

Test Report No.50141823 001

Appendix D: Radiated and Mains Spurious Emission Data

(File: 50141823AppendixD)

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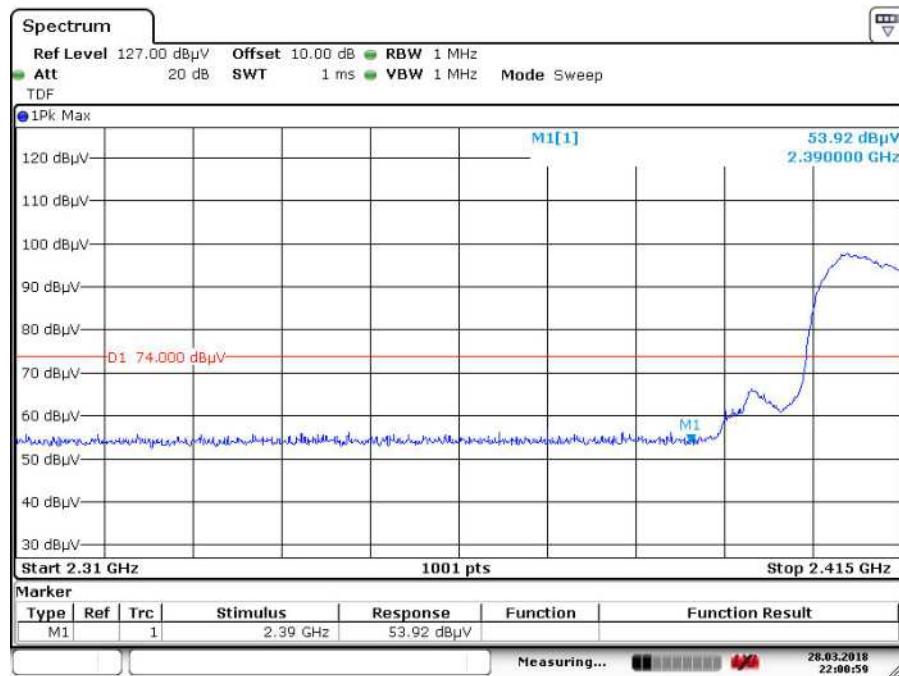
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RFA-02-5-C7H1-ANT

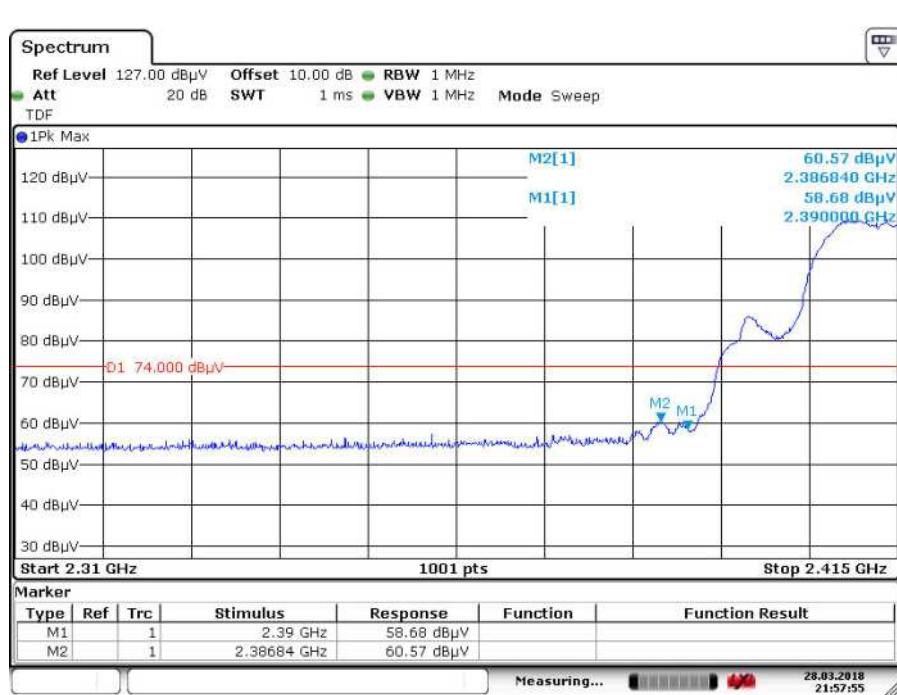
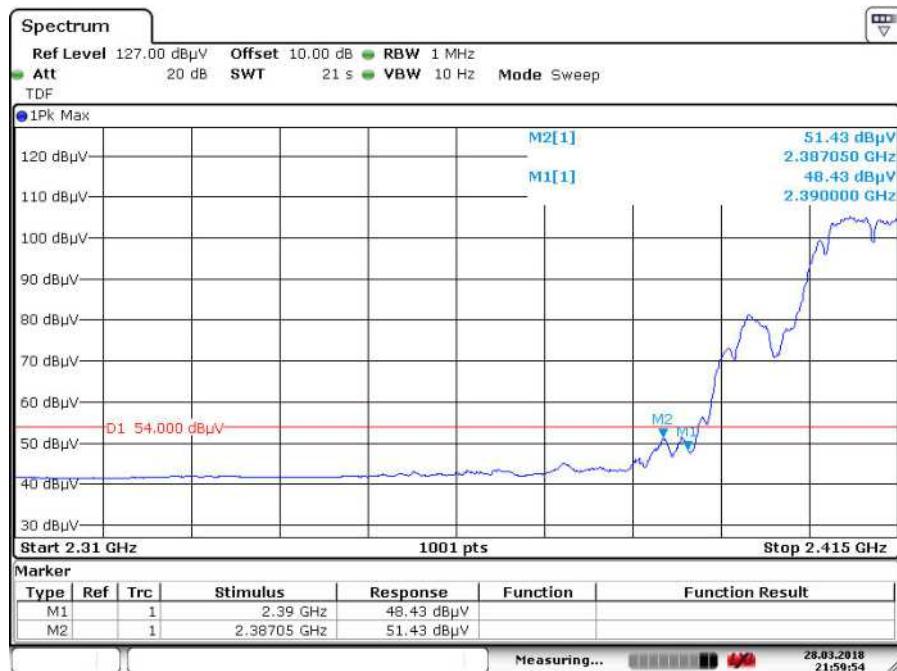
Spurious Emissions, Band Edges, 2.35-2.5G

Radiated Bandedge 11b

Low Channel (Hor)



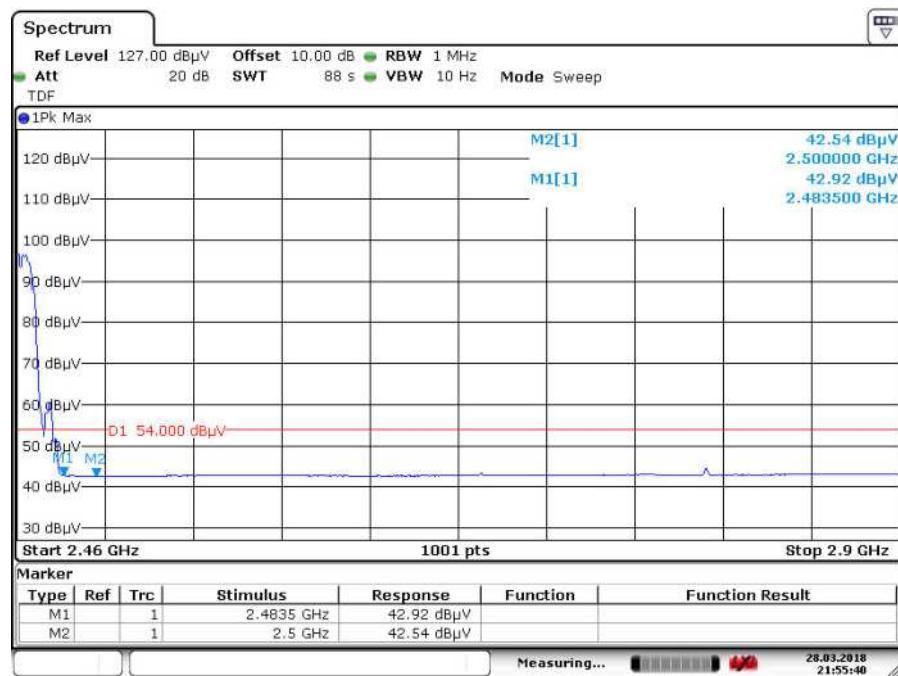
Low Channel (Ver)



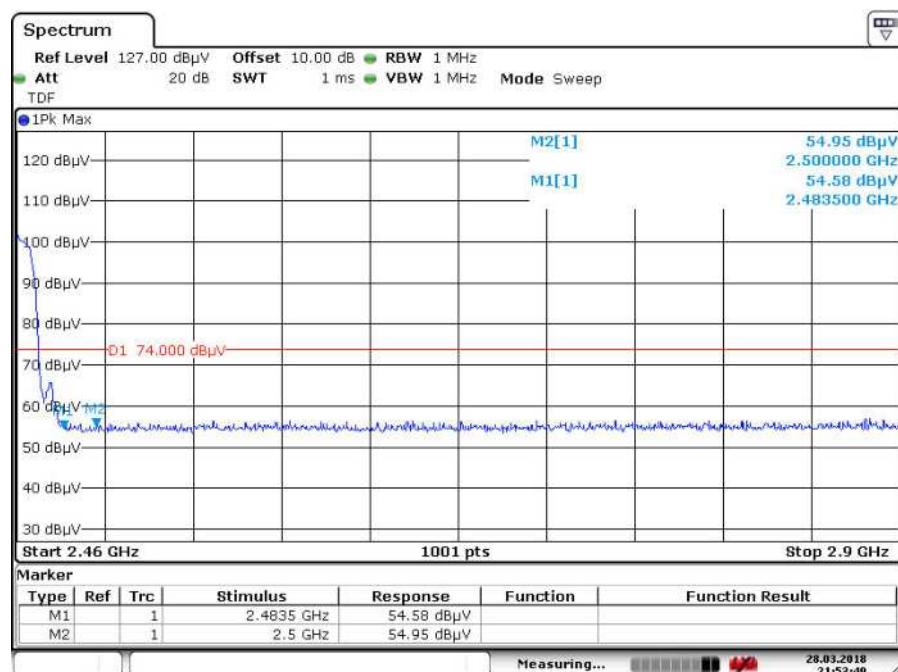
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Radiated Bandedge 11b

High Channel (Hor)

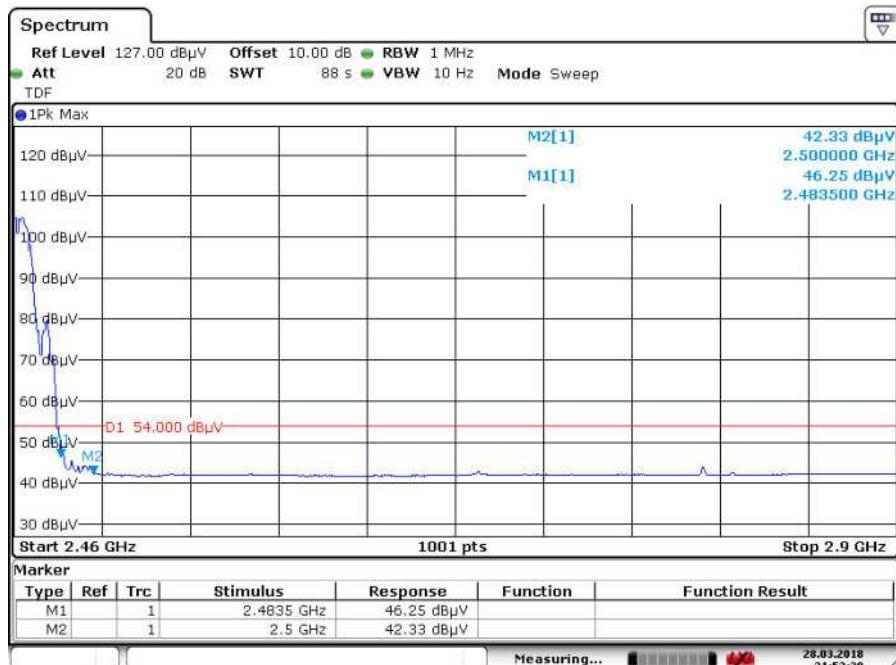


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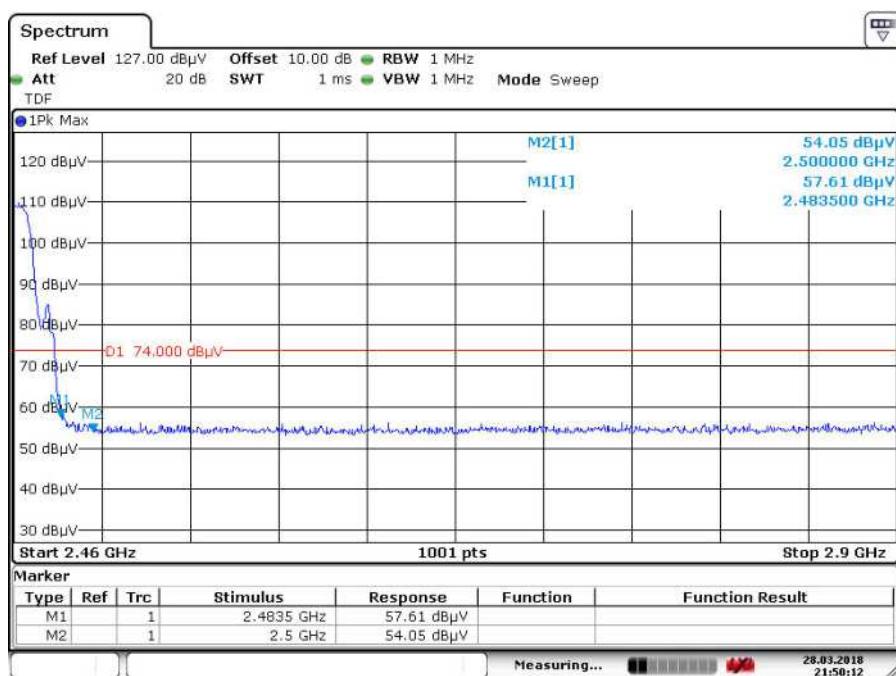


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High Channel (Ver)



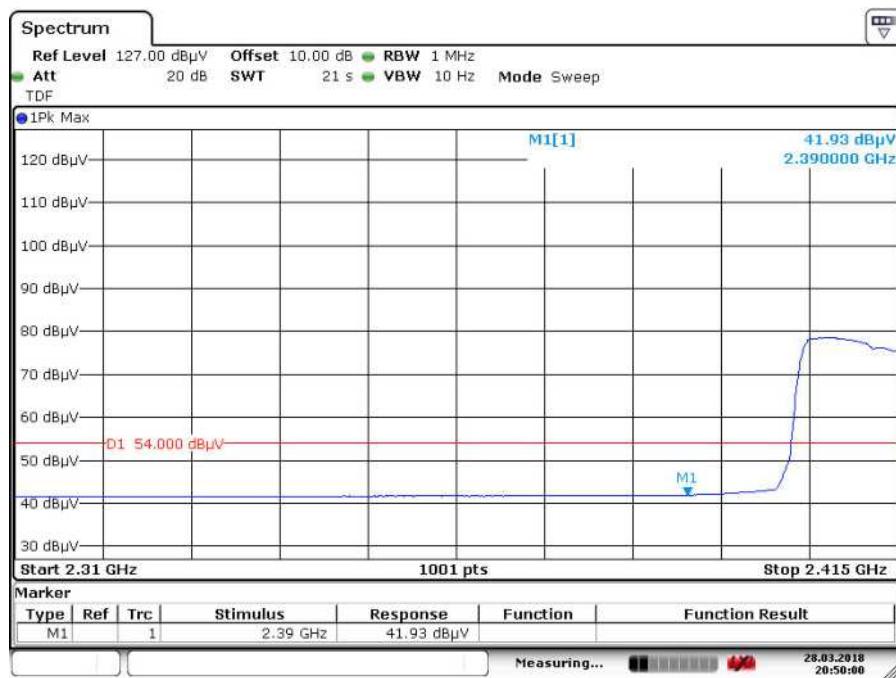
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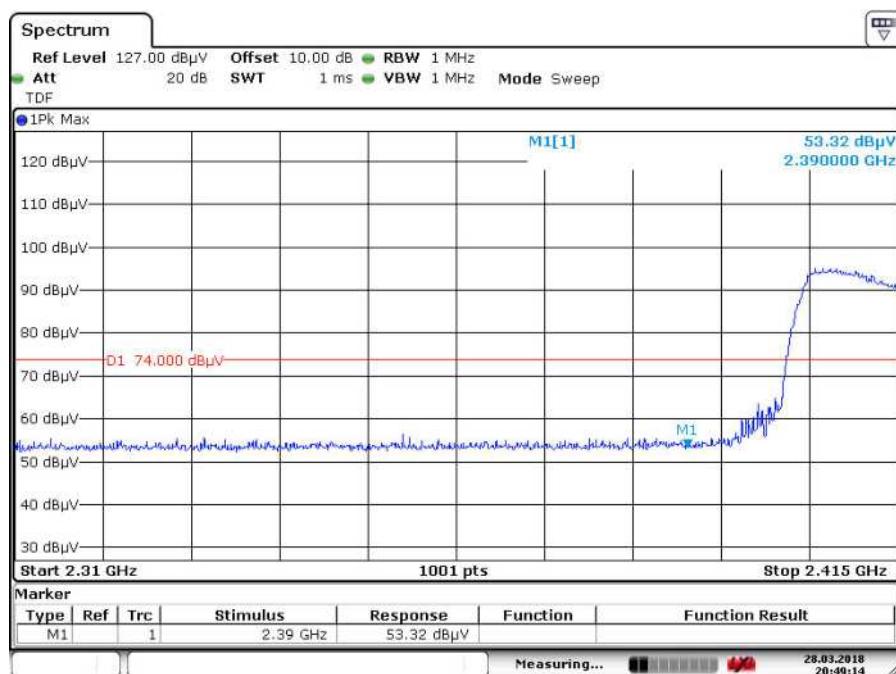
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Radiated Bandedge 11g

Low Channel (Hor)



Date: 28.MAR.2018 20:50:01

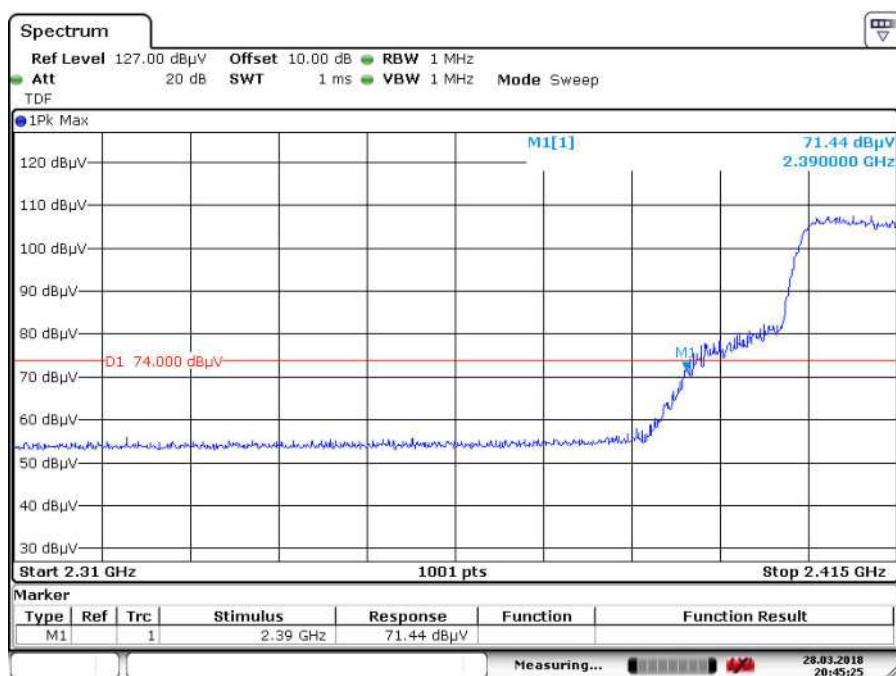


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Low Channel (Ver)



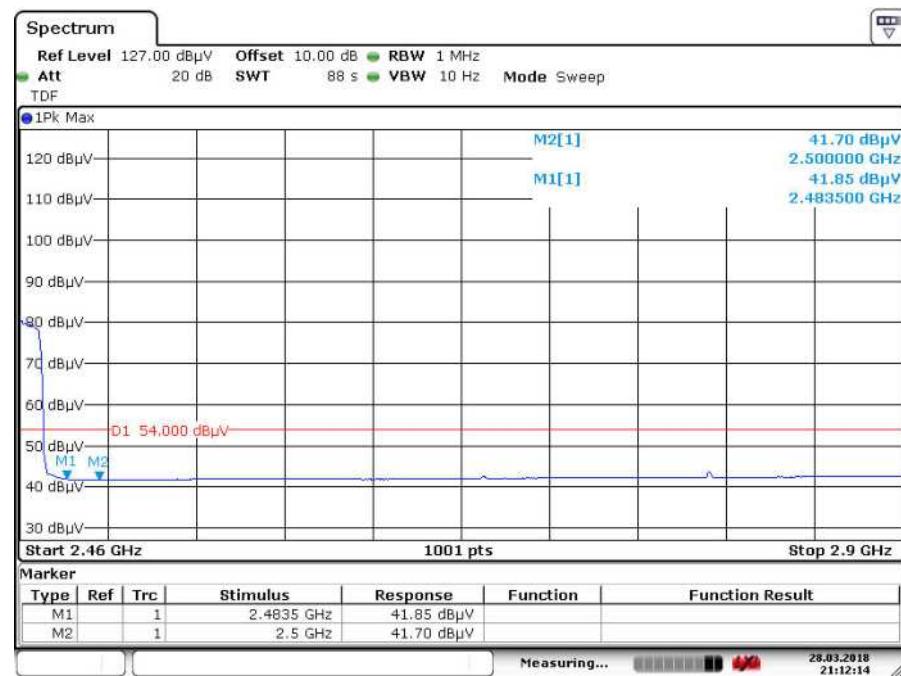
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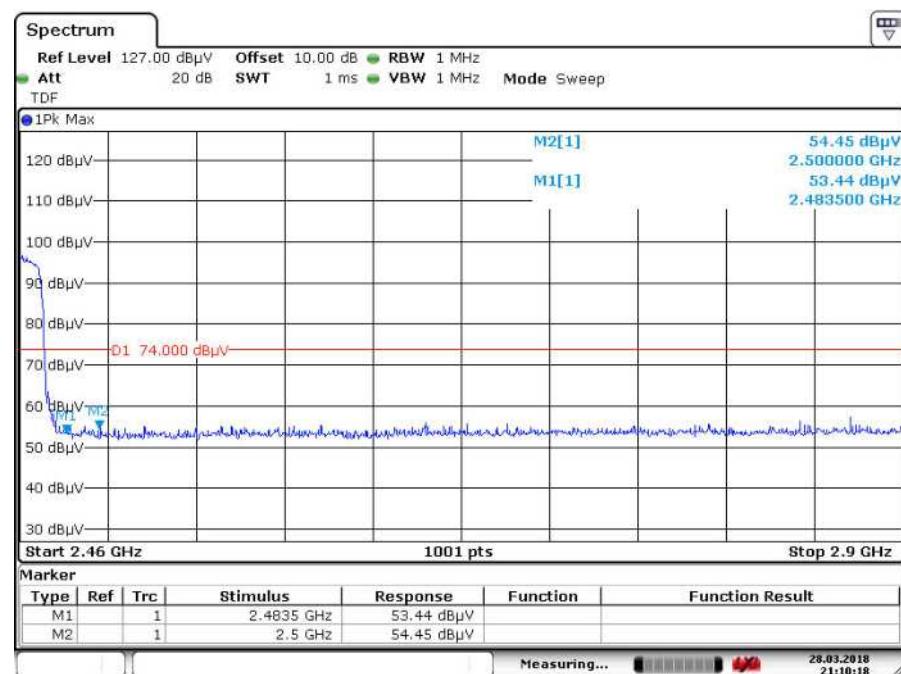
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Radiated Bandedge 11g

High Channel (Hor)

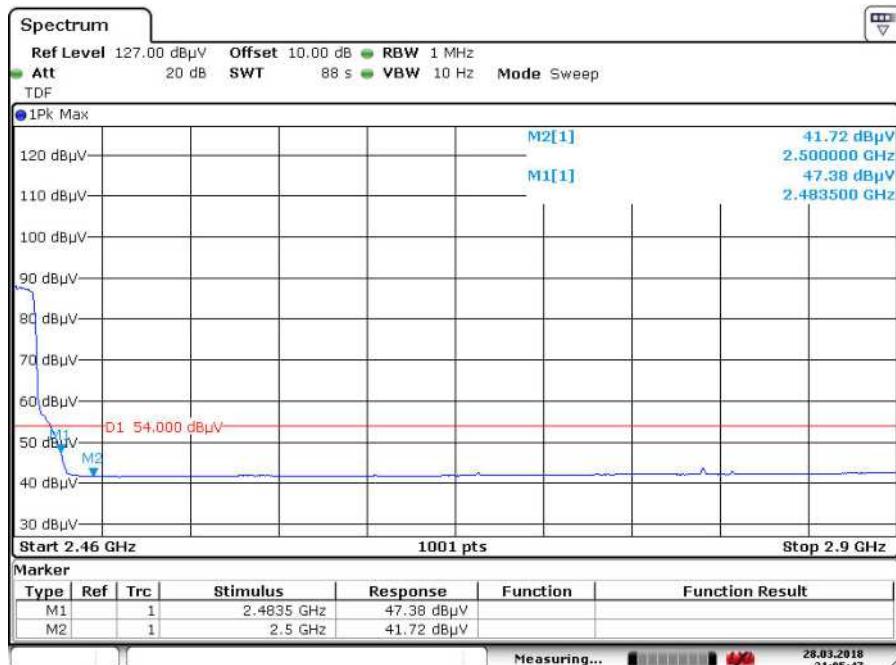


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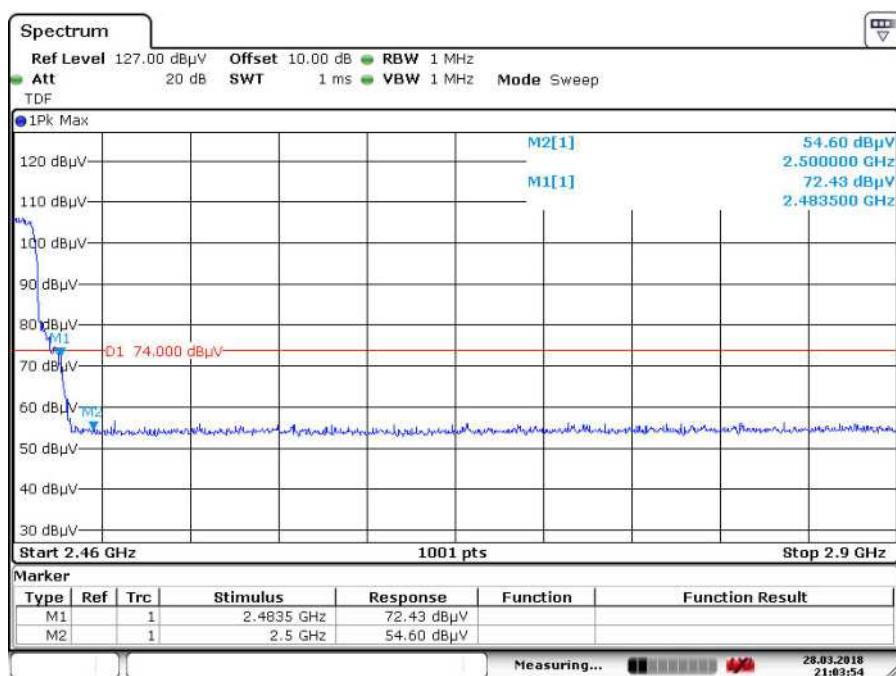


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High Channel (Ver)



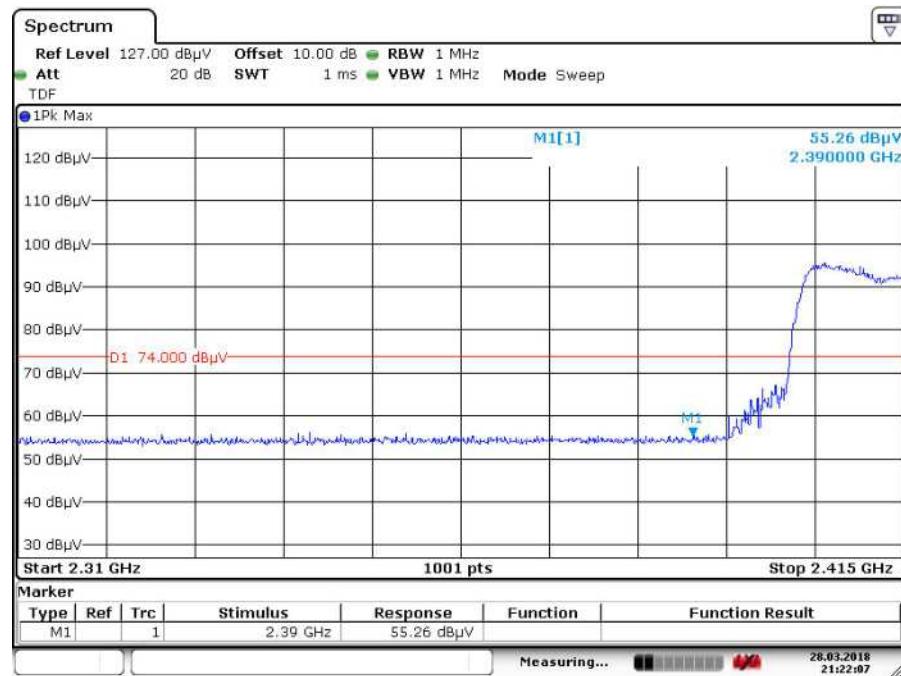
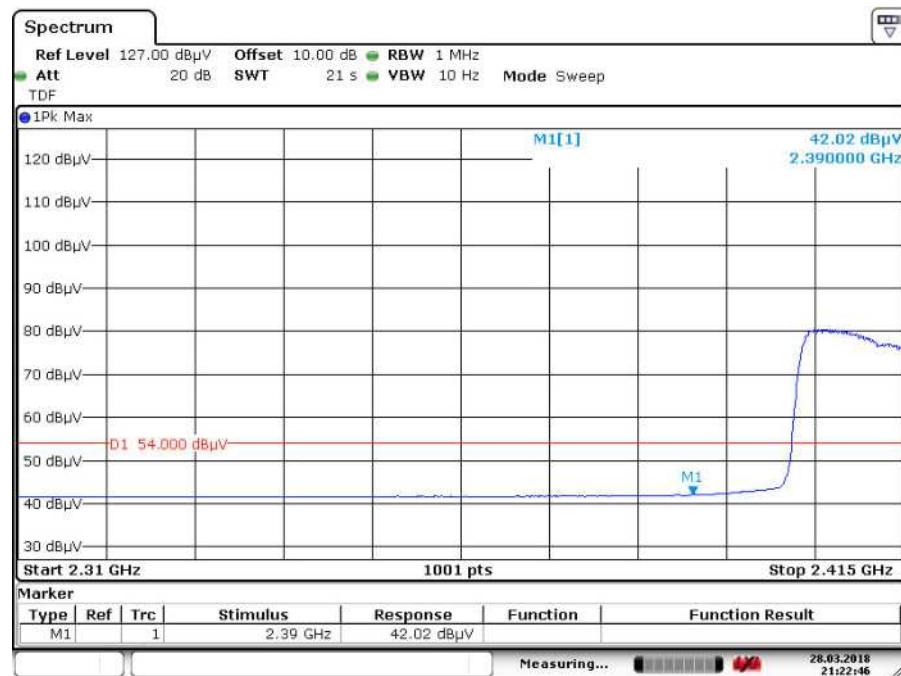
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Date: 28.MAR.2018 21:03:55

Radiated Bandedge 11n

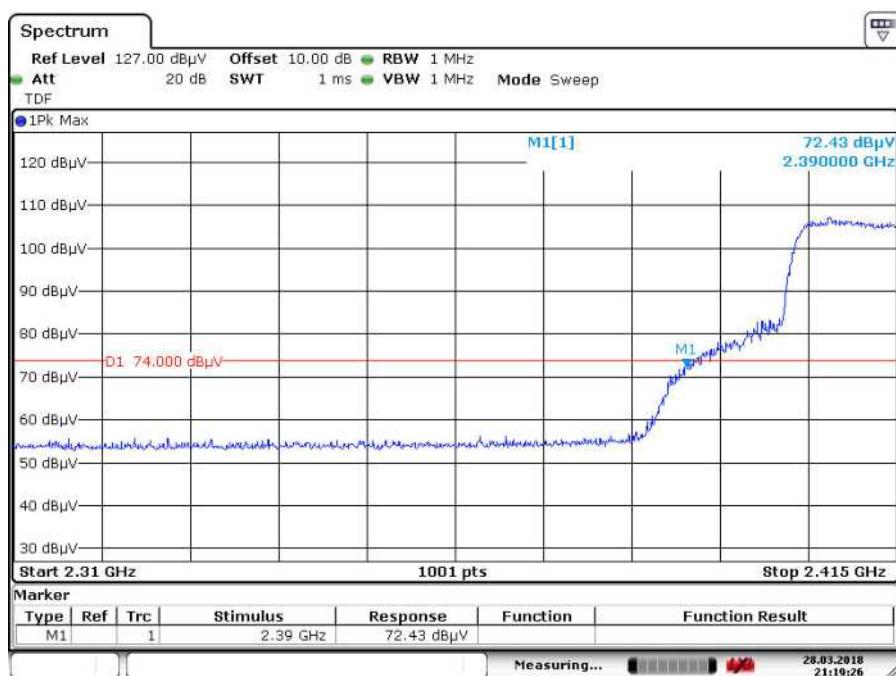
Low Channel (Hor)



Low Channel (Ver)



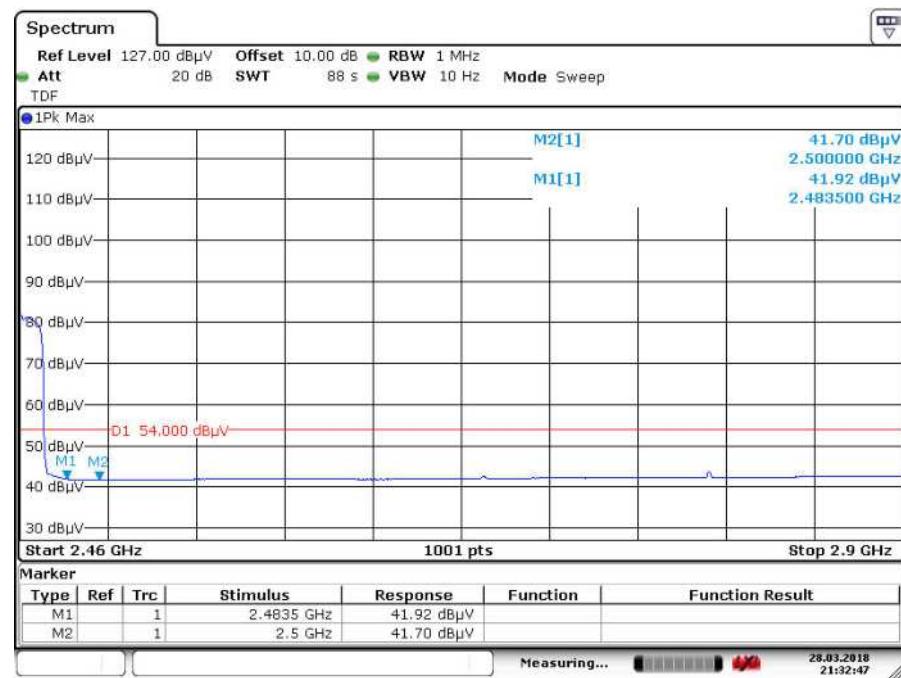
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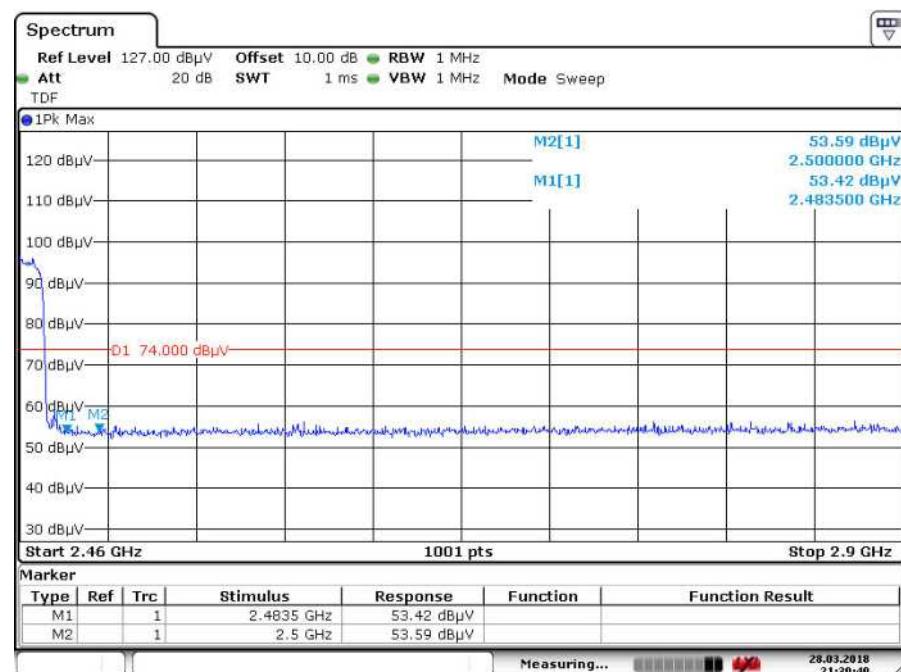
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Radiated Bandedge 11n

High Channel (Hor)

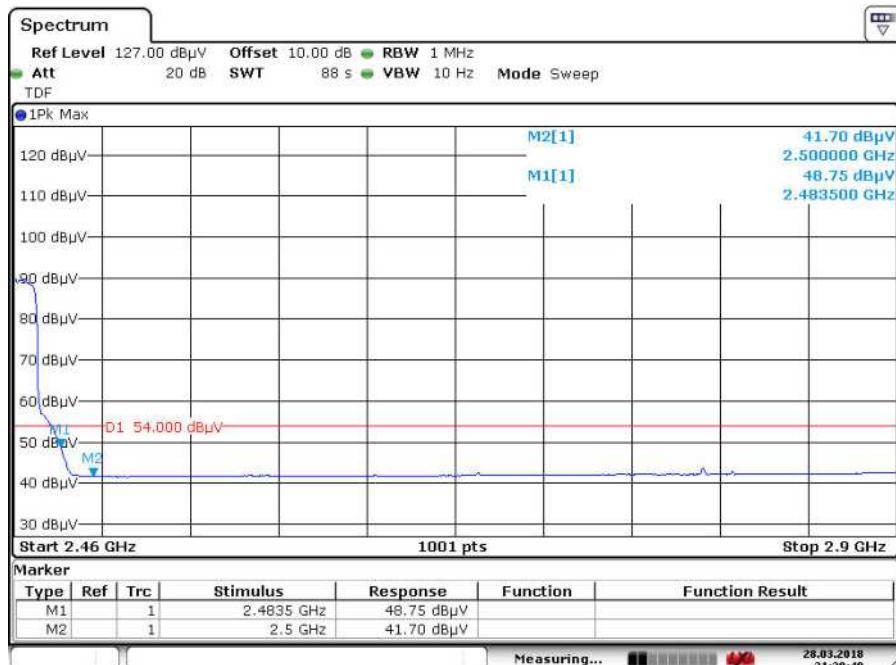


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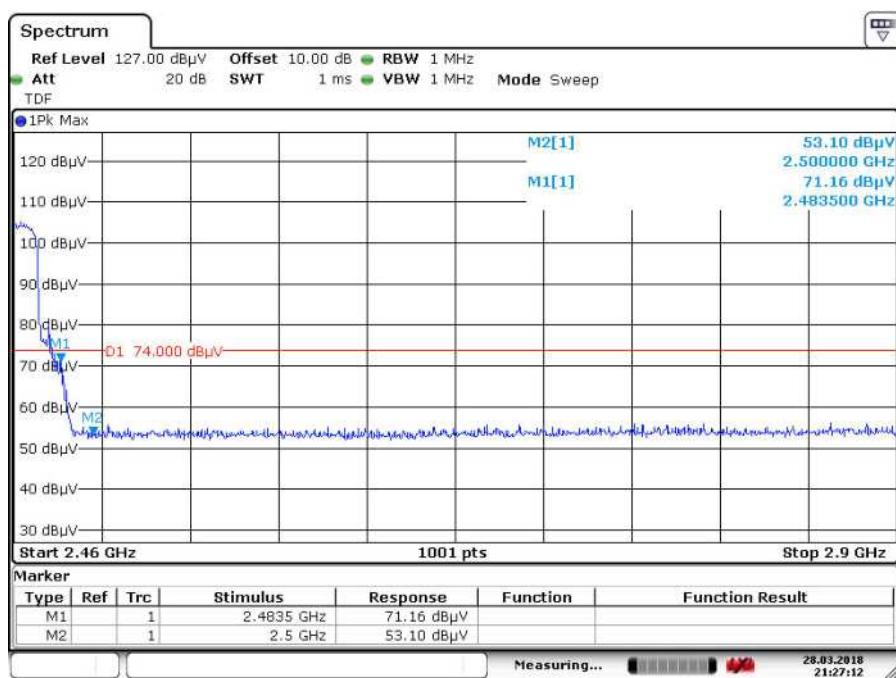


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High Channel (Ver)



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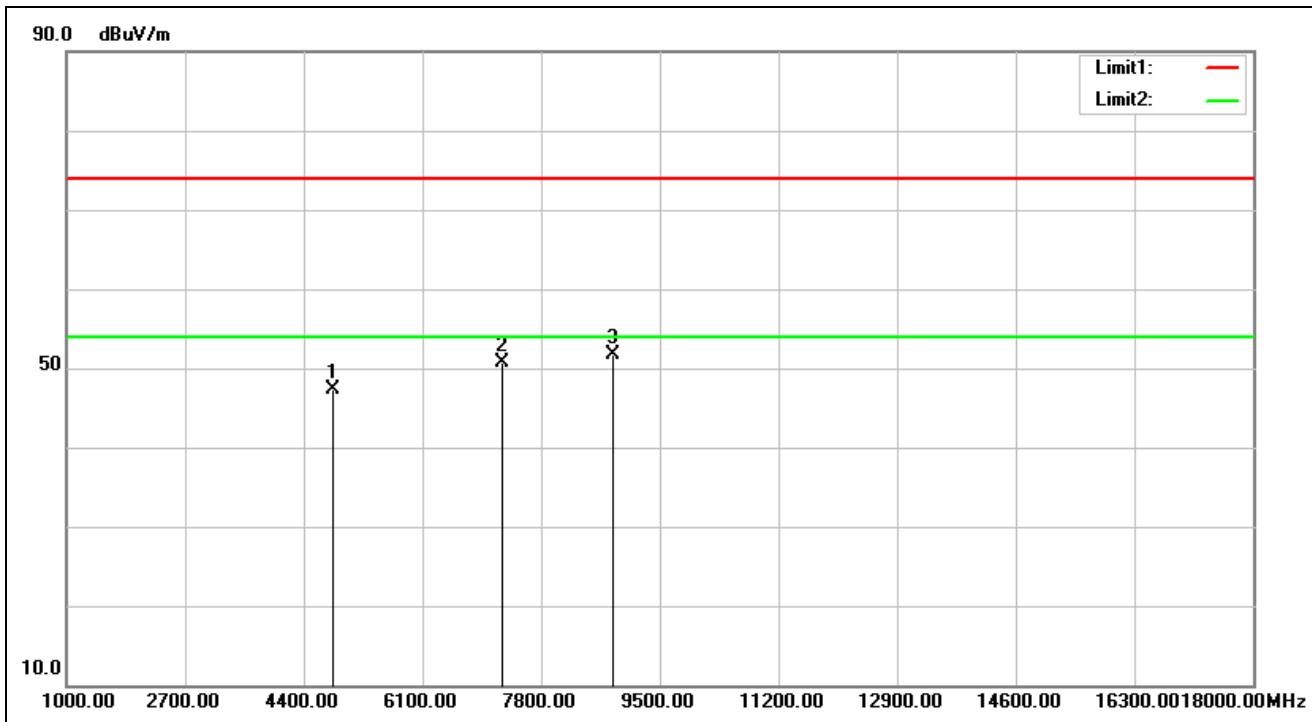


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Spurious Emissions, TX Mode, 1-18G

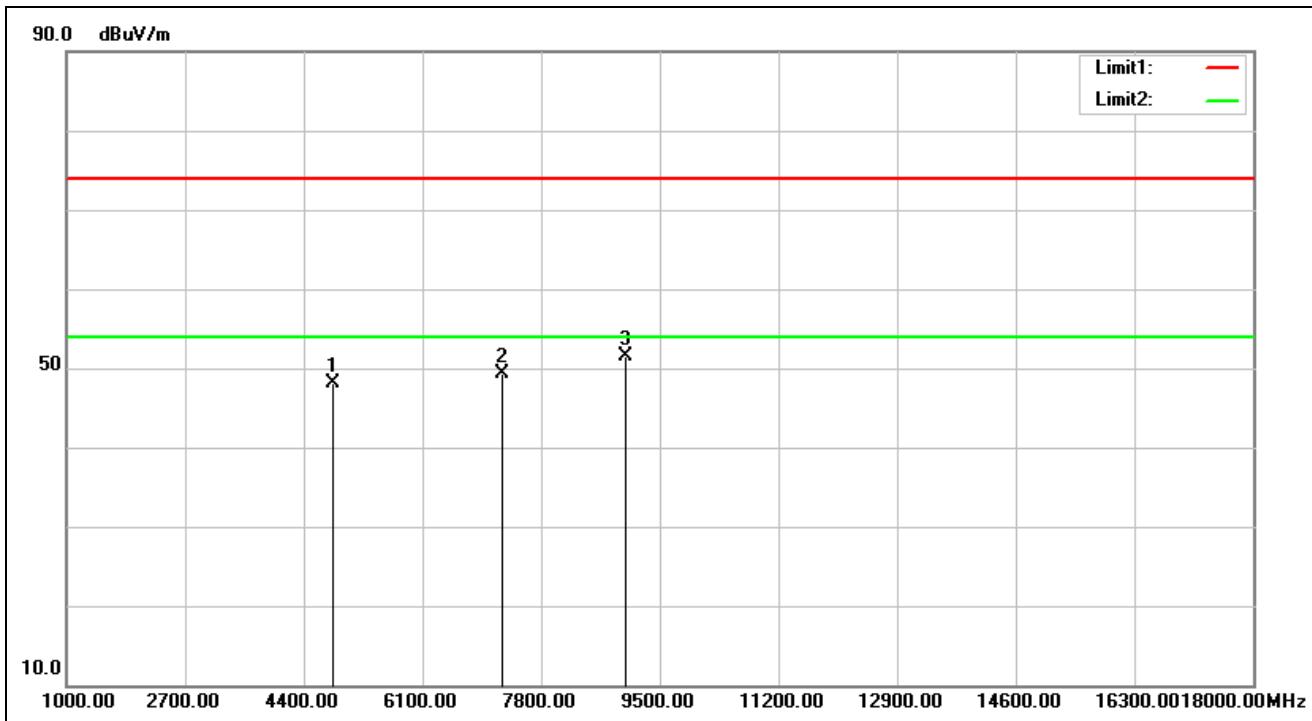


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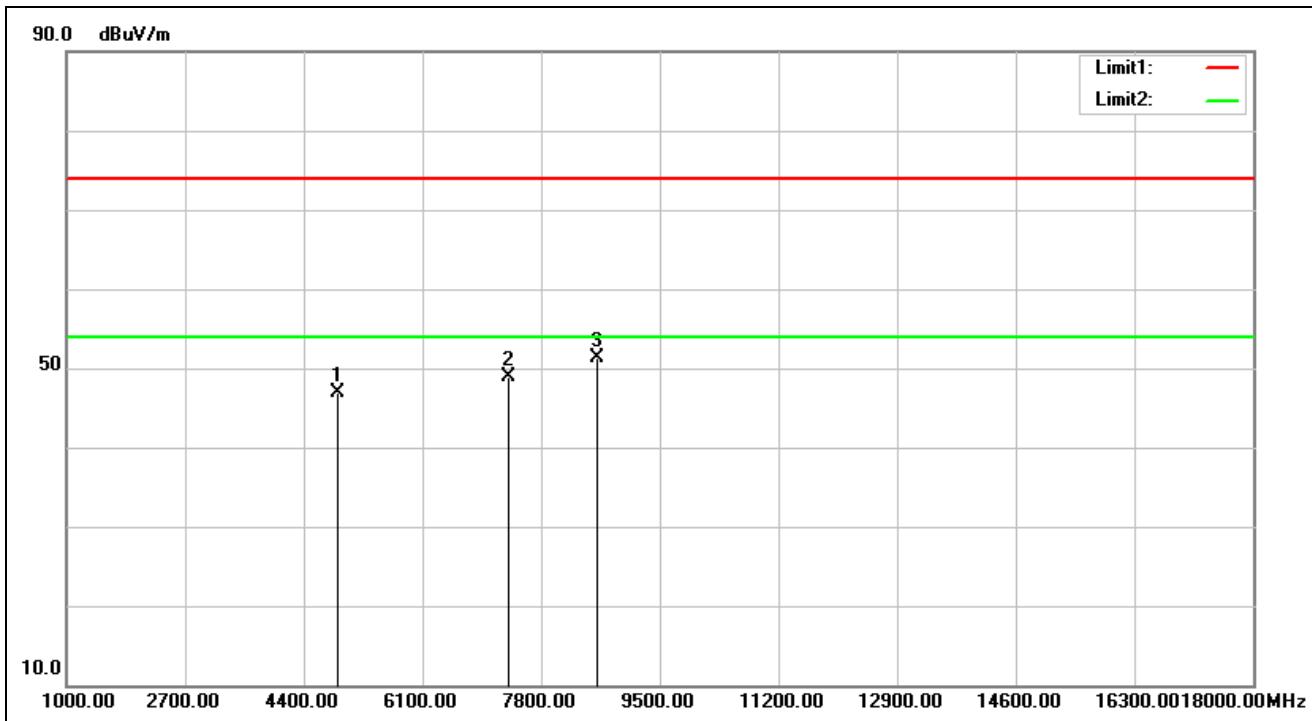
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/28 21:28:51
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 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	4824.000	-2.66	50.01	47.35	74.00	-26.65	peak		0	
2	7236.000	5.32	45.44	50.76	74.00	-23.24	peak		0	
3	8820.000	6.41	45.38	51.79	74.00	-22.21	peak	100	12	



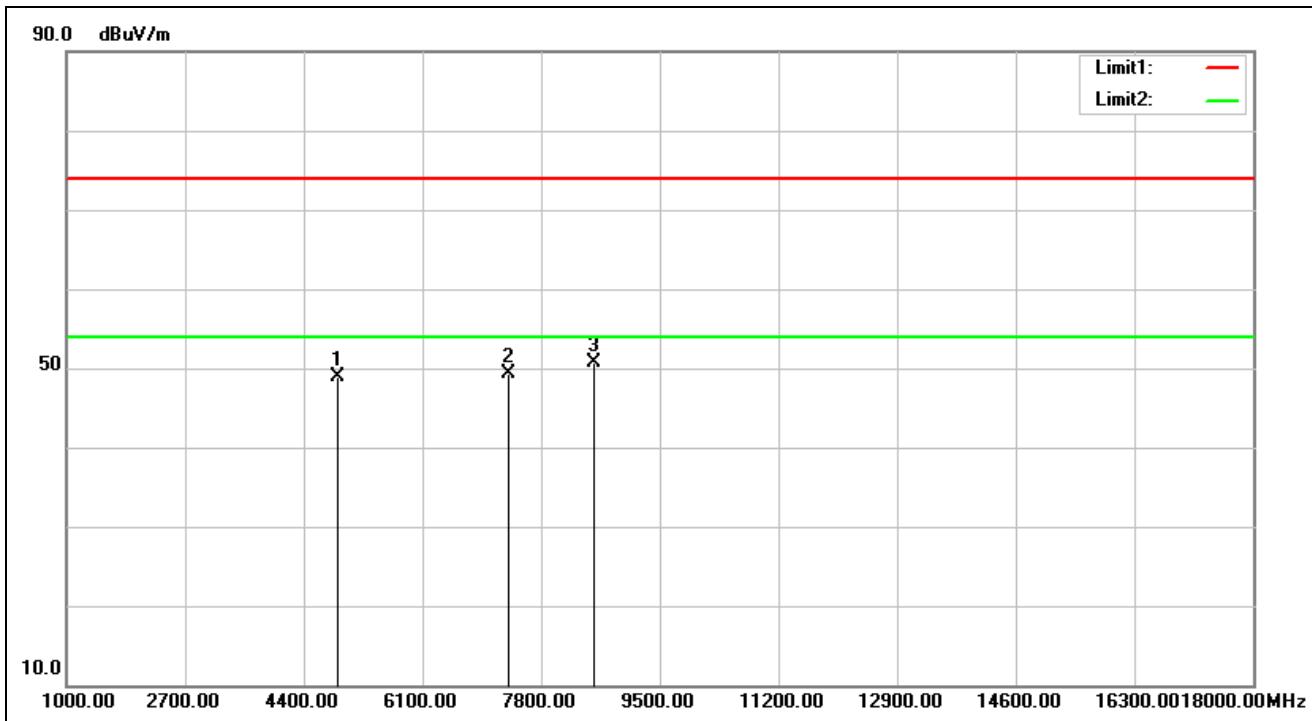
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Test item:	Radiation Emission	Test Time:	2018/3/28 21:29:48
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 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	4824.000	-2.66	50.82	48.16	74.00	-25.84	peak			
2	7236.000	5.32	44.08	49.40	74.00	-24.60	peak			
3	9007.000	6.44	45.10	51.54	74.00	-22.46	peak	100	263	



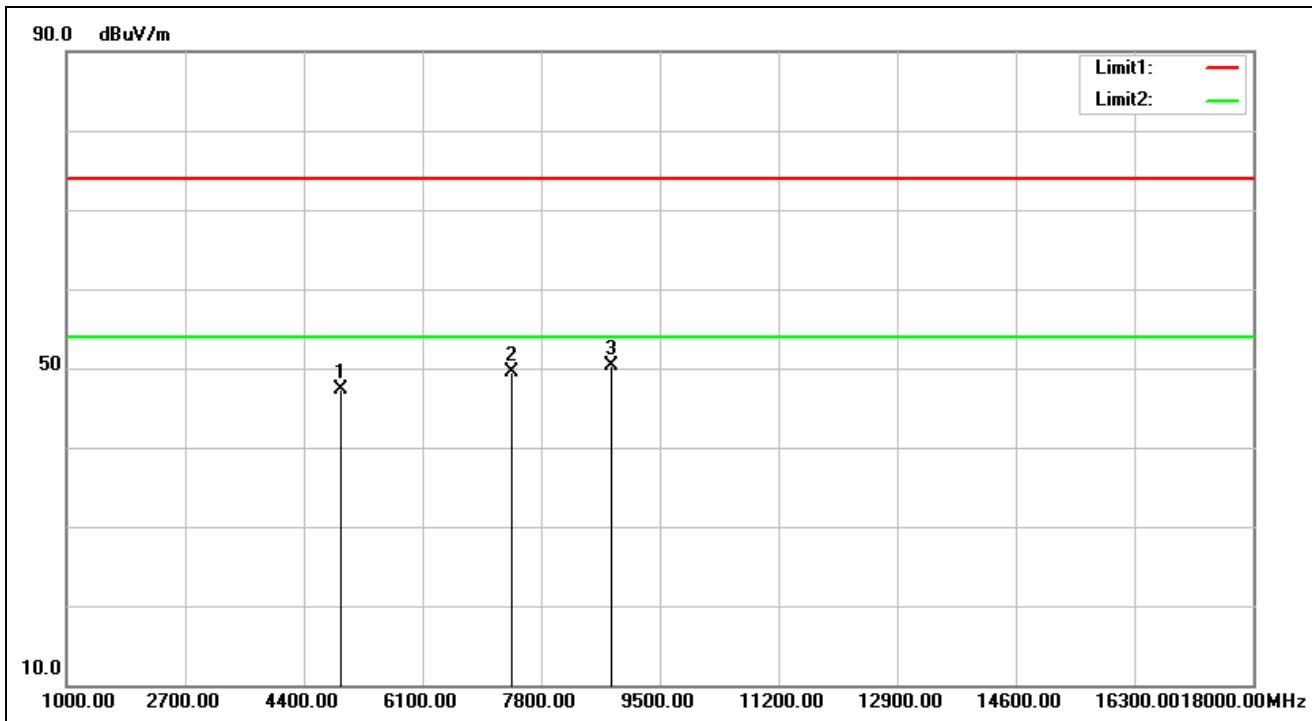
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Test item:	Radiation Emission	Test Time:	2018/3/28 21:32:19
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 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	4874.000	-2.53	49.53	47.00	74.00	-27.00	peak			
2	7311.000	5.52	43.45	48.97	74.00	-25.03	peak			
3	8599.000	6.39	45.01	51.40	74.00	-22.60	peak	100	151	



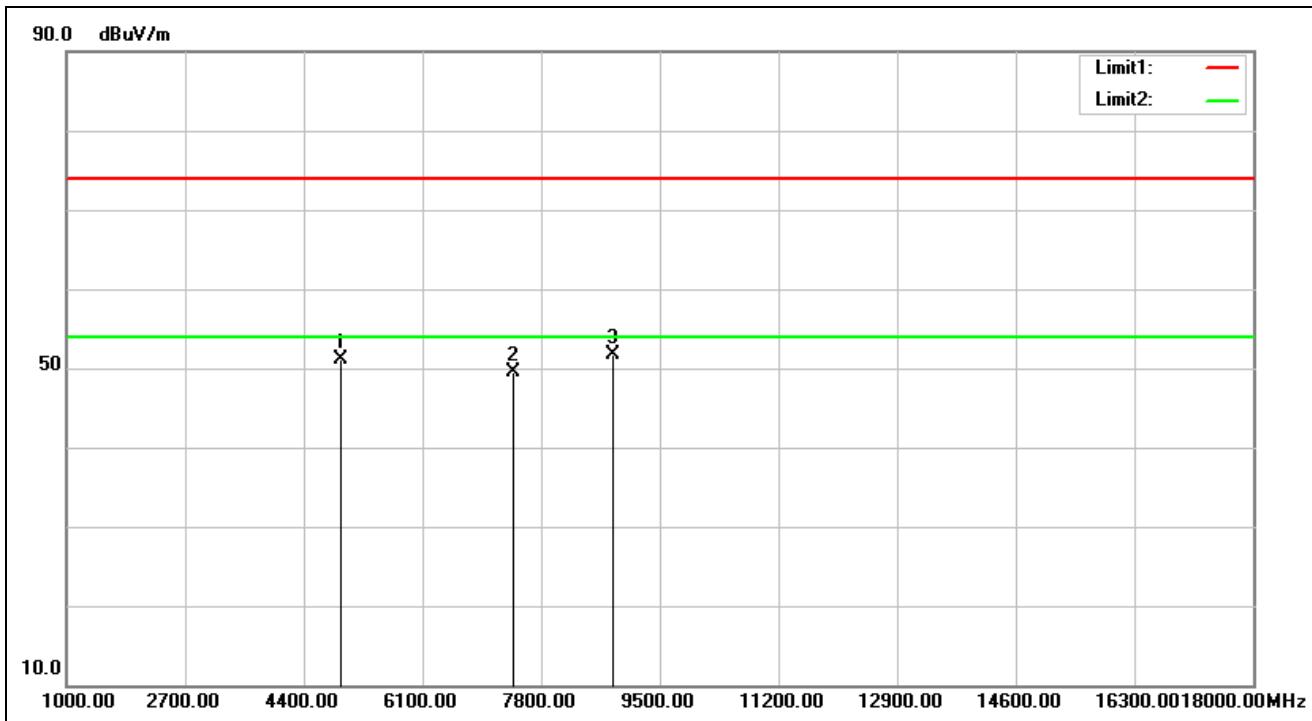
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Test item:	Radiation Emission	Test Time:	2018/3/28 21:33:16
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 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	4874.000	-2.53	51.50	48.97	74.00	-25.03	peak			
2	7311.000	5.52	43.86	49.38	74.00	-24.62	peak			
3	8548.000	6.38	44.38	50.76	74.00	-23.24	peak	100	166	



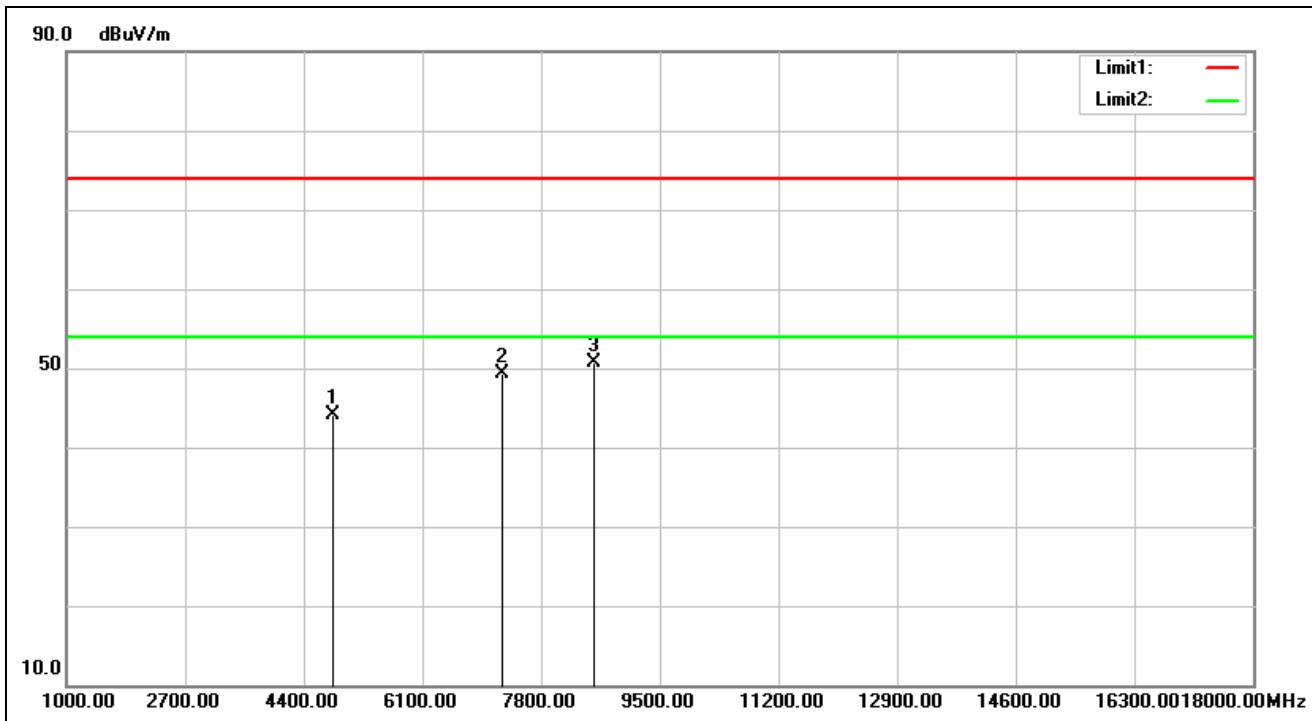
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Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 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	4924.000	-2.39	49.78	47.39	74.00	-26.61	peak			
2	7386.000	5.70	43.87	49.57	74.00	-24.43	peak			
3	8803.000	6.42	43.85	50.27	74.00	-23.73	peak	100	270	



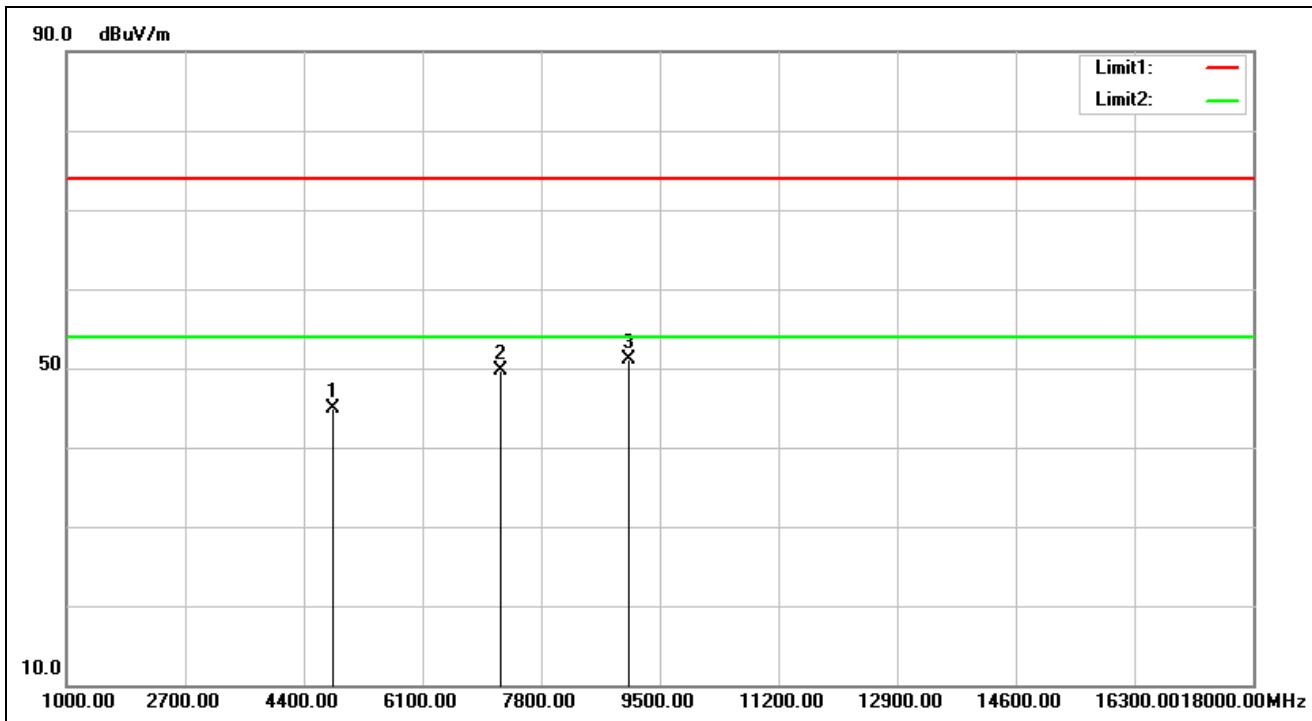
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Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 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	4924.000	-2.39	53.40	51.01	74.00	-22.99	peak	100	304	
2	7386.000	5.70	43.85	49.55	74.00	-24.45	peak			
3	8837.000	6.42	45.25	51.67	74.00	-22.33	peak	100	226	



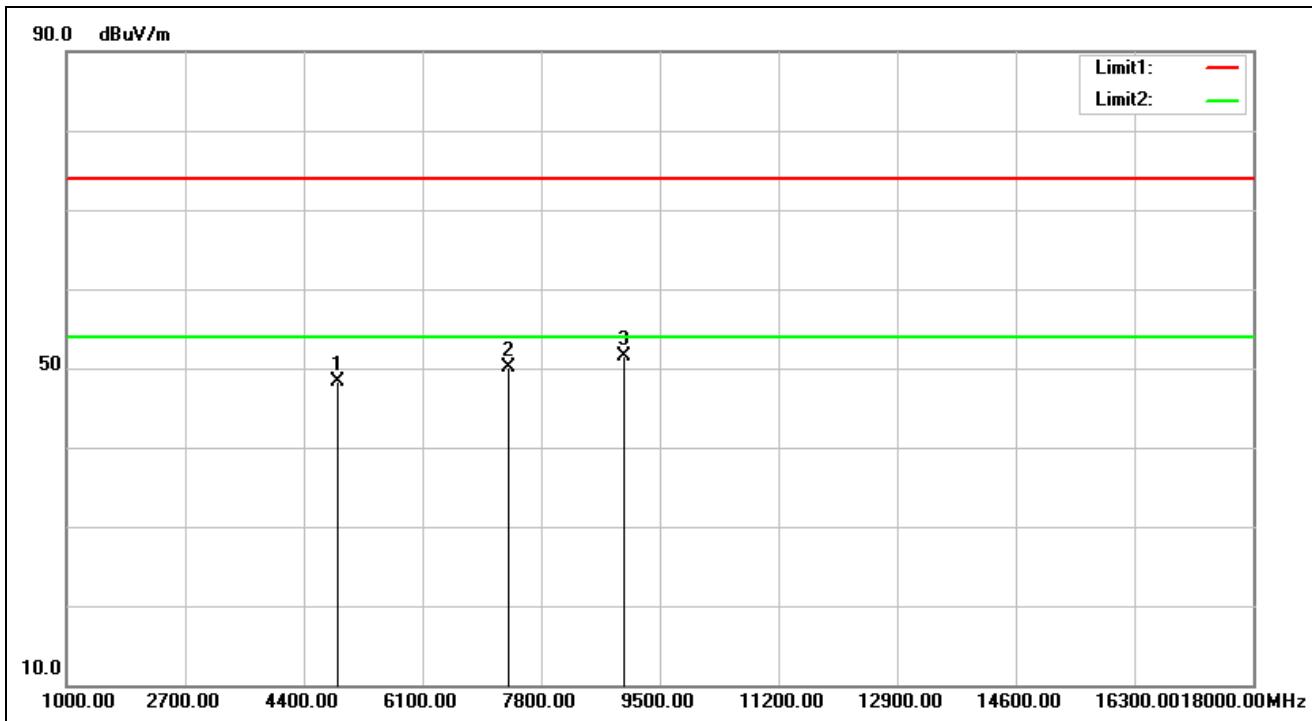
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Test item:	Radiation Emission	Test Time:	2018/3/28 21:55:46
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 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	4824.000	-2.66	46.81	44.15	74.00	-29.85	peak			
2	7236.000	5.32	44.04	49.36	74.00	-24.64	peak			
3	8548.000	6.38	44.38	50.76	74.00	-23.24	peak	100	207	



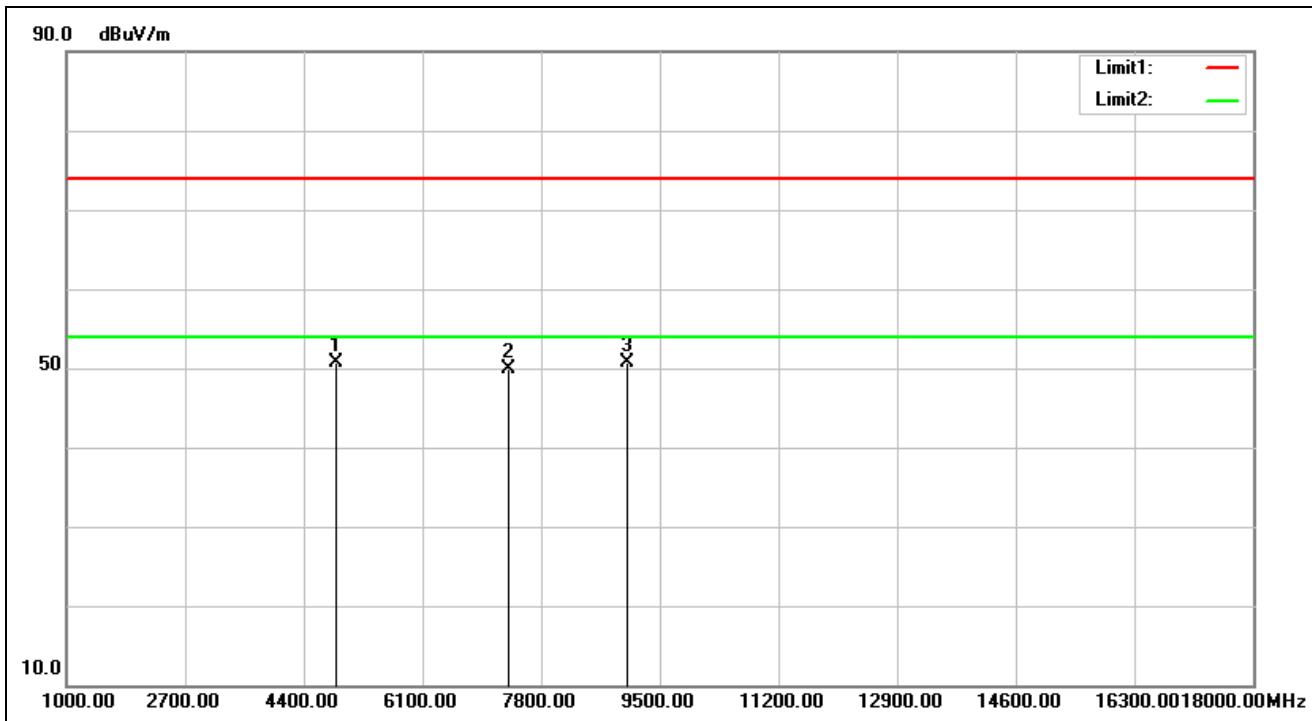
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/28 21:56:42
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 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	4824.000	-2.66	47.50	44.84	74.00	-29.16	peak			
2	7236.000	5.32	44.33	49.65	74.00	-24.35	peak			
3	9058.000	6.46	44.56	51.02	74.00	-22.98	peak	100	309	



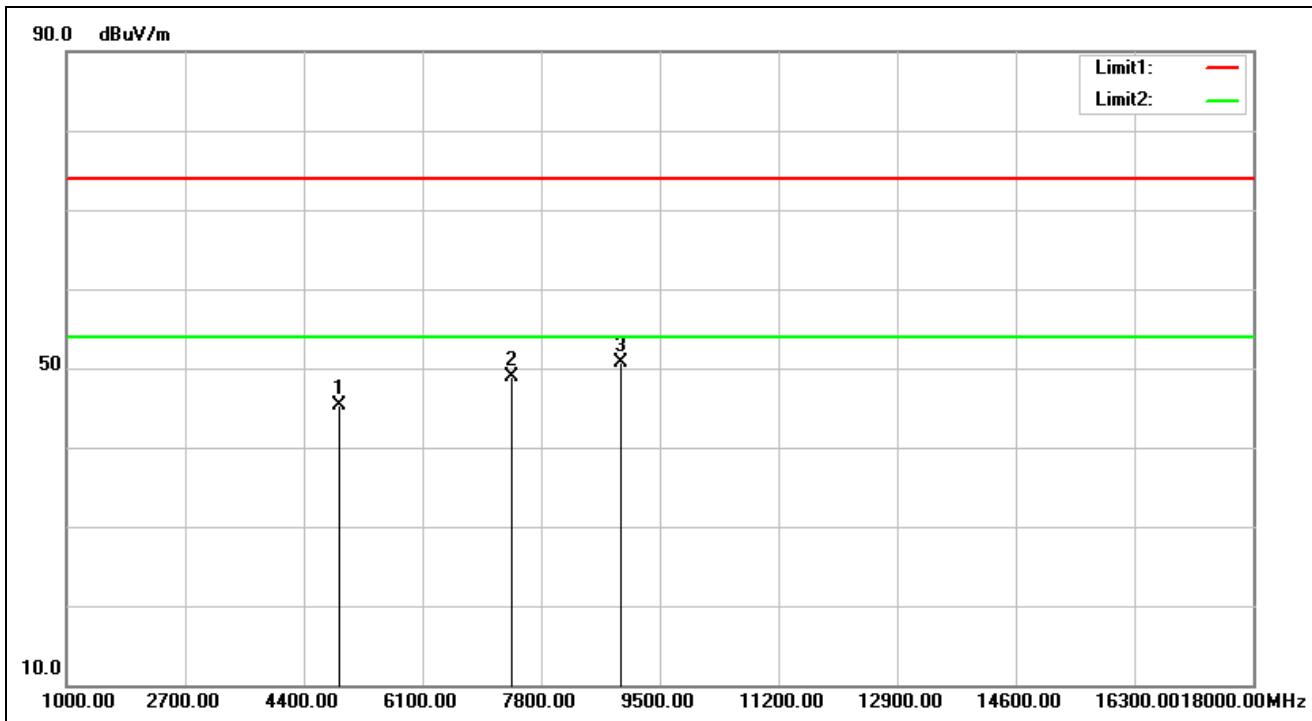
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/28 21:59:01
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 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	4874.000	-2.53	50.86	48.33	74.00	-25.67	peak	100	323	
2	7311.000	5.52	44.57	50.09	74.00	-23.91	peak			
3	8990.000	6.44	45.08	51.52	74.00	-22.48	peak	100	82	



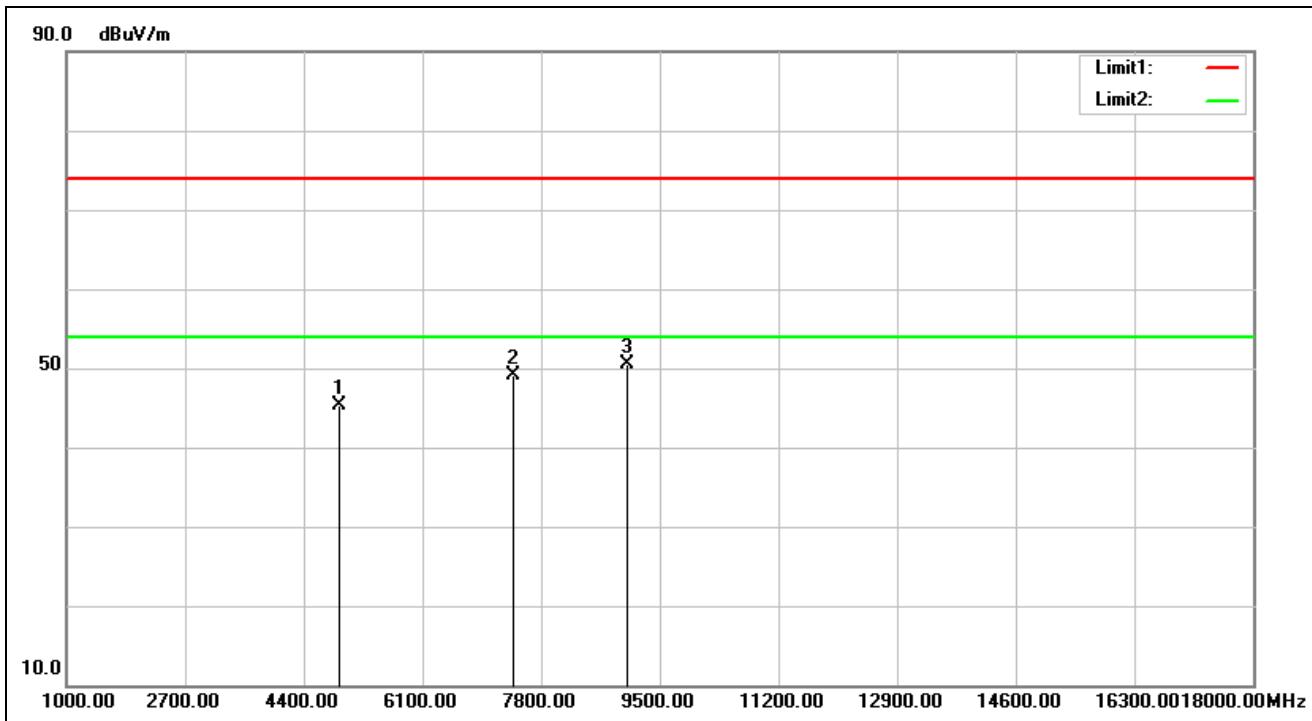
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/28 21:59:57
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 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	4874.000	-2.53	53.25	50.72	74.00	-23.28	peak	100	331	
2	7311.000	5.52	44.40	49.92	74.00	-24.08	peak			
3	9024.000	6.45	44.23	50.68	74.00	-23.32	peak	100	313	



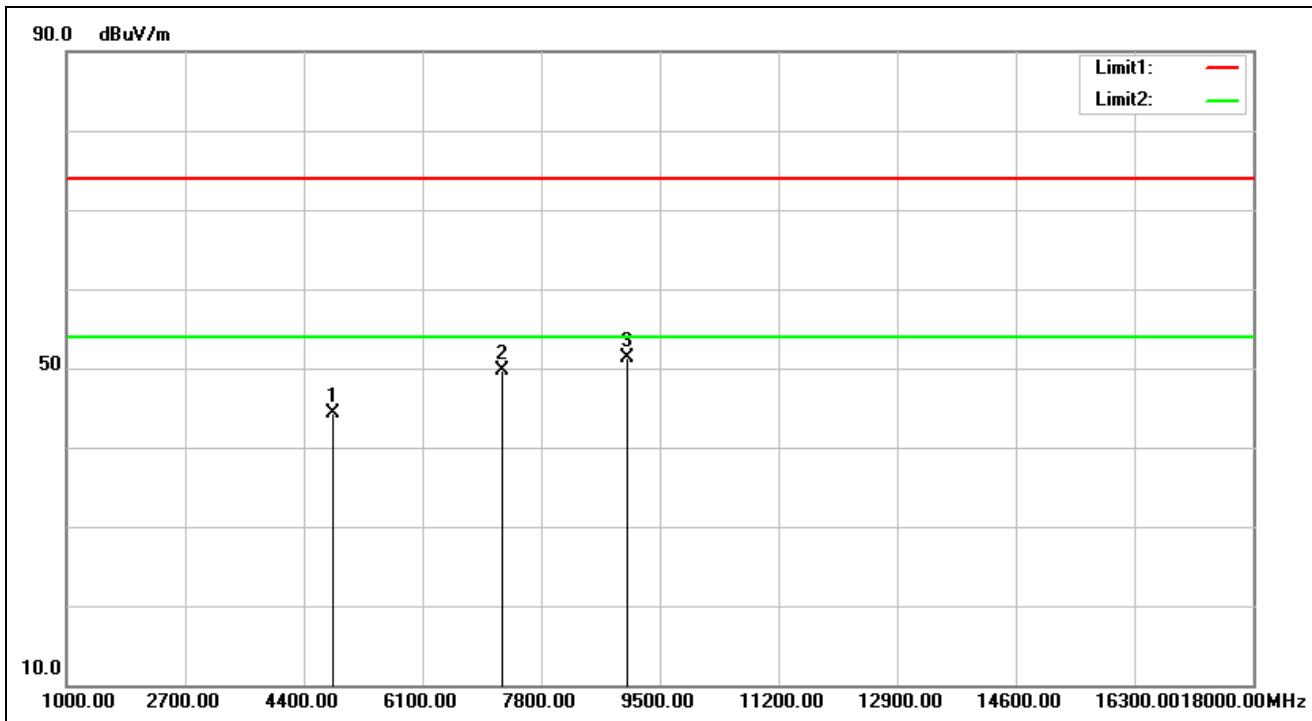
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/28 22:03:08
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 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	4924.000	-2.39	47.72	45.33	74.00	-28.67	peak			
2	7386.000	5.70	43.24	48.94	74.00	-25.06	peak			
3	8939.000	6.43	44.21	50.64	74.00	-23.36	peak	100	285	



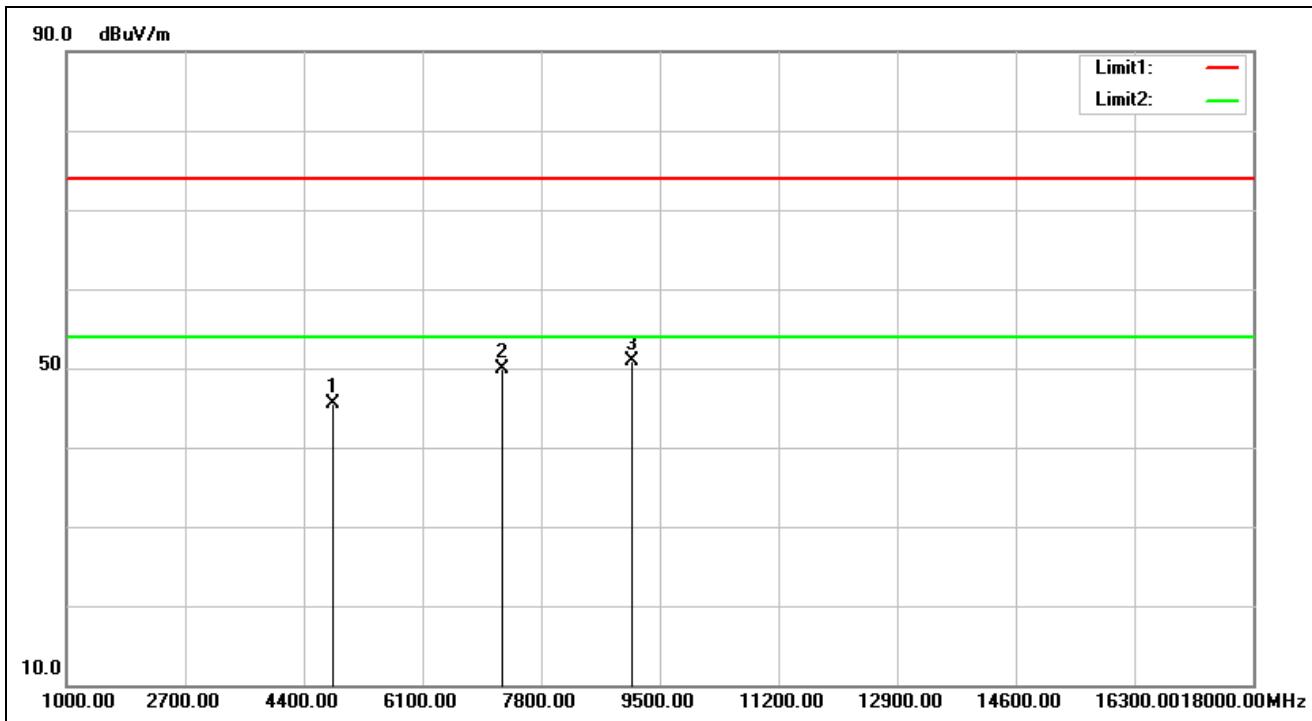
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/28 22:04:05
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 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	4924.000	-2.39	47.74	45.35	74.00	-28.65	peak			
2	7386.000	5.70	43.44	49.14	74.00	-24.86	peak			
3	9041.000	6.45	44.02	50.47	74.00	-23.53	peak	100	297	



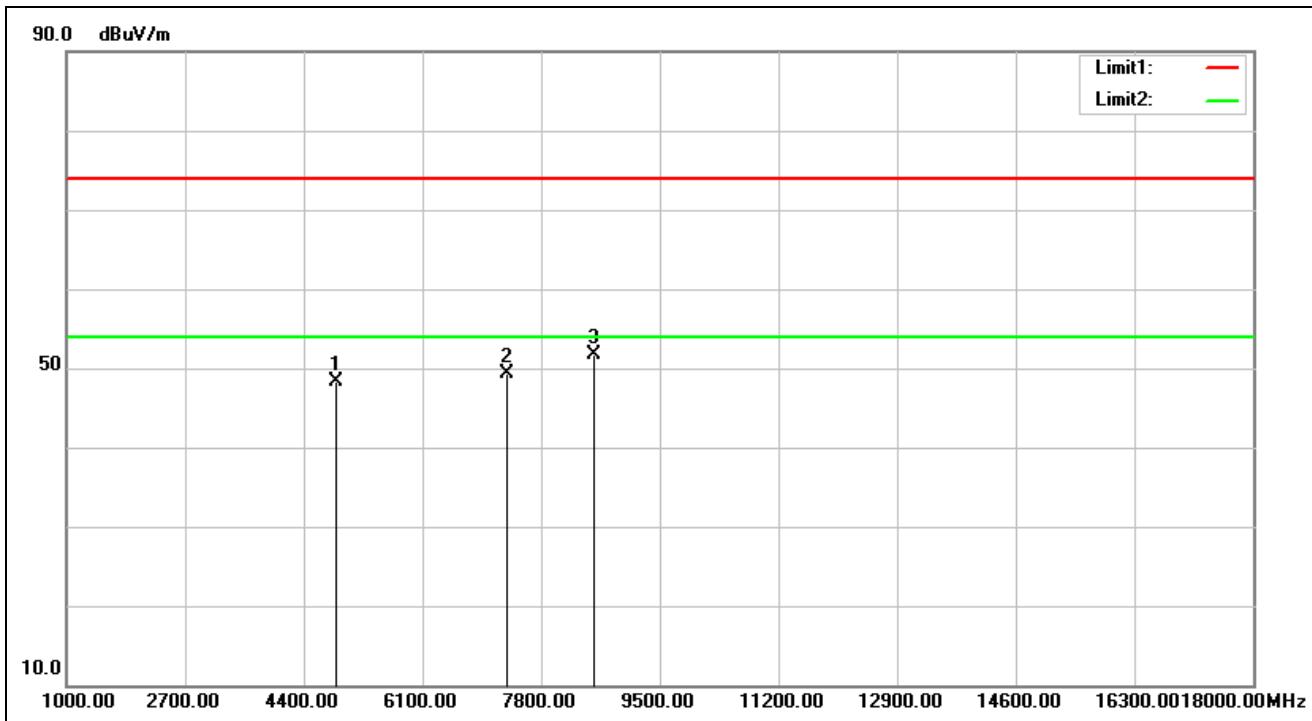
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/28 22:06:38
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 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	4824.000	-2.66	46.92	44.26	74.00	-29.74	peak			
2	7236.000	5.32	44.33	49.65	74.00	-24.35	peak			
3	9041.000	6.45	44.80	51.25	74.00	-22.75	peak	100	85	



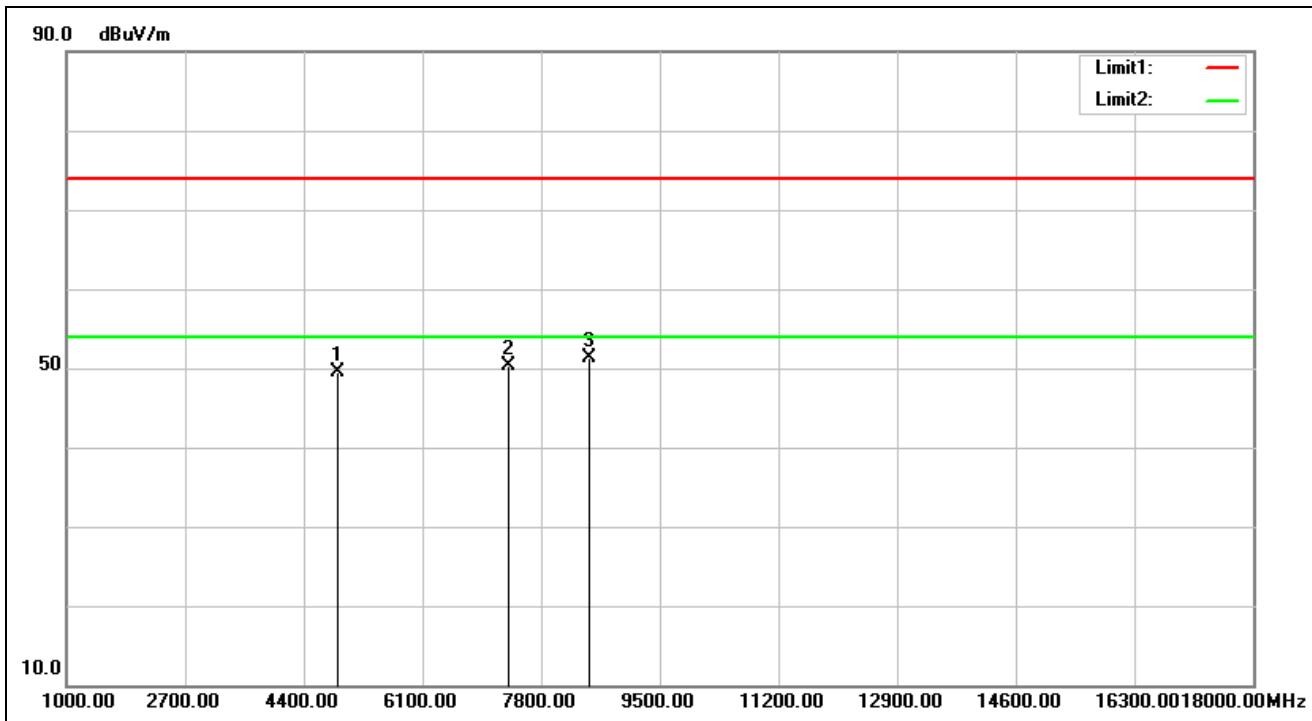
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/28 22:07:35
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 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	4824.000	-2.66	48.15	45.49	74.00	-28.51	peak			
2	7236.000	5.32	44.51	49.83	74.00	-24.17	peak			
3	9109.000	6.47	44.50	50.97	74.00	-23.03	peak	100	253	



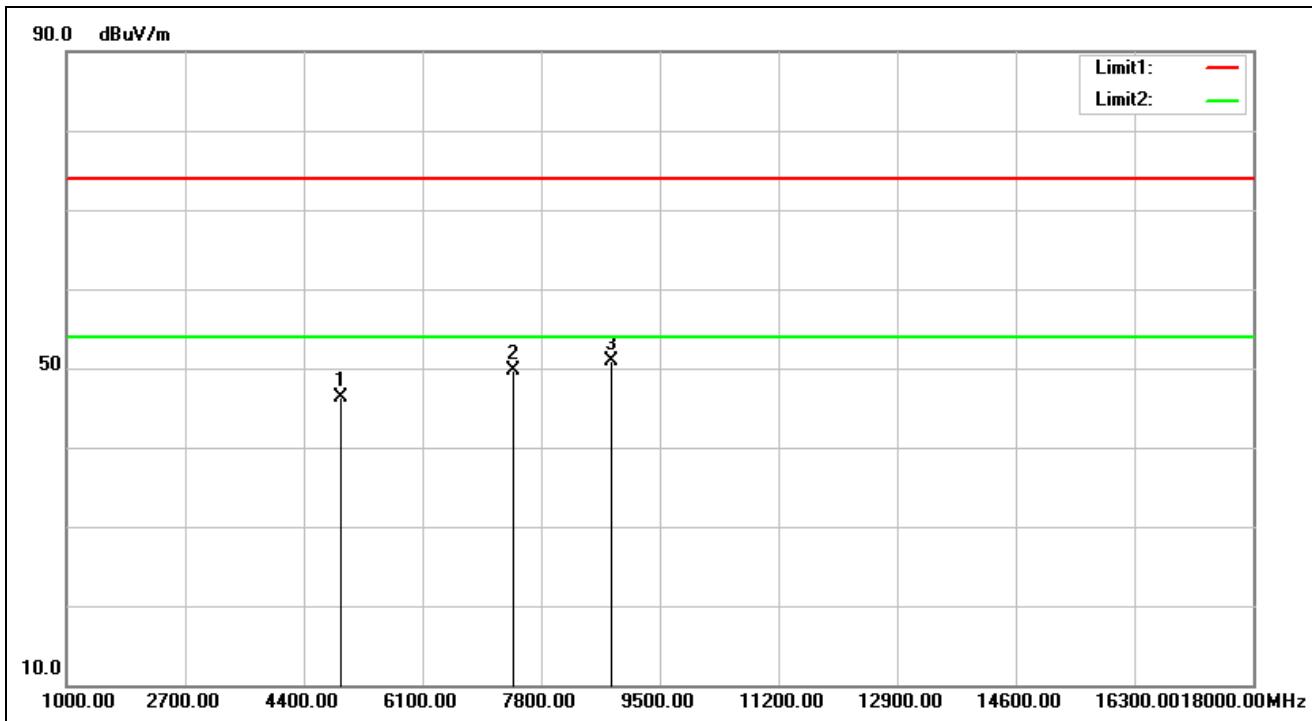
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/28 22:10:09
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 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	4874.000	-2.53	50.79	48.26	74.00	-25.74	peak	100	322	
2	7311.000	5.52	43.75	49.27	74.00	-24.73	peak			
3	8548.000	6.38	45.27	51.65	74.00	-22.35	peak	100	338	



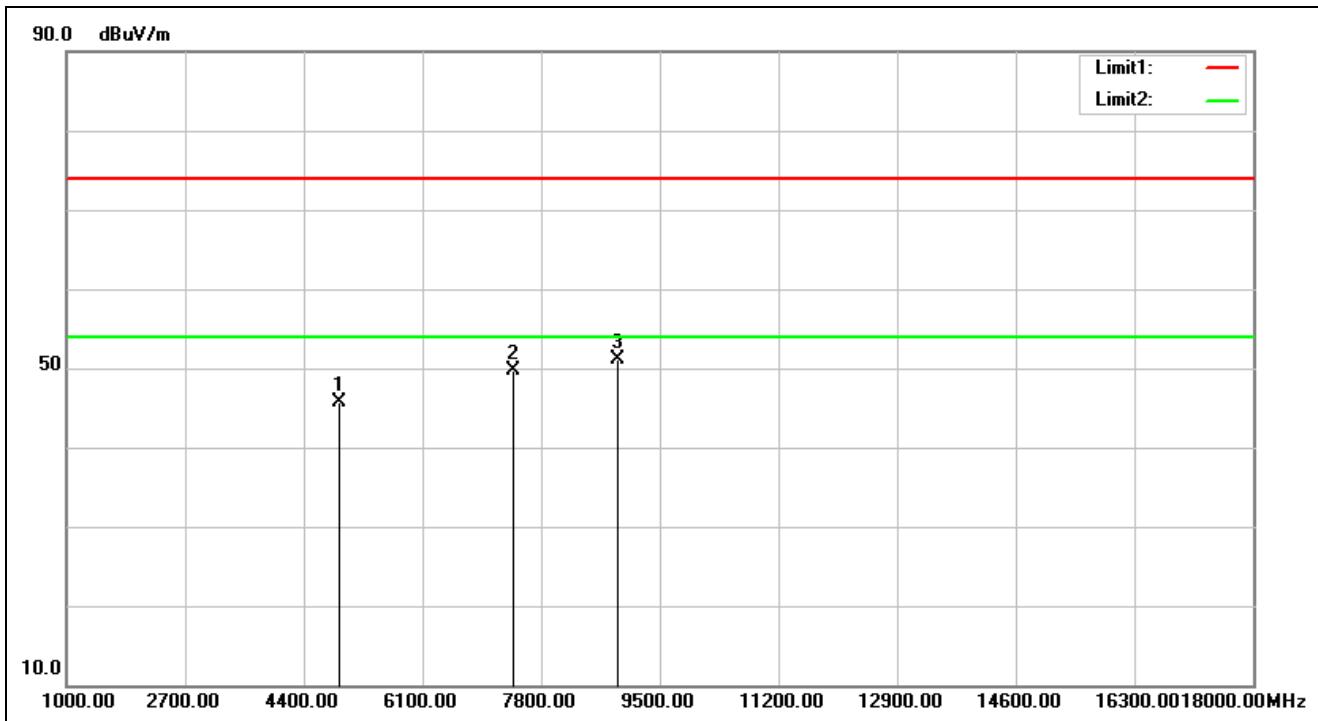
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/28 22:11:05
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 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	4874.000	-2.53	52.11	49.58	74.00	-24.42	peak	100	350	
2	7311.000	5.52	44.75	50.27	74.00	-23.73	peak			
3	8480.000	6.35	45.03	51.38	74.00	-22.62	peak	100	19	



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/28 22:13:45
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 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	4924.000	-2.39	48.61	46.22	74.00	-27.78	peak			
2	7386.000	5.70	44.00	49.70	74.00	-24.30	peak			
3	8803.000	6.42	44.39	50.81	74.00	-23.19	peak	100	285	



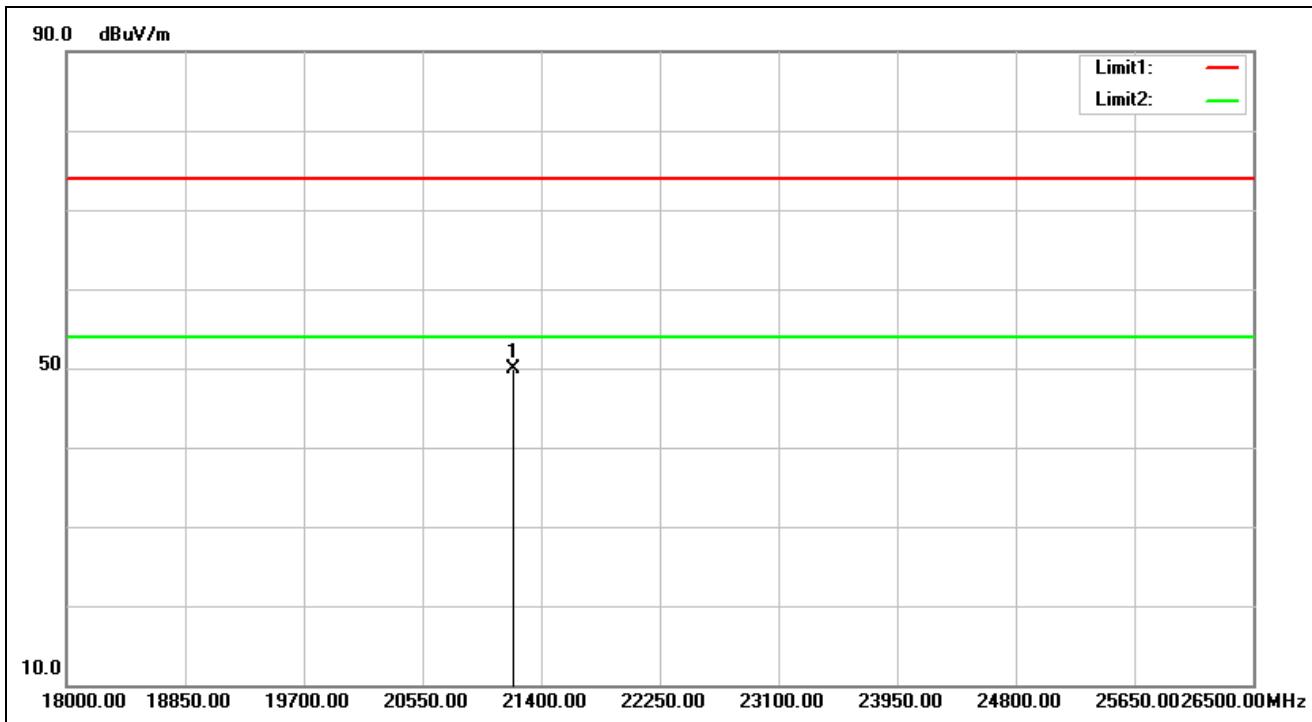
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/28 22:14:41
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 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	4924.000	-2.39	48.17	45.78	74.00	-28.22	peak			
2	7386.000	5.70	44.01	49.71	74.00	-24.29	peak			
3	8888.000	6.43	44.68	51.11	74.00	-22.89	peak	100	126	

Spurious Emissions, TX Mode, 18-26G

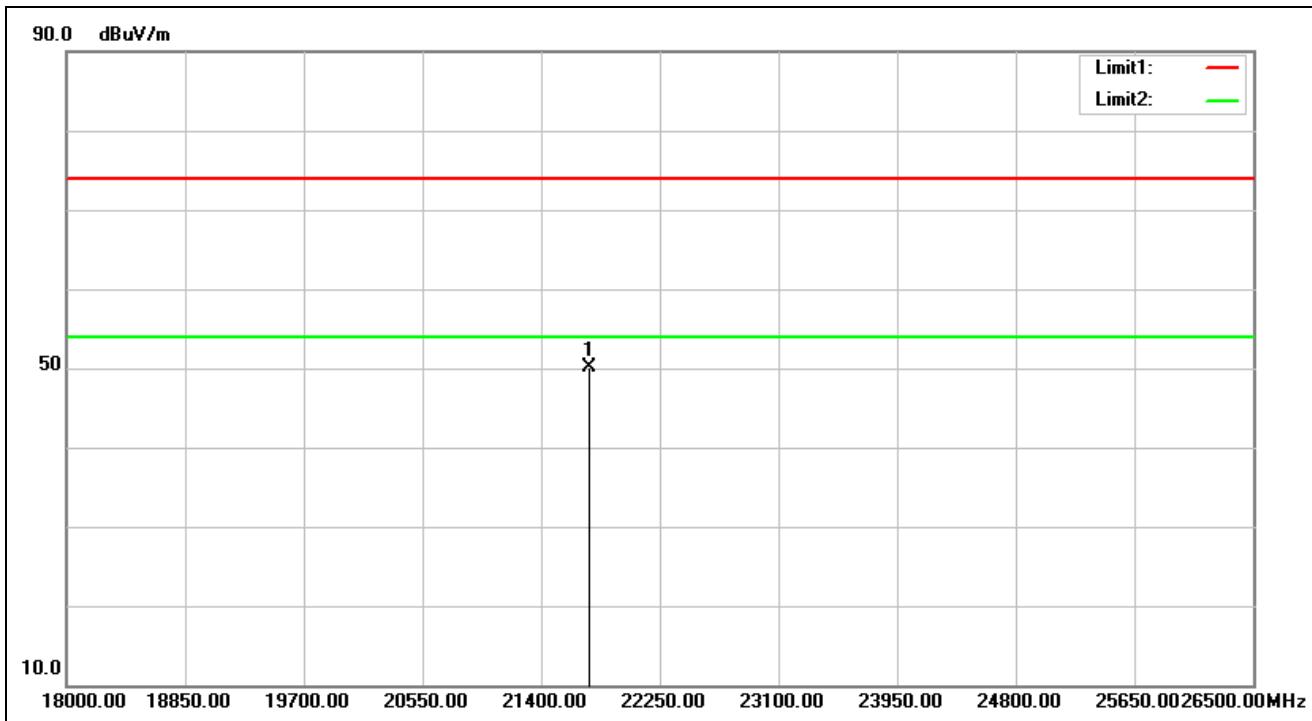


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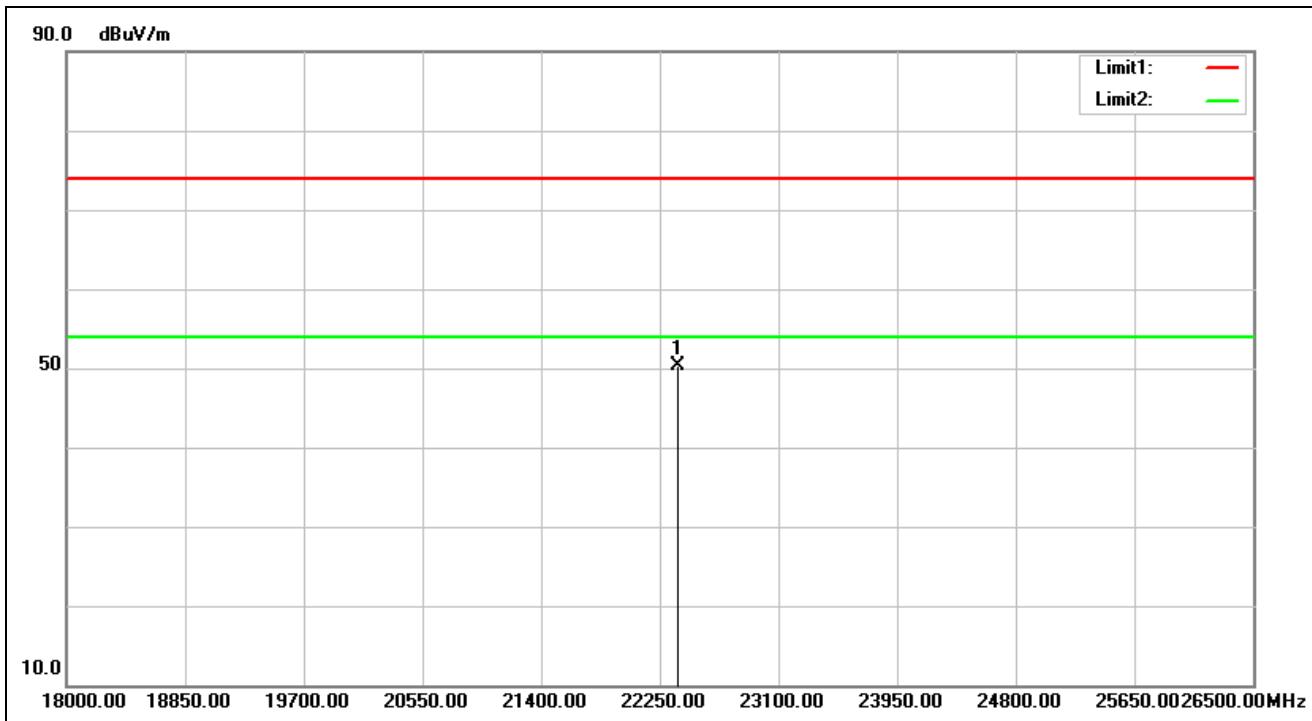
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:06:10
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 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	21196.000	32.61	17.20	49.81	74.00	-24.19	peak		0	



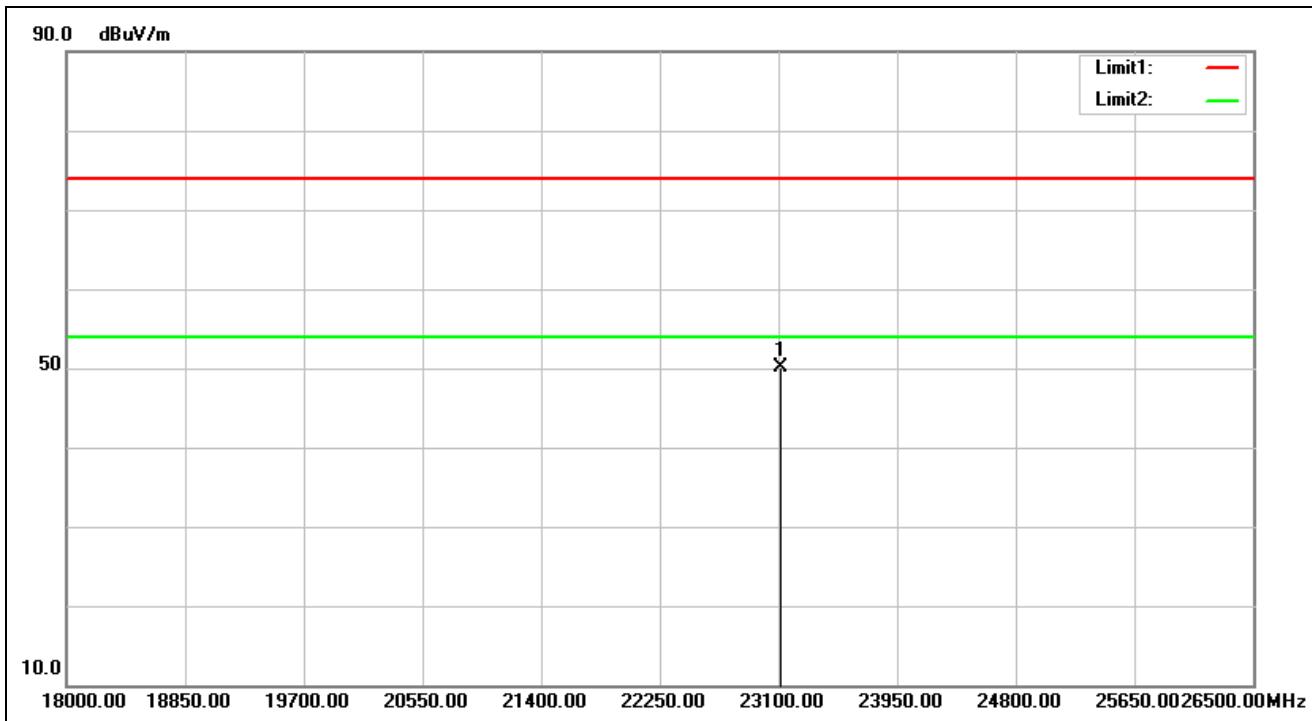
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:06:17
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 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	21740.000	32.74	17.27	50.01	74.00	-23.99	peak			



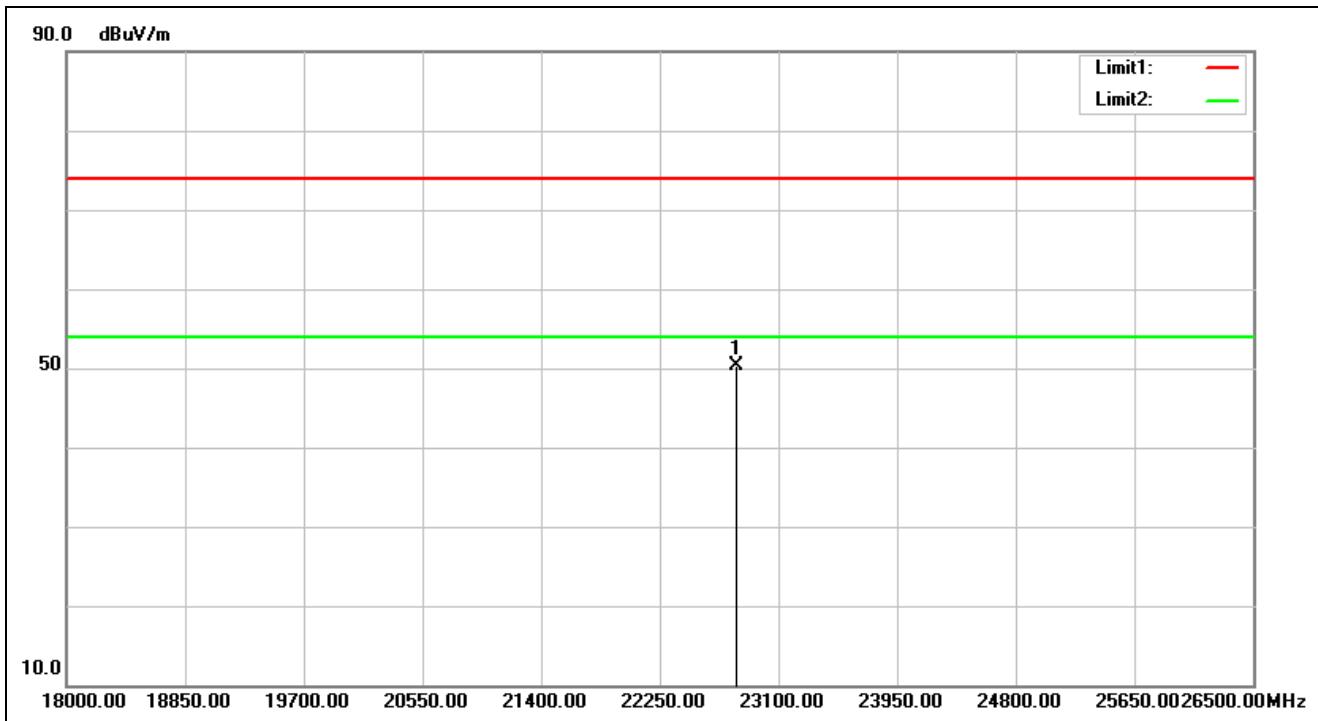
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:06:52
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 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	22377.500	32.63	17.74	50.37	74.00	-23.63	peak			



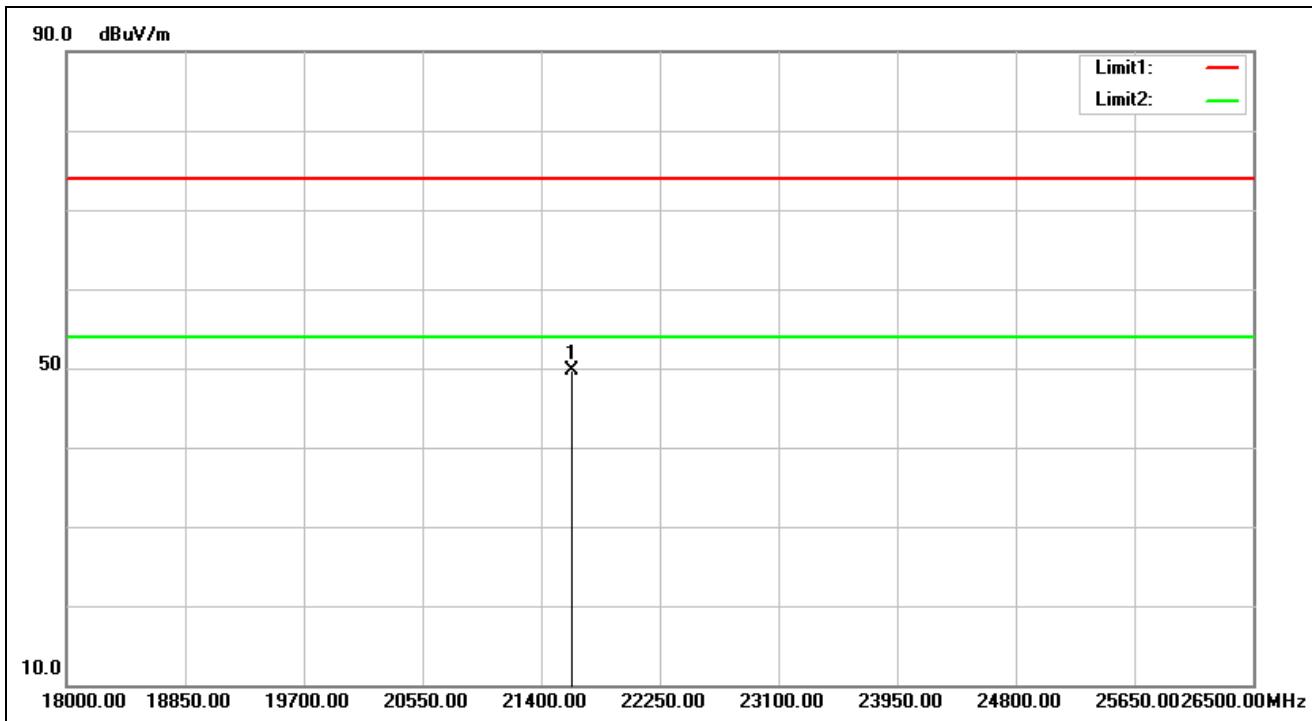
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:06:59
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 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	23117.000	32.91	17.17	50.08	74.00	-23.92	peak			



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:07:21
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 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	22794.000	32.74	17.61	50.35	74.00	-23.65	peak			

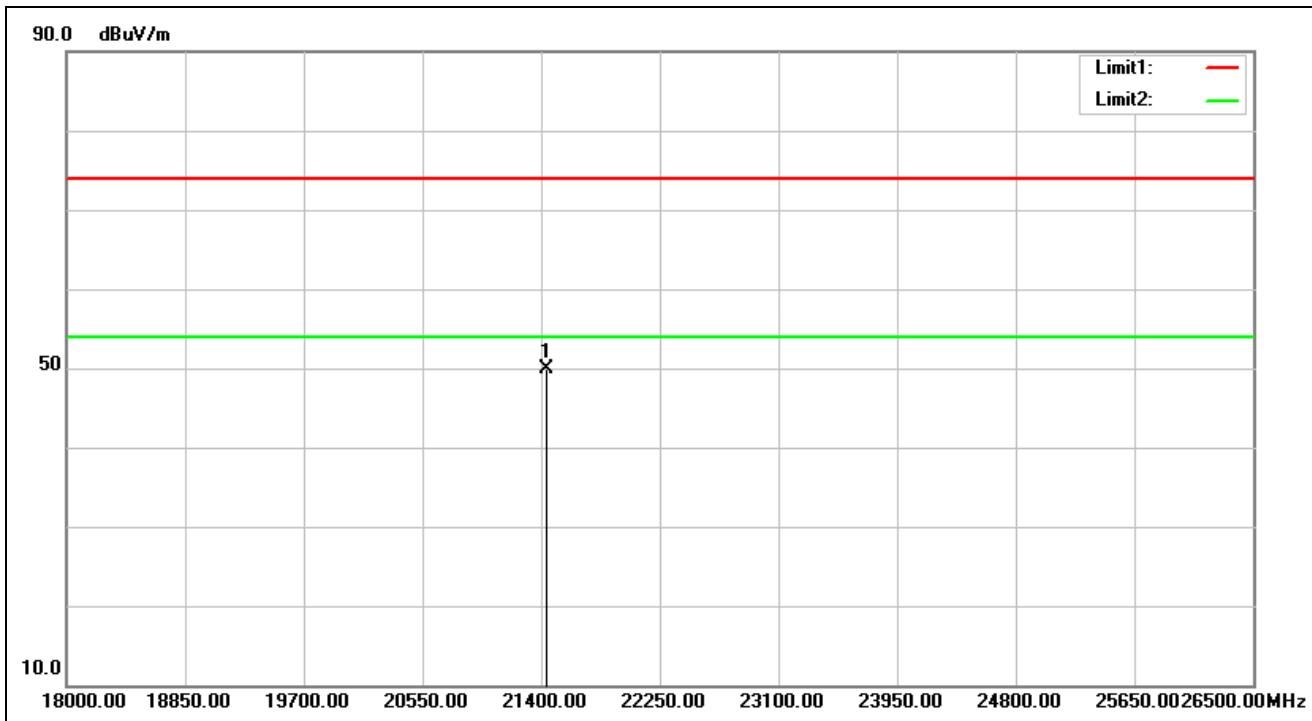


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:07:28
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 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	21621.000	32.81	16.89	49.70	74.00	-24.30	peak			

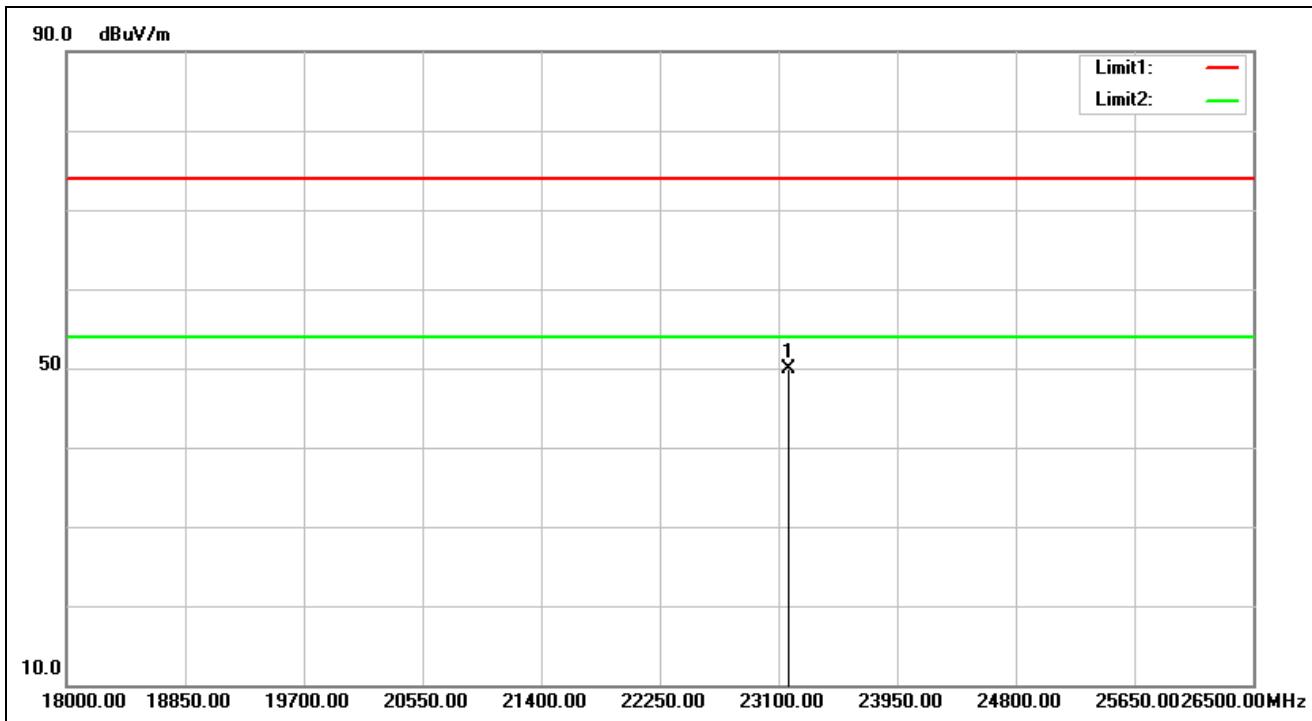


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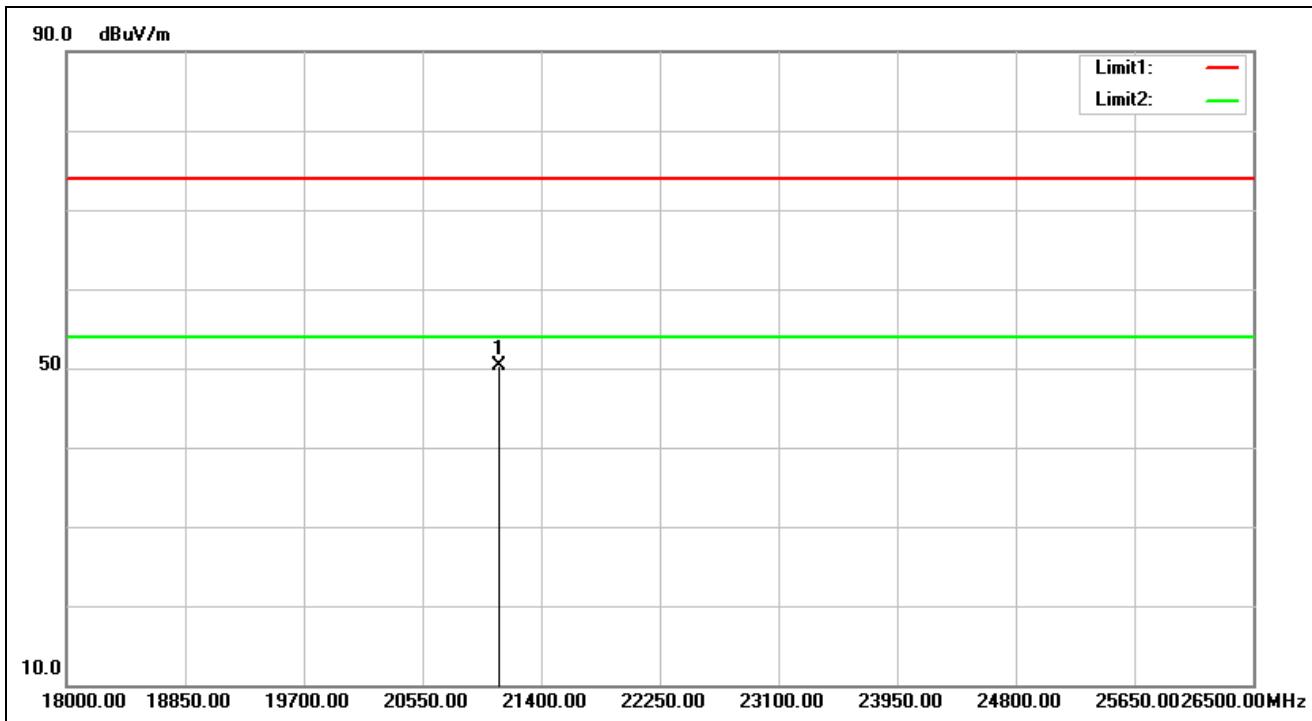
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:07:58
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 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	21442.500	32.84	17.09	49.93	74.00	-24.07	peak			



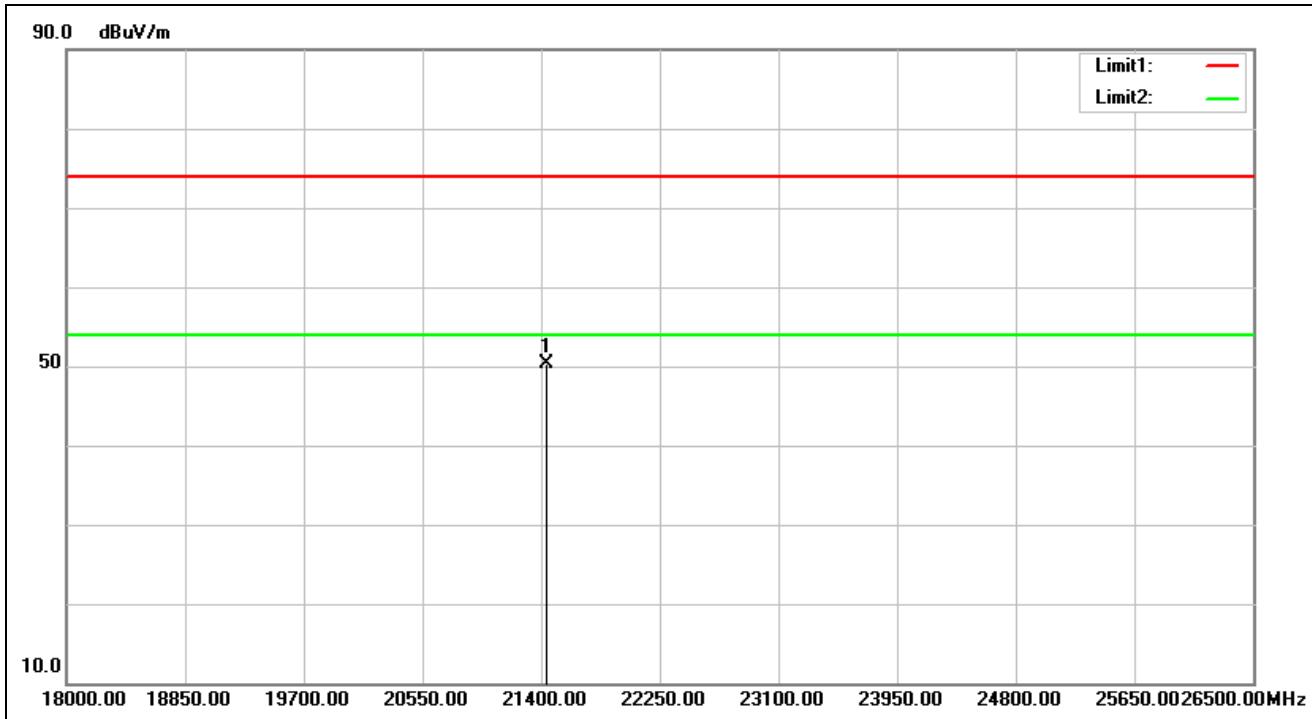
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:08:05
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 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	23176.500	32.97	17.00	49.97	74.00	-24.03	peak			



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:08:31
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 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	21102.500	32.53	17.79	50.32	74.00	-23.68	peak			

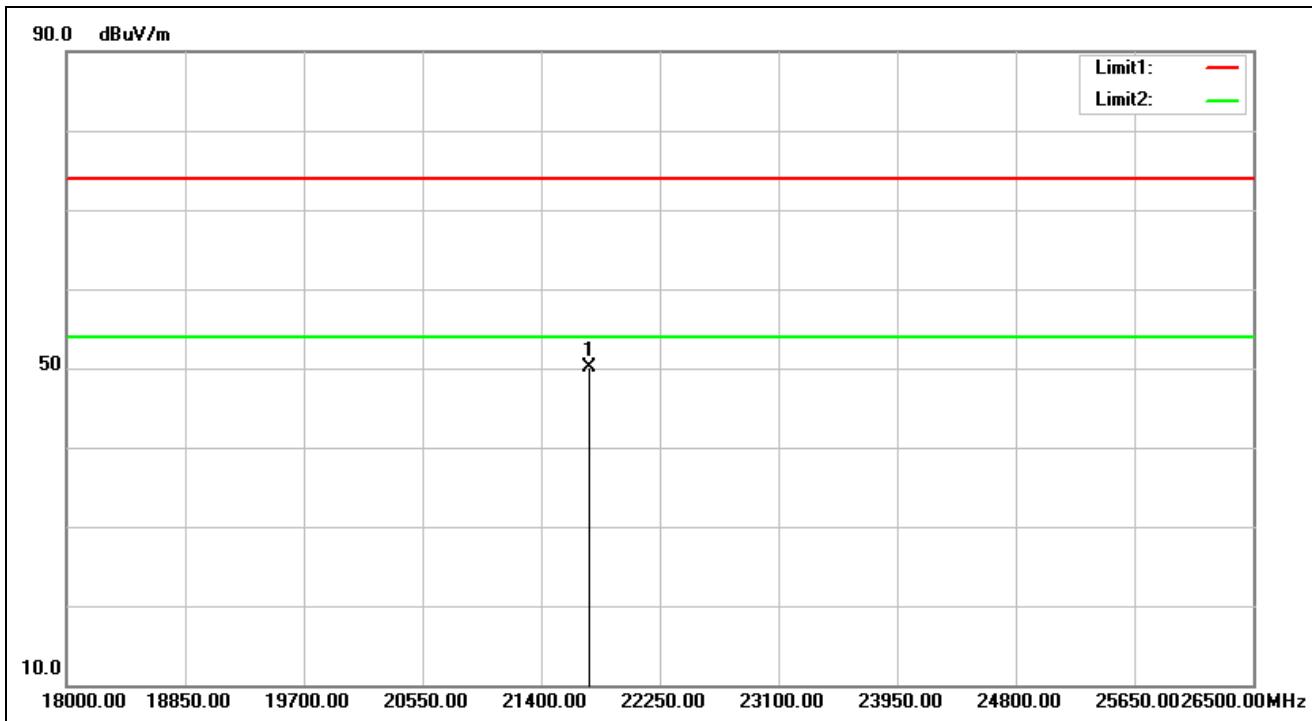


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:08:38
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 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	21434.000	32.83	17.52	50.35	74.00	-23.65	peak			



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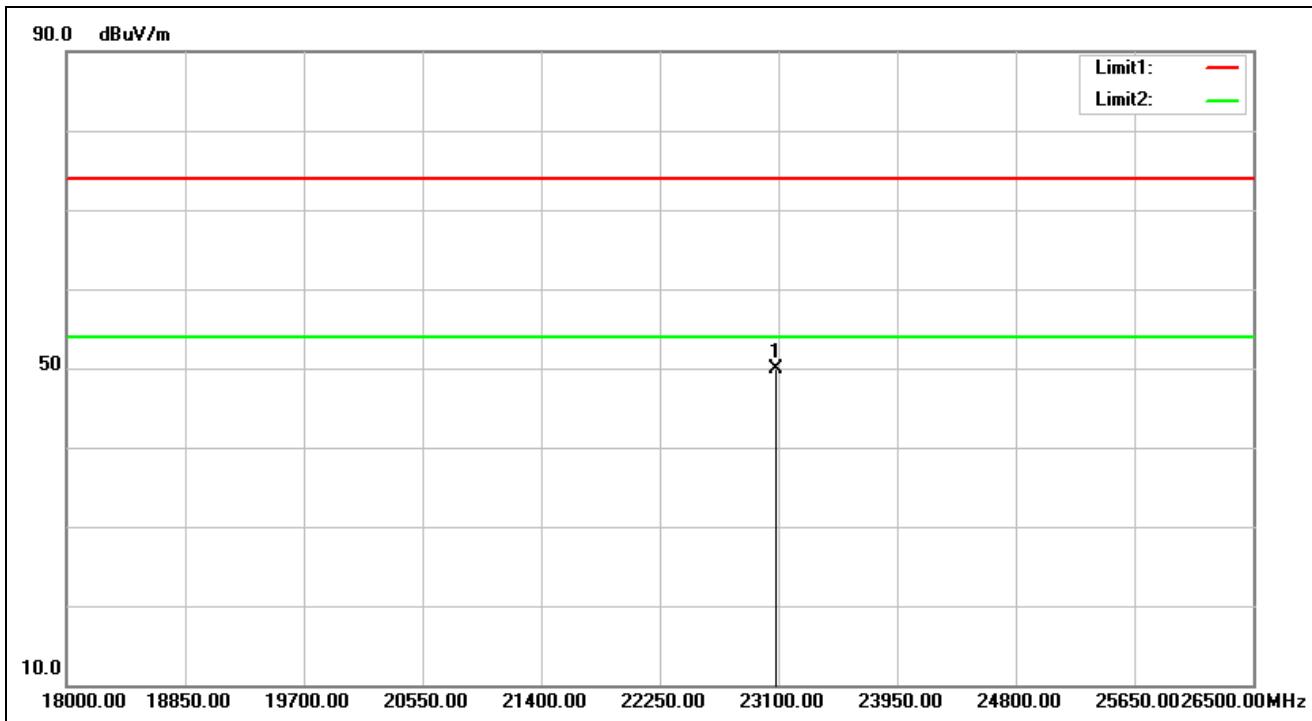


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:09:07
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 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	21740.000	32.74	17.37	50.11	74.00	-23.89	peak			

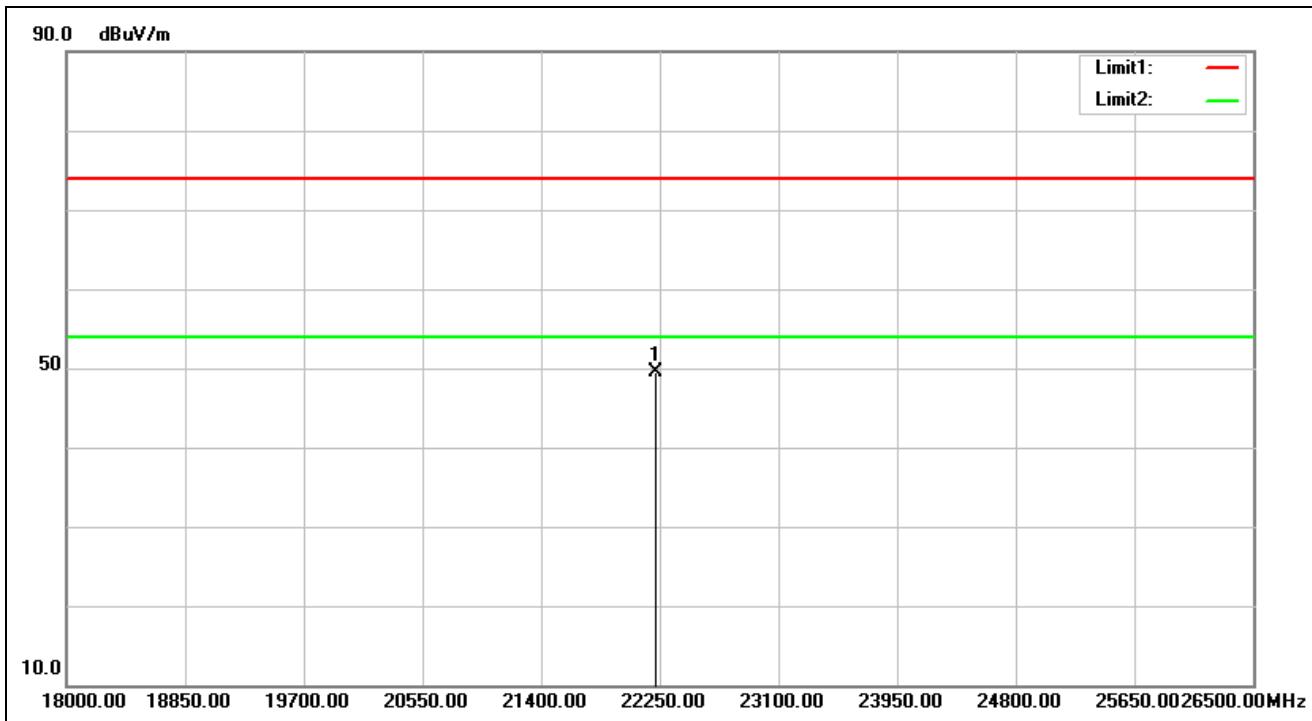


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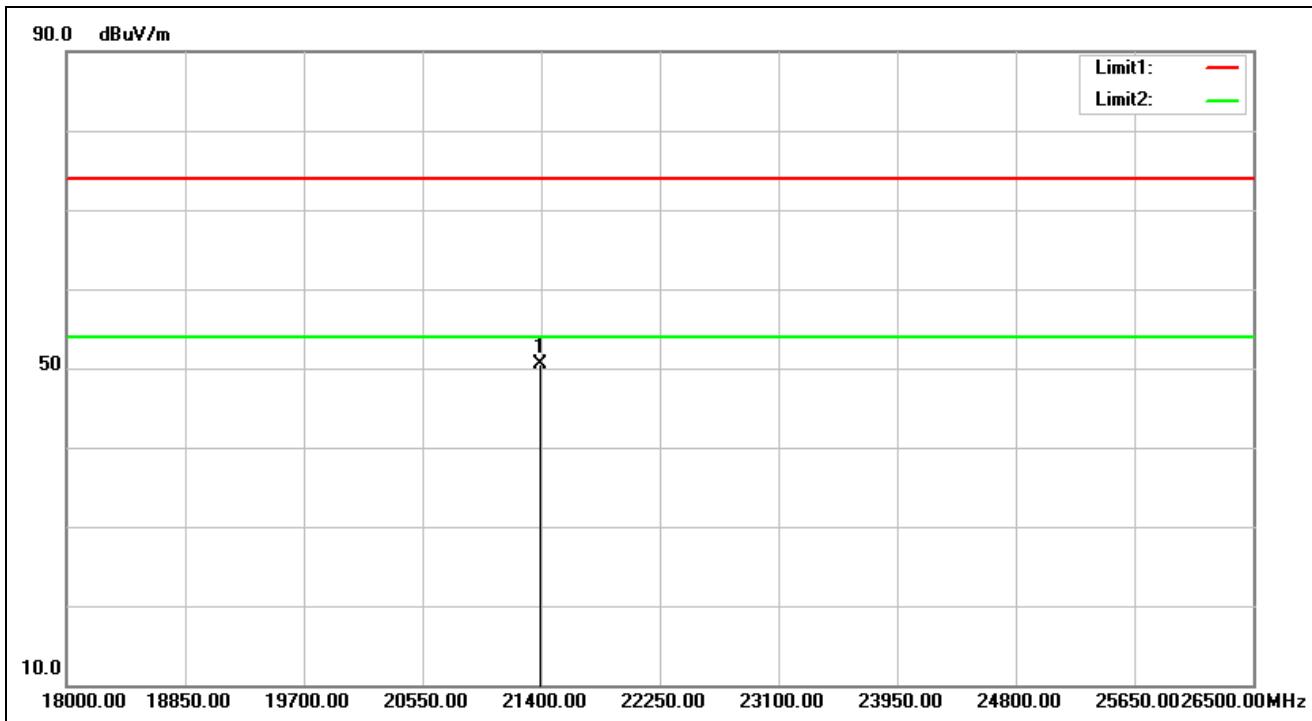
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:09:14
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 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	23083.000	32.87	17.05	49.92	74.00	-24.08	peak			



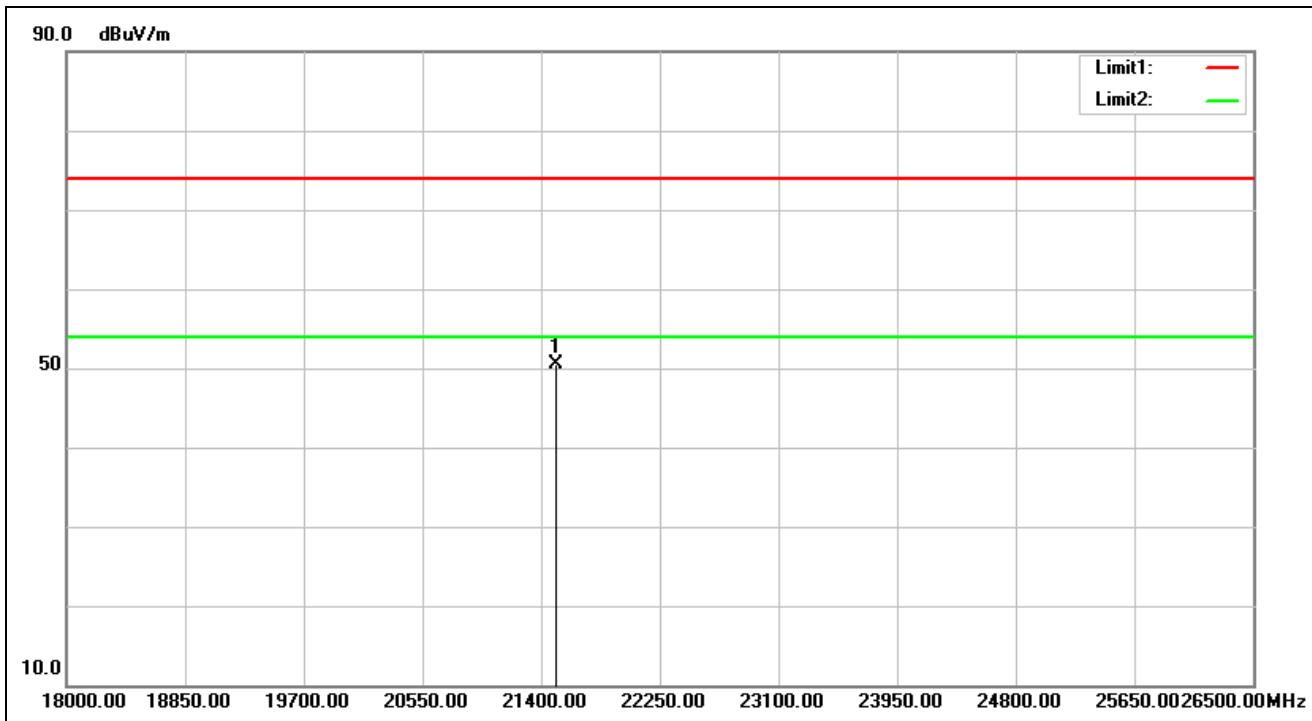
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:09:36
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 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	22216.000	32.61	16.83	49.44	74.00	-24.56	peak			



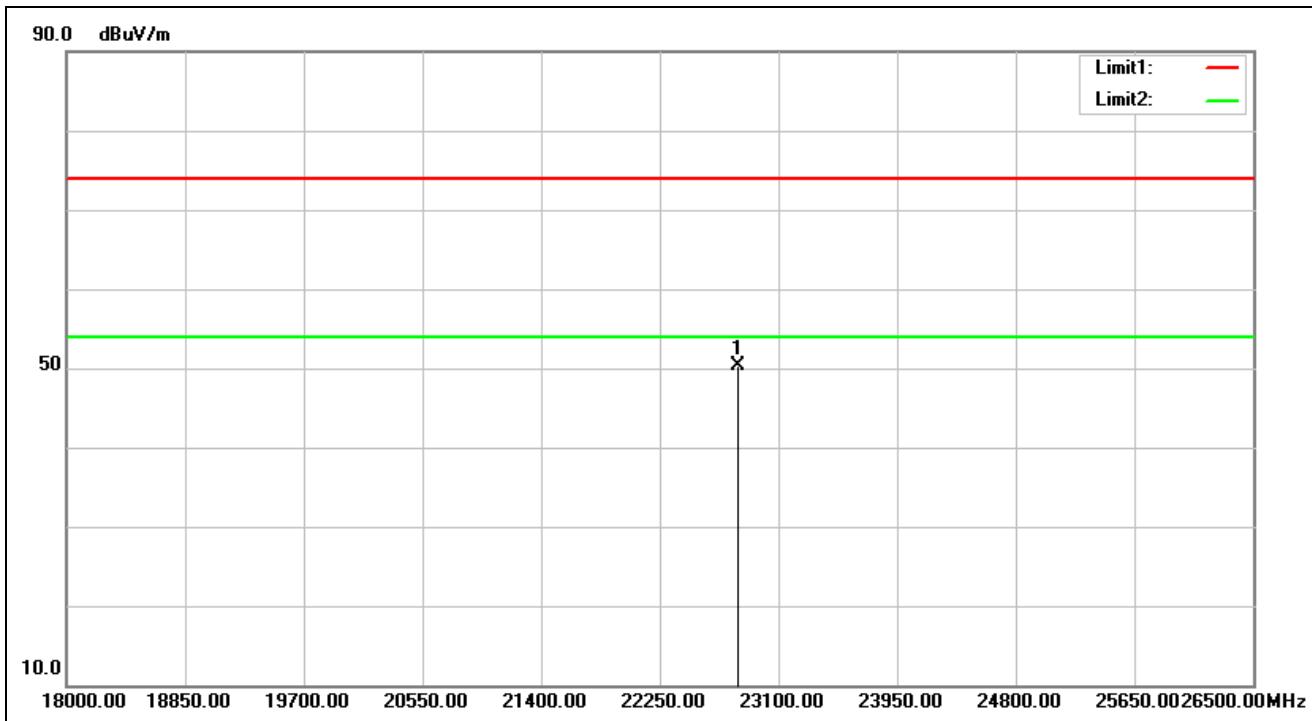
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:09:43
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 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	21391.500	32.80	17.79	50.59	74.00	-23.41	peak			



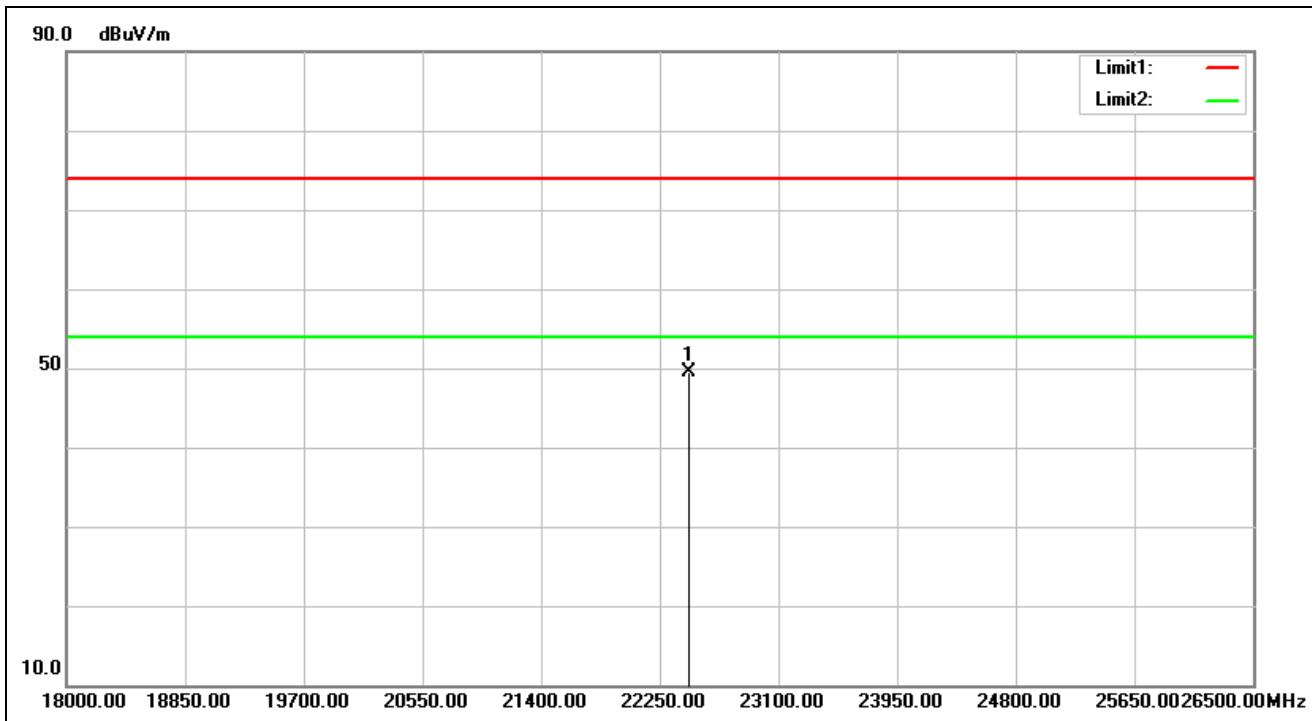
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:10:07
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 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	17.57	50.46	74.00	-23.54	peak			



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:10:14
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 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	22811.000	32.74	17.51	50.25	74.00	-23.75	peak			

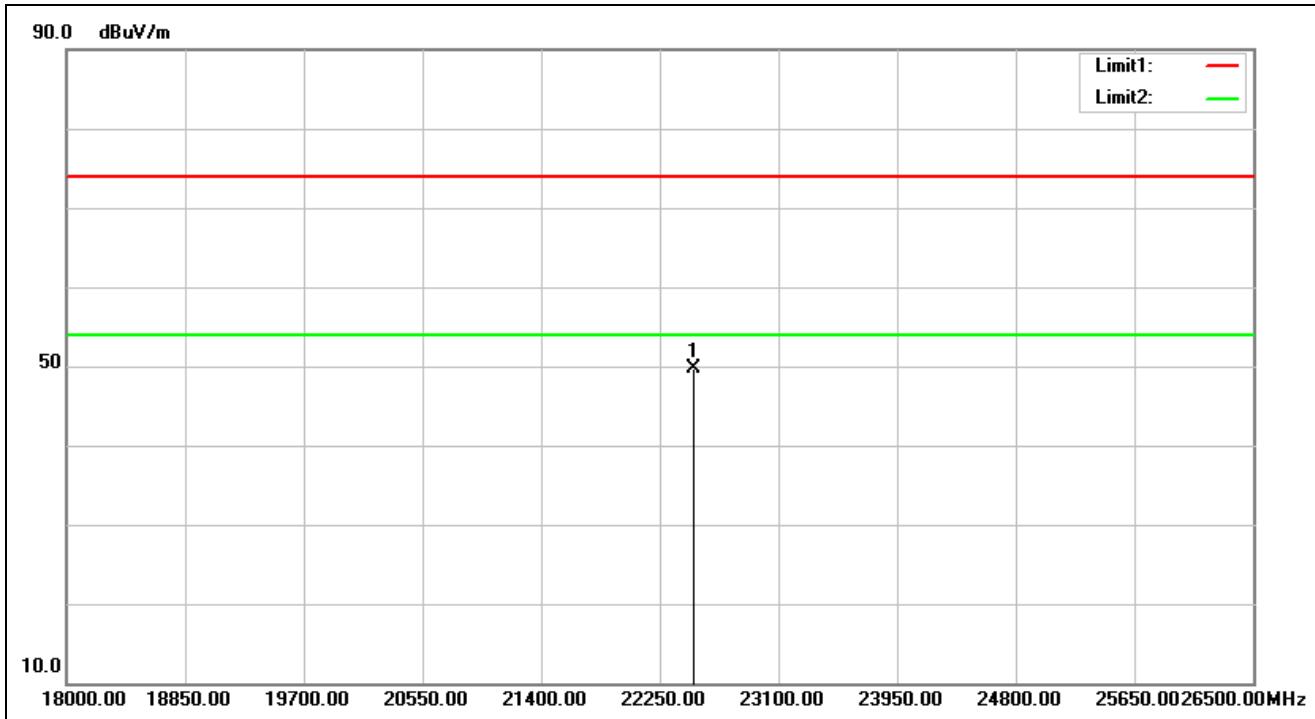


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:10:42
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 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	22462.500	32.64	16.81	49.45	74.00	-24.55	peak			



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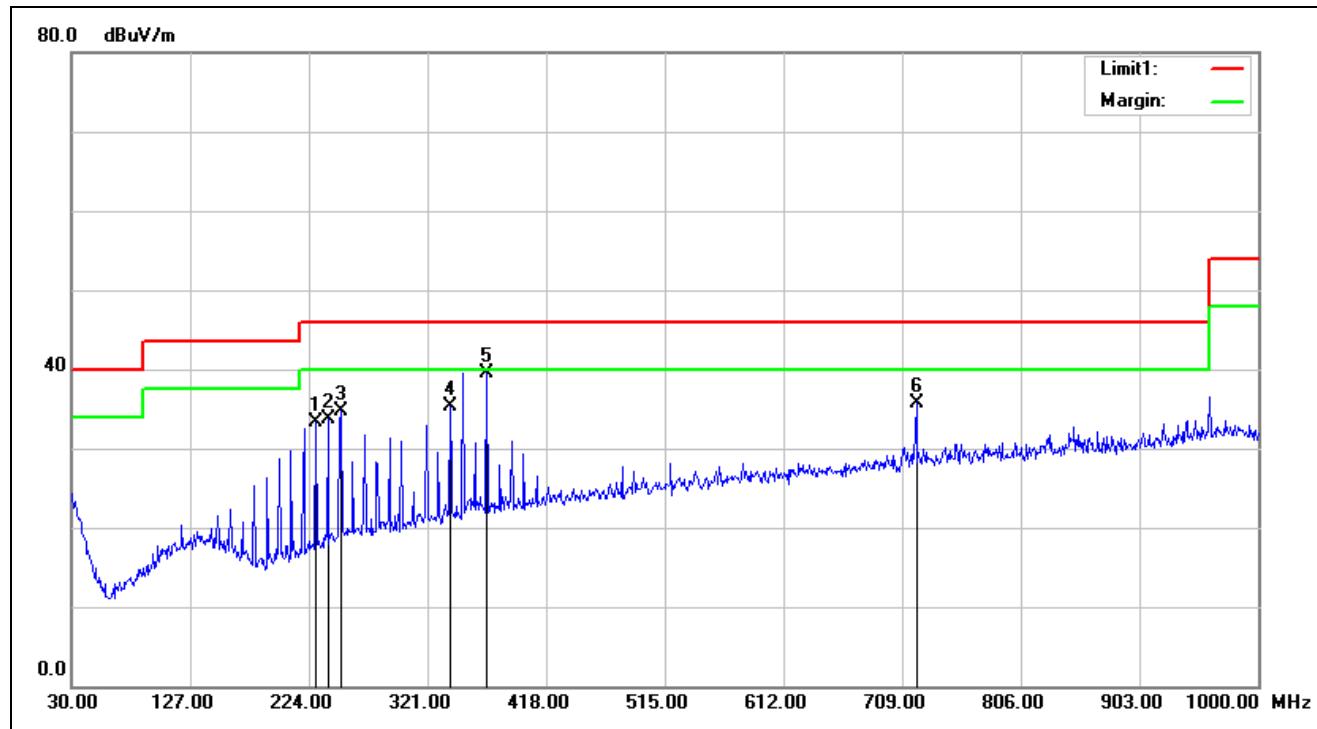
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:10:48
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 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	22488.000	32.64	17.00	49.64	74.00	-24.36	peak			

Spurious Emissions, TX Mode, 30M-1G

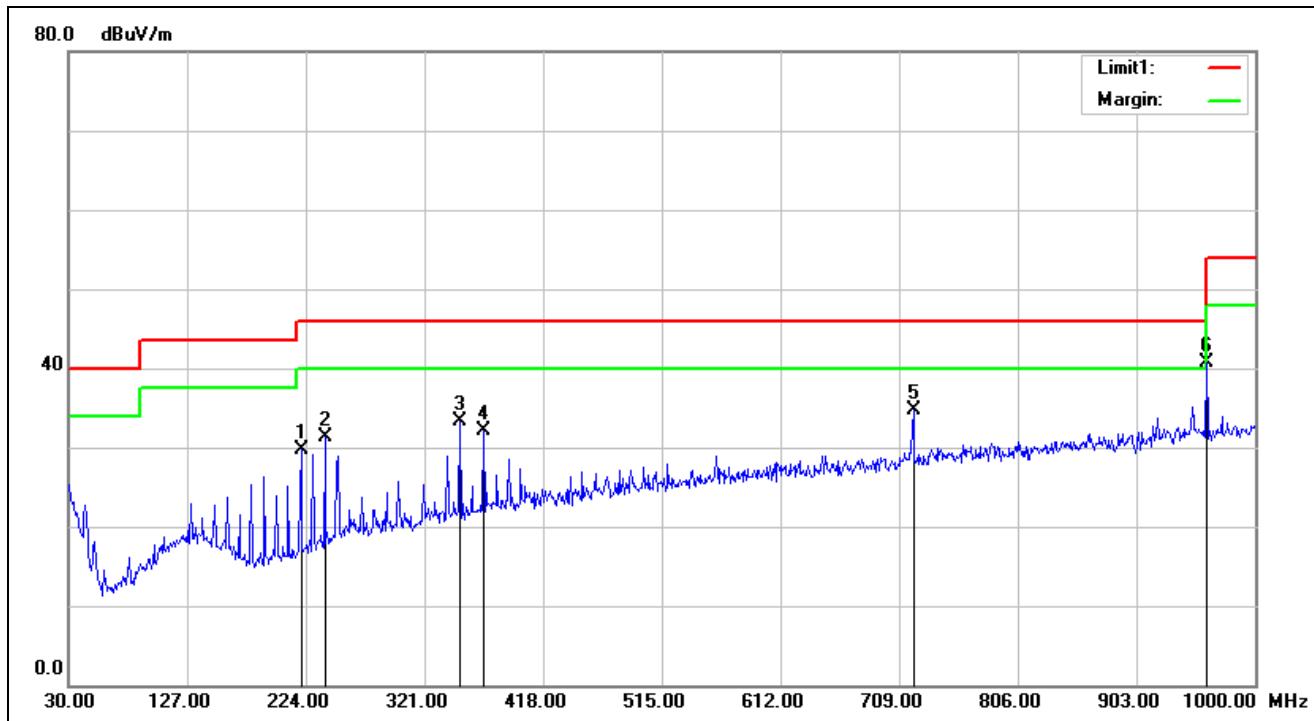


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:39:33
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 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	229.8199	-7.57	40.85	33.28	46.00	-12.72	QP	100	244	
2	239.5200	-6.85	40.64	33.79	46.00	-12.21	QP	100	244	
3	250.1899	-5.76	40.42	34.66	46.00	-11.34	QP	100	100	
4	339.4300	-3.61	38.96	35.35	46.00	-10.65	QP	100	291	
5	369.5000	-2.98	42.43	39.45	46.00	-6.55	QP	100	303	
6	720.6399	1.72	34.06	35.78	46.00	-10.22	QP	100	150	



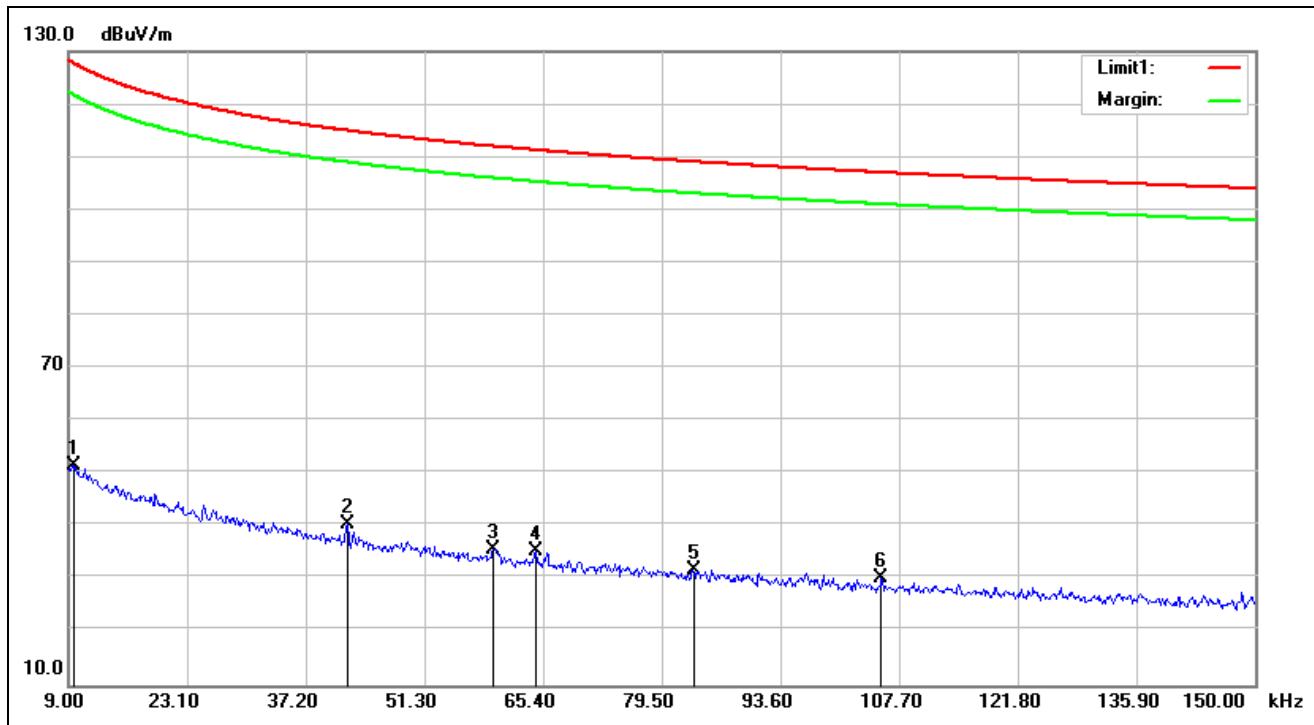
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:40:30
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 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	220.1200	-8.30	37.98	29.68	46.00	-16.32	QP	100	298	
2	239.5200	-6.85	38.10	31.25	46.00	-14.75	QP	100	270	
3	350.1000	-3.34	36.63	33.29	46.00	-12.71	QP	100	207	
4	369.5000	-2.98	35.15	32.17	46.00	-13.83	QP	100	238	
5	720.6400	1.72	33.01	34.73	46.00	-11.27	QP	100	1	
6	960.2300	5.54	35.25	40.79	54.00	-13.21	QP	100	359	

Spurious Emissions, TX Mode, 9k-30M

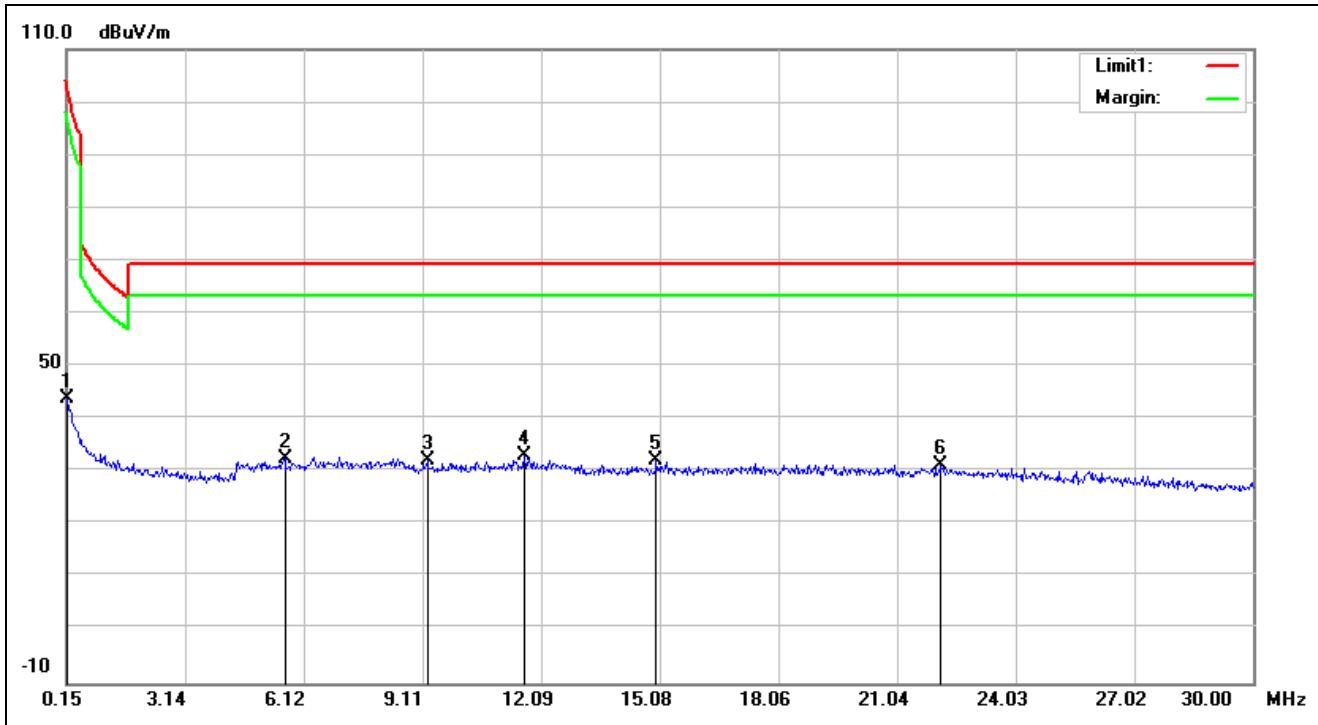


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:32:00
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 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	0.0095	19.76	31.86	51.62	127.84	-76.22	QP	100	223	
2	0.0421	19.70	20.64	40.34	114.99	-74.65	QP	100	226	
3	0.0594	19.37	16.26	35.63	112.01	-76.38	QP	100	258	
4	0.0645	19.34	15.92	35.26	111.30	-76.04	QP	100	6	
5	0.0831	19.23	12.51	31.74	109.12	-77.38	QP	100	105	
6	0.1055	19.12	11.00	30.12	107.06	-76.94	QP	100	357	



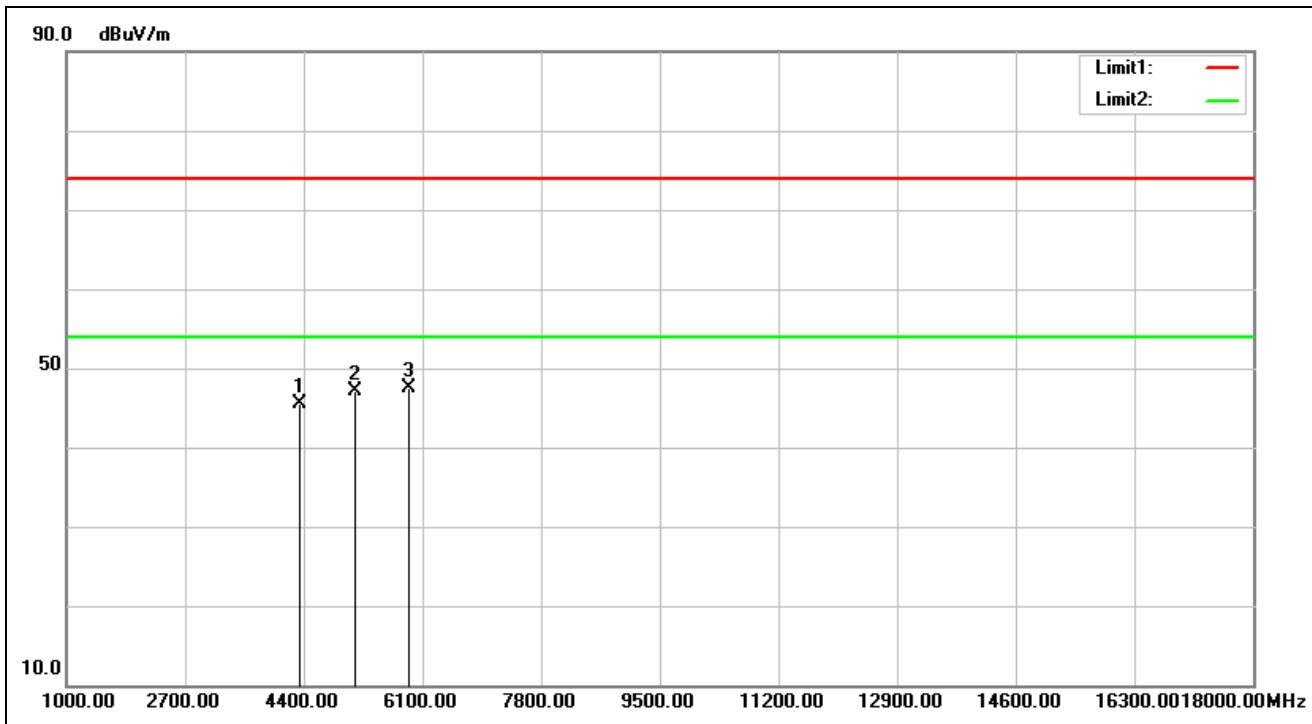
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:34:43
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 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	0.1798	19.06	24.66	43.72	102.45	-58.73	QP	100	90	
2	5.6424	19.82	12.67	32.49	69.50	-37.01	QP	100	53	
3	9.2243	20.15	12.05	32.20	69.50	-37.30	QP	100	315	
4	11.6721	20.51	12.49	33.00	69.50	-36.50	QP	100	57	
5	14.9854	21.10	10.95	32.05	69.50	-37.45	QP	100	219	
6	22.1494	22.13	9.12	31.25	69.50	-38.25	QP	100	144	

Spurious Emissions, RX Mode, 1-18G



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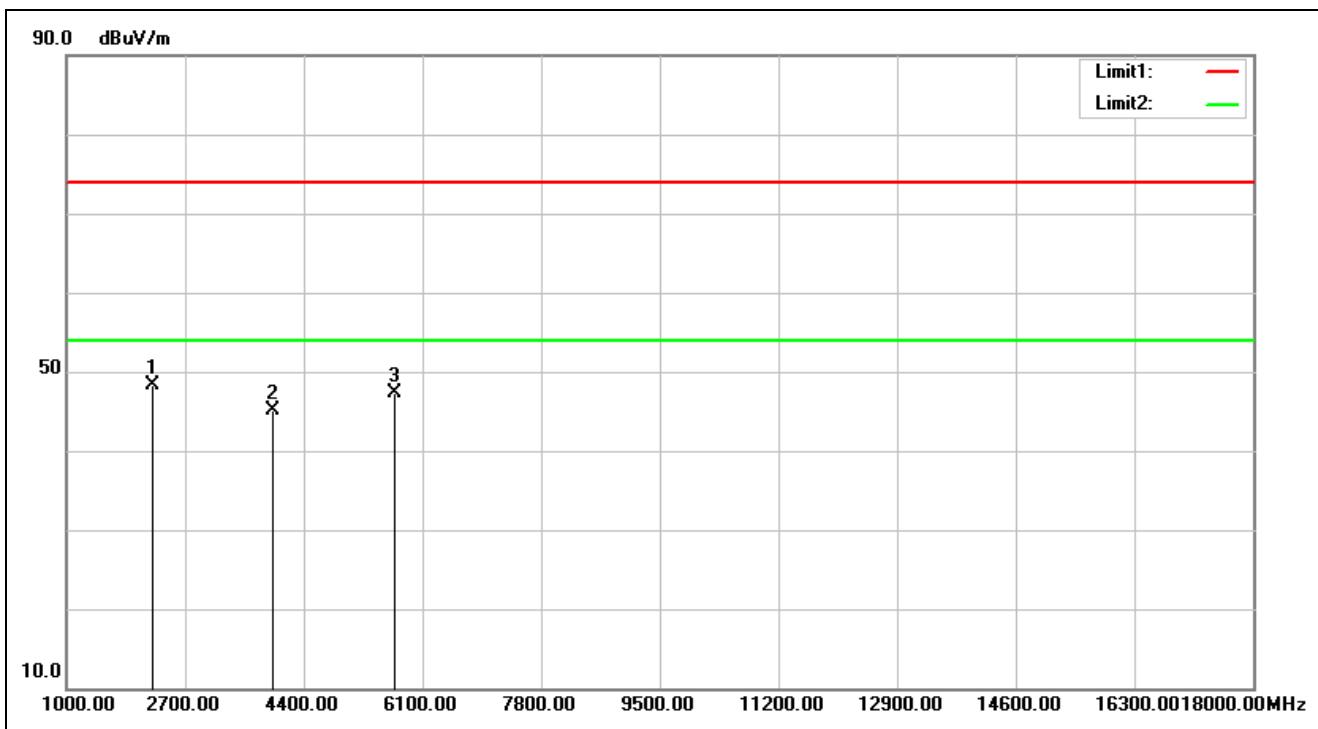


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/3/28 22:17:43
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	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	4332.000	-4.64	50.15	45.51	74.00	-28.49	peak	100	0	
2	5131.000	-2.58	49.60	47.02	74.00	-26.98	peak	100	101	
3	5913.000	1.80	45.70	47.50	74.00	-26.50	peak	100	10	



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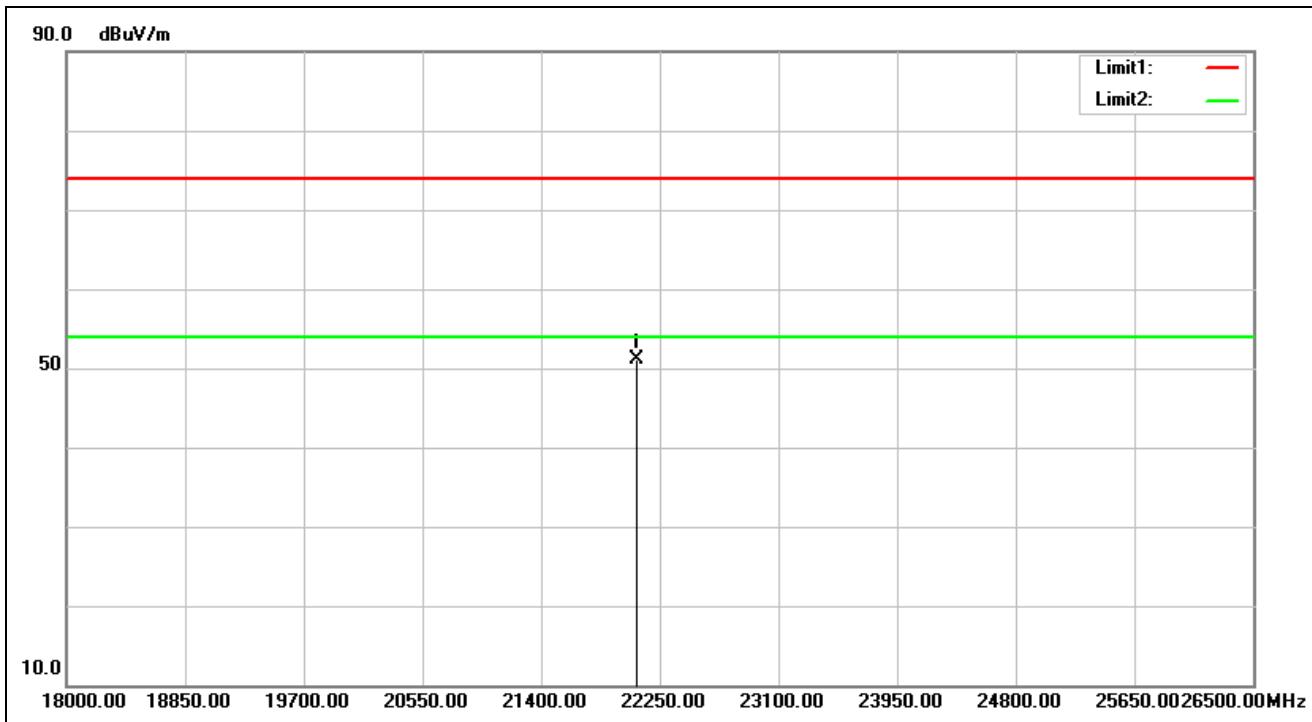
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/3/28 22:18:39
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	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	2241.000	-8.07	56.33	48.26	74.00	-25.74	peak	100	193	
2	3958.000	-5.94	51.02	45.08	74.00	-28.92	peak	100	72	
3	5692.000	0.39	46.89	47.28	74.00	-26.72	peak	100	178	

Spurious Emissions, RX Mode, 18-26G



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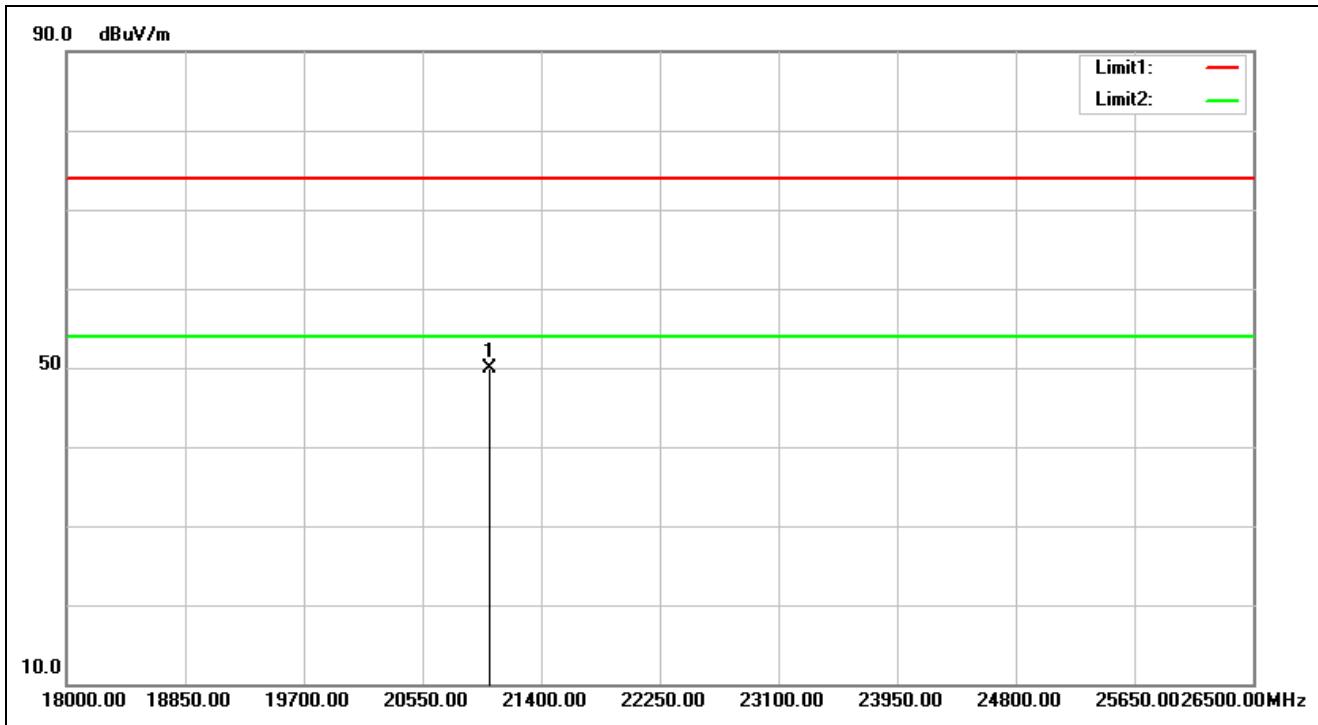


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:11:16
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	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	22088.500	32.60	18.50	51.10	74.00	-22.90	peak			



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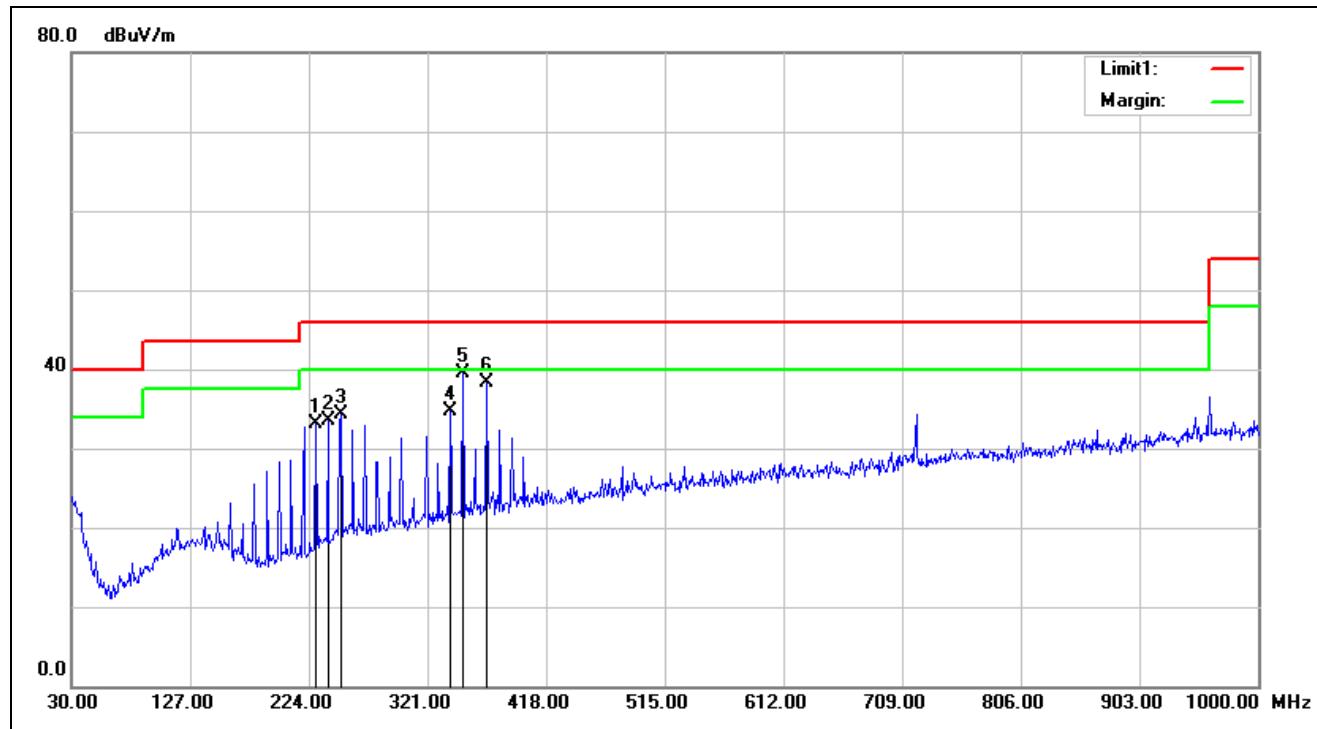
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:11:22
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	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	21026.000	32.46	17.50	49.96	74.00	-24.04	peak			

Spurious Emissions, RX Mode, 30M-1G

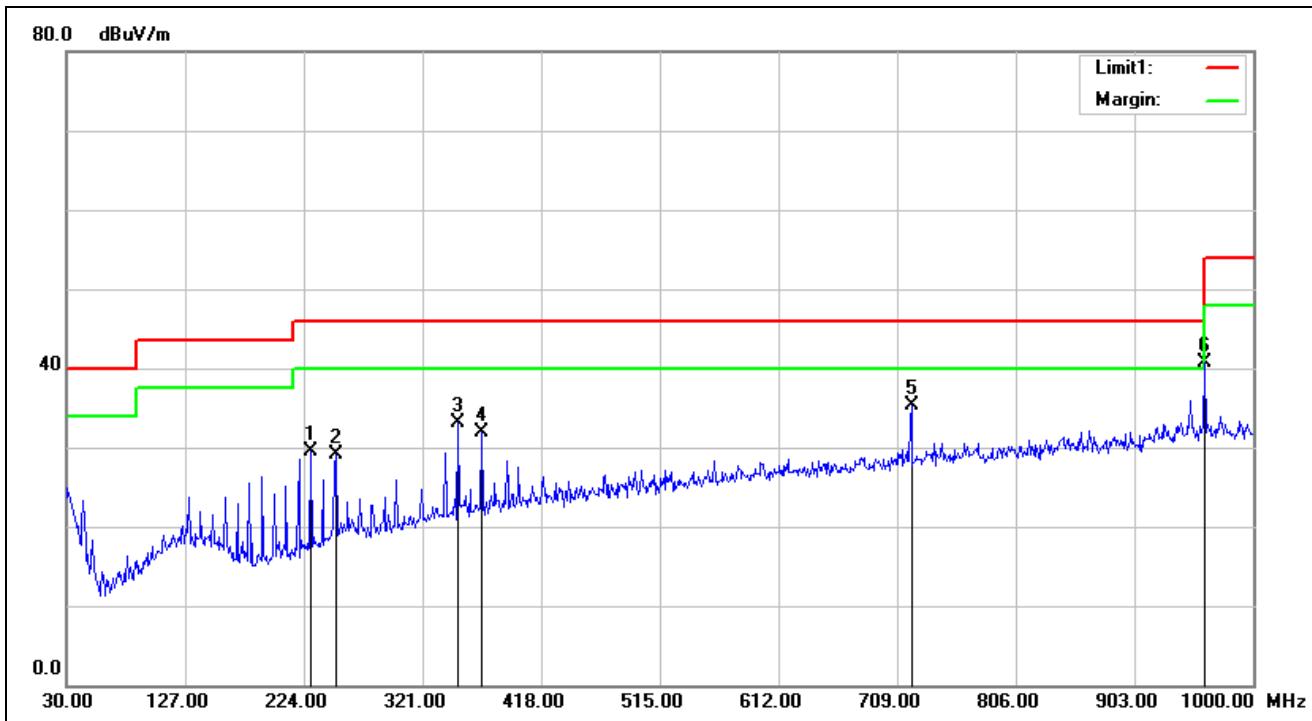


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:42:38
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	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	229.8199	-7.57	40.76	33.19	46.00	-12.81	QP	100	244	
2	239.5200	-6.85	40.36	33.51	46.00	-12.49	QP	100	115	
3	250.1899	-5.76	40.14	34.38	46.00	-11.62	QP	100	94	
4	339.4300	-3.61	38.34	34.73	46.00	-11.27	QP	100	284	
5	350.1000	-3.34	42.83	39.49	46.00	-6.51	QP	100	297	
6	369.5000	-2.98	41.22	38.24	46.00	-7.76	QP	100	312	



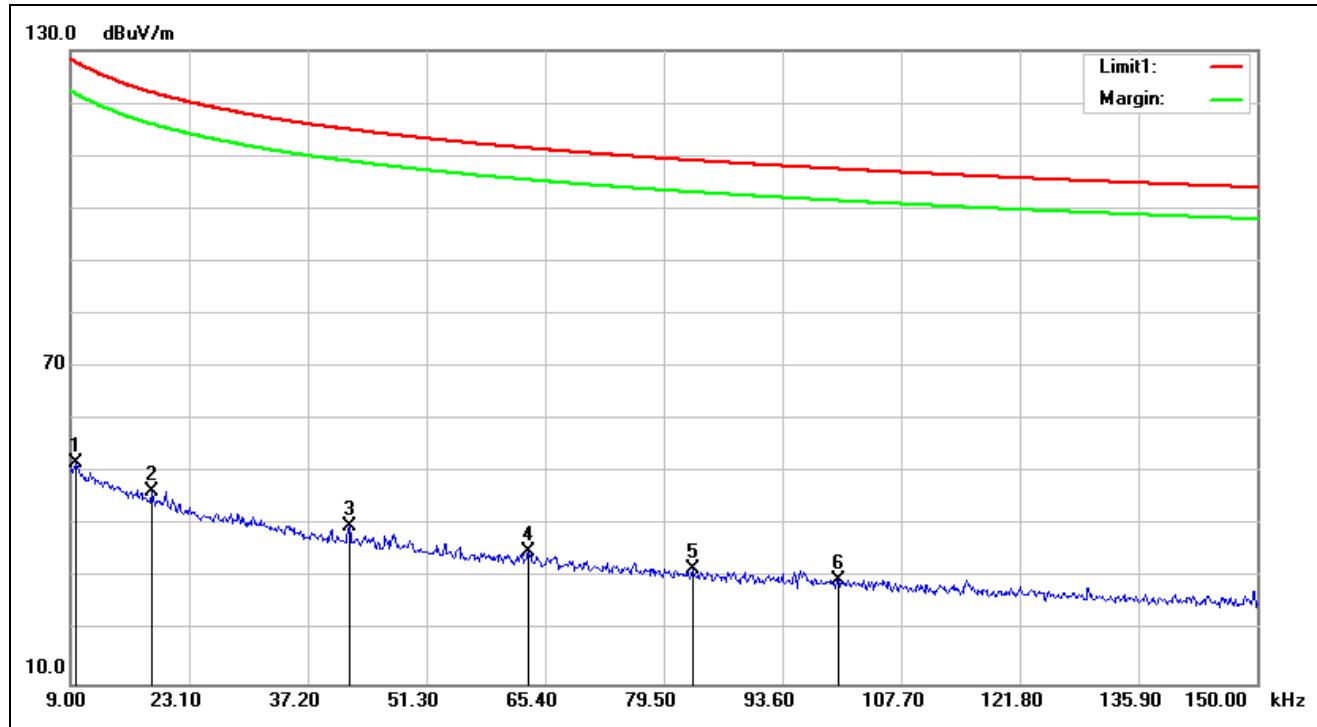
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:43:36
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	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	229.8200	-7.57	37.05	29.48	46.00	-16.52	QP	100	273	
2	250.1900	-5.75	34.79	29.04	46.00	-16.96	QP	100	270	
3	350.1000	-3.34	36.38	33.04	46.00	-12.96	QP	100	201	
4	369.5000	-2.98	34.83	31.85	46.00	-14.15	QP	100	229	
5	720.6400	1.72	33.59	35.31	46.00	-10.69	QP	100	170	
6	960.2300	5.54	35.13	40.67	54.00	-13.33	QP	100	326	

Spurious Emissions, RX Mode, 9K-30M

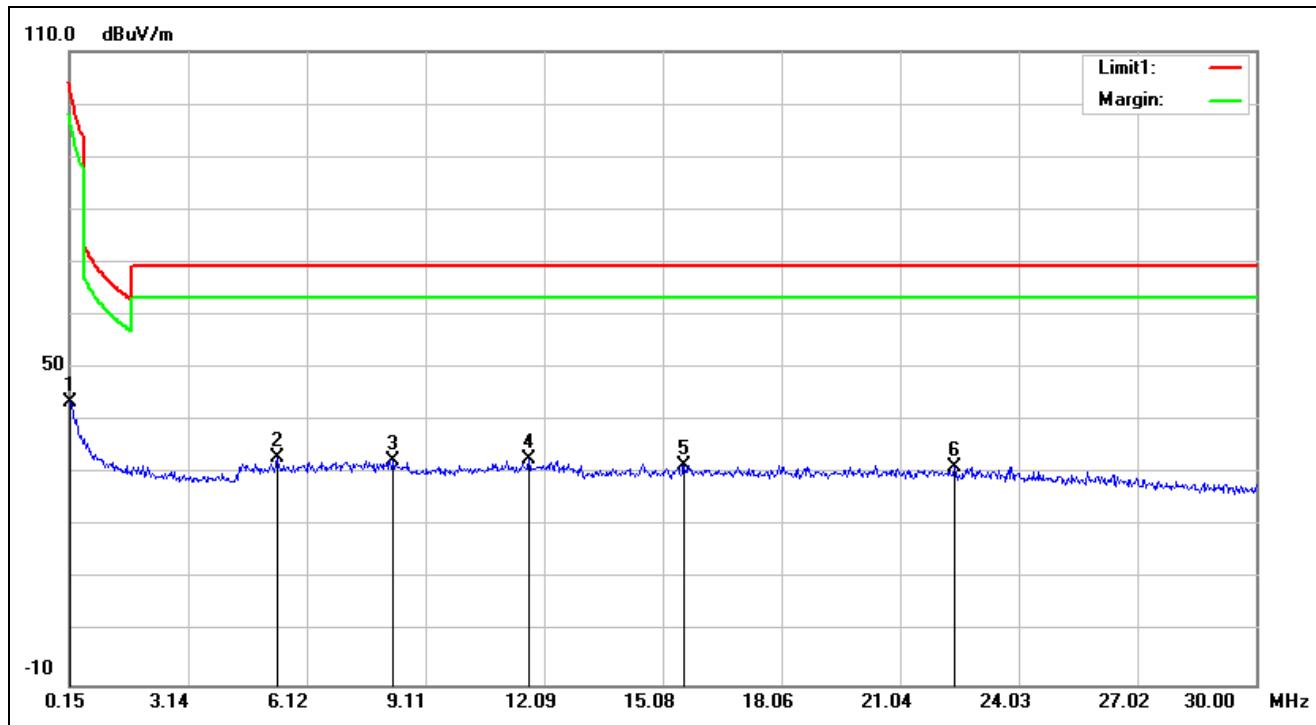


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:32:57
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	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	0.0097	19.83	31.94	51.77	127.66	-75.89	QP	100	3	
2	0.0187	20.02	26.54	46.56	121.99	-75.43	QP	100	357	
3	0.0421	19.70	20.27	39.97	114.99	-75.02	QP	100	266	
4	0.0634	19.35	15.82	35.17	111.45	-76.28	QP	100	348	
5	0.0829	19.23	12.47	31.70	109.14	-77.44	QP	100	98	
6	0.1002	19.13	10.62	29.75	107.50	-77.75	QP	100	270	



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:35:40
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFA-02-5-C7H1-ANT		

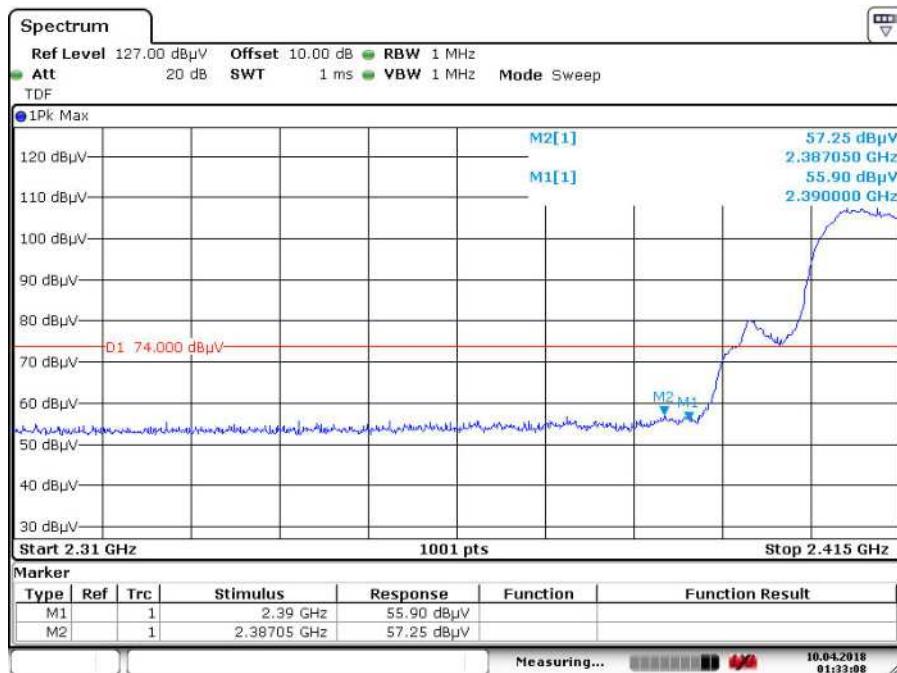
No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1799	19.06	24.44	43.50	102.45	-58.95	QP	100	272	
2	5.3738	19.79	13.20	32.99	69.50	-36.51	QP	100	360	
3	8.2990	20.06	12.46	32.52	69.50	-36.98	QP	100	181	
4	11.7020	20.52	12.11	32.63	69.50	-36.87	QP	100	241	
5	15.6123	21.21	10.45	31.66	69.50	-37.84	QP	100	57	
6	22.4181	22.14	9.04	31.18	69.50	-38.32	QP	100	344	

RFMTA331215IMAB701-ANT

Spurious Emissions, Band Edges, 2.35-2.5G

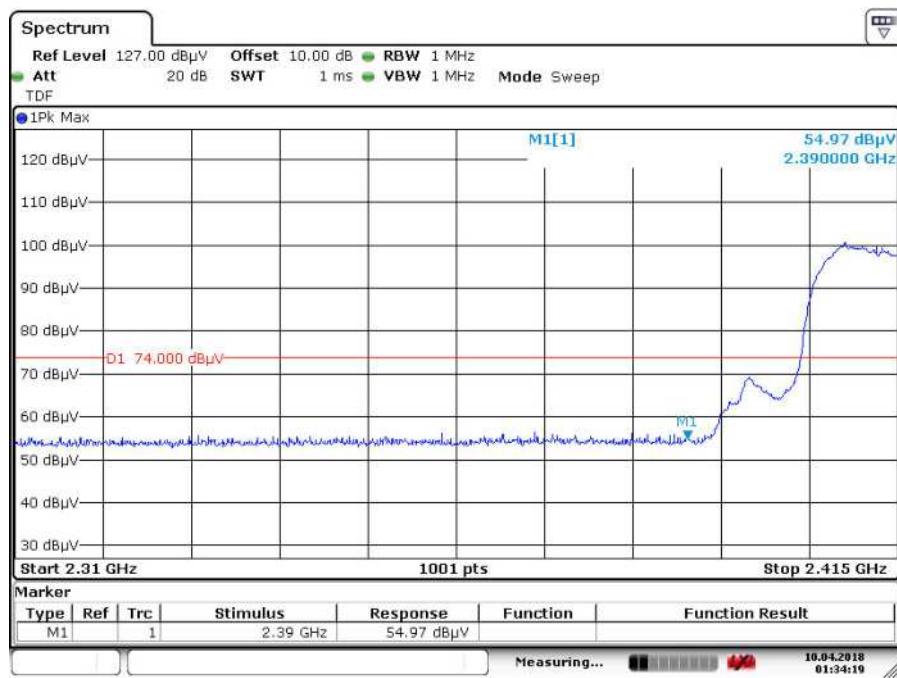
Radiated Bandedge 11b

Low Channel (Hor)



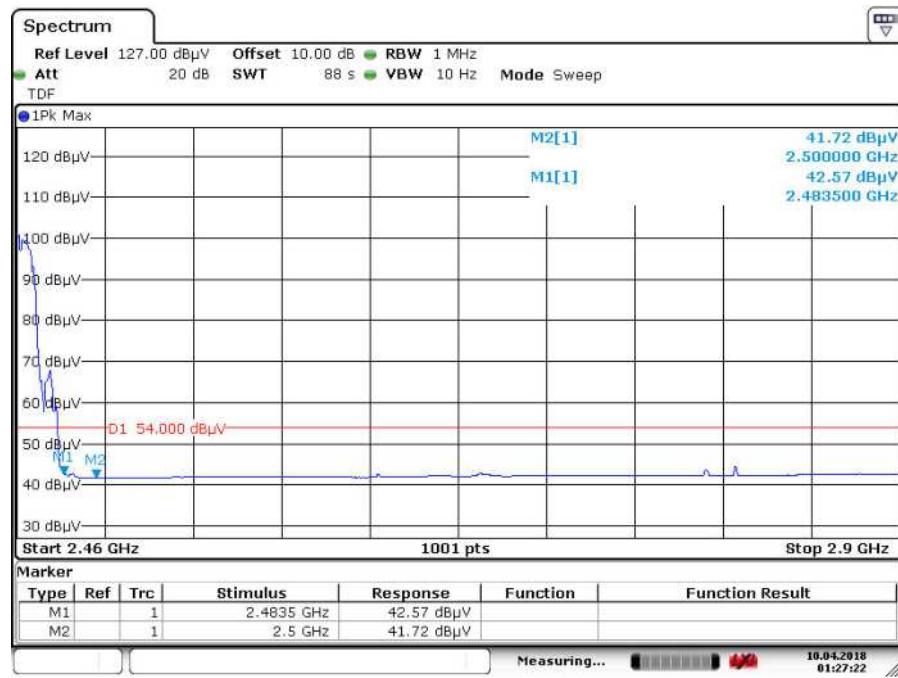
Date: 10.APR.2018 01:33:08

Low Channel (Ver)

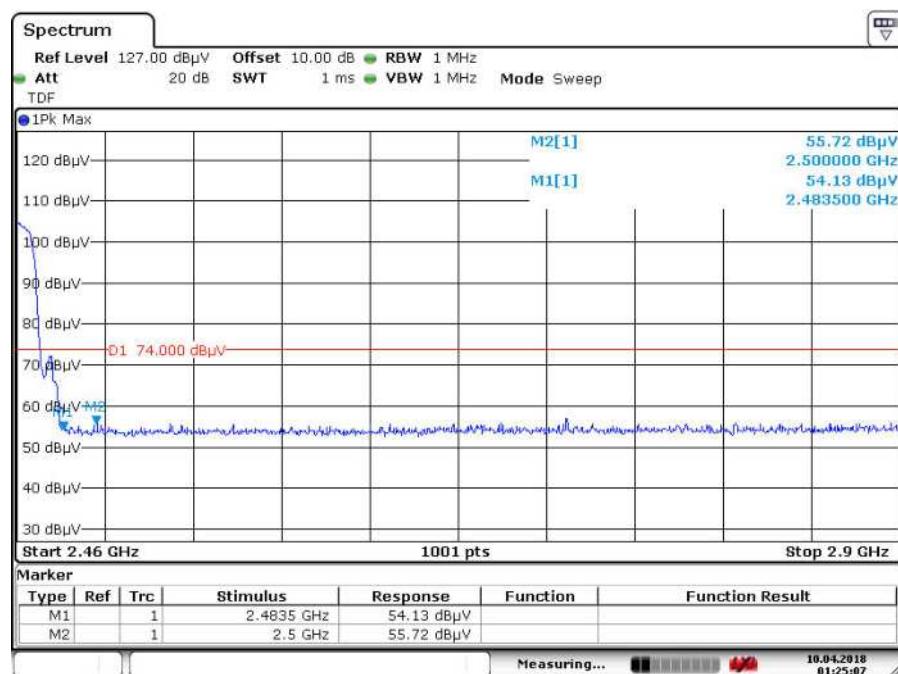


Radiated Bandedge 11b

High Channel (Hor)

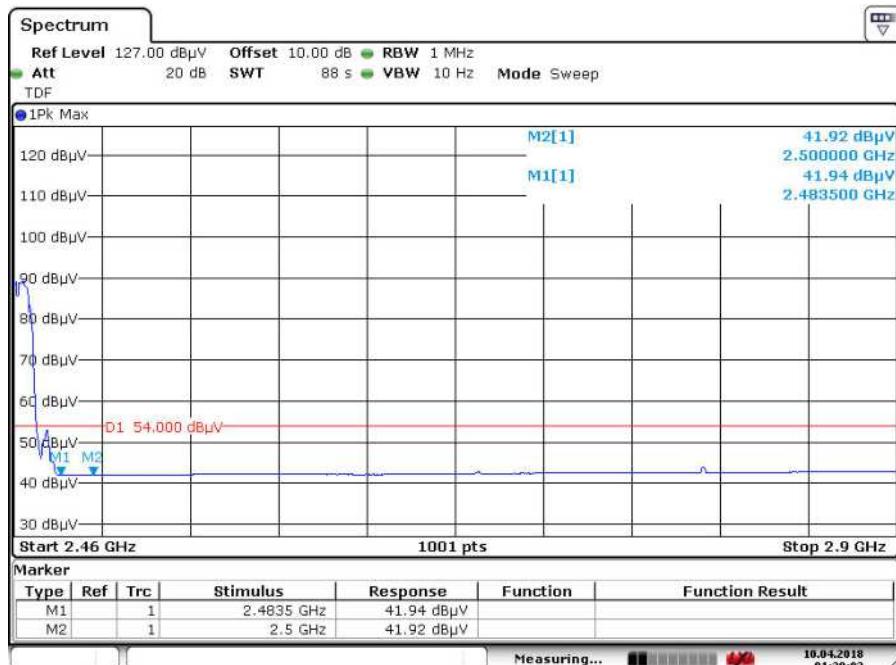


Date: 10.APR.2018 01:27:22

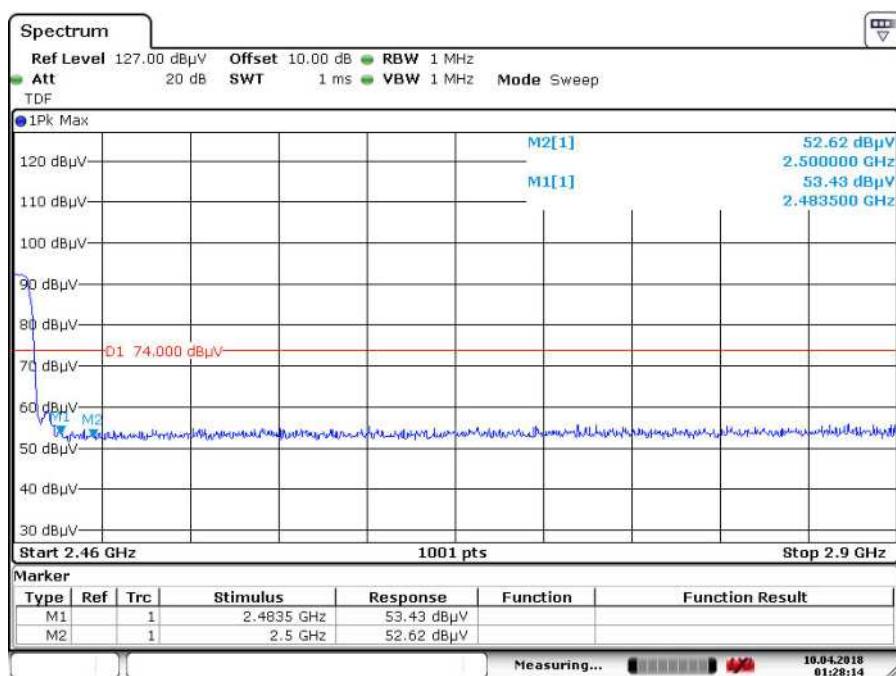


Date: 10.APR.2018 01:25:07

High Channel (Ver)



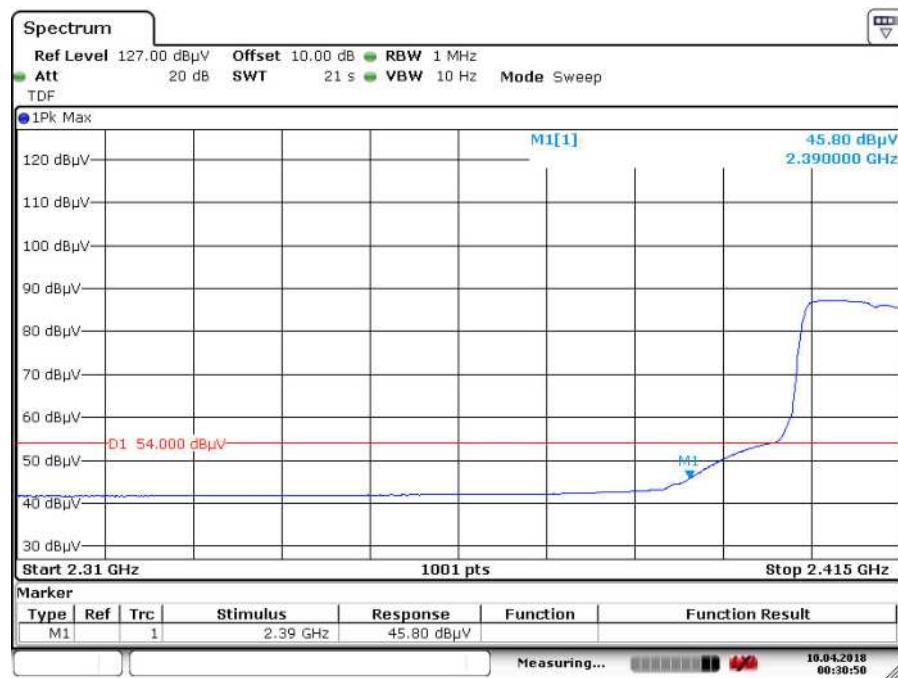
Date: 10.APR.2018 01:30:02



Date: 10.APR.2018 01:28:14

Radiated Bandedge 11g

Low Channel (Hor)

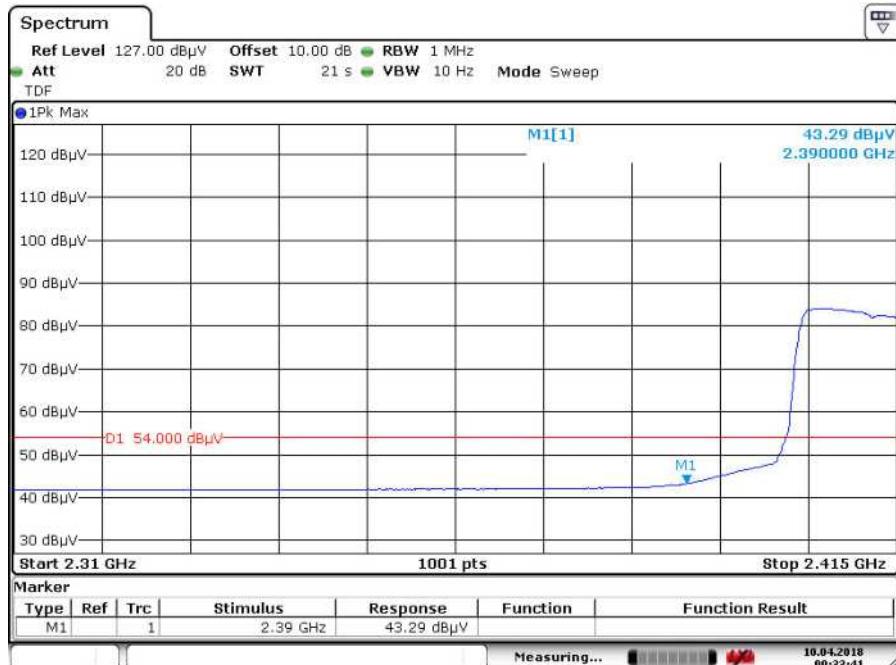


Date: 10.APR.2018 00:30:50

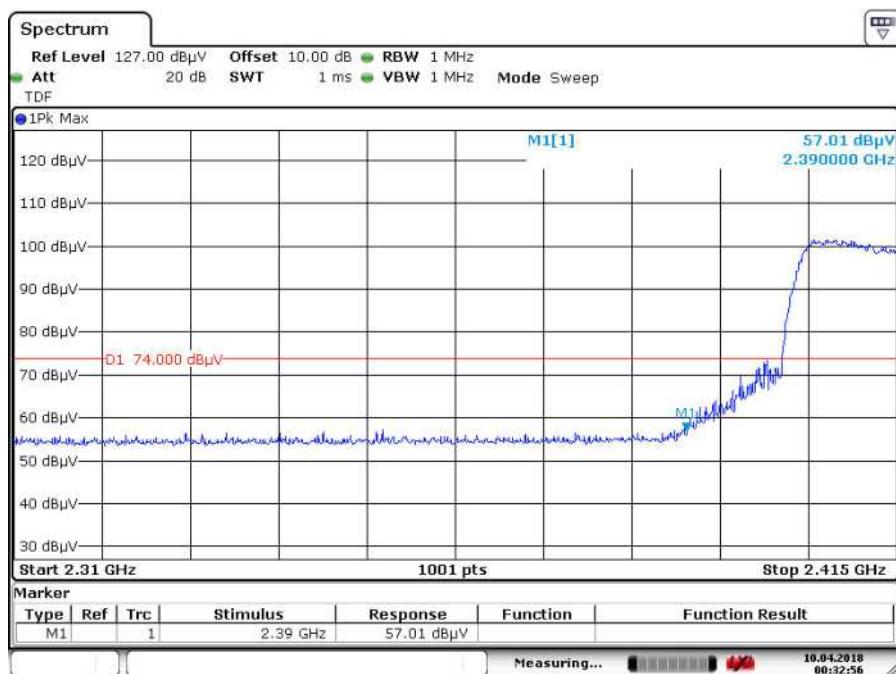


Date: 10.APR.2018 00:29:51

Low Channel (Ver)



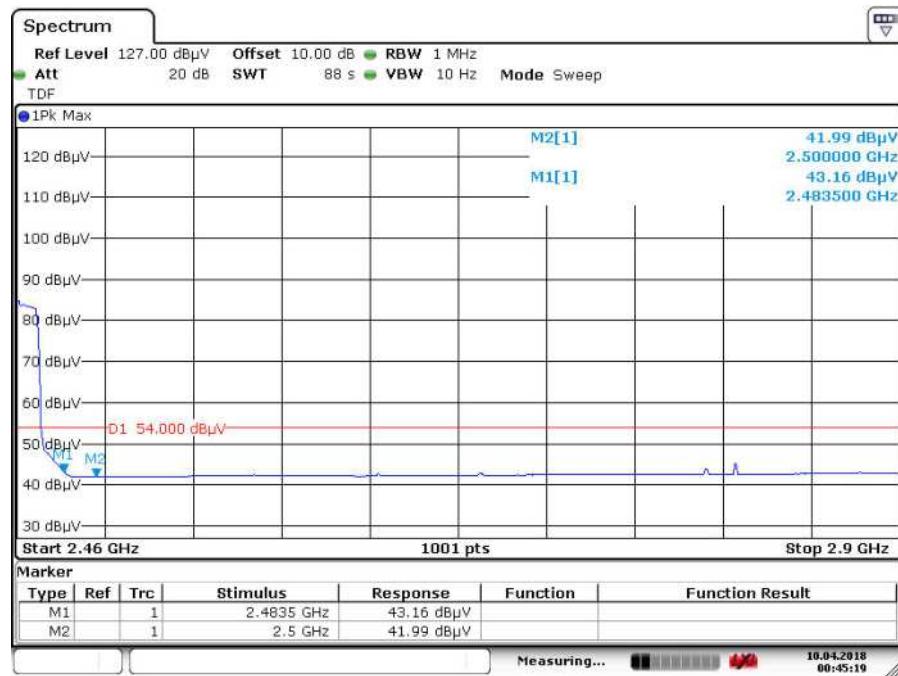
Date: 10.APR.2018 00:33:41



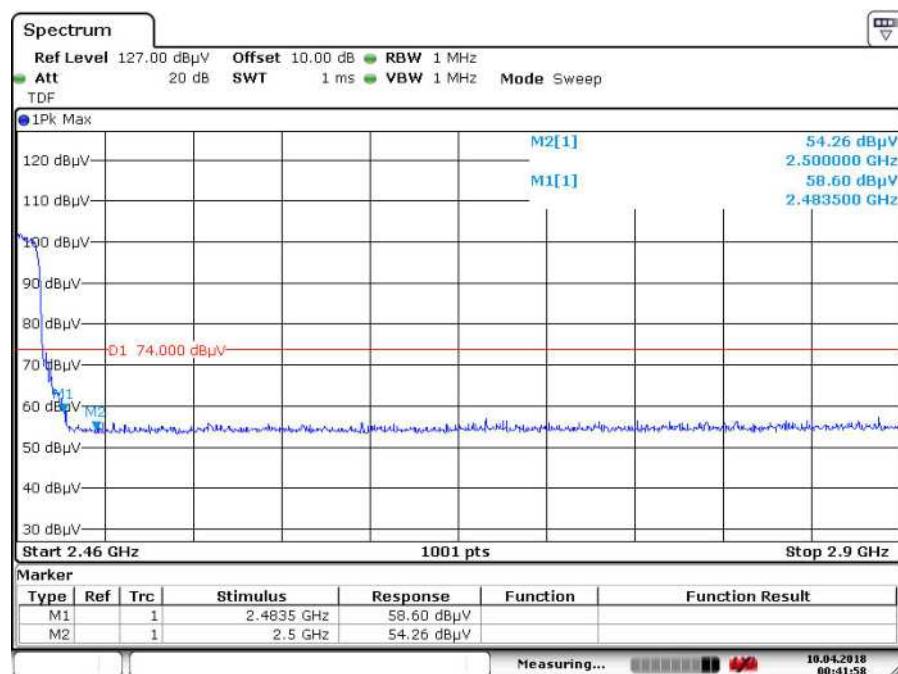
Date: 10.APR.2018 00:32:56

Radiated Bandedge 11g

High Channel (Hor)

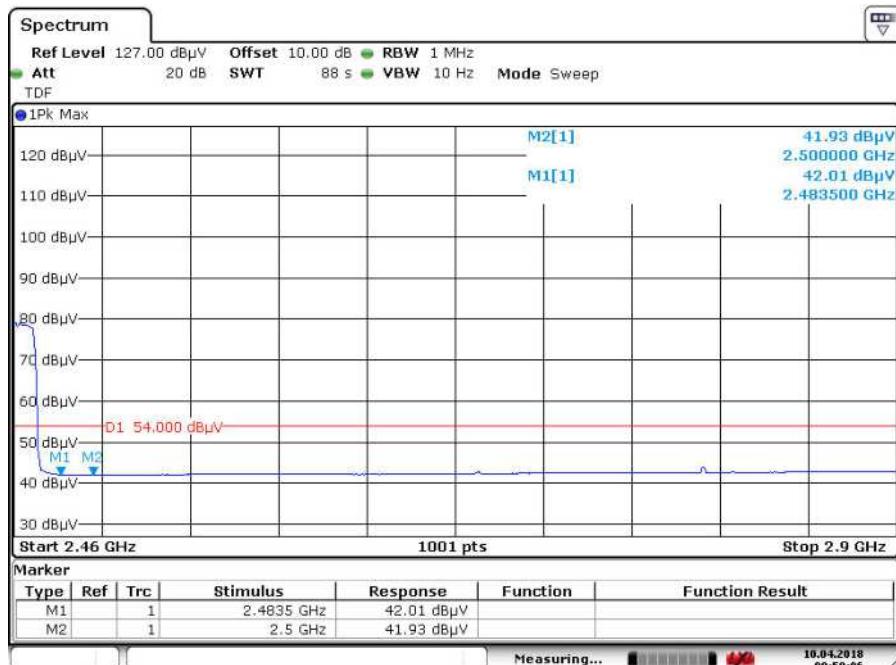


Date: 10.APR.2018 00:45:19

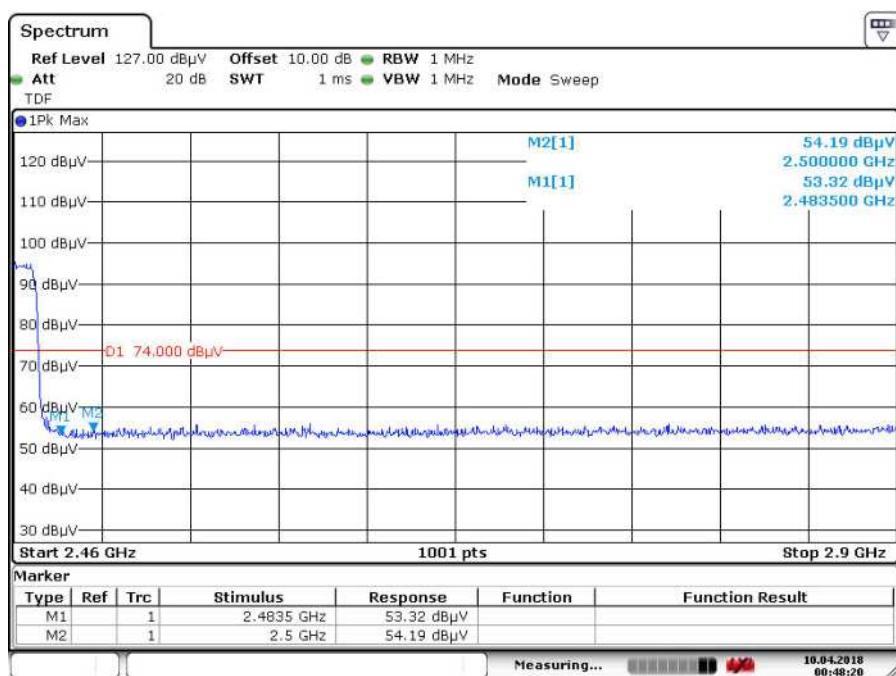


Date: 10.APR.2018 00:41:58

High Channel (Ver)



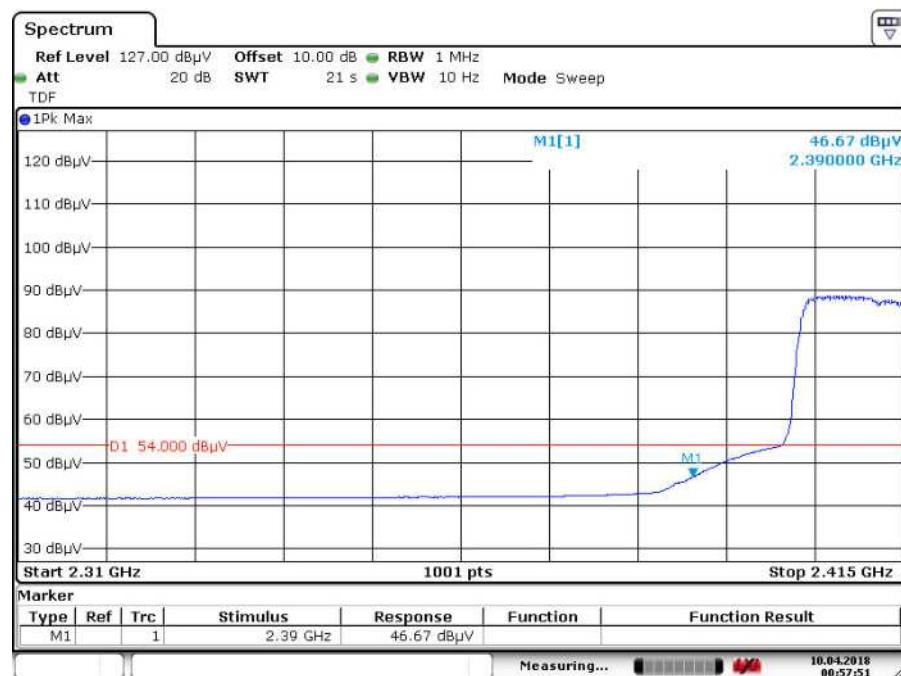
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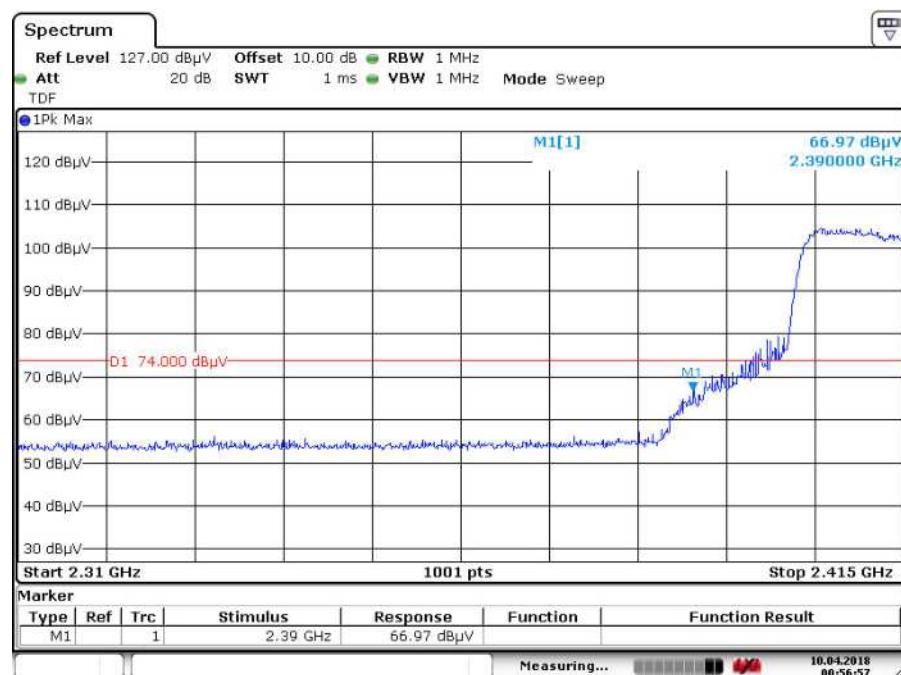
Date: 10.APR.2018 00:48:20

Radiated Bandedge 11n

Low Channel (Hor)

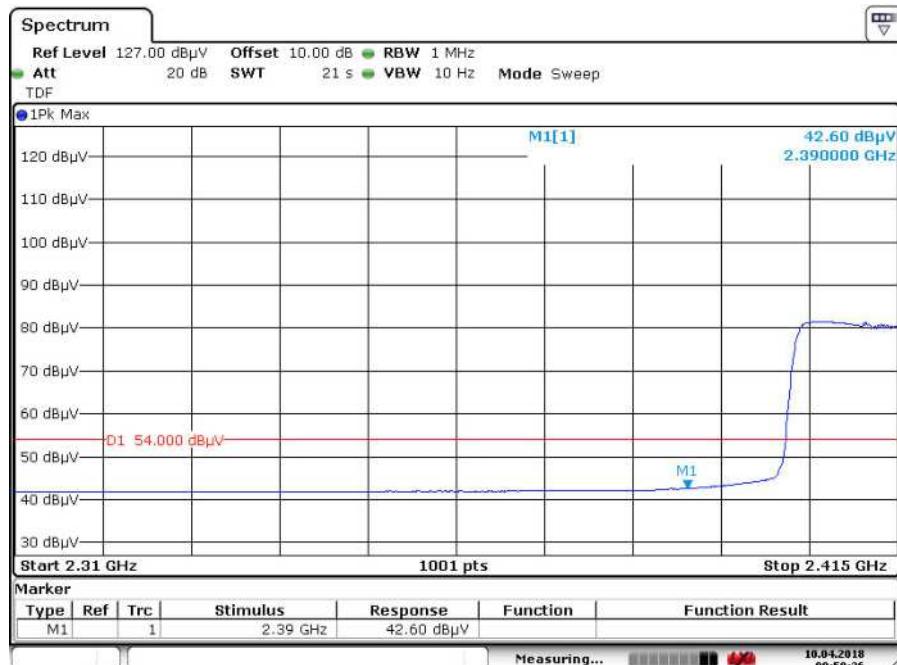


Date: 10.APR.2018 00:57:51

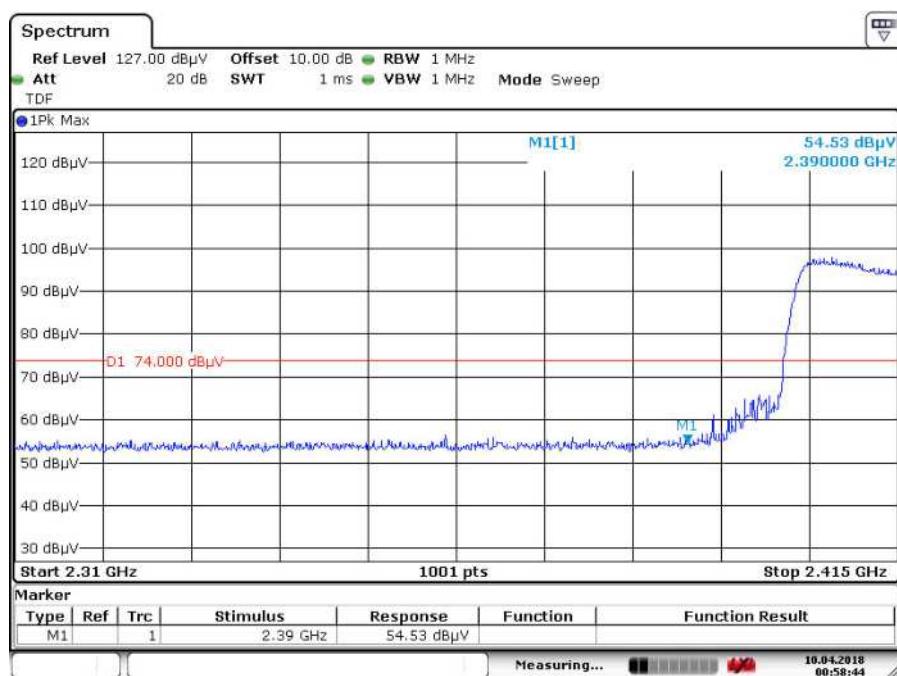


Date: 10.APR.2018 00:56:57

Low Channel (Ver)



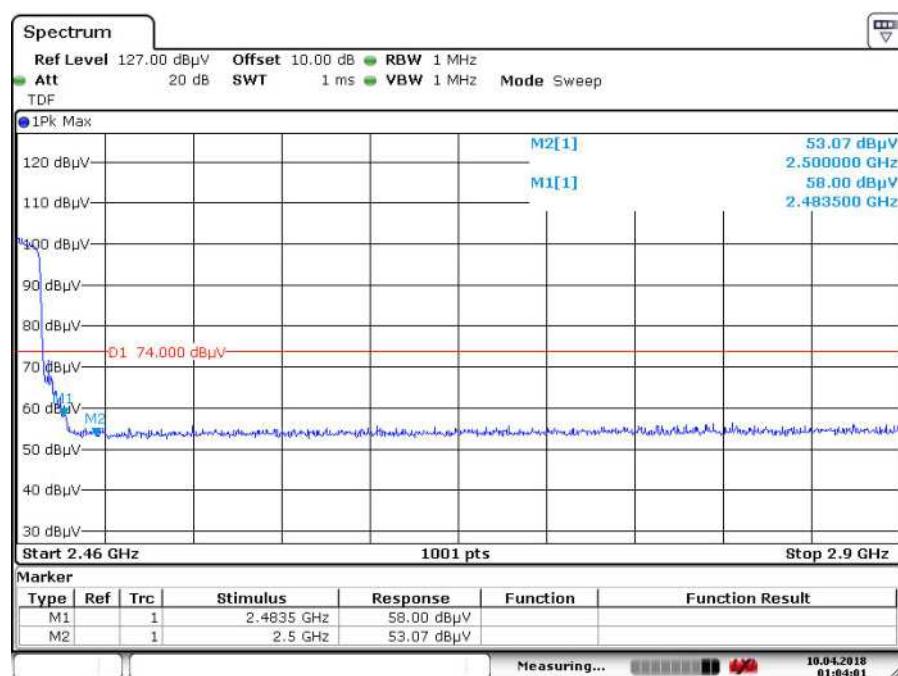
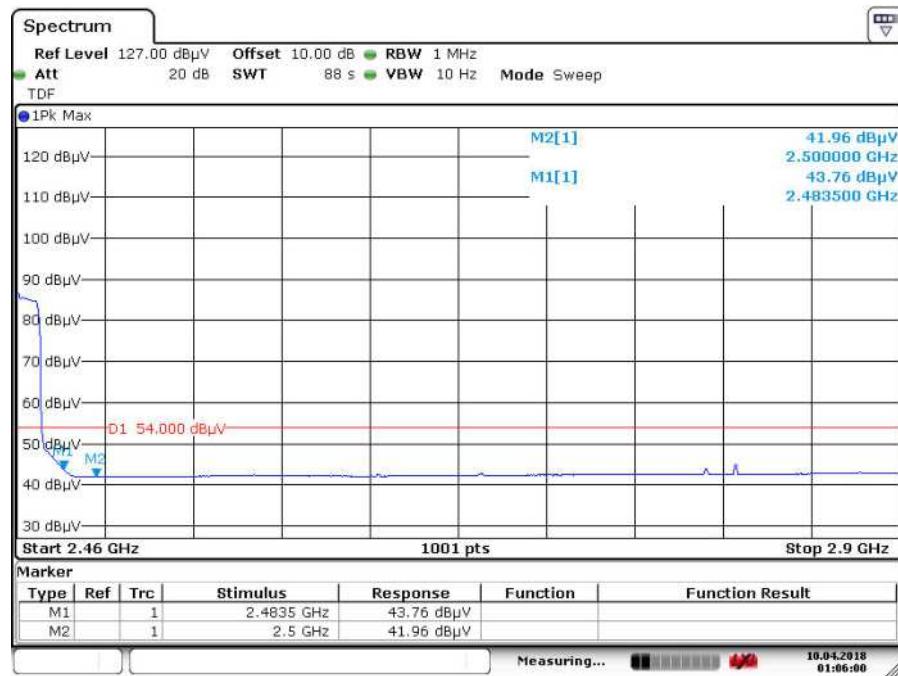
Date: 10.APR.2018 00:59:26



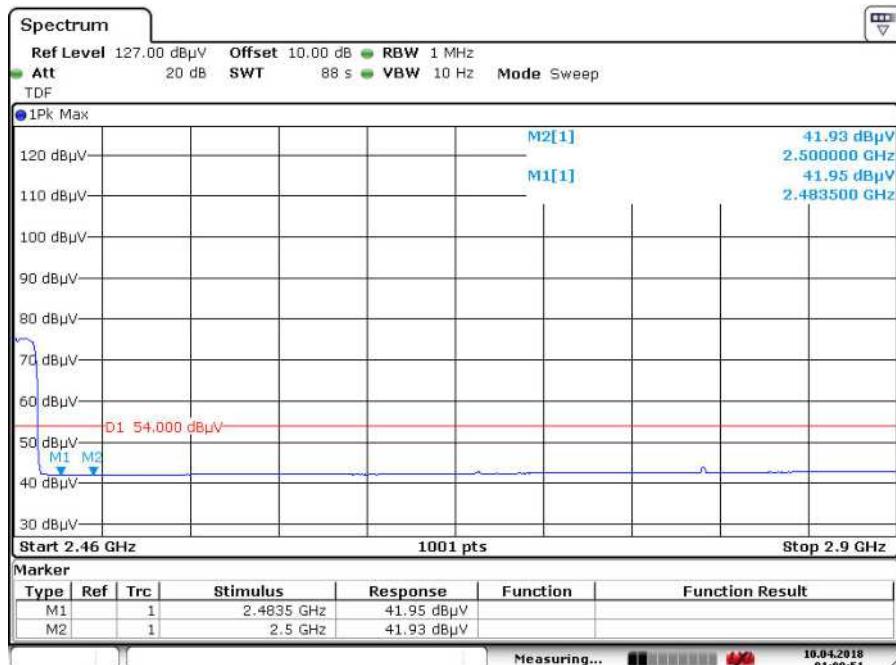
Date: 10.APR.2018 00:58:44

Radiated Bandedge 11n

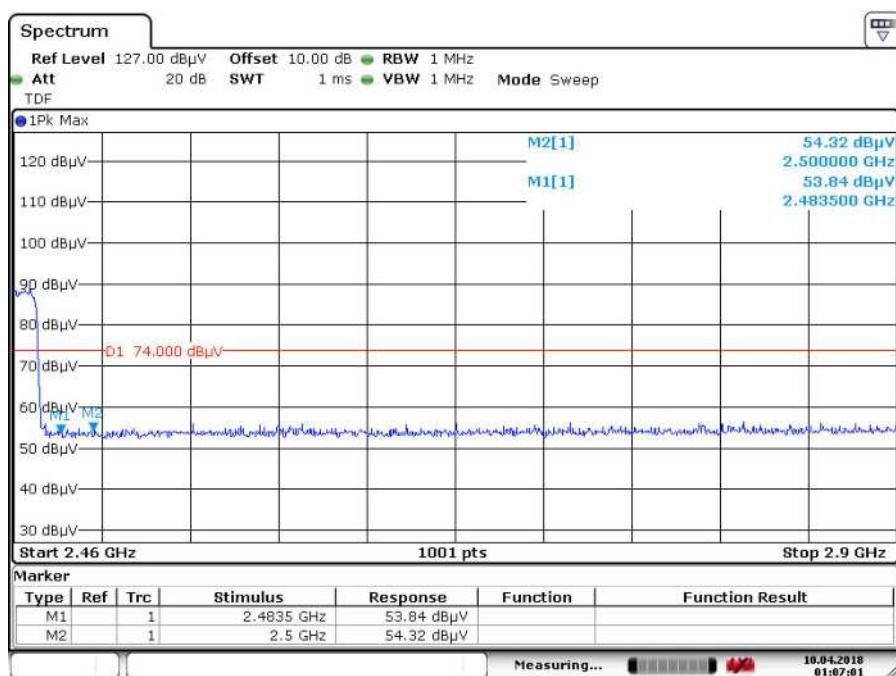
High Channel (Hor)



High Channel (Ver)



Date: 10.APR.2018 01:08:51

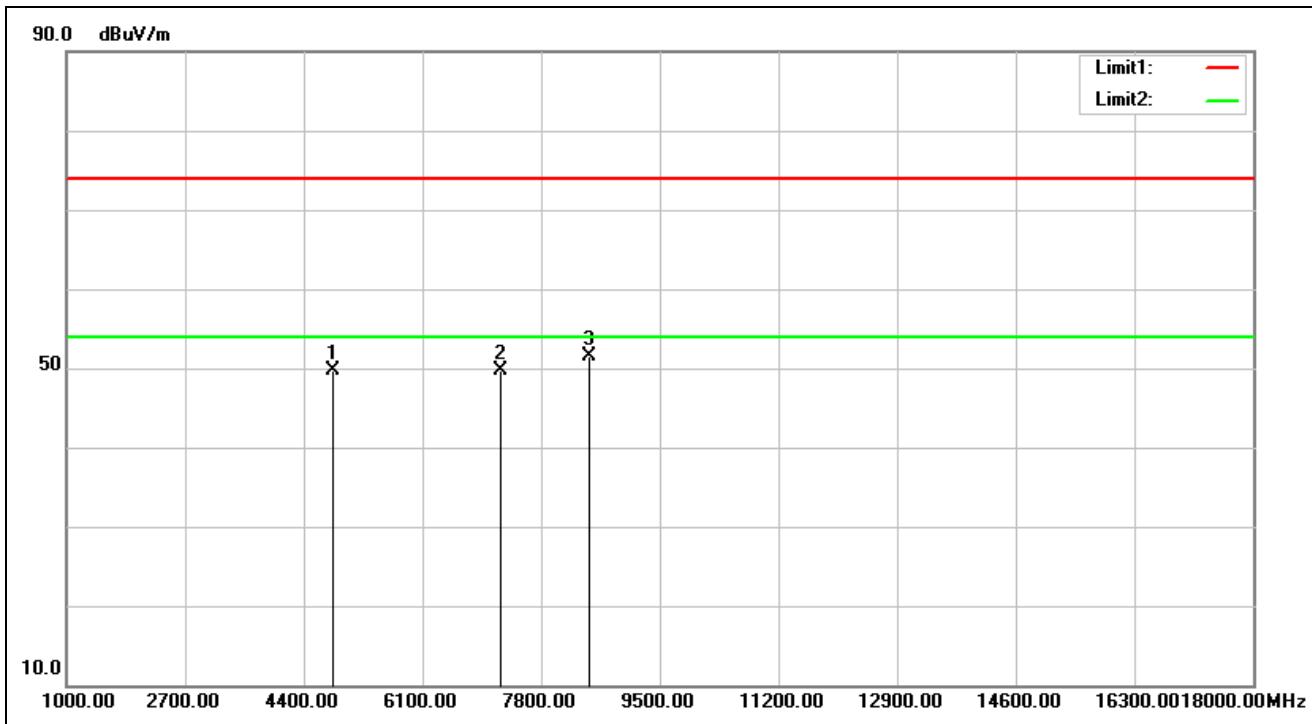


Date: 10.APR.2018 01:07:01

Spurious Emissions, TX Mode, 1-18G

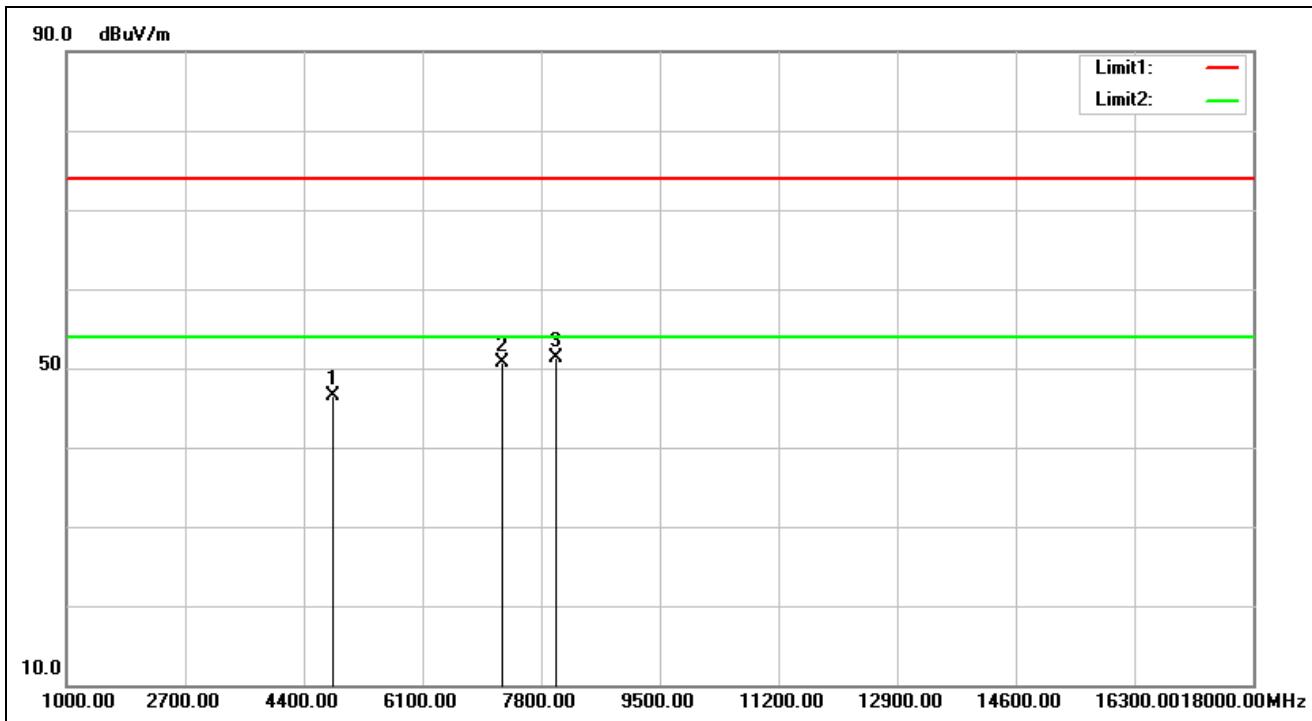


TUV Rheinland Taiwan Ltd.
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105
 Tel:+886-2172-7000 fax:+886-2528-0018



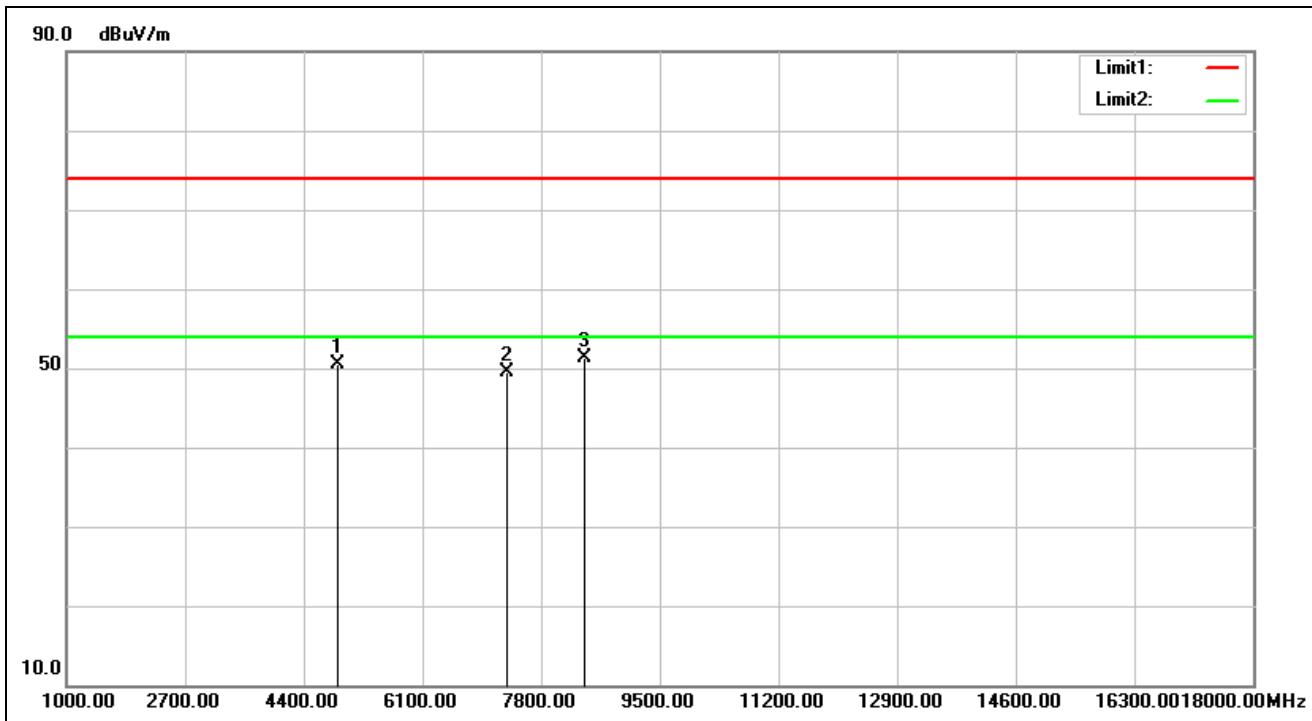
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 01:04:34
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	52.36	49.70	74.00	-24.30	peak	100	137	
2	7236.000	5.32	44.47	49.79	74.00	-24.21	peak		0	
3	8497.000	6.38	45.14	51.52	74.00	-22.48	peak	100	272	



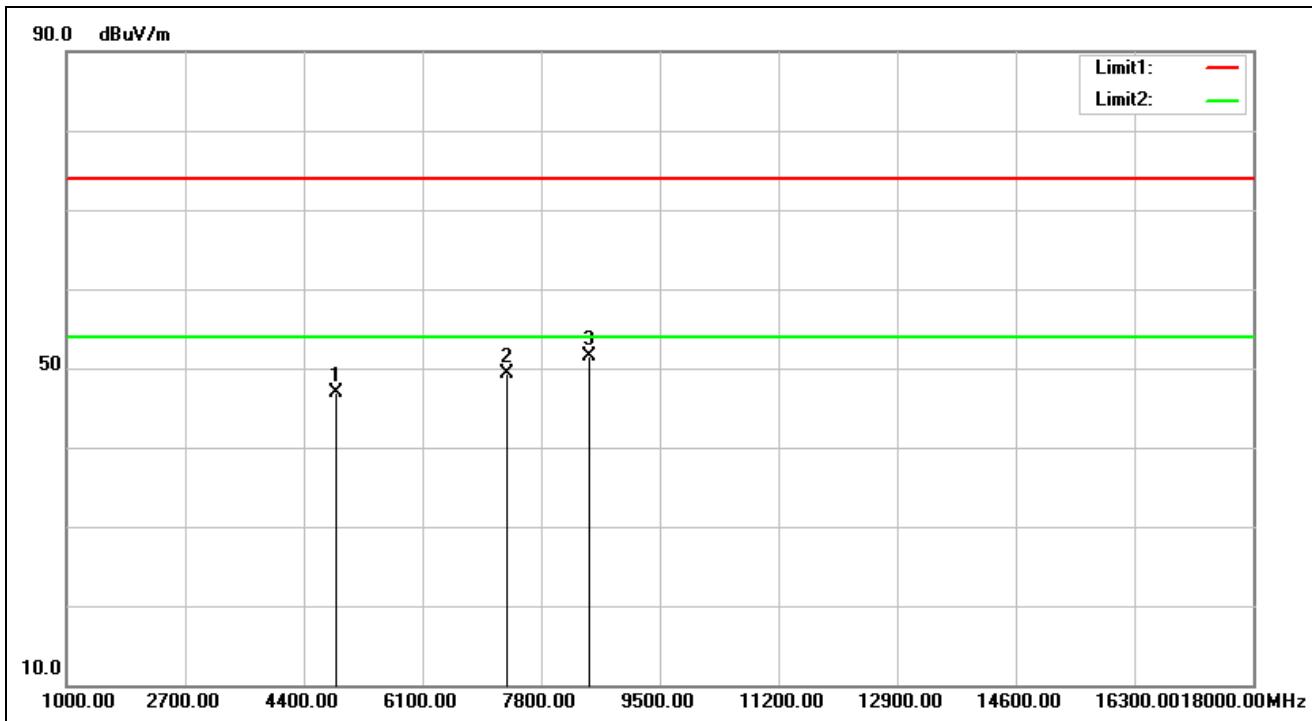
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 01:05:30
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	49.21	46.55	74.00	-27.45	peak			
2	7236.000	5.32	45.35	50.67	74.00	-23.33	peak			
3	8021.000	5.85	45.43	51.28	74.00	-22.72	peak	100	141	



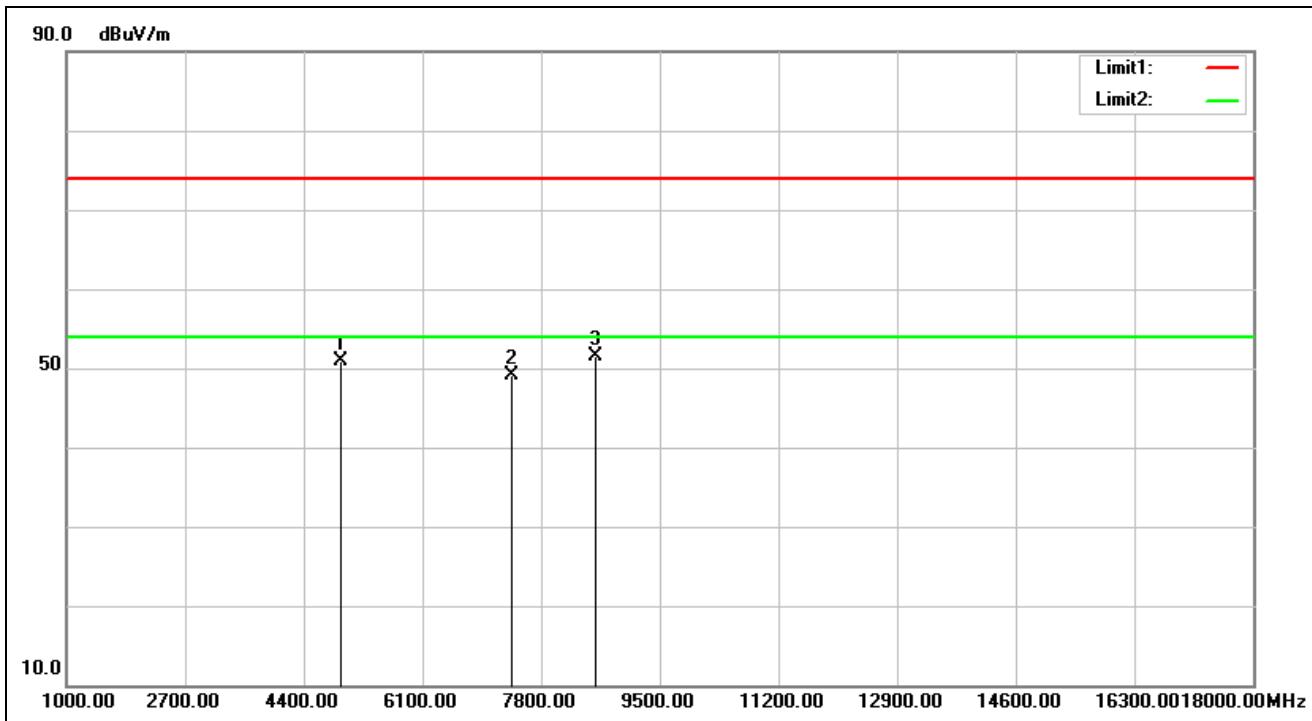
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 01:07:56
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	53.08	50.55	74.00	-23.45	peak	100	148	
2	7311.000	5.52	43.90	49.42	74.00	-24.58	peak			
3	8429.000	6.30	45.03	51.33	74.00	-22.67	peak	100	307	



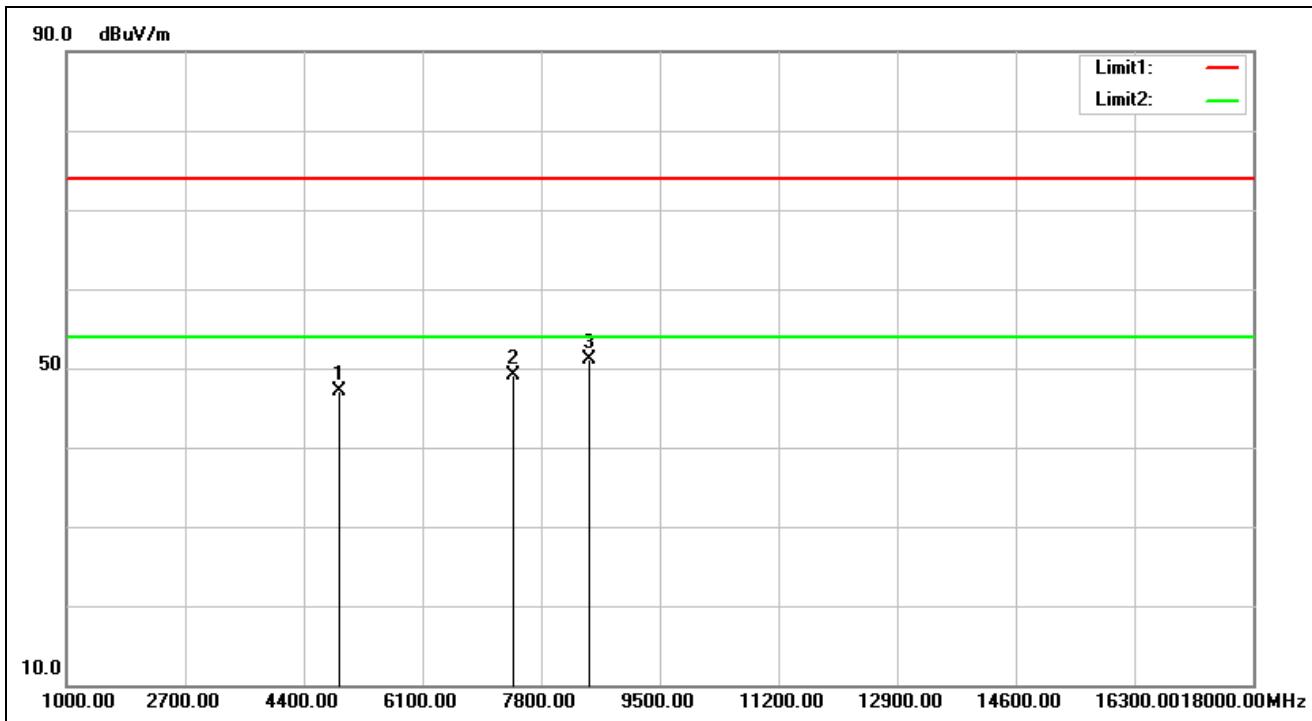
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 01:08:52
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	49.35	46.82	74.00	-27.18	peak			
2	7311.000	5.52	43.82	49.34	74.00	-24.66	peak			
3	8497.000	6.38	45.14	51.52	74.00	-22.48	peak	100	15	



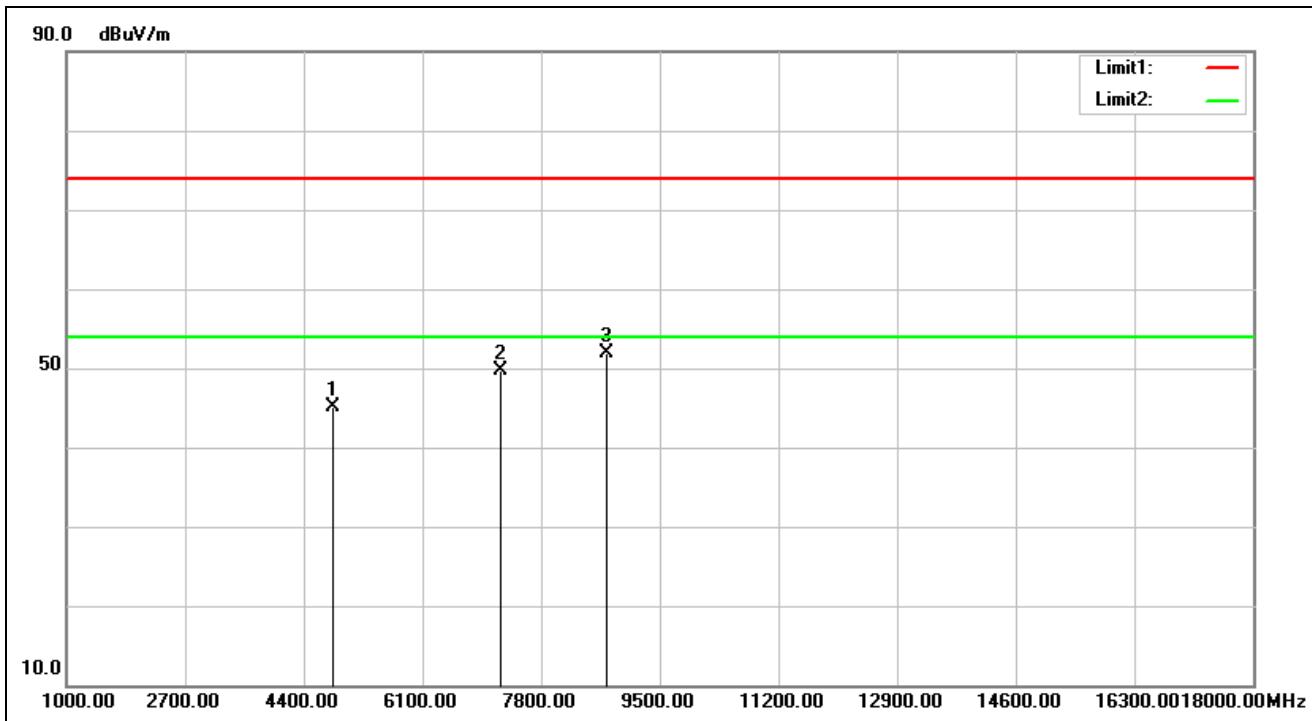
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 01:11:37
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	53.28	50.89	74.00	-23.11	peak	100	144	
2	7386.000	5.70	43.40	49.10	74.00	-24.90	peak			
3	8582.000	6.39	45.09	51.48	74.00	-22.52	peak	100	100	



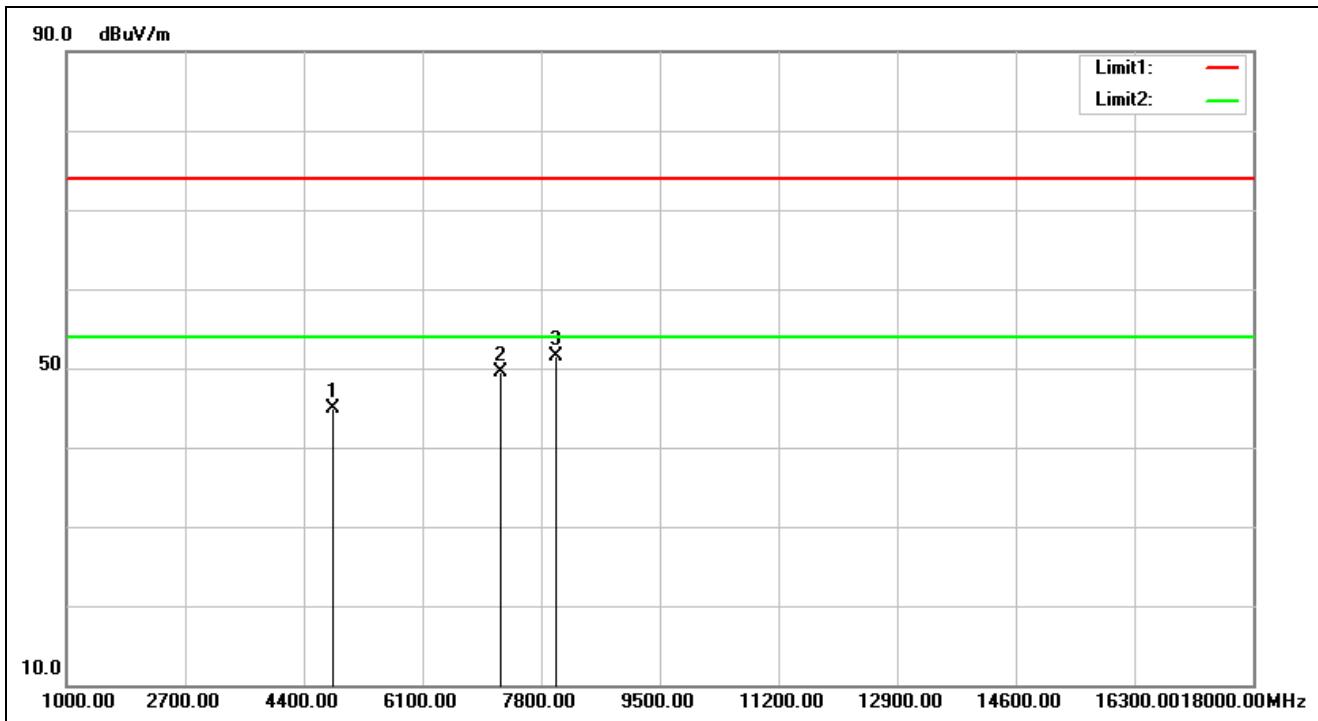
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 01:12:34
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	49.42	47.03	74.00	-26.97	peak			
2	7386.000	5.70	43.43	49.13	74.00	-24.87	peak			
3	8480.000	6.35	44.76	51.11	74.00	-22.89	peak	100	125	



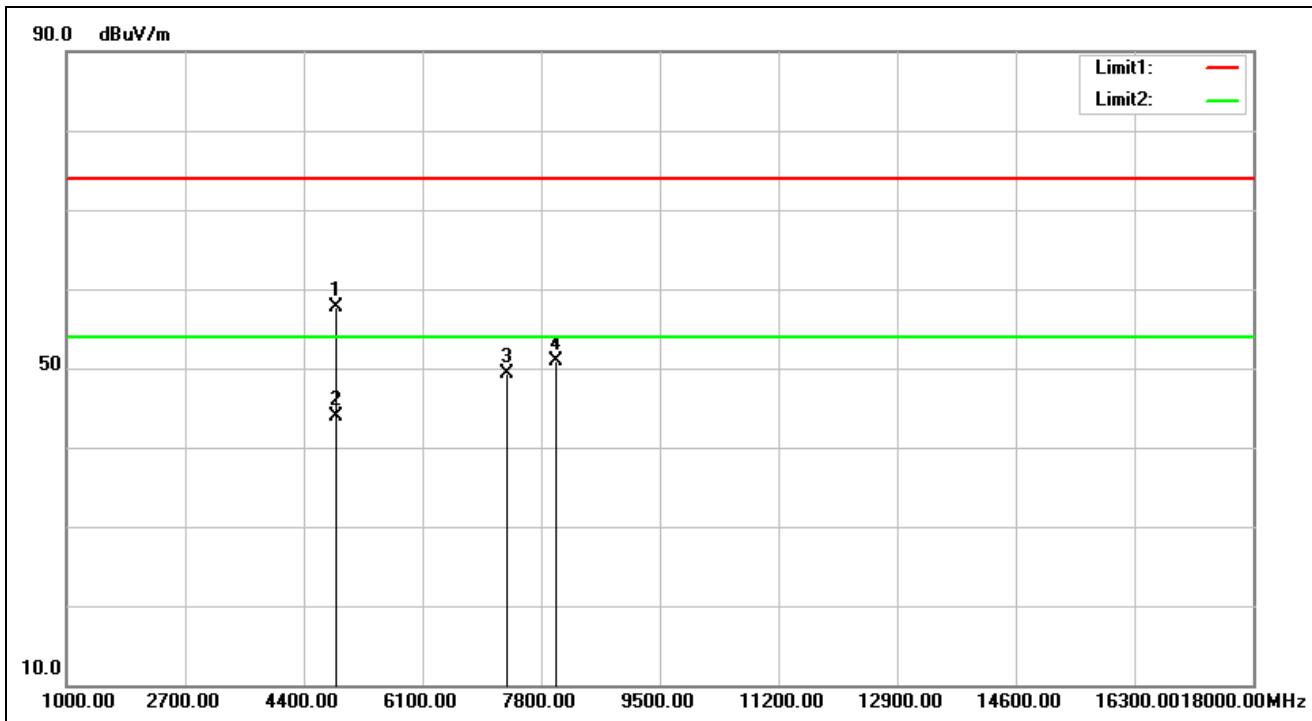
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 01:38:05
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	47.82	45.16	74.00	-28.84	peak			
2	7236.000	5.32	44.37	49.69	74.00	-24.31	peak			
3	8735.000	6.40	45.50	51.90	74.00	-22.10	peak	100	106	



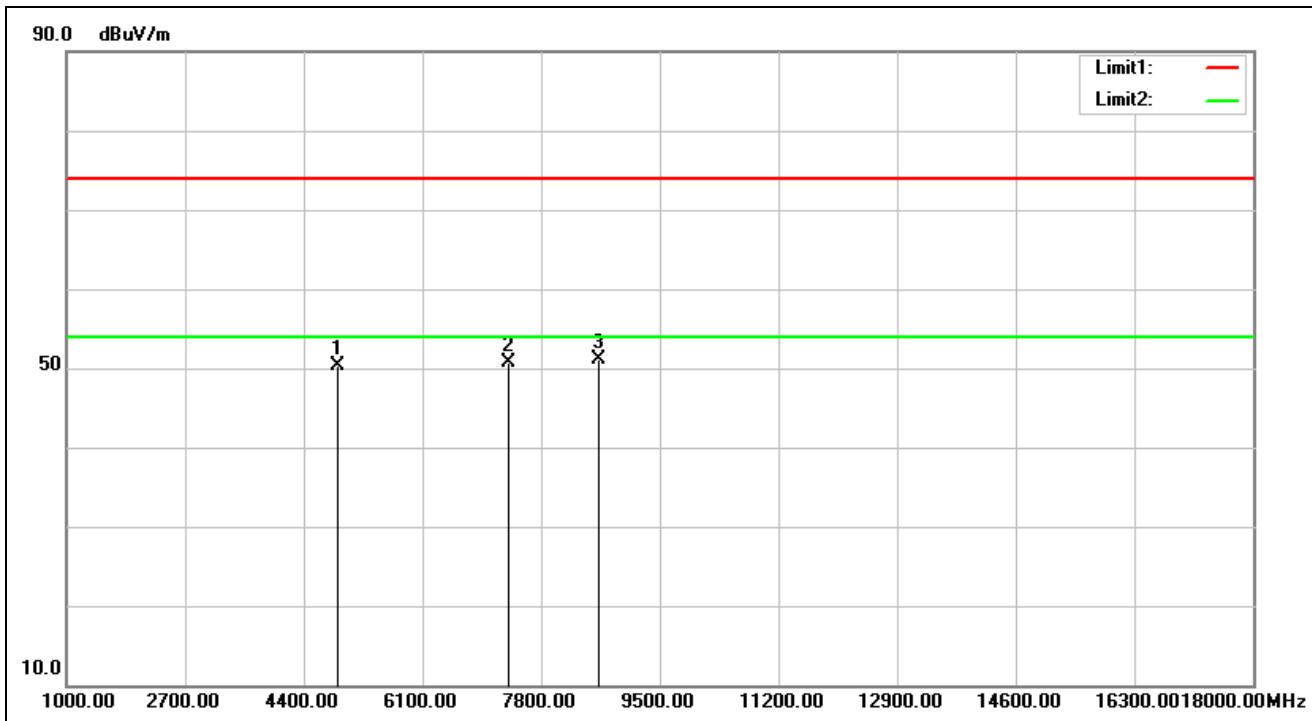
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 01:39:02
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	47.61	44.95	74.00	-29.05	peak			
2	7236.000	5.32	44.13	49.45	74.00	-24.55	peak			
3	8004.000	5.82	45.68	51.50	74.00	-22.50	peak	100	156	



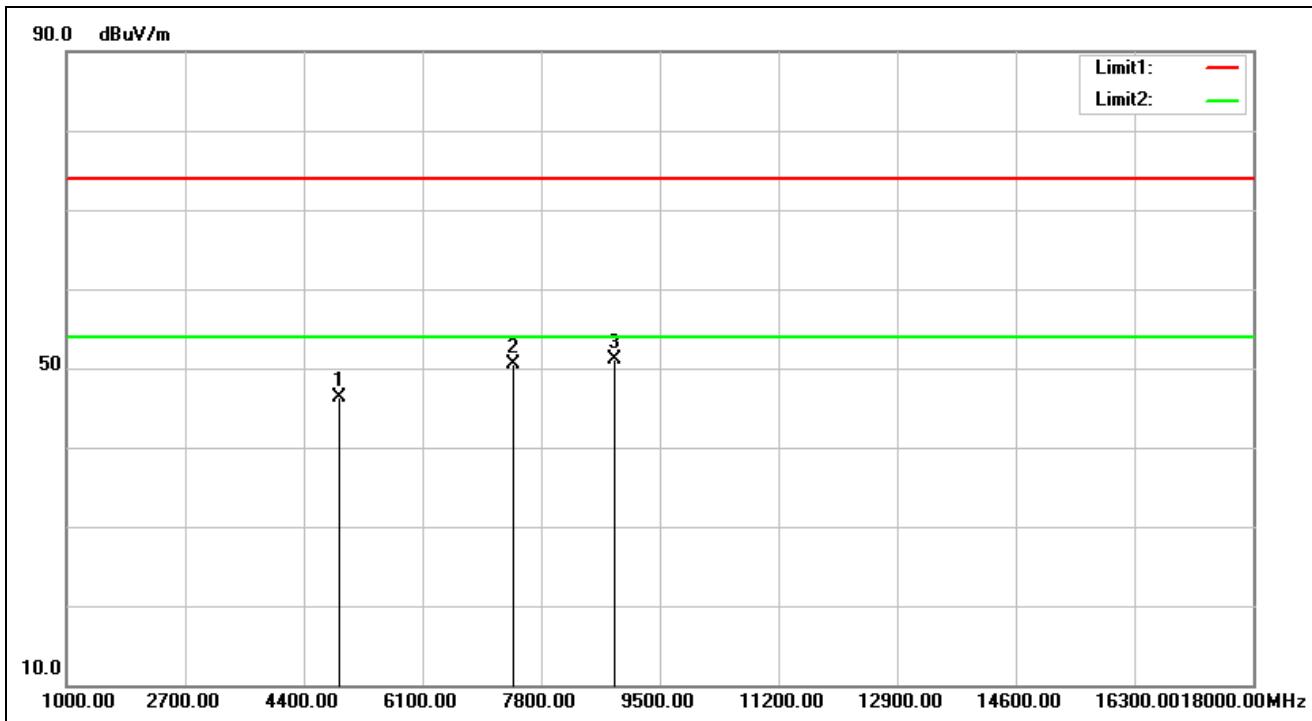
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 01:41:39
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	60.19	57.66	74.00	-16.34	peak	100	140	
2	4874.000	-2.53	46.46	43.93	54.00	-10.07	AVG	100	140	
3	7311.000	5.52	43.82	49.34	74.00	-24.66	peak			
4	8021.000	5.85	45.06	50.91	74.00	-23.09	peak	100	56	



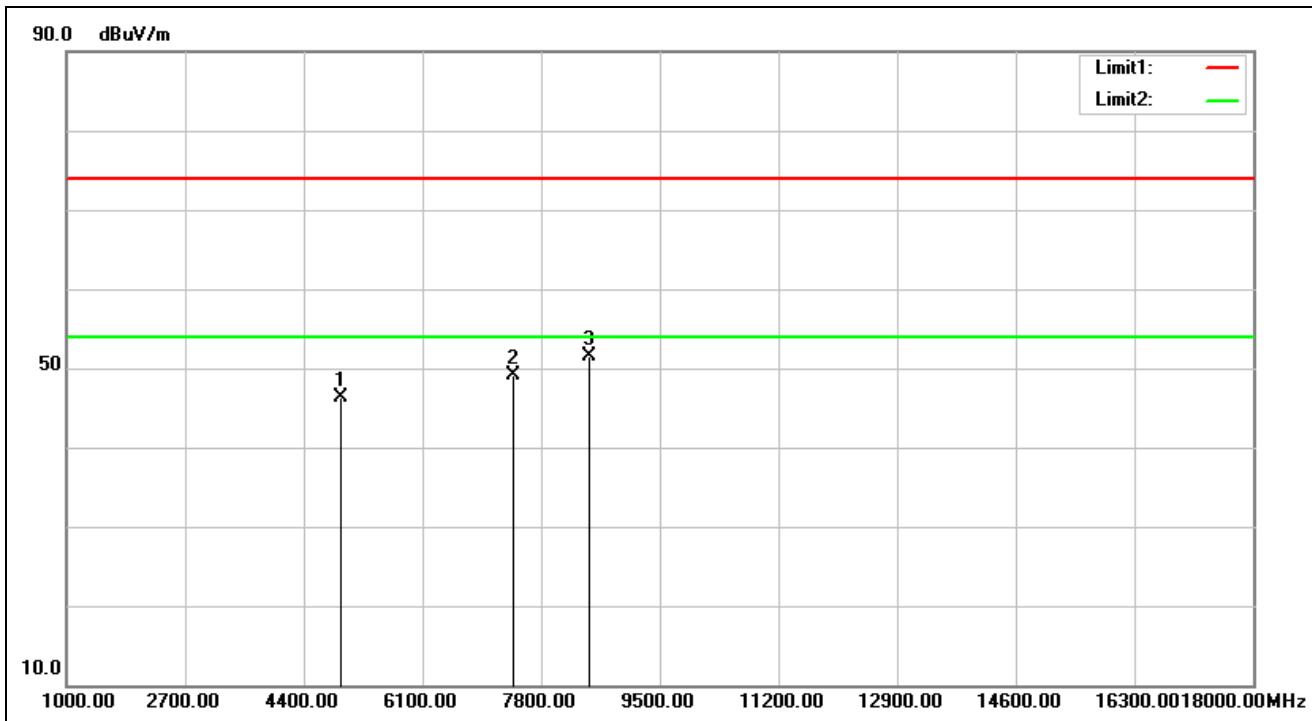
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 01:42:35
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	52.85	50.32	74.00	-23.68	peak	100	238	
2	7311.000	5.52	45.12	50.64	74.00	-23.36	peak			
3	8633.000	6.39	44.74	51.13	74.00	-22.87	peak	100	272	



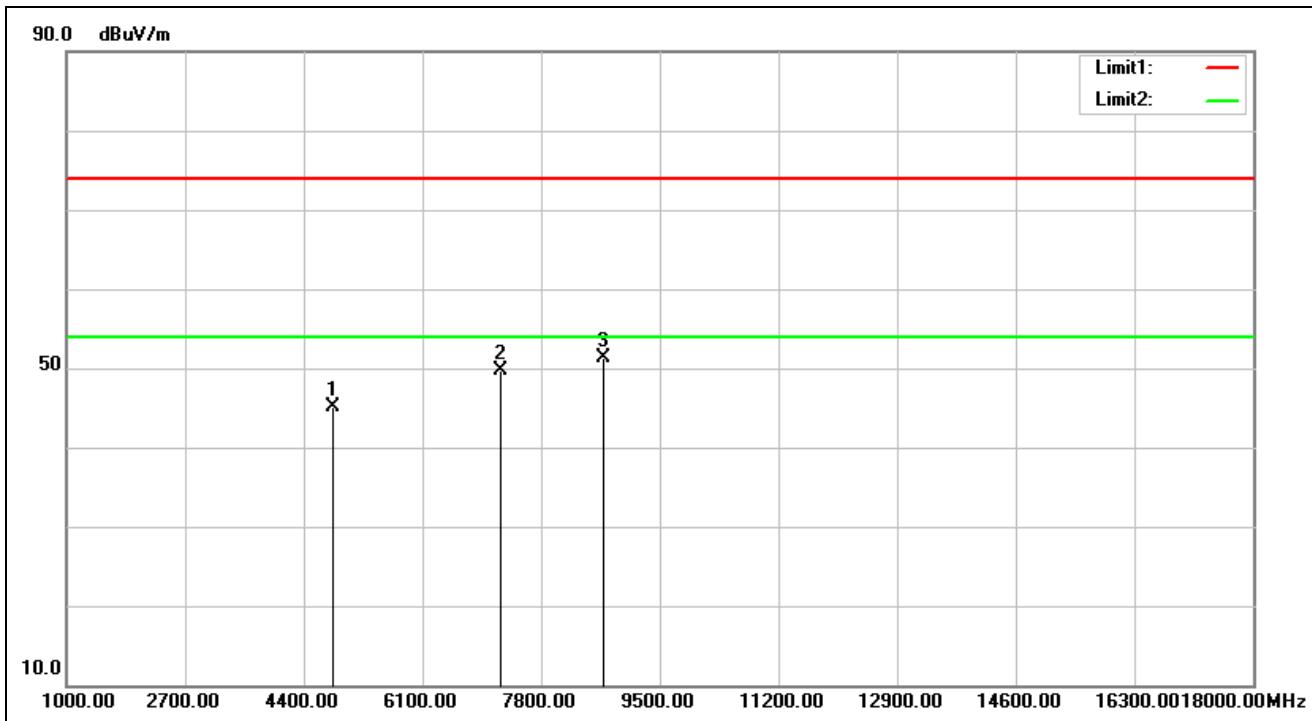
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 01:46:58
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	48.69	46.30	74.00	-27.70	peak			
2	7386.000	5.70	44.87	50.57	74.00	-23.43	peak			
3	8854.000	6.42	44.75	51.17	74.00	-22.83	peak	100	156	



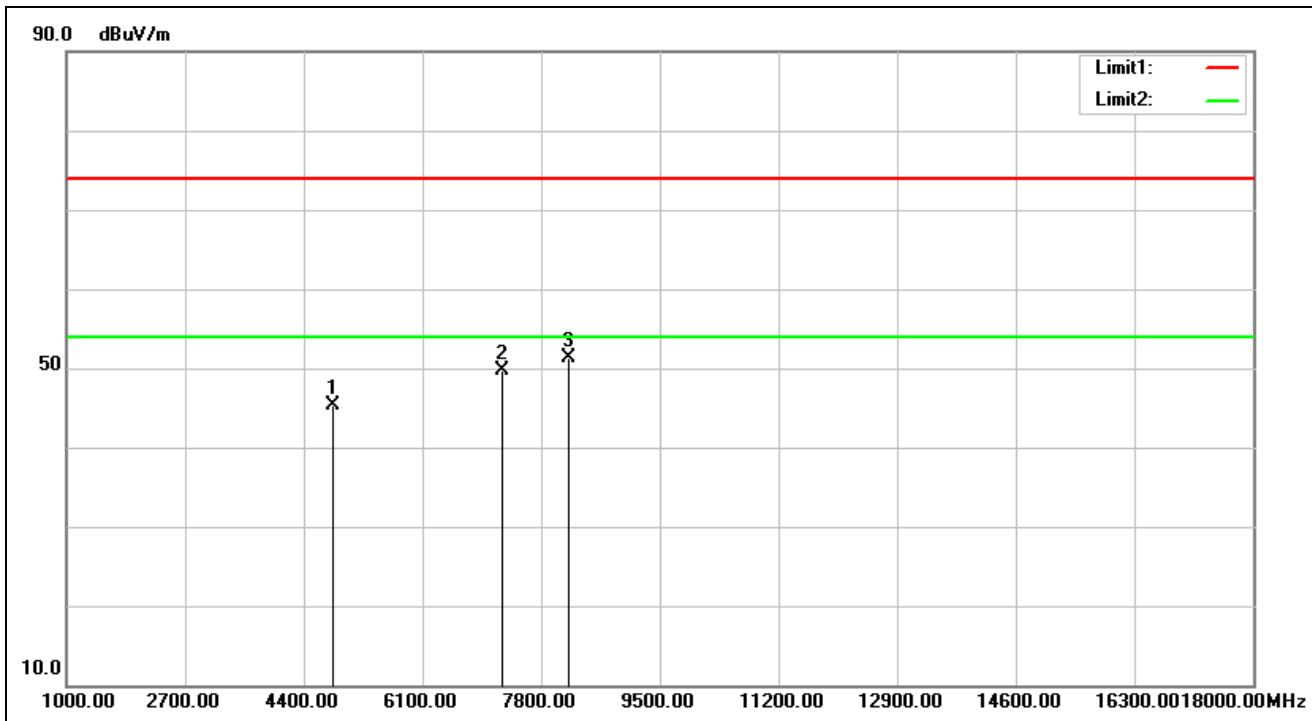
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 01:47:55
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	48.63	46.24	74.00	-27.76	peak			
2	7386.000	5.70	43.39	49.09	74.00	-24.91	peak			
3	8480.000	6.35	45.14	51.49	74.00	-22.51	peak	100	73	



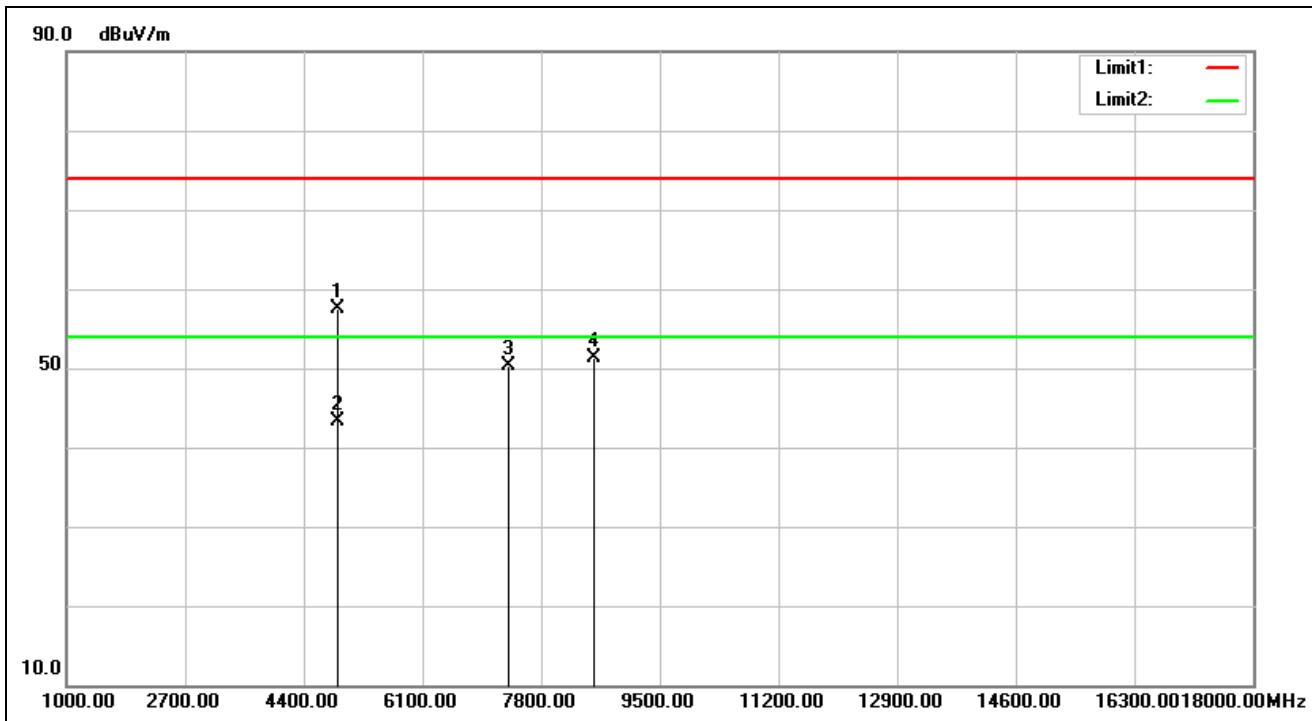
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 01:52:46
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	47.81	45.15	74.00	-28.85	peak			
2	7236.000	5.32	44.32	49.64	74.00	-24.36	peak			
3	8701.000	6.41	44.97	51.38	74.00	-22.62	peak	100	257	



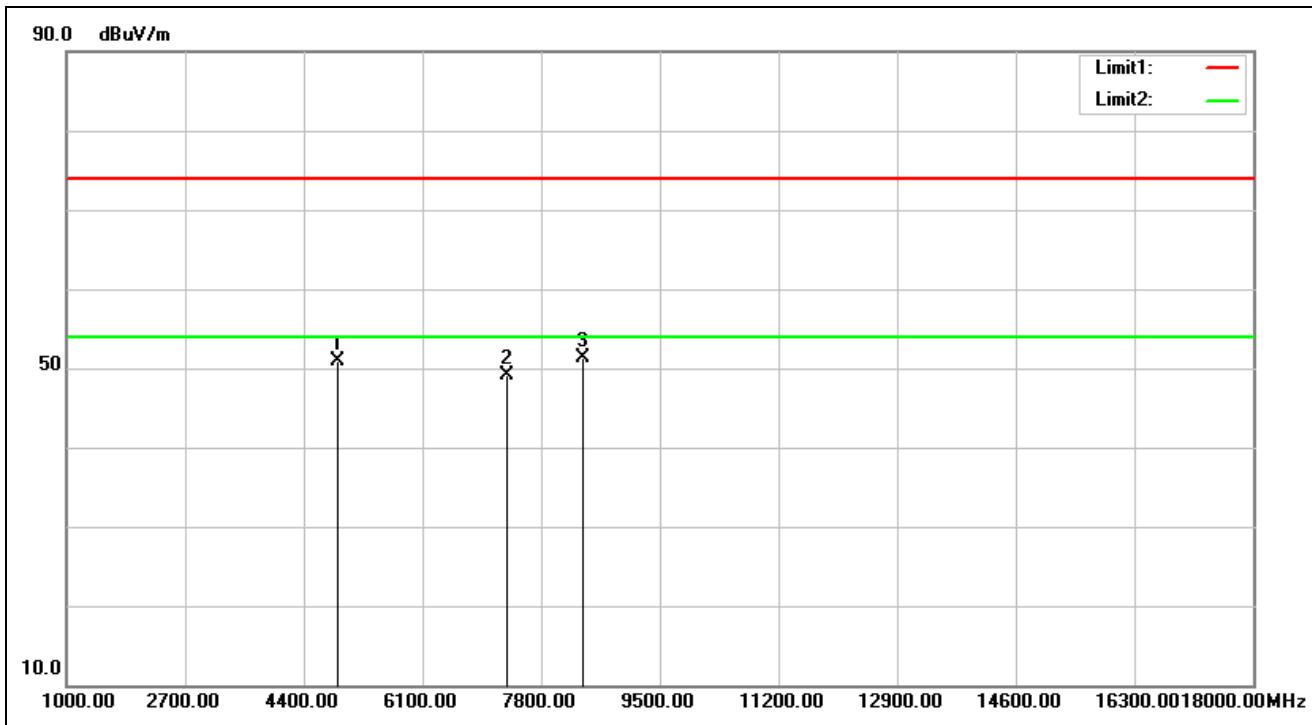
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 01:53:42
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	47.89	45.23	74.00	-28.77	peak			
2	7236.000	5.32	44.33	49.65	74.00	-24.35	peak			
3	8191.000	6.03	45.30	51.33	74.00	-22.67	peak	100	210	



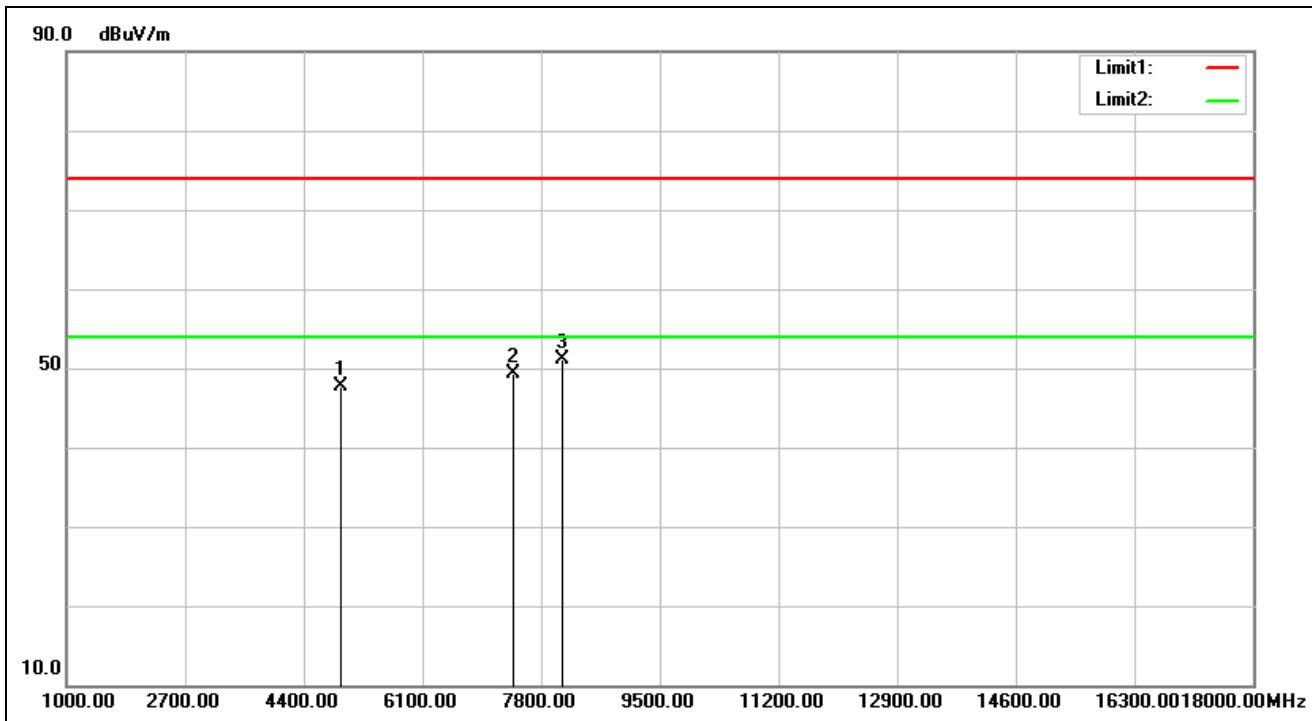
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 01:56:18
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	60.01	57.48	74.00	-16.52	peak	100	137	
2	4874.000	-2.53	45.89	43.36	54.00	-10.64	AVG	100	137	
3	7311.000	5.52	44.88	50.40	74.00	-23.60	peak			
4	8548.000	6.38	44.95	51.33	74.00	-22.67	peak	100	357	



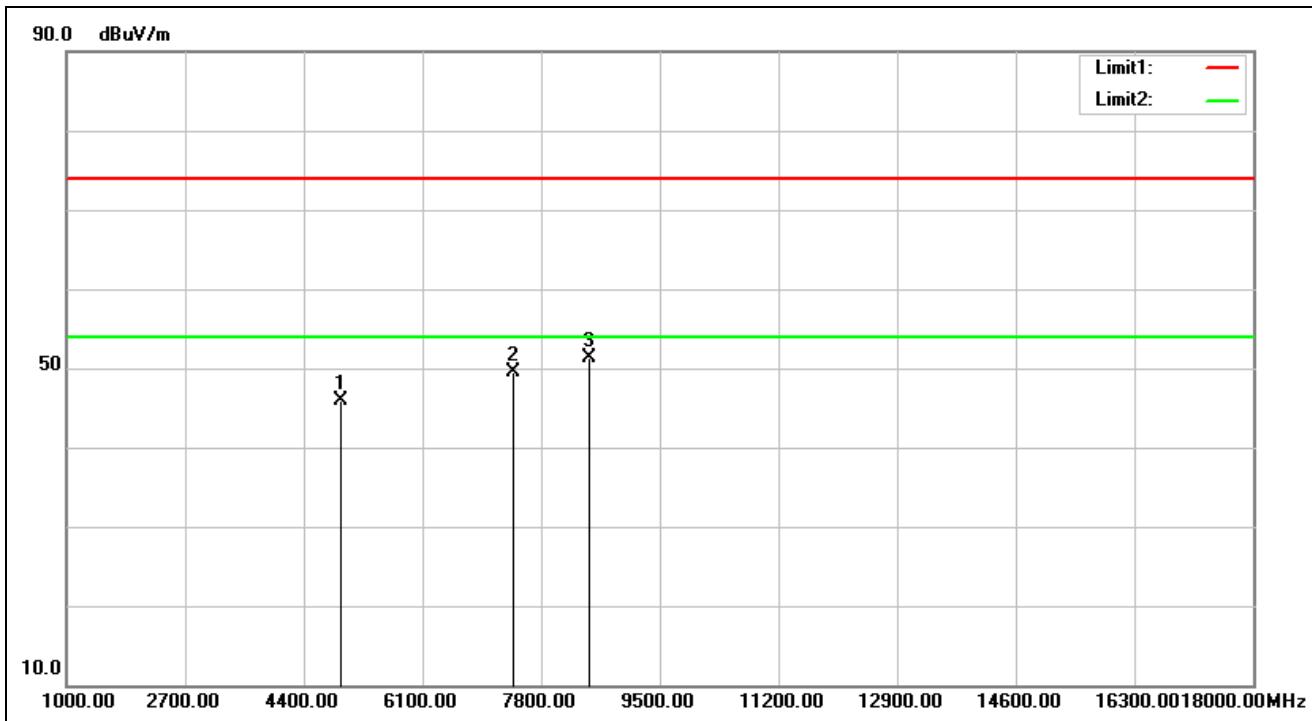
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 01:57:14
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	53.52	50.99	74.00	-23.01	peak	100	307	
2	7311.000	5.52	43.52	49.04	74.00	-24.96	peak			
3	8395.000	6.26	45.02	51.28	74.00	-22.72	peak	100	142	



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 02:00:44
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	50.13	47.74	74.00	-26.26	peak			
2	7386.000	5.70	43.58	49.28	74.00	-24.72	peak			
3	8106.000	5.94	45.24	51.18	74.00	-22.82	peak	100	313	



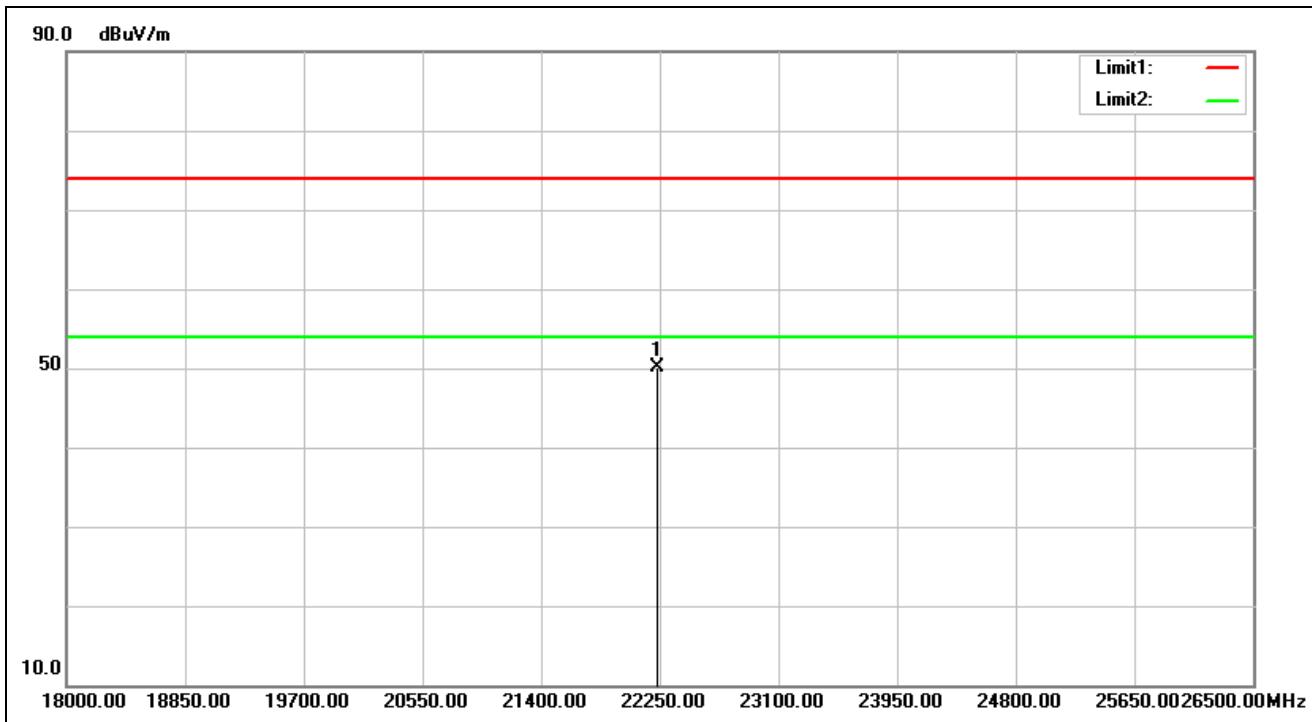
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 02:01:41
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	48.25	45.86	74.00	-28.14	peak			
2	7386.000	5.70	43.83	49.53	74.00	-24.47	peak			
3	8480.000	6.35	44.92	51.27	74.00	-22.73	peak	100	92	

Spurious Emissions, TX Mode, 18-26G

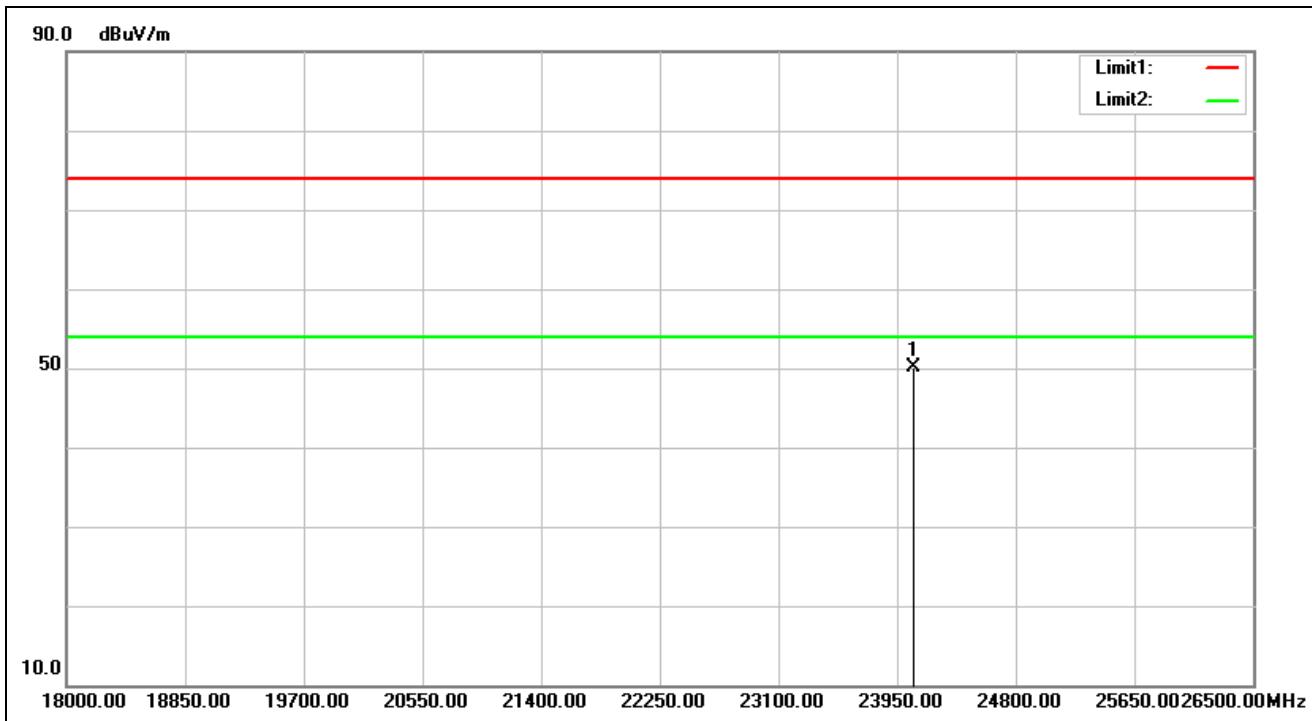


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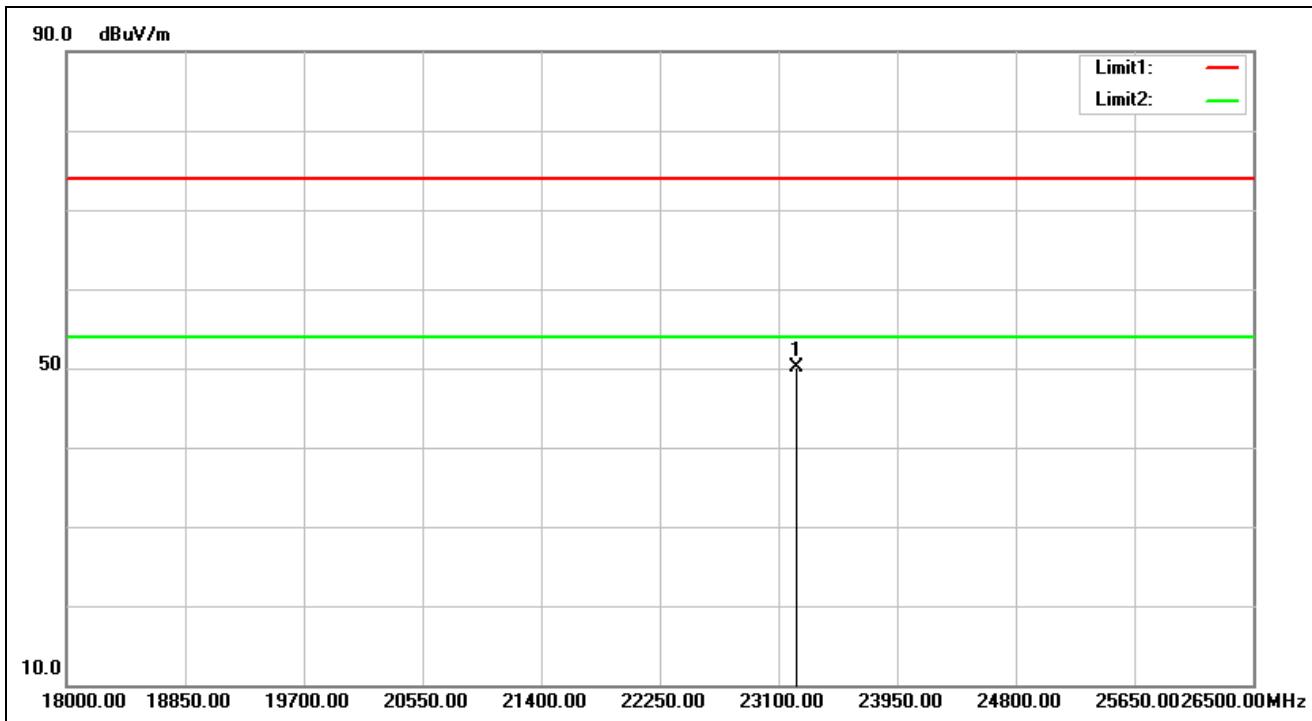
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:53:26
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22233.000	32.62	17.49	50.11	74.00	-23.89	peak		0	



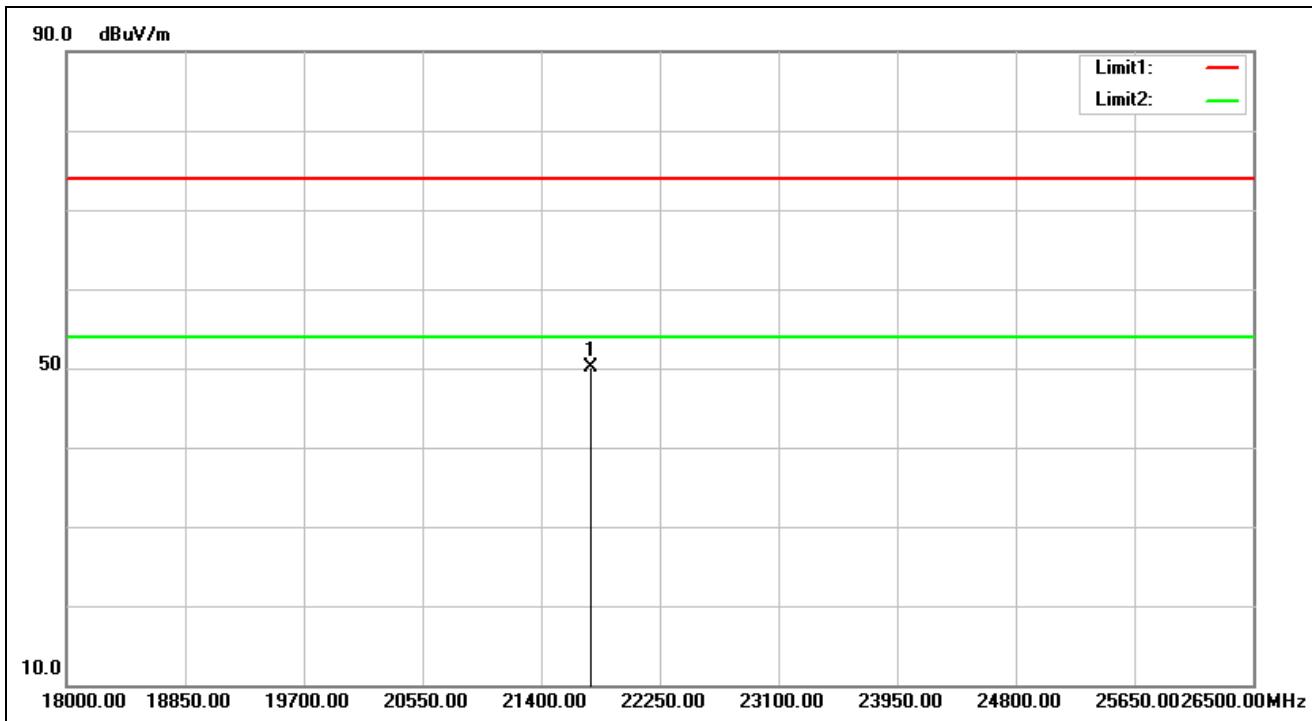
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:53:32
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	24069.000	32.99	17.03	50.02	74.00	-23.98	peak			



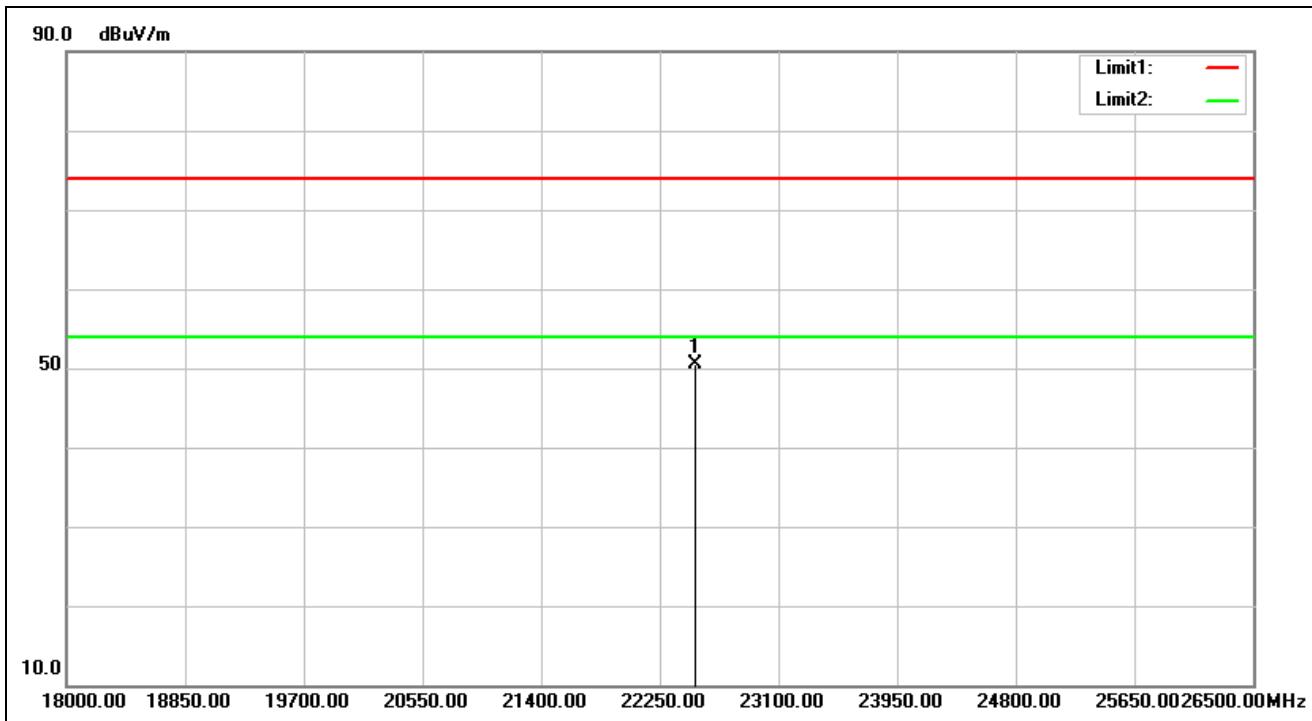
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:53:56
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23227.500	33.01	17.11	50.12	74.00	-23.88	peak			



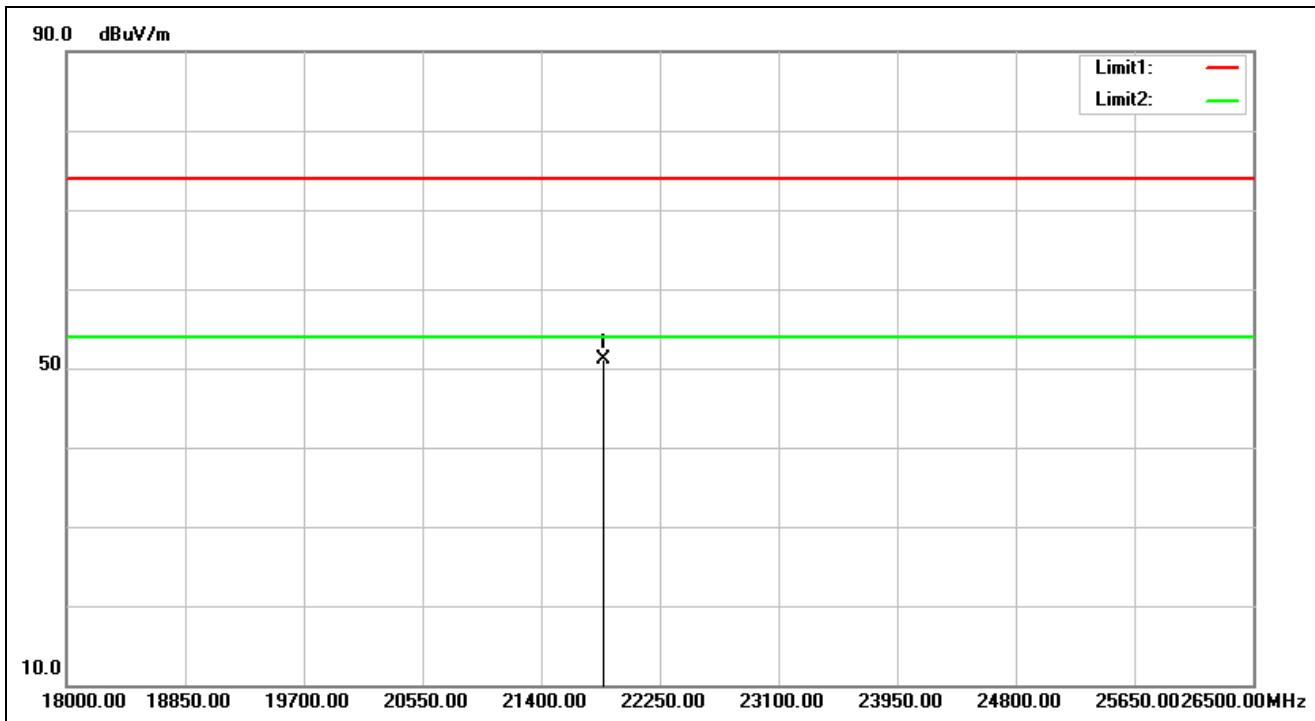
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:54:02
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21757.000	32.73	17.31	50.04	74.00	-23.96	peak			



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:54:25
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22505.000	32.64	17.83	50.47	74.00	-23.53	peak			

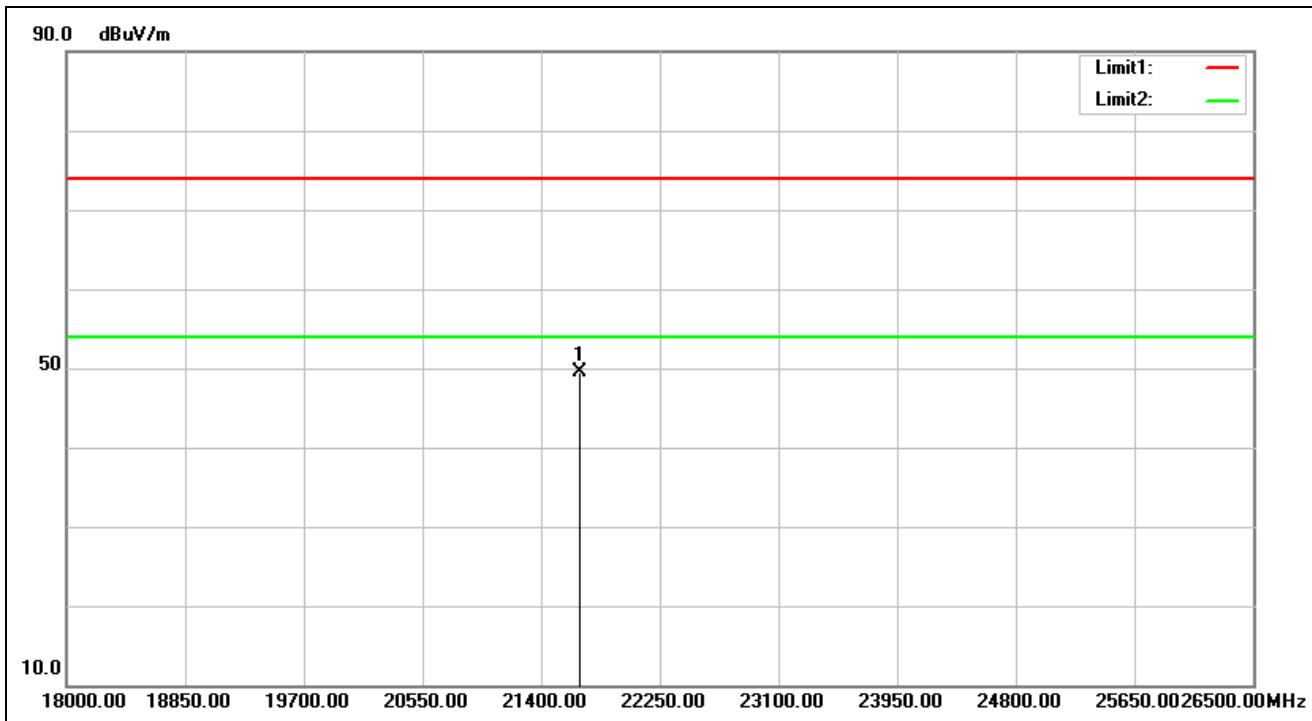


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:54:32
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21850.500	32.68	18.42	51.10	74.00	-22.90	peak			

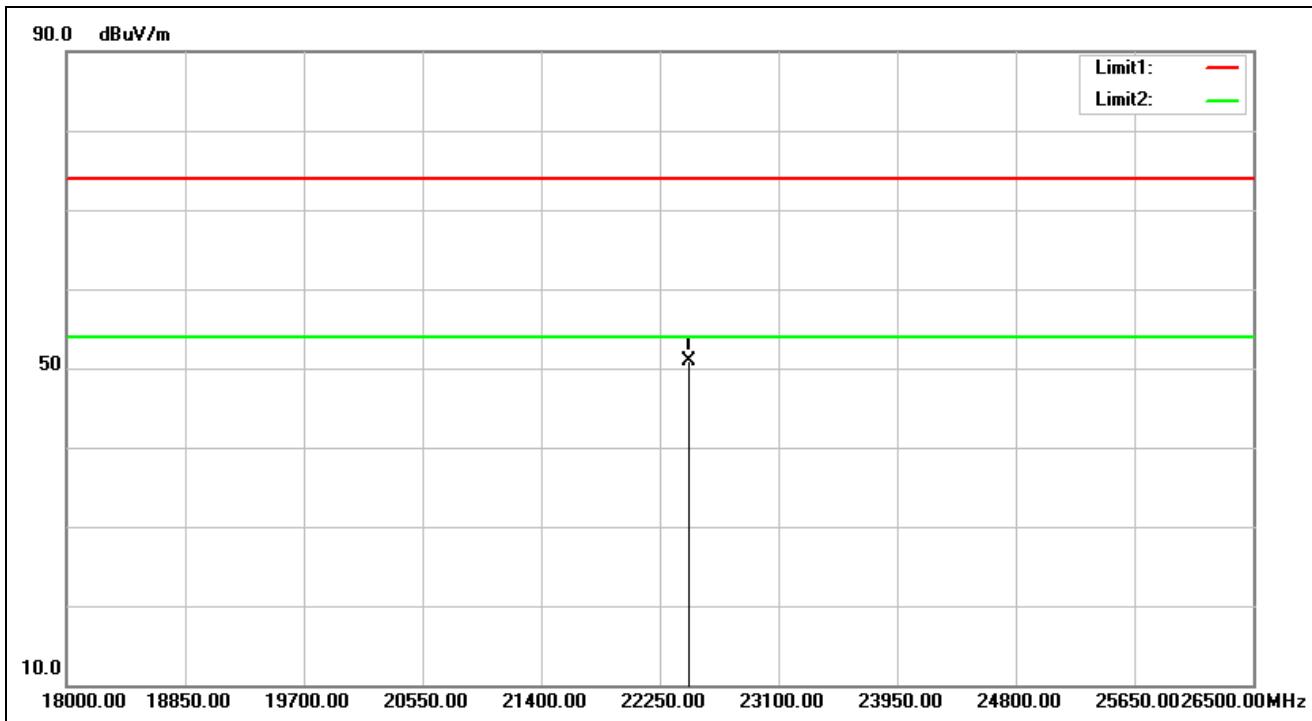


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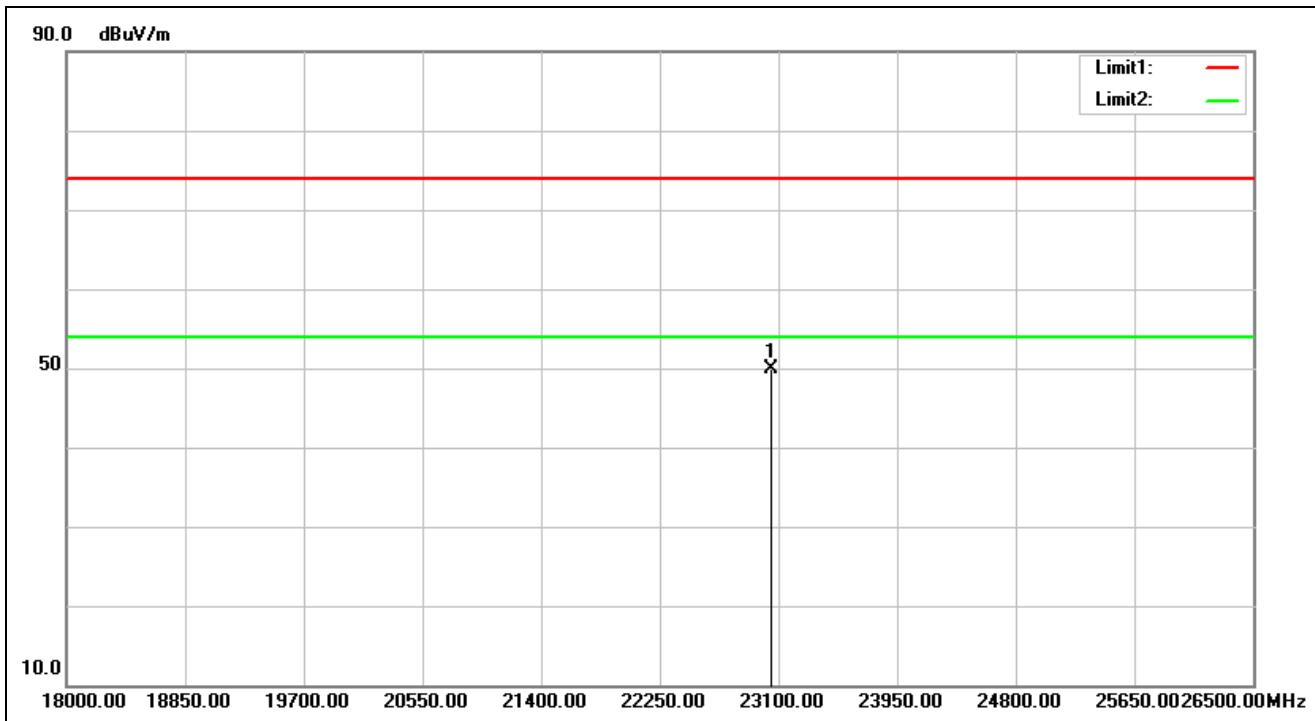
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:55:05
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21680.500	32.78	16.66	49.44	74.00	-24.56	peak			



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:55:12
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22454.000	32.63	18.25	50.88	74.00	-23.12	peak			

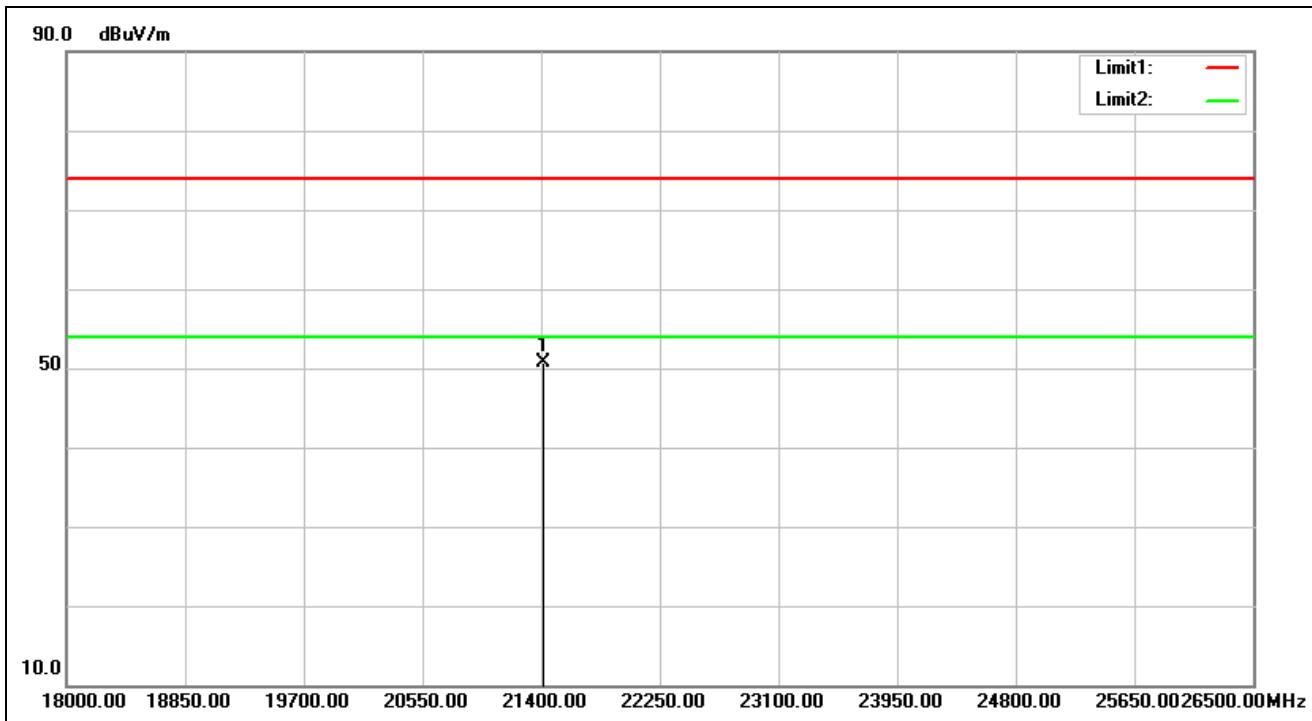


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:55:35
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23049.000	32.84	17.07	49.91	74.00	-24.09	peak			

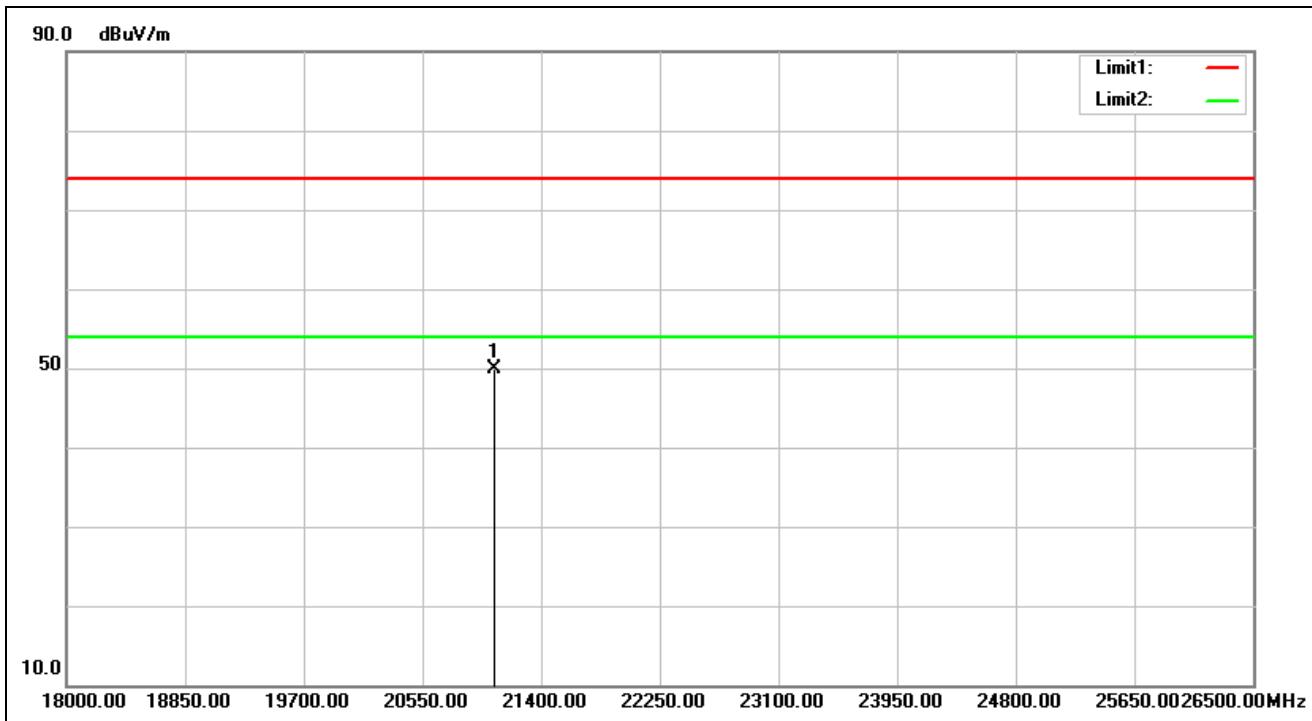


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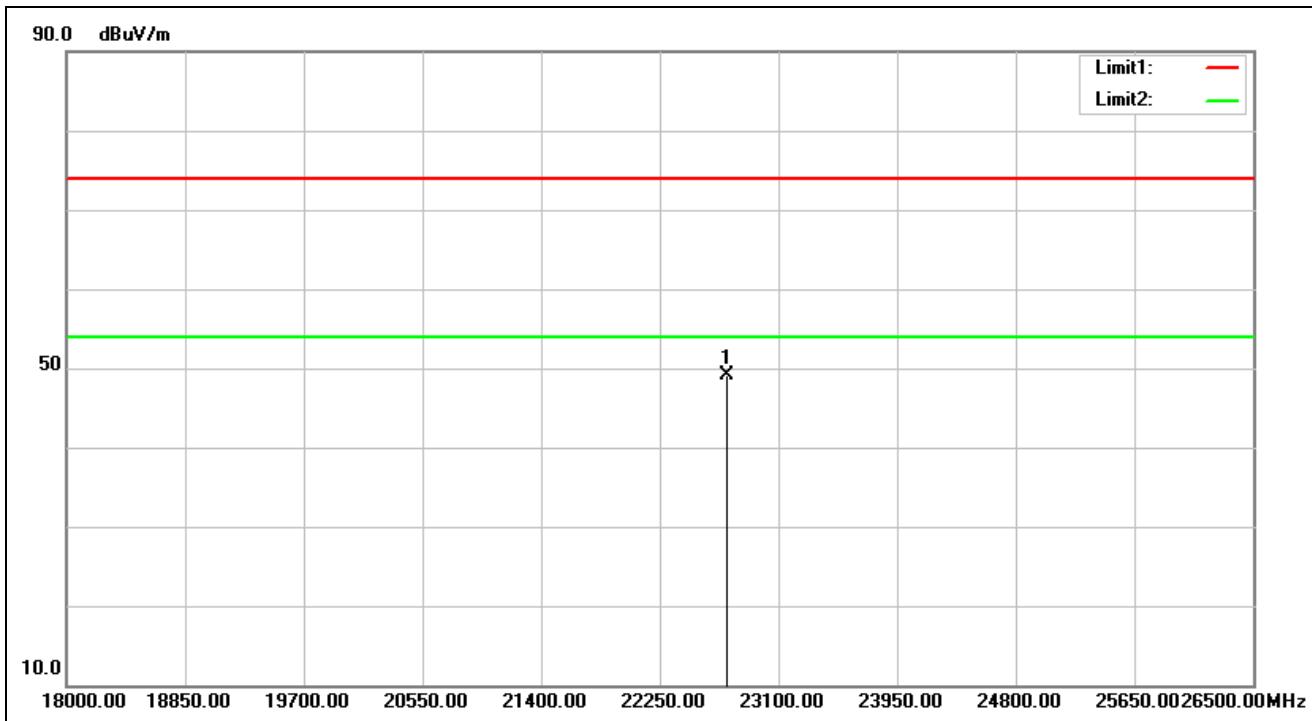
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:55:41
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21417.000	32.82	17.88	50.70	74.00	-23.30	peak			



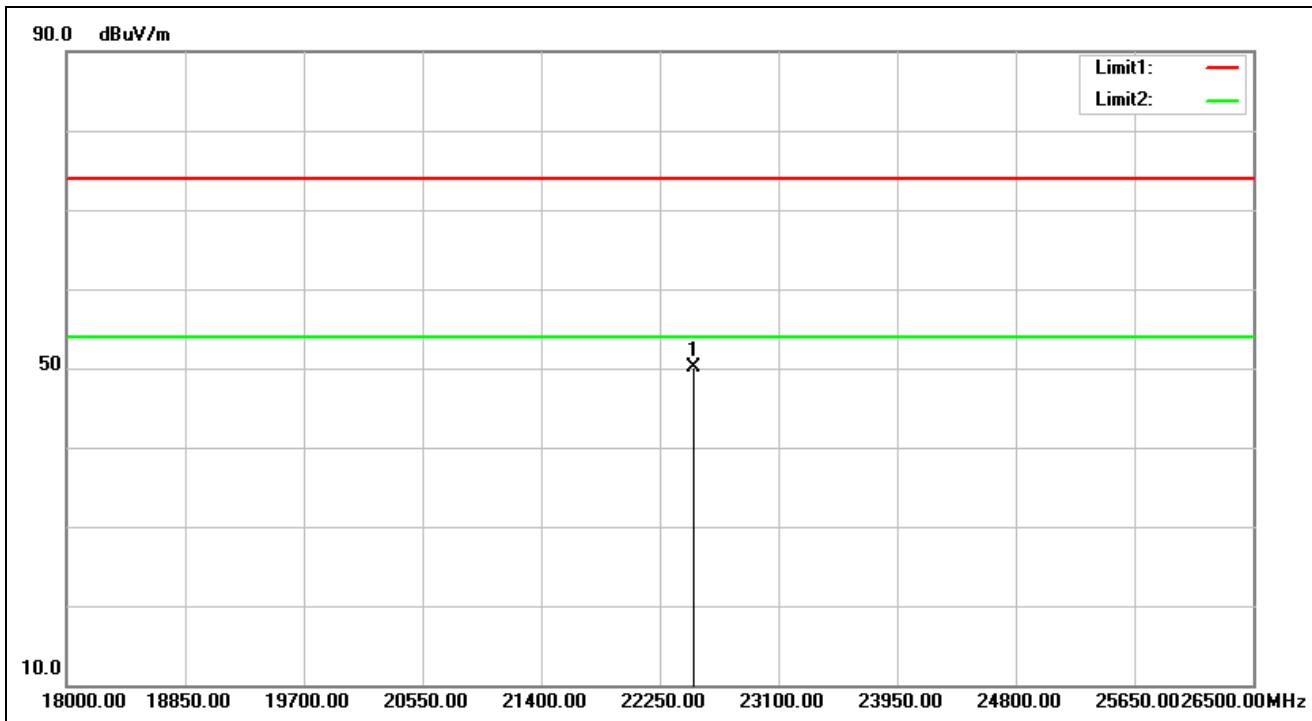
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:56:12
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21060.000	32.50	17.43	49.93	74.00	-24.07	peak			



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:56:19
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22726.000	32.72	16.47	49.19	74.00	-24.81	peak			

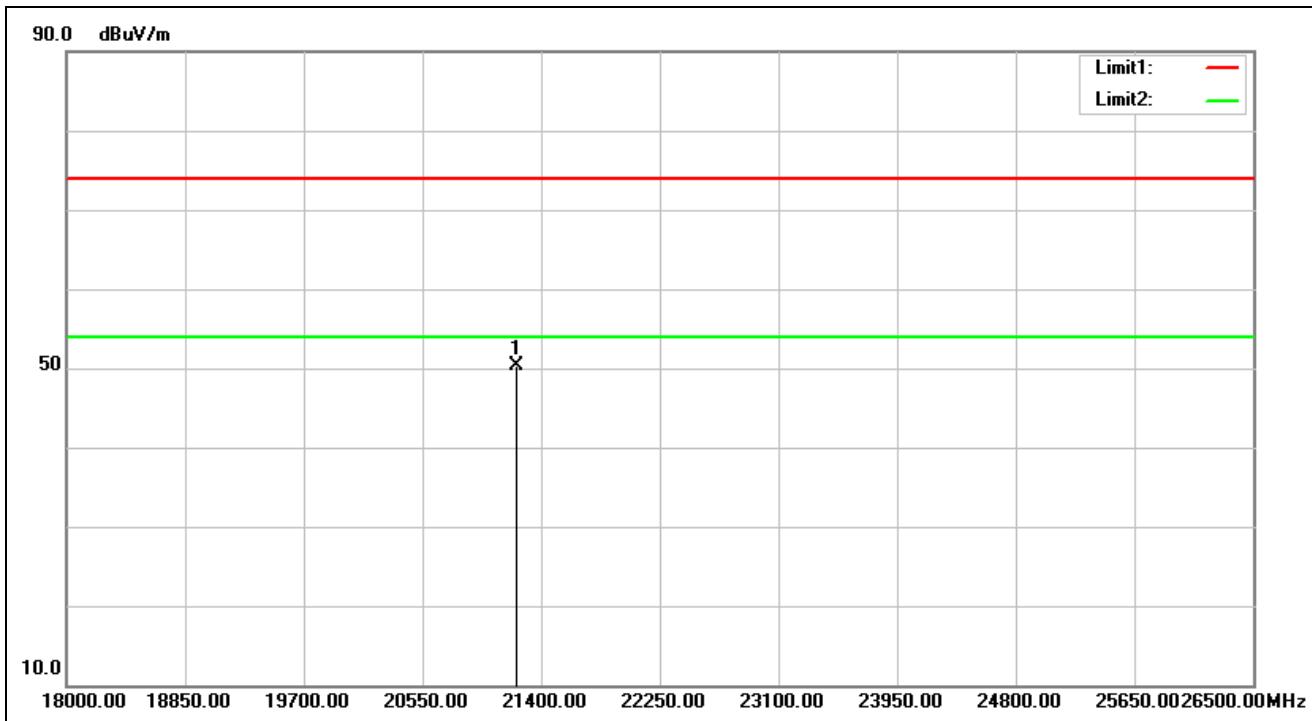


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:57:13
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22496.500	32.64	17.37	50.01	74.00	-23.99	peak			

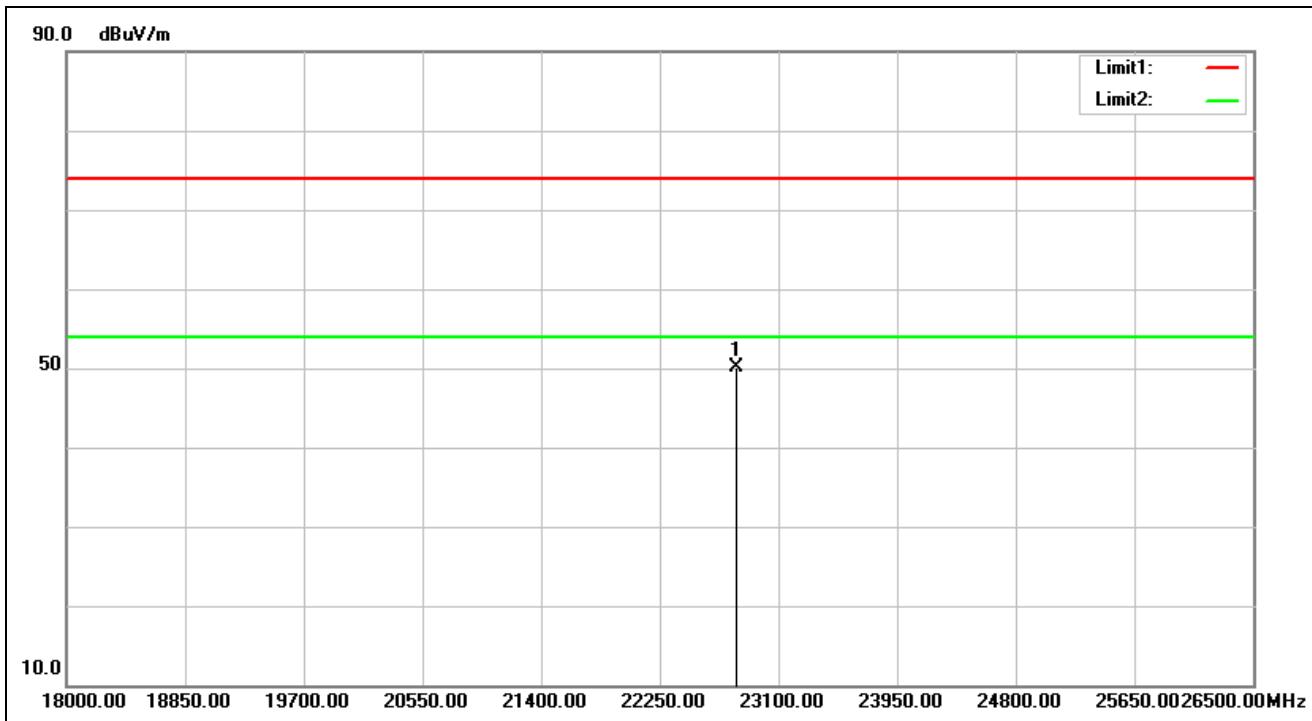


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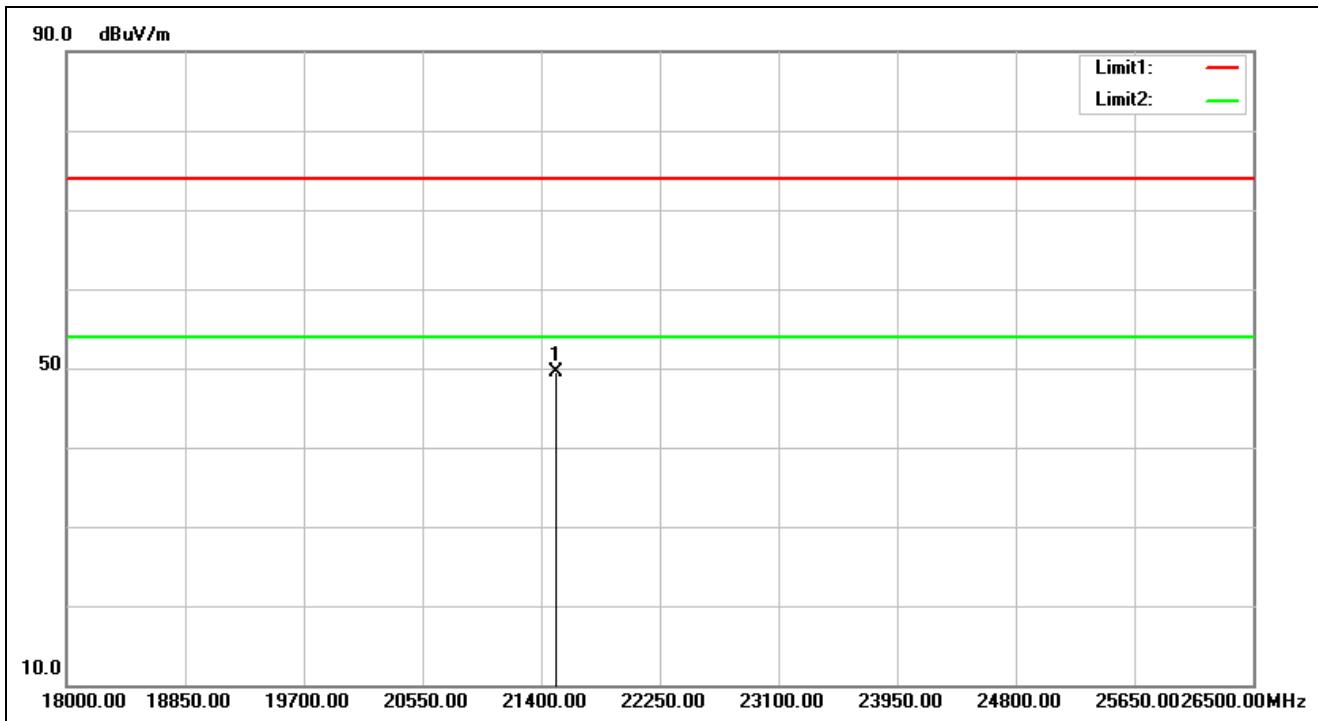
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:57:19
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21221.500	32.63	17.67	50.30	74.00	-23.70	peak			



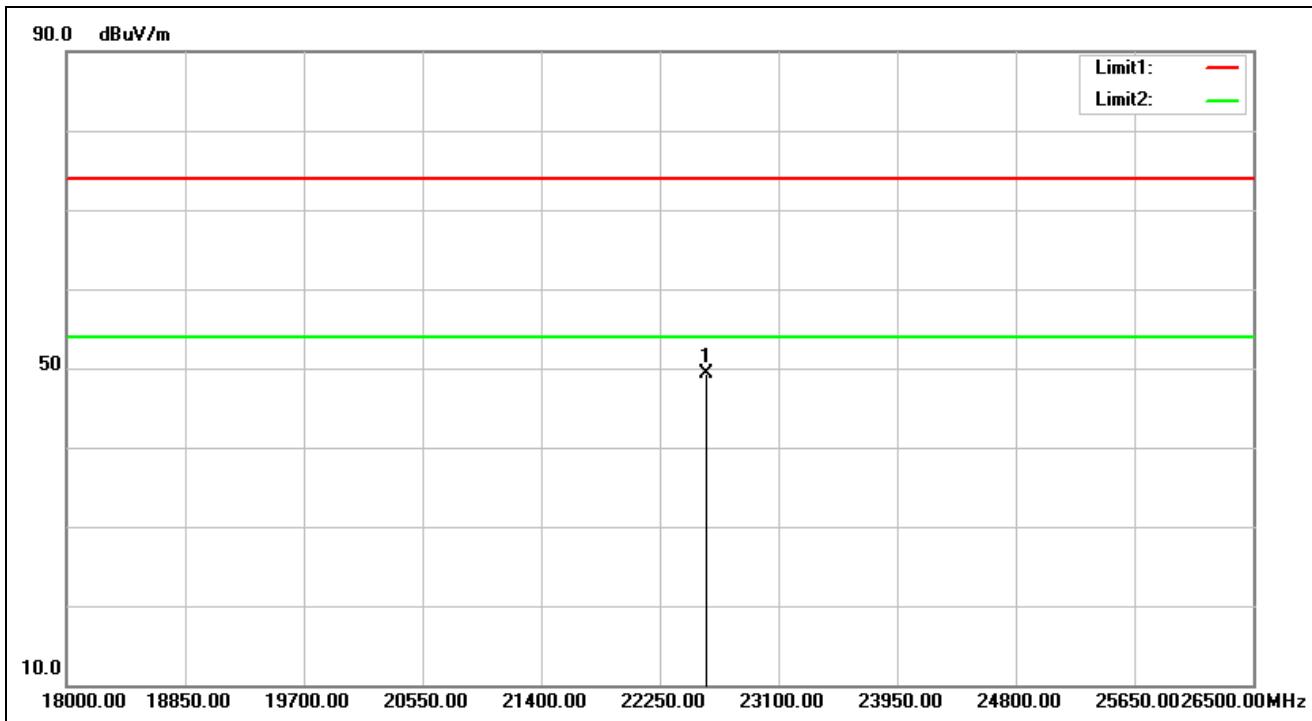
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:57:53
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22794.000	32.74	17.42	50.16	74.00	-23.84	peak			



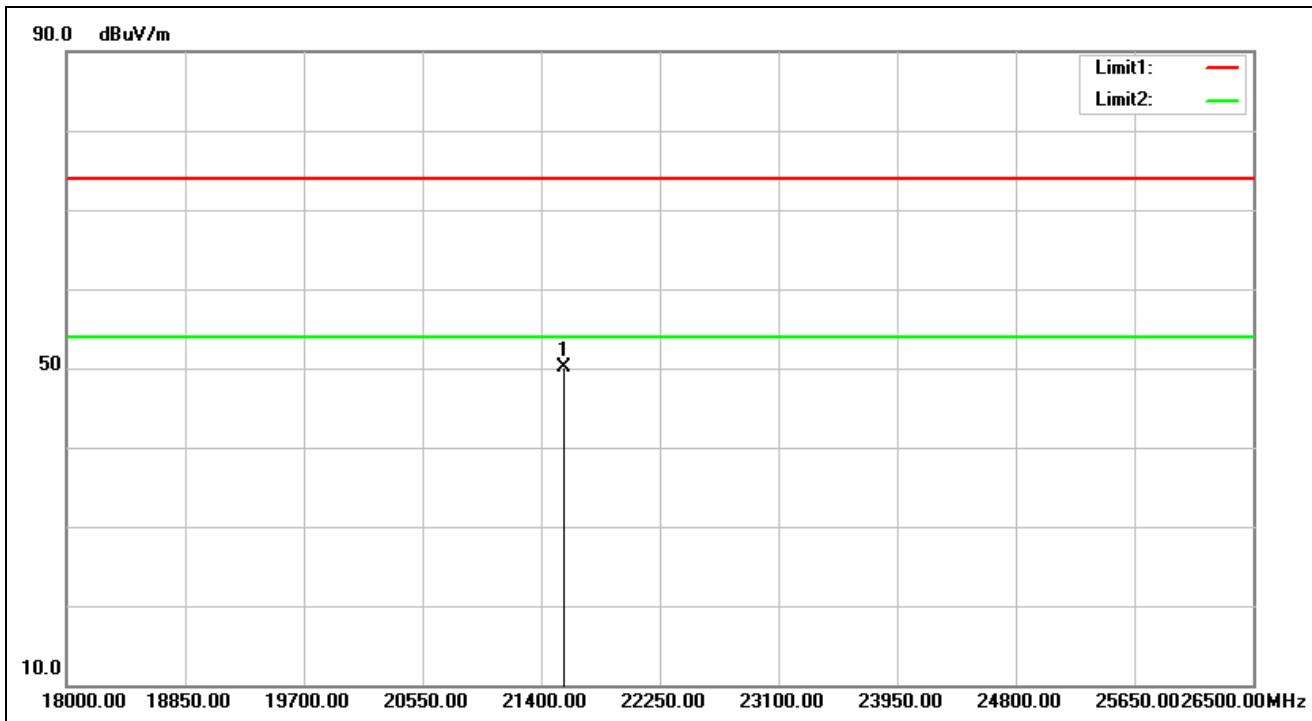
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:58:00
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 RFMTA331215IMAB701-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	16.52	49.41	74.00	-24.59	peak			



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:58:25
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22581.500	32.67	16.71	49.38	74.00	-24.62	peak			



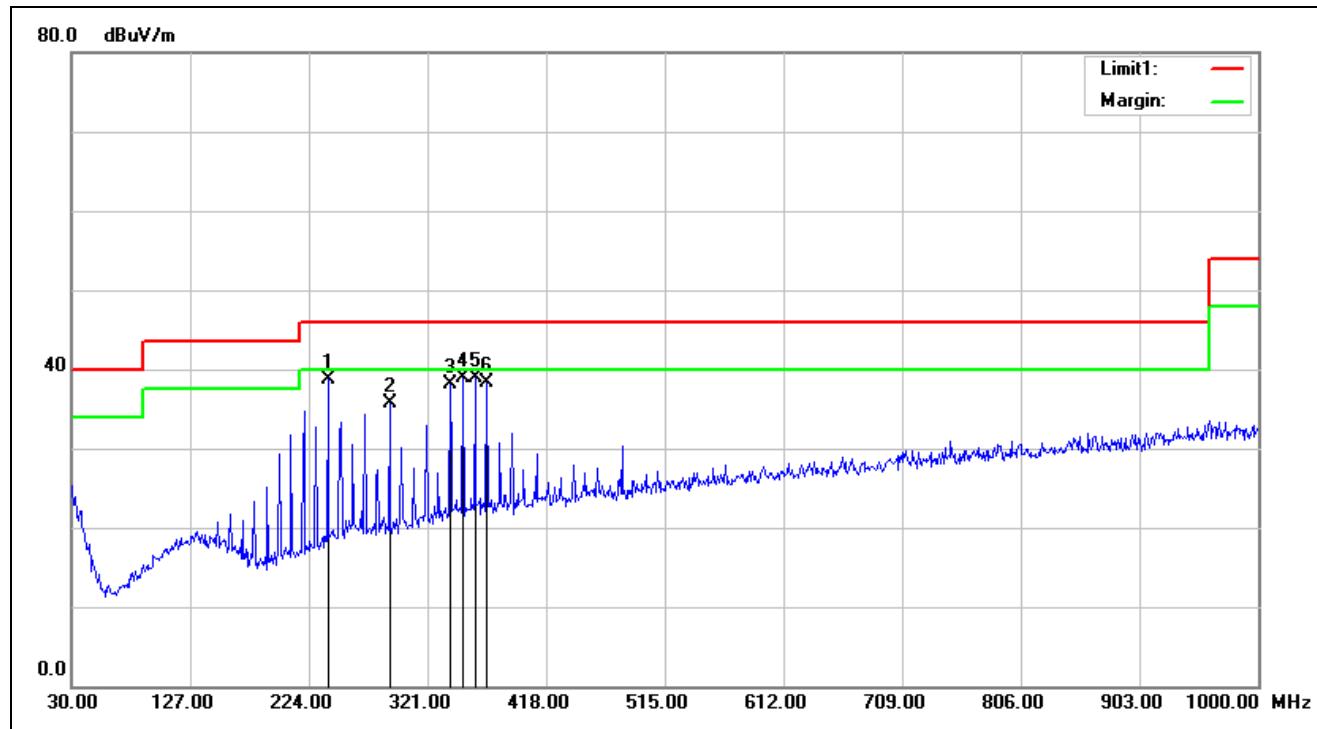
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:58:32
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21561.500	32.85	17.35	50.20	74.00	-23.80	peak			

Spurious Emissions, TX Mode, 30M-1G

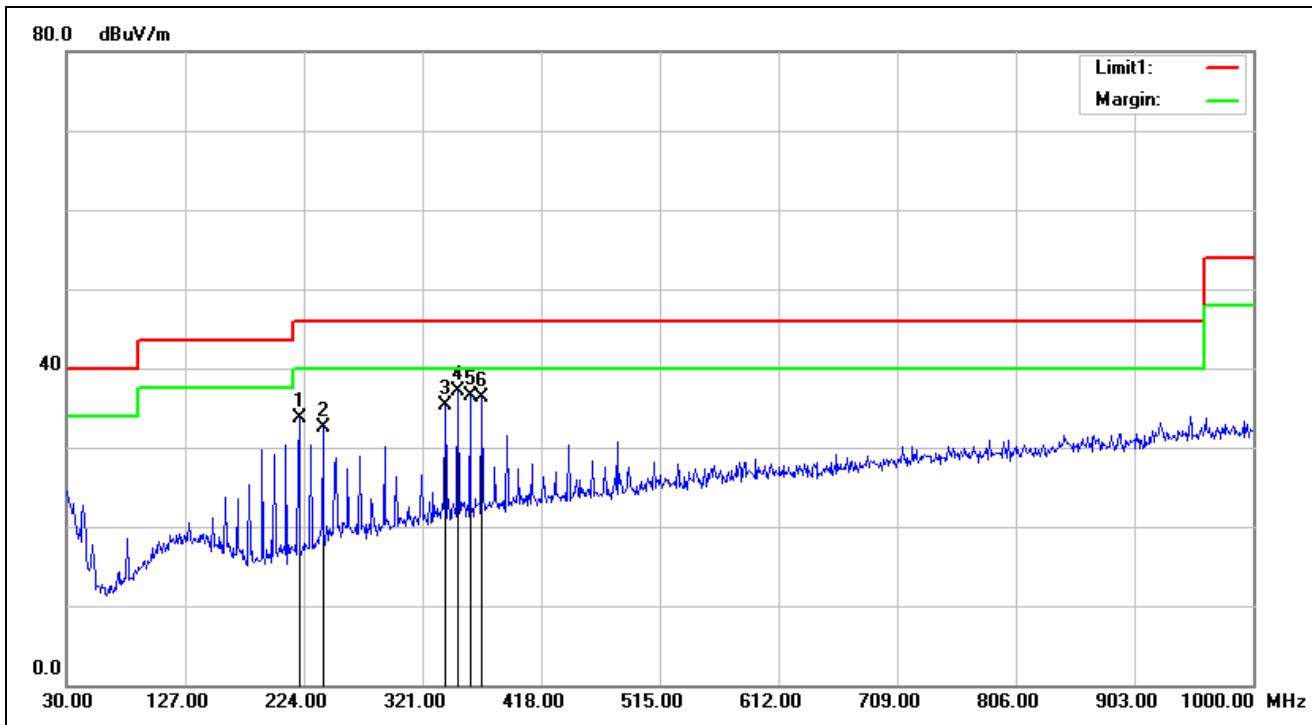


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:53:55
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	239.5200	-6.85	45.47	38.62	46.00	-7.38	QP	100	234	
2	289.9599	-4.80	40.58	35.78	46.00	-10.22	QP	100	237	
3	339.4300	-3.61	41.78	38.17	46.00	-7.83	QP	100	255	
4	350.1000	-3.34	42.33	38.99	46.00	-7.01	QP	100	230	
5	359.8000	-3.16	42.11	38.95	46.00	-7.05	QP	100	230	
6	369.5000	-2.98	41.31	38.33	46.00	-7.67	QP	100	264	



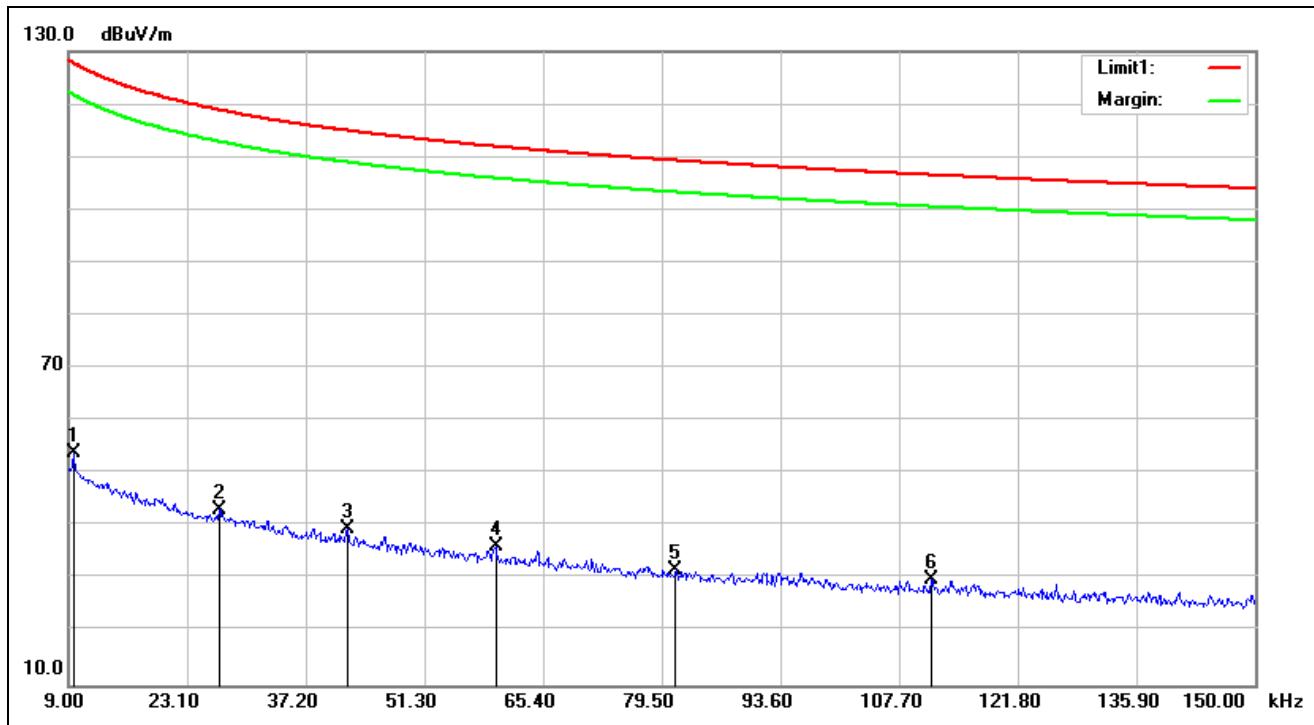
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:54:52
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9		
	RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	220.1200	-8.30	41.98	33.68	46.00	-12.32	QP	100	310	
2	239.5200	-6.85	39.39	32.54	46.00	-13.46	QP	100	279	
3	339.4300	-3.61	38.86	35.25	46.00	-10.75	QP	100	222	
4	350.1000	-3.34	40.45	37.11	46.00	-8.89	QP	100	204	
5	359.8000	-3.16	39.71	36.55	46.00	-9.45	QP	100	210	
6	369.5000	-2.98	39.23	36.25	46.00	-9.75	QP	100	229	

Spurious Emissions, TX Mode, 9k-30M

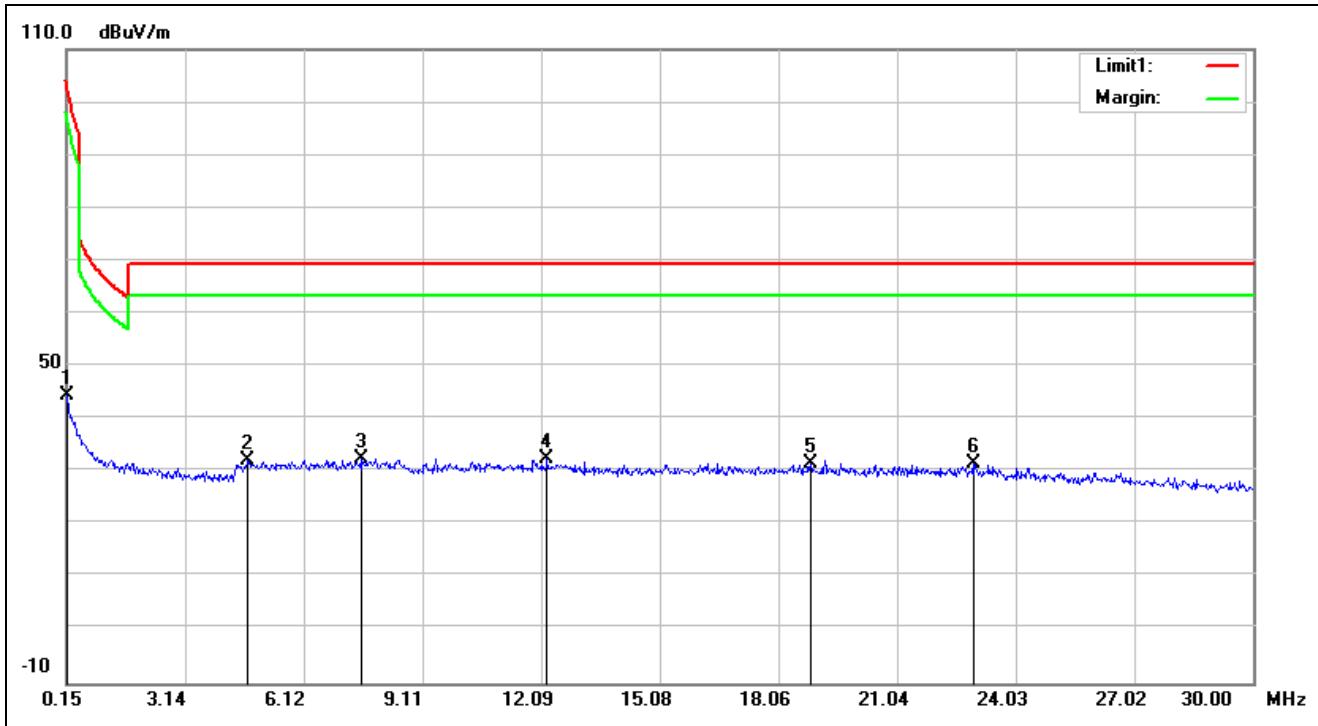


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:24:50
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0095	19.76	34.09	53.85	127.84	-73.99	QP	100	4	
2	0.0269	20.10	23.19	43.29	118.85	-75.56	QP	100	34	
3	0.0421	19.70	19.83	39.53	114.99	-75.46	QP	100	147	
4	0.0597	19.37	16.77	36.14	111.97	-75.83	QP	100	15	
5	0.0810	19.24	12.63	31.87	109.34	-77.47	QP	100	25	
6	0.1115	19.12	10.87	29.99	106.58	-76.59	QP	100	0	



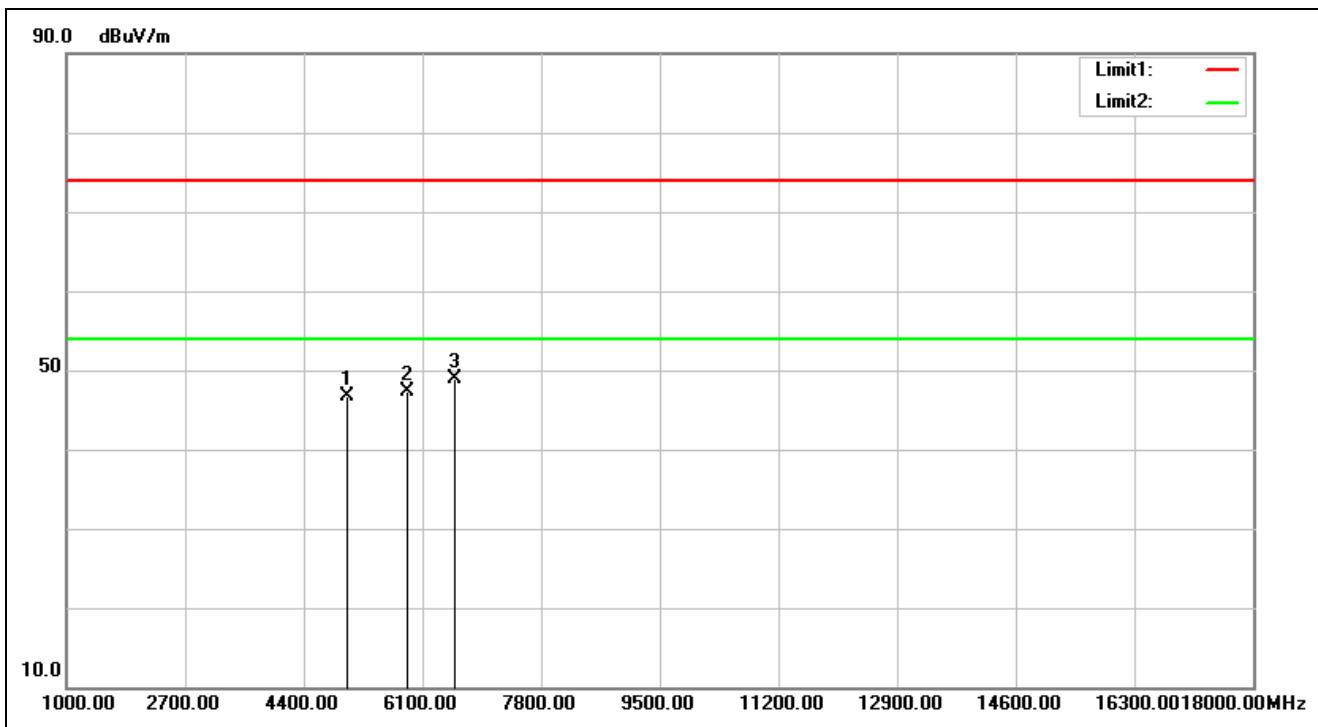
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:27:38
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1499	19.08	25.50	44.58	104.02	-59.44	QP	100	331	
2	4.7170	19.58	12.64	32.22	69.50	-37.28	QP	100	78	
3	7.5826	20.00	12.53	32.53	69.50	-36.97	QP	100	228	
4	12.2392	20.61	11.73	32.34	69.50	-37.16	QP	100	59	
5	18.8659	21.79	9.71	31.50	69.50	-38.00	QP	100	28	
6	22.9553	22.18	9.35	31.53	69.50	-37.97	QP	100	359	

Spurious Emissions, RX Mode, 1-18G



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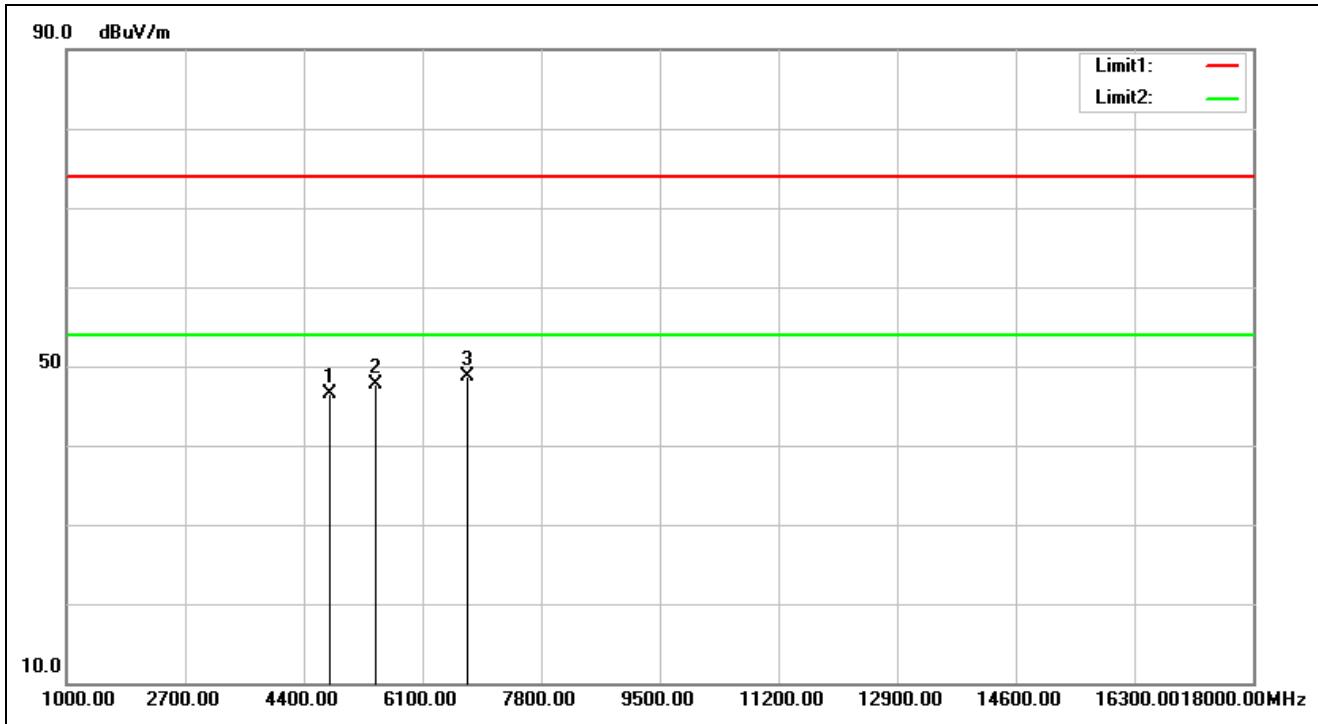


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 02:04:50
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	5029.000	-3.07	49.81	46.74	74.00	-27.26	peak	100	316	
2	5879.000	1.58	45.74	47.32	74.00	-26.68	peak	100	244	
3	6559.000	4.25	44.57	48.82	74.00	-25.18	peak	100	341	



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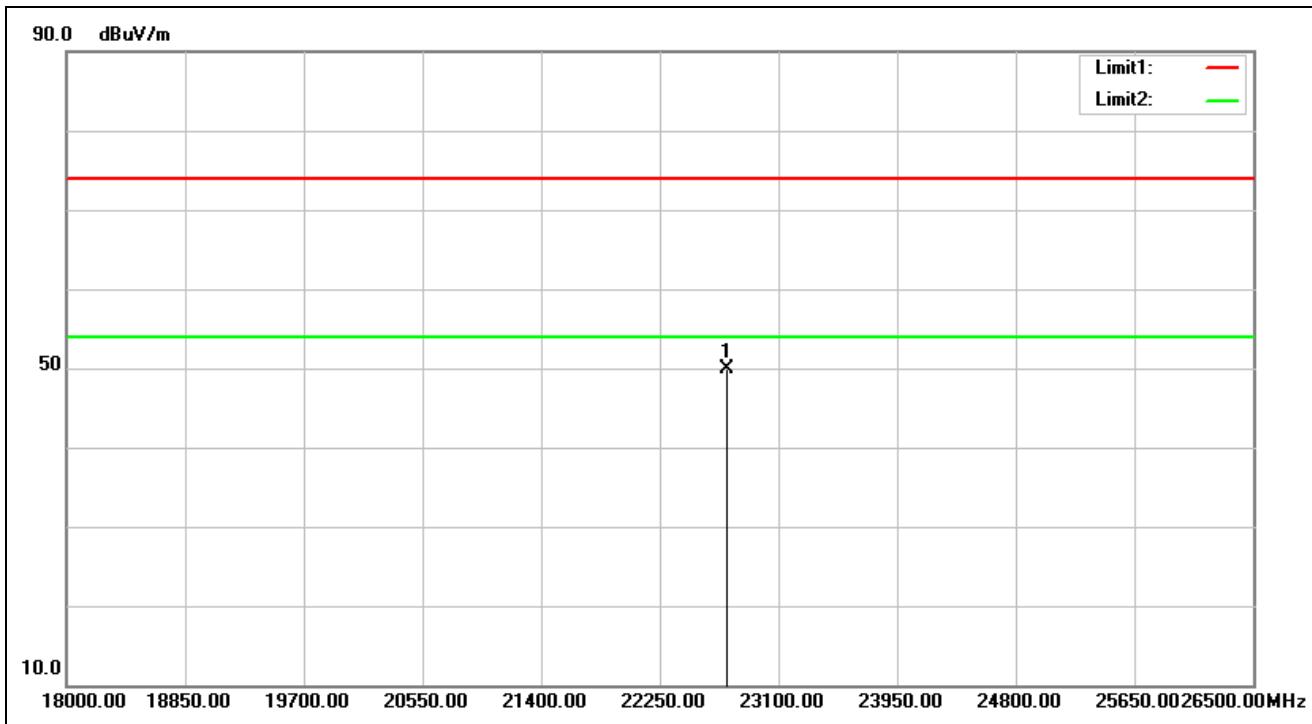
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 02:05:46
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4774.000	-3.58	50.17	46.59	74.00	-27.41	peak	100	119	
2	5420.000	-1.22	48.99	47.77	74.00	-26.23	peak	100	19	
3	6746.000	4.01	44.76	48.77	74.00	-25.23	peak	100	113	

Spurious Emissions, RX Mode, 18-26G



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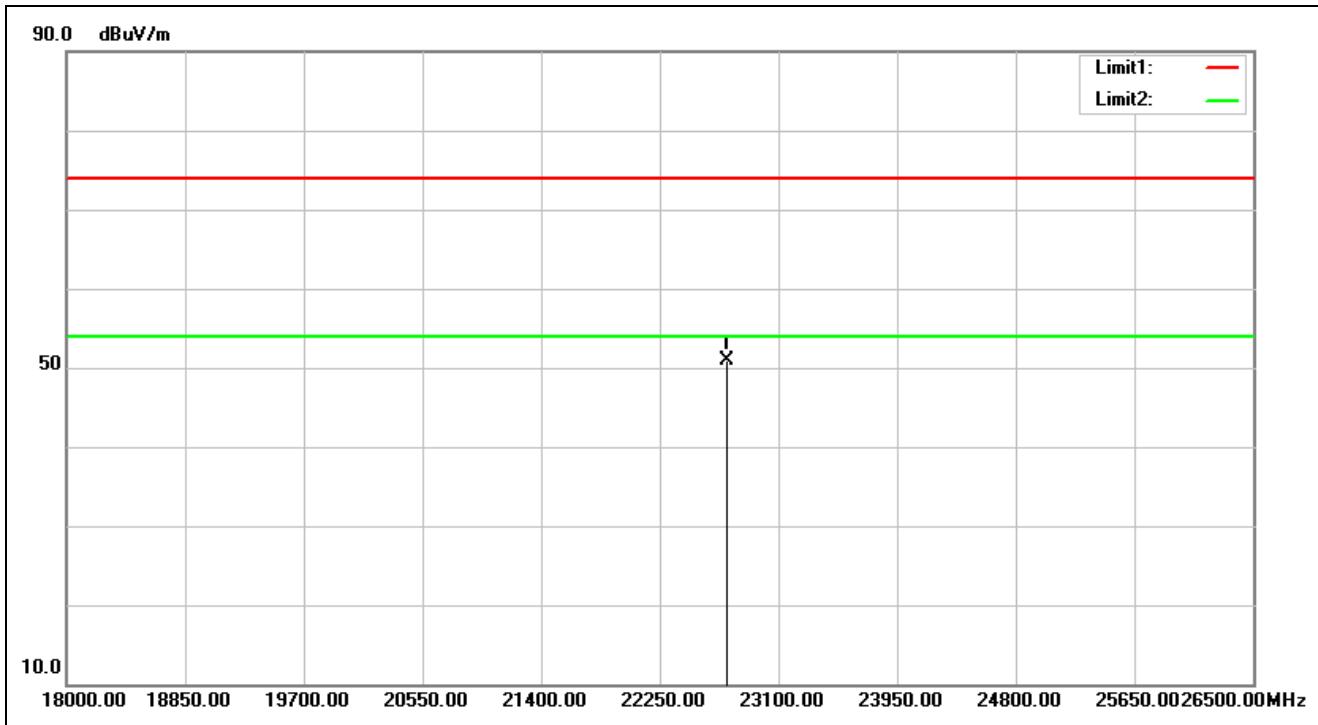


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:59:09
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22734.500	32.72	17.15	49.87	74.00	-24.13	peak			



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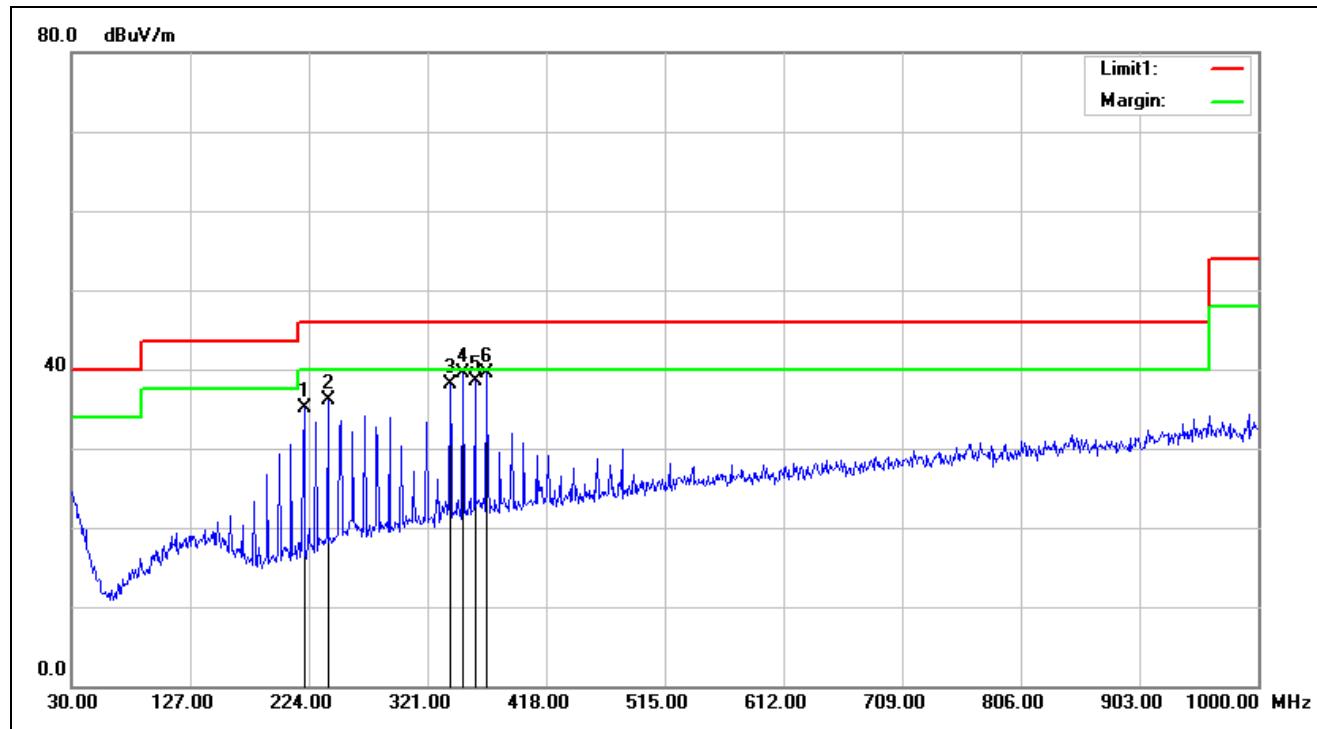
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:59:15
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22726.000	32.72	18.13	50.85	74.00	-23.15	peak			

Spurious Emissions, RX Mode, 30M-1G

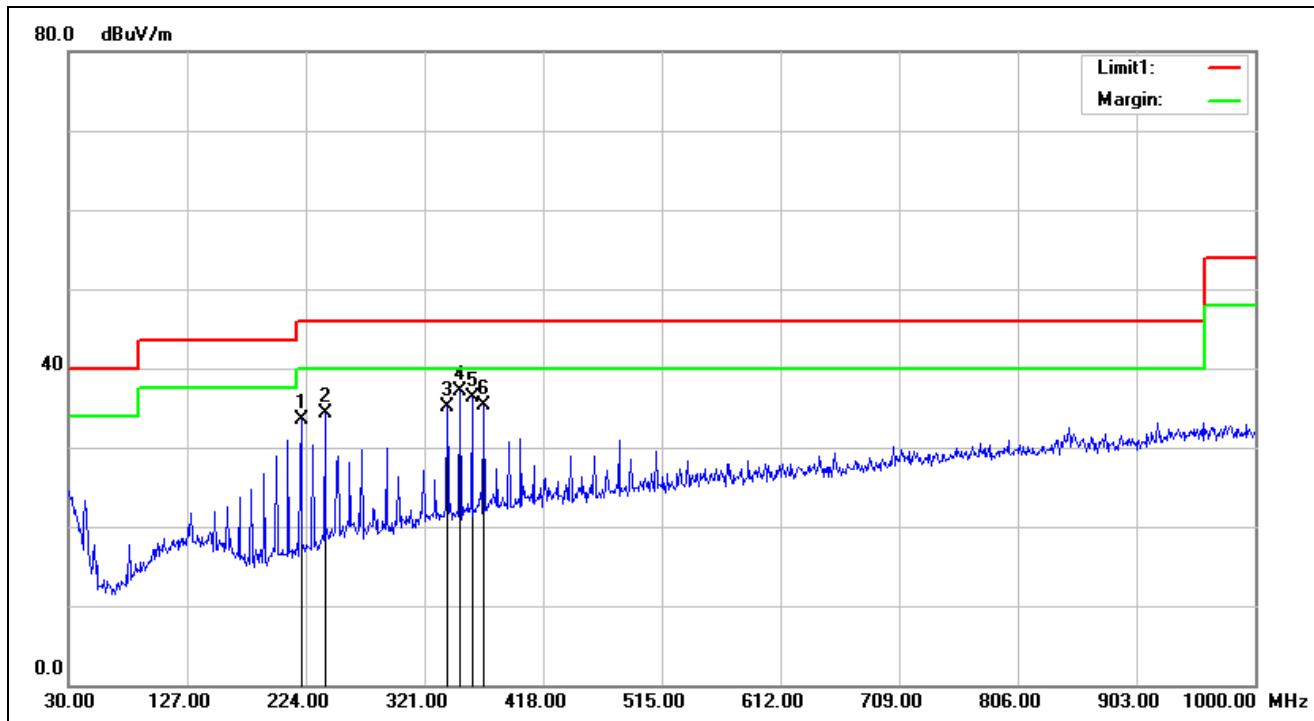


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 05:56:29
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	220.1200	-8.30	43.38	35.08	46.00	-10.92	QP	100	250	
2	239.5200	-6.85	42.99	36.14	46.00	-9.86	QP	100	281	
3	339.4300	-3.61	41.71	38.10	46.00	-7.90	QP	100	237	
4	350.1000	-3.34	42.75	39.41	46.00	-6.59	QP	100	246	
5	359.8000	-3.16	41.64	38.48	46.00	-7.52	QP	100	241	
6	369.5000	-2.98	42.54	39.56	46.00	-6.44	QP	100	234	



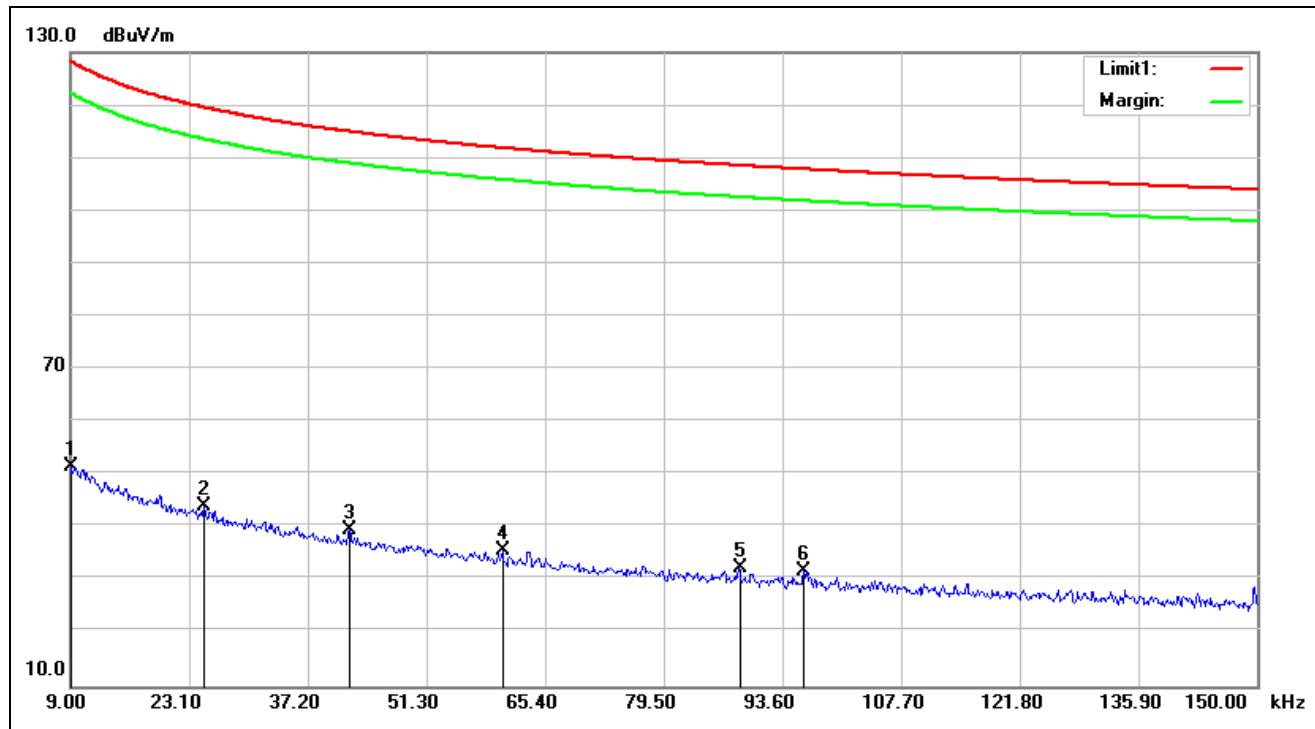
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Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 05:57:27
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	220.1200	-8.30	41.80	33.50	46.00	-12.50	QP	100	316	
2	239.5200	-6.85	41.17	34.32	46.00	-11.68	QP	100	269	
3	339.4300	-3.61	38.67	35.06	46.00	-10.94	QP	100	226	
4	350.1000	-3.34	40.48	37.14	46.00	-8.86	QP	100	207	
5	359.8000	-3.16	39.41	36.25	46.00	-9.75	QP	100	219	
6	369.5000	-2.98	38.35	35.37	46.00	-10.63	QP	100	194	

Spurious Emissions, RX Mode, 9K-30M

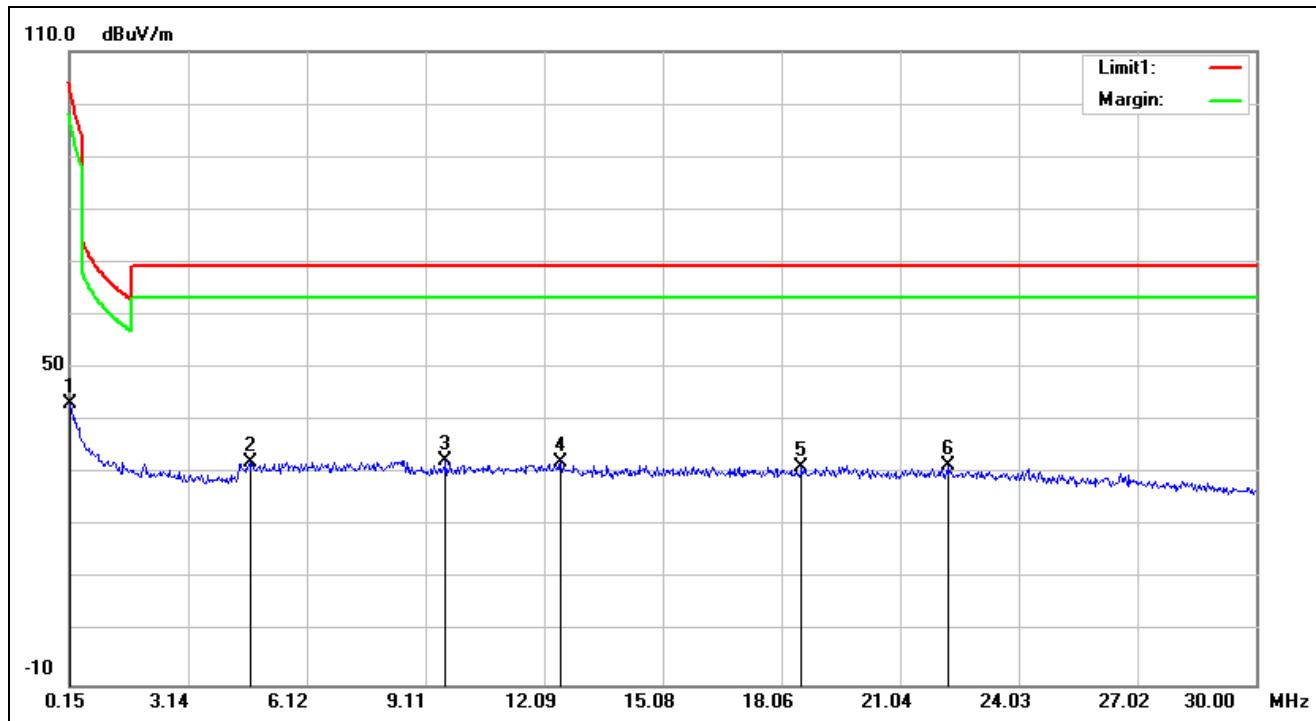


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:25:47
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFMTA331215IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0090	19.60	31.98	51.58	128.31	-76.73	QP	100	182	
2	0.0247	20.08	24.09	44.17	119.59	-75.42	QP	100	197	
3	0.0421	19.70	19.84	39.54	114.99	-75.45	QP	100	92	
4	0.0603	19.37	16.35	35.72	111.88	-76.16	QP	100	51	
5	0.0884	19.20	13.25	32.45	108.58	-76.13	QP	100	330	
6	0.0961	19.15	12.58	31.73	107.86	-76.13	QP	100	173	



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:28:36
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFMTA331215IMAB701-ANT		

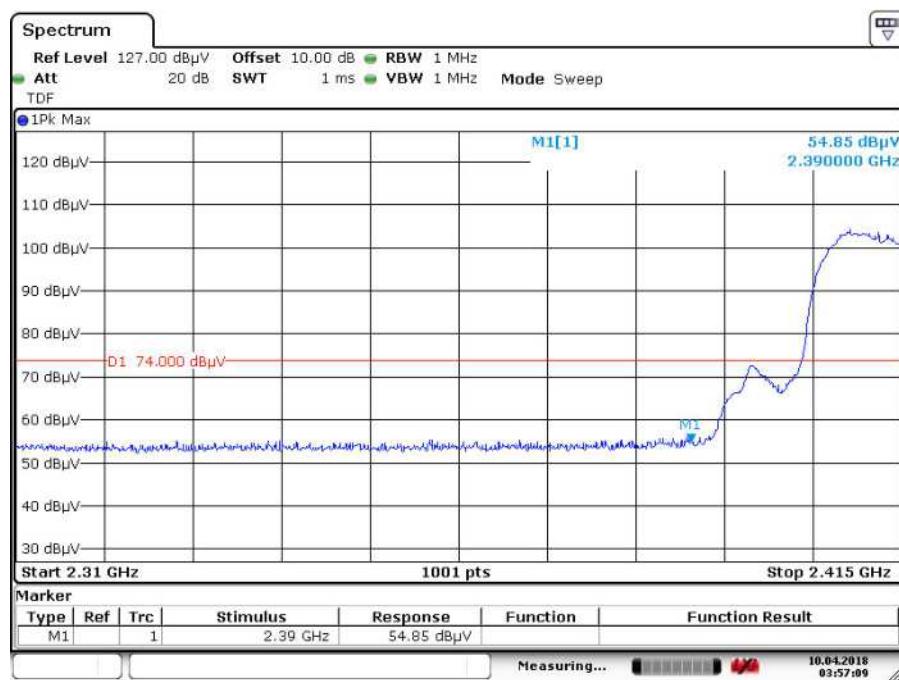
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1	0.1500	19.08	24.29	43.37	104.02	-60.65	QP	100	213	
2	4.6872	19.56	12.62	32.18	69.50	-37.32	QP	100	163	
3	9.6125	20.19	12.32	32.51	69.50	-36.99	QP	100	132	
4	12.5079	20.67	11.63	32.30	69.50	-37.20	QP	100	189	
5	18.5674	21.74	9.64	31.38	69.50	-38.12	QP	100	126	
6	22.2689	22.14	9.31	31.45	69.50	-38.05	QP	100	73	

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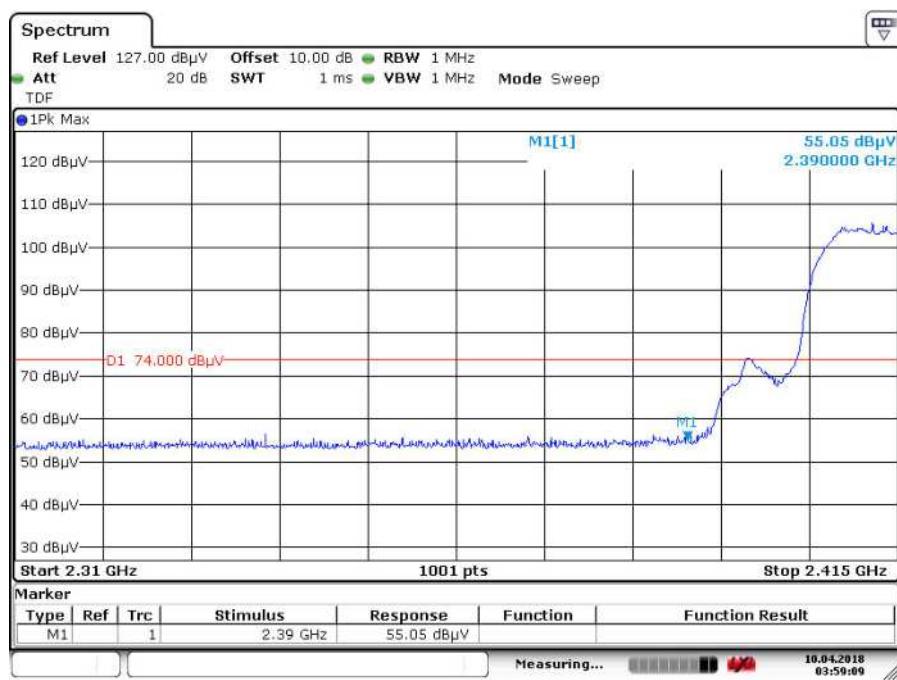
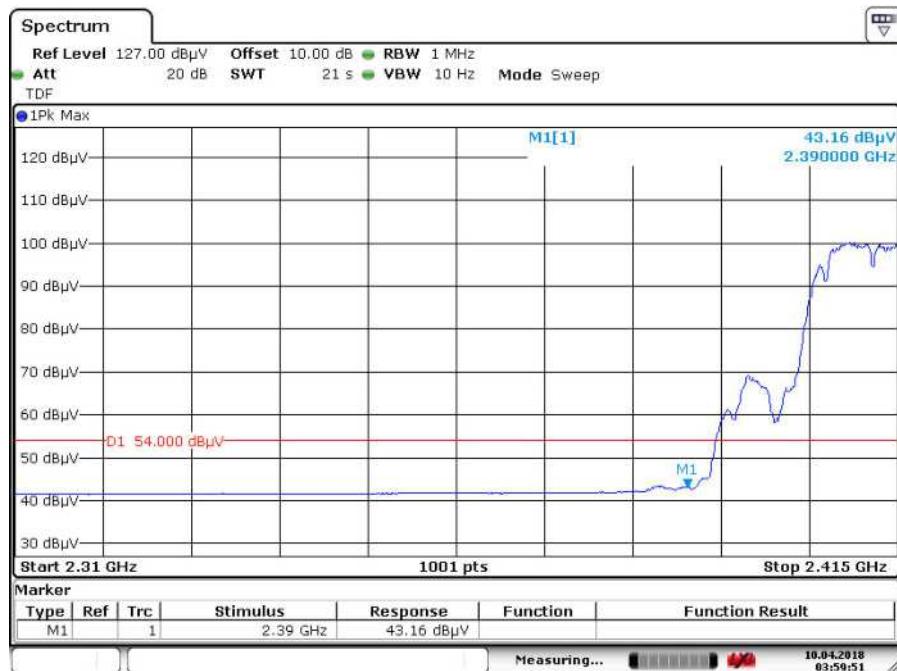
Spurious Emissions, Band Edges, 2.35-2.5G

Radiated Bandedge 11b

Low Channel (Hor)

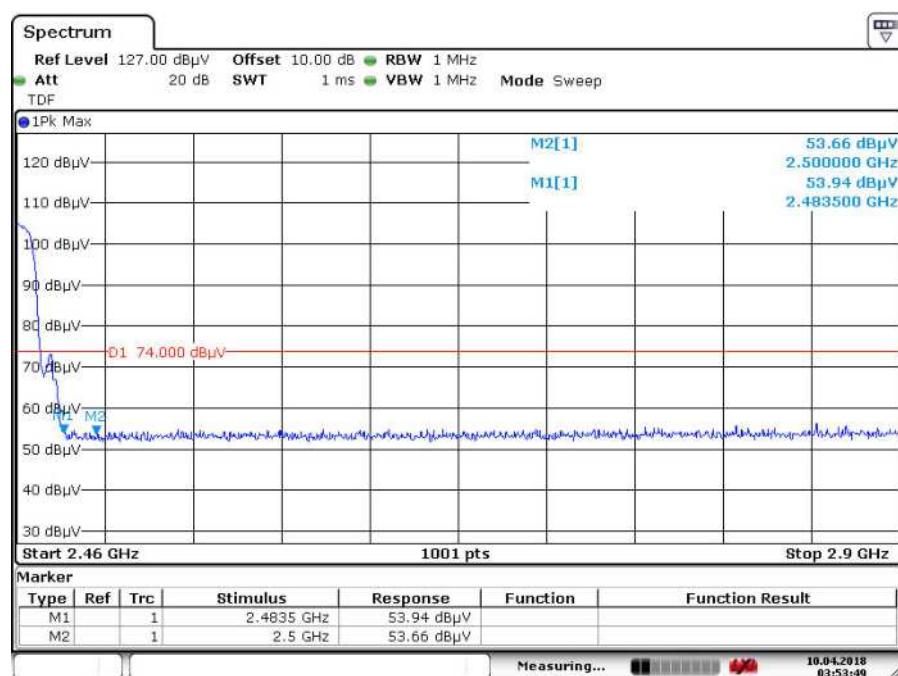
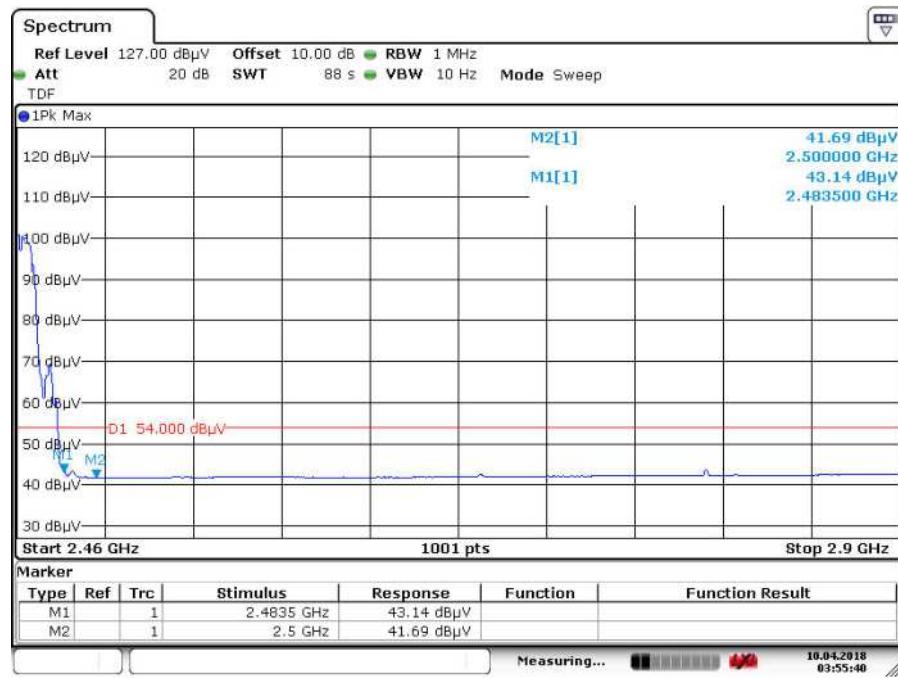


Low Channel (Ver)

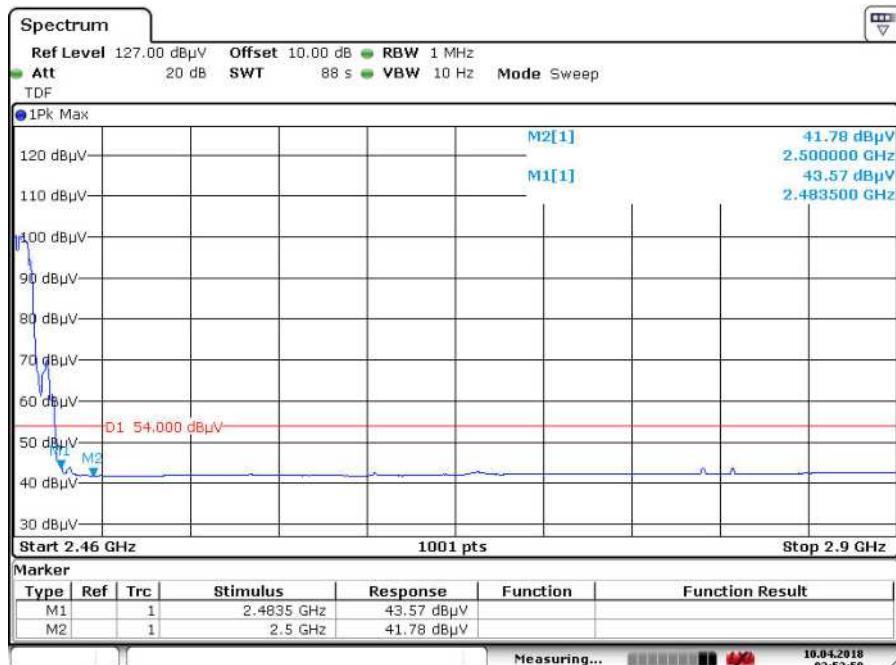


Radiated Bandedge 11b

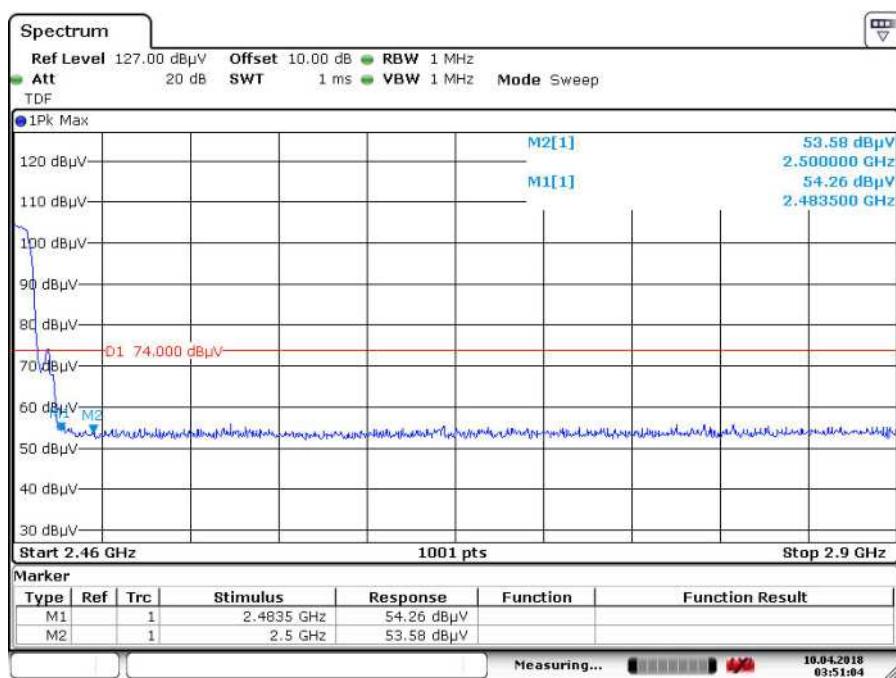
High Channel (Hor)



High Channel (Ver)



Date: 10.APR.2018 03:52:58



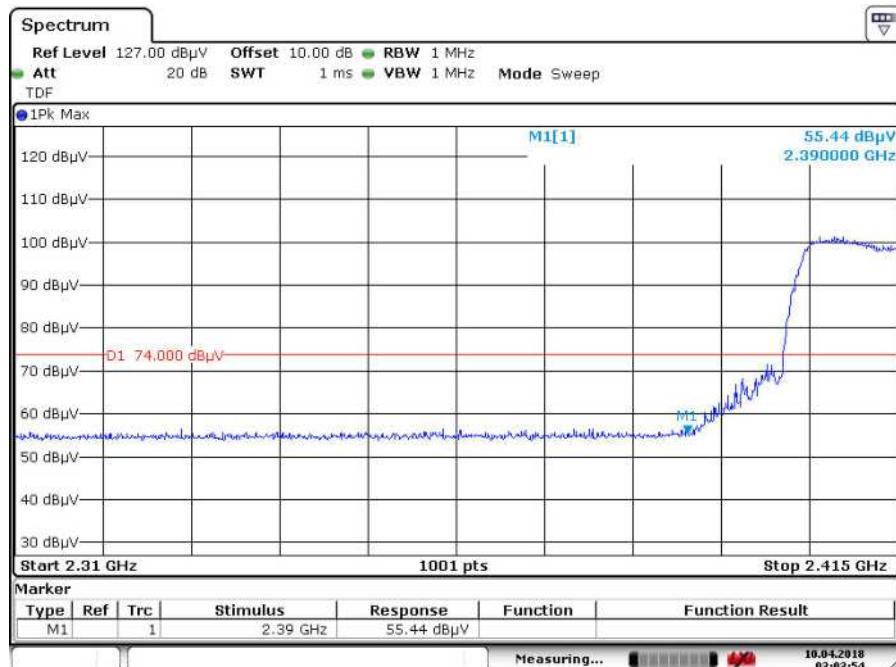
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Radiated Bandedge 11g

Low Channel (Hor)



Date: 10.APR.2018 03:04:47

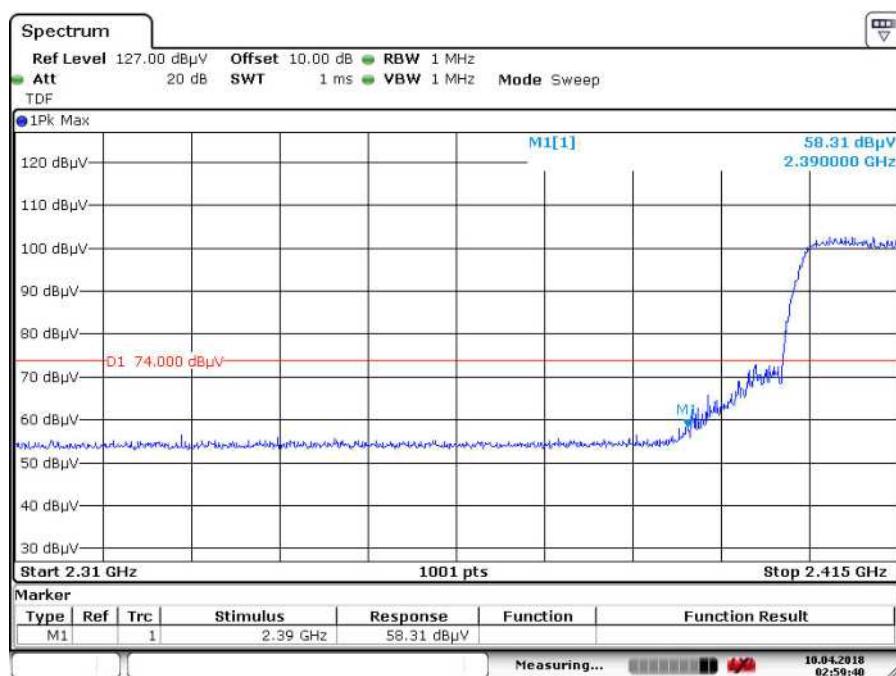


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Low Channel (Ver)



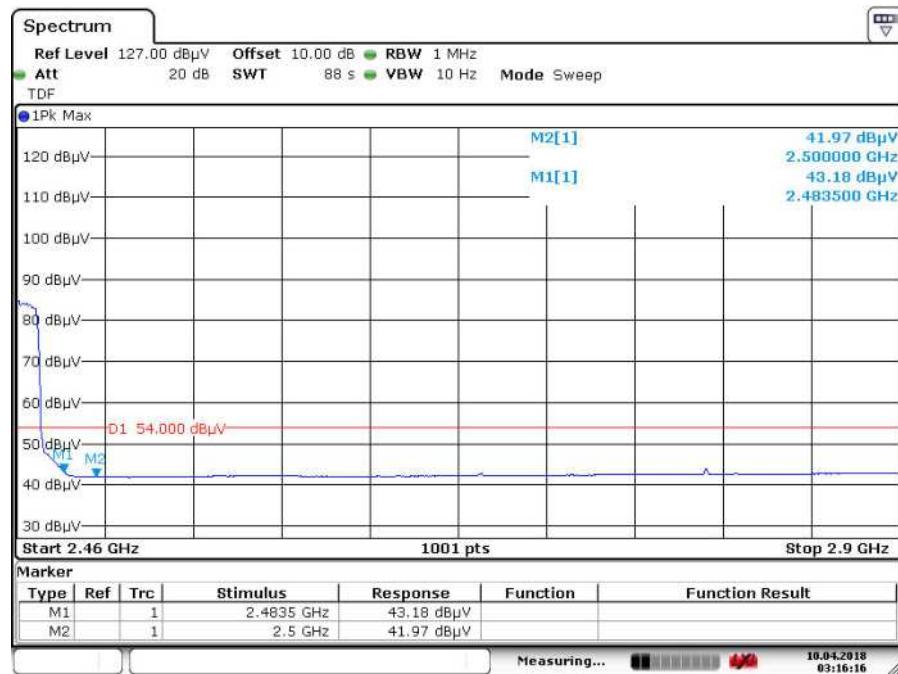
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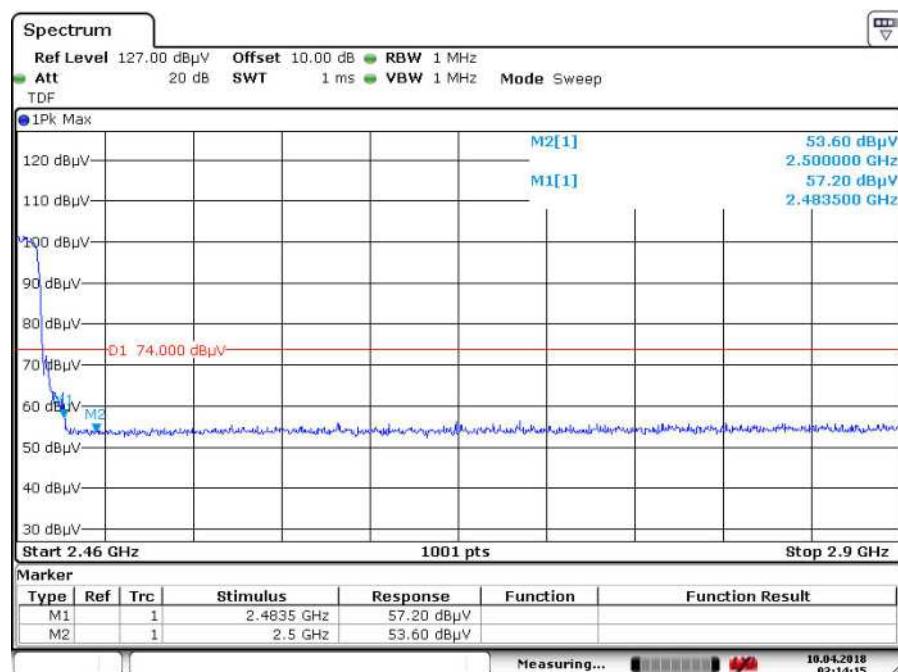
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Radiated Bandedge 11g

High Channel (Hor)

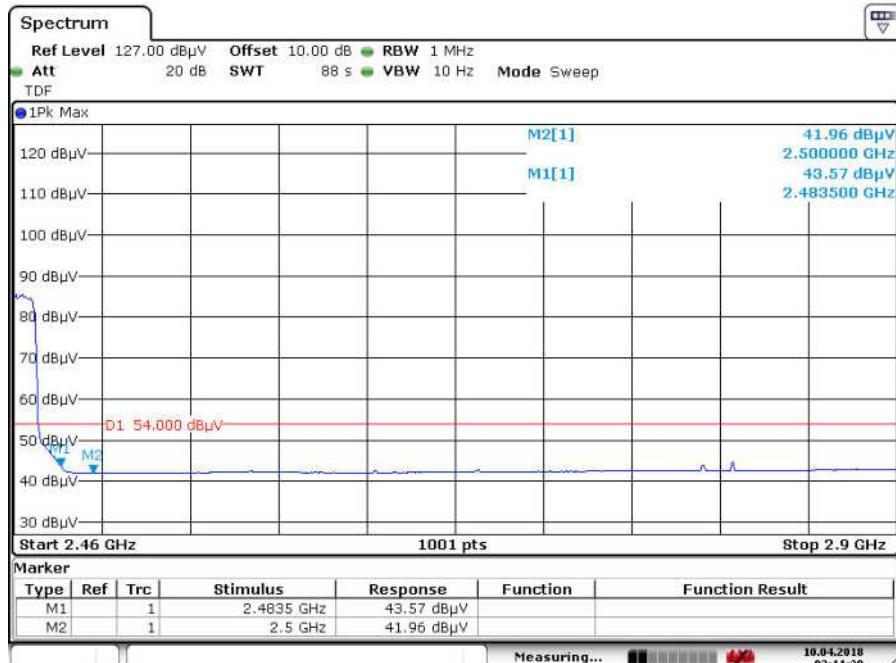


Date: 10.APR.2018 03:16:16

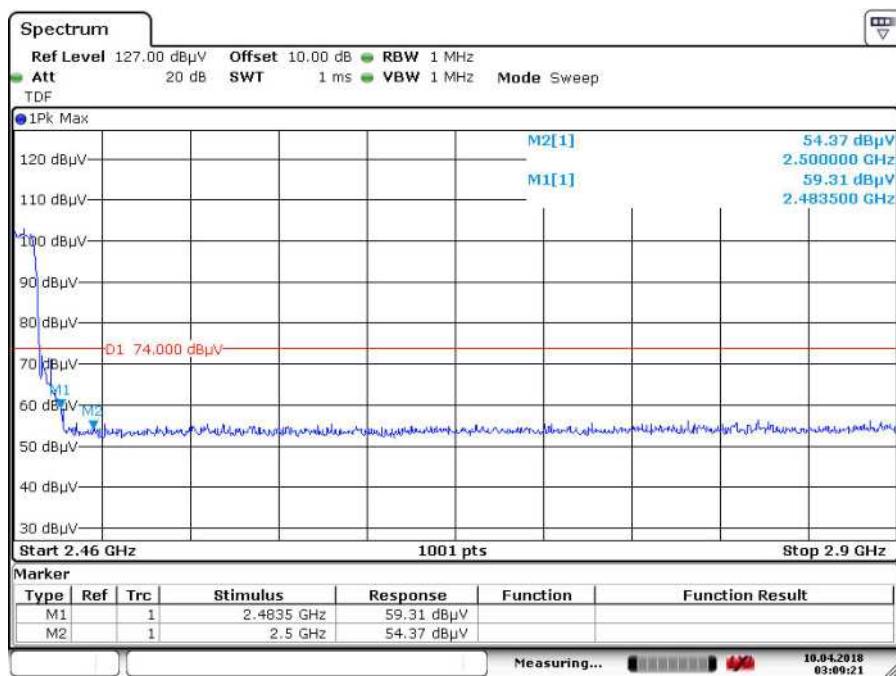


Date: 10.APR.2018 03:14:15

High Channel (Ver)



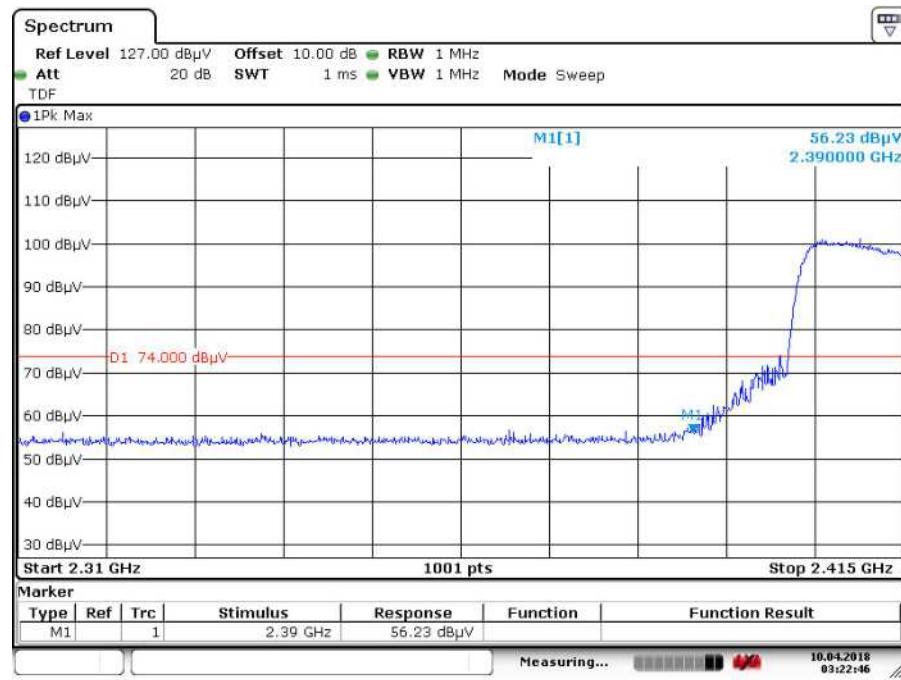
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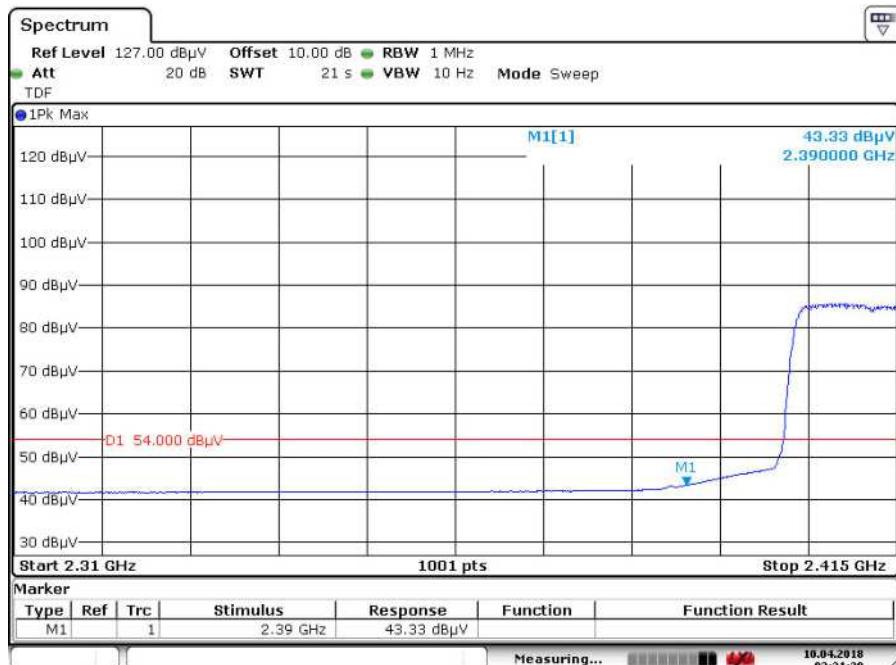
Date: 10.APR.2018 03:09:21

Radiated Bandedge 11n

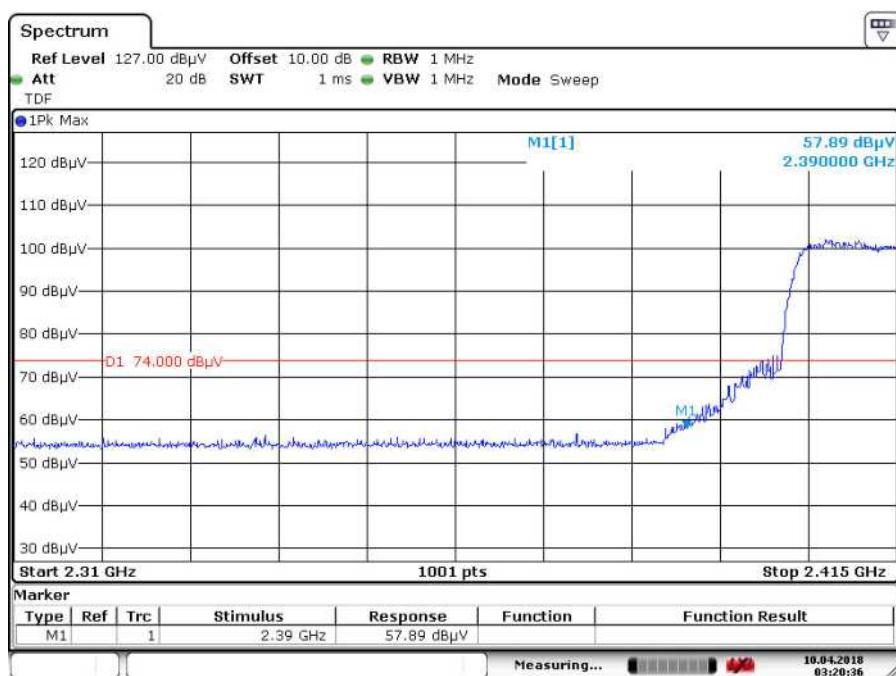
Low Channel (Hor)



Low Channel (Ver)



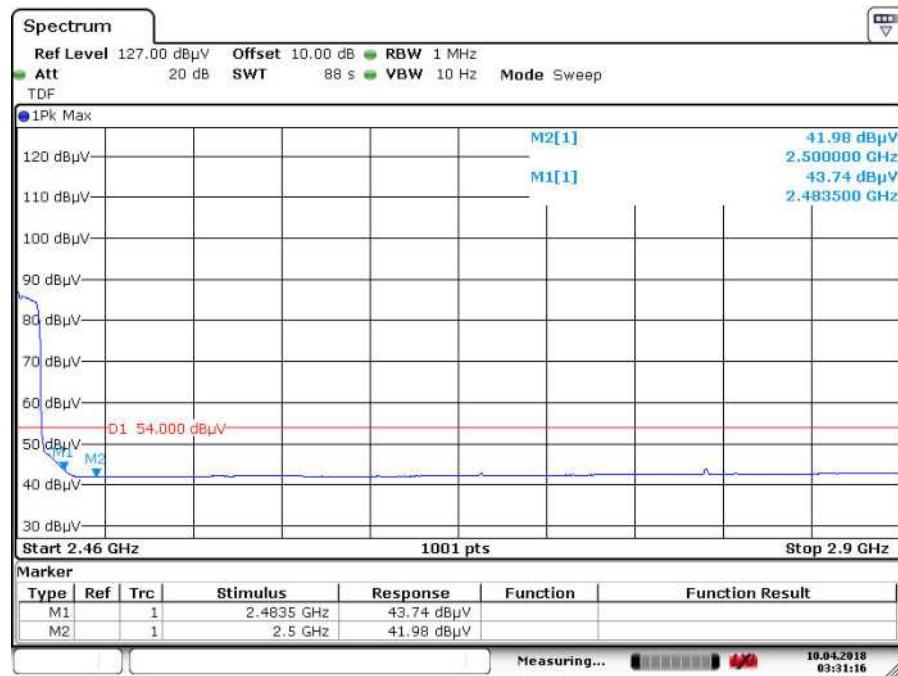
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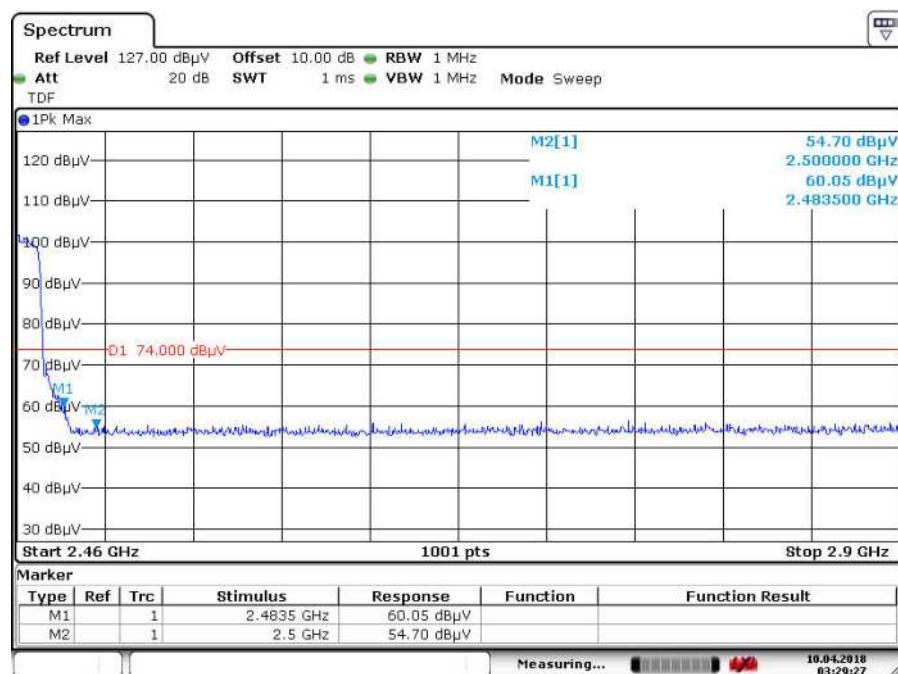
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Radiated Bandedge 11n

High Channel (Hor)

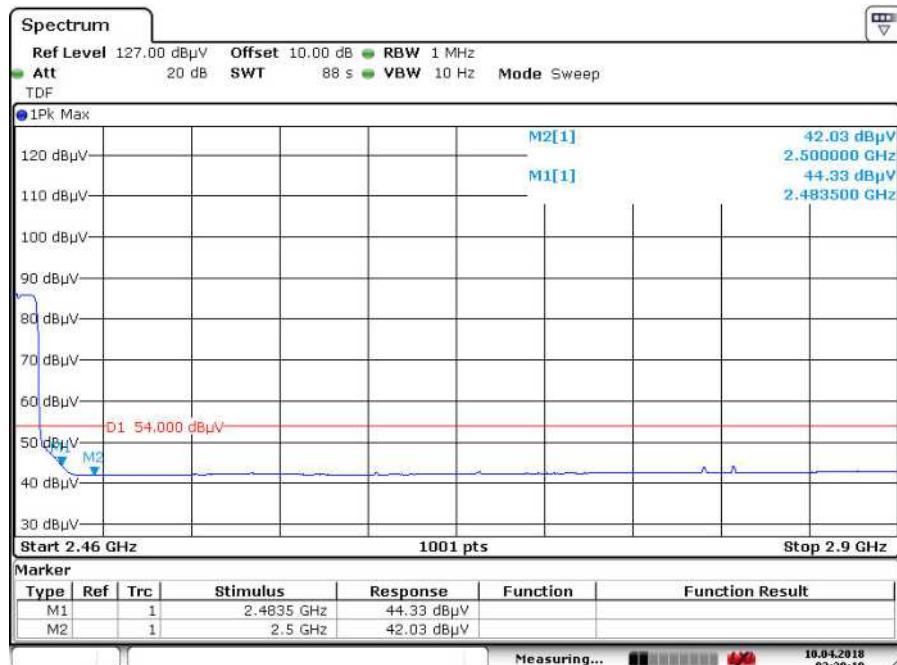


Date: 10.APR.2018 03:31:16

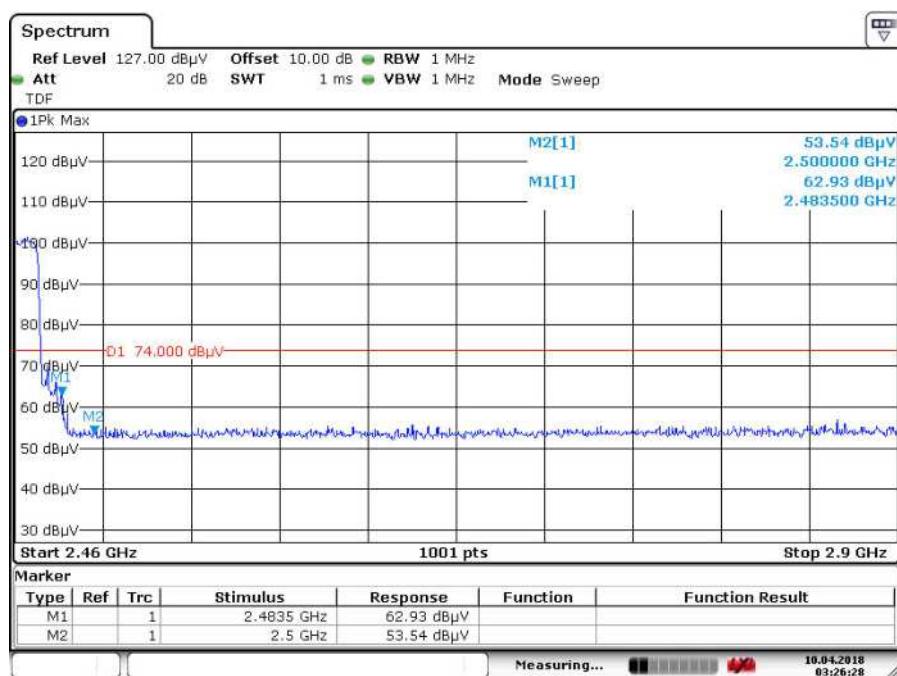


Date: 10.APR.2018 03:29:27

High Channel (Ver)



Date: 10.APR.2018 03:28:19

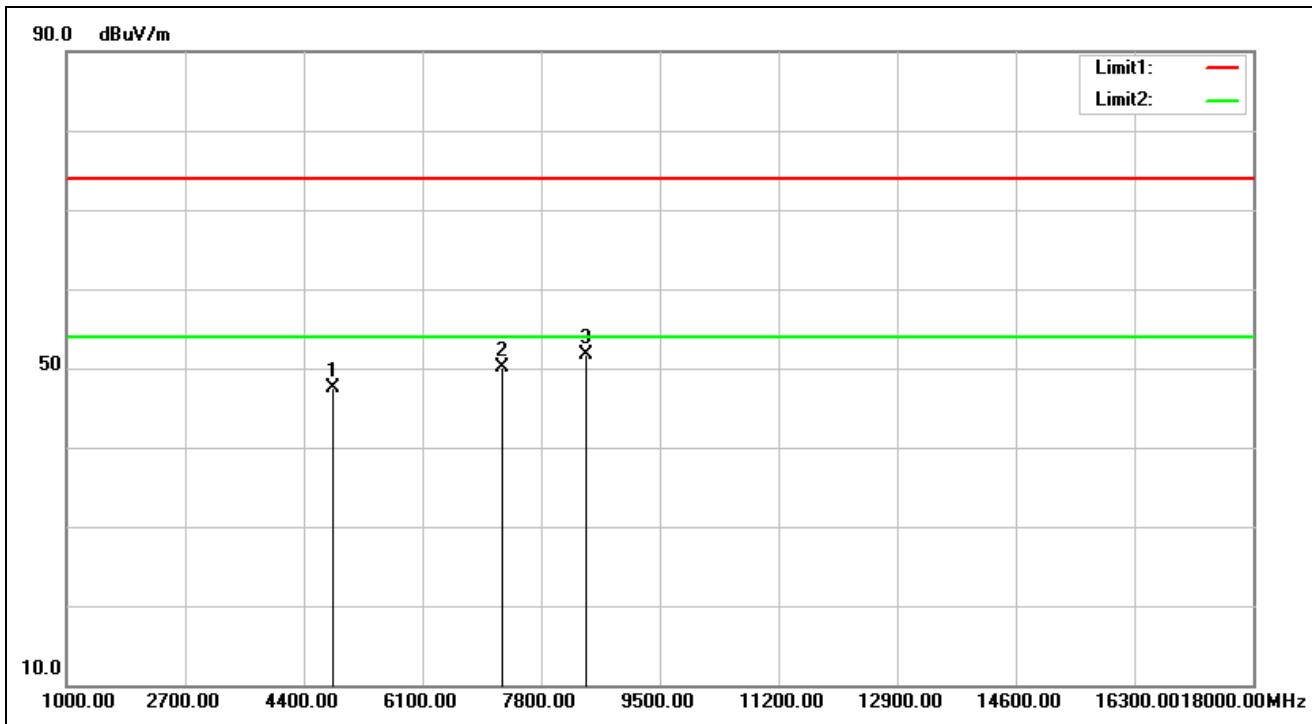


Date: 10.APR.2018 03:26:28

Spurious Emissions, TX Mode, 1-18G

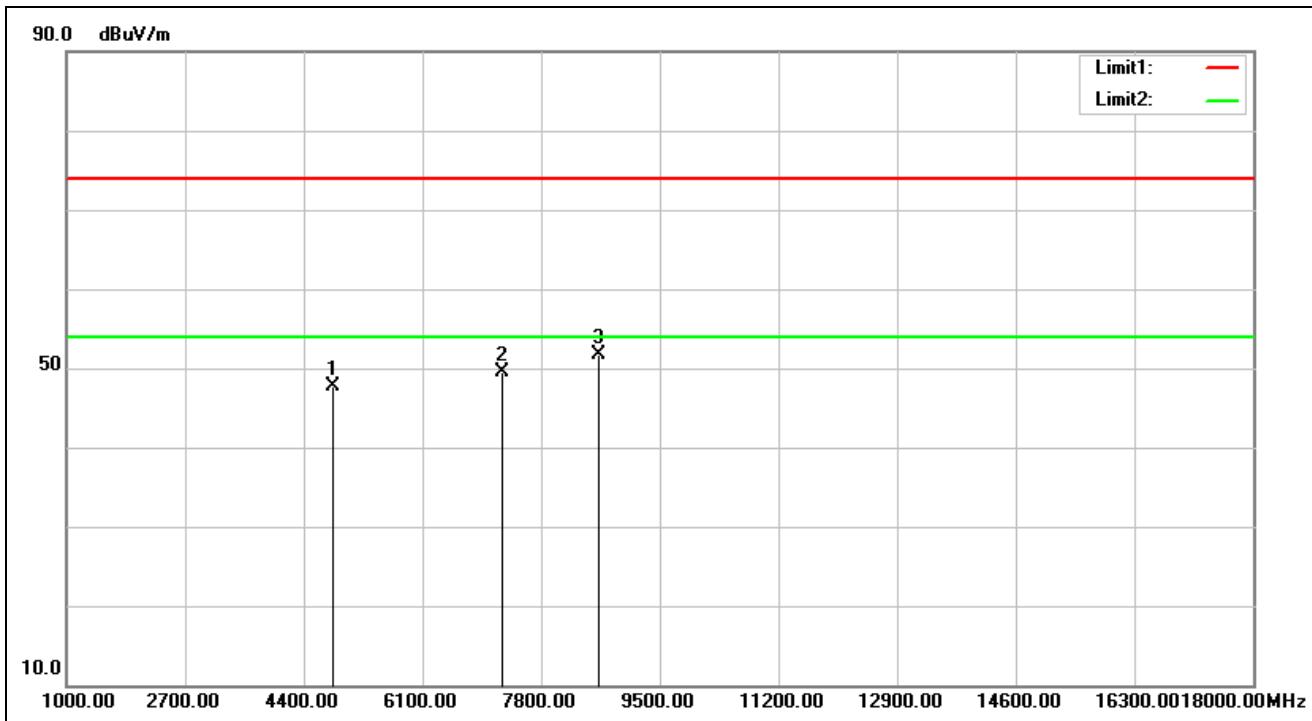


TUV Rheinland Taiwan Ltd.
11F., No.758, Sec.4 Bade Road. Songshan Dist, Taipei City 105
 Tel:+886-2172-7000 fax:+886-2528-0018



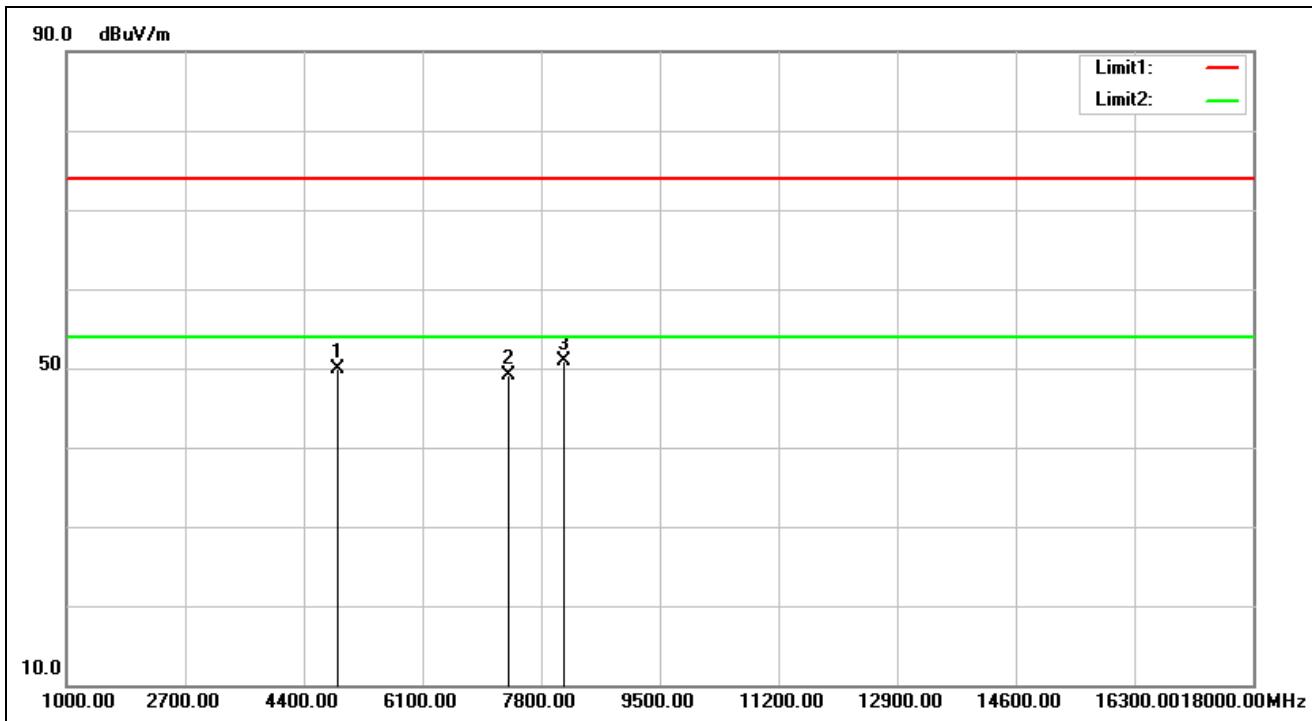
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 03:26:53
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	50.23	47.57	74.00	-26.43	peak		0	
2	7236.000	5.32	44.85	50.17	74.00	-23.83	peak		0	
3	8446.000	6.31	45.31	51.62	74.00	-22.38	peak	100	226	



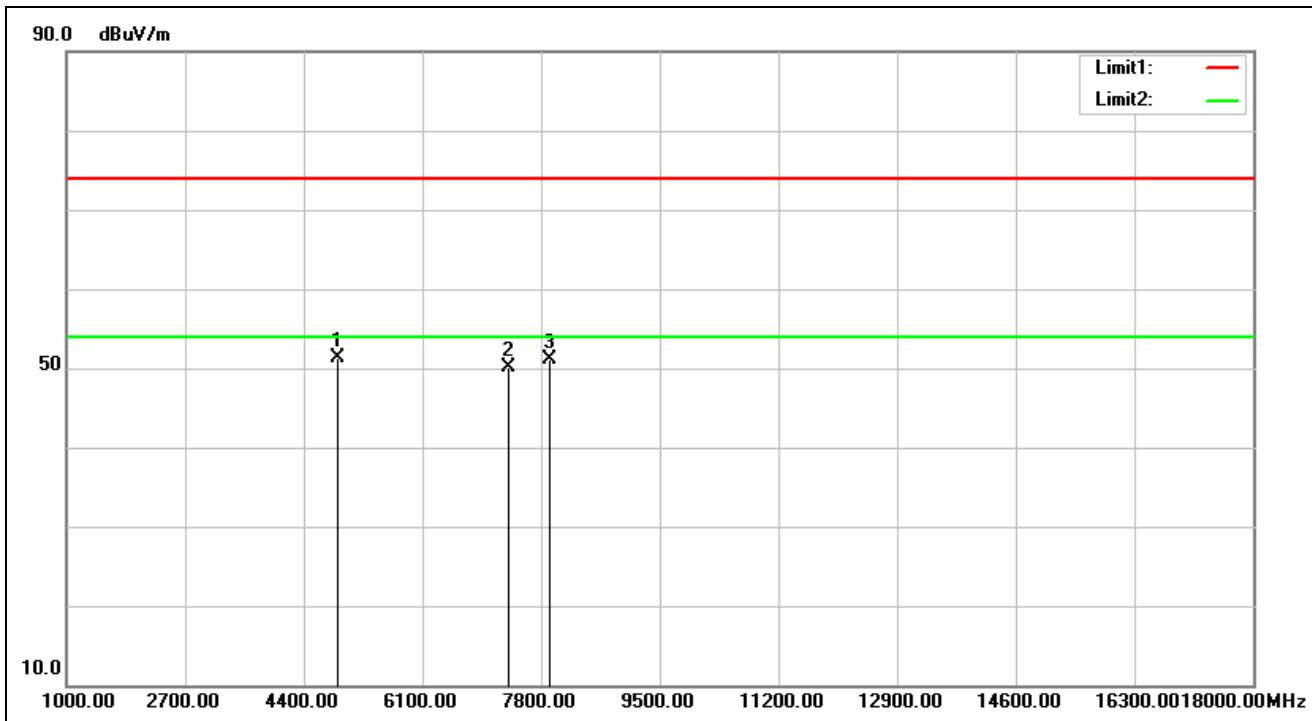
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 03:27:50
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	50.31	47.65	74.00	-26.35	peak			
2	7236.000	5.32	44.25	49.57	74.00	-24.43	peak			
3	8633.000	6.39	45.27	51.66	74.00	-22.34	peak	100	147	



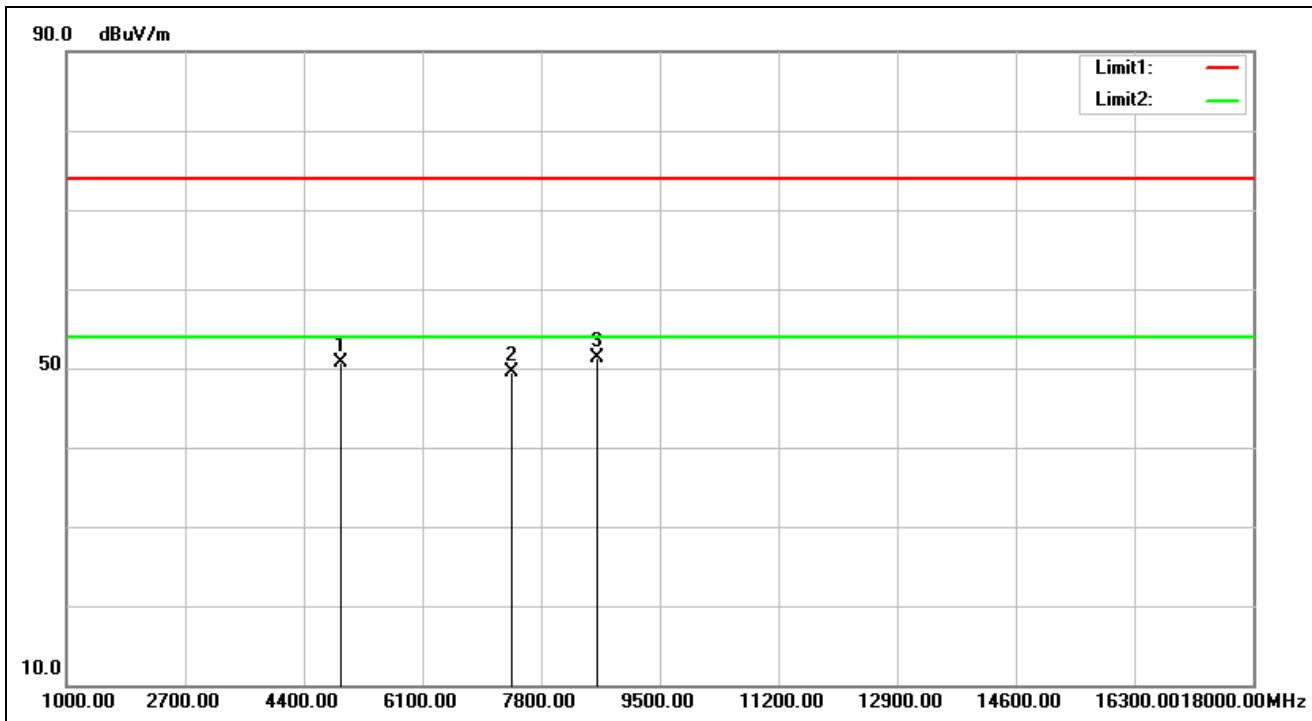
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 03:30:02
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	52.53	50.00	74.00	-24.00	peak	100	307	
2	7311.000	5.52	43.66	49.18	74.00	-24.82	peak			
3	8123.000	5.96	44.95	50.91	74.00	-23.09	peak	100	295	



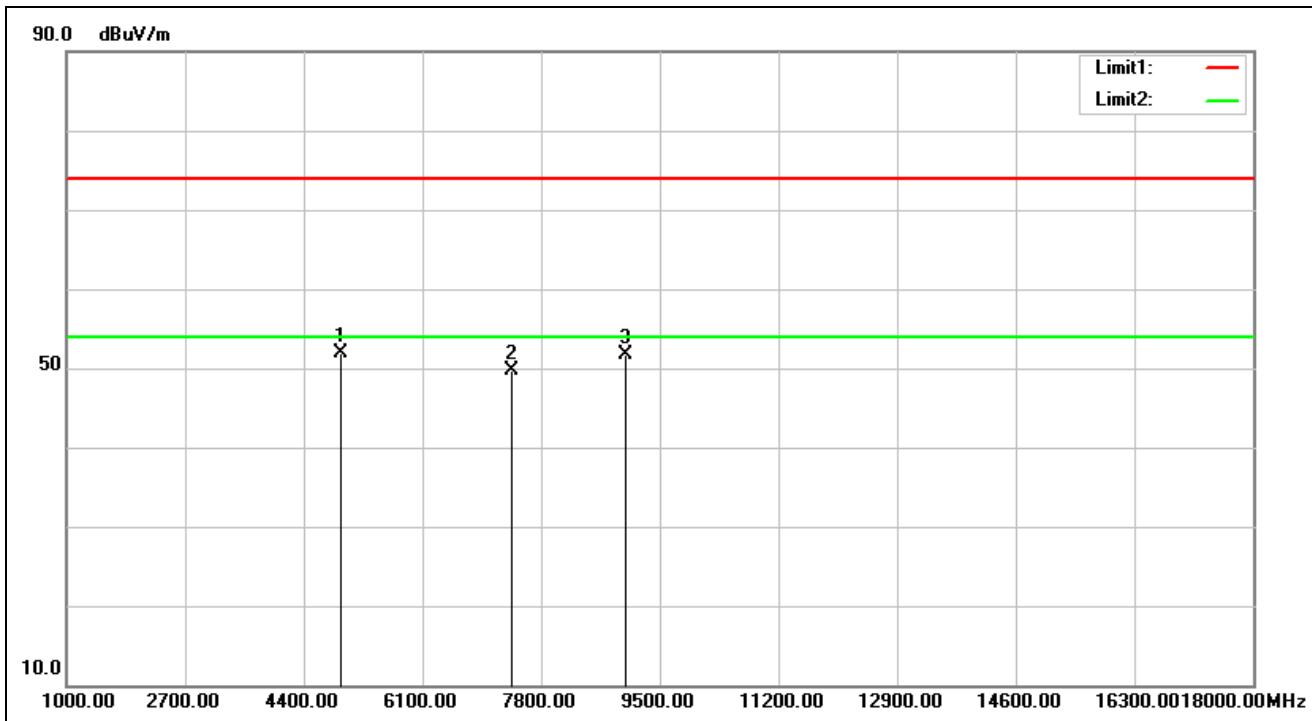
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 03:30:58
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	53.75	51.22	74.00	-22.78	peak	100	275	
2	7311.000	5.52	44.63	50.15	74.00	-23.85	peak			
3	7919.000	5.84	45.33	51.17	74.00	-22.83	peak	100	57	



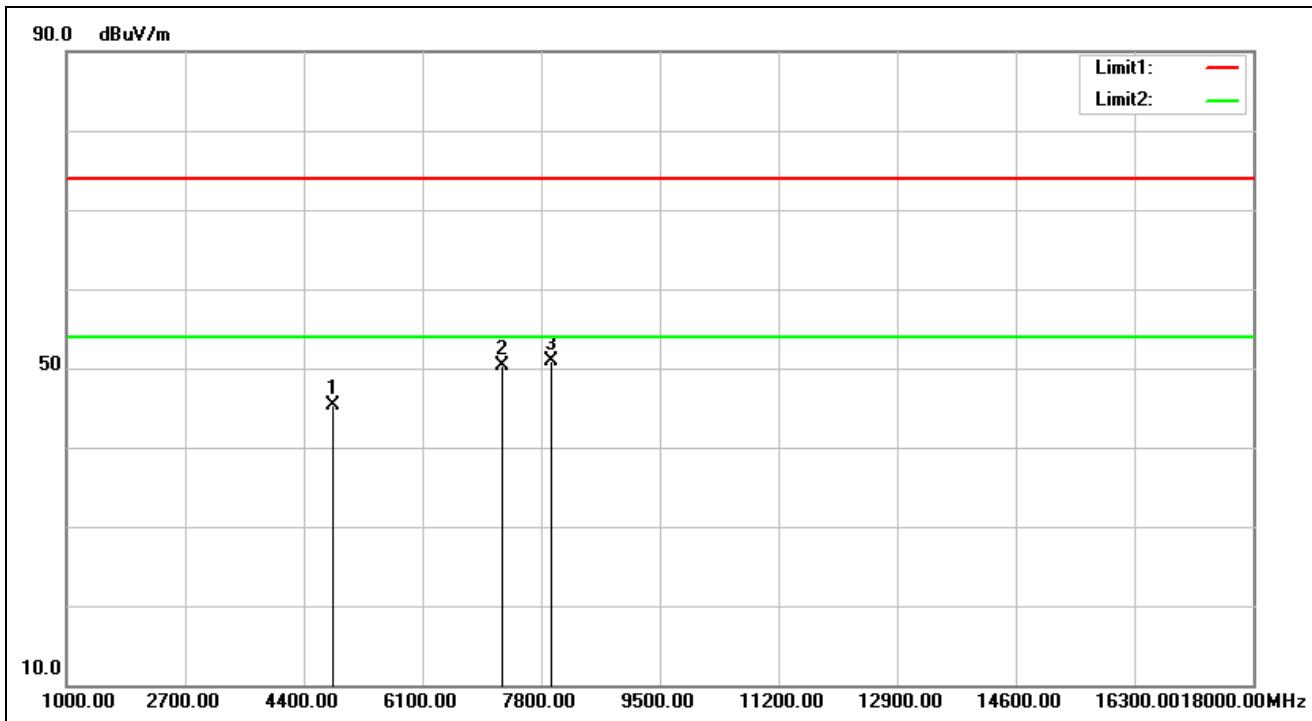
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 03:33:23
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	53.12	50.73	74.00	-23.27	peak	100	291	
2	7386.000	5.70	43.72	49.42	74.00	-24.58	peak			
3	8599.000	6.40	44.87	51.27	74.00	-22.73	peak	100	307	



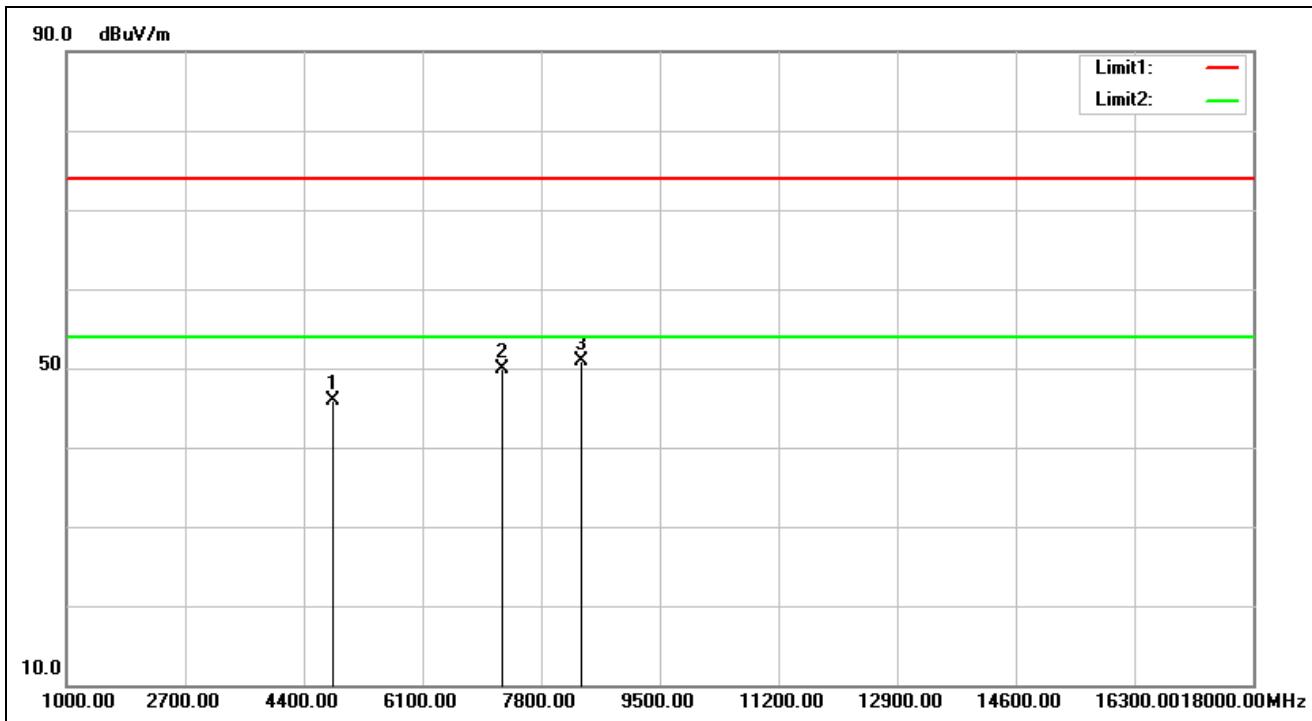
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 03:34:20
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	54.33	51.94	74.00	-22.06	peak	100	266	
2	7386.000	5.70	44.02	49.72	74.00	-24.28	peak			
3	9007.000	6.44	45.25	51.69	74.00	-22.31	peak	100	140	



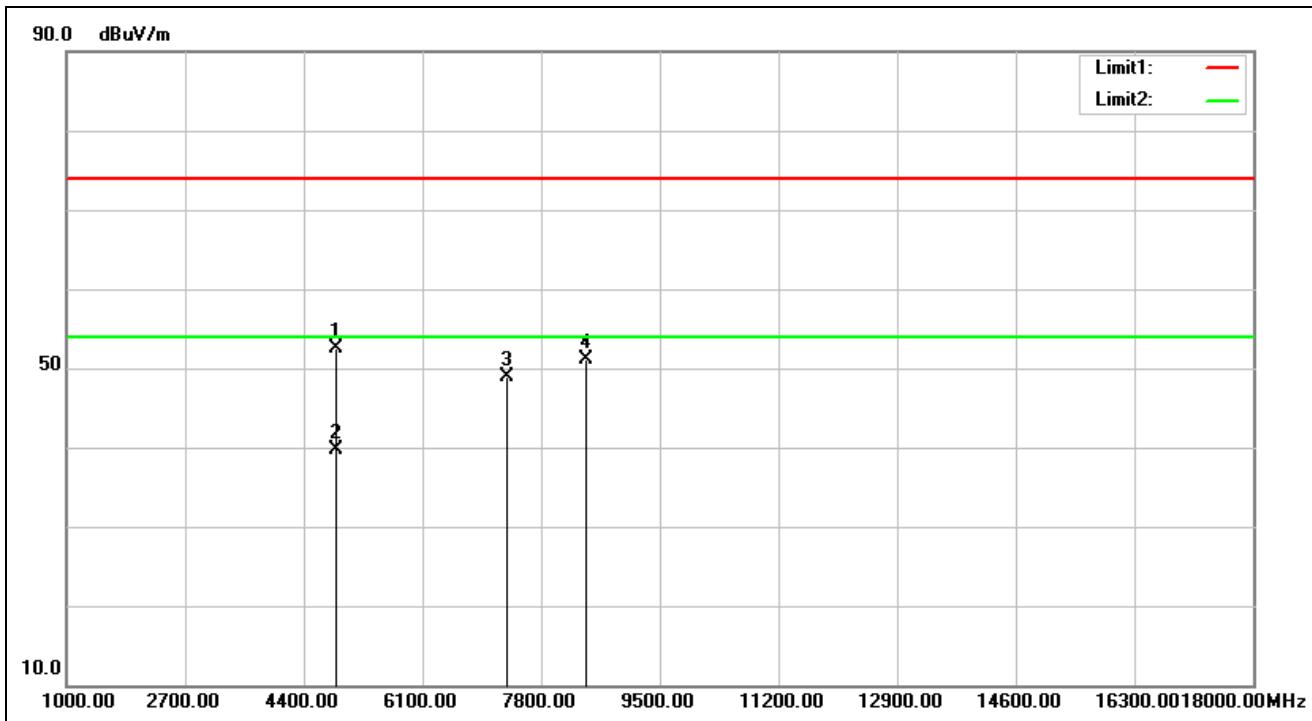
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:03:01
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	47.87	45.21	74.00	-28.79	peak			
2	7236.000	5.32	44.96	50.28	74.00	-23.72	peak			
3	7936.000	5.84	45.10	50.94	74.00	-23.06	peak	100	303	



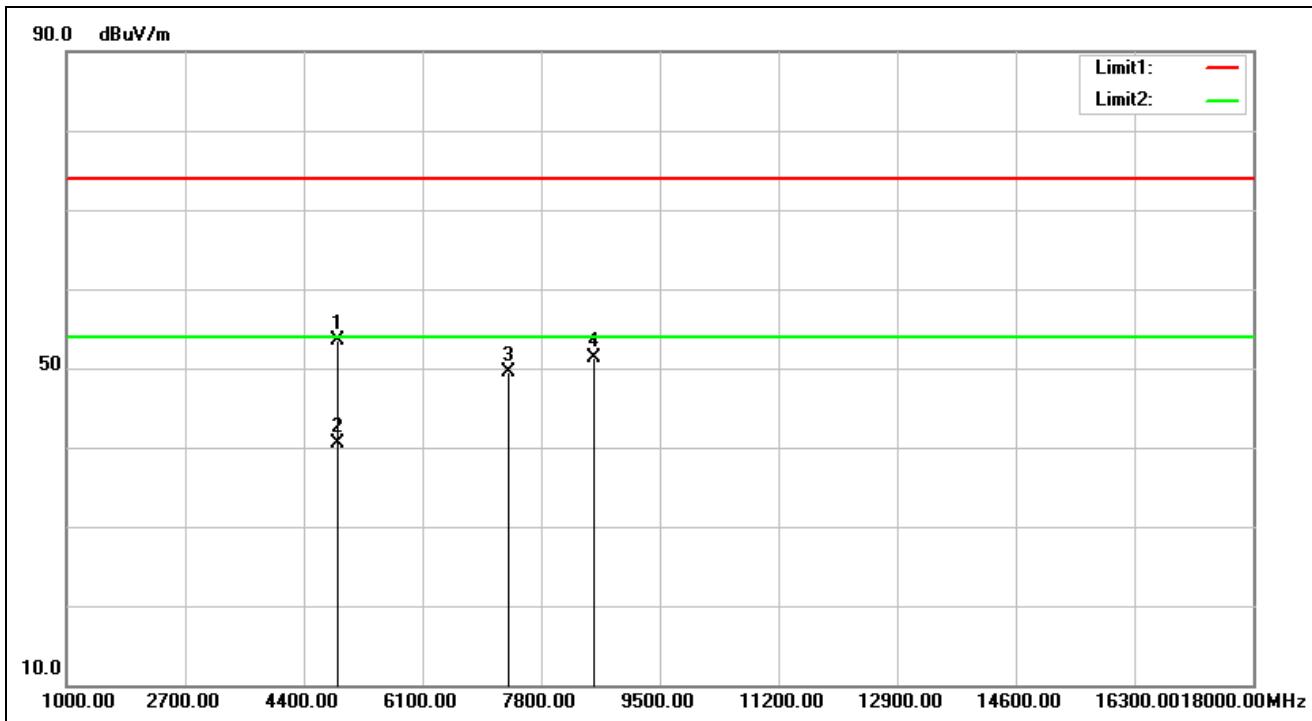
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:03:58
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	48.66	46.00	74.00	-28.00	peak			
2	7236.000	5.32	44.50	49.82	74.00	-24.18	peak			
3	8378.000	6.24	44.57	50.81	74.00	-23.19	peak	100	320	



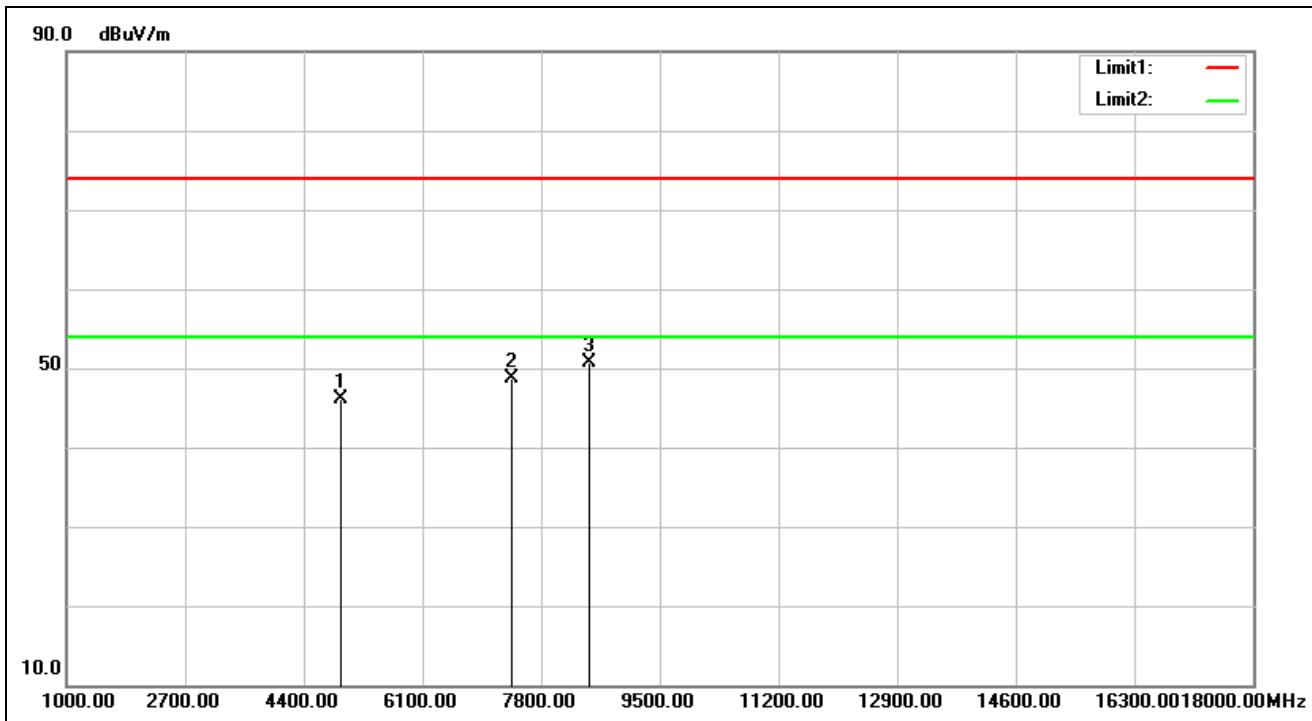
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:06:21
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	55.09	52.56	74.00	-21.44	peak	100	303	
2	4874.000	-2.53	42.31	39.78	54.00	-14.22	AVG	100	303	
3	7311.000	5.52	43.37	48.89	74.00	-25.11	peak			
4	8446.000	6.31	44.89	51.20	74.00	-22.80	peak	100	353	



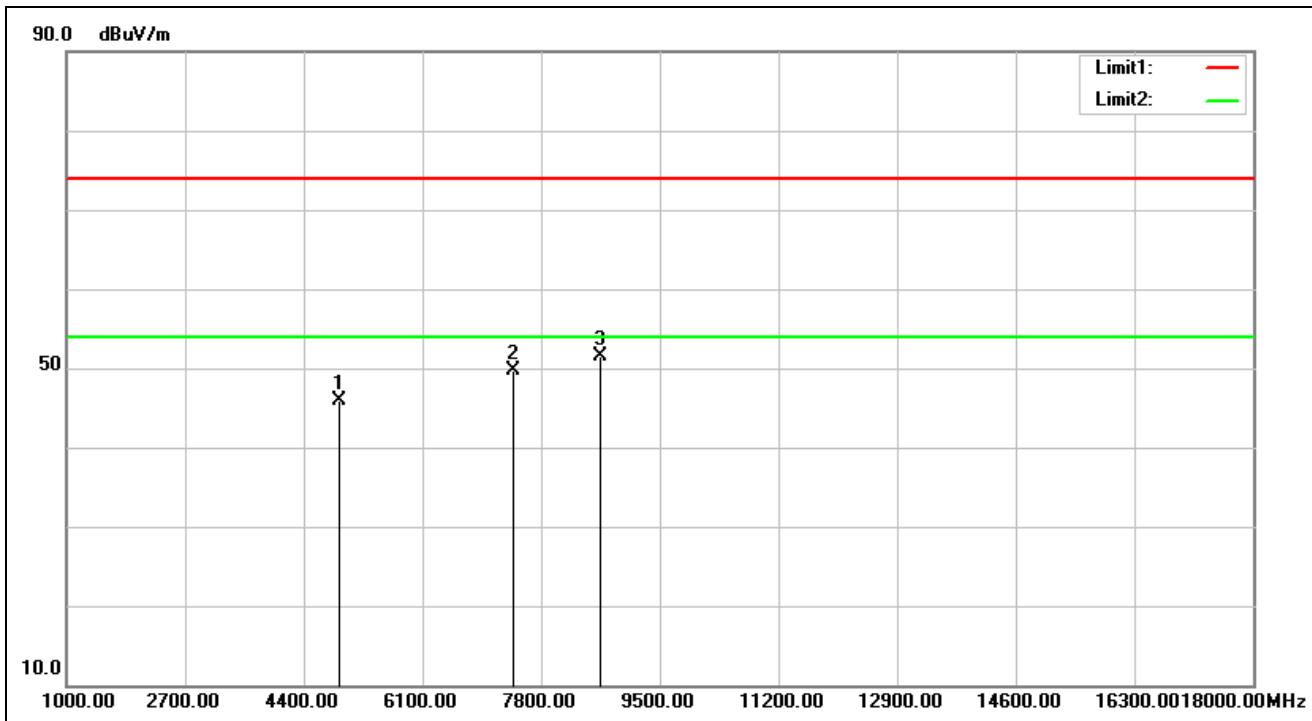
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Test item:	Radiation Emission	Test Time:	2018/4/10 04:07:17
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	56.12	53.59	74.00	-20.41	peak	100	360	
2	4874.000	-2.53	42.95	40.42	54.00	-13.58	AVG	100	360	
3	7311.000	5.52	43.89	49.41	74.00	-24.59	peak			
4	8548.000	6.38	45.02	51.40	74.00	-22.60	peak	100	266	



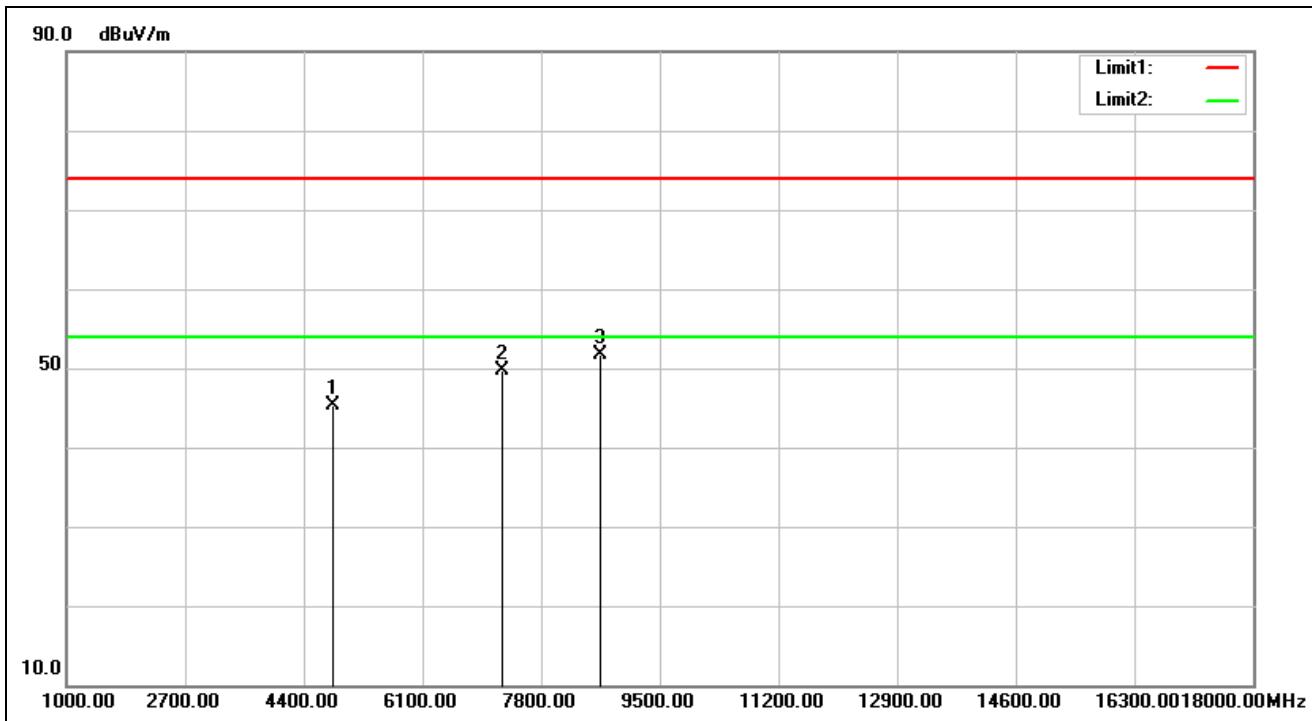
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Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:11:49
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	48.56	46.17	74.00	-27.83	peak			
2	7386.000	5.70	43.08	48.78	74.00	-25.22	peak			
3	8497.000	6.38	44.42	50.80	74.00	-23.20	peak	100	263	



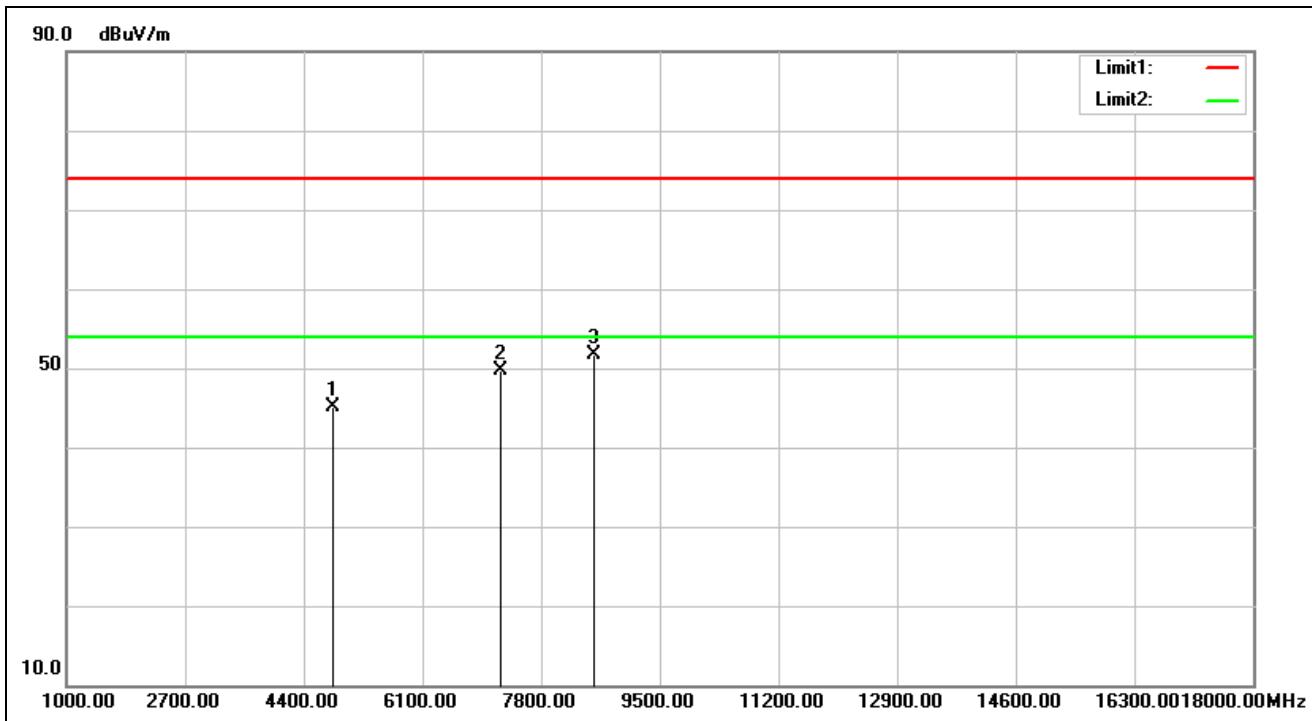
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:12:46
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	48.34	45.95	74.00	-28.05	peak			
2	7386.000	5.70	44.03	49.73	74.00	-24.27	peak			
3	8650.000	6.40	45.02	51.42	74.00	-22.58	peak	100	168	



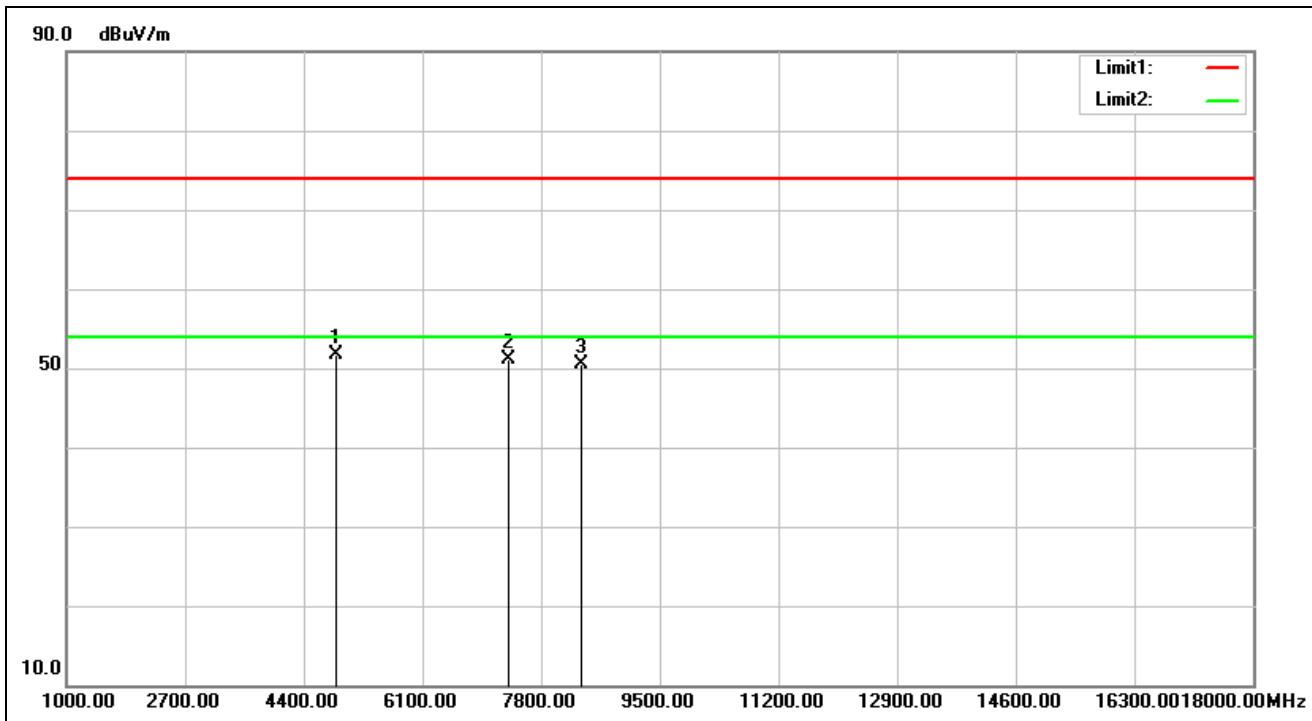
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:15:15
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	47.87	45.21	74.00	-28.79	peak			
2	7236.000	5.32	44.41	49.73	74.00	-24.27	peak			
3	8650.000	6.40	45.30	51.70	74.00	-22.30	peak	100	244	



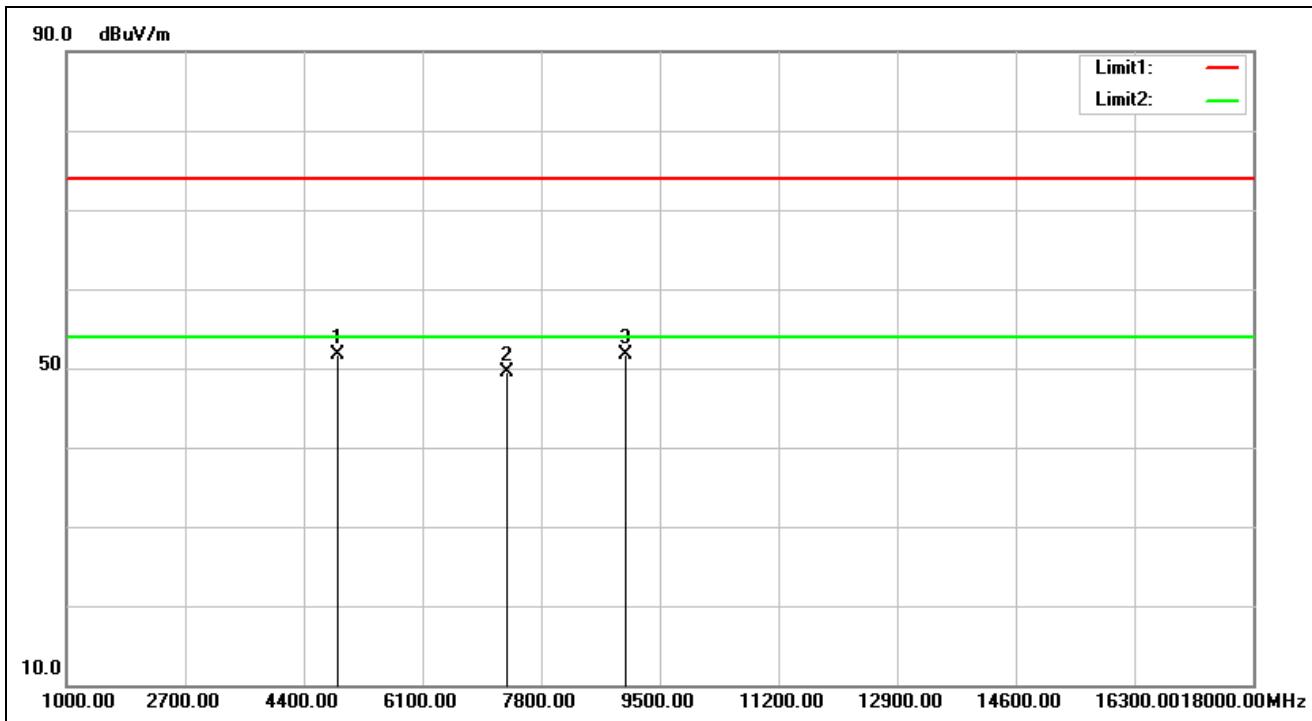
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:16:12
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4824.000	-2.66	47.67	45.01	74.00	-28.99	peak			
2	7236.000	5.32	44.37	49.69	74.00	-24.31	peak			
3	8548.000	6.38	45.30	51.68	74.00	-22.32	peak	100	200	



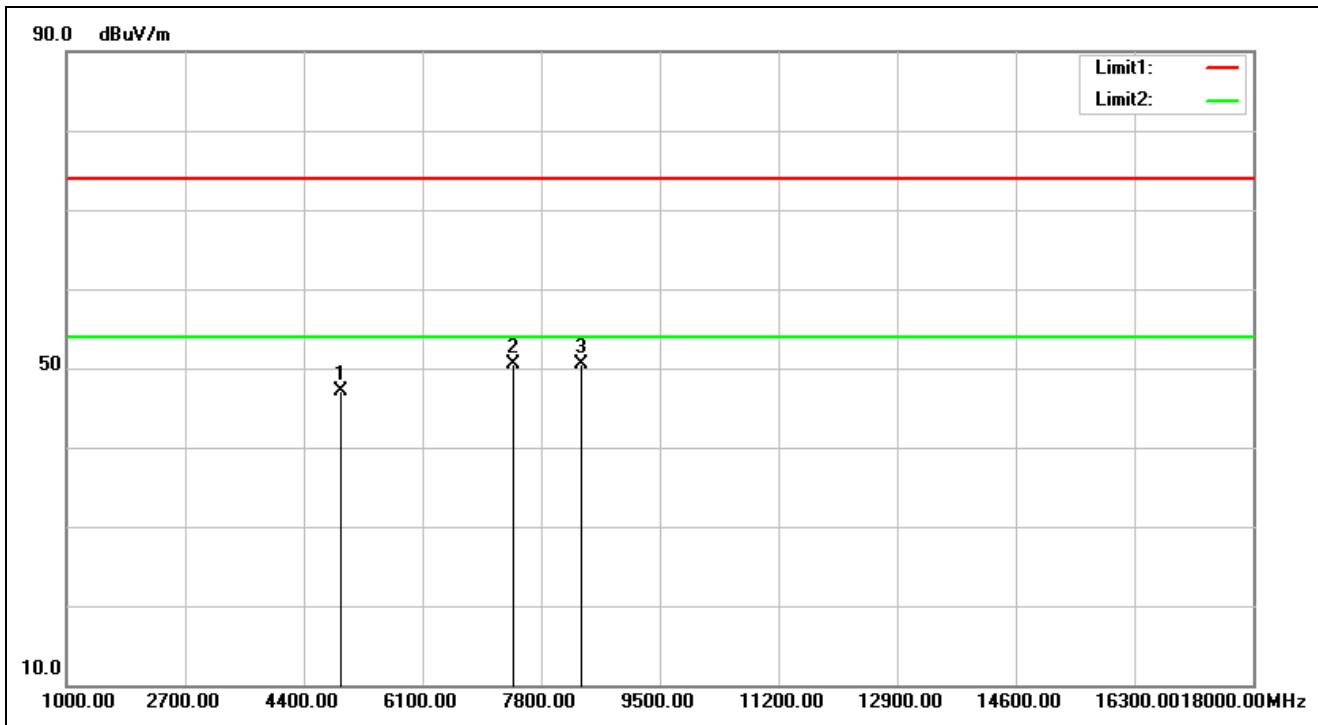
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:18:35
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	54.14	51.61	74.00	-22.39	peak	100	232	
2	7311.000	5.52	45.64	51.16	74.00	-22.84	peak			
3	8378.000	6.24	44.31	50.55	74.00	-23.45	peak	100	82	



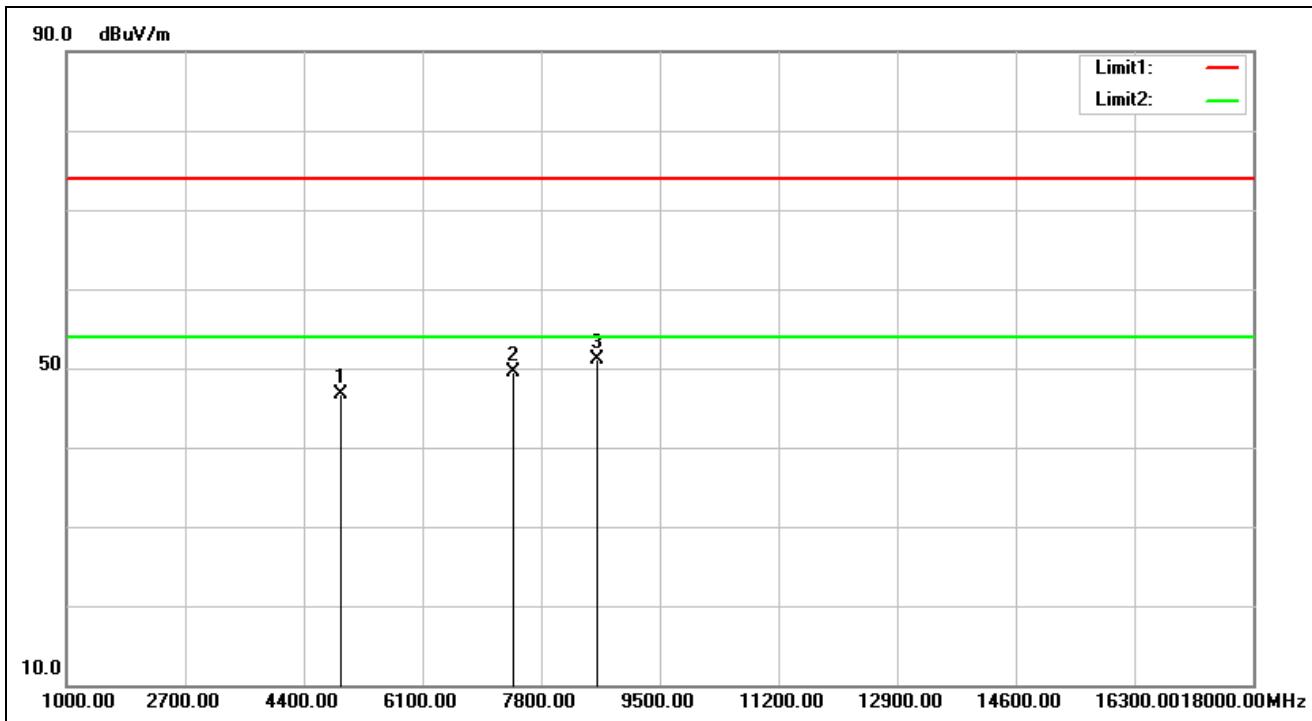
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:19:31
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	54.21	51.68	74.00	-22.32	peak	100	272	
2	7311.000	5.52	43.99	49.51	74.00	-24.49	peak			
3	9007.000	6.44	45.19	51.63	74.00	-22.37	peak	100	0	



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:22:17
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	49.43	47.04	74.00	-26.96	peak			
2	7386.000	5.70	44.74	50.44	74.00	-23.56	peak			
3	8378.000	6.24	44.35	50.59	74.00	-23.41	peak	100	357	



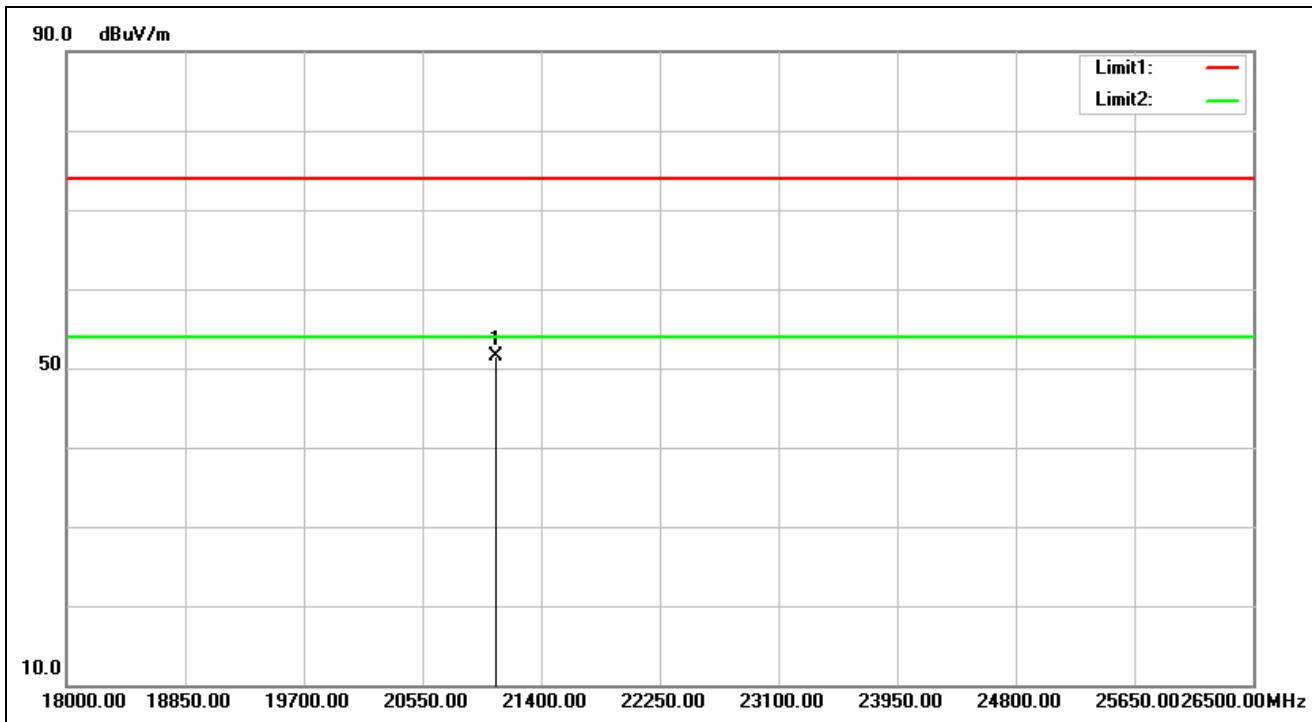
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:23:13
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4924.000	-2.39	49.11	46.72	74.00	-27.28	peak			
2	7386.000	5.70	43.90	49.60	74.00	-24.40	peak			
3	8599.000	6.40	44.76	51.16	74.00	-22.84	peak	100	218	

Spurious Emissions, TX Mode, 18-26G

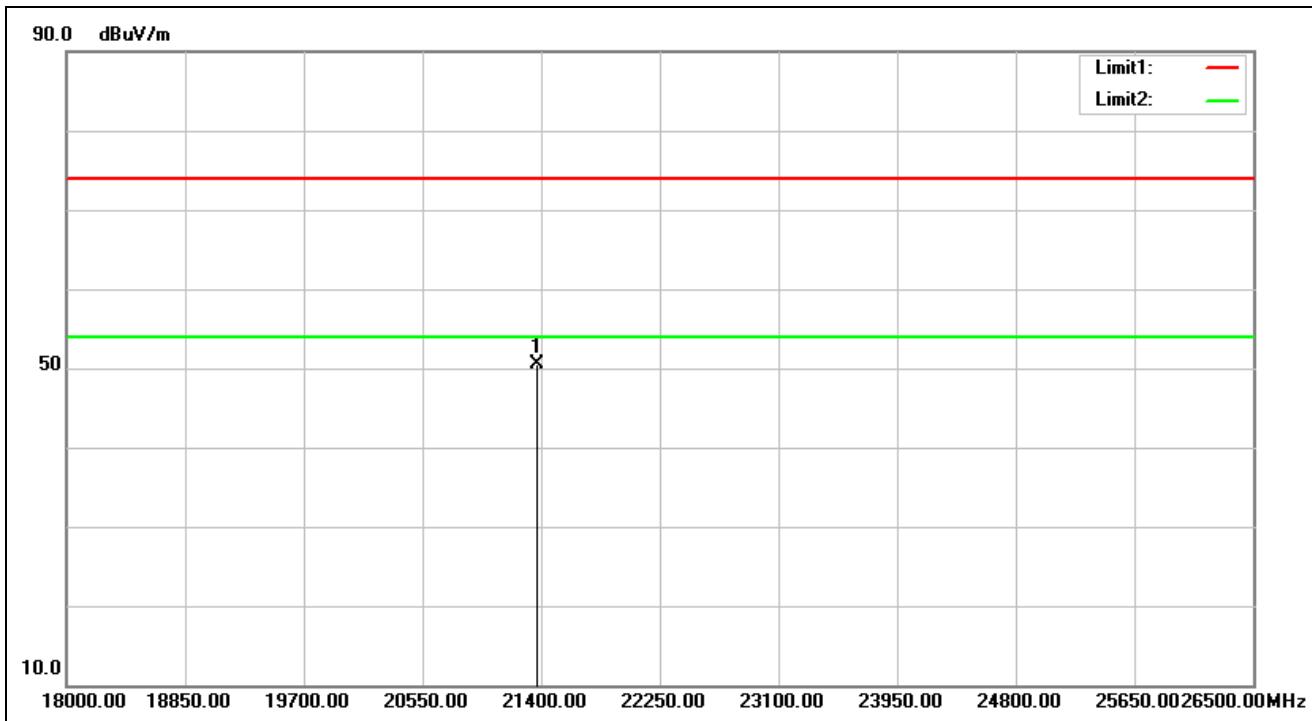


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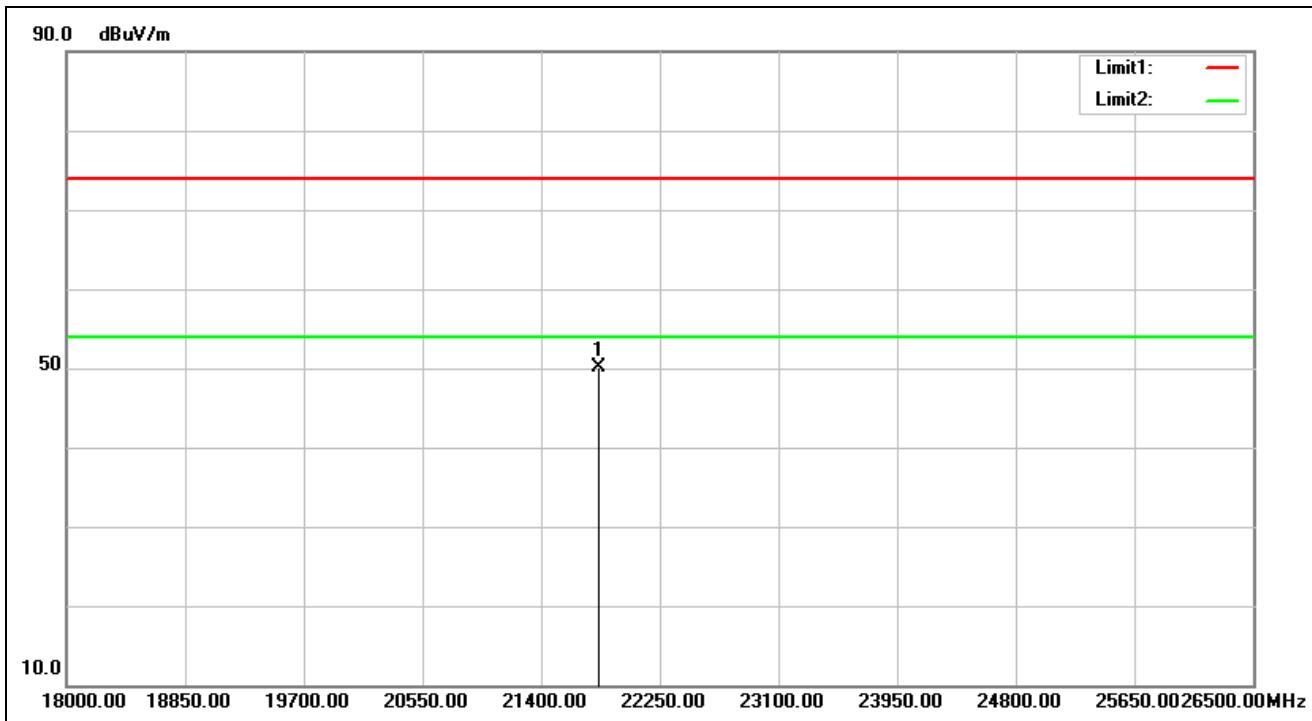
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:39:09
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21077.000	32.51	18.98	51.49	74.00	-22.51	peak		0	



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:39:15
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2412-TX		
Remark:	Power Setting -9 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21366.000	32.77	17.66	50.43	74.00	-23.57	peak			

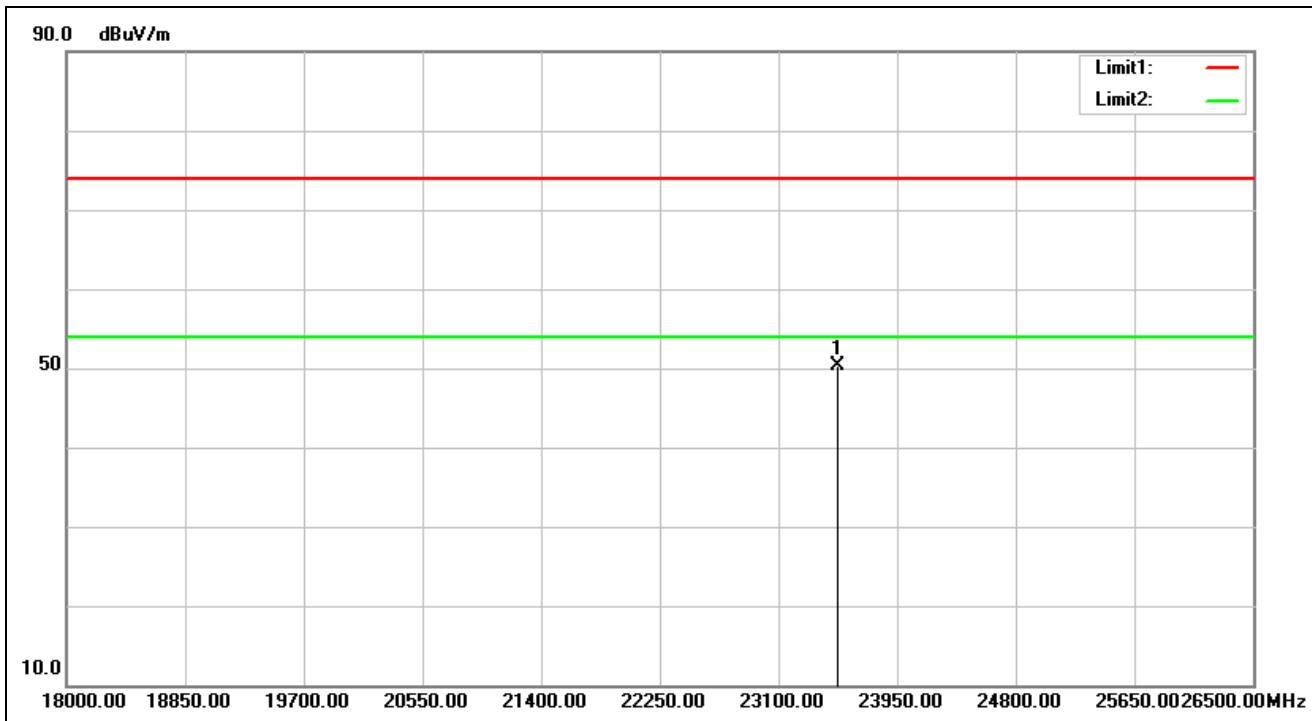


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:39:44
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21808.000	32.70	17.50	50.20	74.00	-23.80	peak			

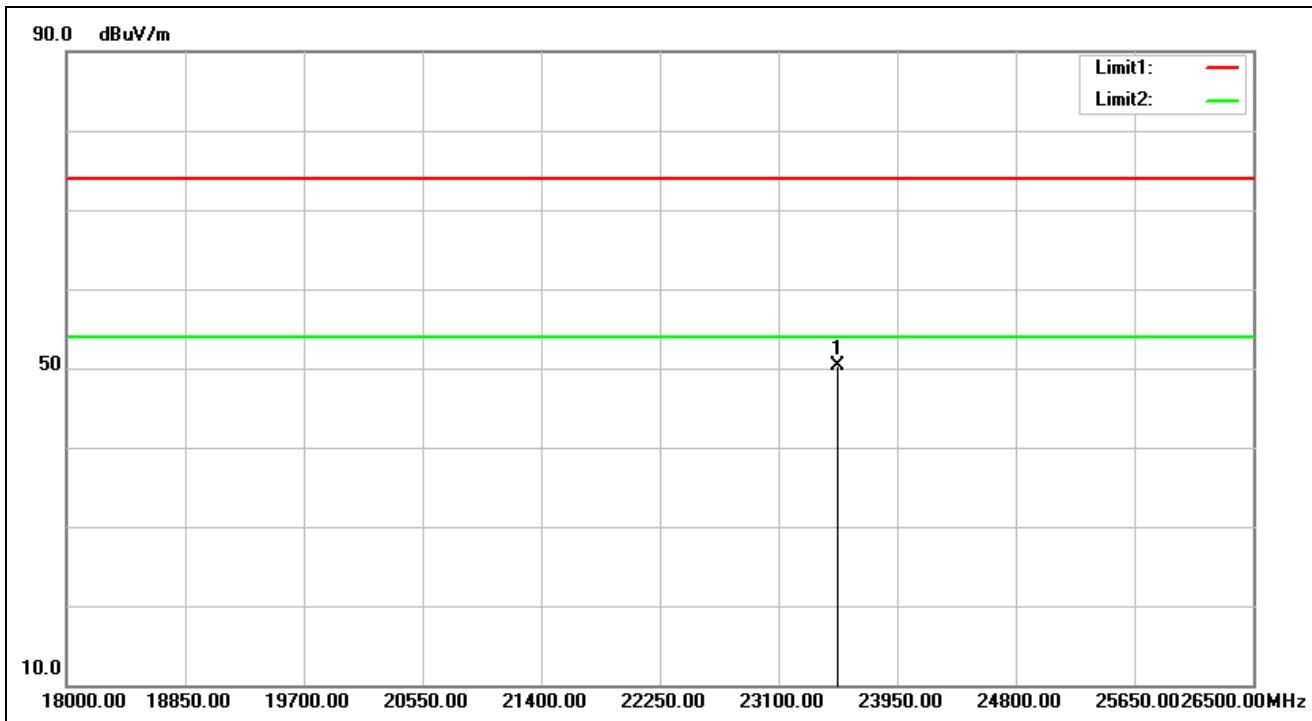


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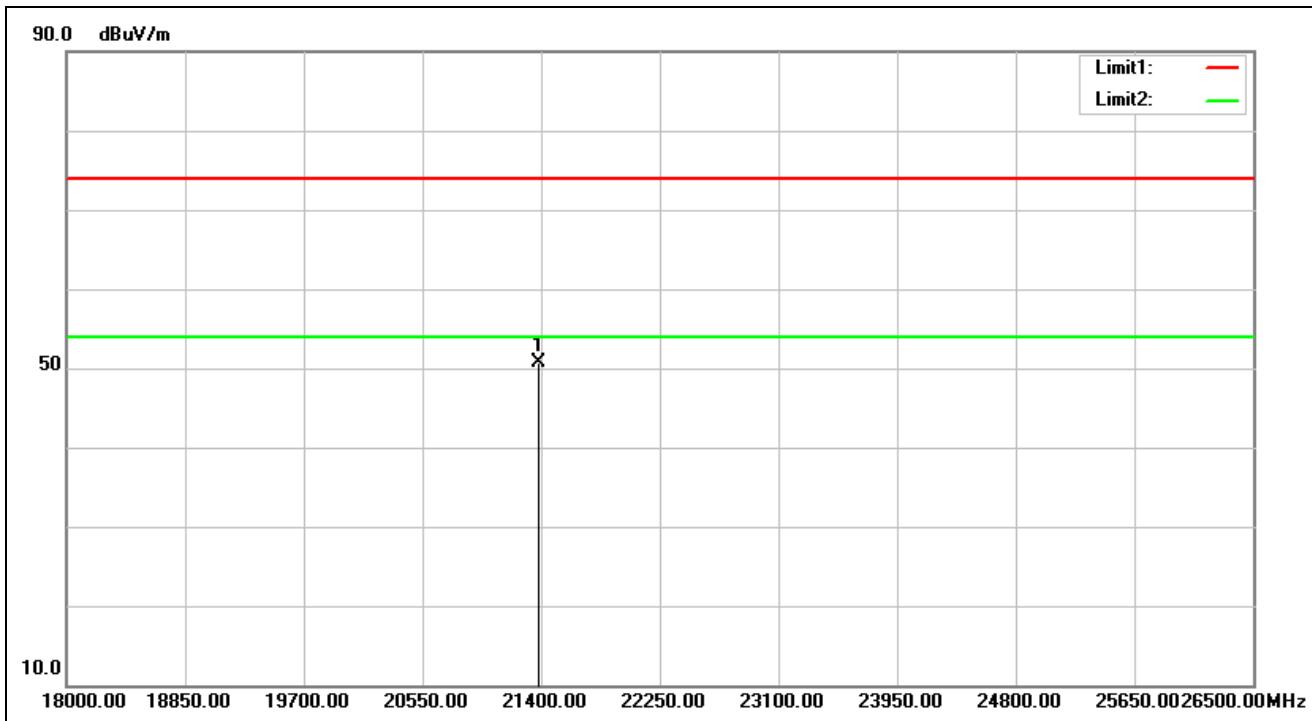
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:39:50
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23525.000	33.25	17.11	50.36	74.00	-23.64	peak			



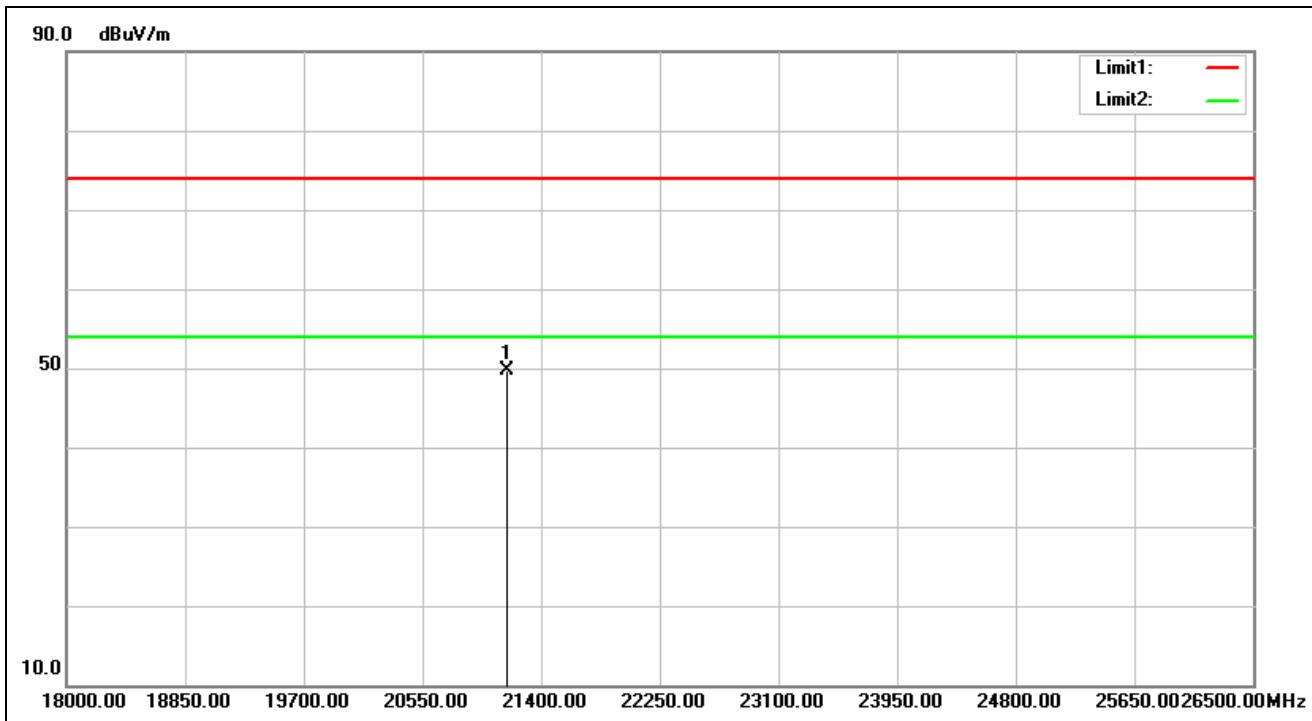
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:40:12
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23525.000	33.25	17.09	50.34	74.00	-23.66	peak			



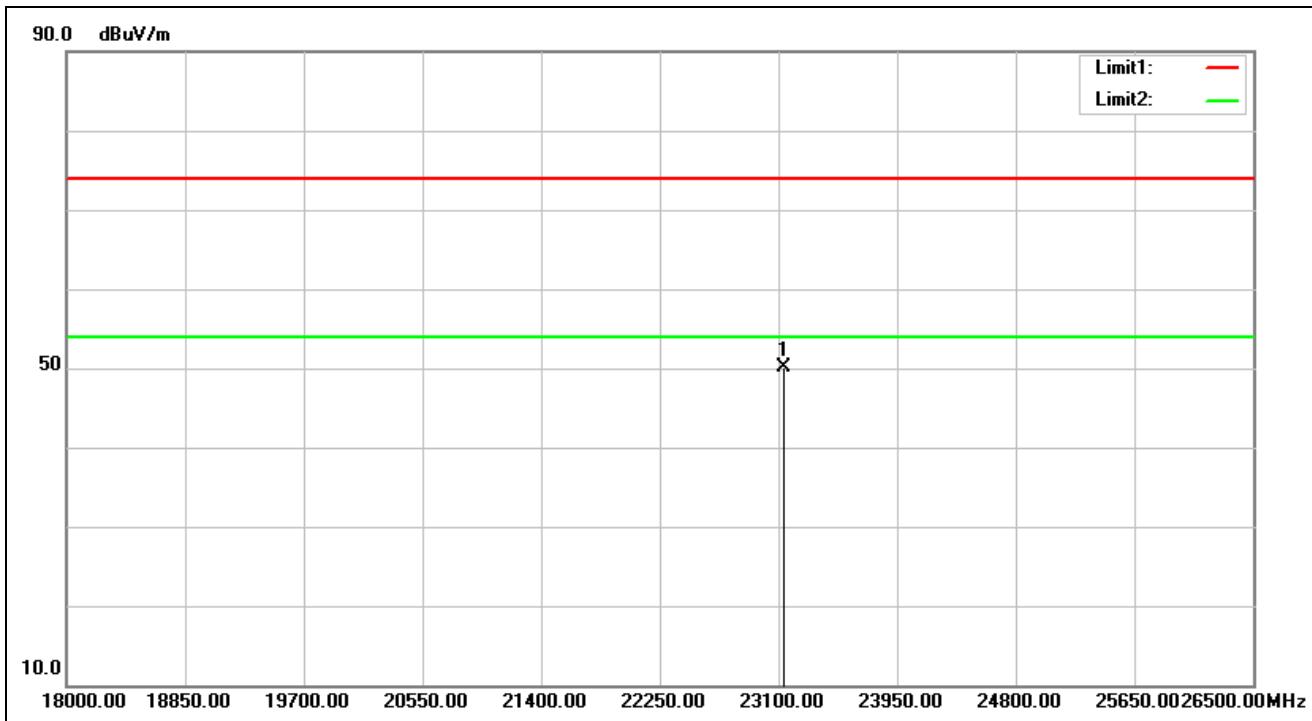
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:40:19
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2462-TX		
Remark:	Power Setting -9 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	17.86	50.64	74.00	-23.36	peak			



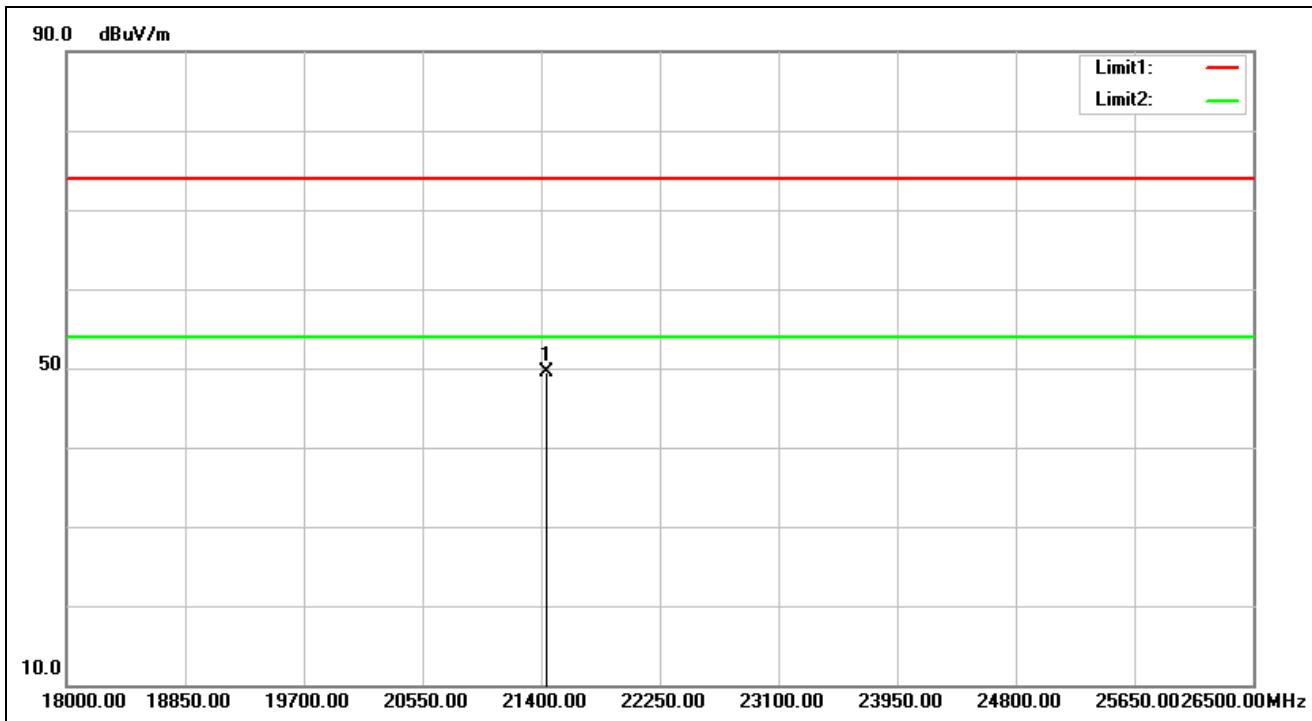
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:40:45
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21153.500	32.59	17.10	49.69	74.00	-24.31	peak			



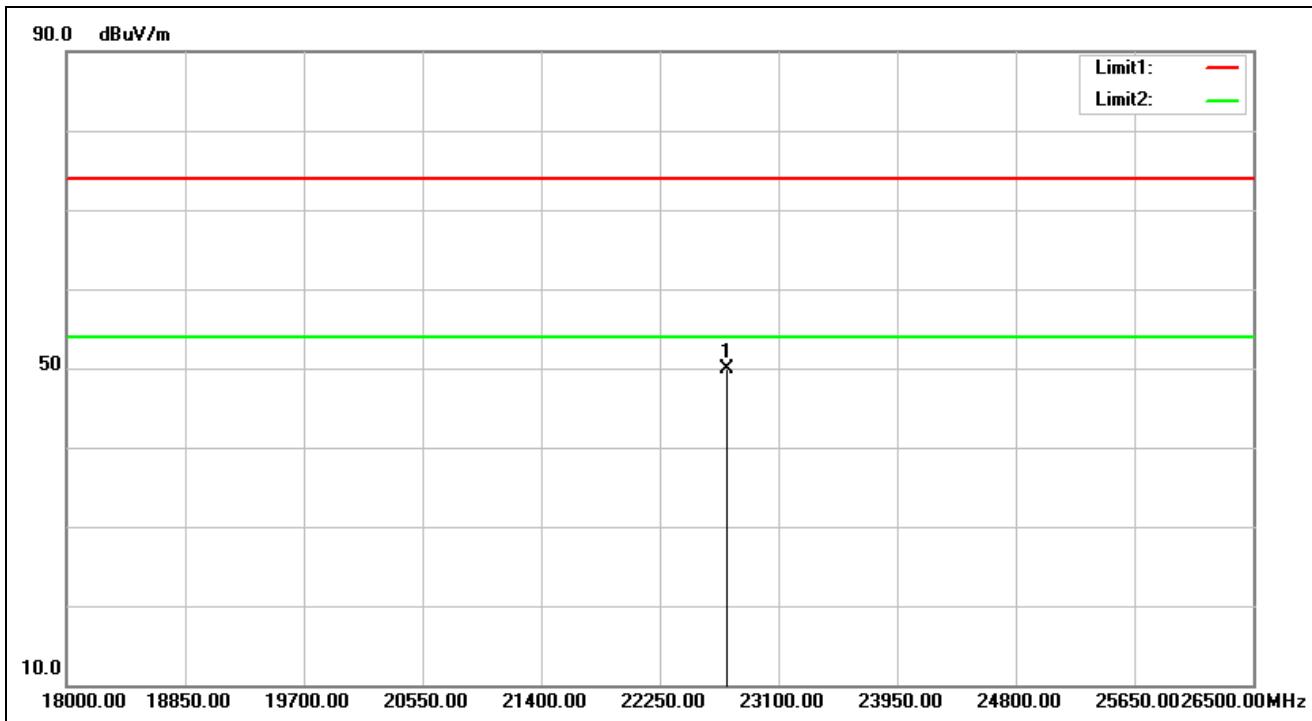
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:40:52
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2412-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23142.500	32.93	17.16	50.09	74.00	-23.91	peak			



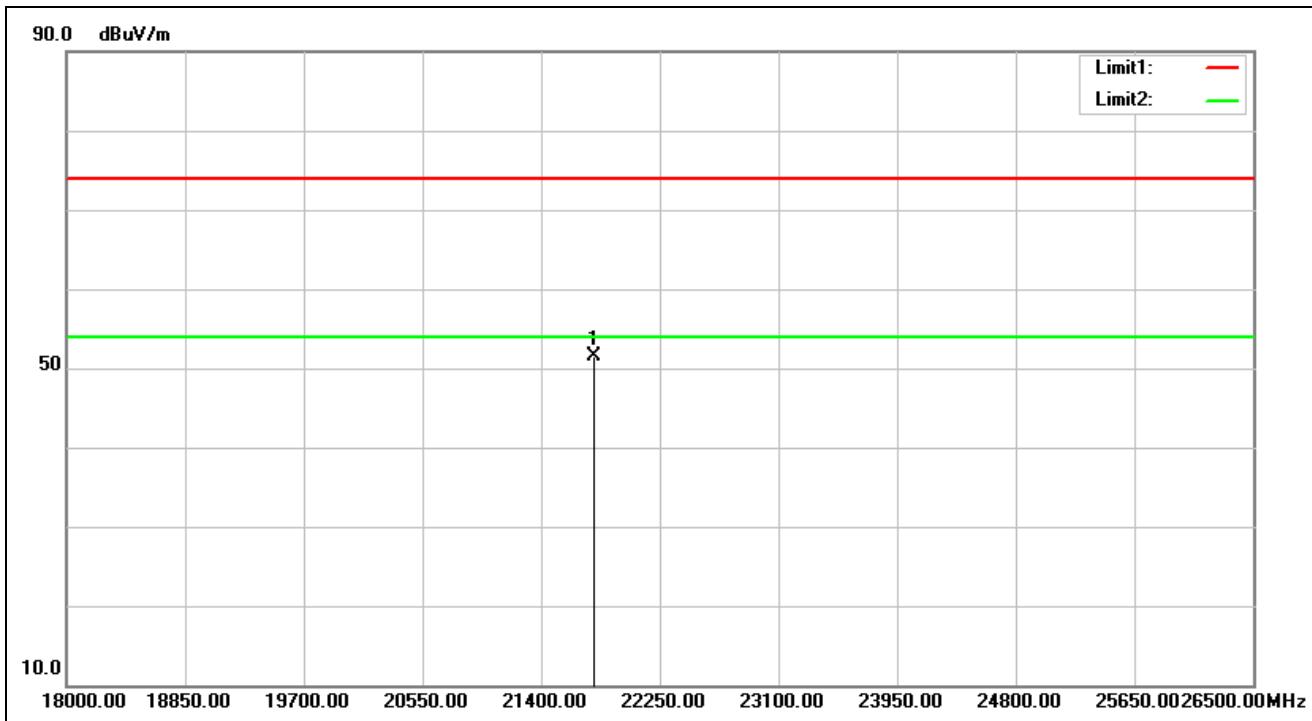
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:41:20
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RFPCA381013IMAB701-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	16.58	49.42	74.00	-24.58	peak			



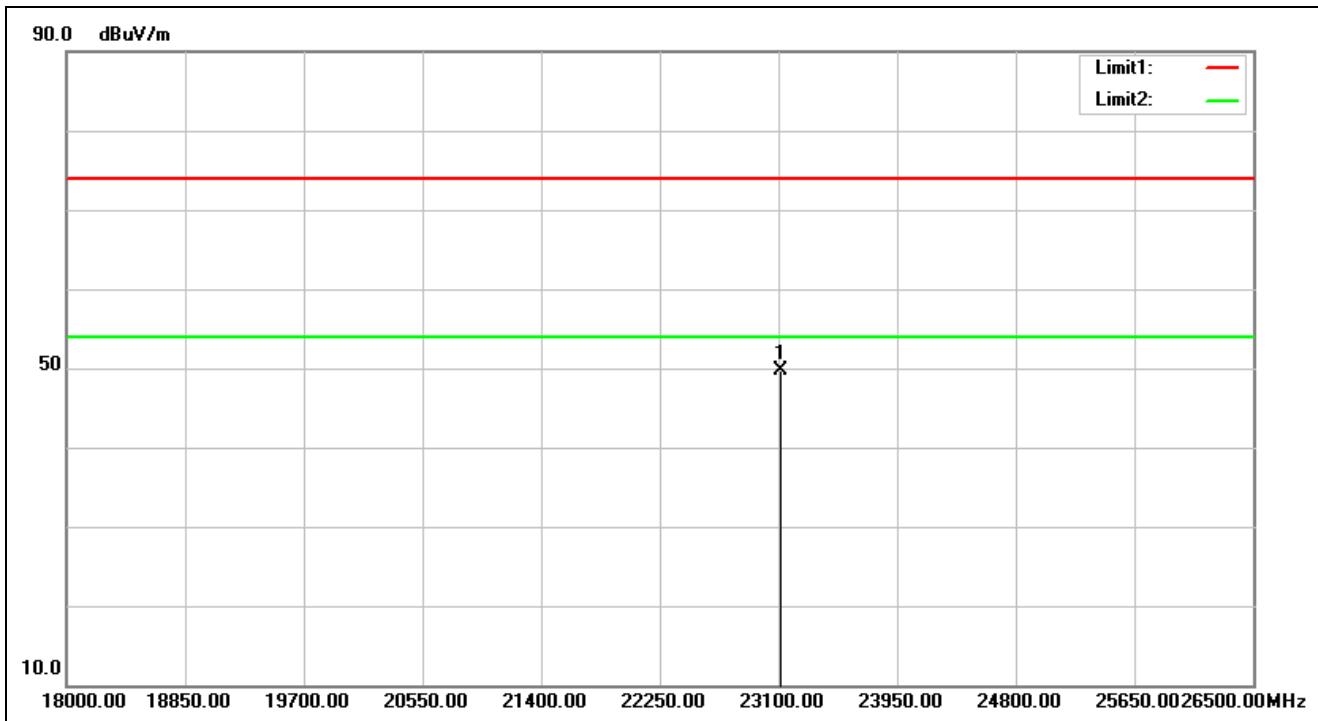
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:41:26
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22726.000	32.72	17.28	50.00	74.00	-24.00	peak			



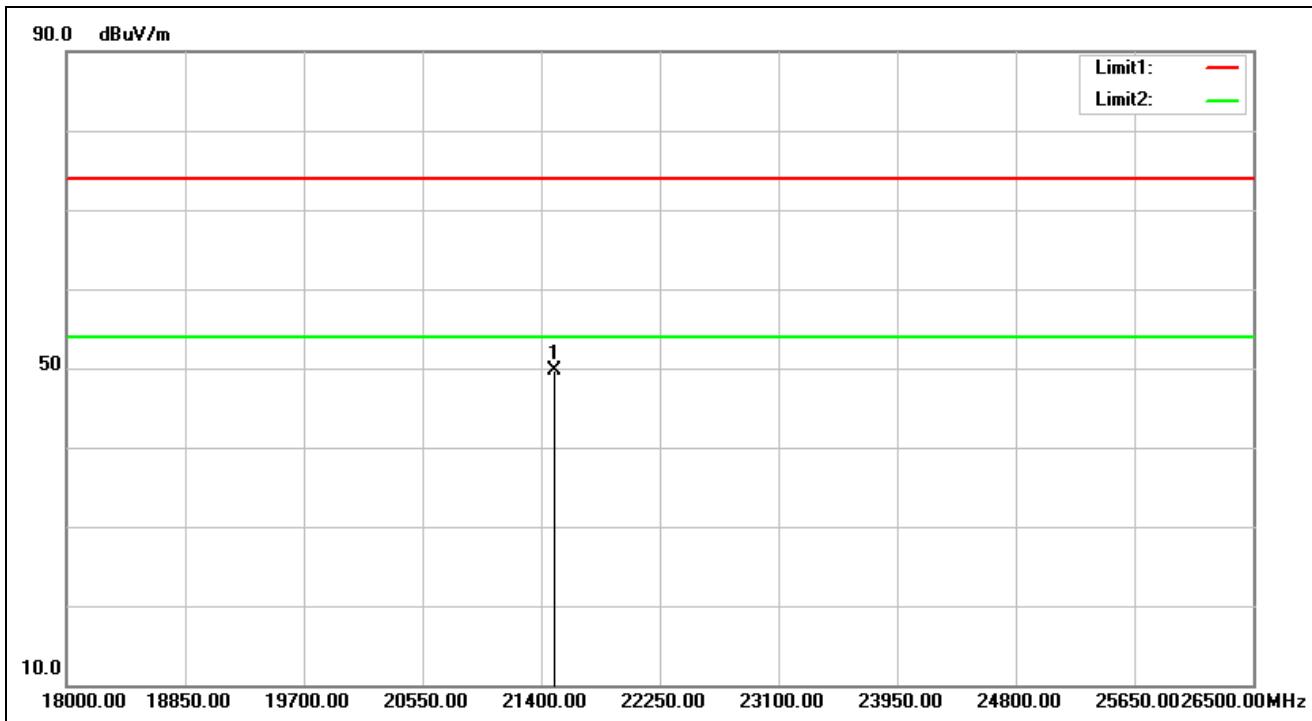
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:41:51
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21774.000	32.72	18.76	51.48	74.00	-22.52	peak			



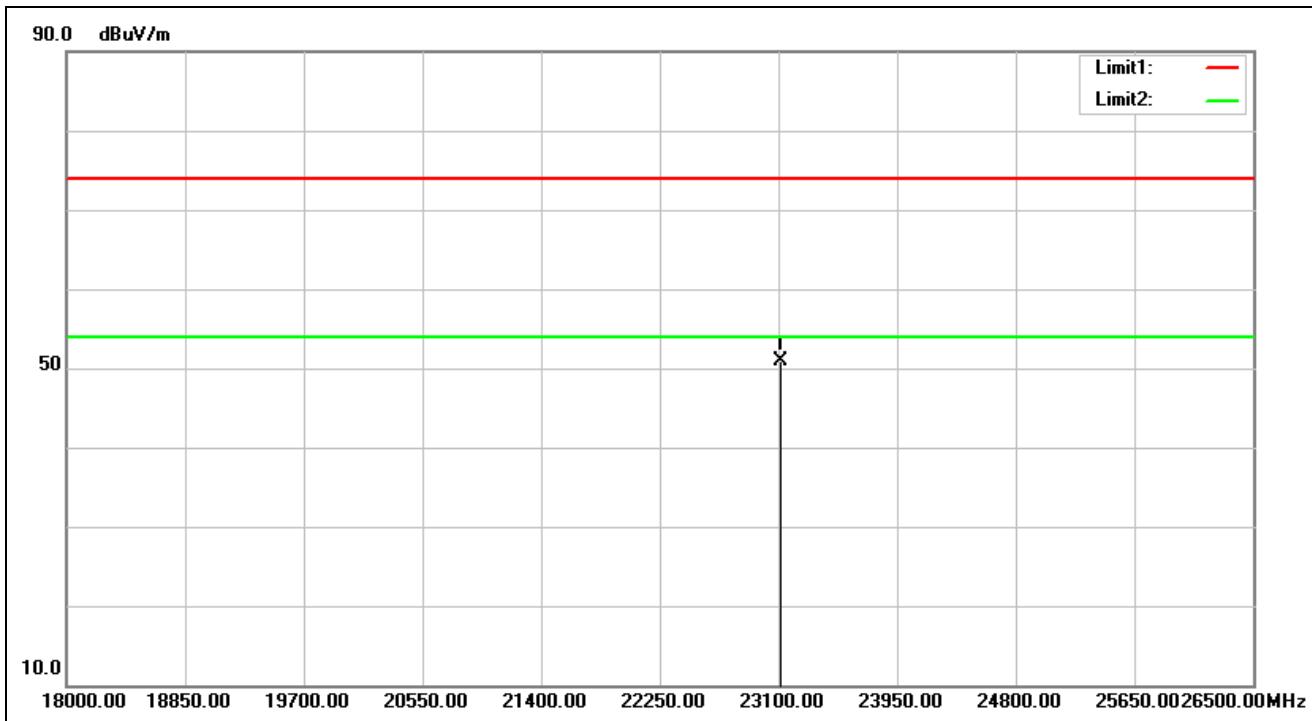
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:41:57
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2462-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23117.000	32.91	16.89	49.80	74.00	-24.20	peak			



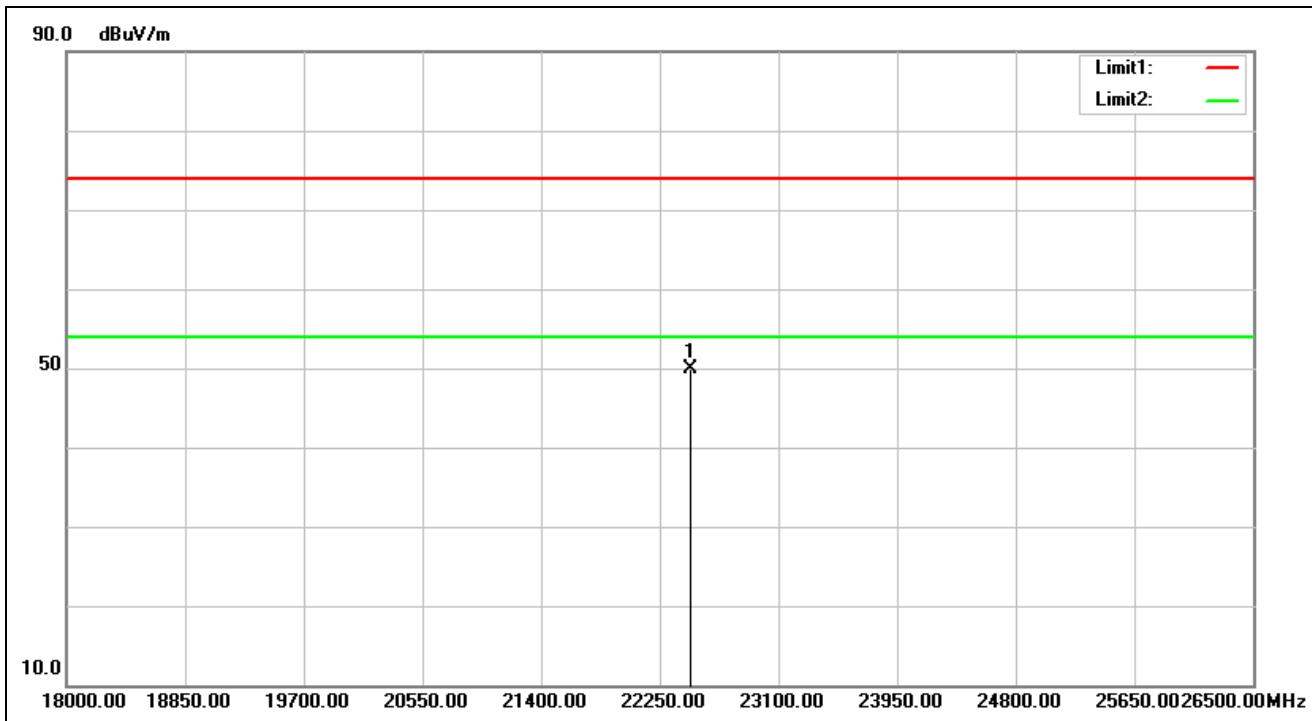
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:42:23
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-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	16.76	49.65	74.00	-24.35	peak			



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:42:30
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2412-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23117.000	32.91	17.97	50.88	74.00	-23.12	peak			

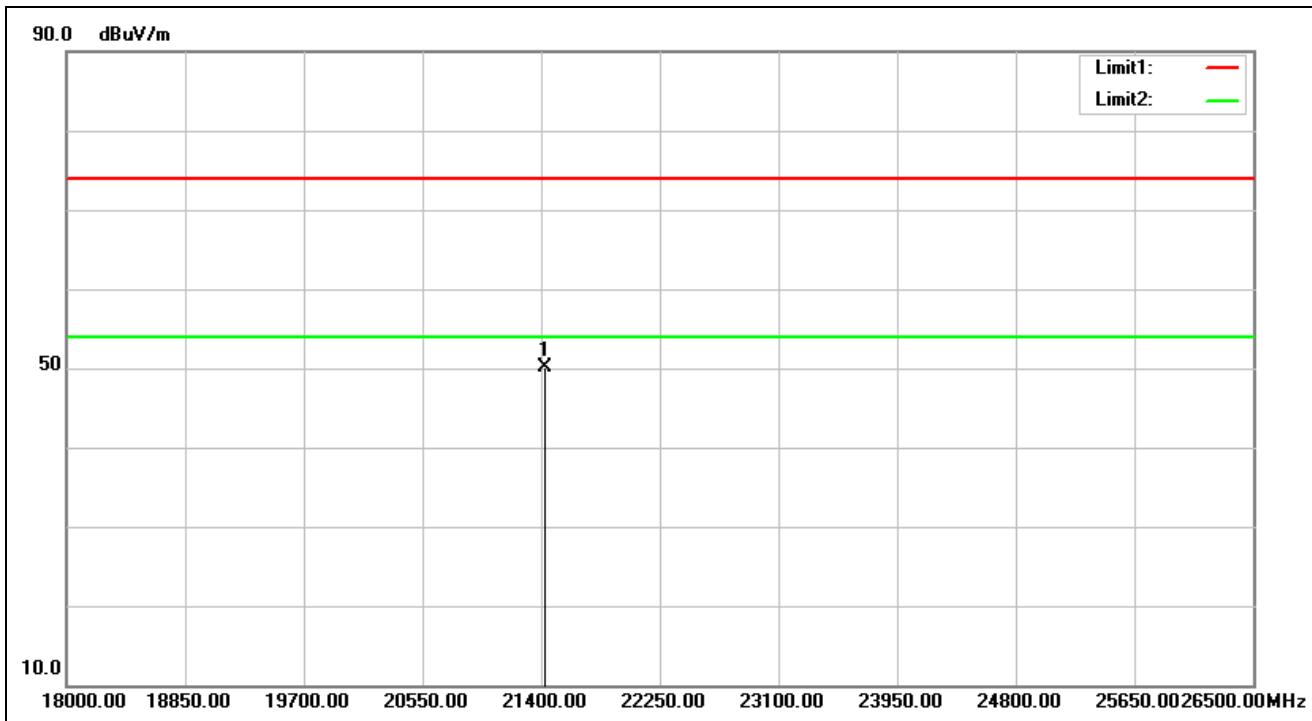


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:42:58
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22471.000	32.64	17.35	49.99	74.00	-24.01	peak			

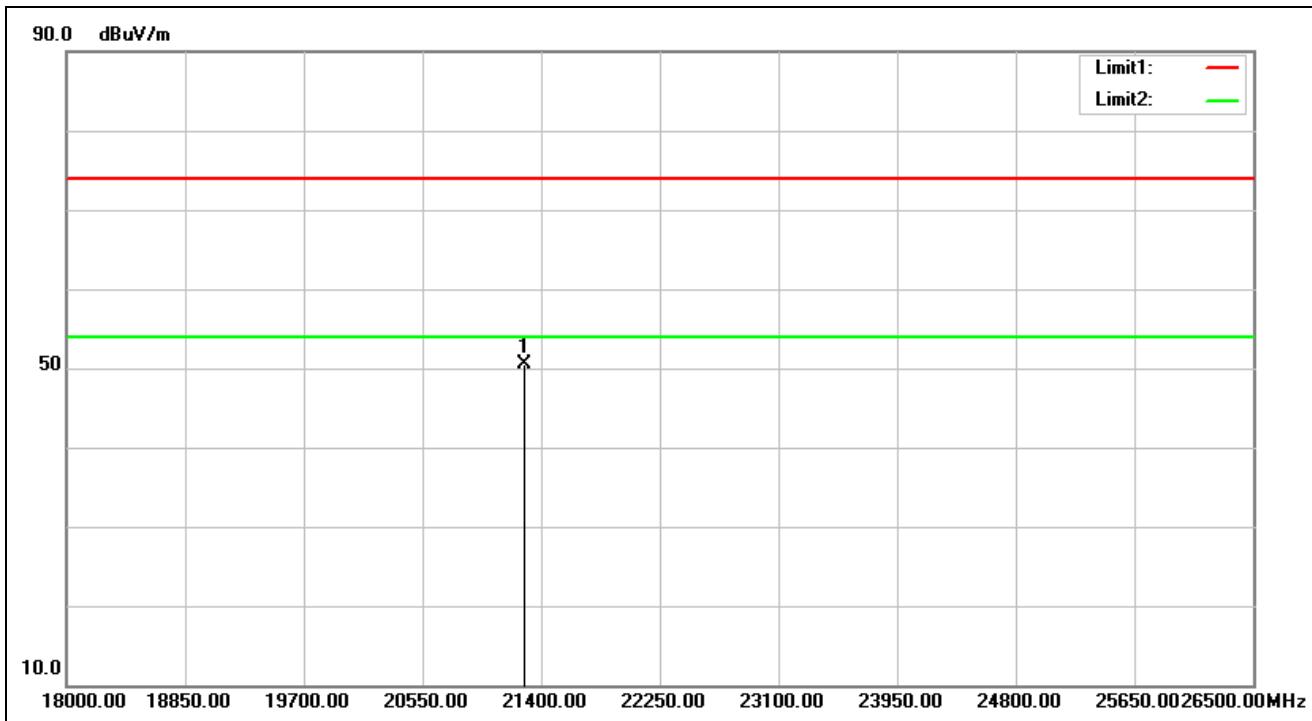


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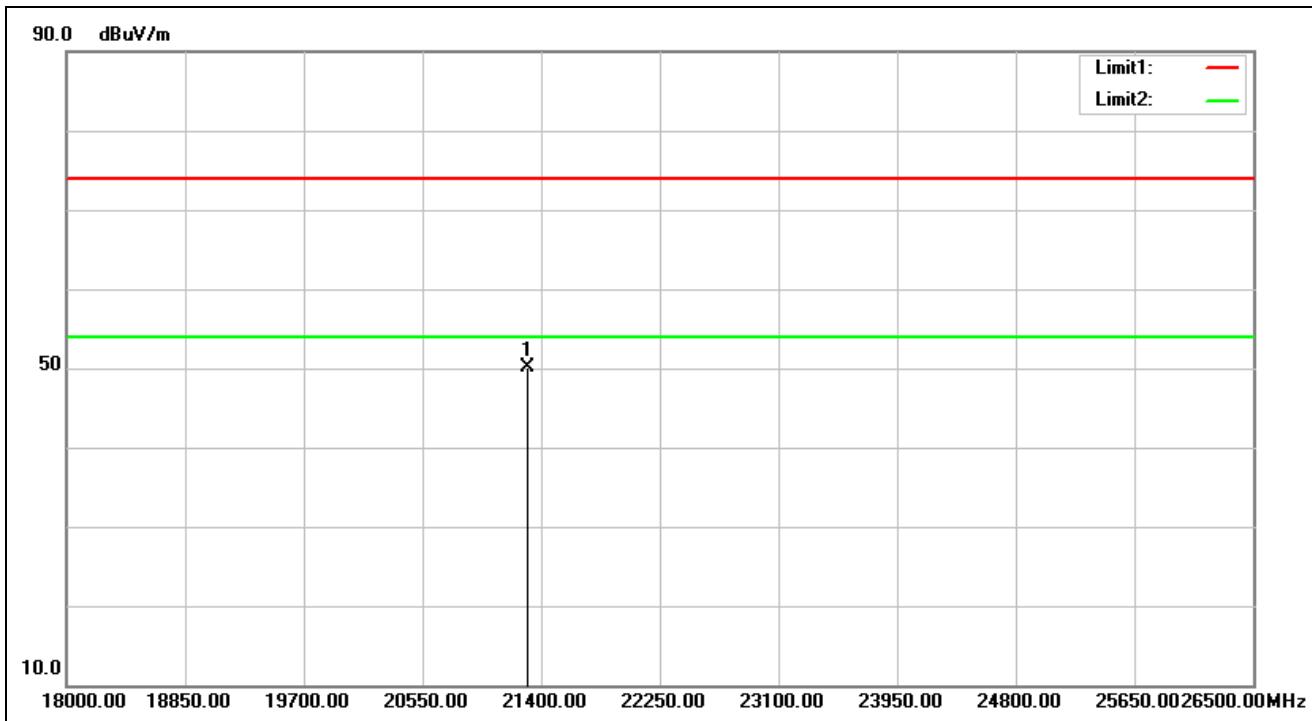
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:43:05
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2437-TX		
Remark:	Power Setting -4 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21425.500	32.82	17.26	50.08	74.00	-23.92	peak			



Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:43:34
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21281.000	32.69	17.78	50.47	74.00	-23.53	peak			



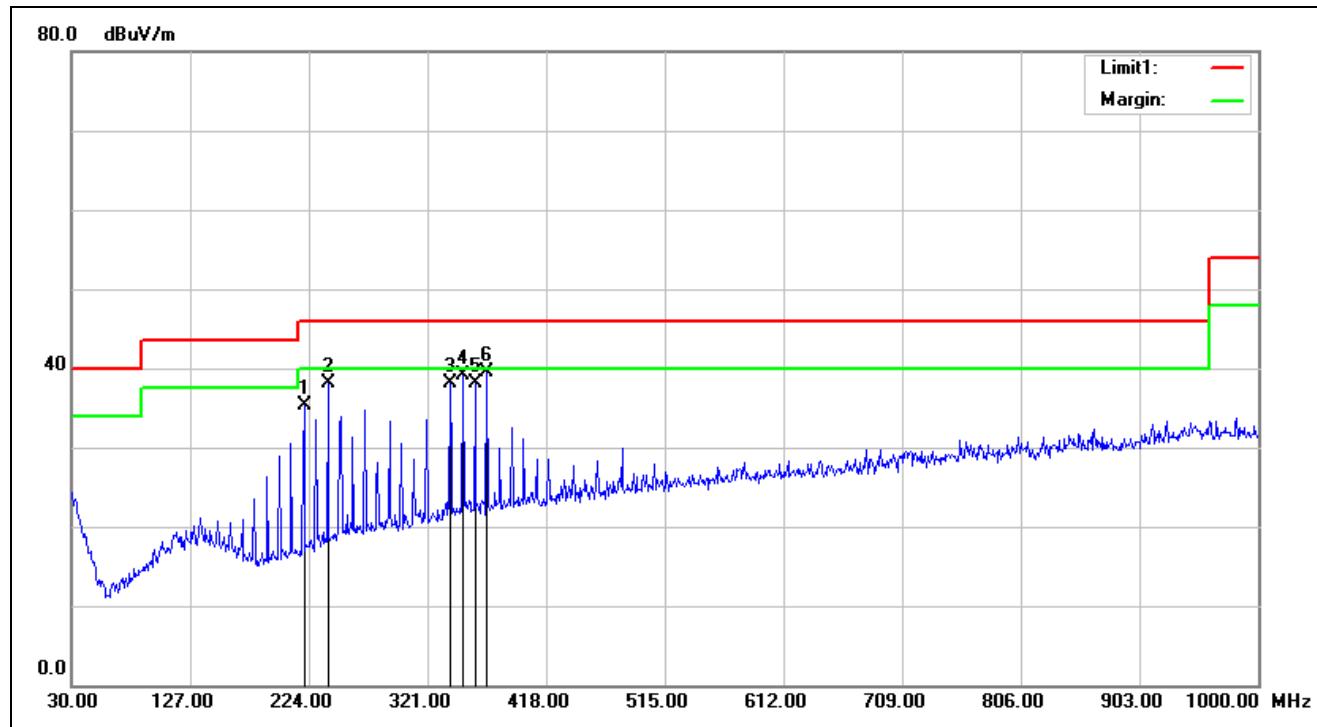
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:43:41
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	N20-2462-TX		
Remark:	Power Setting -13 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21298.000	32.71	17.41	50.12	74.00	-23.88	peak			

Spurious Emissions, TX Mode, 30M-1G

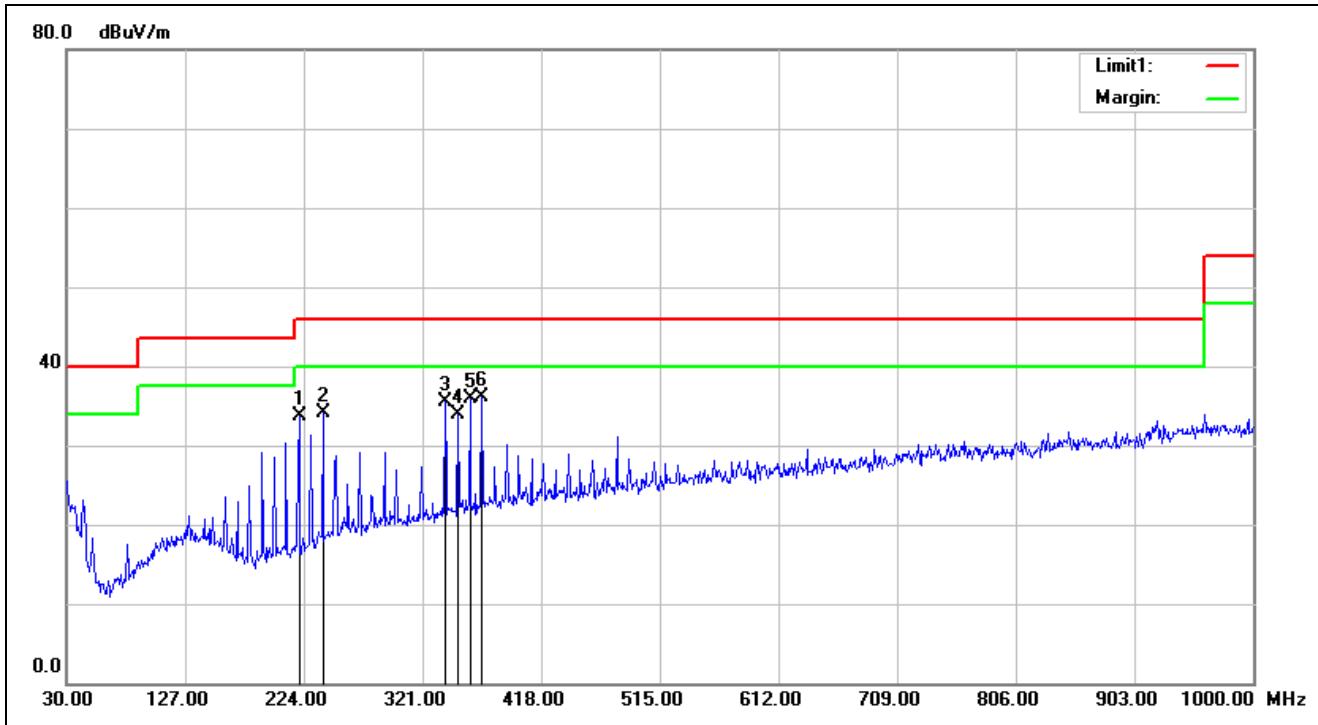


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 06:00:53
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	220.1200	-8.30	43.57	35.27	46.00	-10.73	QP	100	126	
2	239.5200	-6.85	45.02	38.17	46.00	-7.83	QP	100	248	
3	339.4300	-3.61	41.69	38.08	46.00	-7.92	QP	100	252	
4	350.1000	-3.34	42.45	39.11	46.00	-6.89	QP	100	261	
5	359.8000	-3.16	41.19	38.03	46.00	-7.97	QP	100	236	
6	369.5000	-2.98	42.43	39.45	46.00	-6.55	QP	100	227	



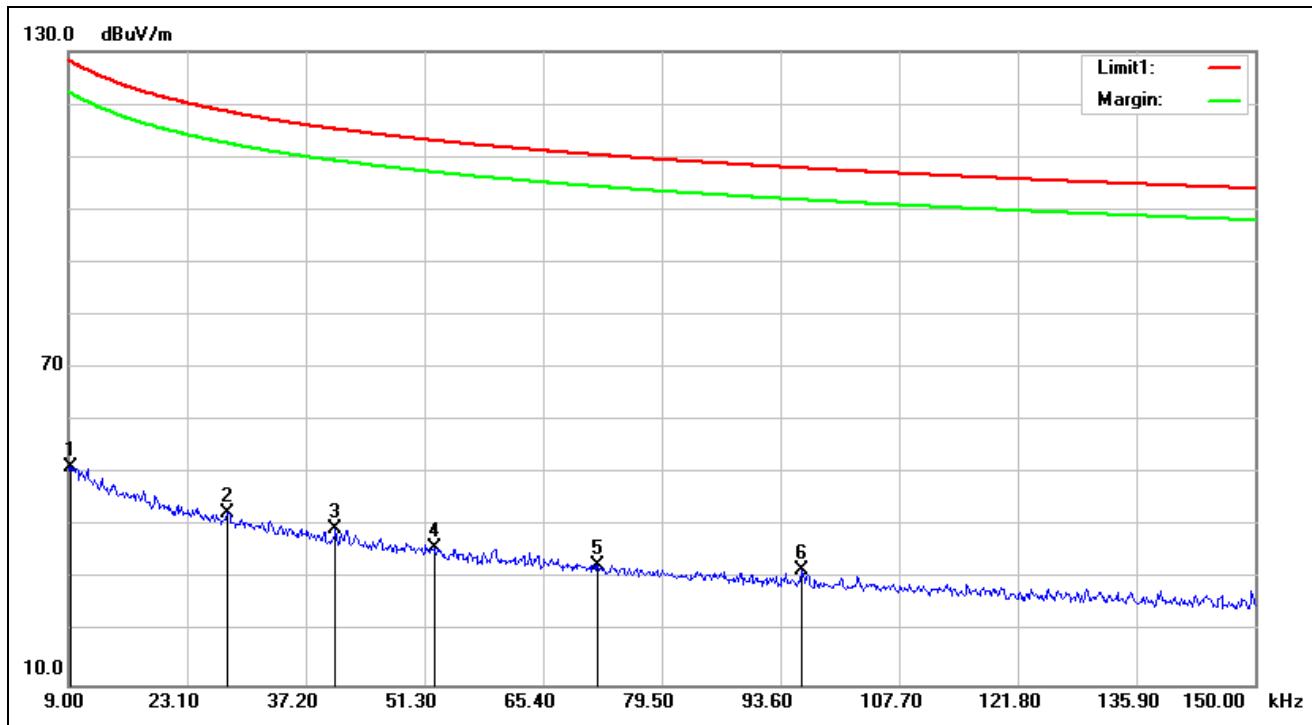
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 06:01:51
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	220.1200	-8.30	42.01	33.71	46.00	-12.29	QP	100	301	
2	239.5200	-6.85	41.05	34.20	46.00	-11.80	QP	100	288	
3	339.4300	-3.61	39.15	35.54	46.00	-10.46	QP	100	222	
4	350.1000	-3.34	37.33	33.99	46.00	-12.01	QP	100	226	
5	359.8000	-3.16	38.99	35.83	46.00	-10.17	QP	100	213	
6	369.5000	-2.98	39.11	36.13	46.00	-9.87	QP	100	217	

Spurious Emissions, TX Mode, 9k-30M

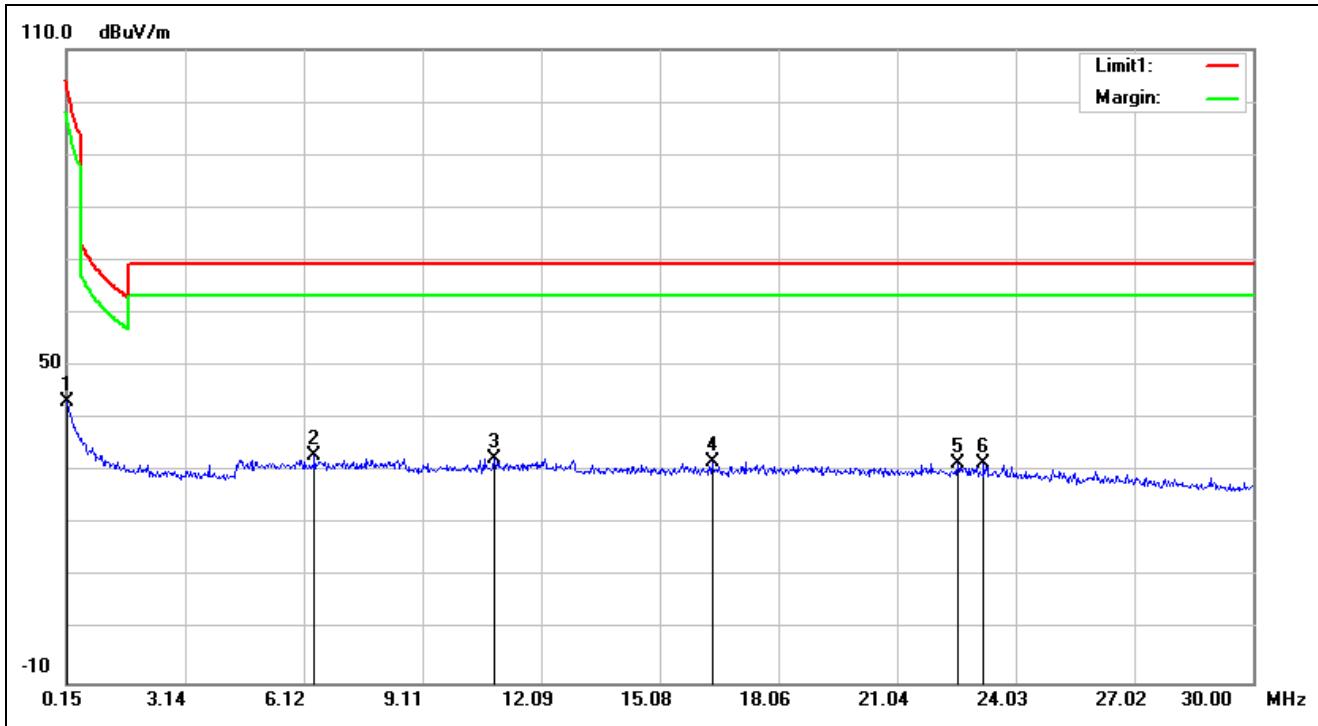


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:17:11
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0092	19.66	31.74	51.40	128.12	-76.72	QP	100	159	
2	0.0278	20.11	22.41	42.52	118.57	-76.05	QP	100	69	
3	0.0407	19.75	19.66	39.41	115.28	-75.87	QP	100	216	
4	0.0524	19.42	16.56	35.98	113.10	-77.12	QP	100	214	
5	0.0717	19.30	13.50	32.80	110.39	-77.59	QP	100	159	
6	0.0961	19.15	12.58	31.73	107.86	-76.13	QP	100	78	



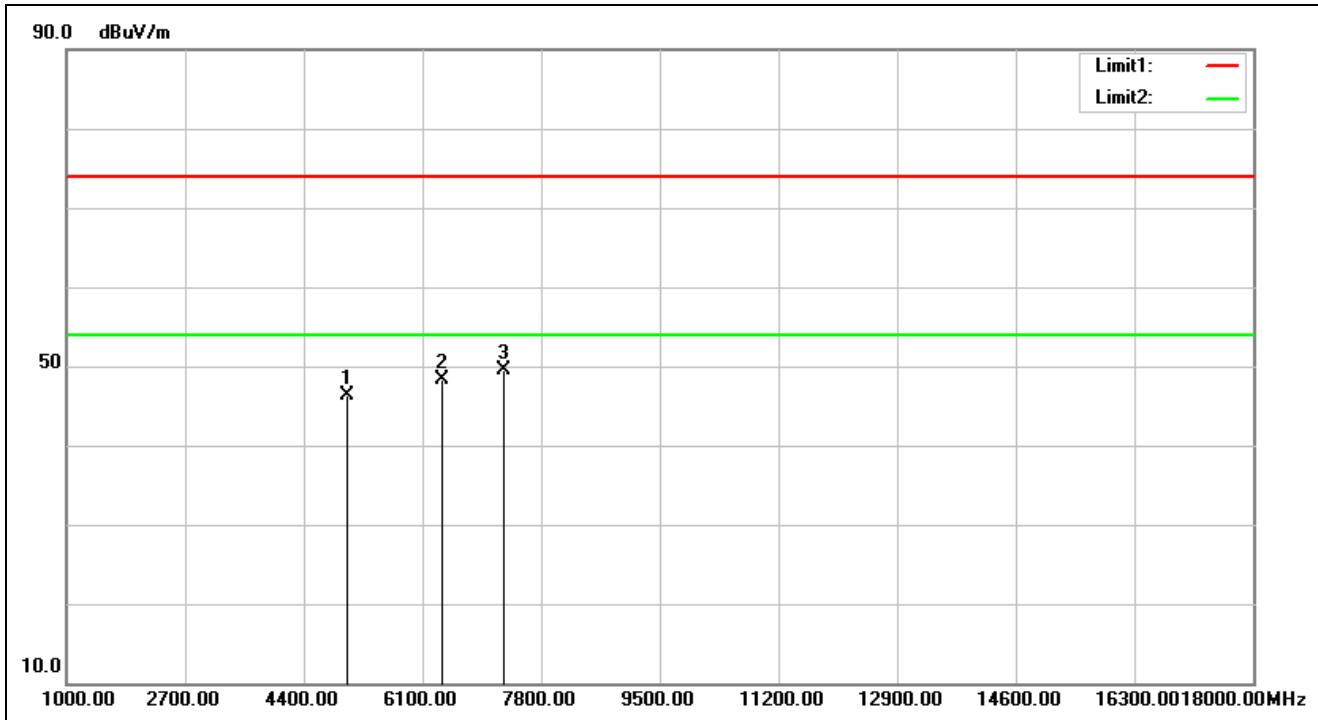
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:20:19
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-TX		
Remark:	Power Setting -9 RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1798	19.06	24.06	43.12	102.45	-59.33	QP	100	237	
2	6.3886	19.89	13.16	33.05	69.50	-36.45	QP	100	203	
3	10.9258	20.39	12.07	32.46	69.50	-37.04	QP	100	103	
4	16.3884	21.35	10.49	31.84	69.50	-37.66	QP	100	125	
5	22.5673	22.15	9.43	31.58	69.50	-37.92	QP	100	306	
6	23.2240	22.20	9.37	31.57	69.50	-37.93	QP	100	319	

Spurious Emissions, RX Mode, 1-18G



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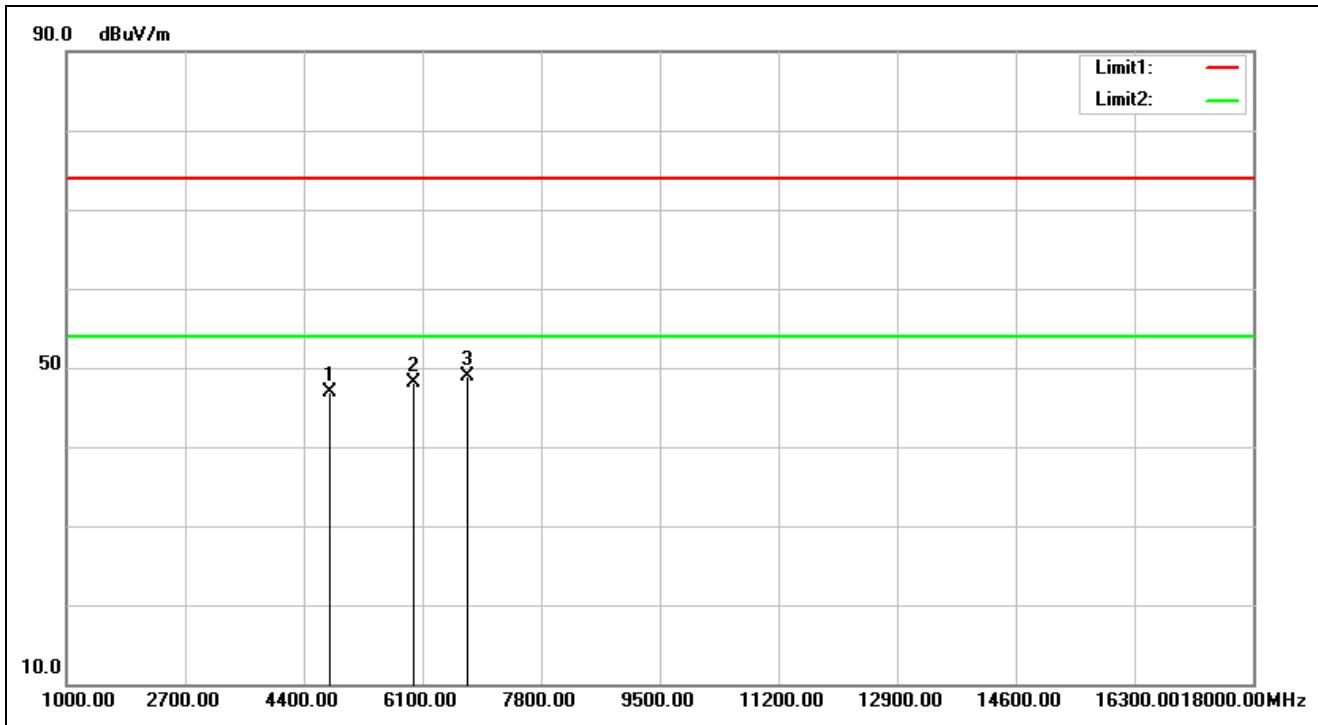


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:26:14
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	5029.000	-3.07	49.32	46.25	74.00	-27.75	peak	100	56	
2	6389.000	3.89	44.49	48.38	74.00	-25.62	peak	100	40	
3	7273.000	4.39	45.12	49.51	74.00	-24.49	peak	100	191	



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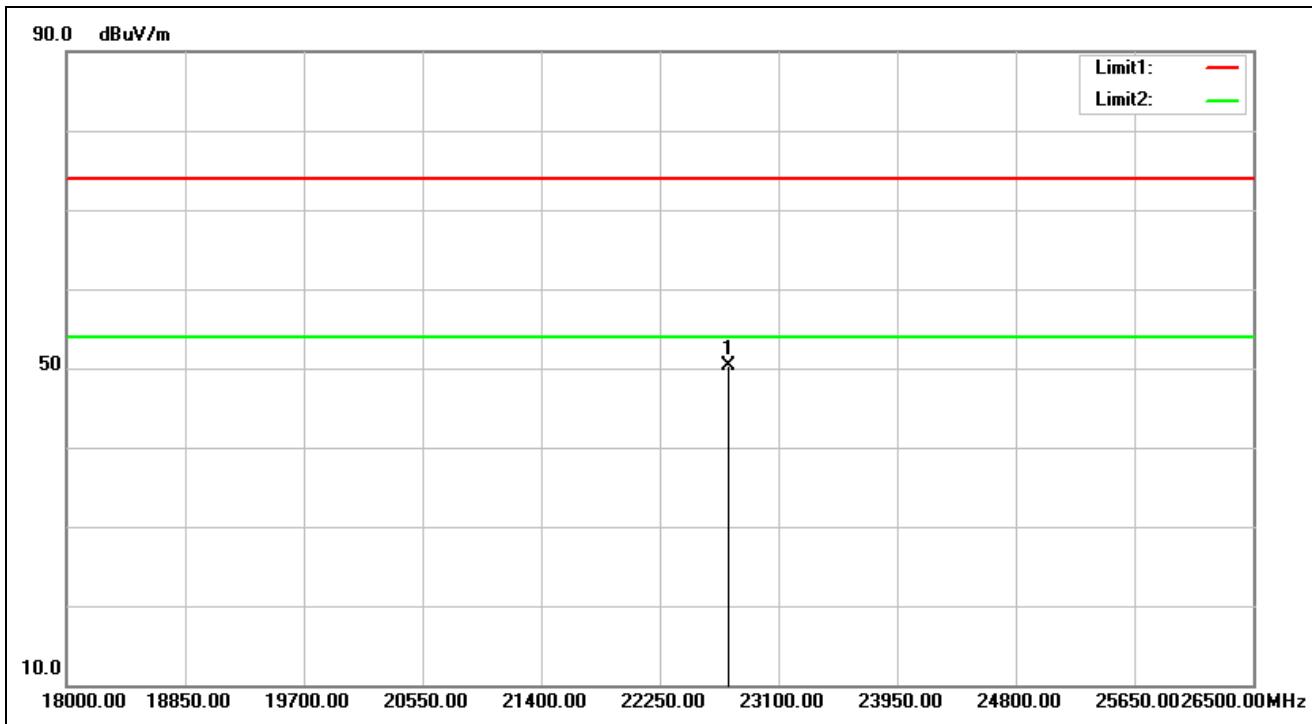
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:27:11
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4774.000	-3.58	50.46	46.88	74.00	-27.12	peak	100	28	
2	5964.000	2.12	45.90	48.02	74.00	-25.98	peak	100	197	
3	6746.000	4.01	44.90	48.91	74.00	-25.09	peak	100	250	

Spurious Emissions, RX Mode, 18-26G



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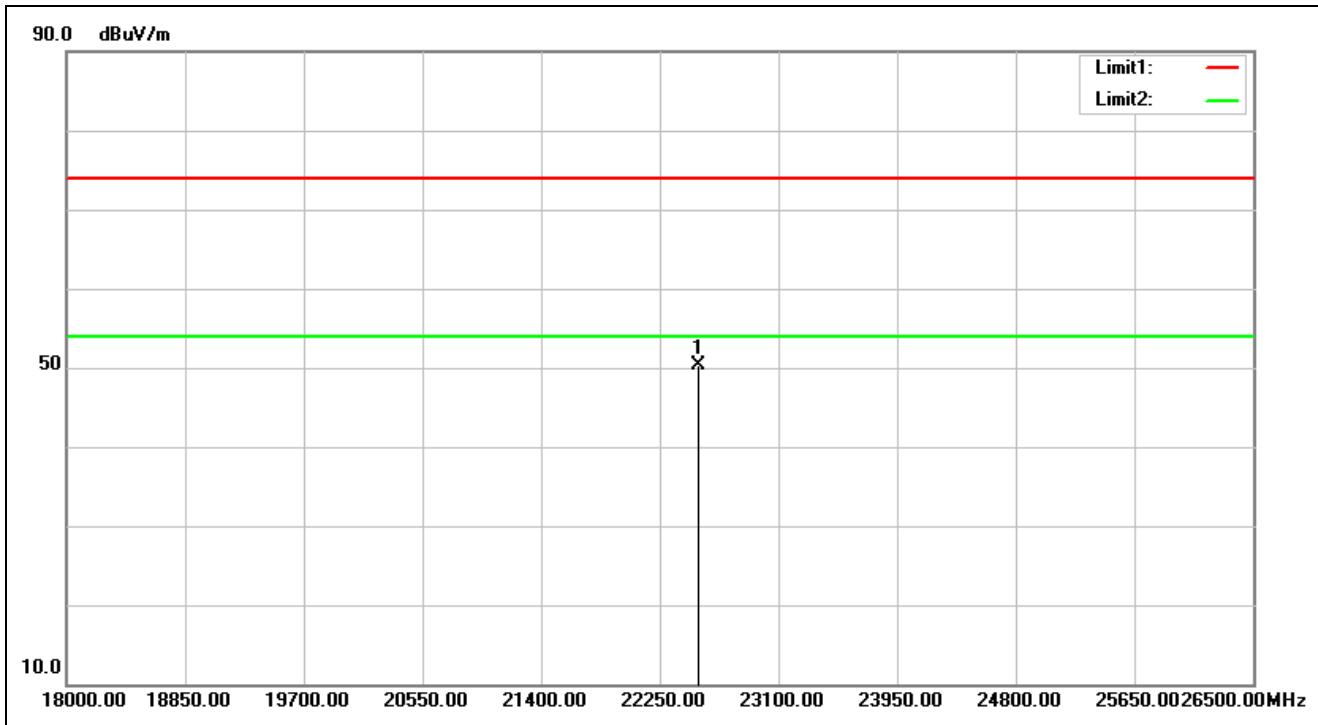


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 04:44:20
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22743.000	32.72	17.63	50.35	74.00	-23.65	peak			



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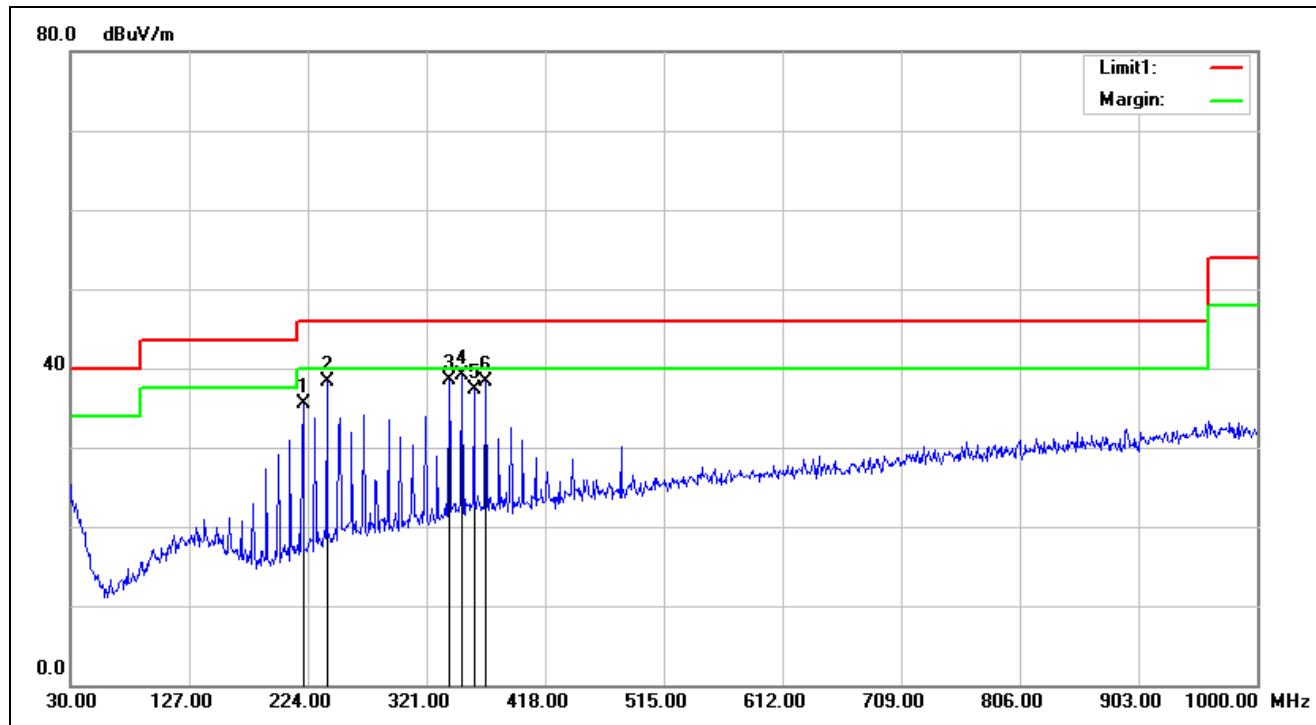
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 04:44:26
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22522.000	32.64	17.72	50.36	74.00	-23.64	peak			

Spurious Emissions, RX Mode, 30M-1G

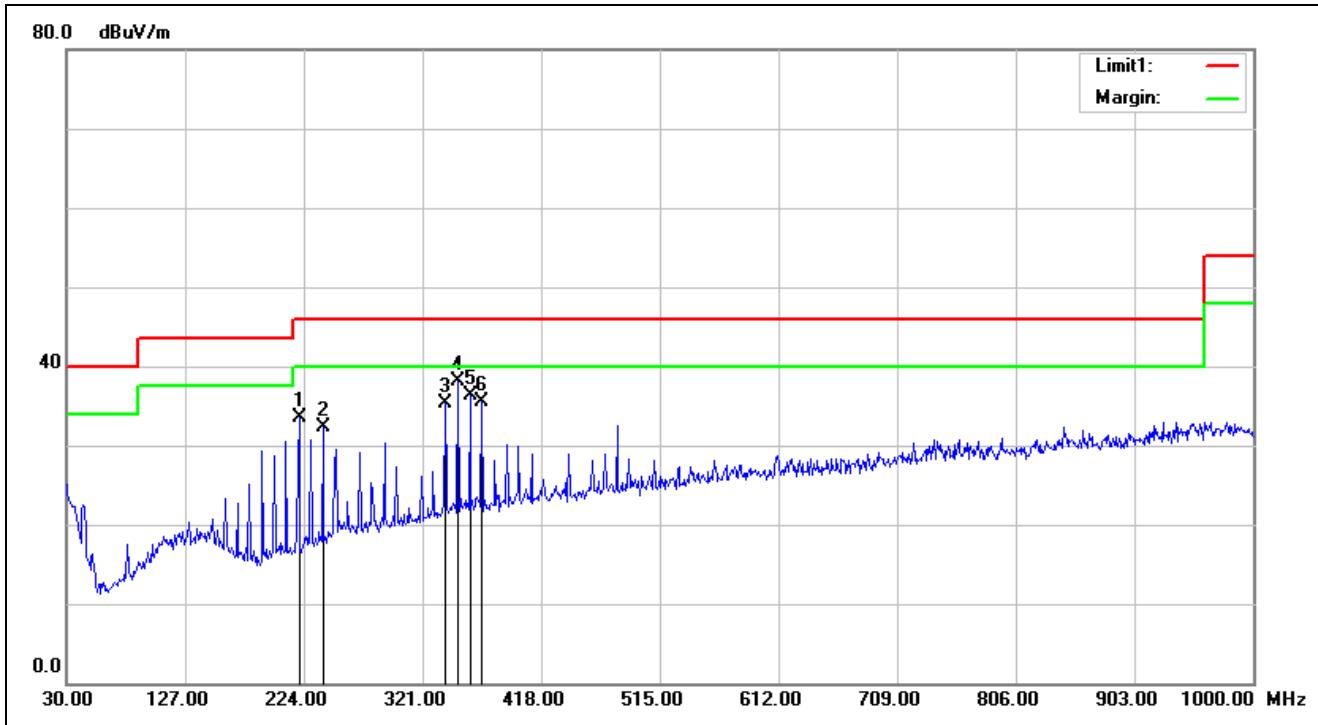


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/10 06:03:28
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	220.1200	-8.30	43.85	35.55	46.00	-10.45	QP	100	257	
2	239.5200	-6.85	45.13	38.28	46.00	-7.72	QP	100	237	
3	339.4300	-3.61	42.04	38.43	46.00	-7.57	QP	100	244	
4	350.1000	-3.34	42.50	39.16	46.00	-6.84	QP	100	234	
5	359.8000	-3.16	40.53	37.37	46.00	-8.63	QP	100	234	
6	369.5000	-2.98	41.33	38.35	46.00	-7.65	QP	100	219	



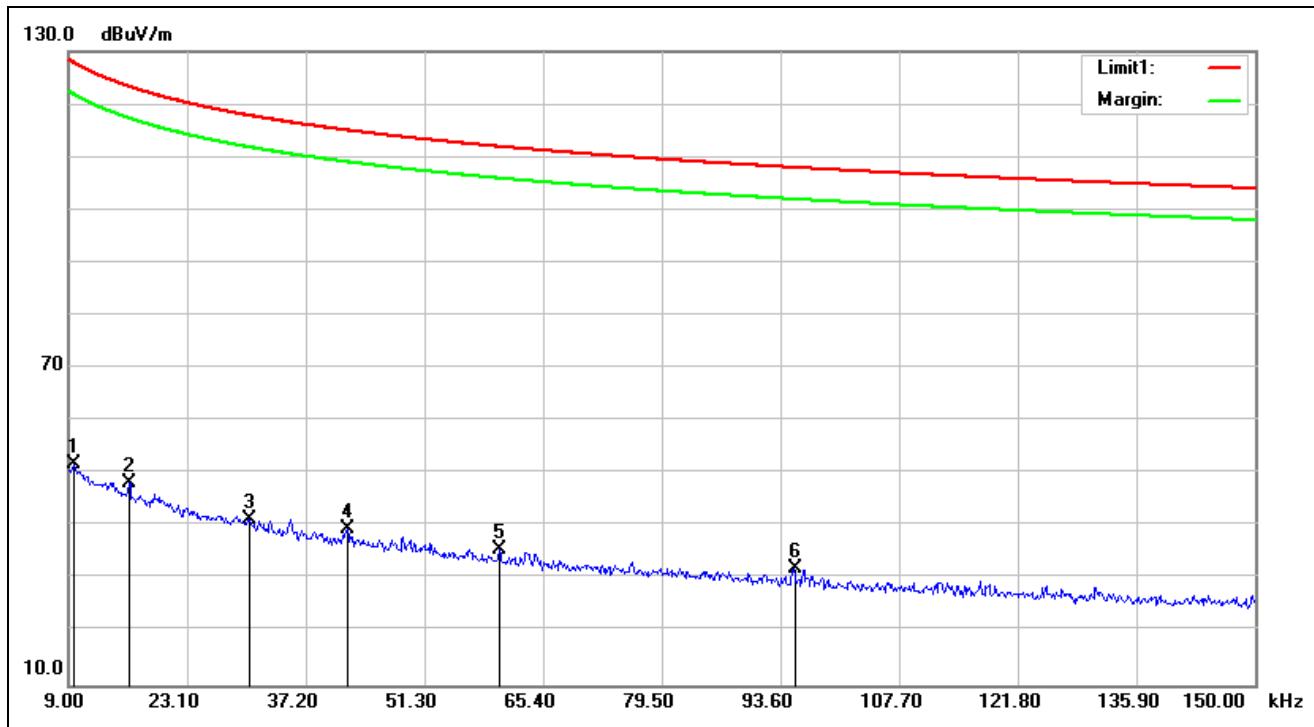
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Class B 3M Radiation	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/10 06:04:26
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	220.1200	-8.30	41.88	33.58	46.00	-12.42	QP	100	310	
2	239.5200	-6.85	39.11	32.26	46.00	-13.74	QP	100	328	
3	339.4300	-3.61	38.85	35.24	46.00	-10.76	QP	100	213	
4	350.1000	-3.35	41.52	38.17	46.00	-7.83	QP	100	204	
5	359.8000	-3.17	39.52	36.35	46.00	-9.65	QP	100	213	
6	369.5000	-2.98	38.58	35.60	46.00	-10.40	QP	100	191	

Spurious Emissions, RX Mode, 9K-30M

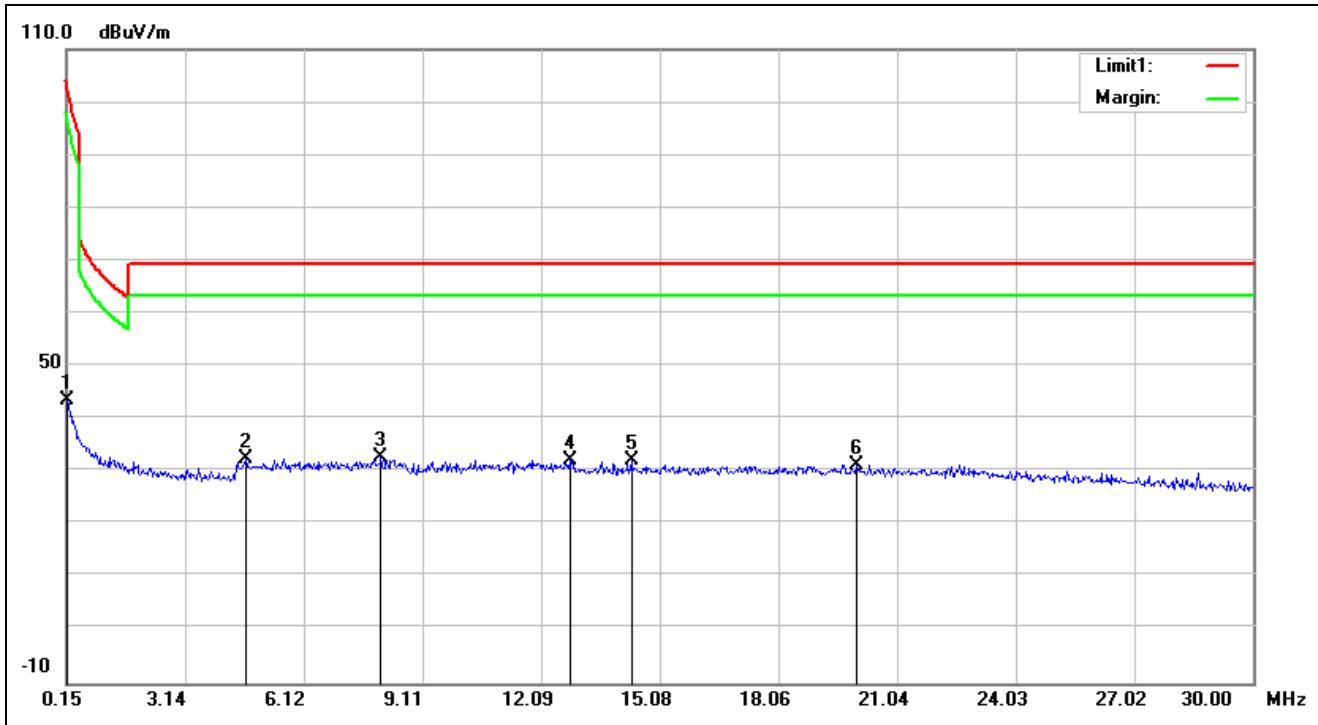


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Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:18:09
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.0096	19.78	32.00	51.78	127.84	-76.06	QP	100	177	
2	0.0162	19.99	28.37	48.36	123.31	-74.95	QP	100	12	
3	0.0306	20.11	21.26	41.37	117.81	-76.44	QP	100	237	
4	0.0421	19.71	19.78	39.49	115.05	-75.56	QP	100	258	
5	0.0602	19.37	16.30	35.67	111.95	-76.28	QP	100	312	
6	0.0952	19.16	12.91	32.07	107.98	-75.91	QP	100	108	

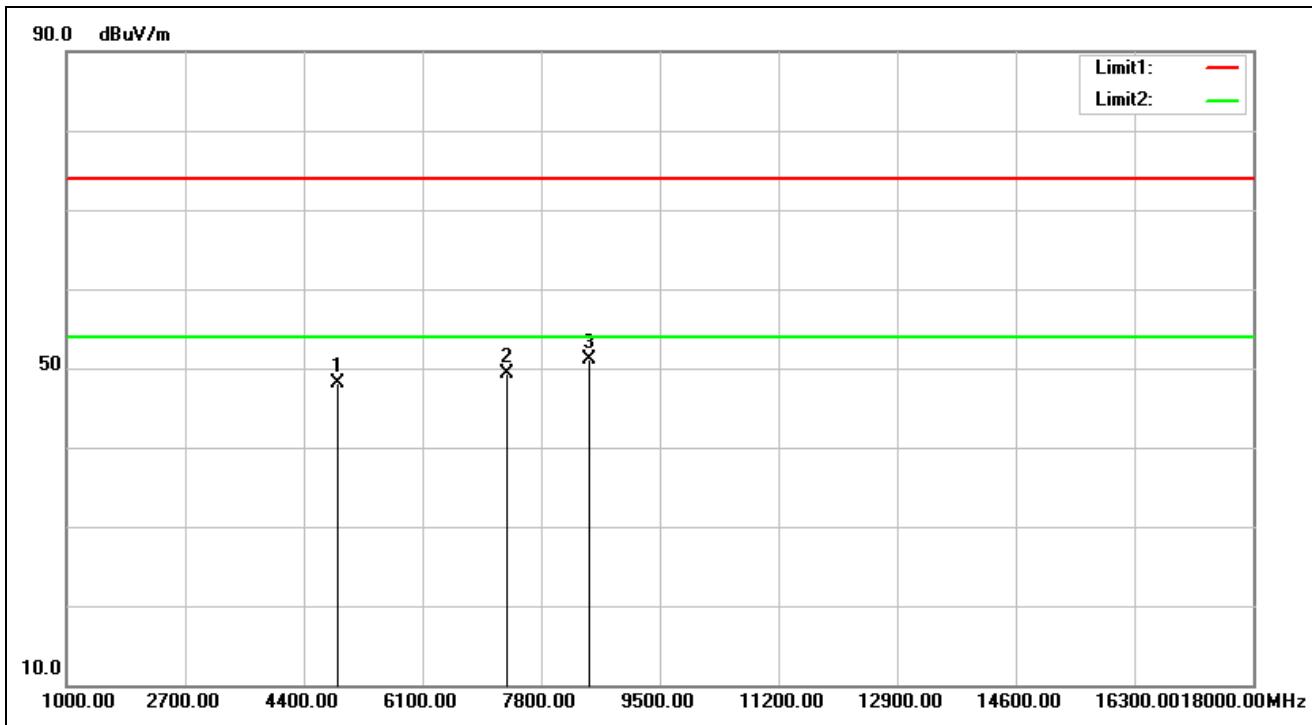


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED 9k-1G_3m	Ant. Polarization:	N/A
Test item:	Radiation Emission	Test Time:	2018/4/10 06:21:16
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/58%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	B-2437-RX		
Remark:	RFPCA381013IMAB701-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	0.1799	19.06	24.39	43.45	102.45	-59.00	QP	100	128	
2	4.6574	19.54	12.99	32.53	69.50	-36.97	QP	100	325	
3	8.0602	20.04	12.58	32.62	69.50	-36.88	QP	100	181	
4	12.8063	20.72	11.57	32.29	69.50	-37.21	QP	100	344	
5	14.3586	20.99	11.10	32.09	69.50	-37.41	QP	100	2	
6	20.0301	21.99	9.34	31.33	69.50	-38.17	QP	100	128	

Spurious Emissions, TX Mode, 1-18G

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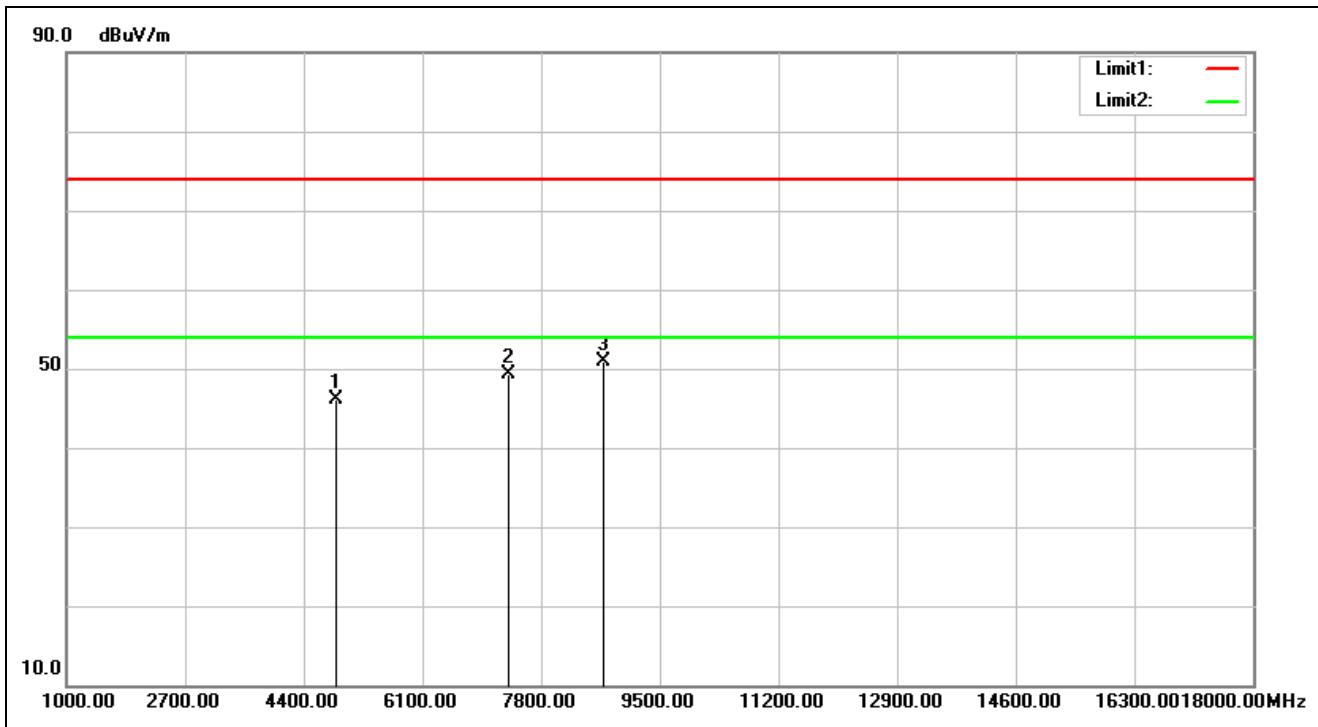


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/21 00:43:15
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 W3525B039 PCB-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	50.54	48.01	74.00	-25.99	peak		0	
2	7311.000	5.52	43.83	49.35	74.00	-24.65	peak		0	
3	8497.000	6.38	44.73	51.11	74.00	-22.89	peak	100	313	



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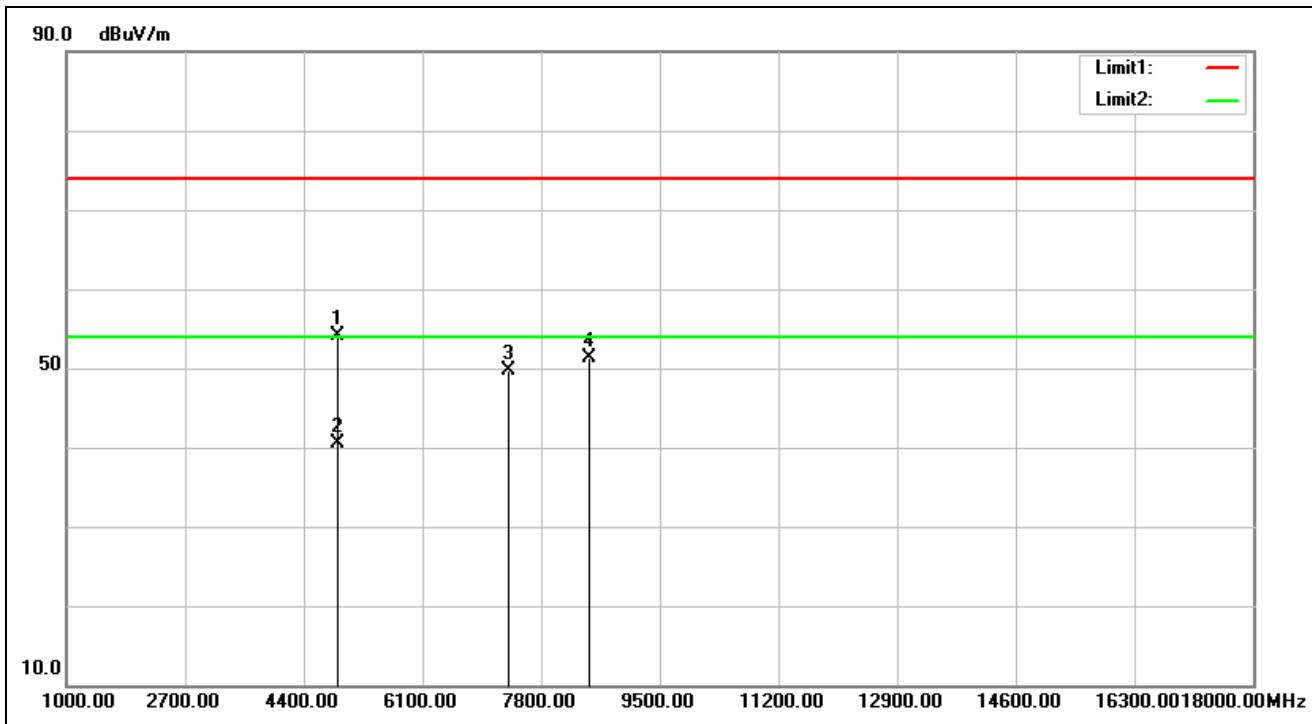


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/21 00:44:07
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 W3525B039 PCB-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	48.62	46.09	74.00	-27.91	peak			
2	7311.000	5.52	43.81	49.33	74.00	-24.67	peak			
3	8684.000	6.40	44.56	50.96	74.00	-23.04	peak	100	359	

Spurious Emissions, TX Mode, 1-18G

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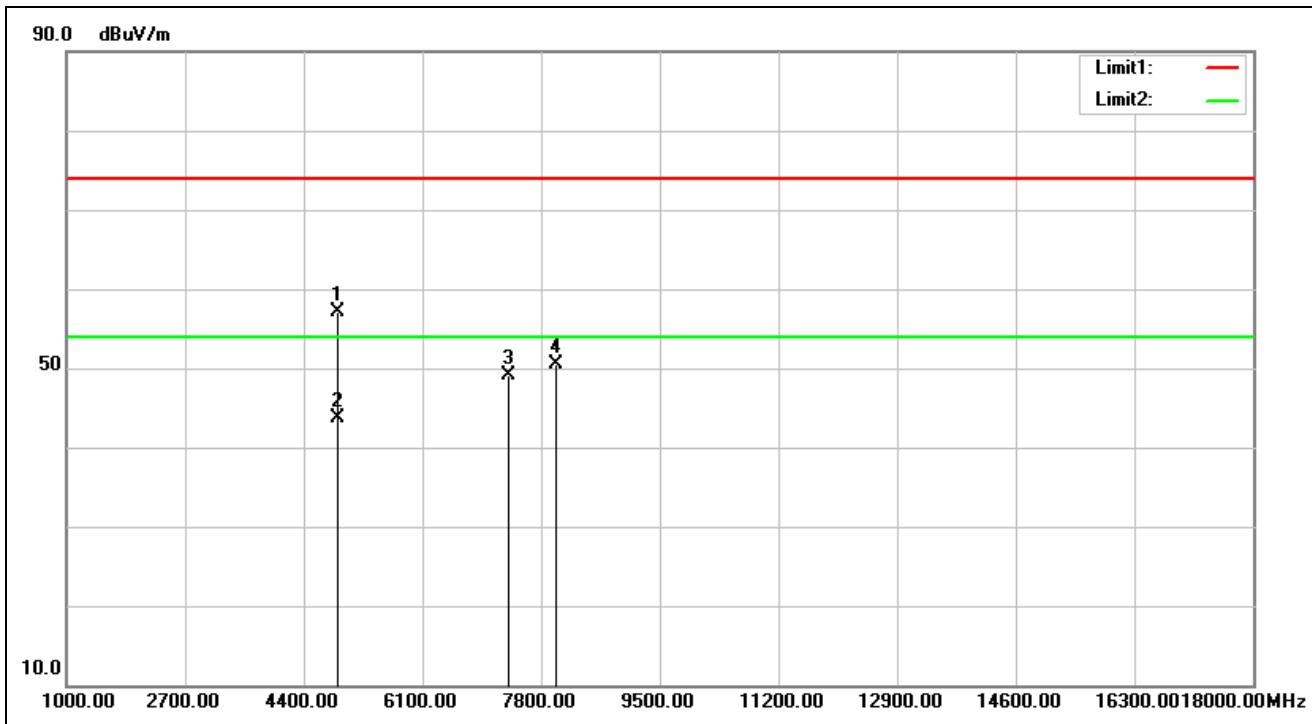


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/21 00:34:58
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RN-SMA-4 Dipole-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	56.58	54.05	74.00	-19.95	peak	100	217	
2	4874.000	-2.53	43.10	40.57	54.00	-13.43	AVG	100	217	
3	7311.000	5.52	44.22	49.74	74.00	-24.26	peak		0	
4	8480.000	6.35	44.96	51.31	74.00	-22.69	peak	100	23	

Spurious Emissions, TX Mode, 1-18G

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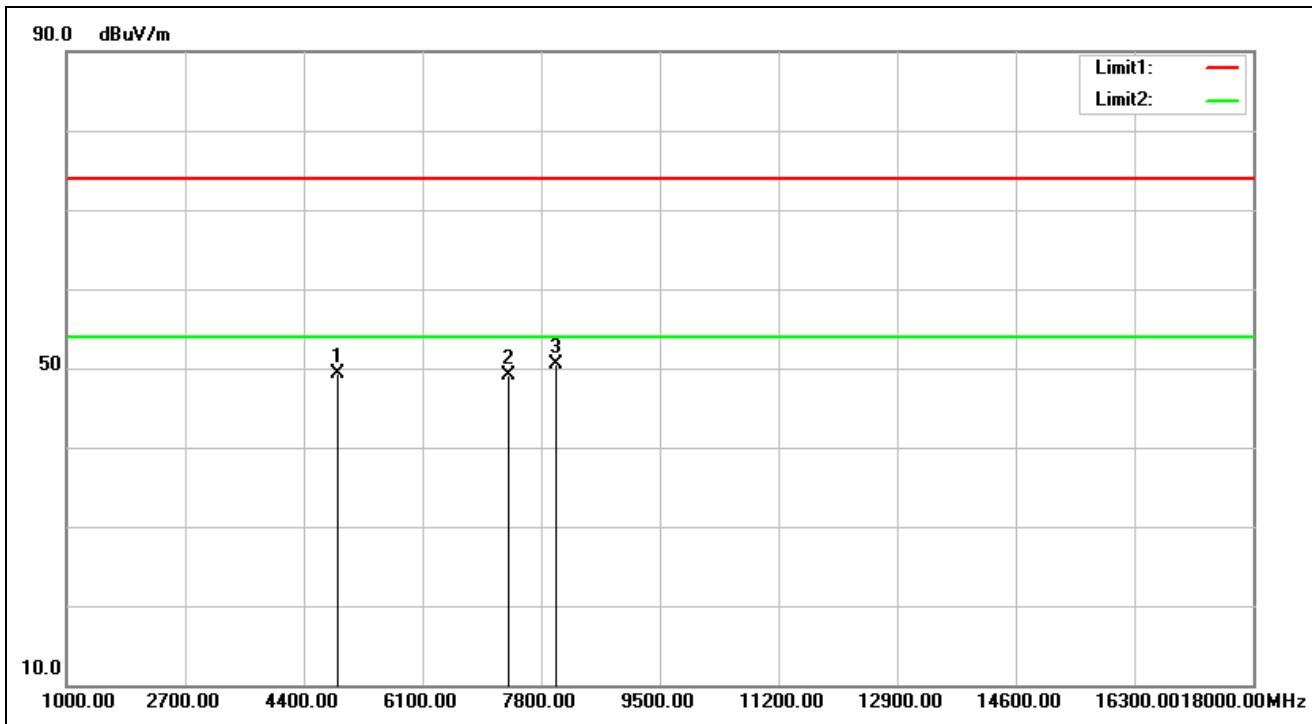


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/21 00:51:21
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4		
RFDPA870920IMLB301 dual band Dipole-ANT			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	59.68	57.15	74.00	-16.85	peak	100	320	
2	4874.000	-2.53	46.26	43.73	54.00	-10.27	AVG	100	320	
3	7311.000	5.52	43.63	49.15	74.00	-24.85	peak		0	
4	8004.000	5.82	44.70	50.52	74.00	-23.48	peak	100	81	

Spurious Emissions, TX Mode, 1-18G

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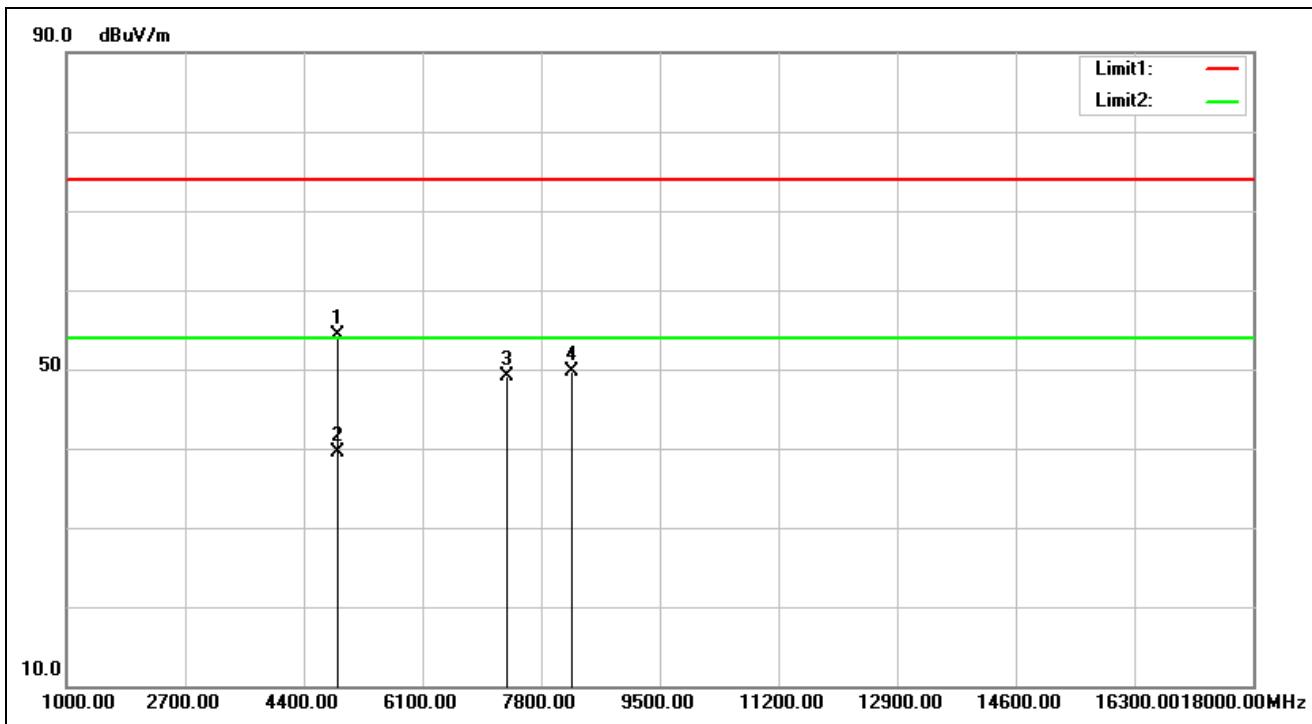


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/21 00:58:04
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4		
RFA-02-3-C5H1 Dipole-ANT			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	51.93	49.40	74.00	-24.60	peak	100	340	
2	7311.000	5.52	43.68	49.20	74.00	-24.80	peak		0	
3	8021.000	5.85	44.72	50.57	74.00	-23.43	peak	100	326	

Spurious Emissions, TX Mode, 1-18G

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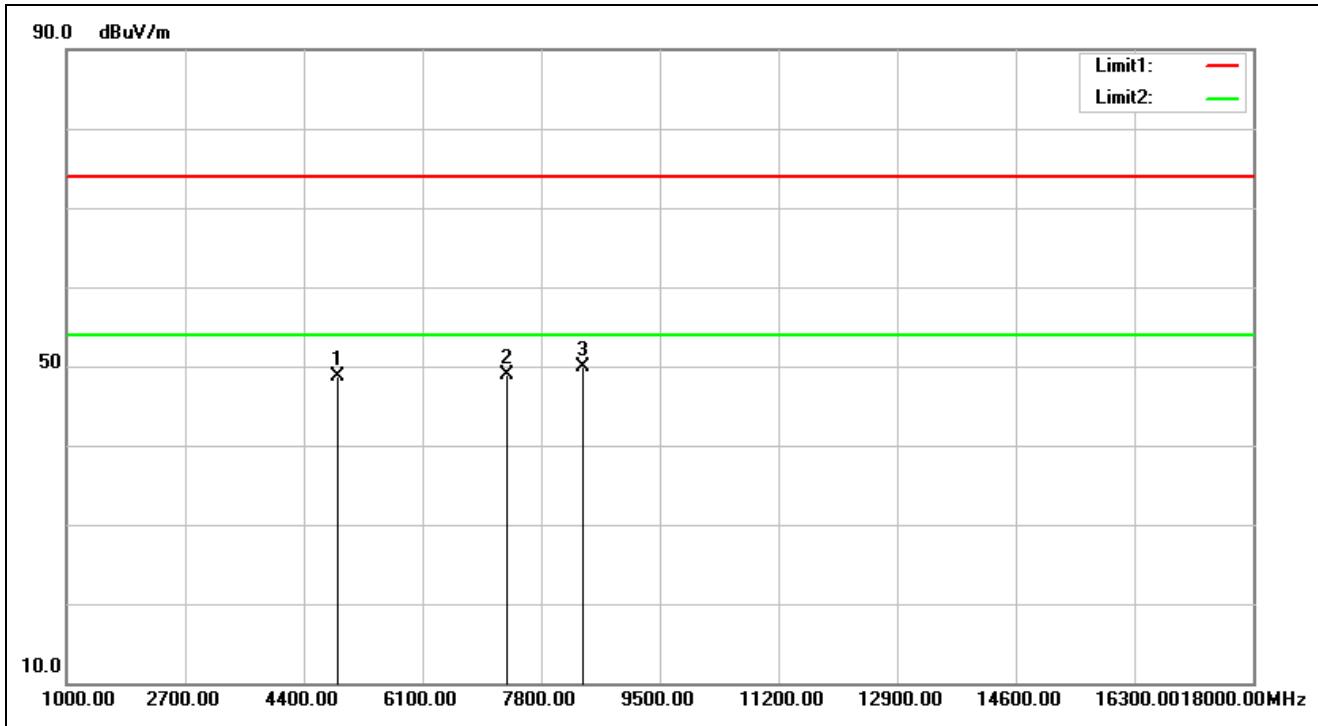


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/4/21 01:07:38
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4		
1461530100 Dual band PCB-ANT			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	56.86	54.33	74.00	-19.67	peak	100	333	
2	4874.000	-2.53	42.10	39.57	54.00	-14.43	AVG	100	333	
3	7311.000	5.52	43.57	49.09	74.00	-24.91	peak		0	
4	8242.000	6.09	43.61	49.70	74.00	-24.30	peak	100	221	



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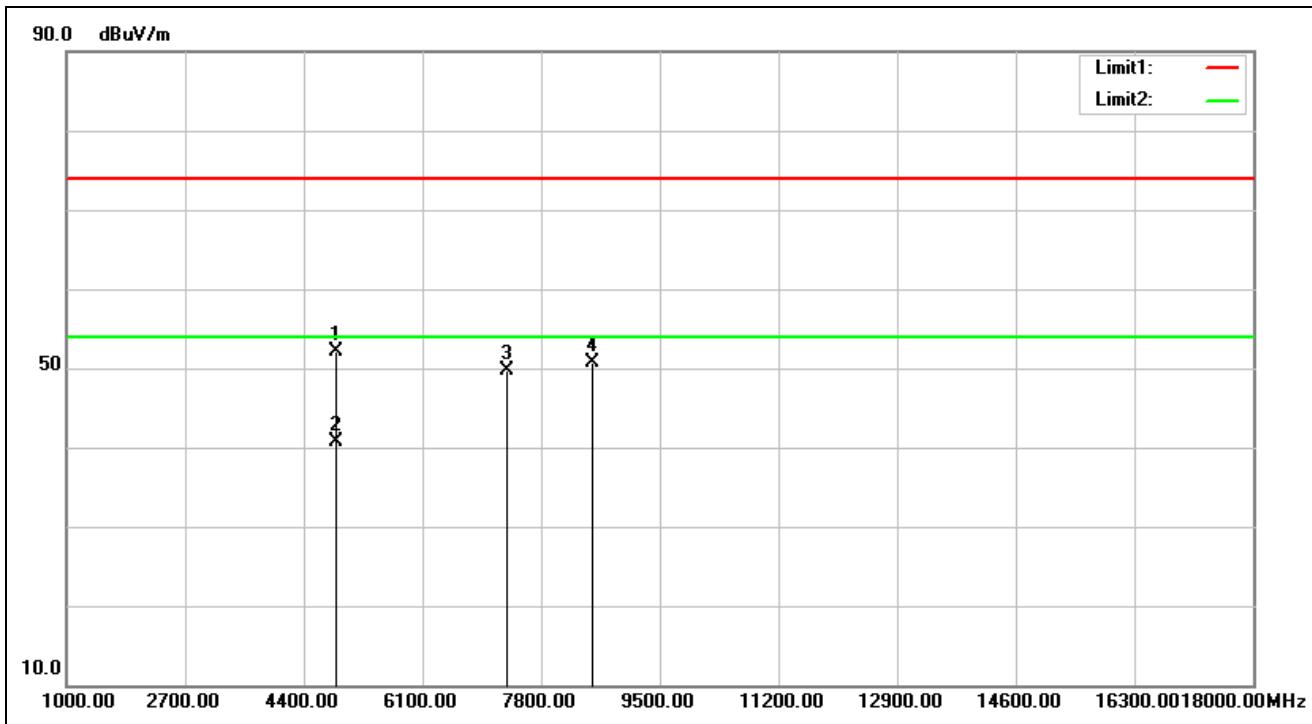


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/21 01:08:31
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 1461530100 Dual band PCB-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	51.22	48.69	74.00	-25.31	peak	100	283	
2	7311.000	5.52	43.38	48.90	74.00	-25.10	peak			
3	8395.000	6.26	43.57	49.83	74.00	-24.17	peak	100	360	

Spurious Emissions, TX Mode, 1-18G

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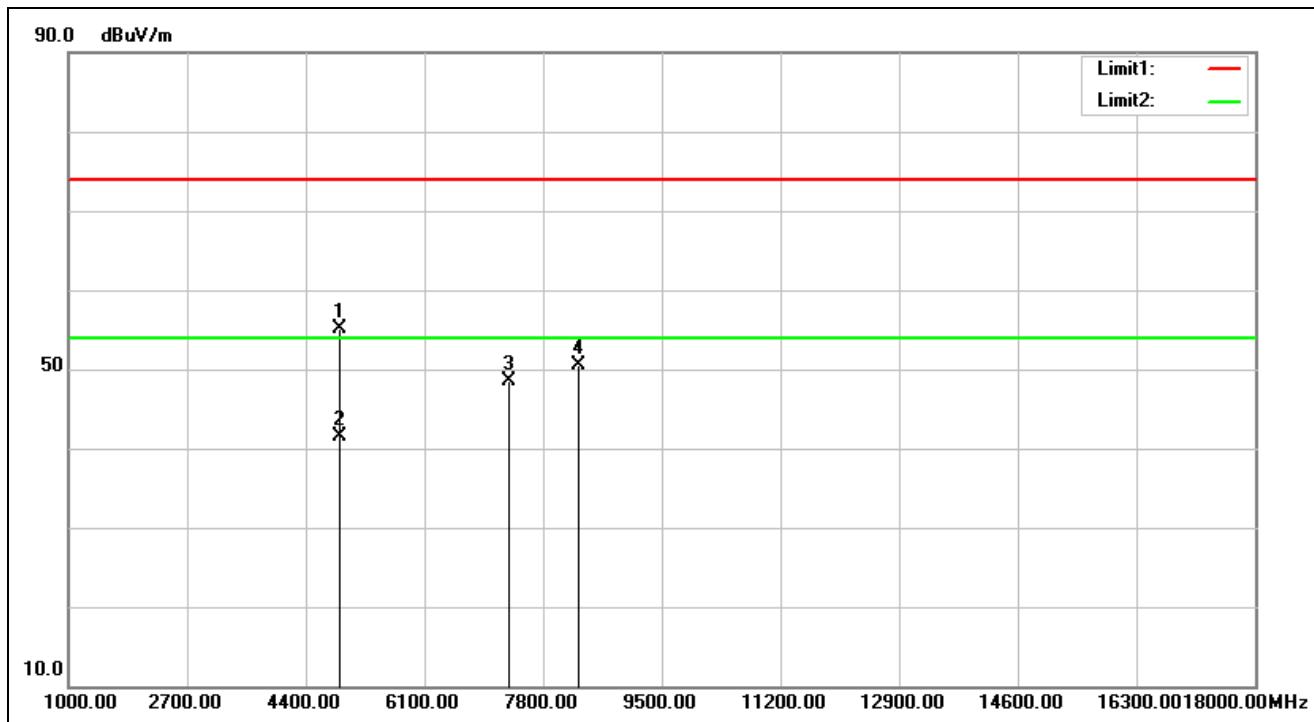


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/4/21 01:19:07
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	21(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RN-SMA-S short Dipole-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	54.73	52.20	74.00	-21.80	peak	100	262	
2	4874.000	-2.53	43.28	40.75	54.00	-13.25	AVG	100	262	
3	7311.000	5.52	44.28	49.80	74.00	-24.20	peak		0	
4	8531.000	6.38	44.37	50.75	74.00	-23.25	peak	100	139	

Spurious Emissions, TX Mode, 1-18G

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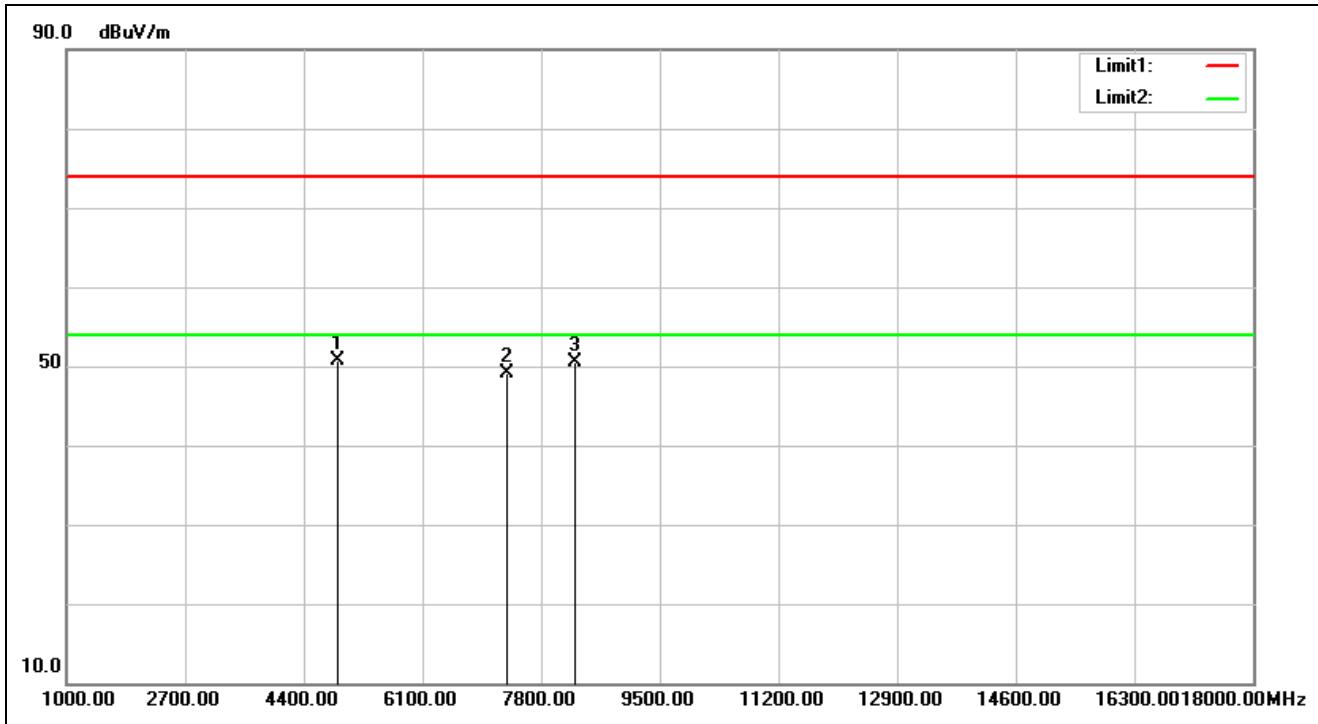


Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Horizontal
Test item:	Radiation Emission	Test Time:	2018/5/2 19:38:05
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	23(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4		
RFA-02-G03-ANT			

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	57.69	55.16	74.00	-18.84	peak	100	330	
2	4874.000	-2.53	44.06	41.53	54.00	-12.47	AVG	100	330	
3	7311.000	5.52	43.01	48.53	74.00	-25.47	peak		0	
4	8310.000	6.17	44.34	50.51	74.00	-23.49	peak	100	357	



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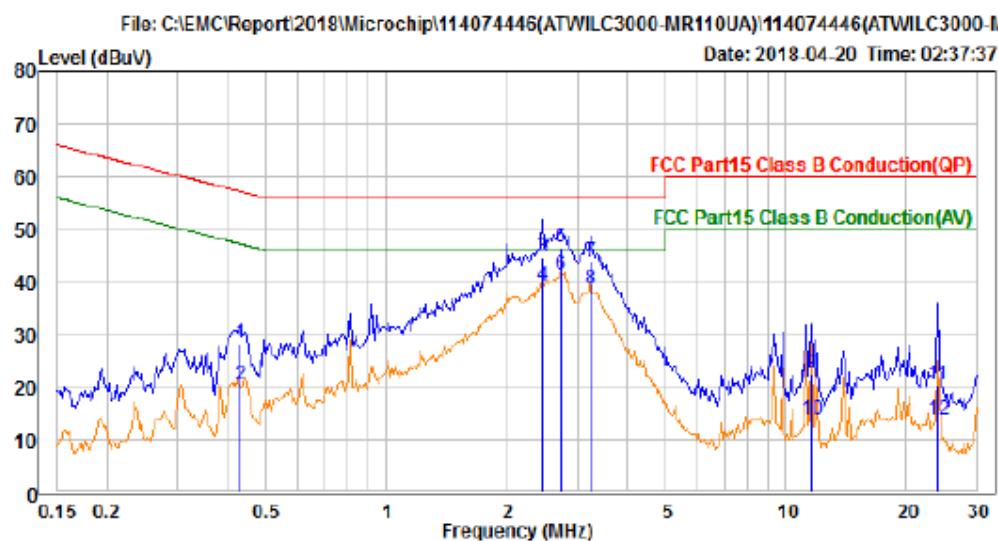
Service No.:	114074446	Test Distance:	3m
Test Standard:	FCC&ISED Above 1G PEAK	Ant. Polarization:	Vertical
Test item:	Radiation Emission	Test Time:	2018/5/2 19:38:58
Applicant:	Microchip	Test Rating:	DC 3.3V
Product:	IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth	Temp.(°C)/Hum.(%):	23(°C)/60%
Model No.:	ATWILC3000-MR110UA	Test Engineer:	Curry Chen
Test Mode:	G-2437-TX		
Remark:	Power Setting -4 RFA-02-G03-ANT		

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	4874.000	-2.53	53.18	50.65	74.00	-23.35	peak	100	239	
2	7311.000	5.52	43.57	49.09	74.00	-24.91	peak			
3	8293.000	6.15	44.31	50.46	74.00	-23.54	peak	100	359	

Mains



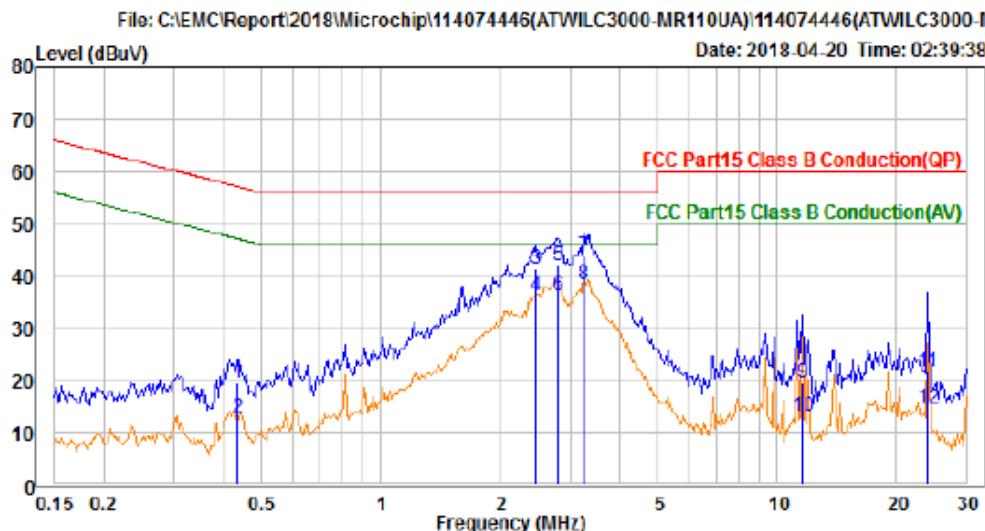
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Trace: 1

Site : Conduction room
Condition : FCC Part15 Class B Conduction(QP) line1
Test Engineer: Curry Chen
Applicant : Microchip
Product : IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth
Model No. : ATWILC3000-MR110UA
Test Rating : 120Vac/60Hz
Tmp/Hum : 22.7 °C / 52 %
Memo : Mains

Freq	Read		Limit Level	Line Limit	Over dB	Remark
	Level	Factor				
	MHz	dBuV	dB	dBuV	dB	
1	0.430	18.50	9.66	28.16	57.25	-29.09 QP
2	0.430	10.69	9.66	20.35	47.25	-26.90 Average
3	2.450	34.99	9.69	44.68	56.00	-11.32 QP
4	2.450	29.61	9.69	39.30	46.00	-6.70 Average
5	2.733	36.90	9.69	46.59	56.00	-9.41 QP
6	2.733	31.59	9.69	41.28	46.00	-4.72 Average
7	3.237	34.22	9.71	43.93	56.00	-12.07 QP
8	3.237	28.85	9.71	38.56	46.00	-7.44 Average
9	11.553	12.64	9.80	22.44	60.00	-37.56 QP
10	11.553	3.82	9.80	13.62	50.00	-36.38 Average
11	23.869	10.63	9.81	20.44	60.00	-39.56 QP
12	23.869	3.85	9.81	13.66	50.00	-36.34 Average



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 Link Controller Module With Integrated Bluetooth
 Model No. : ATWILC3000-MR110UA
 Test Rating : 120Vac/60Hz
 Tmp/Hum : 22.7 °C / 52 %
 Memo : Mains

Freq	Read		Limit Line	Over Limit	Remark	
	MHz	dBuV	Level Factor	dB	dBuV	dB
1	0.435	9.66	9.66	19.32	57.17	-37.85 QP
2	0.435	3.15	9.66	12.81	47.17	-34.36 Average
3	2.450	31.66	9.70	41.36	56.00	-14.64 QP
4	2.450	26.45	9.70	36.15	46.00	-9.85 Average
5	2.788	32.12	9.71	41.83	56.00	-14.17 QP
6	2.788	26.52	9.71	36.23	46.00	-9.77 Average
7	3.237	33.95	9.72	43.67	56.00	-12.33 QP
8	3.237	28.67	9.72	38.39	46.00	-7.61 Average
9	11.553	9.49	9.83	19.32	60.00	-40.68 QP
10	11.553	3.19	9.83	13.02	50.00	-36.98 Average
11	23.869	11.80	9.89	21.69	60.00	-38.31 QP
12	23.869	4.66	9.89	14.55	50.00	-35.45 Average