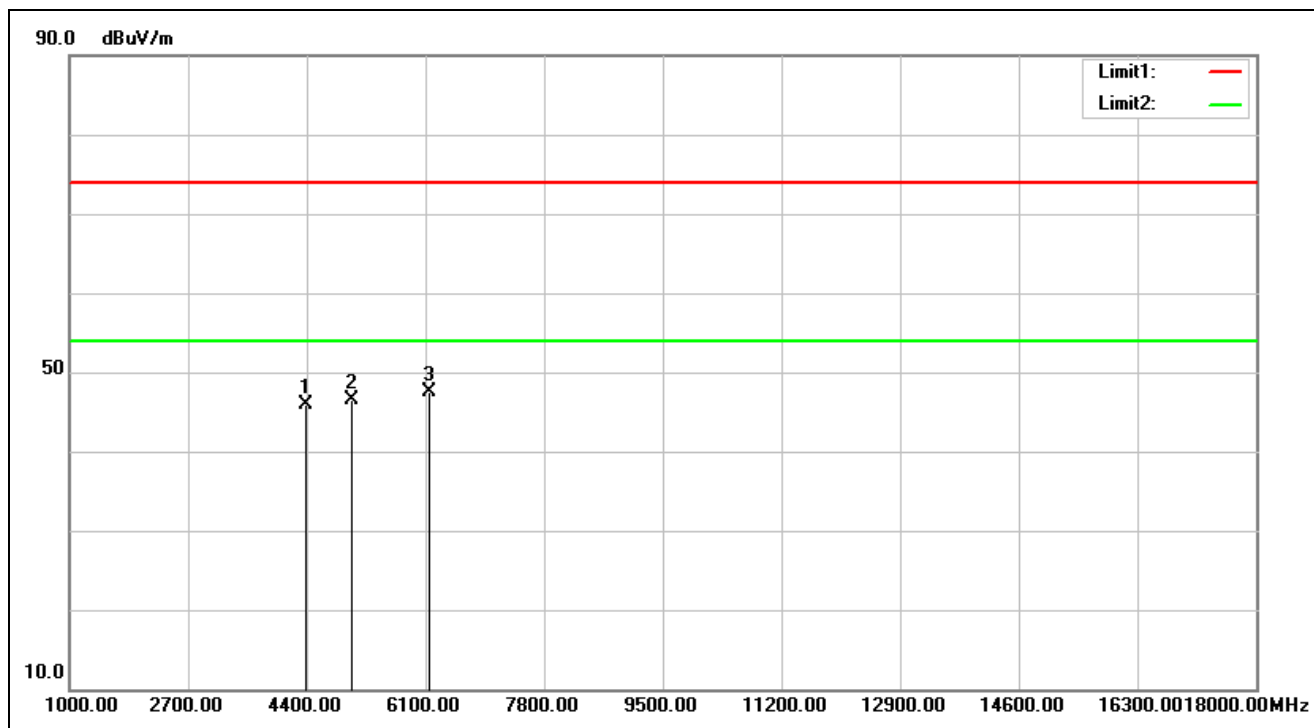
Spurious Emissions, RX Mode, 1-18G



TUV Rheinland Taiwan Ltd.

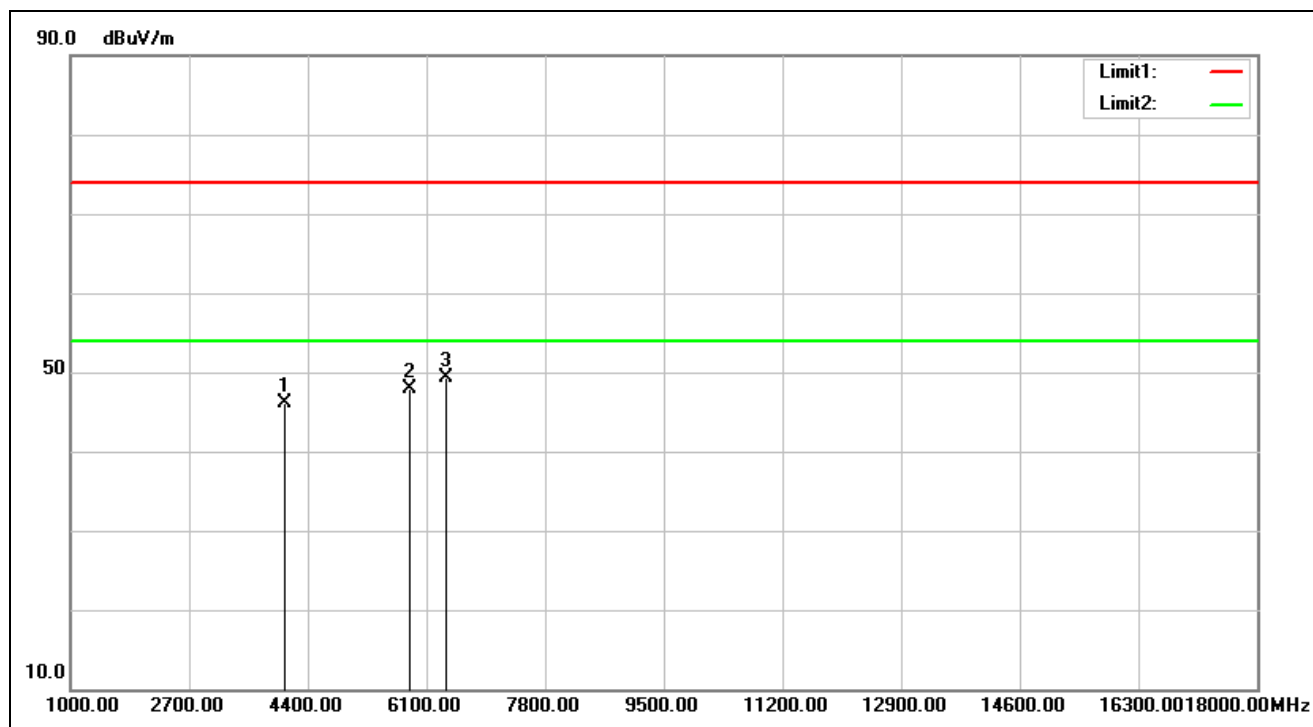
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/30 22:00:52
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFA-02-05-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4383.000	-4.46	50.44	45.98	74.00	-28.02	peak	100	356	
2	5046.000	-2.99	49.58	46.59	74.00	-27.41	peak	100	184	
3	6151.000	2.95	44.53	47.48	74.00	-26.52	peak	100	163	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/30 22:01:49
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	21(°C)/60%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFA-02-05-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4077.000	-5.57	51.77	46.20	74.00	-27.80	peak	100	257	
2	5862.000	1.47	46.51	47.98	74.00	-26.02	peak	100	26	
3	6372.000	3.82	45.54	49.36	74.00	-24.64	peak	100	57	

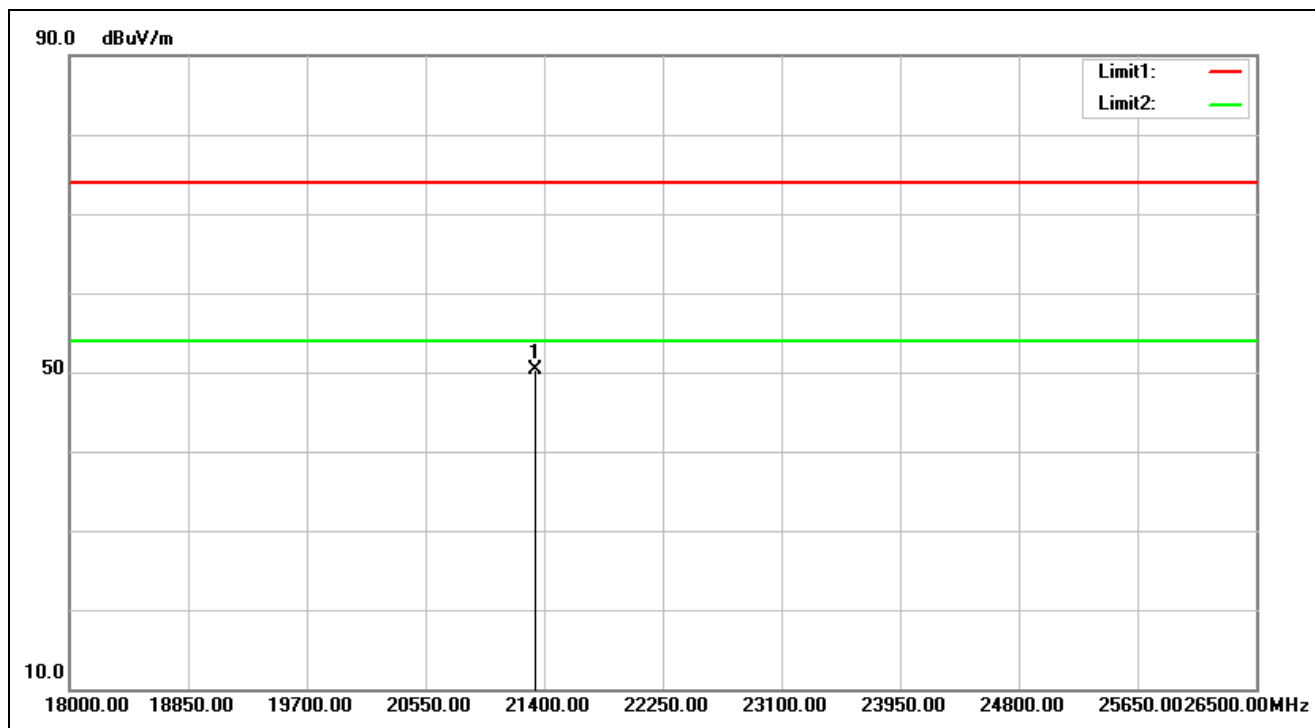
Spurious Emissions, RX Mode, 18-26G



TUV Rheinland Taiwan Ltd.

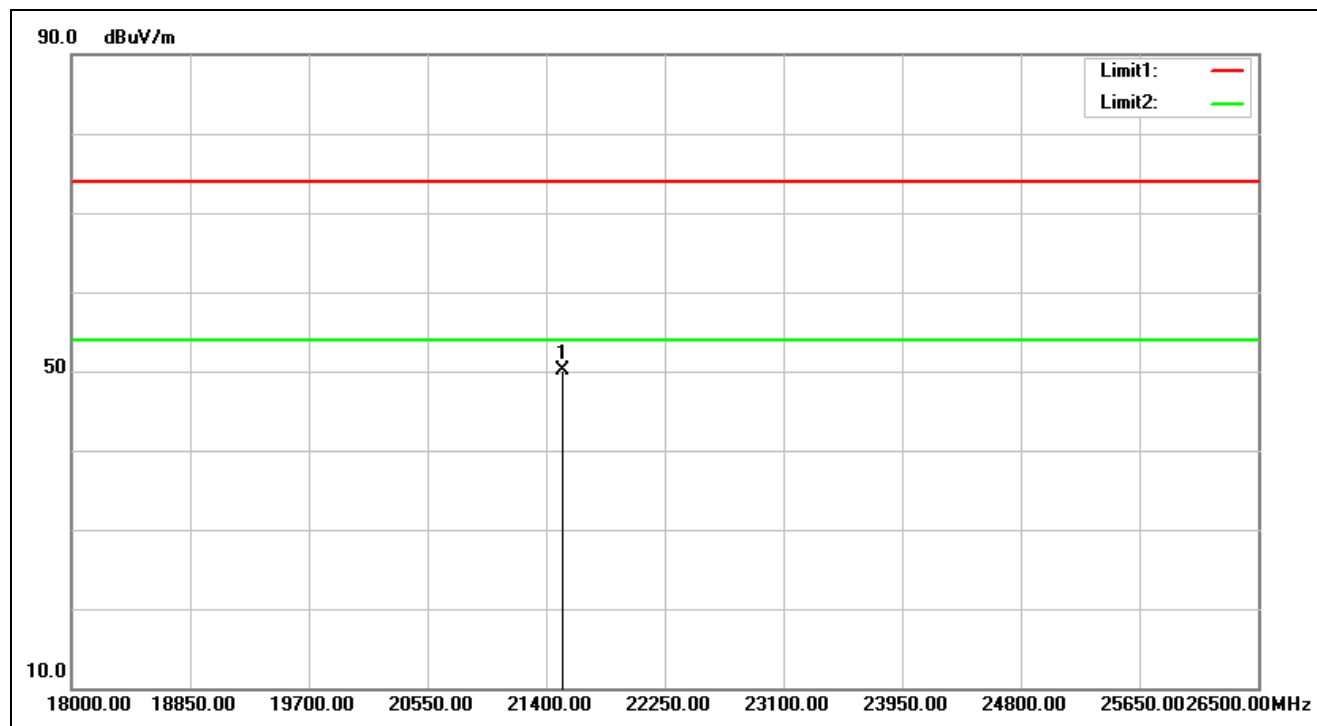
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:45:12
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFA-02-05-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21332.000	32.74	17.62	50.36	74.00	-23.64	peak			



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:45:19
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFA-02-05-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21519.000	32.88	17.21	50.09	74.00	-23.91	peak			

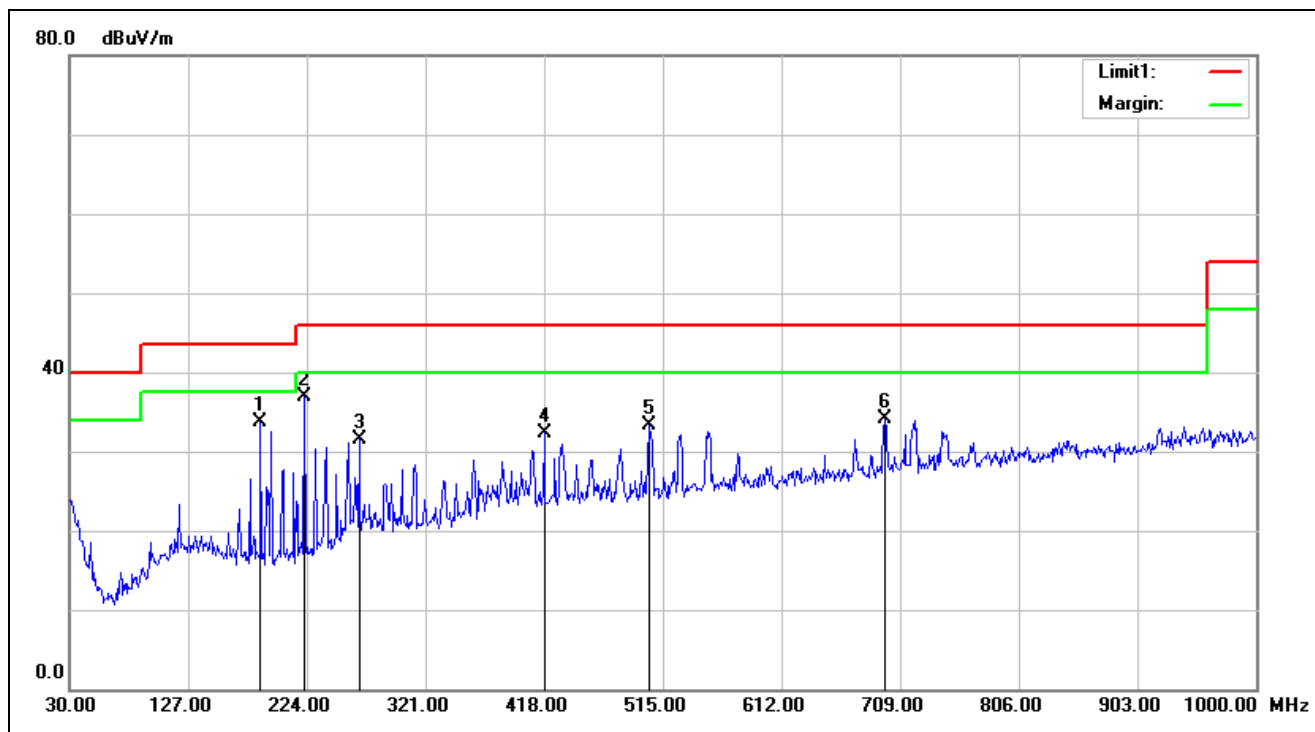
Spurious Emissions, RX Mode, 30M-1G



TUV Rheinland Taiwan Ltd.

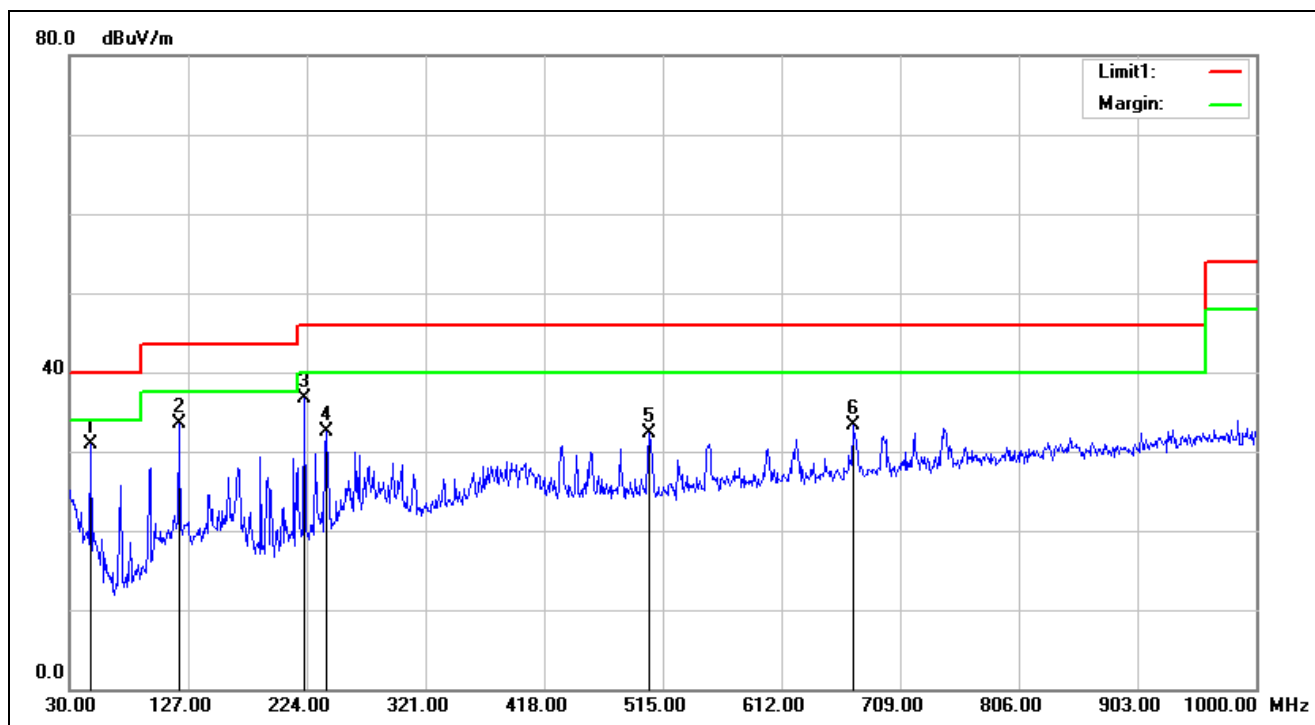
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 18:31:04
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFA-02-05-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	186.1699	-9.59	43.26	33.67	43.50	-9.83	QP	100	234	
2	222.0600	-8.15	45.09	36.94	46.00	-9.06	QP	100	120	
3	266.6800	-5.23	36.72	31.49	46.00	-14.51	QP	100	147	
4	418.0000	-2.24	34.62	32.38	46.00	-13.62	QP	100	267	
5	503.3600	-1.14	34.36	33.22	46.00	-12.78	QP	100	159	
6	696.3900	1.22	32.90	34.12	46.00	-11.88	QP	100	143	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 18:32:01
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFA-02-05-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	47.4600	-10.07	41.07	31.00	40.00	-9.00	QP	100	153	
2	119.2400	-7.50	41.10	33.60	43.50	-9.90	QP	100	132	
3	222.0600	-8.15	44.82	36.67	46.00	-9.33	QP	100	108	
4	239.5200	-6.85	39.36	32.51	46.00	-13.49	QP	100	90	
5	504.3300	-1.11	33.38	32.27	46.00	-13.73	QP	100	319	
6	670.2000	0.82	32.49	33.31	46.00	-12.69	QP	100	162	

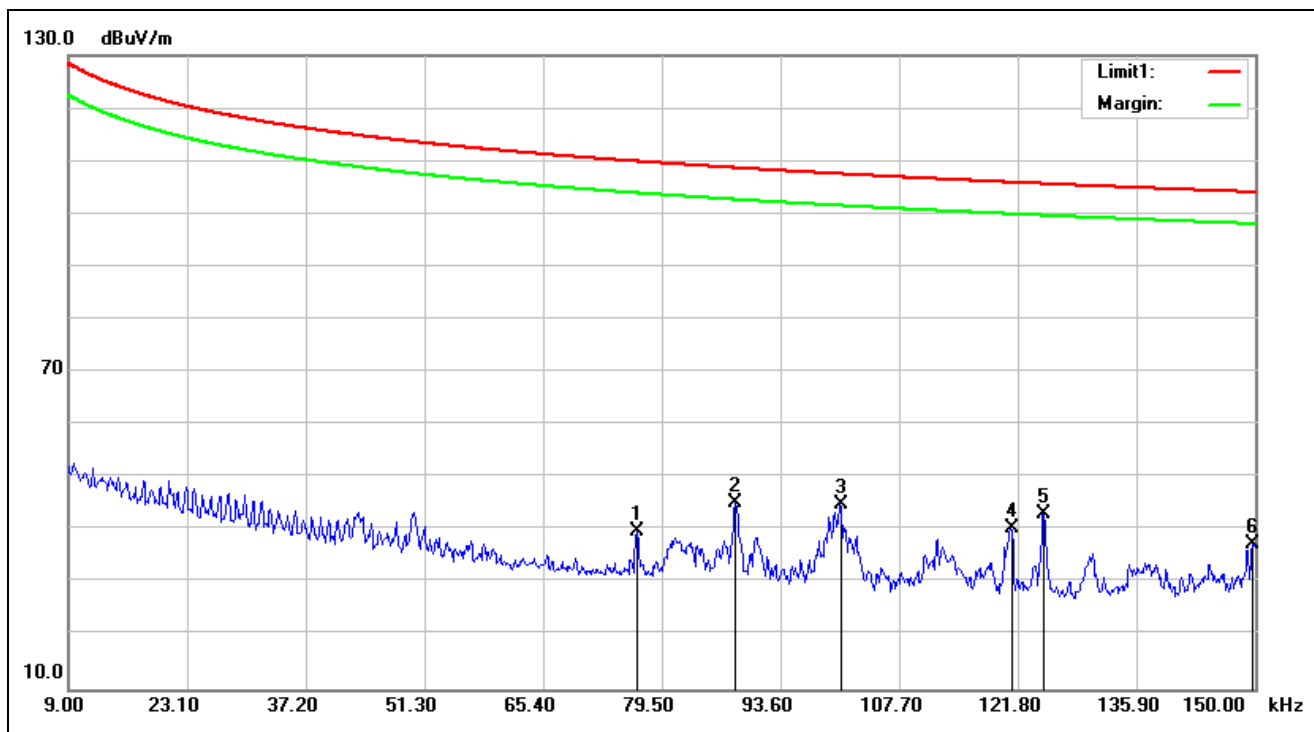
Spurious Emissions, RX Mode, 9K-30M



TUV Rheinland Taiwan Ltd.

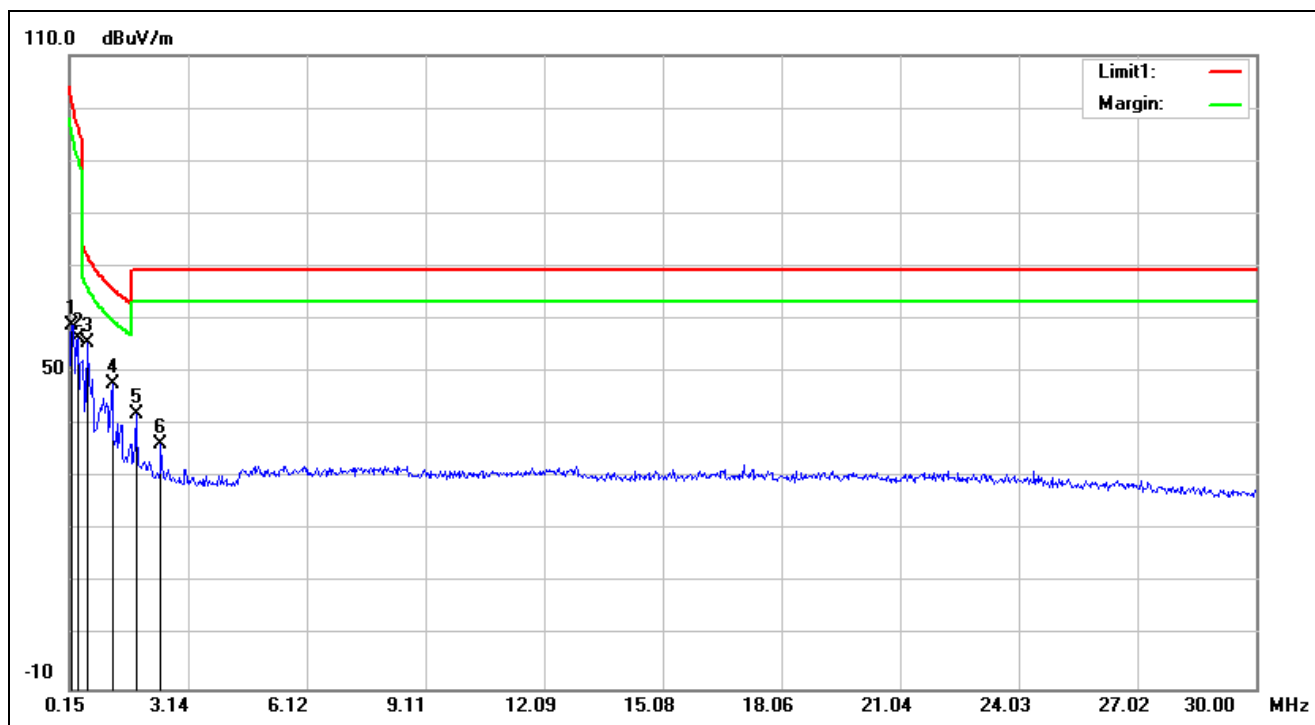
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/2 19:15:12
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFA-02-05-C7H1-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0765	19.27	20.48	39.75	109.92	-70.17	QP	100	177	
2	0.0882	19.20	26.02	45.22	108.69	-63.47	QP	100	189	
3	0.1007	19.13	25.80	44.93	107.54	-62.61	QP	100	213	
4	0.1210	19.11	21.45	40.56	105.94	-65.38	QP	100	207	
5	0.1249	19.11	24.04	43.15	105.67	-62.52	QP	100	360	
6	0.1497	19.08	18.47	37.55	104.09	-66.54	QP	100	153	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/2 19:22:02
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFA-02-05-C7H1-ANT		

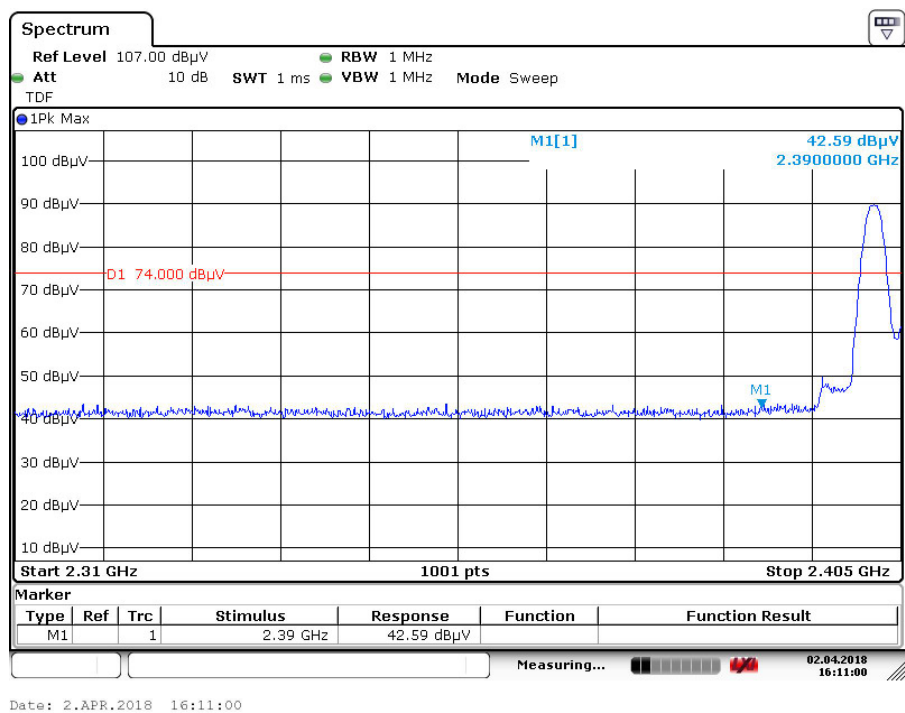
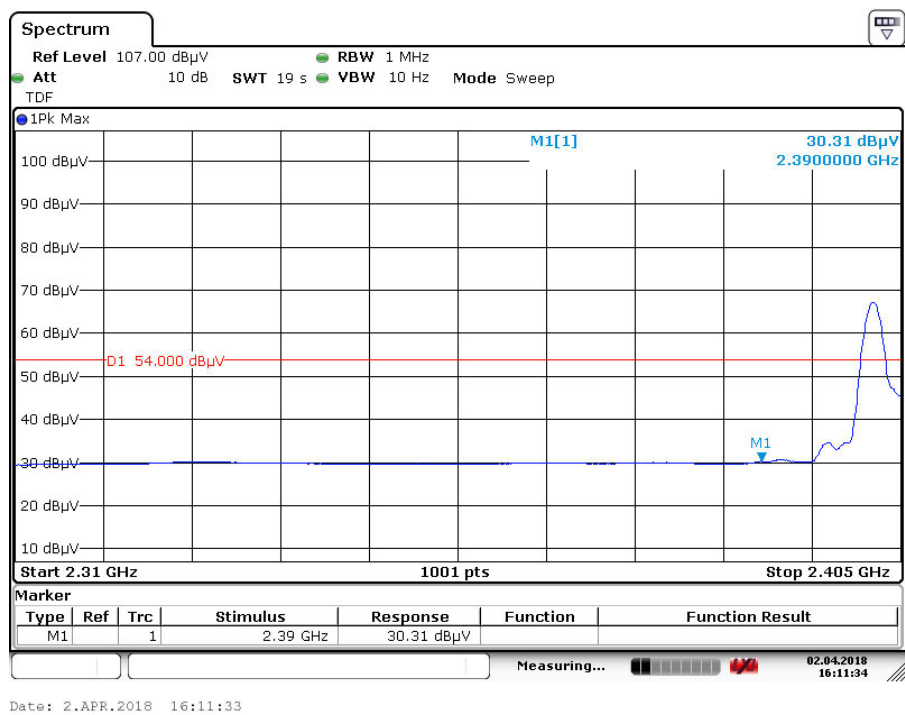
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.2097	19.03	39.85	58.88	101.17	-42.29	QP	100	189	
2	0.3590	18.92	37.68	56.60	96.50	-39.90	QP	100	195	
3	0.5978	18.88	36.73	55.61	72.08	-16.47	QP	100	159	
4	1.2246	18.92	28.79	47.71	65.87	-18.16	QP	100	159	
5	1.8216	18.79	23.33	42.12	69.50	-27.38	QP	100	159	
6	2.4484	18.65	17.79	36.44	69.50	-33.06	QP	100	183	

RFPCA381013IMAB701-ANT

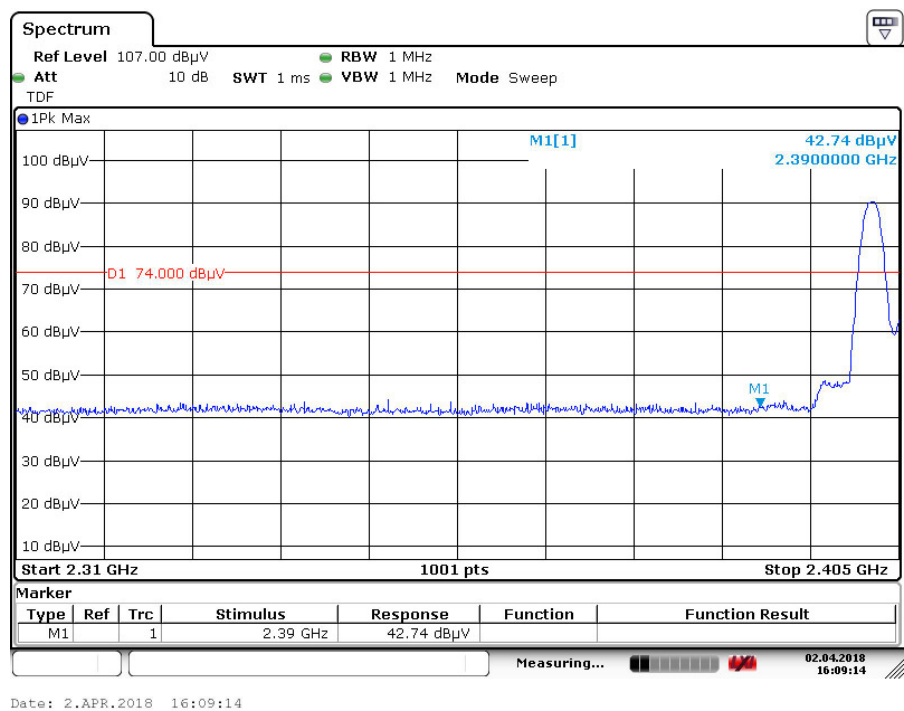
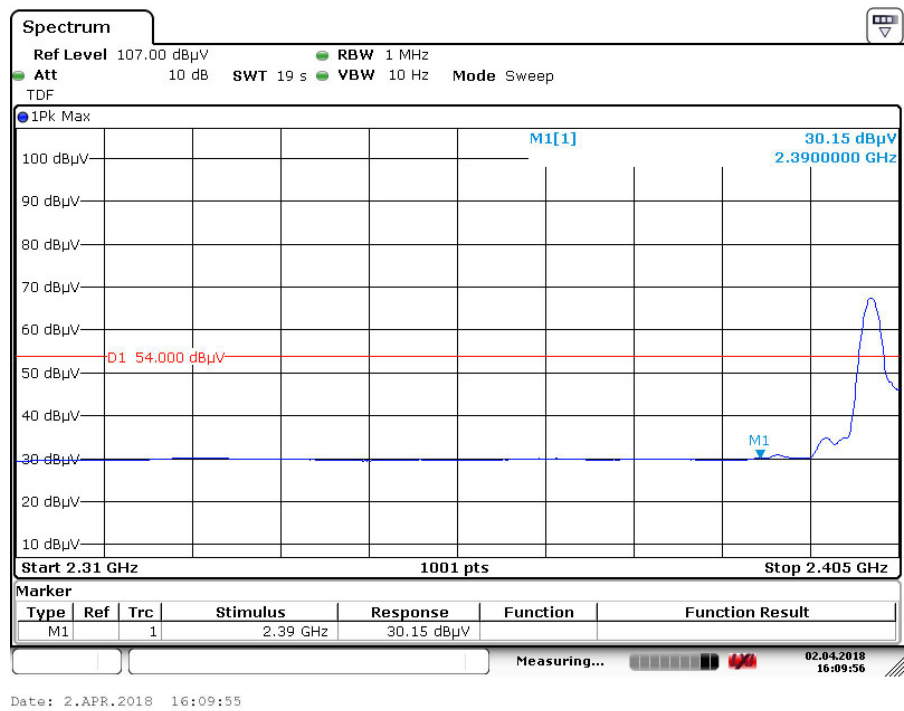
Spurious Emissions, Band Edges, 2.35-2.5G

Radiated Bandedge (GFSK)

Low Channel (Hor)

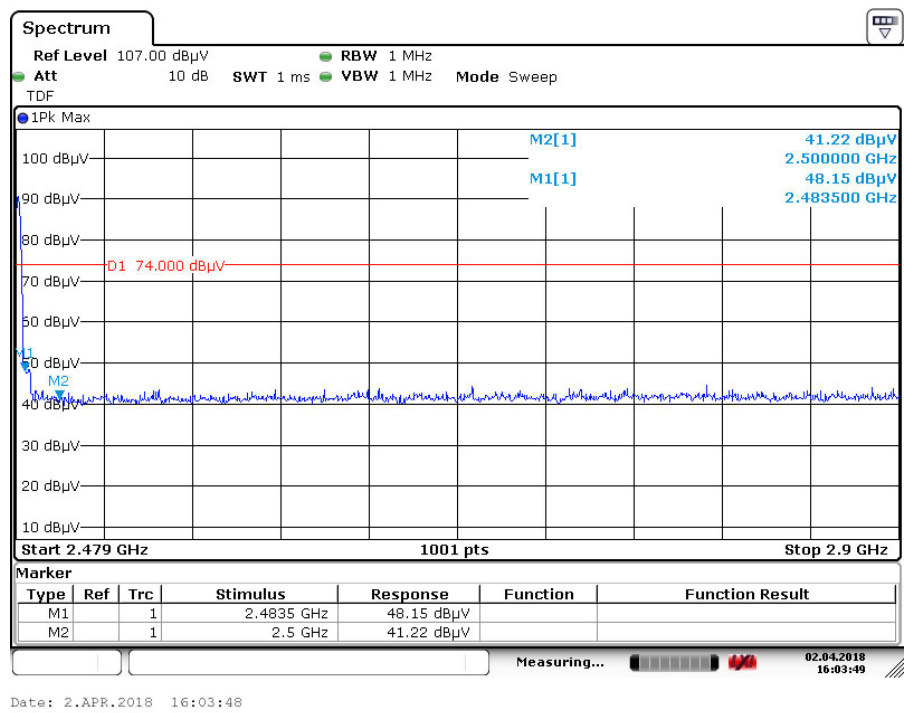
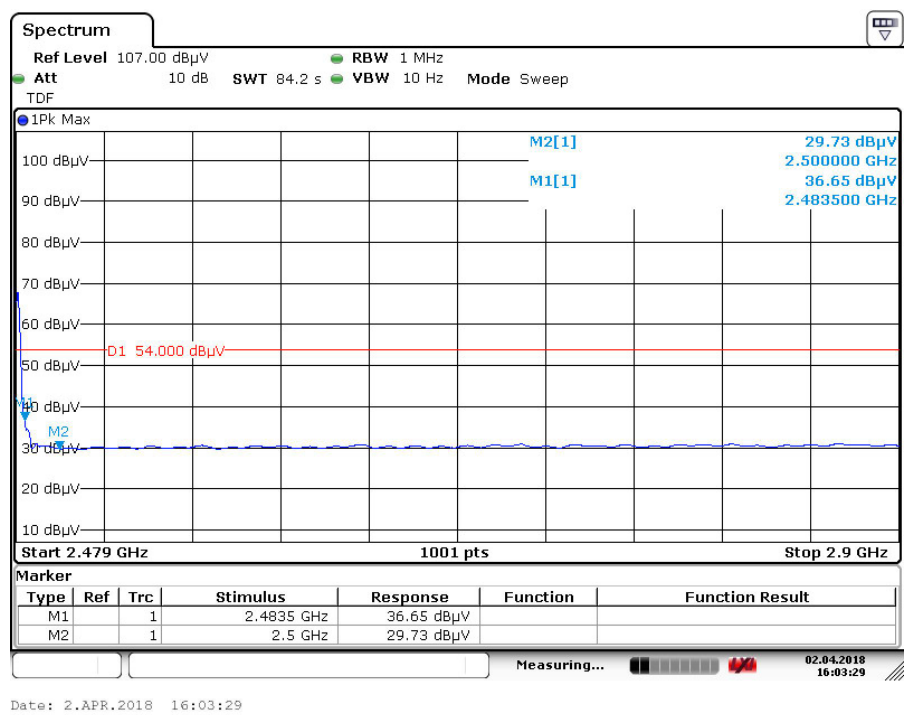


Low Channel (Ver)

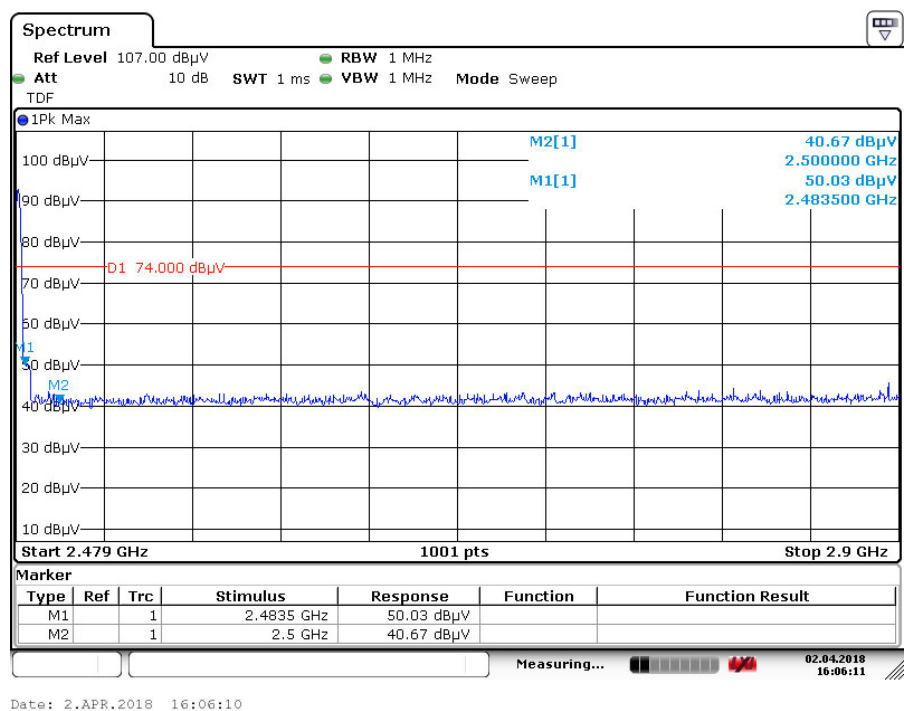
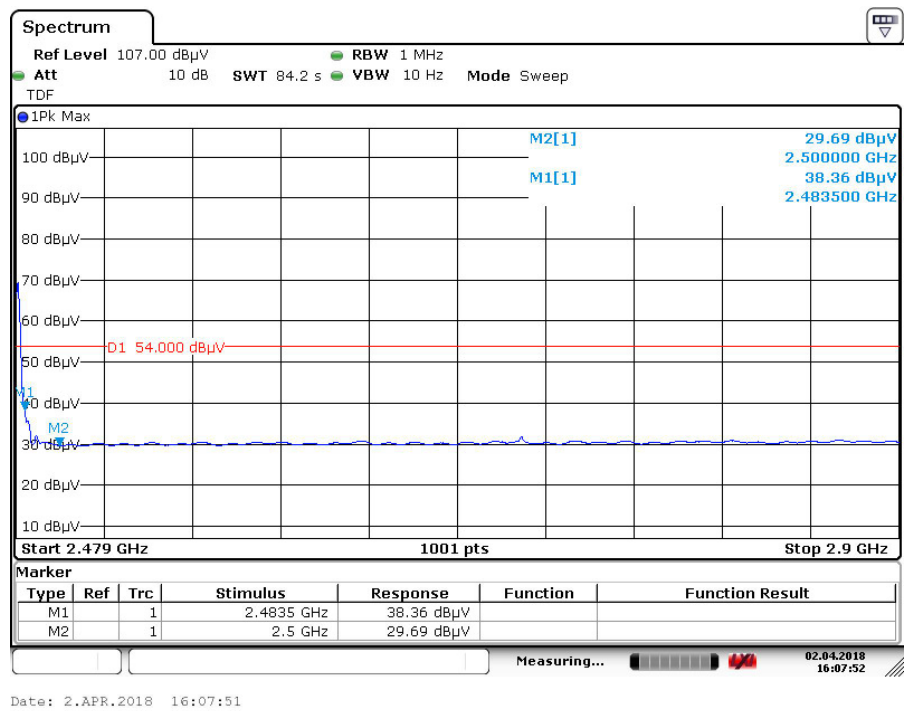


Radiated Bandedge (GFSK)

High Channel (Hor)



High Channel (Ver)



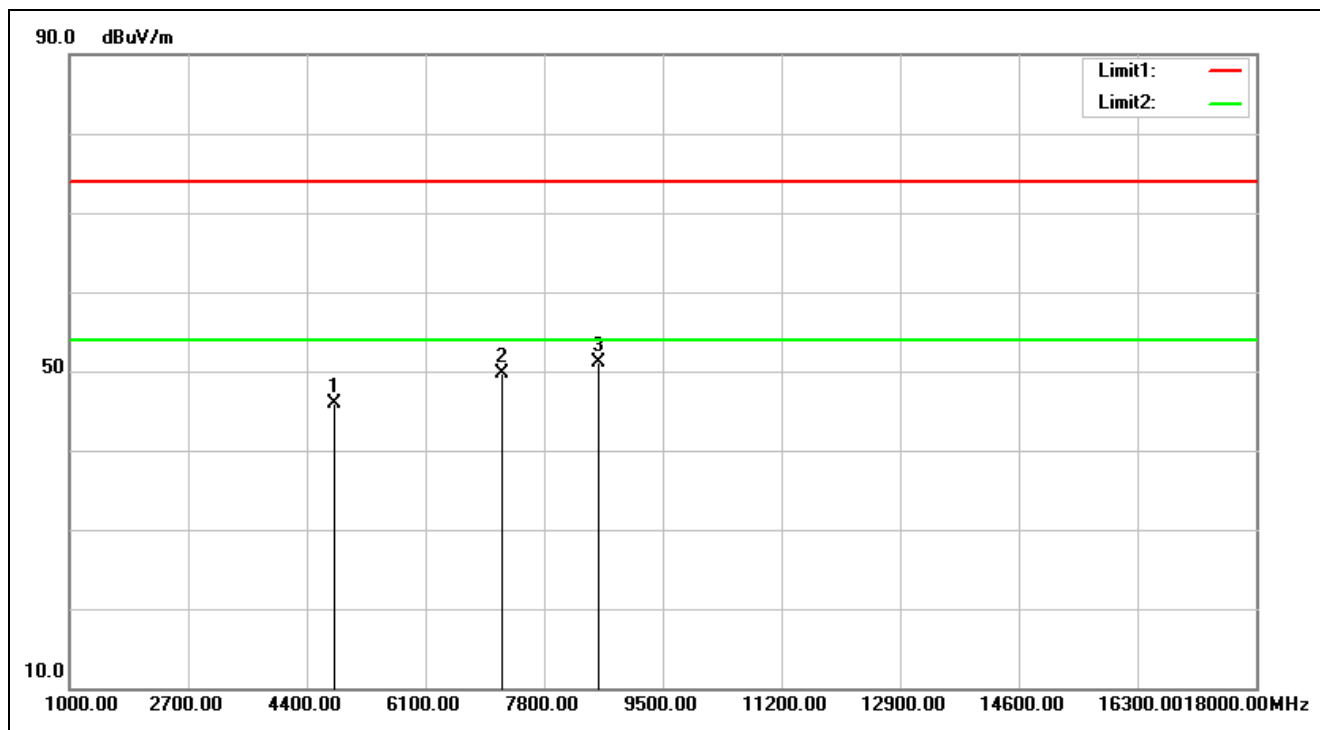
Spurious Emissions, TX Mode, 1-18G



TUV Rheinland Taiwan Ltd.

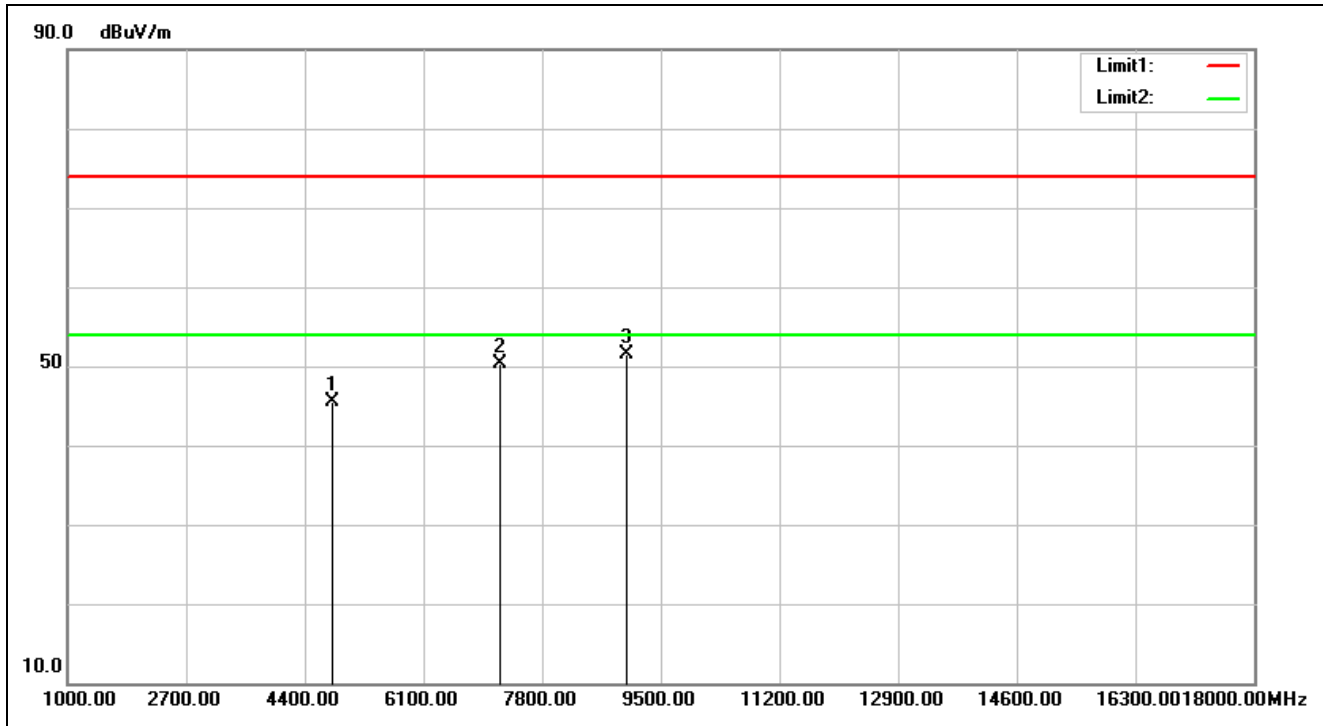
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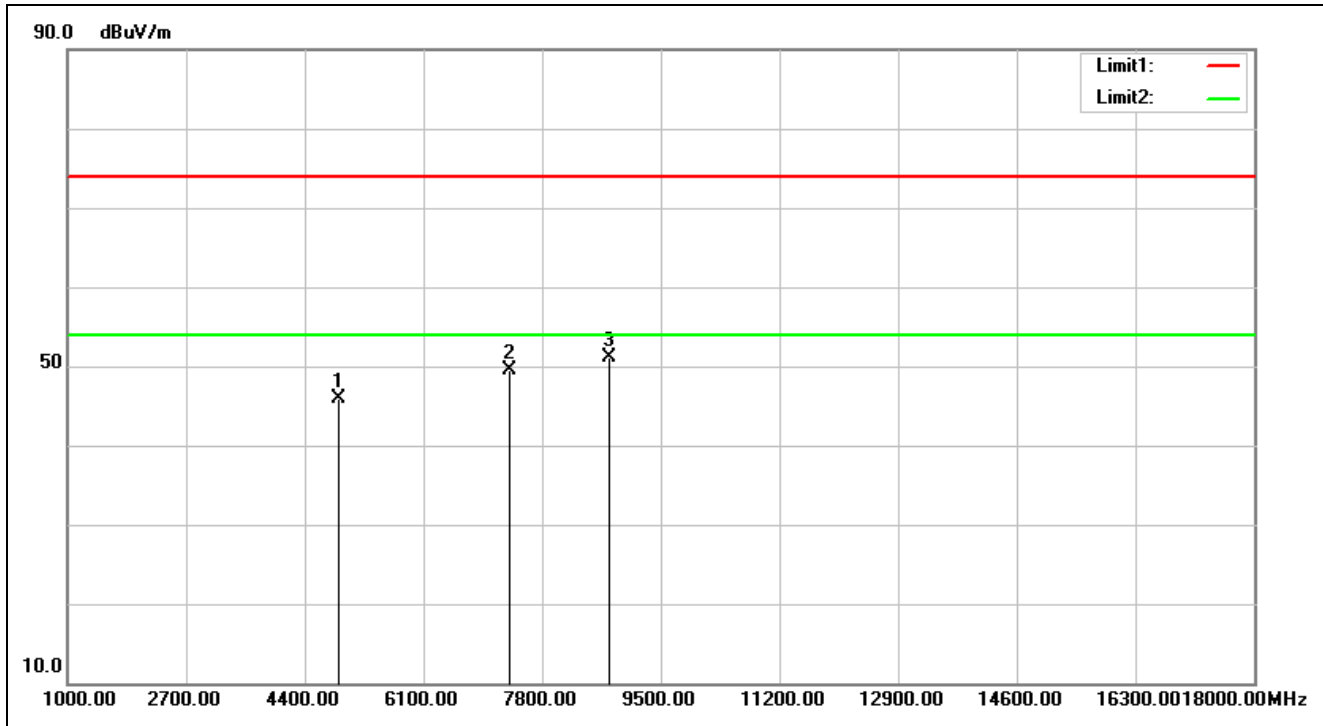
Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:05:12
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2402-TX		
Remark:	Power Setting -5 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.72	48.67	45.95	74.00	-28.05	peak		0	
2	7206.000	5.25	44.48	49.73	74.00	-24.27	peak		0	
3	8582.000	6.39	44.78	51.17	74.00	-22.83	peak	100	275	



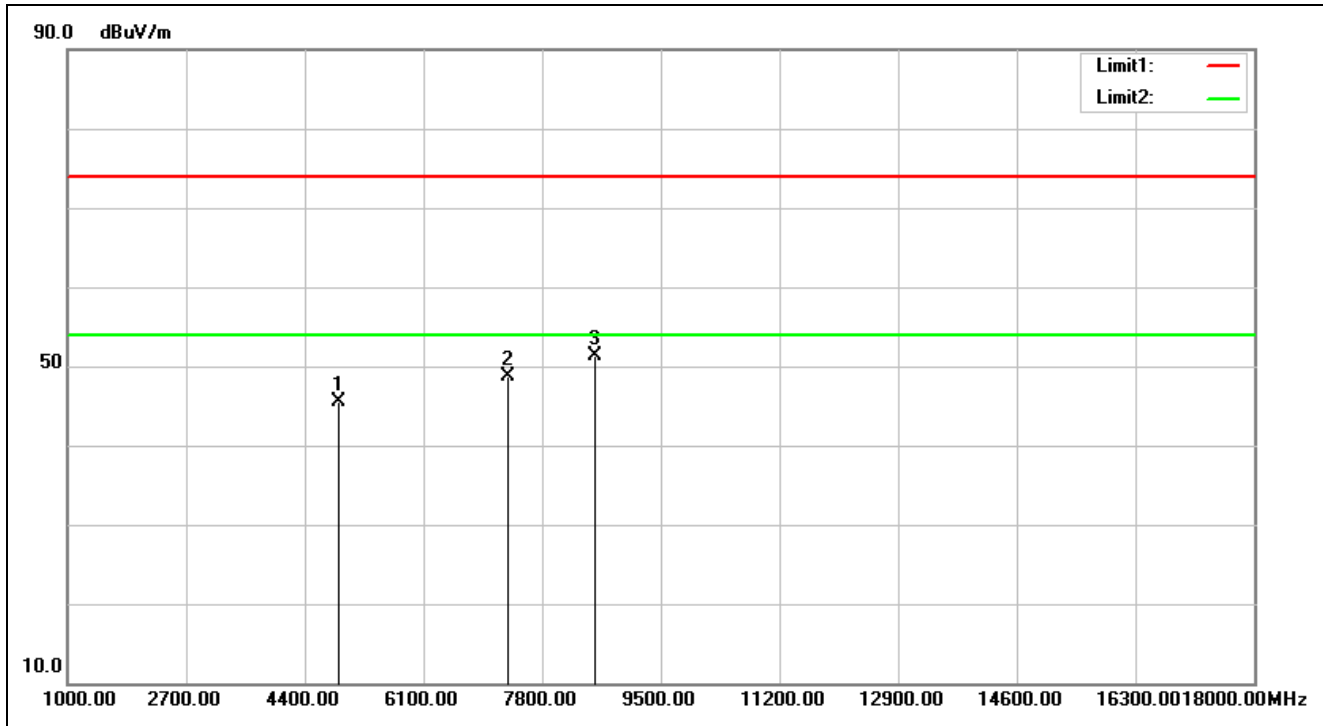
Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:06:08
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2402-TX		
Remark:	Power Setting -5 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4804.000	-2.72	48.22	45.50	74.00	-28.50	peak			
2	7206.000	5.25	45.04	50.29	74.00	-23.71	peak			
3	9007.000	6.44	45.15	51.59	74.00	-22.41	peak	100	269	



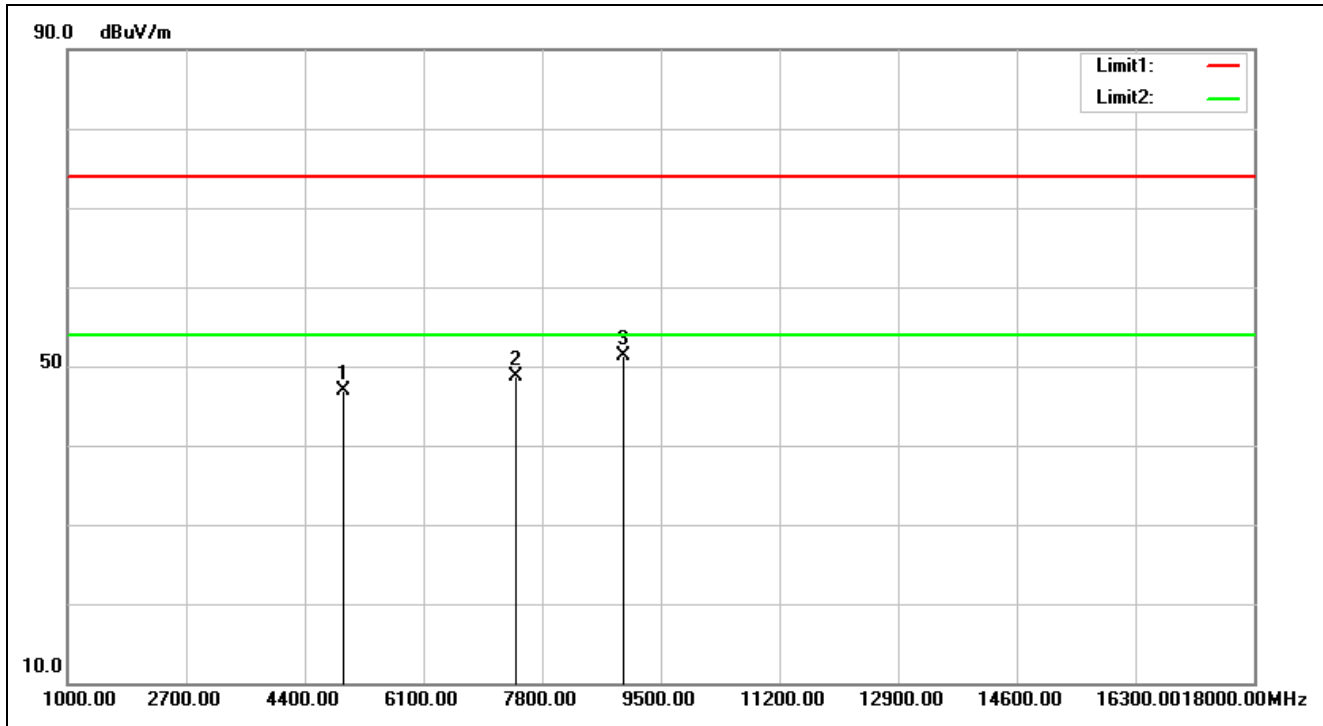
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:08:38
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4880.000	-2.50	48.45	45.95	74.00	-28.05	peak			
2	7320.000	5.54	43.87	49.41	74.00	-24.59	peak			
3	8752.000	6.41	44.68	51.09	74.00	-22.91	peak	100	360	



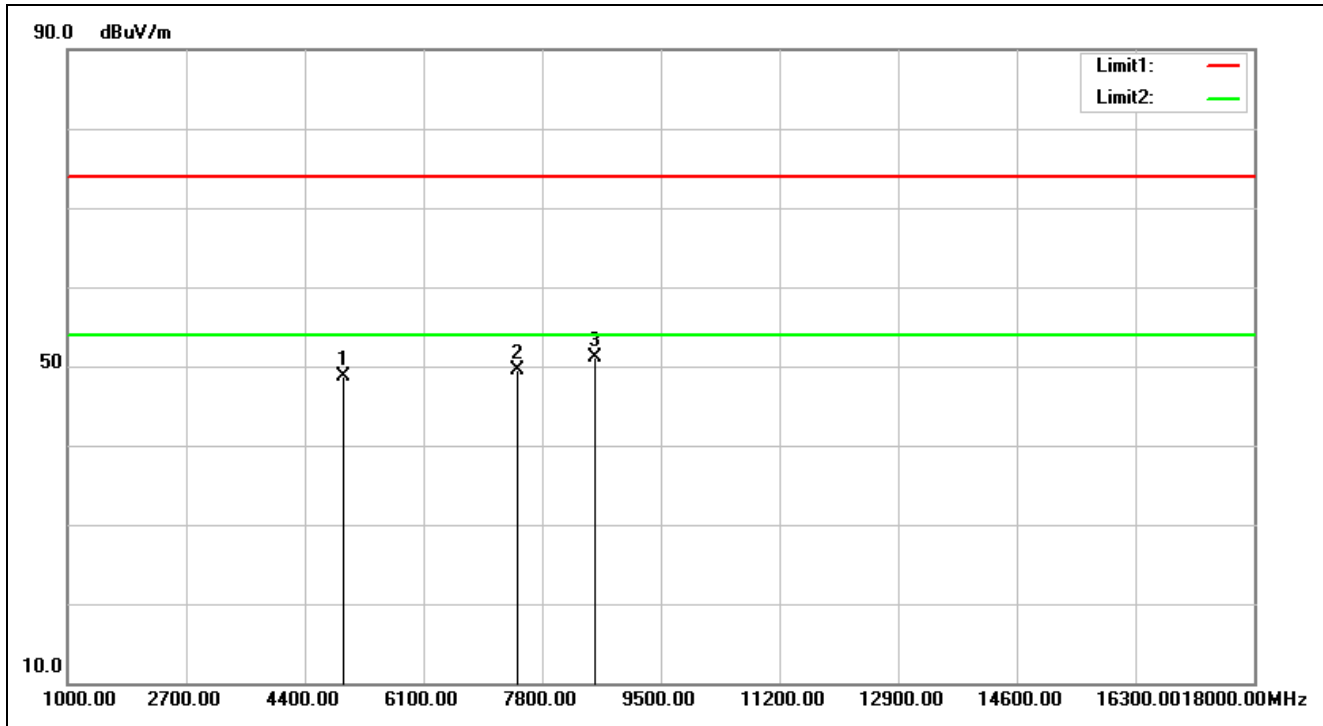
Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:09:34
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4880.000	-2.50	48.05	45.55	74.00	-28.45	peak			
2	7320.000	5.54	43.25	48.79	74.00	-25.21	peak			
3	8548.000	6.38	45.00	51.38	74.00	-22.62	peak	100	41	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:12:02
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2480-TX		
Remark:	Power Setting -5 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4960.000	-2.28	49.23	46.95	74.00	-27.05	peak			
2	7440.000	5.84	42.82	48.66	74.00	-25.34	peak			
3	8973.000	6.44	44.90	51.34	74.00	-22.66	peak	100	197	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:12:59
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2480-TX		
Remark:	Power Setting -5 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4960.000	-2.28	51.05	48.77	74.00	-25.23	peak			
2	7440.000	5.84	43.71	49.55	74.00	-24.45	peak			
3	8565.000	6.39	44.76	51.15	74.00	-22.85	peak	100	341	

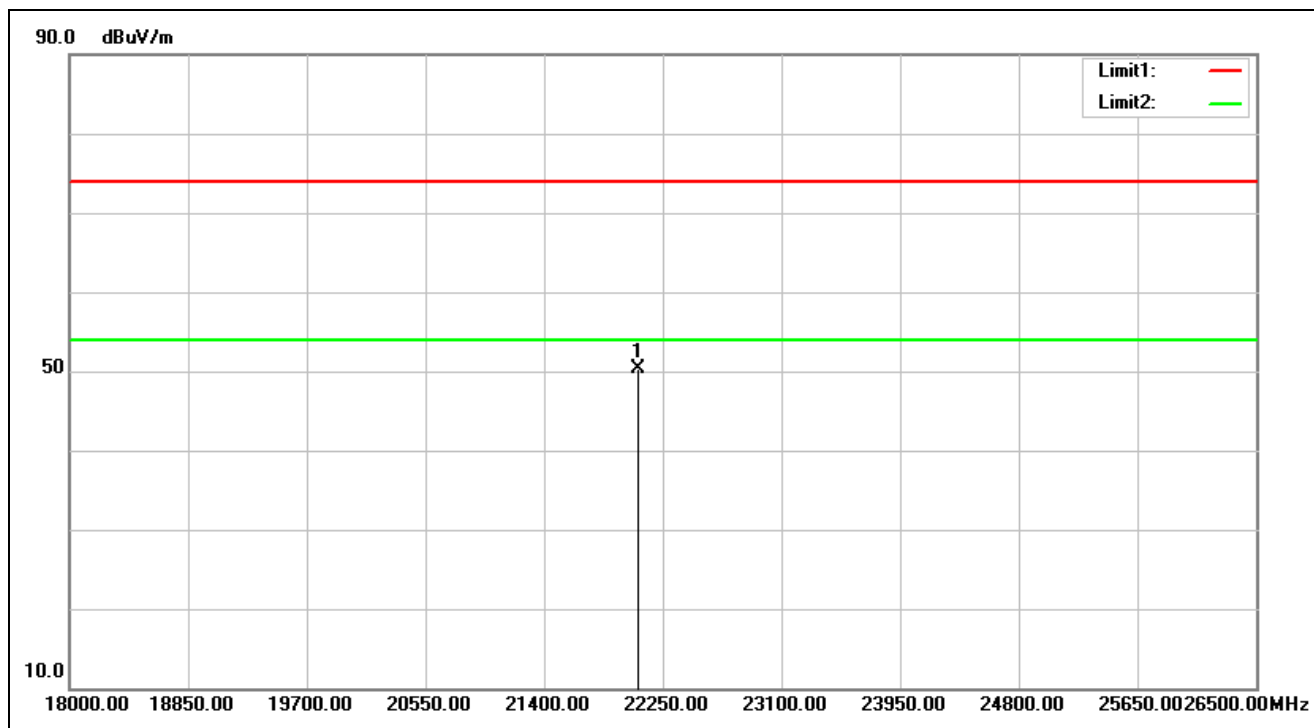
Spurious Emissions, TX Mode, 18-26G



TUV Rheinland Taiwan Ltd.

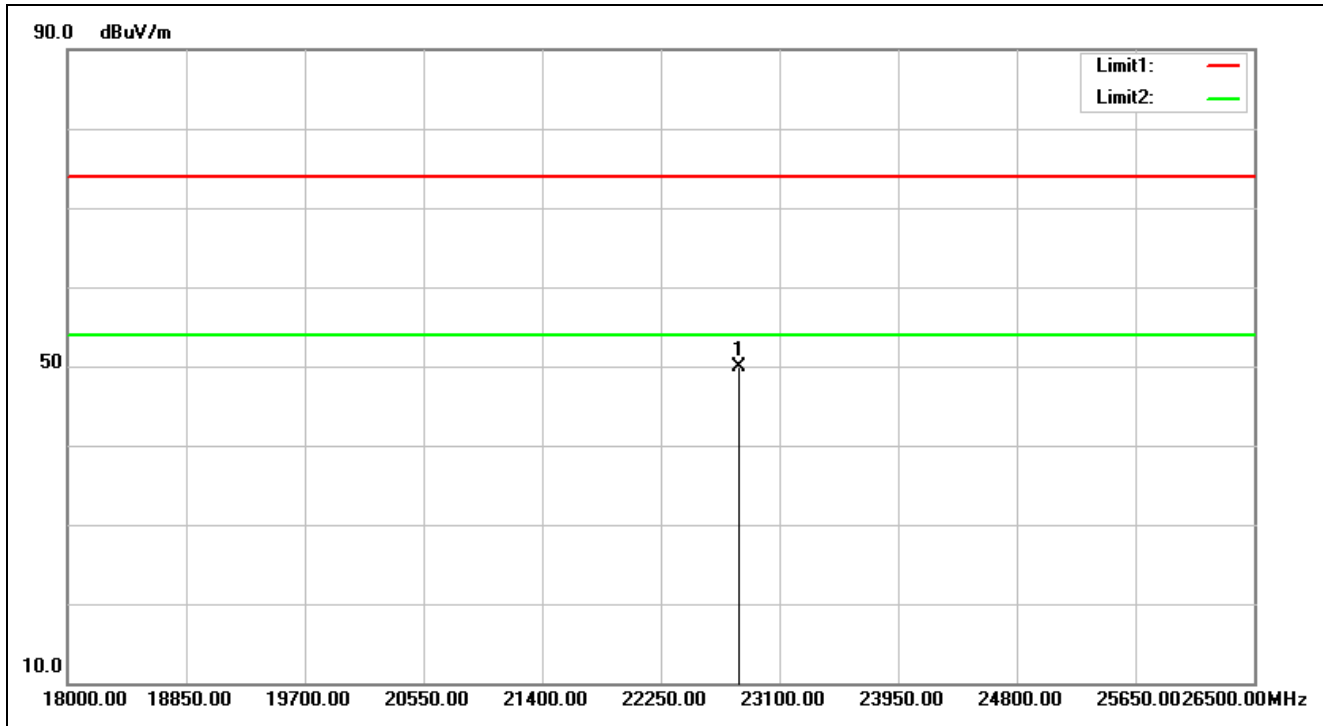
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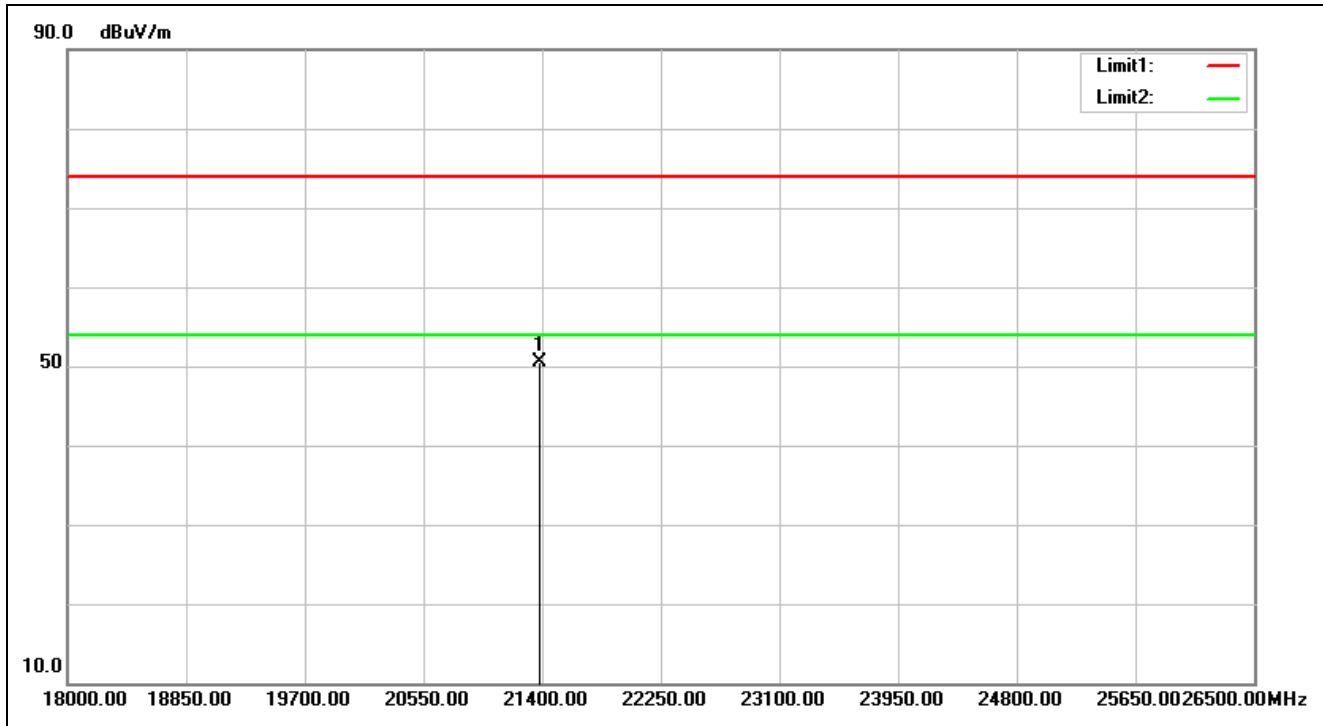
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:29:00
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2402-TX		
Remark:	Power Setting -5 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22071.500	32.60	17.69	50.29	74.00	-23.71	peak		0	



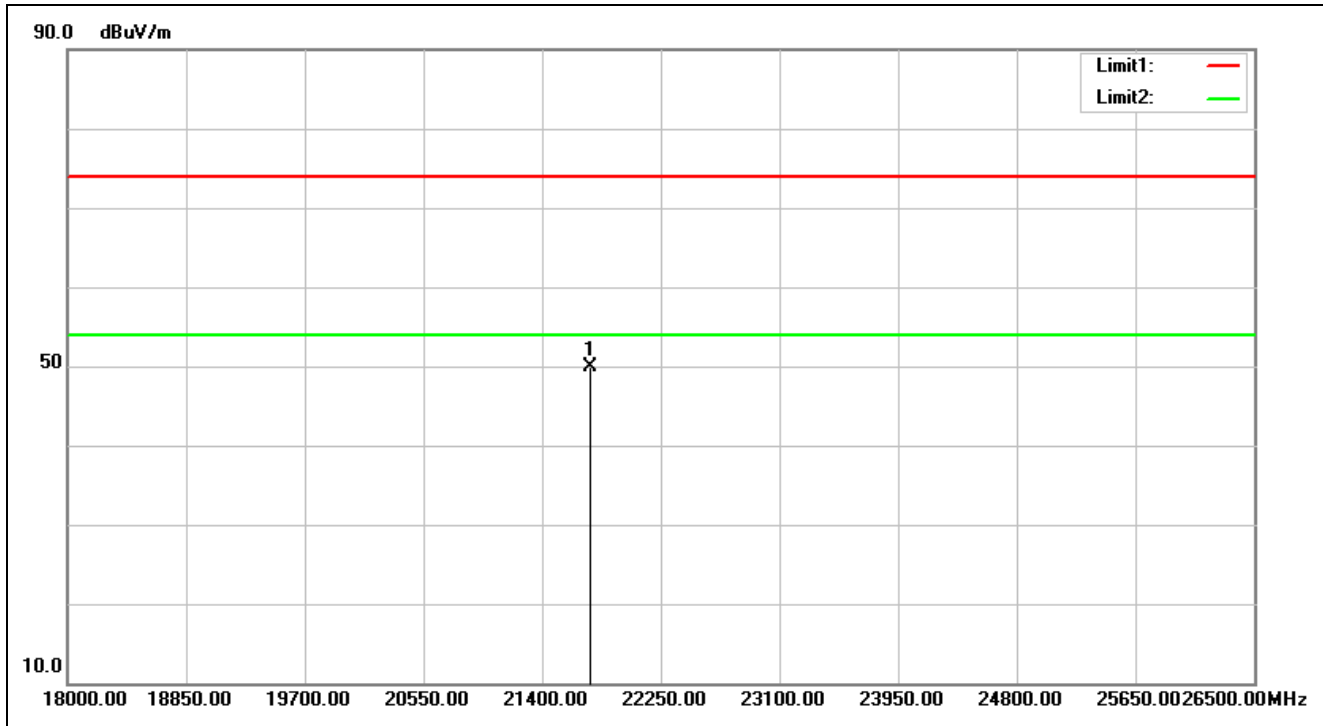
Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:29:07
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2402-TX		
Remark:	Power Setting -5 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22811.000	32.74	17.26	50.00	74.00	-24.00	peak	100	238	



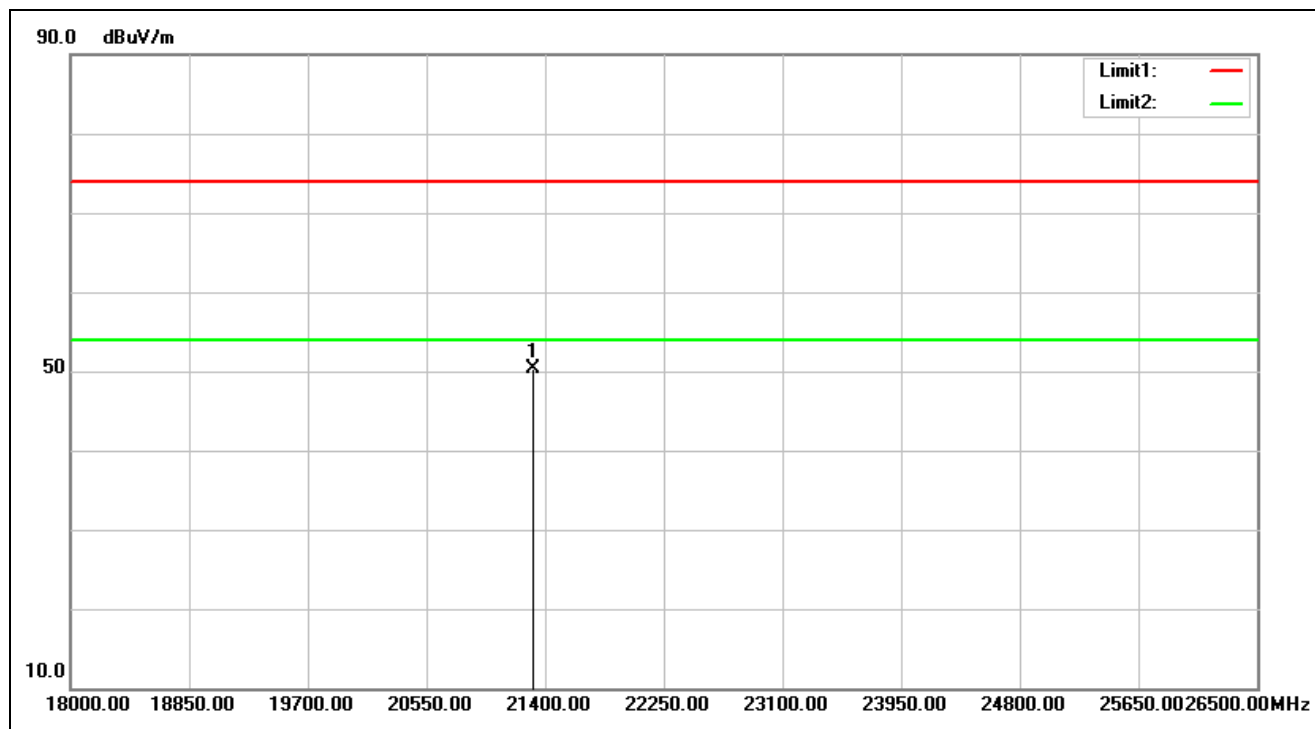
Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:31:06
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21383.000	32.78	17.73	50.51	74.00	-23.49	peak			



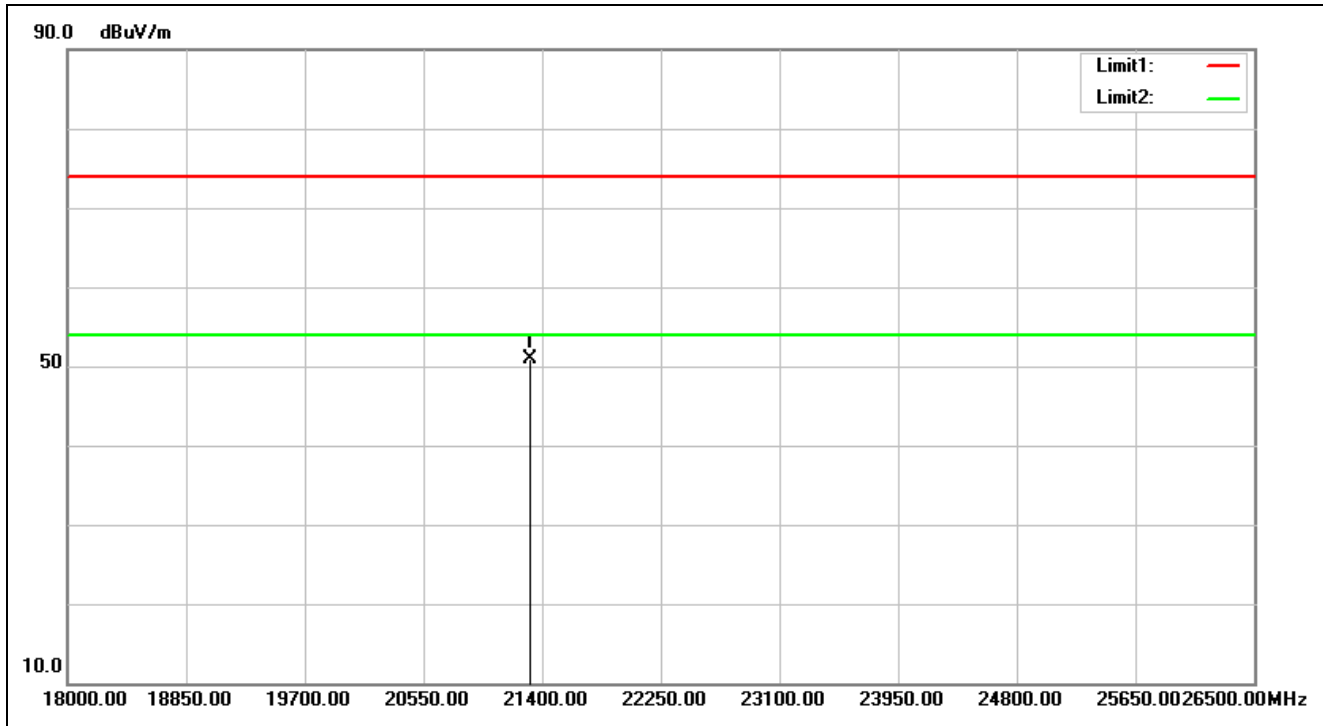
Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:31:12
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21748.500	32.74	17.19	49.93	74.00	-24.07	peak			



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:31:37
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2480-TX		
Remark:	Power Setting -5 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21315.000	32.72	17.56	50.28	74.00	-23.72	peak			



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:31:44
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2480-TX		
Remark:	Power Setting -5 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21315.000	32.72	18.11	50.83	74.00	-23.17	peak			

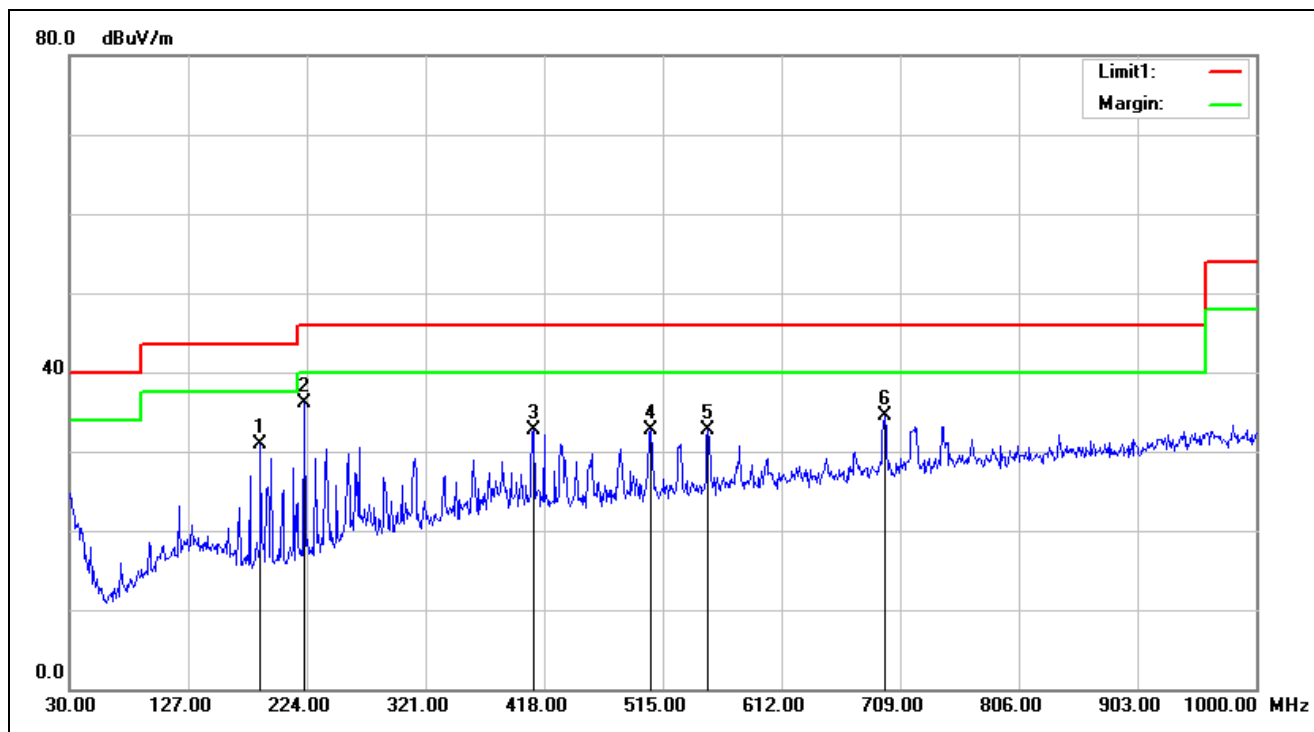
Spurious Emissions, TX Mode, 30M-1G



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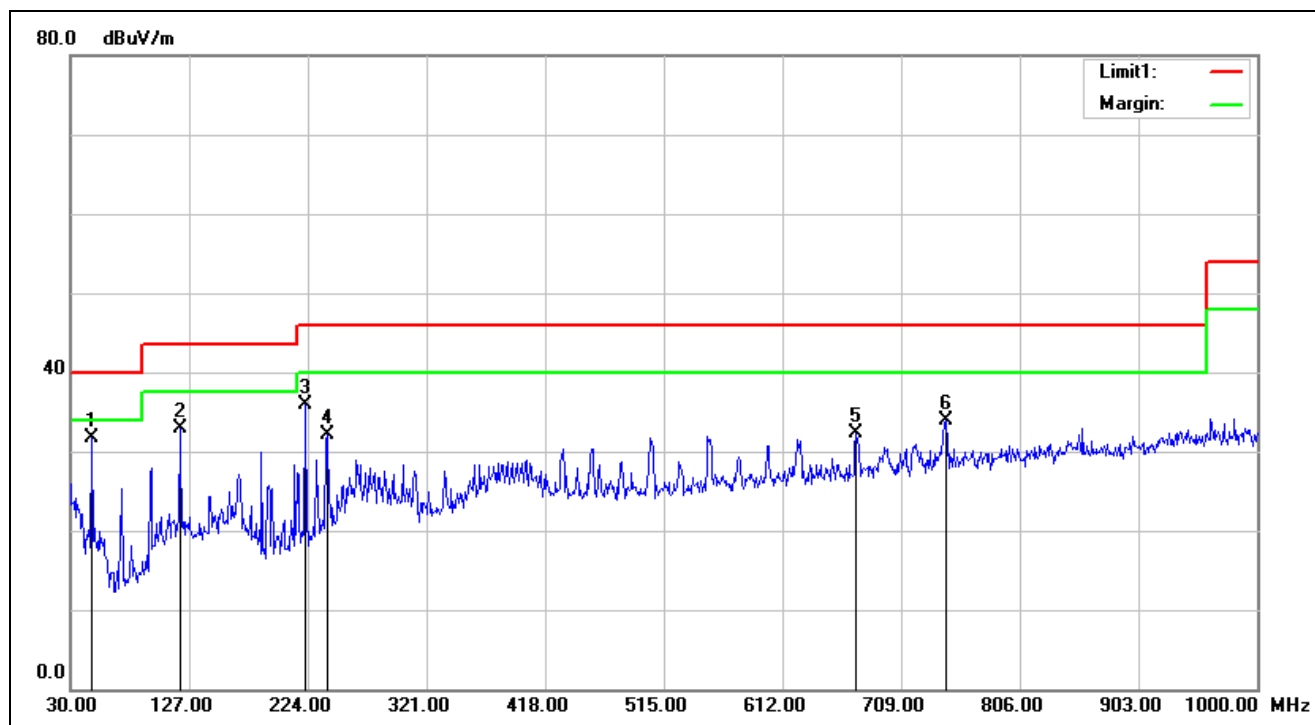
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 18:44:08
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	186.1699	-9.59	40.53	30.94	43.50	-12.56	QP	100	233	
2	222.0600	-8.15	44.27	36.12	46.00	-9.88	QP	100	131	
3	409.2700	-2.34	35.13	32.79	46.00	-13.21	QP	100	284	
4	505.3000	-1.10	33.74	32.64	46.00	-13.36	QP	100	161	
5	551.8600	-0.44	33.09	32.65	46.00	-13.35	QP	100	158	
6	696.3900	1.22	33.20	34.42	46.00	-11.58	QP	100	143	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 18:45:05
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	47.4600	-10.07	41.84	31.77	40.00	-8.23	QP	100	360	
2	119.2400	-7.50	40.49	32.99	43.50	-10.51	QP	100	156	
3	222.0600	-8.15	43.97	35.82	46.00	-10.18	QP	100	104	
4	239.5200	-6.85	38.86	32.01	46.00	-13.99	QP	100	110	
5	672.1400	0.85	31.41	32.26	46.00	-13.74	QP	100	156	
6	745.8600	2.28	31.63	33.91	46.00	-12.09	QP	100	135	

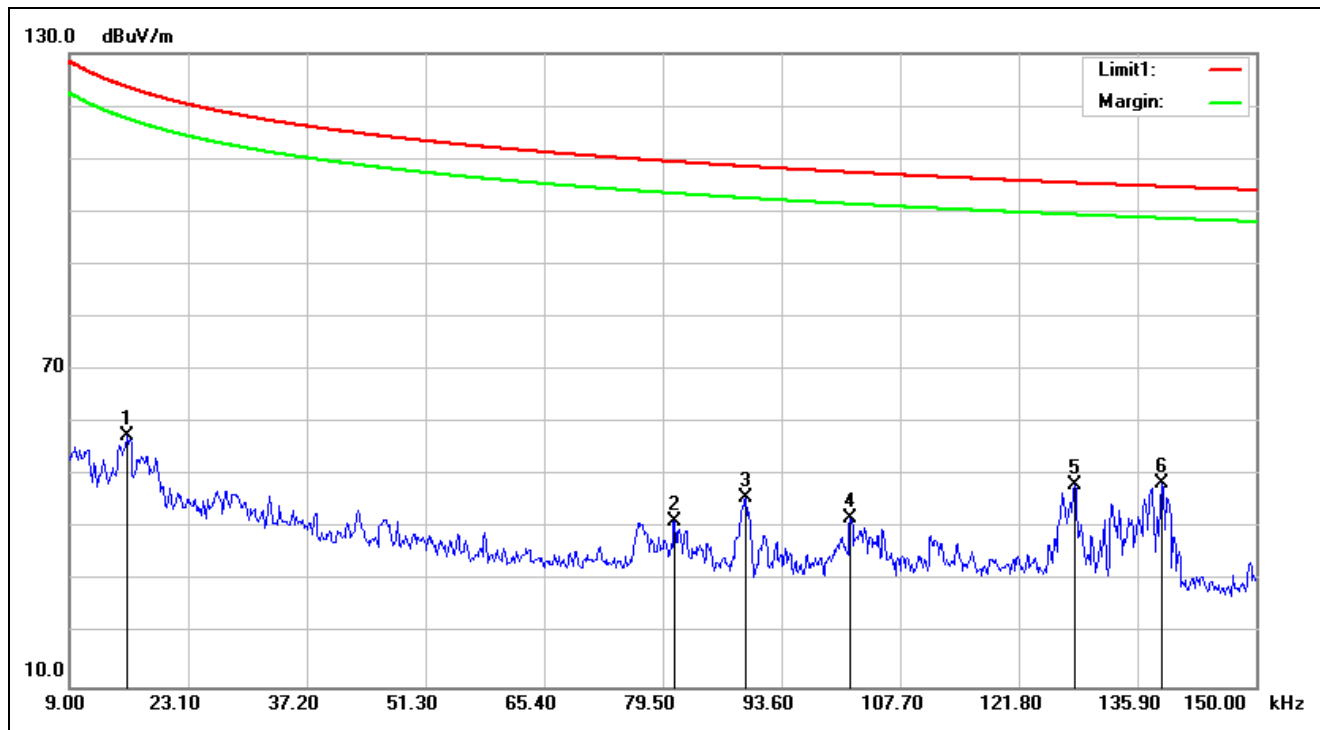
Spurious Emissions, TX Mode, 9k-30M



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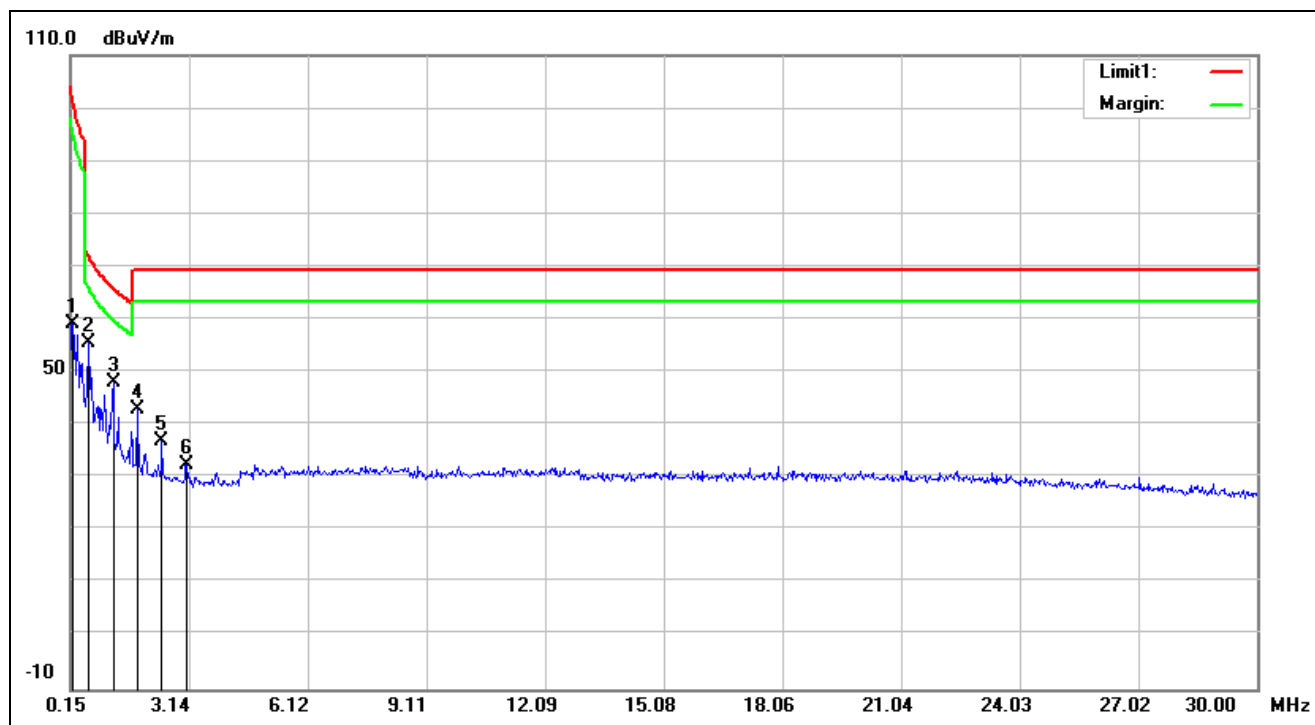
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Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/2 18:55:05
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0157	19.99	37.58	57.57	123.67	-66.10	QP	100	141	
2	0.0809	19.24	22.09	41.33	109.44	-68.11	QP	100	192	
3	0.0893	19.19	26.62	45.81	108.58	-62.77	QP	100	198	
4	0.1017	19.13	22.69	41.82	107.45	-65.63	QP	100	207	
5	0.1284	19.10	29.17	48.27	105.43	-57.16	QP	100	204	
6	0.1388	19.09	29.46	48.55	104.75	-56.20	QP	100	195	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/2 18:57:57
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-TX		
Remark:	Power Setting -6 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.2097	19.03	40.12	59.15	101.17	-42.02	QP	100	183	
2	0.5977	18.88	36.70	55.58	72.08	-16.50	QP	100	183	
3	1.2246	18.92	29.22	48.14	65.87	-17.73	QP	100	187	
4	1.8216	18.79	24.14	42.93	69.50	-26.57	QP	100	181	
5	2.4484	18.65	18.20	36.85	69.50	-32.65	QP	100	181	
6	3.0753	18.57	13.87	32.44	69.50	-37.06	QP	100	181	

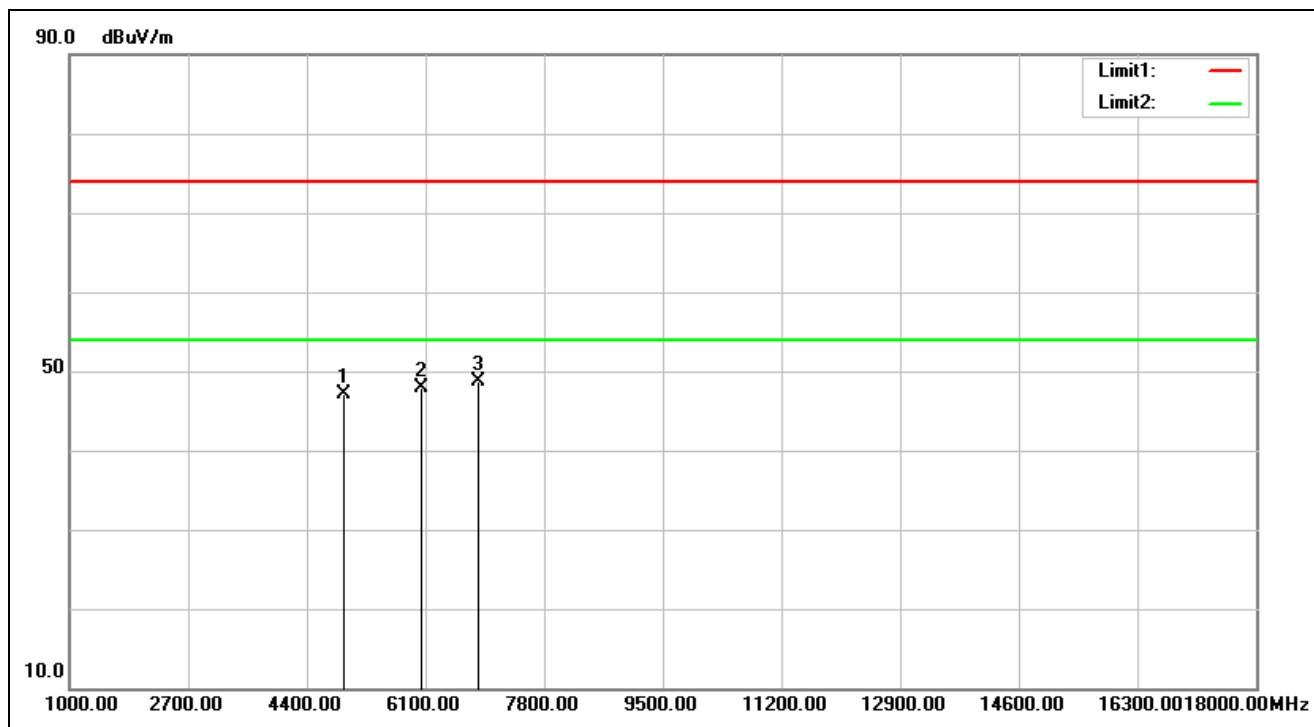
Spurious Emissions, RX Mode, 1-18G



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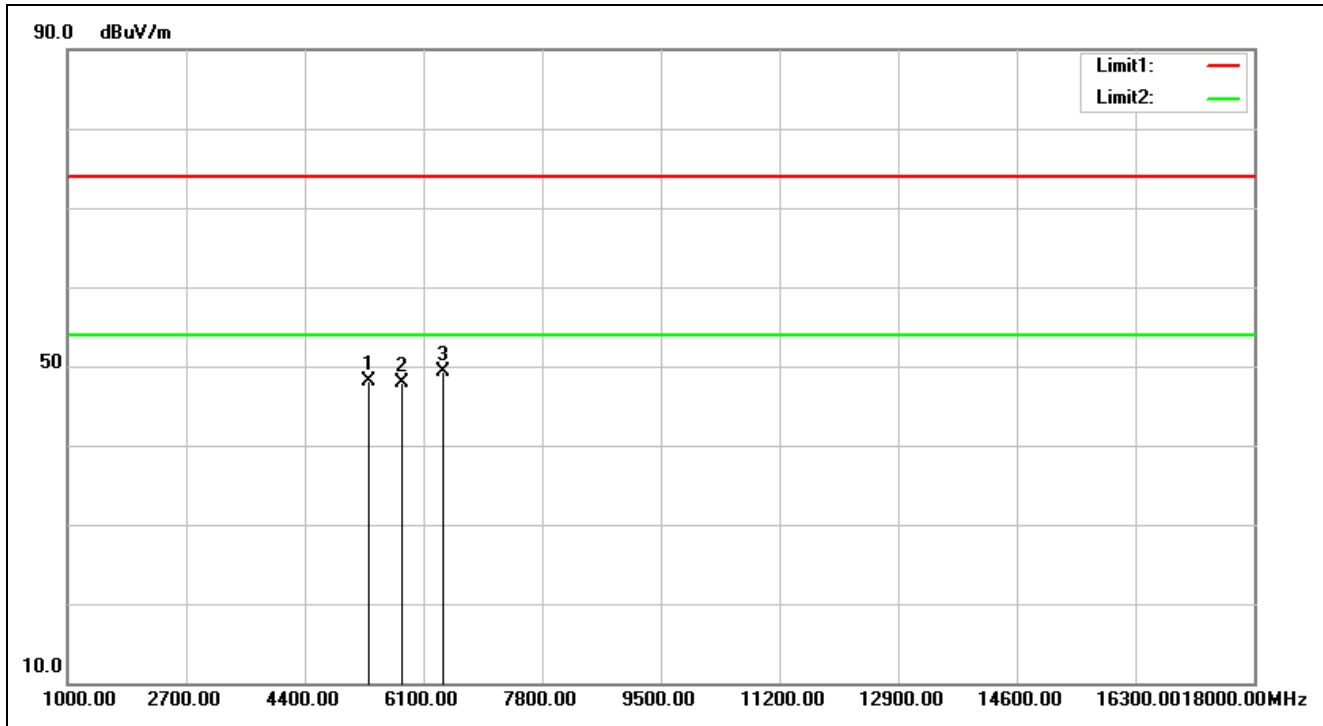
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105

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



Service No.:	11407445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:15:35
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFPCA381013-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4927.000	-3.34	50.46	47.12	74.00	-26.88	peak	100	19	
2	6049.000	2.55	45.37	47.92	74.00	-26.08	peak	100	172	
3	6848.000	3.89	44.78	48.67	74.00	-25.33	peak	100	291	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:16:32
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%) :	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFPCA381013-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	5318.000	-1.70	49.81	48.11	74.00	-25.89	peak	100	148	
2	5794.000	1.03	46.84	47.87	74.00	-26.13	peak	100	54	
3	6389.000	3.89	45.38	49.27	74.00	-24.73	peak	100	144	

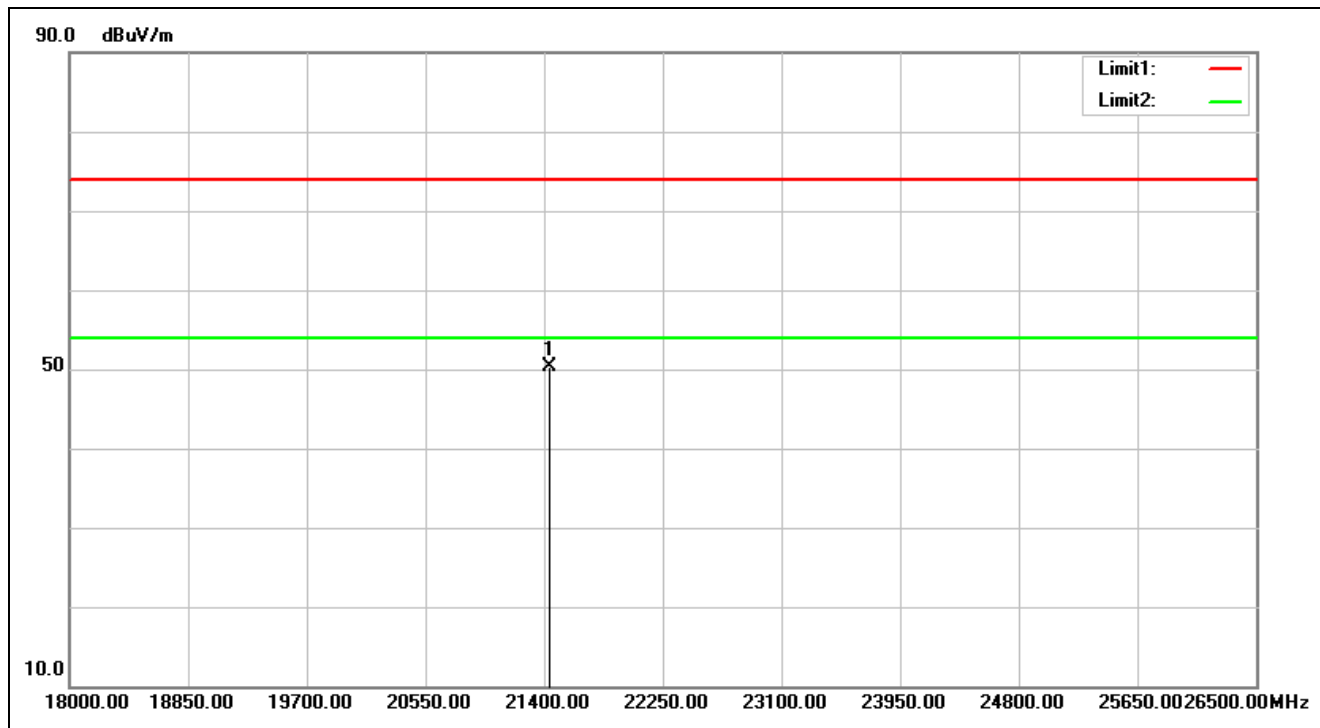
Spurious Emissions, RX Mode, 18-26G



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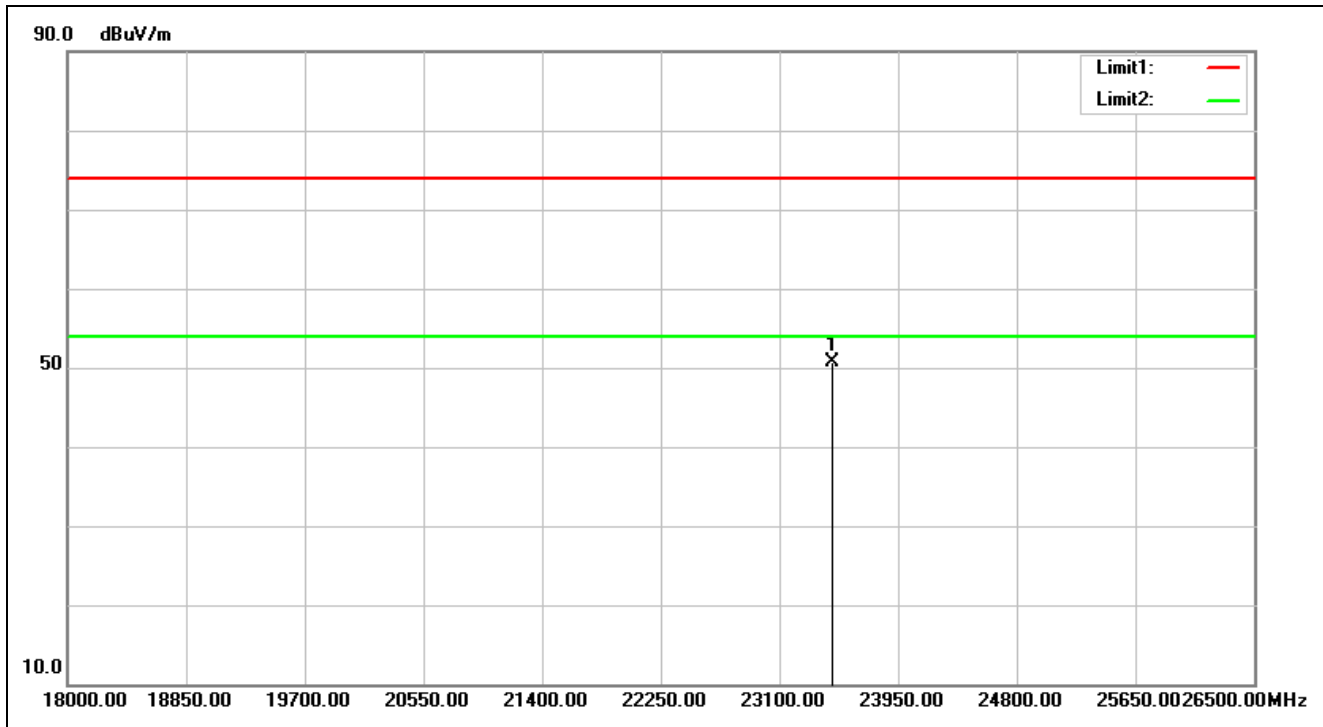
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Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 16:32:39
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFPCA381013-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21442.500	32.84	17.48	50.32	74.00	-23.68	peak			



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 16:32:46
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.5(°C)/55%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFPCA381013-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23474.000	33.24	17.43	50.67	74.00	-23.33	peak			

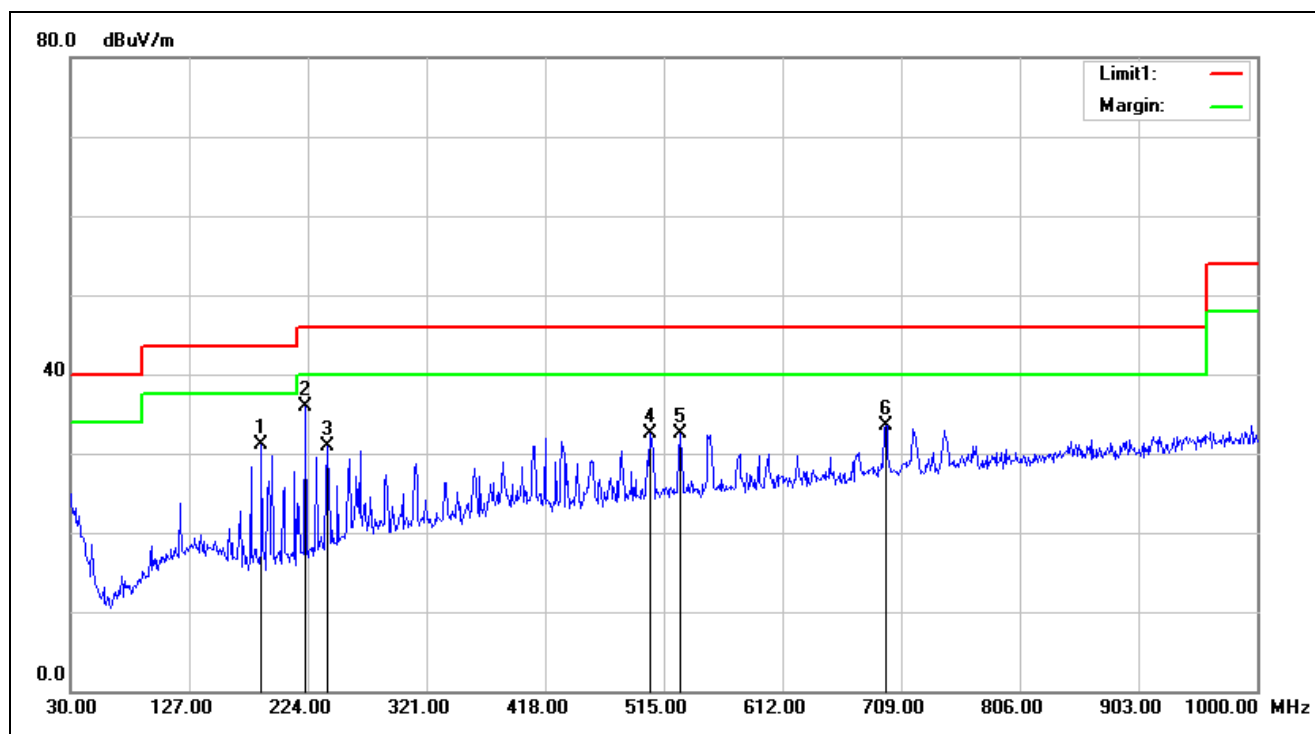
Spurious Emissions, RX Mode, 30M-1G



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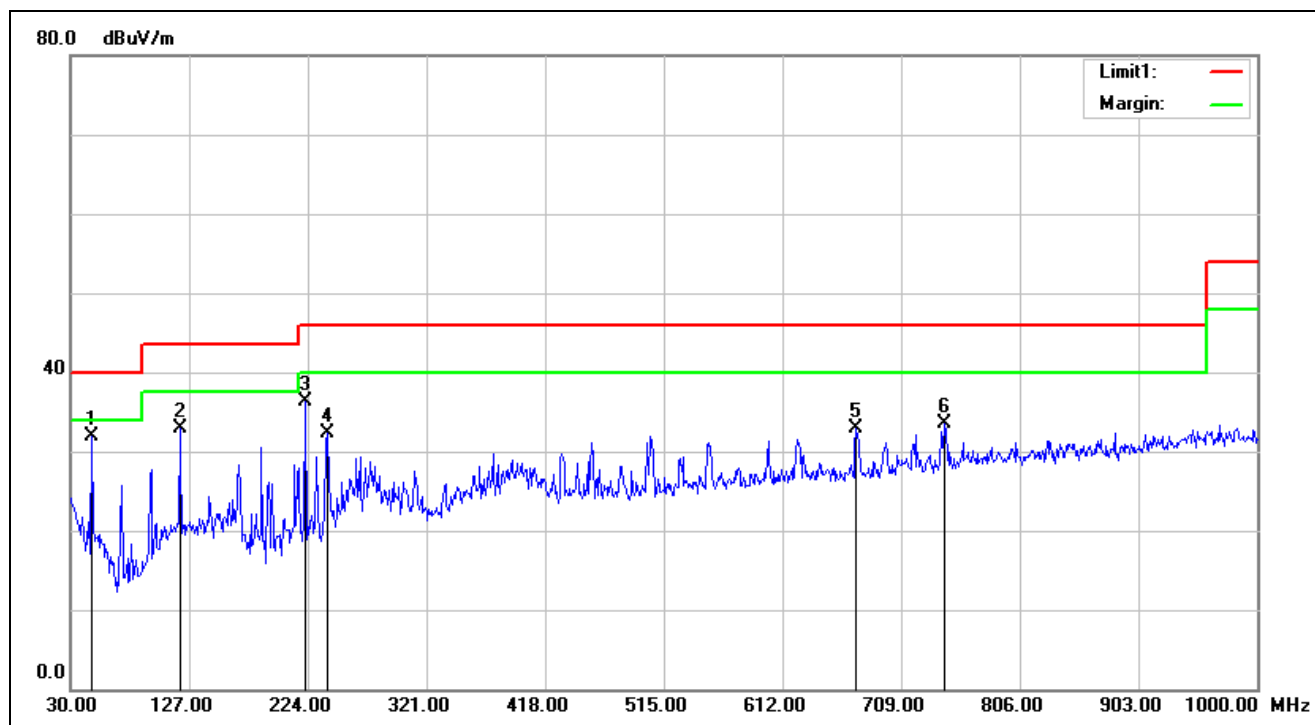
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Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/2 18:46:40
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFPCA381013-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	186.1699	-9.59	40.60	31.01	43.50	-12.49	QP	100	247	
2	222.0600	-8.15	43.97	35.82	46.00	-10.18	QP	100	123	
3	239.5200	-6.85	37.66	30.81	46.00	-15.19	QP	100	271	
4	503.3600	-1.14	33.73	32.59	46.00	-13.41	QP	100	169	
5	528.5800	-0.76	33.26	32.50	46.00	-13.50	QP	100	174	
6	696.3900	1.22	32.34	33.56	46.00	-12.44	QP	100	151	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/2 18:47:37
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFPCA381013-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	47.4600	-10.07	41.97	31.90	40.00	-8.10	QP	100	147	
2	119.2400	-7.50	40.46	32.96	43.50	-10.54	QP	100	111	
3	222.0600	-8.15	44.40	36.25	46.00	-9.75	QP	100	108	
4	239.5200	-6.85	39.24	32.39	46.00	-13.61	QP	100	111	
5	672.1400	0.85	32.08	32.93	46.00	-13.07	QP	100	162	
6	743.9200	2.24	31.33	33.57	46.00	-12.43	QP	100	141	

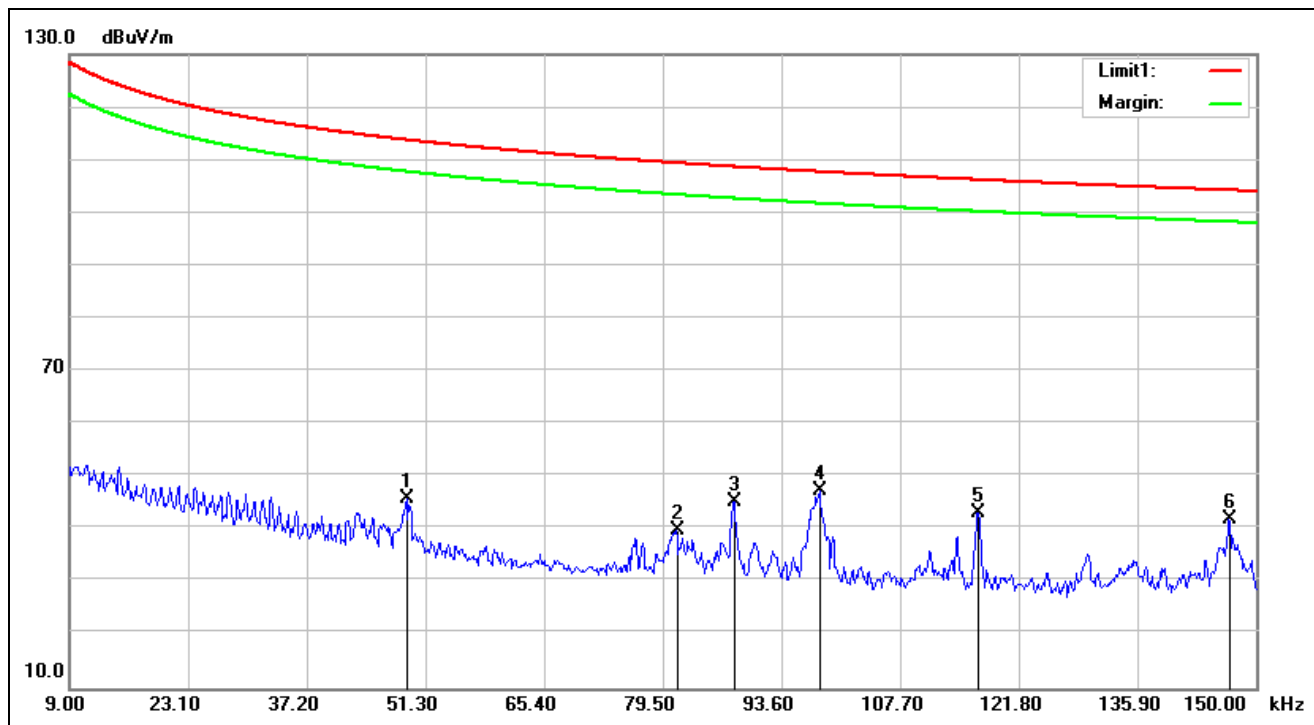
Spurious Emissions, RX Mode, 9K-30M



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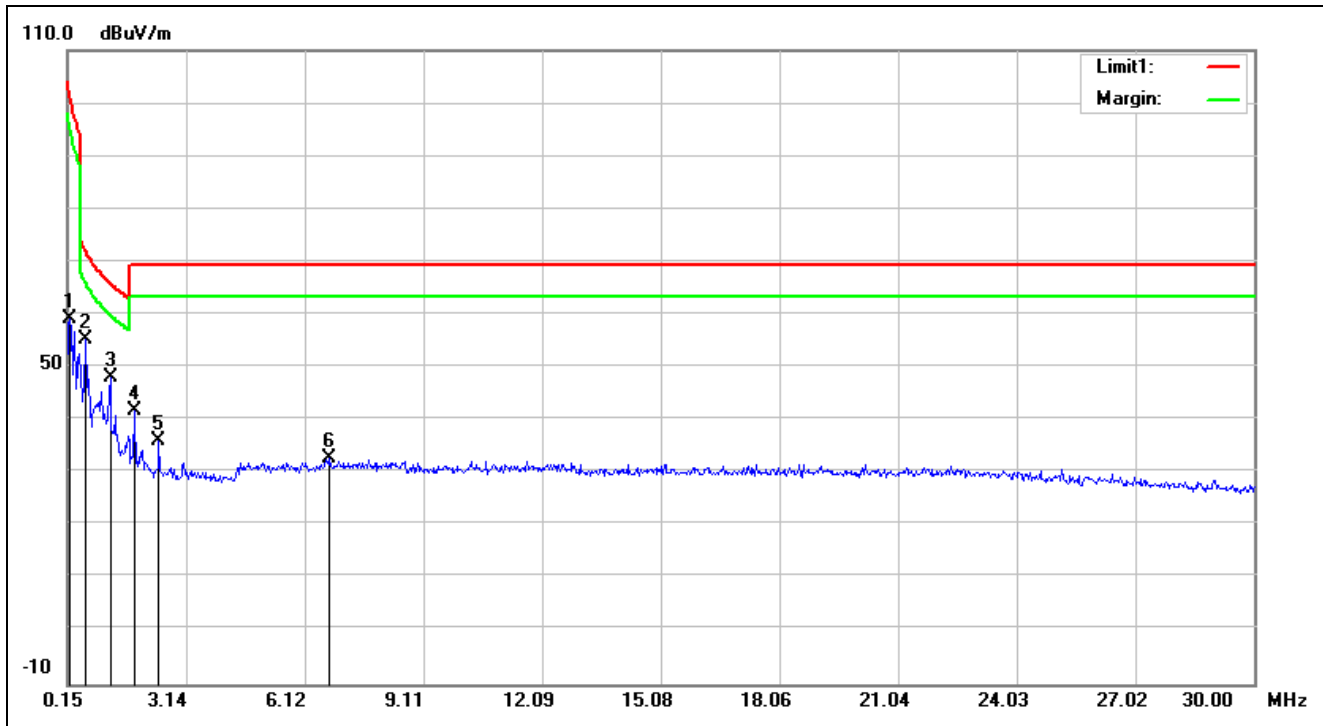
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Tel: +886-2172-7000 fax: +886-2528-0018



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/2 18:56:03
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%)	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFPCA381013-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0490	19.47	26.27	45.74	113.79	-68.05	QP	100	182	
2	0.0811	19.24	20.54	39.78	109.41	-69.63	QP	100	177	
3	0.0880	19.20	26.14	45.34	108.71	-63.37	QP	100	189	
4	0.0981	19.14	28.08	47.22	107.76	-60.54	QP	100	182	
5	0.1170	19.11	24.11	43.22	106.23	-63.01	QP	100	225	
6	0.1468	19.08	22.99	42.07	104.26	-62.19	QP	100	174	



Service No.:	114074445	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/2 18:58:54
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy	Temp.(°C)/Hum.(%):	22.7(°C)/56%
Model No.:	ATWINC3400-MR210UA	Test Engineer:	Curry Chen
Test Mode:	2440-RX		
Remark:	RFPCA381013-ANT		

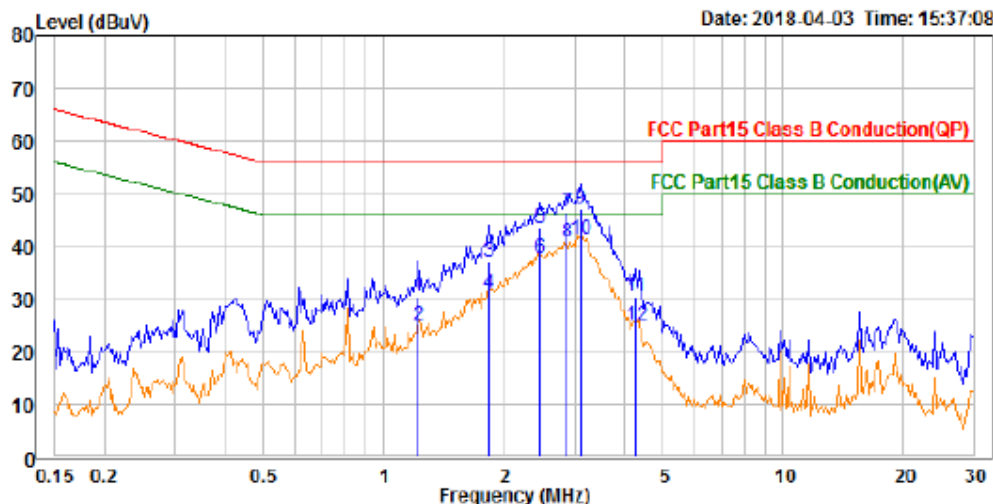
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.2097	19.03	39.98	59.01	101.17	-42.16	QP	100	183	
2	0.5978	18.88	36.29	55.17	72.08	-16.91	QP	100	179	
3	1.2246	18.92	29.14	48.06	65.87	-17.81	QP	100	179	
4	1.8216	18.79	22.95	41.74	69.50	-27.76	QP	100	189	
5	2.4484	18.65	17.50	36.15	69.50	-33.35	QP	100	174	
6	6.7469	19.92	12.81	32.73	69.50	-36.77	QP	100	138	

Mains



TUV Rheinland Taiwan Ltd.
11F., No.758, Sec.4 Bade Road, Songshan Dist, Taipei City 105
Tel:+886-2172-7000 Fax:+886-2528-0018

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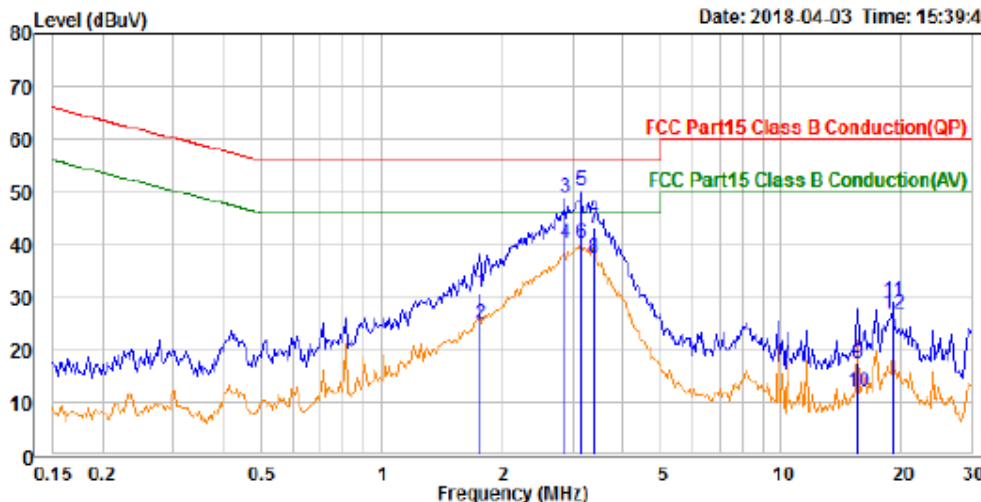
Trace: 1

Site : Conduction room
Condition : FCC Part15 Class B Conduction(QP) line1
Test Engineer: Curry Chen
Applicant : Microchip
Product : IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy
Model No. : ATWILC3400-MR210UA
Test Rating : 120Vac/60Hz
Tmp/Hum : 21.9 °C / 43%
Memo : Mains

		Read		Limit	Over	
	Freq	Level	Factor	Level	Line	Limit Remark
	MHz	dBuV	dB	dBuV	dBuV	dB
1	1.222	20.72	9.66	30.38	56.00	-25.62 QP
2	1.222	15.26	9.66	24.92	46.00	-21.08 Average
3	1.837	27.36	9.69	37.05	56.00	-18.95 QP
4	1.837	21.33	9.69	31.02	46.00	-14.98 Average
5	2.450	33.79	9.69	43.48	56.00	-12.52 QP
6	2.450	28.08	9.69	37.77	46.00	-8.23 Average
7	2.873	36.78	9.70	46.48	56.00	-9.52 QP
8	2.873	30.99	9.70	40.69	46.00	-5.31 Average
9	3.110	37.33	9.71	47.04	56.00	-8.96 QP
10	3.110	31.75	9.71	41.46	46.00	-4.54 Average
11	4.275	20.68	9.72	30.40	56.00	-25.60 QP
12	4.275	15.24	9.72	24.96	46.00	-21.04 Average

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Date: 2018-04-03 Time: 15:39:40



Trace: 1

Site : Conduction room
Condition : FCC Part15 Class B Conduction(QP) neutral
Test Engineer: Curry Chen
Applicant : Microchip
Product : IEEE 802.11 b/g/n Network Controller Module with Integrated Bluetooth Low Energy
Model No. : ATWILC3400-MR210UA
Test Rating : 120Vac/60Hz
Tmp/Hum : 21.9 °C / 43%
Memo : Mains

	Freq	Read Level	Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dBuV	dBuV	dB	
1	1.765	21.03	9.70	30.73	56.00	-25.27	QP
2	1.765	15.38	9.70	25.08	46.00	-20.92	Average
3	2.873	39.20	9.71	48.91	56.00	-7.09	QP
4	2.873	30.39	9.71	40.10	46.00	-5.90	Average
5	3.141	40.62	9.72	50.34	56.00	-5.66	QP
6	3.141	30.33	9.72	40.05	46.00	-5.95	Average
7	3.401	33.37	9.72	43.09	56.00	-12.91	QP
8	3.401	27.75	9.72	37.47	46.00	-8.53	Average
9	15.566	7.61	9.85	17.46	60.00	-42.54	QP
10	15.566	2.08	9.85	11.93	50.00	-38.07	Average
11	18.990	19.16	9.89	29.05	60.00	-30.95	QP
12	18.990	16.73	9.89	26.62	50.00	-23.38	Average