Test Report No.50141802 001

Appendix D: Radiated and Mains Spurious Emission Data

(File: 50141802AppendixD)

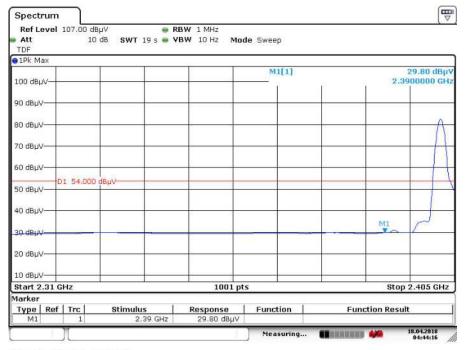
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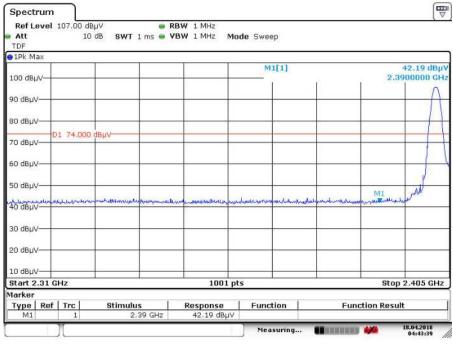
RFA-02-5-C7H1-ANT Spurious Emissions, Band Edges, 2.35-2.5G

Radiated Bandedge 1DH5

Low Channel (Hor)

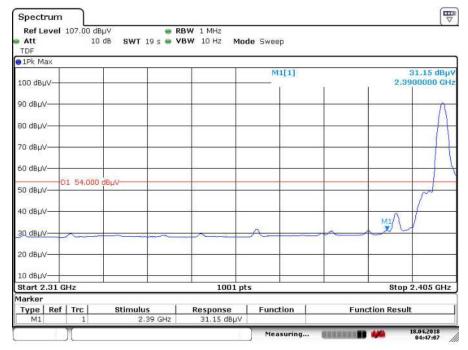


Date: 18.APR.2018 04:44:16

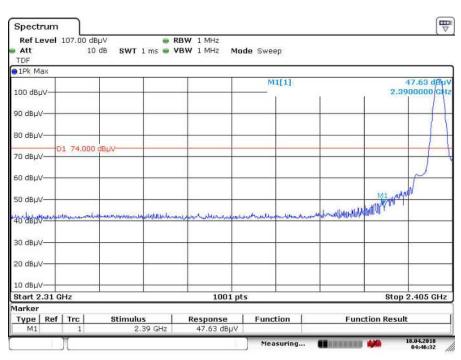


Date: 18.APR.2018 04:43:39

Low Channel (Ver)



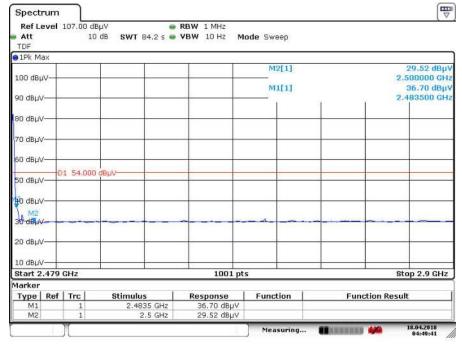
Date: 18.APR.2018 04:47:07



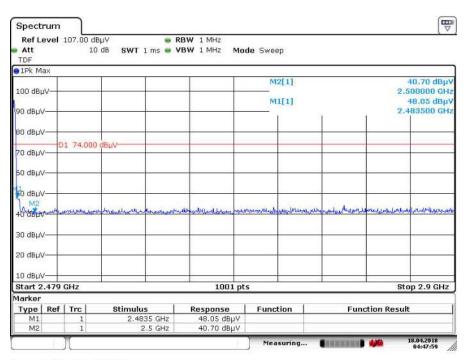
Date: 18.APR.2018 04:46:32

Radiated Bandedge 1DH5

High Channel (Hor)

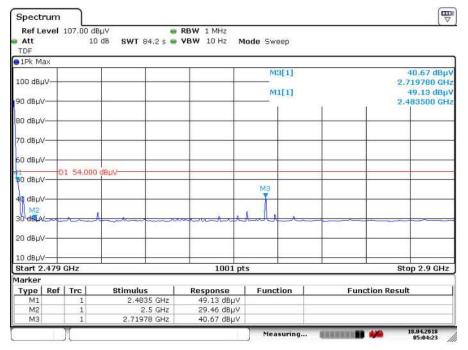


Date: 18.APR.2018 04:49:41

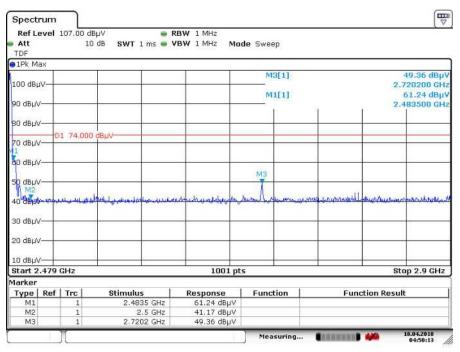


Date: 18.APR.2018 04:47:59

High Channel (Ver)



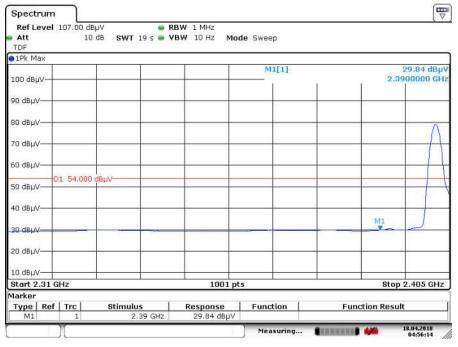
Date: 18.APR.2018 05:04:23



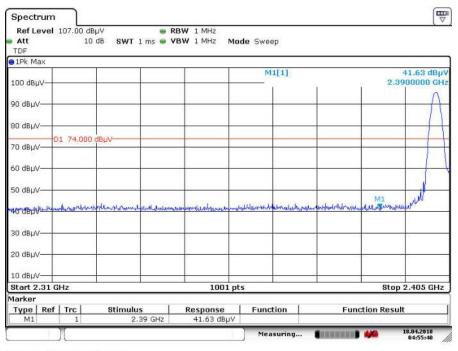
Date: 18.APR.2018 04:50:13

Radiated Bandedge 3DH5

Low Channel (Hor)

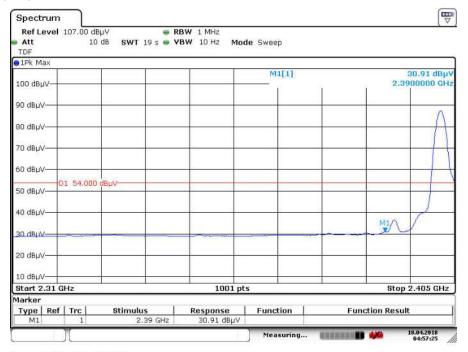


Date: 18.APR.2018 04:56:14

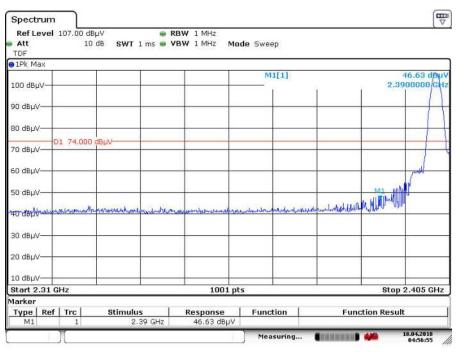


Date: 18.APR.2018 04:55:40

Low Channel (Ver)



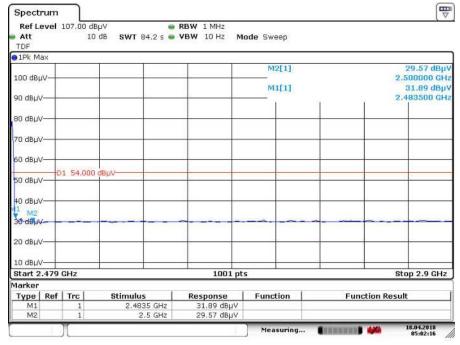
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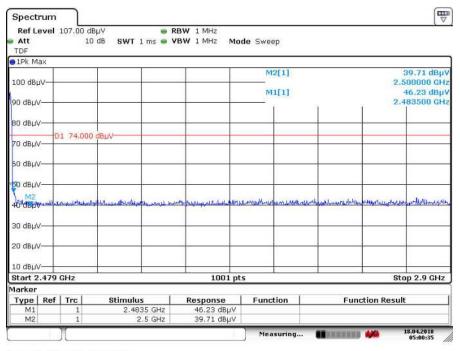
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Radiated Bandedge 3DH5

High Channel (Hor)

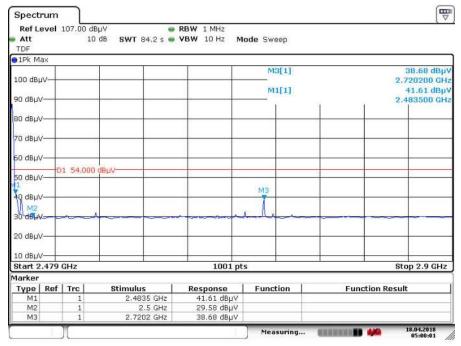


Date: 18.APR.2018 05:02:16

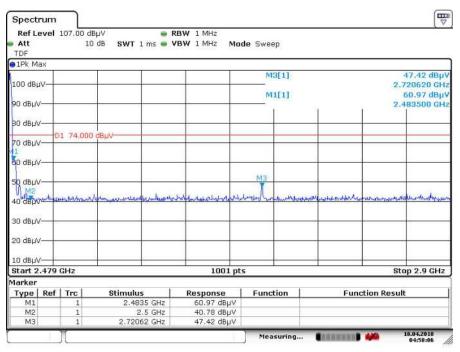


Date: 18.APR.2018 05:00:35

High Channel (Ver)



Date: 18.APR.2018 05:00:01



Date: 18.APR.2018 04:58:06

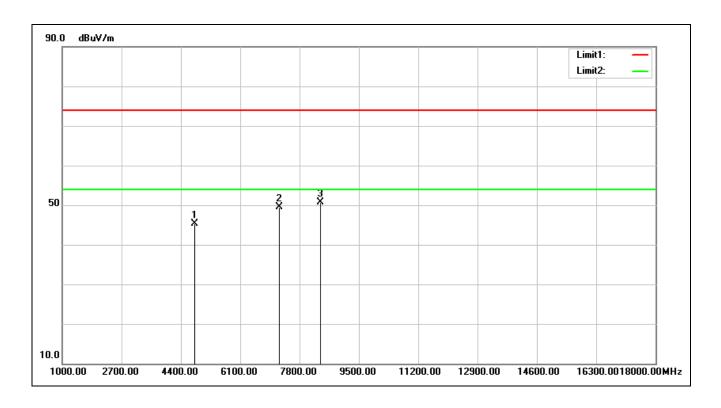
Spurious Emissions, TX Mode, 1-18G



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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: 2018/4/18 04:57:38

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2402-TX

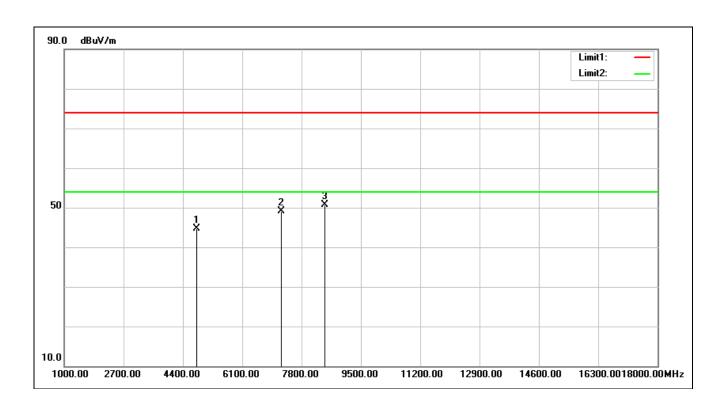
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	48.05	45.33	74.00	-28.67	peak		0	
2	7206.000	5.25	44.30	49.55	74.00	-24.45	peak		0	
3	8395.000	6.26	44.35	50.61	74.00	-23.39	peak	100	213	



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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: 2018/4/18 04:58:30

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2402-TX

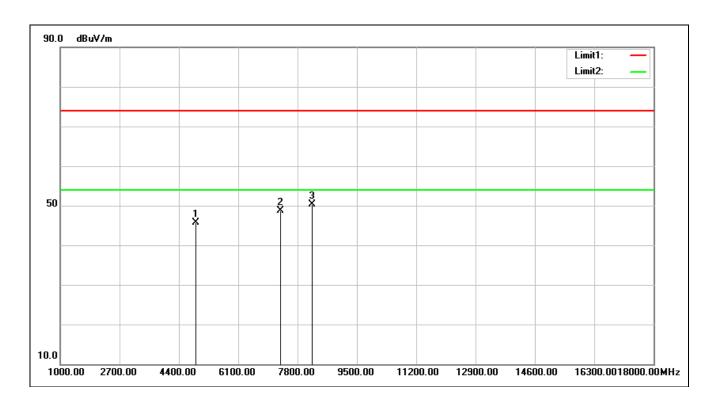
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	47.46	44.74	74.00	-29.26	peak			
2	7206.000	5.25	43.95	49.20	74.00	-24.80	peak			
3	8463.000	6.34	44.39	50.73	74.00	-23.27	peak	100	313	



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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: 2018/4/18 04:59:53

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

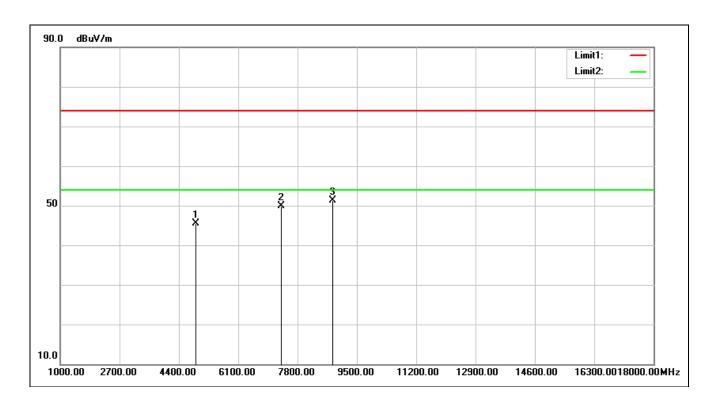
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No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
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1	4882.000	-2.50	48.20	45.70	74.00	-28.30	peak			
2	7323.000	5.54	43.24	48.78	74.00	-25.22	peak			
3	8225.000	6.08	44.21	50.29	74.00	-23.71	peak	100	256	



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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: 2018/4/18 05:00:46

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

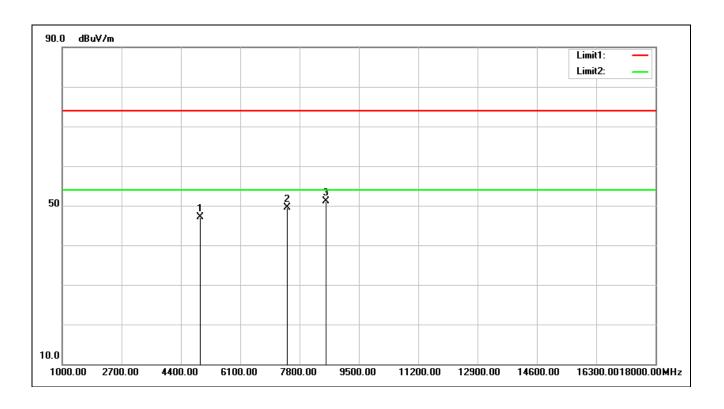
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
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1	4882.000	-2.50	48.09	45.59	74.00	-28.41	peak			
2	7323.000	5.54	44.37	49.91	74.00	-24.09	peak			
3	8803.000	6.42	44.81	51.23	74.00	-22.77	peak	100	360	



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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: 2018/4/18 05:02:10

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2480-TX

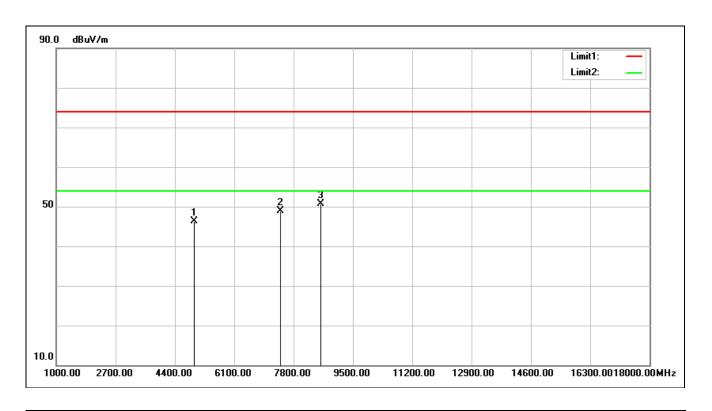
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No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
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1	4960.000	-2.28	49.38	47.10	74.00	-26.90	peak			
2	7440.000	5.84	43.57	49.41	74.00	-24.59	peak			
3	8548.000	6.38	44.68	51.06	74.00	-22.94	peak	100	0	



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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: 2018/4/18 05:03:02

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2480-TX

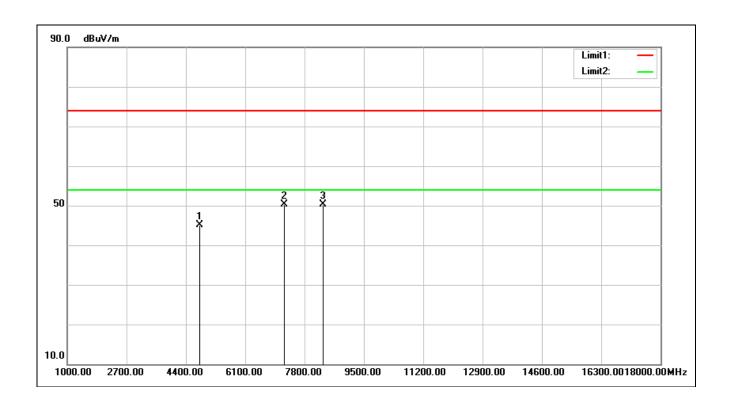
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	48.64	46.36	74.00	-27.64	peak			
2	7440.000	5.84	43.03	48.87	74.00	-25.13	peak			
3	8582.000	6.39	44.27	50.66	74.00	-23.34	peak	100	180	



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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: 2018/4/18 05:04:58

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2402-TX

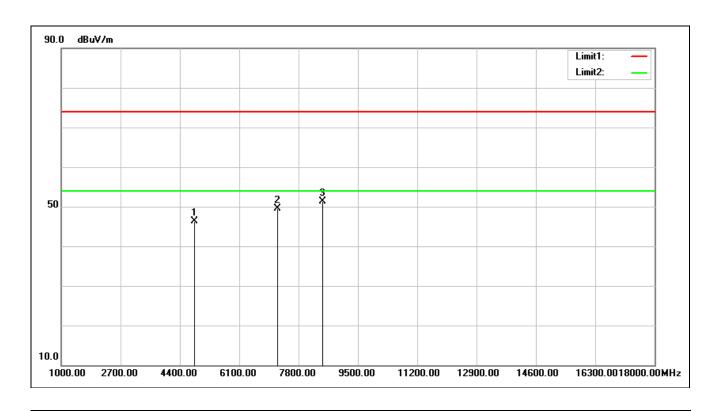
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No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	47.78	45.06	74.00	-28.94	peak			
2	7206.000	5.25	45.09	50.34	74.00	-23.66	peak			
3	8327.000	6.18	44.12	50.30	74.00	-23.70	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: 2018/4/18 05:05:51

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2402-TX

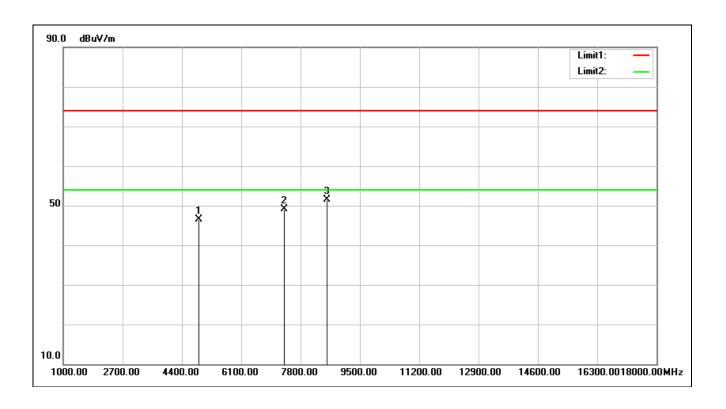
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	48.96	46.24	74.00	-27.76	peak			
2	7206.000	5.25	44.16	49.41	74.00	-24.59	peak			
3	8497.000	6.38	44.90	51.28	74.00	-22.72	peak	100	206	



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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: 2018/4/18 05:07:16

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2441-TX

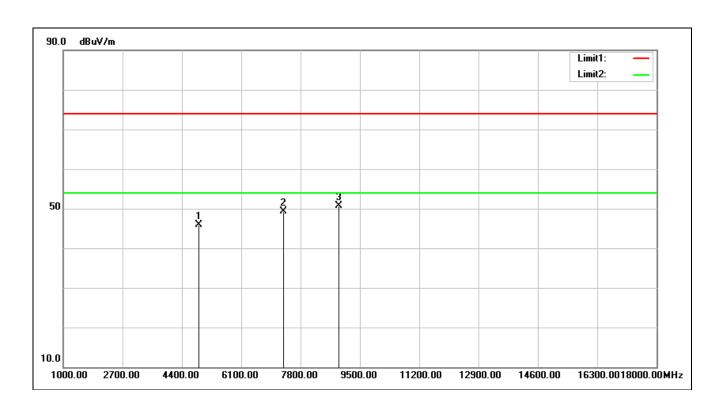
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4882.000	-2.50	49.06	46.56	74.00	-27.44	peak			
2	7323.000	5.54	43.66	49.20	74.00	-24.80	peak			
3	8565.000	6.39	45.04	51.43	74.00	-22.57	peak	100	198	



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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: 2018/4/18 05:08:09

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2441-TX

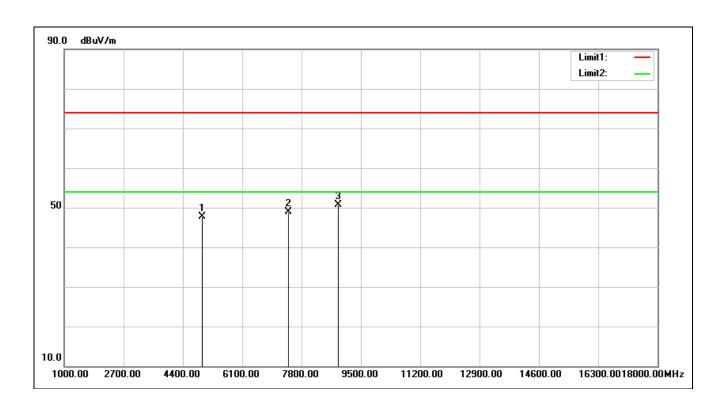
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4882.000	-2.50	48.33	45.83	74.00	-28.17	peak			
2	7323.000	5.54	43.70	49.24	74.00	-24.76	peak			
3	8905.000	6.42	44.22	50.64	74.00	-23.36	peak	100	132	



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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: 2018/4/18 05:09:33

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2480-TX

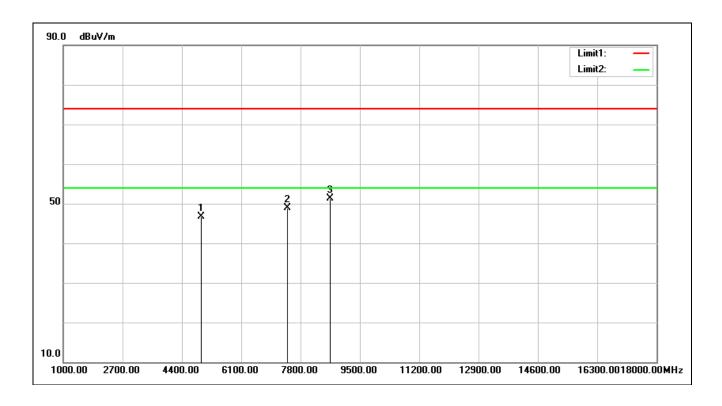
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	49.91	47.63	74.00	-26.37	peak			
2	7440.000	5.84	43.02	48.86	74.00	-25.14	peak			
3	8854.000	6.42	44.32	50.74	74.00	-23.26	peak	100	147	



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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: 2018/4/18 05:10:26

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2480-TX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	48.97	46.69	74.00	-27.31	peak			
2	7440.000	5.84	43.16	49.00	74.00	-25.00	peak			
3	8650.000	6.40	44.86	51.26	74.00	-22.74	peak	100	299	

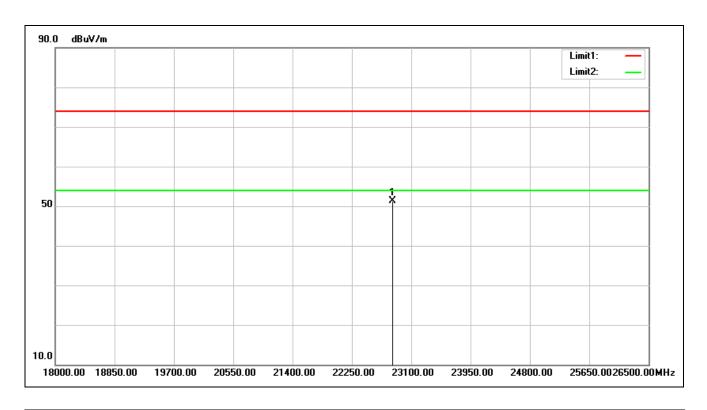
Spurious Emissions, TX Mode, 18-26G



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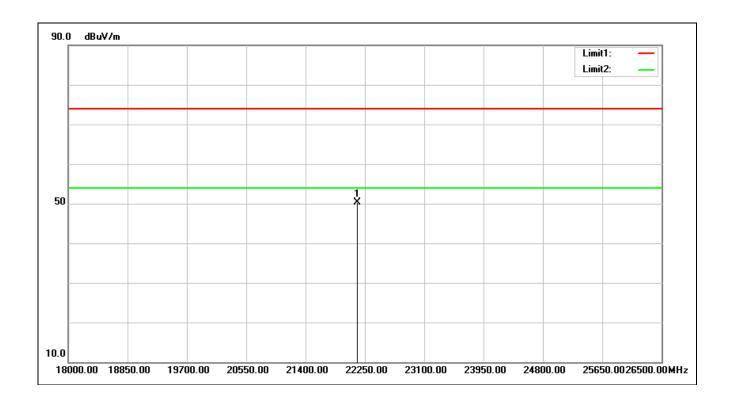
Service No.: 114074446 **Test Distance:** 3m **Test Standard:** FCC&ISED Above 1G PEAK Ant. Polarization: Horizontal Test item: **Test Time: Radiation Emission** 2018/4/18 05:18:43 **Applicant:** Microchip **Test Rating:** DC 3.3V **Product:** IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 20($^{\circ}$ C)/50% With Integrated Bluetooth ATWILC3000-MR110UA Model No.: **Test Engineer: Curry Chen Test Mode:** 1DH5-2402-TX Remark: RFA-02-5-C7H1-ANT

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22836.500	32.75	18.47	51.22	74.00	-22.78	peak		0	



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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: 2018/4/18 05:18:49

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2402-TX

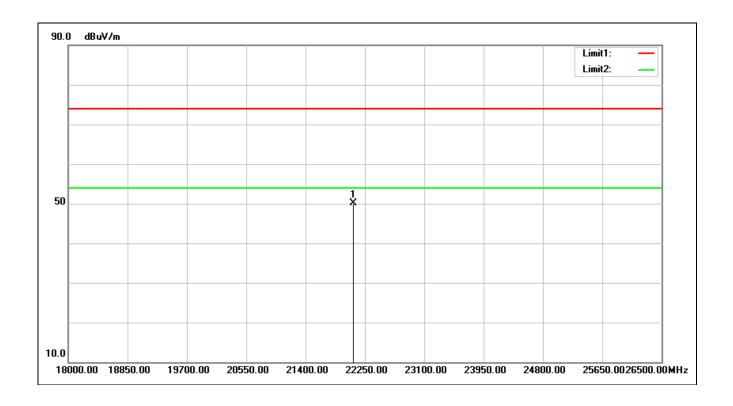
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22139.500	32.61	17.67	50.28	74.00	-23.72	peak	100	220	



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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: 2018/4/18 05:19:15

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

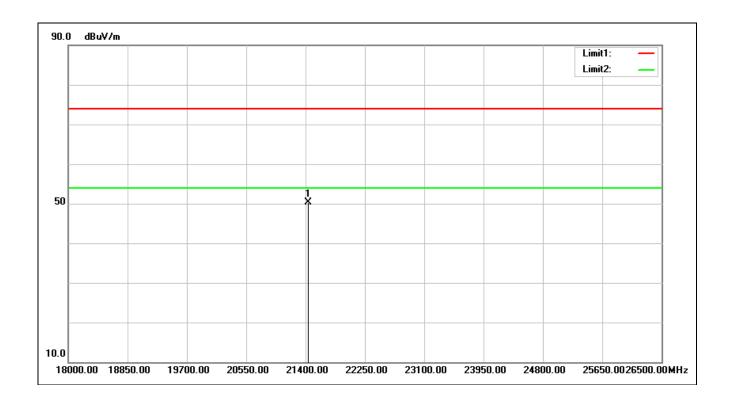
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22080.000	32.59	17.43	50.02	74.00	-23.98	peak			



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 Test Standard:
 FCC&ISED Above 1G PEAK
 Ant. Polarization:
 Vertical

 Test item:
 Radiation Emission
 Test Time:
 2018/4/18 05:19:21

 Applicant:
 Microchip
 Test Rating:
 DC 3.3V

 Product:
 IEEE 802.11 b/g/n Link Controller Module
 Temp.(℃)/Hum.(%):
 20(℃)/50%

Test Distance:

3m

With Integrated Bluetooth

114074446

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

Remark:

Service No.:

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	17.47	50.31	74.00	-23.69	peak			

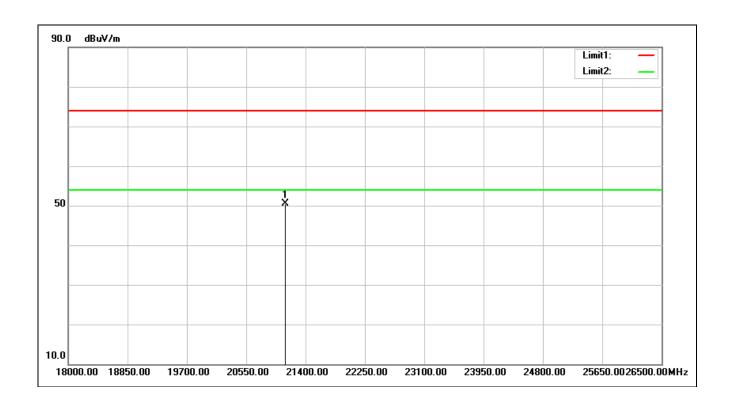


Service No.:

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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Horizontal Test item: **Test Time:** 2018/4/18 05:19:45 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$)/Hum.($^{\circ}$): **Product:** IEEE 802.11 b/g/n Link Controller Module 20(°C)/50% With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen Test Mode:** 1DH5-2480-TX Remark:

Test Distance:

3m

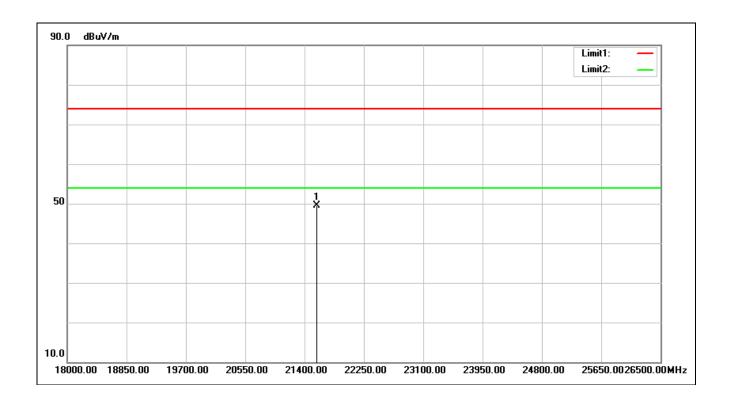
RFA-02-5-C7H1-ANT

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (•)	Remark
1	21111.000	32.55	18.03	50.58	74.00	-23.42	peak			



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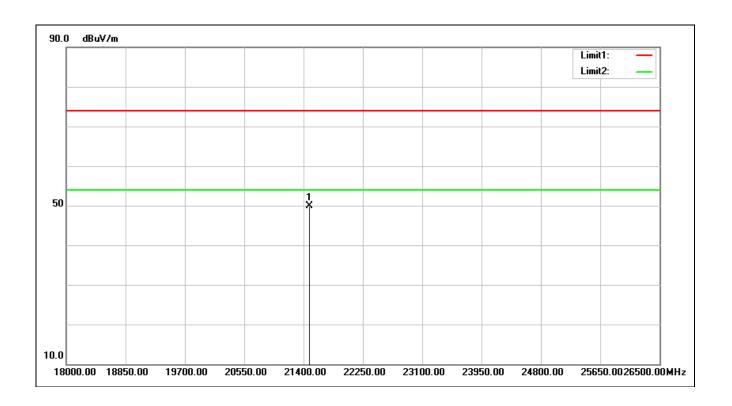
Service No.: 114074446 **Test Distance:** 3m **Test Standard:** FCC&ISED Above 1G PEAK Ant. Polarization: Vertical Test item: **Test Time:** 2018/4/18 05:19:51 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 20($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen Test Mode:** 1DH5-2480-TX Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	21570.000	32.85	16.71	49.56	74.00	-24.44	peak			



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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Horizontal

Test item: Radiation Emission Test Time: 2018/4/18 05:20:16

Test Distance:

3m

Applicant: Microchip Test Rating: DC 3.3V Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$ C)/Hum.($^{\circ}$ C): 20($^{\circ}$ C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2402-TX

Remark:

Service No.:

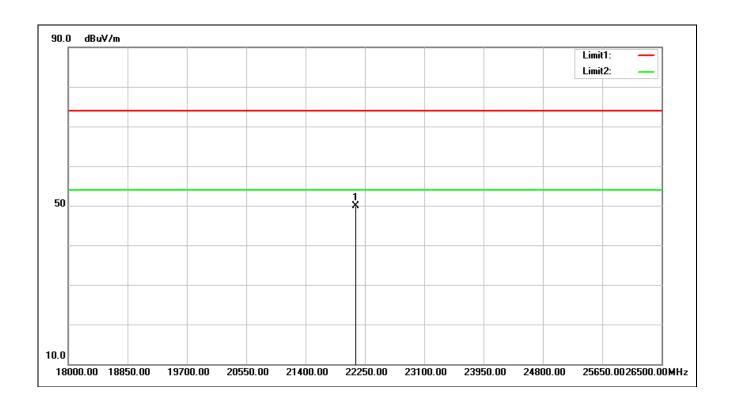
RFA-02-5-C7H1-ANT

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21485.000	32.88	17.07	49.95	74.00	-24.05	peak			



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FCC&ISED Above 1G PEAK **Test Standard:** Ant. Polarization: Vertical Test item: **Radiation Emission Test Time:** 2018/4/18 05:20:23 **Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 20($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen**

Test Distance:

3m

Test Mode: 3DH5-2402-TX

Remark:

Service No.:

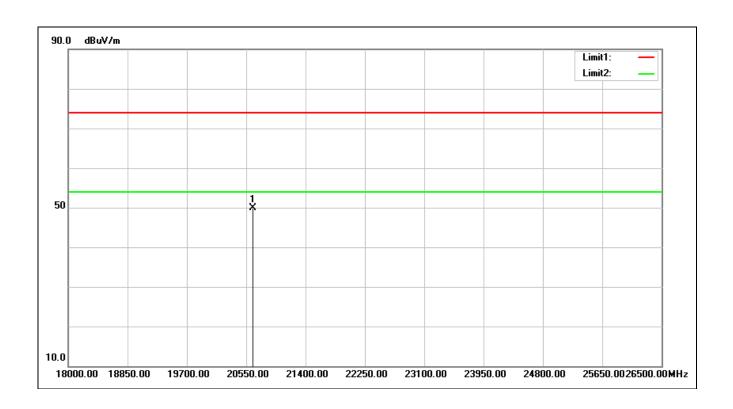
RFA-02-5-C7H1-ANT

ľ	No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
		(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
	1	22122.500	32.60	17.25	49.85	74.00	-24.15	peak			



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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Horizontal Test item: **Test Time:** 2018/4/18 05:20:49 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$)/Hum.($^{\circ}$): **Product:** IEEE 802.11 b/g/n Link Controller Module 20(°C)/50% With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen**

Test Distance:

3m

Test Mode: 3DH5-2441-TX

Remark:

Service No.:

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	20643.500	31.70	18.29	49.99	74.00	-24.01	peak			

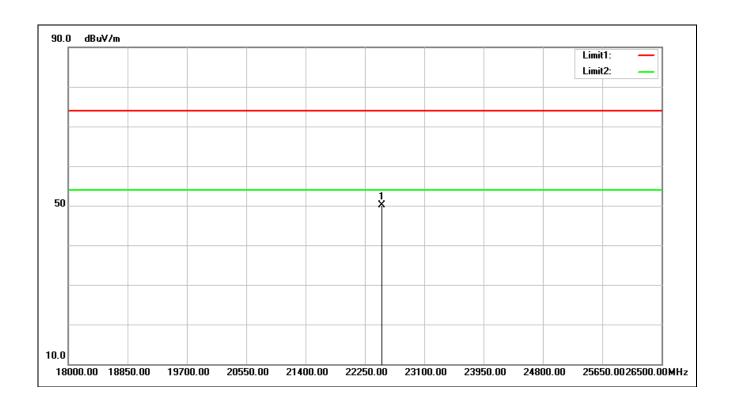


Service No.:

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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Vertical Test item: **Test Time:** 2018/4/18 05:20:56 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 20($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen Test Mode:** 3DH5-2441-TX Remark:

Test Distance:

3m

DEL 04 - CEVI 124

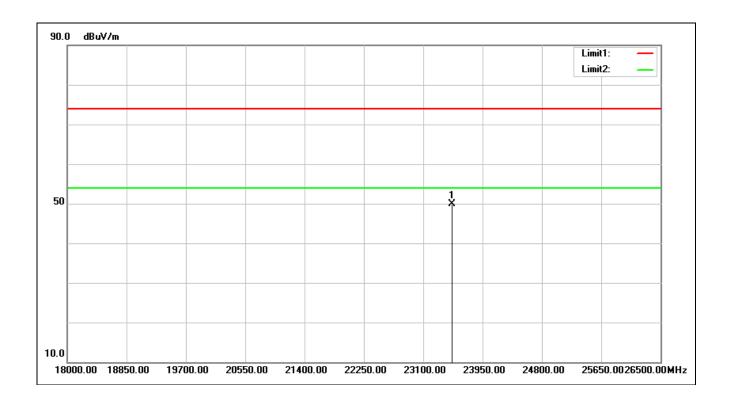
RFA-02-5-C7H1-ANT

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22496.500	32.64	17.41	50.05	74.00	-23.95	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: 2018/4/18 05:22:40

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$)/Hum.($^{\circ}$): 22($^{\circ}$)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2480-TX

Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (•)	Remark
1	23508.000	33.26	16.67	49.93	74.00	-24.07	peak			



Service No.:

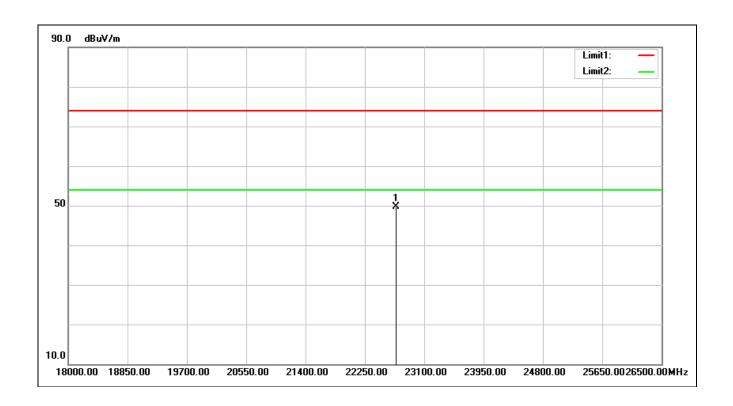
114074446

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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Vertical Test item: **Test Time:** 2018/4/18 05:22:47 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 22($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen Test Mode:** 3DH5-2480-TX Remark:

Test Distance:

3m

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (•)	Remark
1	22692.000	32.70	17.10	49.80	74.00	-24.20	peak			

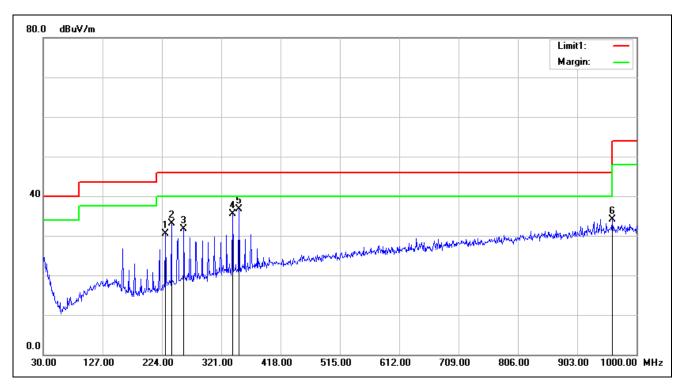
Spurious Emissions, TX Mode, 30M-1G



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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: 2018/4/19 04:45:34

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

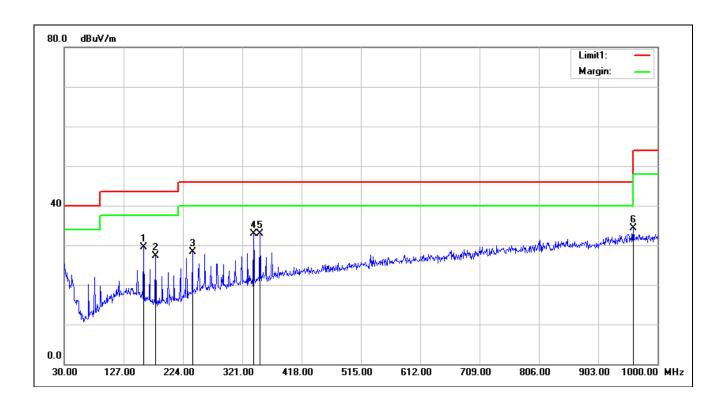
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	229.8200	-7.57	38.01	30.44	46.00	-15.56	QP	100	260	
2	239.5200	-6.85	39.97	33.12	46.00	-12.88	QP	100	122	
3	259.8900	-4.94	36.55	31.61	46.00	-14.39	QP	100	273	
4	339.4300	-3.61	39.14	35.53	46.00	-10.47	QP	100	250	
5	350.1000	-3.34	40.01	36.67	46.00	-9.33	QP	100	250	
6	960.2300	5.54	28.64	34.18	54.00	-19.82	QP	100	43	



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Service No.: 114074446 Test Distance: 3m

Test Standard: FCC&ISED Class B 3M Radiation Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2018/4/19 04:46:27

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	159.9800	-8.07	37.57	29.50	43.50	-14.00	QP	100	84	
2	179.3800	-9.59	36.88	27.29	43.50	-16.21	QP	100	81	
3	239.5200	-6.85	35.24	28.39	46.00	-17.61	QP	100	223	
4	339.4300	-3.61	36.55	32.94	46.00	-13.06	QP	100	1	
5	350.1000	-3.34	36.20	32.86	46.00	-13.14	QP	100	341	
6	960.2300	5.54	28.86	34.40	54.00	-19.60	QP	100	127	

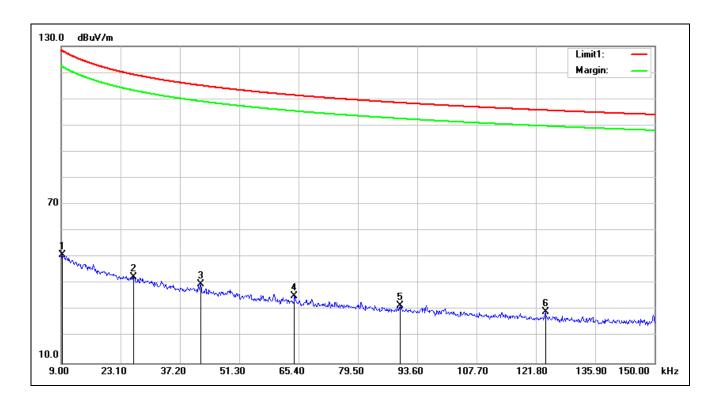
Spurious Emissions, TX Mode, 9k-30M



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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: 2018/4/19 05:21:09

Applicant: Microchip Test Rating: DC 3.3V Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 21($^{\circ}$ C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

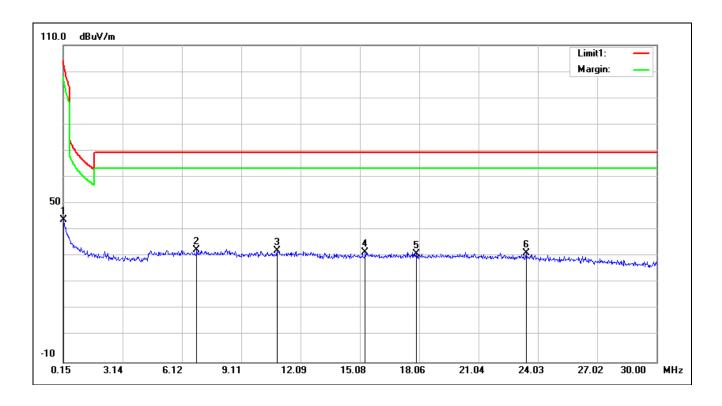
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.0092	19.61	31.45	51.06	128.31	-77.25	QP	100	359	
2	0.0262	20.09	22.55	42.64	119.22	-76.58	QP	100	68	
3	0.0421	19.71	20.19	39.90	115.11	-75.21	QP	100	6	
4	0.0644	19.34	16.05	35.39	111.42	-76.03	QP	100	55	
5	0.0895	19.19	12.58	31.77	108.56	-76.79	QP	100	82	
6	0.1240	19.11	10.14	29.25	105.73	-76.48	QP	100	167	



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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: 2018/4/19 05:23:43

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.1798	19.06	24.84	43.90	102.50	-58.60	QP	100	359	
2	6.8662	19.93	12.38	32.31	69.50	-37.19	QP	100	277	
3	10.8960	20.38	11.69	32.07	69.50	-37.43	QP	100	181	
4	15.3436	21.16	10.32	31.48	69.50	-38.02	QP	100	38	
5	17.9107	21.61	9.40	31.01	69.50	-38.49	QP	100	154	
6	23.4330	22.22	8.90	31.12	69.50	-38.38	QP	100	331	

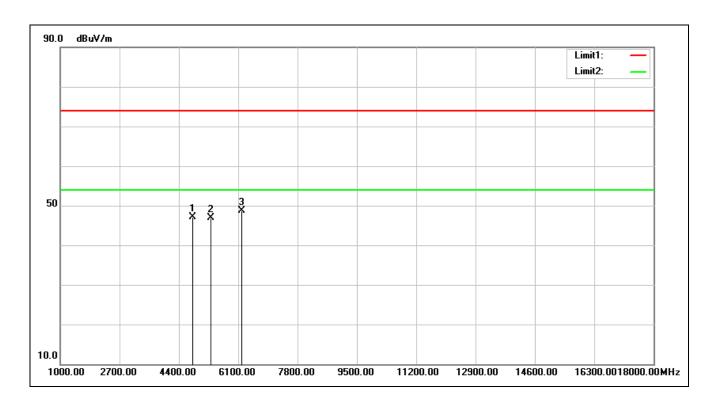
Spurious Emissions, RX Mode, 1-18G



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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: 2018/4/18 05:12:39

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(℃)/Hum.(%): 20(℃)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

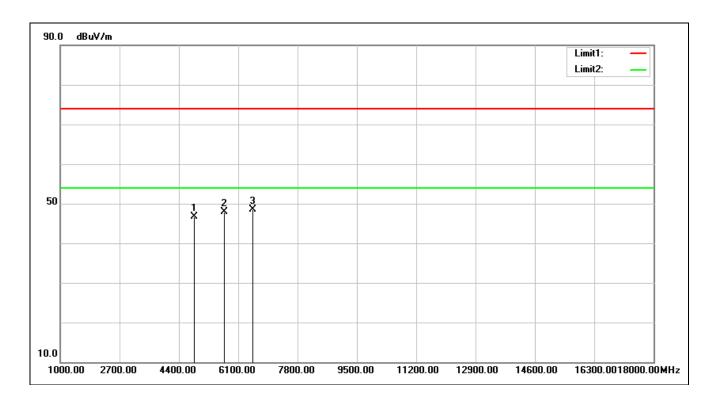
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4791.000	-3.55	50.74	47.19	74.00	-26.81	peak	100	358	
2	5318.000	-1.70	48.62	46.92	74.00	-27.08	peak	100	359	
3	6202.000	3.15	45.49	48.64	74.00	-25.36	peak	100	0	



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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: 2018/4/18 05:13:32

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4842.000	-3.47	50.14	46.67	74.00	-27.33	peak	100	36	
2	5692.000	0.39	47.53	47.92	74.00	-26.08	peak	100	180	
3	6508.000	4.31	44.17	48.48	74.00	-25.52	peak	100	180	

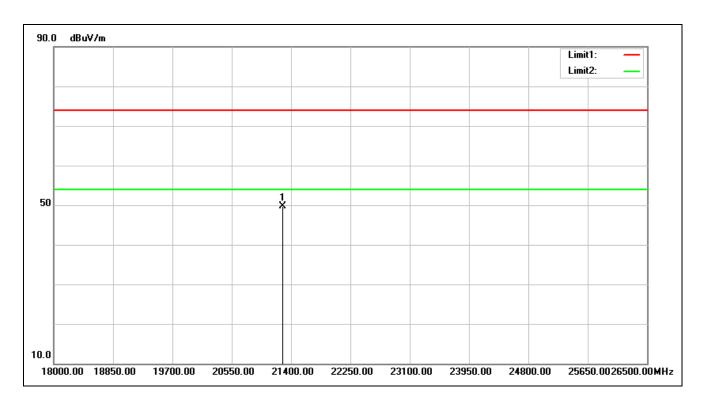
Spurious Emissions, RX Mode, 18-26G



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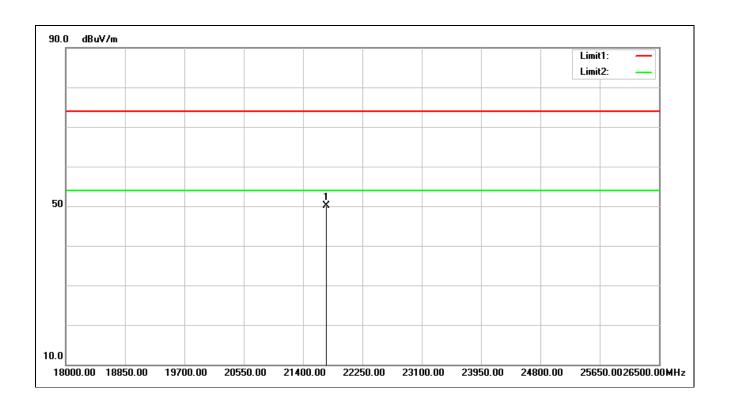
Service No.: **Test Distance:** 114074446 3m **Test Standard:** FCC&ISED Above 1G PEAK **Ant. Polarization:** Horizontal Test item: **Test Time: Radiation Emission** 2018/4/18 05:23:15 **Applicant:** Microchip **Test Rating:** DC 3.3V **Product:** IEEE 802.11 b/g/n Link Controller Module **Temp.**(**℃**)/**Hum.**(**%**): 22(°C)/50% With Integrated Bluetooth ATWILC3000-MR110UA Model No.: **Test Engineer: Curry Chen Test Mode:** 1DH5-2441-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	21281.000	32.69	17.00	49.69	74.00	-24.31	peak			



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Test Standard: FCC&ISED Above 1G PEAK **Ant. Polarization:** Vertical Test item: **Radiation Emission Test Time:** 2018/4/18 05:23:22 **Applicant:** Microchip **Test Rating:** DC 3.3V **Product:** IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$)/Hum.($^{\circ}$): 22(°C)/50% With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen Test Mode:** 1DH5-2441-RX

Test Distance:

3m

Remark:

Service No.:

RFA-02-5-C7H1-ANT

114074446

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	21731.500	32.75	17.38	50.13	74.00	-23.87	peak			

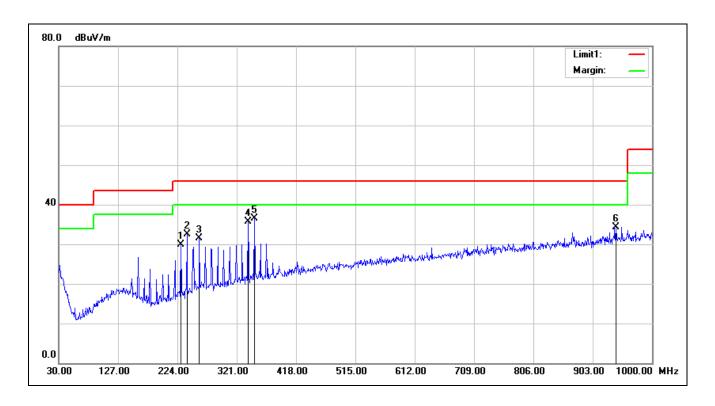
Spurious Emissions, RX Mode, 30M-1G



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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: 2018/4/19 04:48:15

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°ℂ)/Hum.(%): 21(°ℂ)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

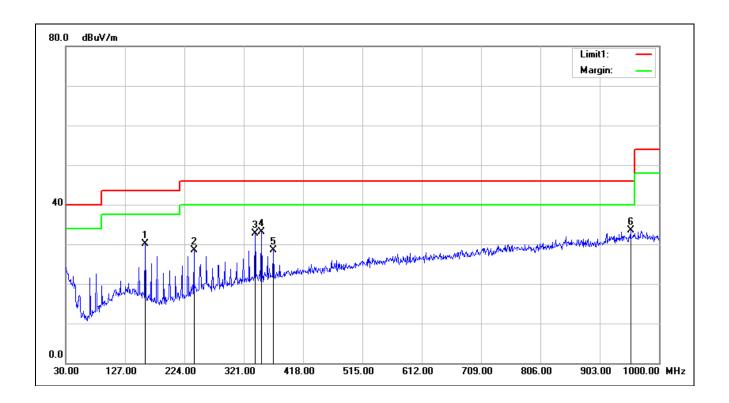
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	229.8200	-7.57	37.44	29.87	46.00	-16.13	QP	100	112	
2	239.5200	-6.85	39.36	32.51	46.00	-13.49	QP	100	109	
3	259.8900	-4.94	36.52	31.58	46.00	-14.42	QP	100	119	
4	339.4300	-3.61	39.28	35.67	46.00	-10.33	QP	100	261	
5	350.1000	-3.34	39.94	36.60	46.00	-9.40	QP	100	245	
6	940.8300	5.23	29.14	34.37	46.00	-11.63	QP	100	66	



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Service No.: 114074446 Test Distance: 3m

Test Standard: FCC&ISED Class B 3M Radiation Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2018/4/19 04:49:09

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	159.9800	-8.07	38.16	30.09	43.50	-13.41	QP	100	76	
2	239.5200	-6.85	35.26	28.41	46.00	-17.59	QP	100	208	
3	339.4300	-3.61	36.41	32.80	46.00	-13.20	QP	100	360	
4	350.1000	-3.34	36.50	33.16	46.00	-12.84	QP	100	347	
5	369.5000	-2.98	31.50	28.52	46.00	-17.48	QP	100	2	
6	953.4400	5.51	27.94	33.45	46.00	-12.55	QP	100	255	

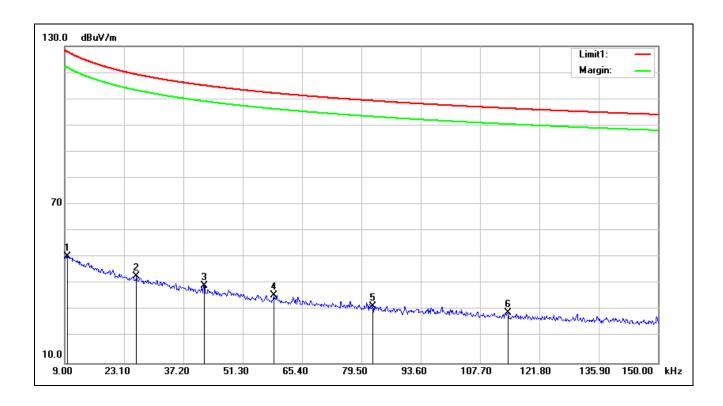
Spurious Emissions, RX Mode, 9K-30M



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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: 2018/4/19 05:22:03

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

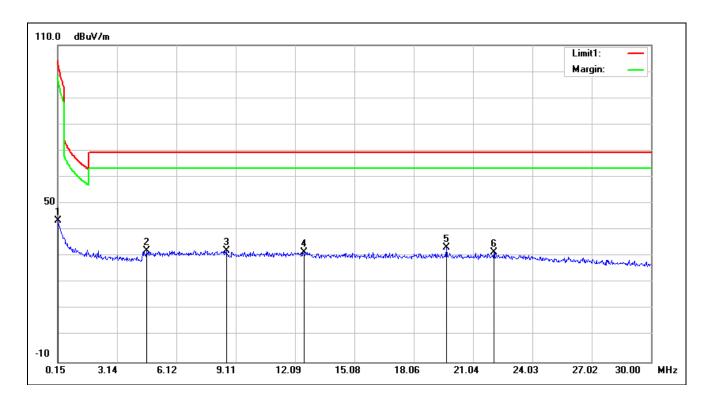
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.0097	19.81	30.69	50.50	127.85	-77.35	QP	100	3	
2	0.0261	20.09	22.75	42.84	119.26	-76.42	QP	100	58	
3	0.0421	19.71	19.65	39.36	115.11	-75.75	QP	100	0	
4	0.0586	19.38	16.42	35.80	112.24	-76.44	QP	100	239	
5	0.0822	19.24	12.22	31.46	109.30	-77.84	QP	100	202	
6	0.1143	19.12	9.94	29.06	106.44	-77.38	QP	100	212	



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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: 2018/4/19 05:24:36

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(℃)/Hum.(%): 21(℃)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

Remark:

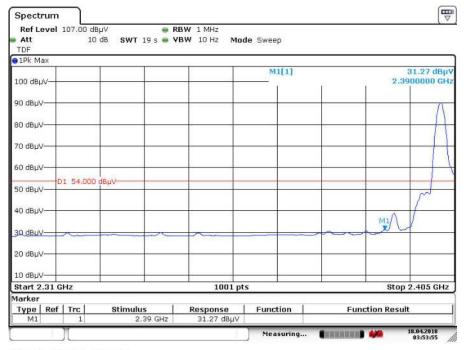
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.1500	19.08	24.50	43.58	104.08	-60.50	QP	100	268	
2	4.6275	19.53	12.48	32.01	69.50	-37.49	QP	100	183	
3	8.6274	20.09	12.15	32.24	69.50	-37.26	QP	100	210	
4	12.5378	20.67	10.82	31.49	69.50	-38.01	QP	100	169	
5	19.7018	21.93	11.31	33.24	69.50	-36.26	QP	100	121	
6	22.0898	22.13	9.33	31.46	69.50	-38.04	QP	100	346	

RFMTA331215IMAB701-ANT

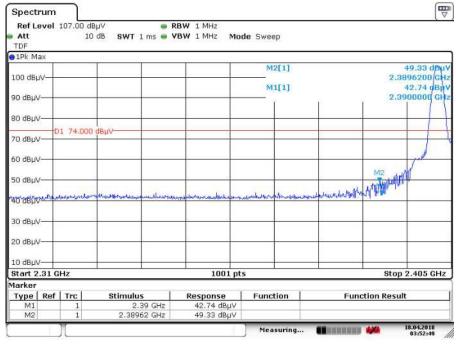
Spurious Emissions, Band Edges, 2.35-2.5G

Radiated Bandedge 1DH5

Low Channel (Hor)

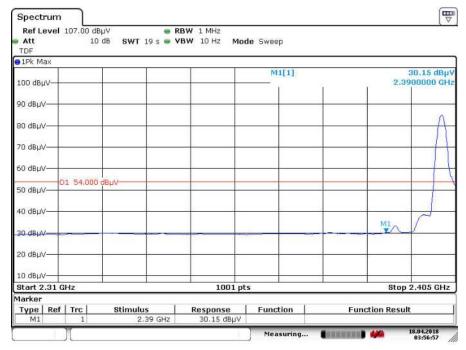


Date: 18.APR.2018 03:53:55

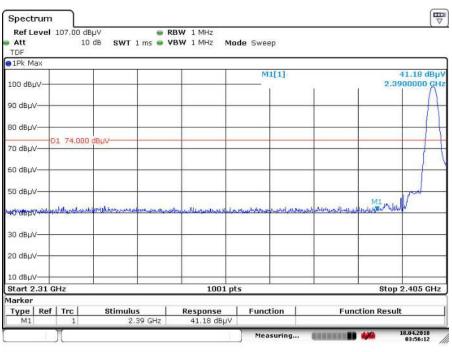


Date: 18.APR.2018 03:52:49

Low Channel (Ver)



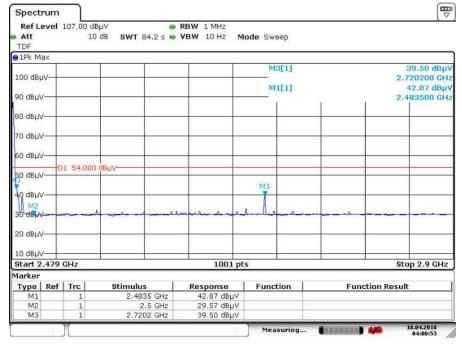
Date: 18.APR.2018 03:56:57



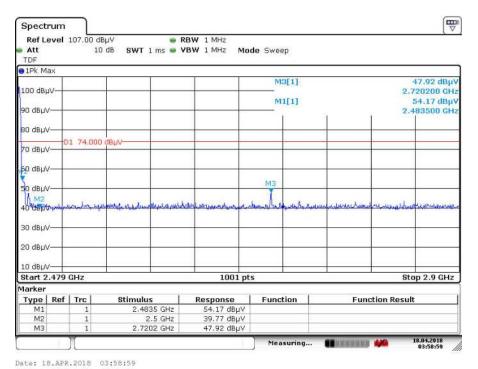
Date: 18.APR.2018 03:56:12

Radiated Bandedge 1DH5

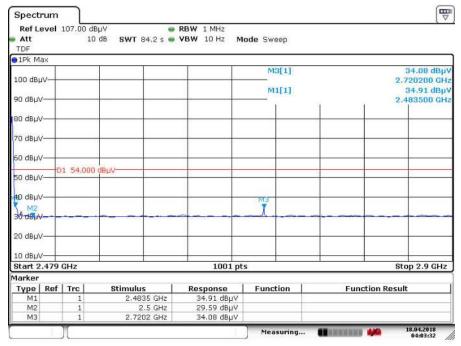
High Channel (Hor)



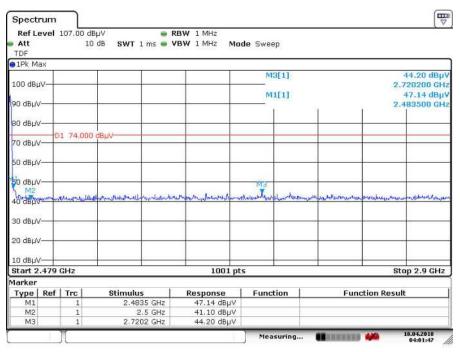
Date: 18.APR.2018 04:00:53



High Channel (Ver)



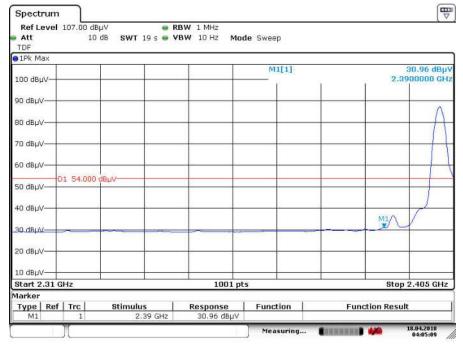
Date: 18.APR.2018 04:03:32



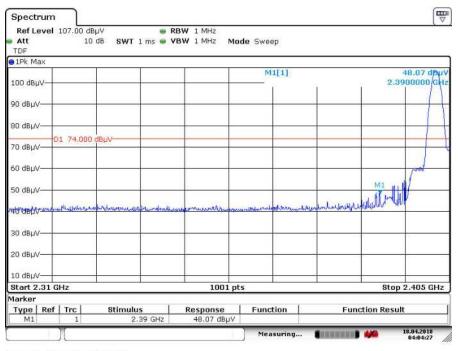
Date: 18.APR.2018 04:01:47

Radiated Bandedge 3DH5

Low Channel (Hor)

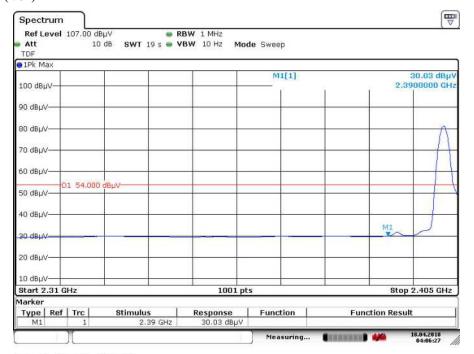


Date: 18.APR.2018 04:05:09

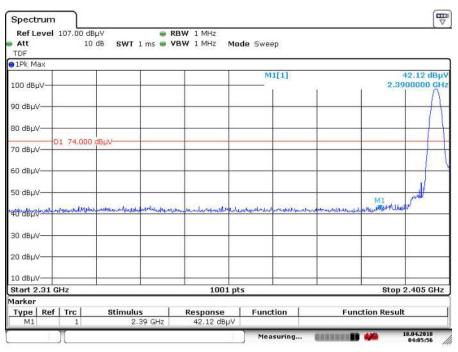


Date: 18.APR.2018 04:04:27

Low Channel (Ver)



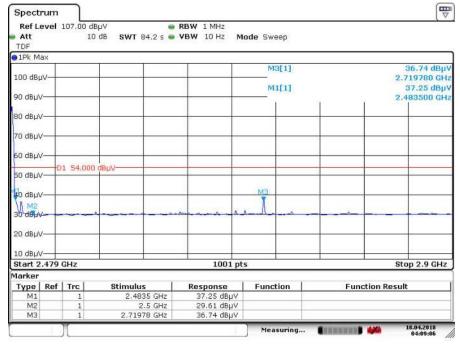
Date: 18.APR.2018 04:06:27



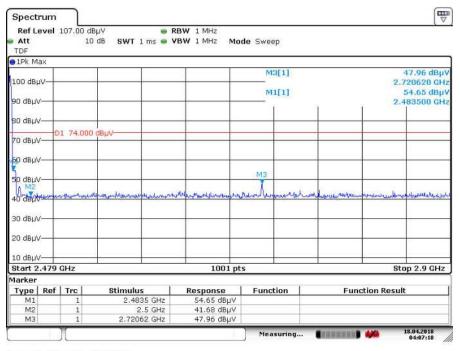
Date: 18.APR.2018 04:05:57

Radiated Bandedge 3DH5

High Channel (Hor)

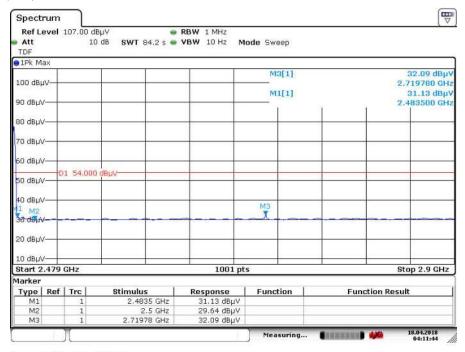


Date: 18.APR.2018 04:09:06

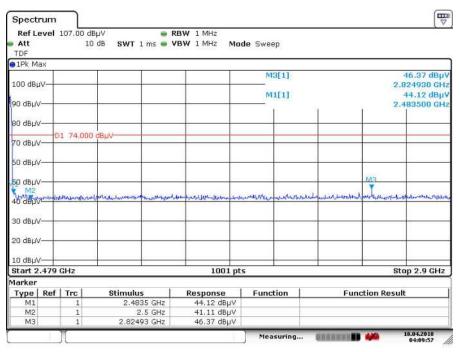


Date: 18.APR.2018 04:07:18

High Channel (Ver)



Date: 18.APR.2018 04:11:44



Date: 18.APR.2018 04:09:57

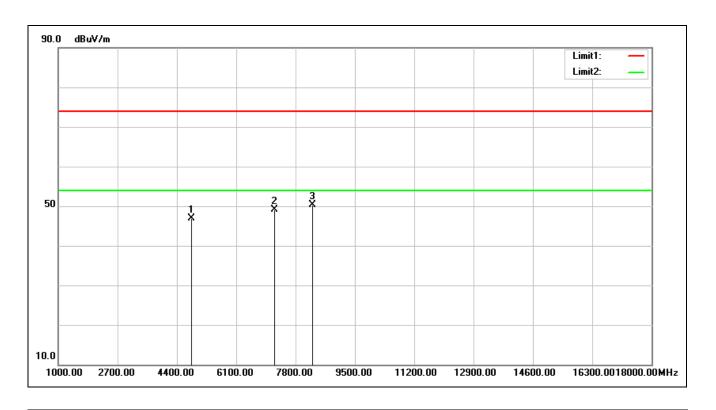
Spurious Emissions, TX Mode, 1-18G



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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: 2018/4/18 04:04:22

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2402-TX

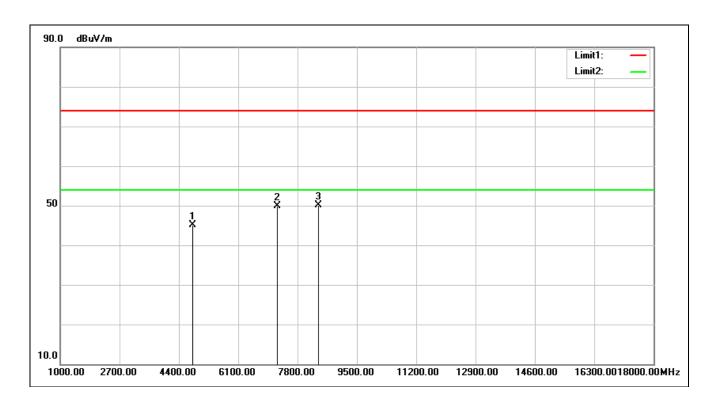
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	49.54	46.82	74.00	-27.18	peak		0	
2	7206.000	5.25	43.89	49.14	74.00	-24.86	peak		0	
3	8276.000	6.12	44.14	50.26	74.00	-23.74	peak	100	27	



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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: 2018/4/18 04:05:14

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2402-TX

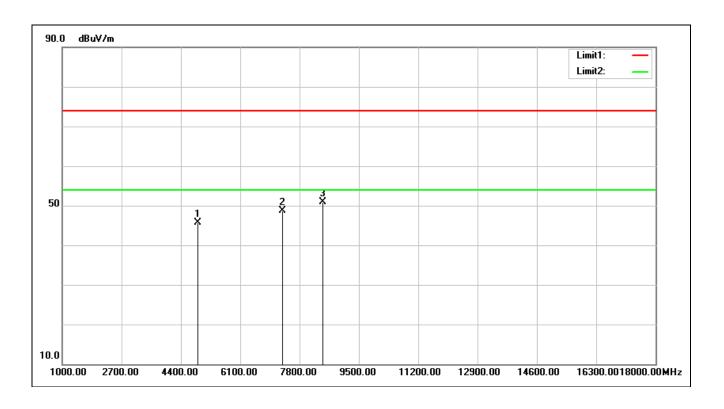
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	47.80	45.08	74.00	-28.92	peak			
2	7206.000	5.25	44.68	49.93	74.00	-24.07	peak			
3	8395.000	6.26	43.77	50.03	74.00	-23.97	peak	100	90	



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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: 2018/4/18 04:06:38

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

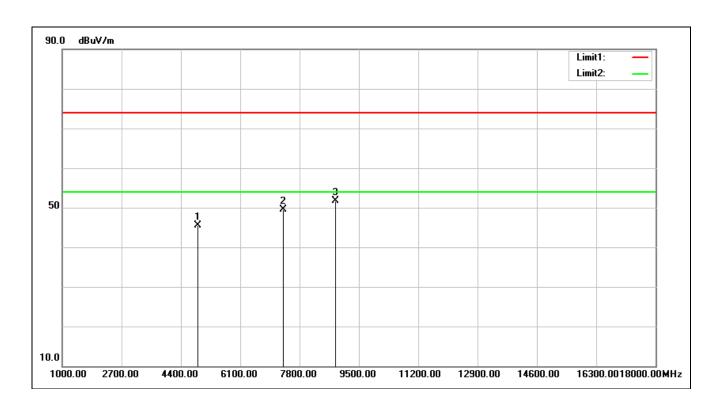
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4882.000	-2.50	48.16	45.66	74.00	-28.34	peak			
2	7323.000	5.54	43.24	48.78	74.00	-25.22	peak			
3	8463.000	6.34	44.58	50.92	74.00	-23.08	peak	100	348	



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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: 2018/4/18 04:07:30

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

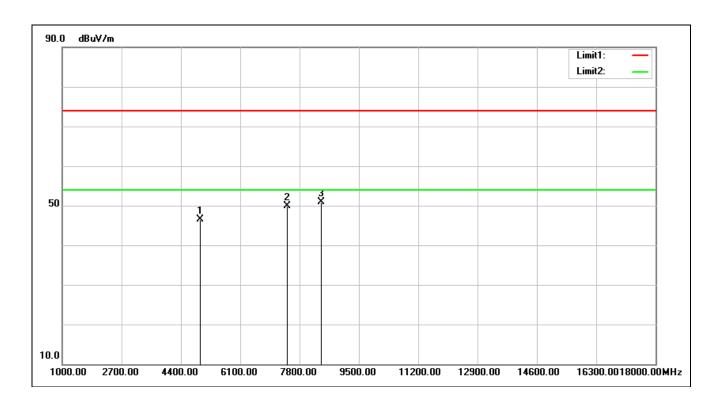
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4882.000	-2.50	48.00	45.50	74.00	-28.50	peak			
2	7323.000	5.54	43.94	49.48	74.00	-24.52	peak			
3	8837.000	6.42	45.33	51.75	74.00	-22.25	peak	100	121	



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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: 2018/4/18 04:09:01

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2480-TX

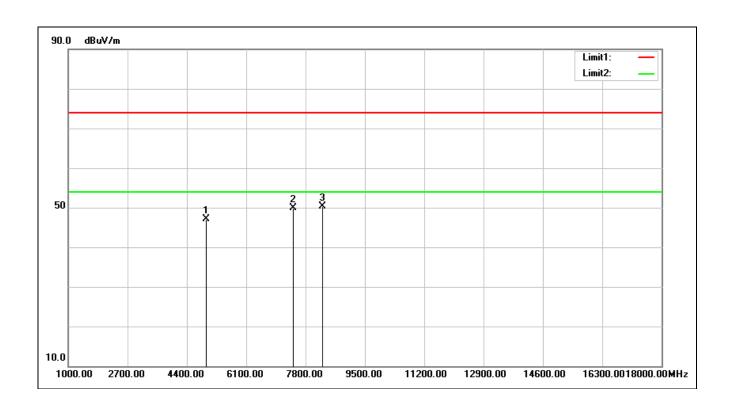
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	48.77	46.49	74.00	-27.51	peak			
2	7440.000	5.84	44.10	49.94	74.00	-24.06	peak			
3	8429.000	6.30	44.51	50.81	74.00	-23.19	peak	100	249	



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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: 2018/4/18 04:09:53

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2480-TX

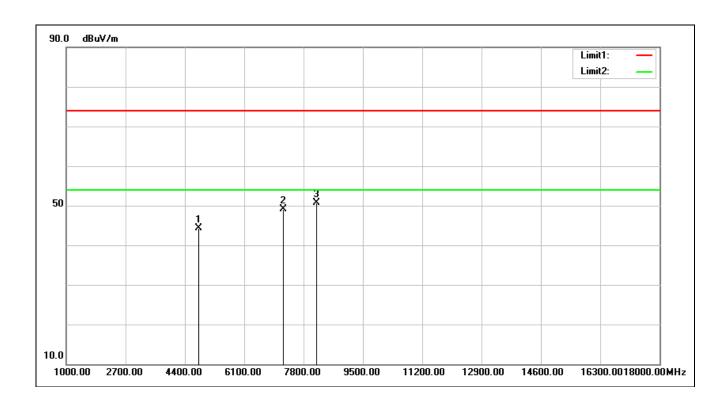
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	49.36	47.08	74.00	-26.92	peak			
2	7440.000	5.84	43.97	49.81	74.00	-24.19	peak			
3	8276.000	6.12	44.17	50.29	74.00	-23.71	peak	100	95	



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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: 2018/4/18 04:11:29

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2402-TX

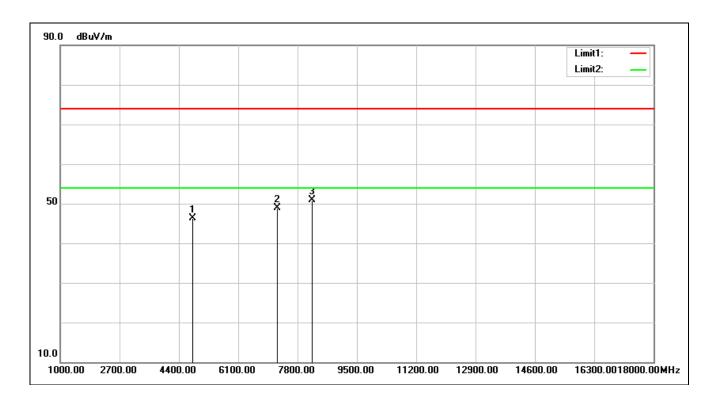
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	47.00	44.28	74.00	-29.72	peak			
2	7206.000	5.25	43.93	49.18	74.00	-24.82	peak			
3	8174.000	6.02	44.67	50.69	74.00	-23.31	peak	100	154	



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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: 2018/4/18 04:12:21

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2402-TX

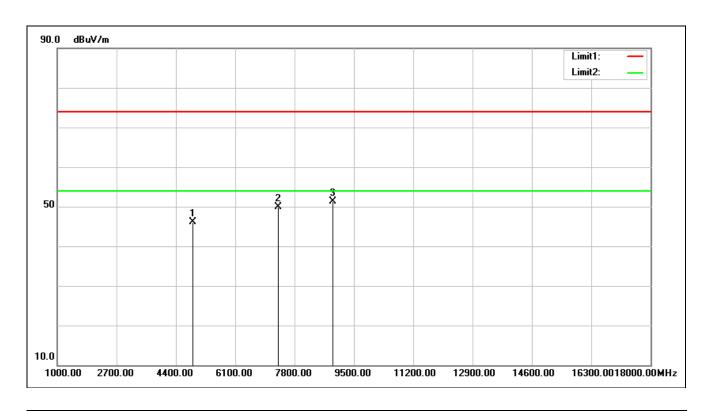
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	49.00	46.28	74.00	-27.72	peak			
2	7206.000	5.25	43.64	48.89	74.00	-25.11	peak			
3	8225.000	6.08	44.90	50.98	74.00	-23.02	peak	100	359	



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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: 2018/4/18 04:13:49

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2441-TX

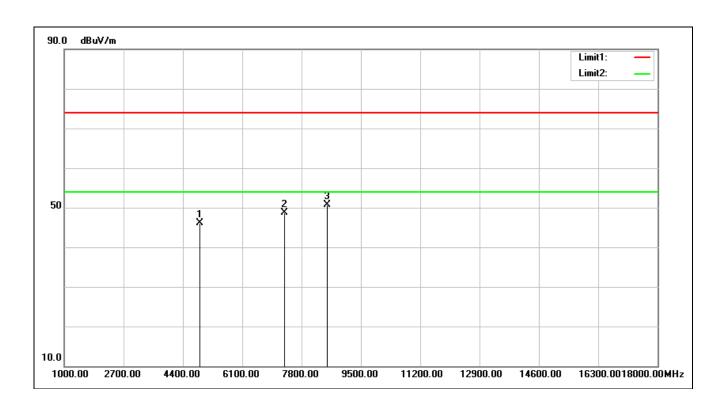
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4882.000	-2.50	48.66	46.16	74.00	-27.84	peak			
2	7323.000	5.54	44.32	49.86	74.00	-24.14	peak			
3	8905.000	6.42	44.90	51.32	74.00	-22.68	peak	100	1	



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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: 2018/4/18 04:14:41

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2441-TX

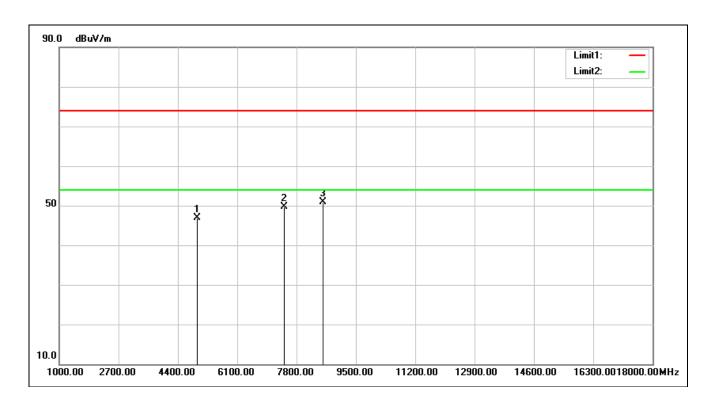
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4882.000	-2.50	48.62	46.12	74.00	-27.88	peak			
2	7323.000	5.54	43.19	48.73	74.00	-25.27	peak			
3	8531.000	6.38	44.36	50.74	74.00	-23.26	peak	100	26	



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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: 2018/4/18 04:16:25

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2480-TX

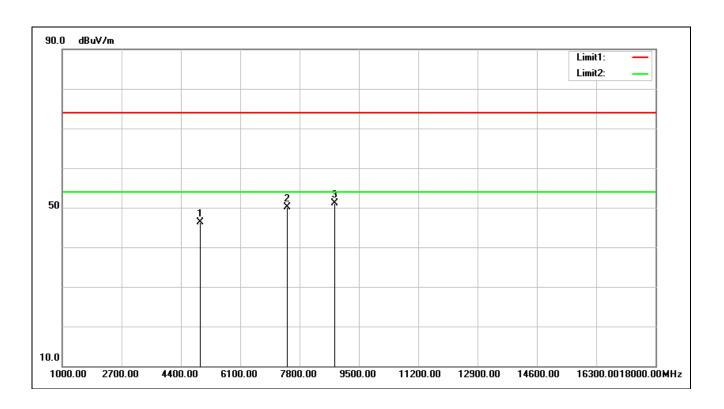
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	49.25	46.97	74.00	-27.03	peak			
2	7440.000	5.84	43.89	49.73	74.00	-24.27	peak			
3	8565.000	6.39	44.47	50.86	74.00	-23.14	peak	100	269	



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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: 2018/4/18 04:17:18

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2480-TX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	48.61	46.33	74.00	-27.67	peak			
2	7440.000	5.84	44.34	50.18	74.00	-23.82	peak			
3	8803.000	6.42	44.70	51.12	74.00	-22.88	peak	100	278	

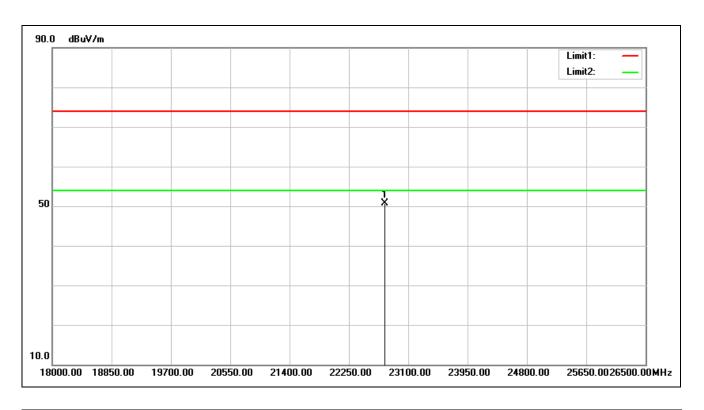
Spurious Emissions, TX Mode, 18-26G



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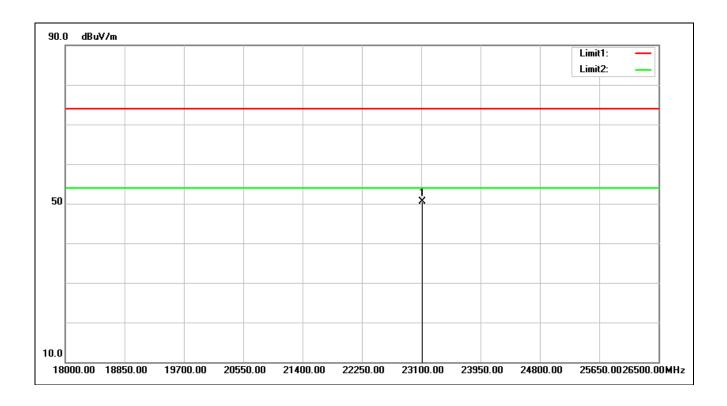
Service No.: 114074446 **Test Distance:** 3m **Test Standard:** FCC&ISED Above 1G PEAK Ant. Polarization: Horizontal Test item: **Test Time: Radiation Emission** 2018/4/18 05:27:27 **Applicant:** Microchip **Test Rating:** DC 3.3V **Product:** IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50% With Integrated Bluetooth ATWILC3000-MR110UA Model No.: **Test Engineer: Curry Chen Test Mode:** 1DH5-2402-TX Remark: RFMTA331215IMAB701-ANT

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22760.000	32.73	17.98	50.71	74.00	-23.29	peak		0	



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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: 2018/4/18 05:27:34

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2402-TX

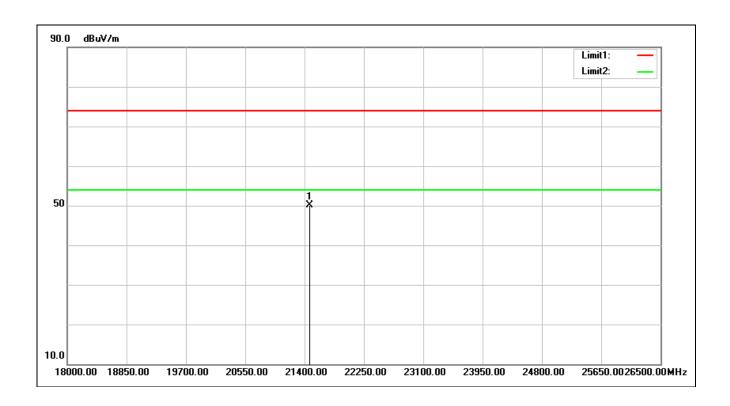
Remark:

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	17.67	50.58	74.00	-23.42	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: 2018/4/18 05:27:57

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

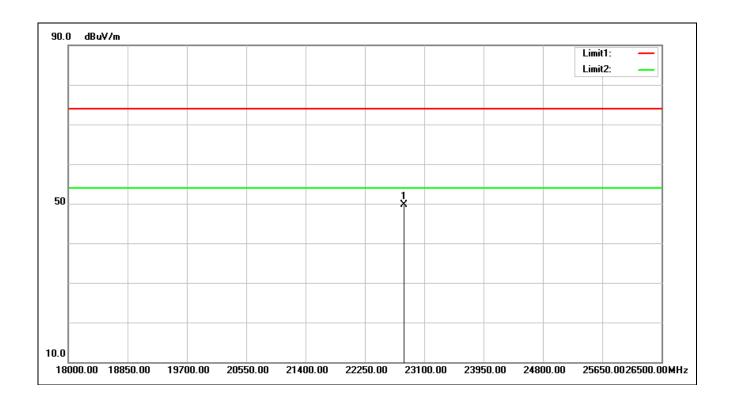
Remark:

No	. Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	21468.000	32.86	17.21	50.07	74.00	-23.93	peak			



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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Vertical
Test item: Radiation Emission Test Time: 2018/4/18 05:28:03
Applicant: Microchip Test Rating: DC 3.3V

Test Distance:

3m

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

114074446

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

Remark:

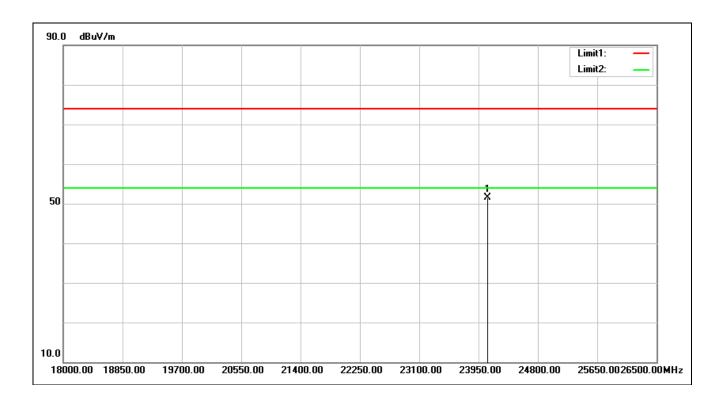
Service No.:

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	16.96	49.70	74.00	-24.30	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: 2018/4/18 05:28:25

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2480-TX

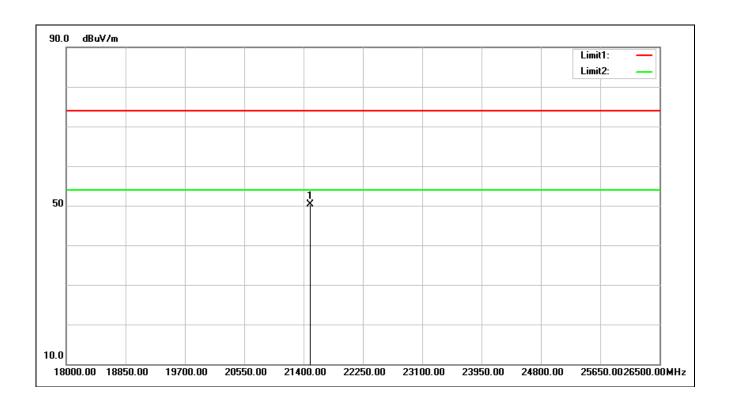
Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	24077.500	32.98	18.43	51.41	74.00	-22.59	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: 2018/4/18 05:28:31

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2480-TX

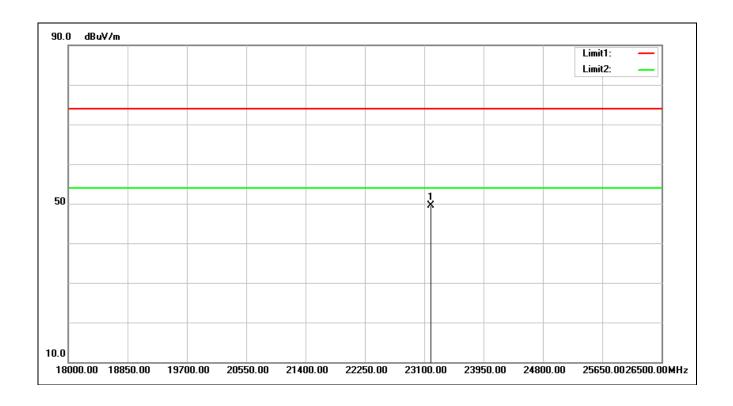
Remark:

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	17.38	50.27	74.00	-23.73	peak			



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Service No.: 114074446 **Test Distance:** 3m **Test Standard:** FCC&ISED Above 1G PEAK Ant. Polarization:

Horizontal

Test item: **Test Time:** 2018/4/18 05:29:04 **Radiation Emission**

Applicant: Microchip **Test Rating:** DC 3.3V

Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 22($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen**

Test Mode: 3DH5-2402-TX

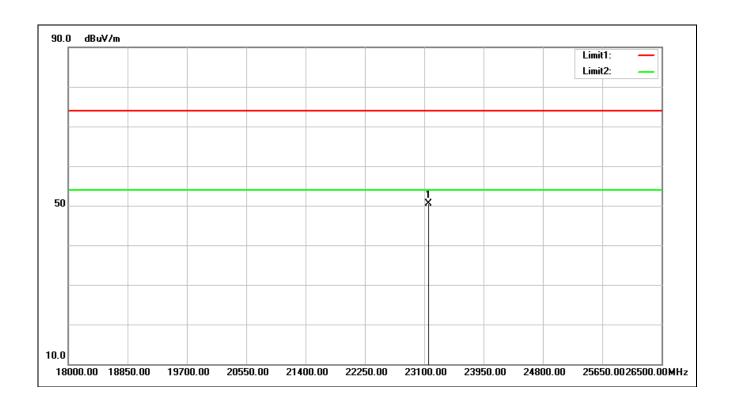
Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23193.500	32.98	16.45	49.43	74.00	-24.57	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: 2018/4/18 05:29:10

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2402-TX

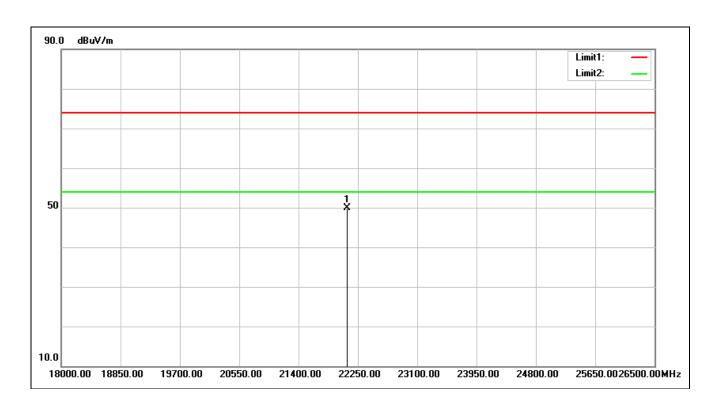
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	23159.500	32.95	17.51	50.46	74.00	-23.54	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: 2018/4/18 05:30:07

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2441-TX

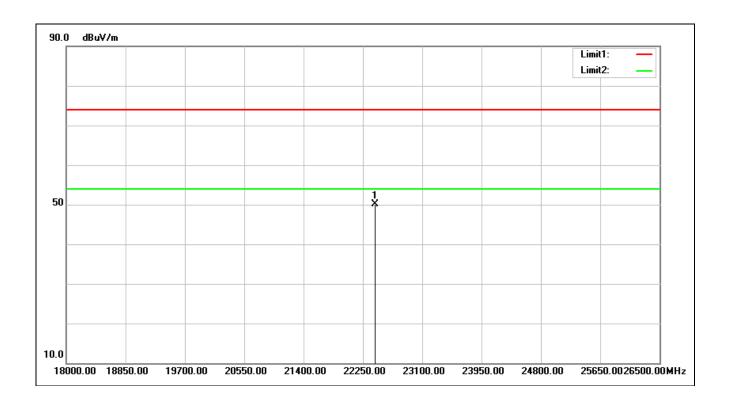
Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22097.000	32.61	17.25	49.86	74.00	-24.14	peak			



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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Vertical Test item: **Test Time:** 2018/4/18 05:30:13 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 22($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen Test Mode:** 3DH5-2441-TX

Test Distance:

3m

114074446

Remark:

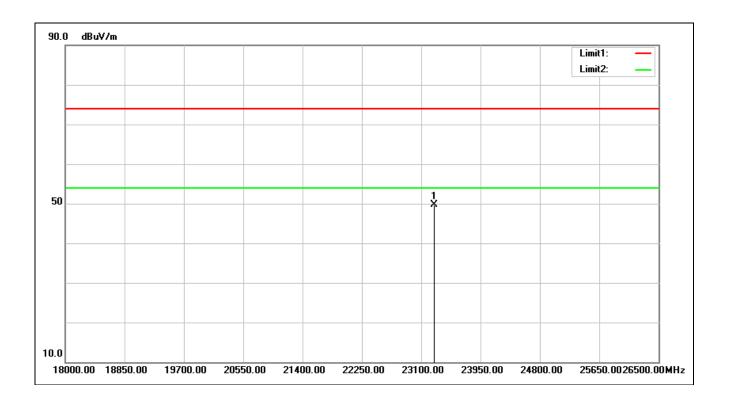
Service No.:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (•)	Remark
1	22428.500	32.63	17.53	50.16	74.00	-23.84	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: 2018/4/18 05:30:40

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$)/Hum.($^{\circ}$): 22($^{\circ}$)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2480-TX

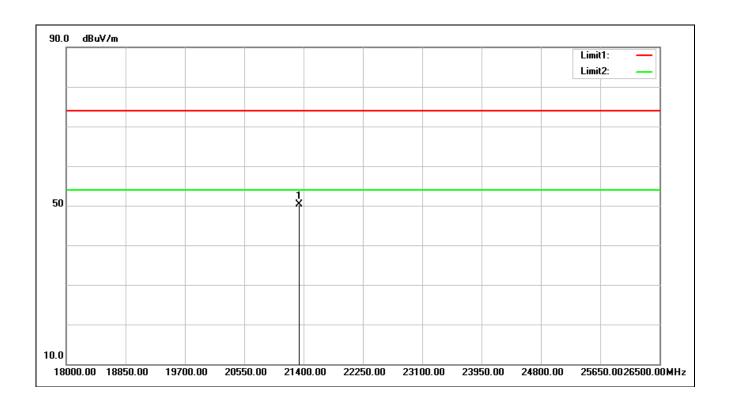
Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23287.000	33.07	16.64	49.71	74.00	-24.29	peak			



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Service No.: 114074446 **Test Distance:** 3m **Test Standard:** FCC&ISED Above 1G PEAK Ant. Polarization: Vertical Test item: **Test Time:** 2018/4/18 05:30:46 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 22($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen Test Mode:** 3DH5-2480-TX Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	21340.500	32.74	17.64	50.38	74.00	-23.62	peak			

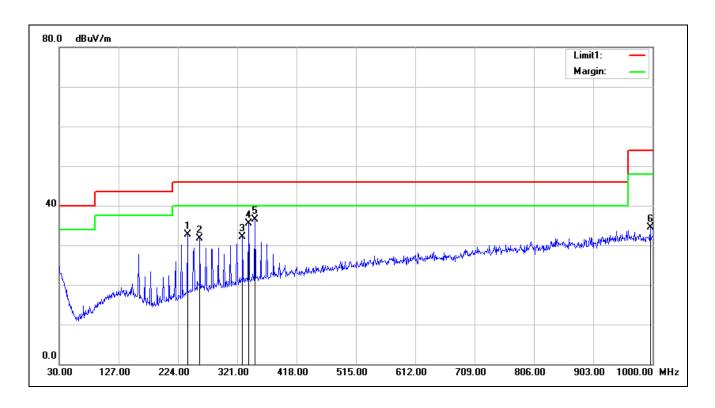
Spurious Emissions, TX Mode, 30M-1G



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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: 2018/4/19 04:51:59

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

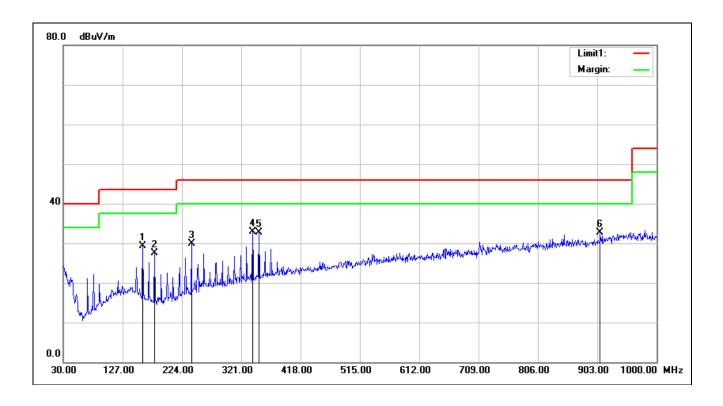
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	239.5200	-6.85	39.51	32.66	46.00	-13.34	QP	100	108	
2	259.8900	-4.94	36.72	31.78	46.00	-14.22	QP	100	254	
3	329.7300	-3.84	35.97	32.13	46.00	-13.87	QP	100	261	
4	339.4300	-3.61	39.03	35.42	46.00	-10.58	QP	100	254	
5	350.1000	-3.34	39.75	36.41	46.00	-9.59	QP	100	254	
6	996.1200	5.72	28.69	34.41	54.00	-19.59	QP	100	349	



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Service No.: 114074446 Test Distance: 3m

Test Standard: FCC&ISED Class B 3M Radiation Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2018/4/19 04:52:52

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	159.9800	-8.07	37.37	29.30	43.50	-14.20	QP	100	88	
2	179.3800	-9.59	37.15	27.56	43.50	-15.94	QP	100	78	
3	239.5200	-6.85	36.75	29.90	46.00	-16.10	QP	100	199	
4	339.4300	-3.61	36.51	32.90	46.00	-13.10	QP	100	350	
5	350.1000	-3.34	36.13	32.79	46.00	-13.21	QP	100	0	
6	907.8500	4.29	28.39	32.68	46.00	-13.32	QP	100	298	

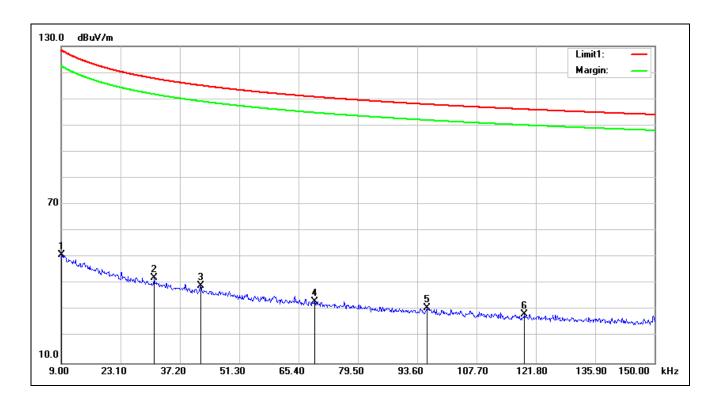
Spurious Emissions, TX Mode, 9k-30M



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Service No.: 114074446 Test Distance: 3m

Test Standard: FCC&ISED 9k-1G_3m Ant. Polarization: N/A

IEEE 802.11 b/g/n Link Controller Module

Test item: Radiation Emission Test Time: 2018/4/19 05:14:44

Applicant: Microchip Test Rating: DC 3.3V

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

Remark:

Product:

RFMTA331215IMAB701-ANT

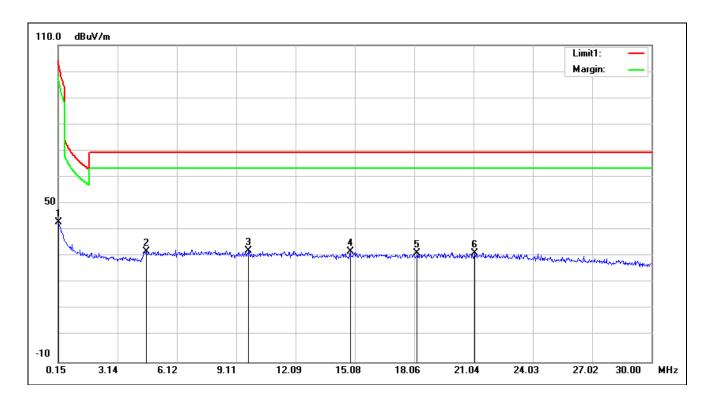
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.0091	19.57	31.29	50.86	128.40	-77.54	QP	100	359	
2	0.0311	20.09	22.05	42.14	117.74	-75.60	QP	100	0	
3	0.0421	19.71	19.67	39.38	115.11	-75.73	QP	100	42	
4	0.0692	19.31	14.04	33.35	110.79	-77.44	QP	100	357	
5	0.0959	19.15	11.71	30.86	107.96	-77.10	QP	100	217	
6	0.1191	19.11	9.33	28.44	106.08	-77.64	QP	100	226	

Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 21($^{\circ}$ C)/55%



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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: 2018/4/19 05:17:16

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.1500	19.08	23.90	42.98	104.08	-61.10	QP	100	205	
2	4.5678	19.49	12.34	31.83	69.50	-37.67	QP	100	205	
3	9.7318	20.20	11.85	32.05	69.50	-37.45	QP	100	0	
4	14.8362	21.07	10.71	31.78	69.50	-37.72	QP	100	219	
5	18.2092	21.67	9.63	31.30	69.50	-38.20	QP	100	314	
6	21.1047	22.06	9.33	31.39	69.50	-38.11	QP	100	242	

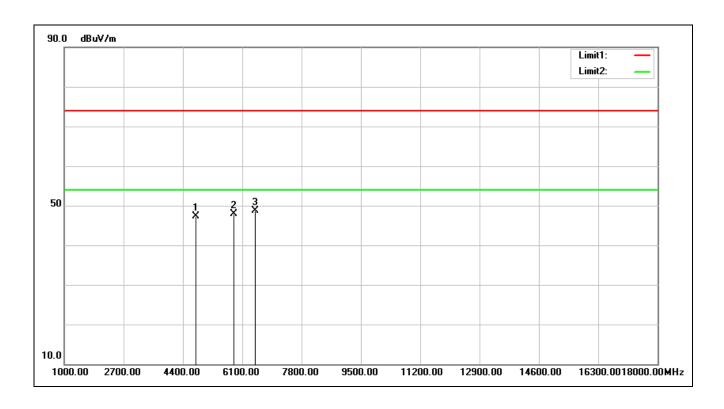
Spurious Emissions, RX Mode, 1-18G



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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: 2018/4/18 04:19:11

Applicant: Microchip Test Rating: DC 3.3V Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$ C)/Hum.($^{\circ}$ C): 20($^{\circ}$ C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

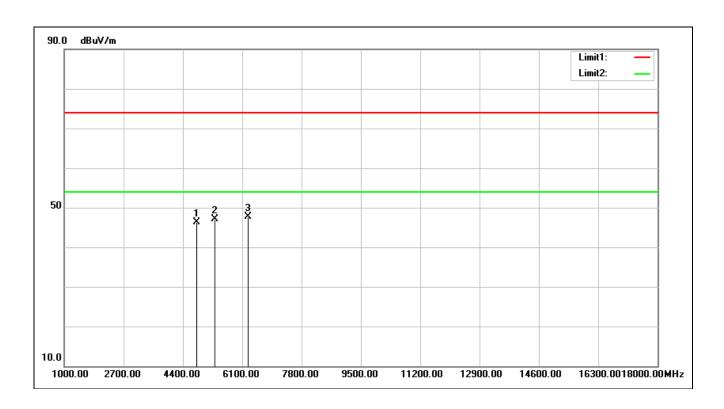
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4774.000	-3.58	50.92	47.34	74.00	-26.66	peak	100	252	
2	5862.000	1.47	46.34	47.81	74.00	-26.19	peak	100	20	
3	6474.000	4.23	44.55	48.78	74.00	-25.22	peak	100	320	



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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: 2018/4/18 04:20:03

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4791.000	-3.55	49.81	46.26	74.00	-27.74	peak	100	19	
2	5318.000	-1.70	48.74	47.04	74.00	-26.96	peak	100	309	
3	6270.000	3.43	44.20	47.63	74.00	-26.37	peak	100	357	

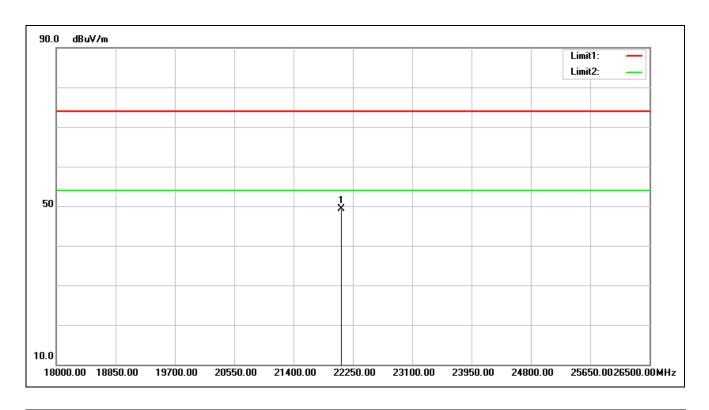
Spurious Emissions, RX Mode, 18-26G



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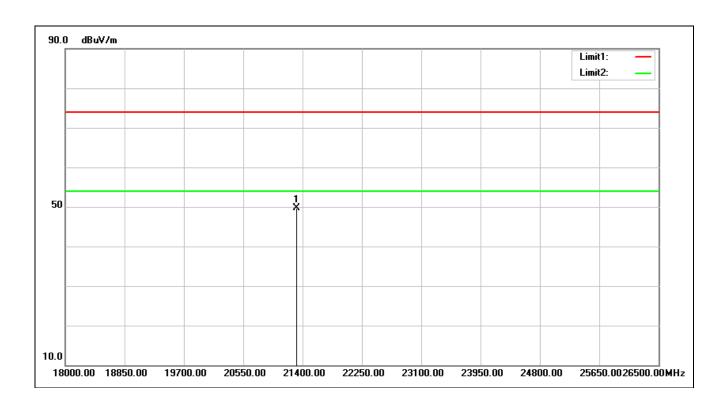
Service No.: 114074446 **Test Distance:** 3m **Test Standard:** FCC&ISED Above 1G PEAK Ant. Polarization: Horizontal Test item: **Test Time: Radiation Emission** 2018/4/18 05:31:29 **Applicant:** Microchip **Test Rating:** DC 3.3V **Product:** IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50% With Integrated Bluetooth ATWILC3000-MR110UA Model No.: **Test Engineer: Curry Chen Test Mode:** 1DH5-2441-RX Remark: RFMTA331215IMAB701-ANT

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22088.500	32.60	16.80	49.40	74.00	-24.60	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: 2018/4/18 05:31:36

Applicant: Microchip Test Rating: DC 3.3V Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$ C)/Hum.($^{\circ}$ C): 22($^{\circ}$ C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	21315.000	32.72	17.00	49.72	74.00	-24.28	peak			

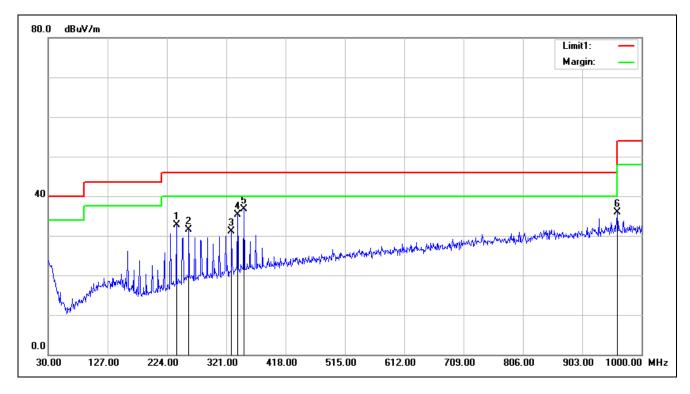
Spurious Emissions, RX Mode, 30M-1G



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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: 2018/4/19 04:54:18

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

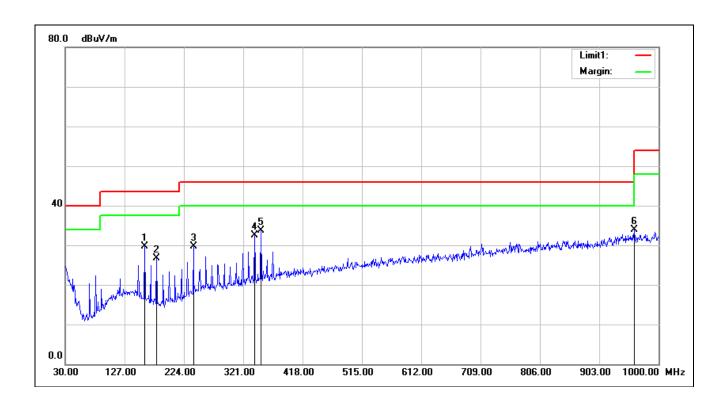
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	239.5200	-6.85	39.47	32.62	46.00	-13.38	QP	100	122	
2	259.8900	-4.94	36.47	31.53	46.00	-14.47	QP	100	255	
3	329.7300	-3.84	34.86	31.02	46.00	-14.98	QP	100	242	
4	339.4300	-3.61	38.82	35.21	46.00	-10.79	QP	100	259	
5	350.1000	-3.34	39.95	36.61	46.00	-9.39	QP	100	248	
6	960.2300	5.54	30.46	36.00	54.00	-18.00	QP	100	78	



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Service No.: 114074446 Test Distance: 3m

Test Standard: FCC&ISED Class B 3M Radiation Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2018/4/19 04:55:11

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	159.9800	-8.07	37.77	29.70	43.50	-13.80	QP	100	60	
2	179.3800	-9.59	36.20	26.61	43.50	-16.89	QP	100	66	
3	239.5200	-6.85	36.50	29.65	46.00	-16.35	QP	100	204	
4	339.4300	-3.61	36.21	32.60	46.00	-13.40	QP	100	5	
5	350.1000	-3.34	36.96	33.62	46.00	-12.38	QP	100	360	
6	960.2300	5.54	28.33	33.87	54.00	-20.13	QP	100	197	

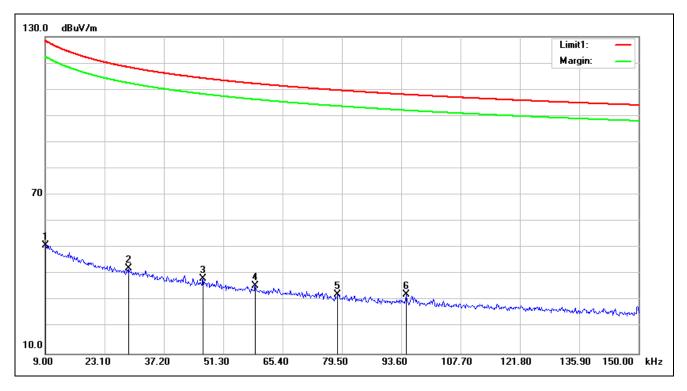
Spurious Emissions, RX Mode, 9K-30M



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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: 2018/4/19 05:15:37

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

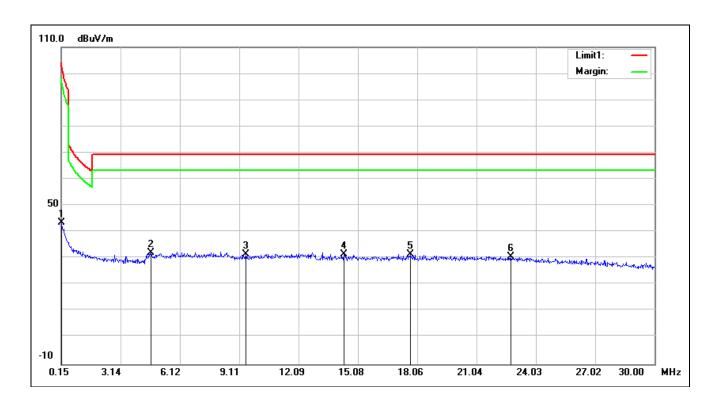
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.0090	19.53	31.52	51.05	128.50	-77.45	QP	100	117	
2	0.0289	20.12	21.99	42.11	118.37	-76.26	QP	100	157	
3	0.0465	19.55	18.69	38.24	114.24	-76.00	QP	100	22	
4	0.0589	19.38	16.38	35.76	112.19	-76.43	QP	100	318	
5	0.0785	19.26	13.20	32.46	109.70	-77.24	QP	100	271	
6	0.0947	19.16	13.22	32.38	108.07	-75.69	QP	100	6	



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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: 2018/4/19 05:18:09

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

Remark:

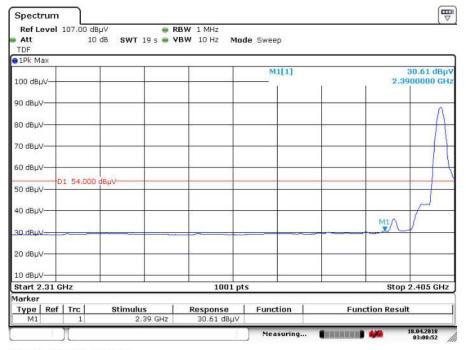
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.1500	19.08	24.60	43.68	104.08	-60.40	QP	100	262	
2	4.6574	19.54	12.50	32.04	69.50	-37.46	QP	100	183	
3	9.4334	20.16	11.37	31.53	69.50	-37.97	QP	100	303	
4	14.3586	20.99	10.68	31.67	69.50	-37.83	QP	100	340	
5	17.7018	21.58	9.97	31.55	69.50	-37.95	QP	100	176	
6	22.7763	22.17	8.53	30.70	69.50	-38.80	QP	100	333	

RFPCA381013IMAB701-ANT

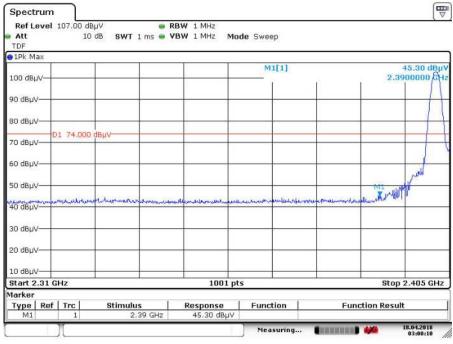
Spurious Emissions, Band Edges, 2.35-2.5G

Radiated Bandedge 1DH5

Low Channel (Hor)

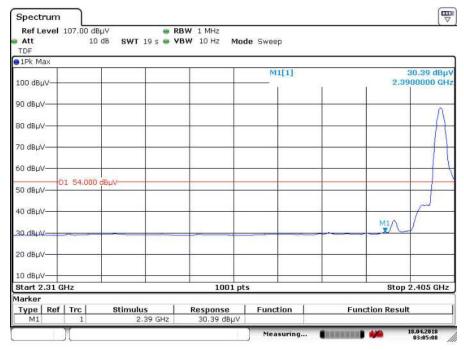


Date: 18.APR.2018 03:00:52

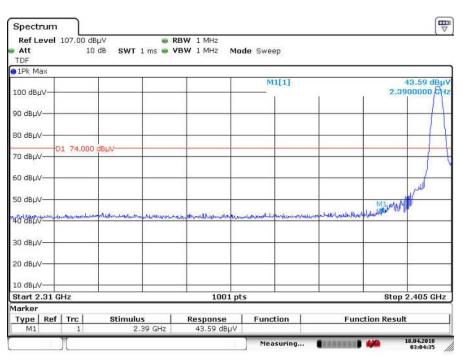


Date: 18.APR.2018 03:00:10

Low Channel (Ver)



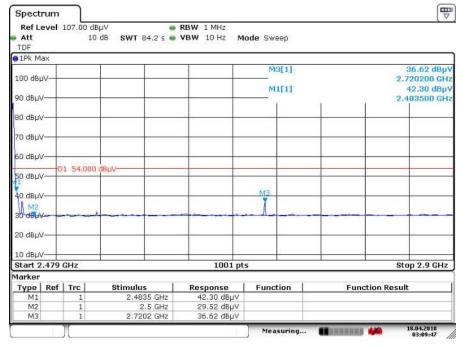
Date: 18.APR.2018 03:05:08



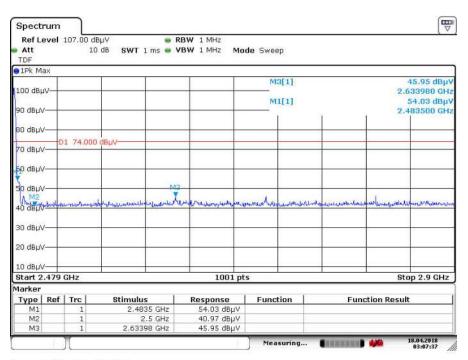
Date: 18.APR.2018 03:04:35

Radiated Bandedge 1DH5

High Channel (Hor)

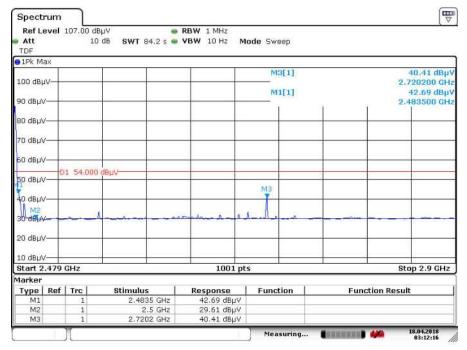


Date: 18.APR.2018 03:09:47

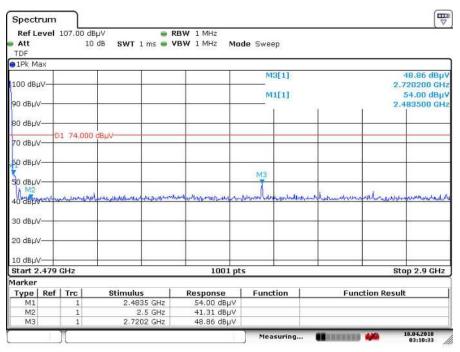


Date: 18.APR.2018 03:07:37

High Channel (Ver)



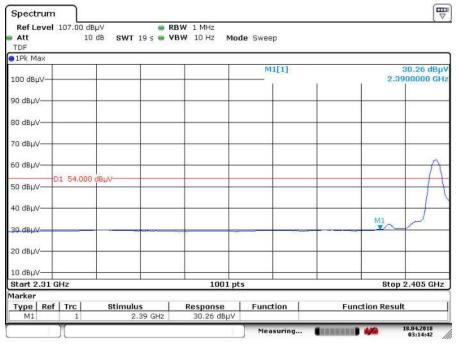
Date: 18.APR.2018 03:12:16



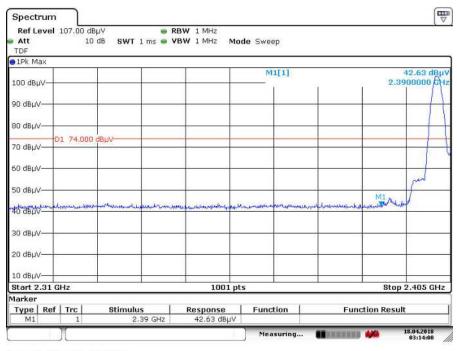
Date: 18.APR.2018 03:10:33

Radiated Bandedge 3DH5

Low Channel (Hor)

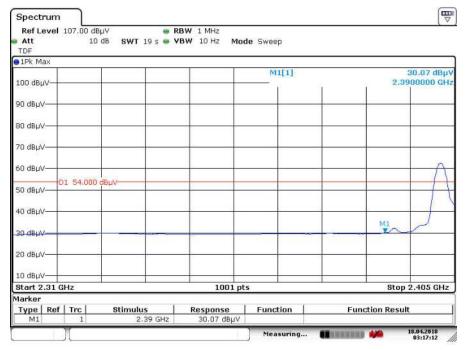


Date: 18.APR.2018 03:14:42

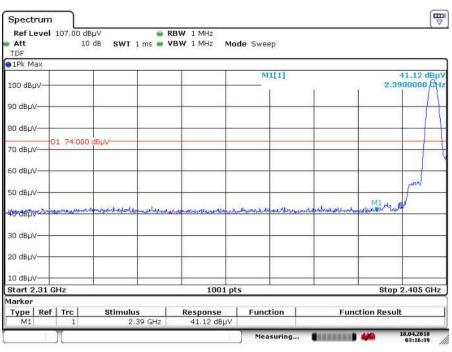


Date: 18.APR.2018 03:14:00

Low Channel (Ver)



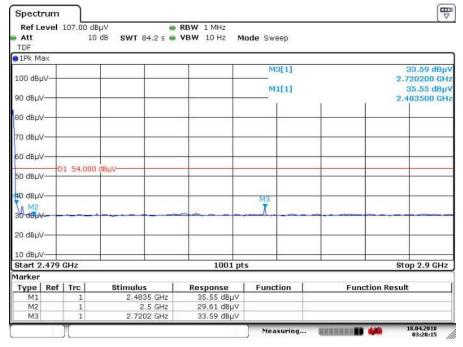
Date: 18.APR.2018 03:17:12



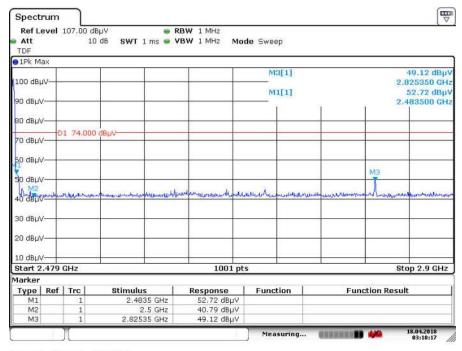
Date: 18.APR.2018 03:16:39

Radiated Bandedge 3DH5

High Channel (Hor)

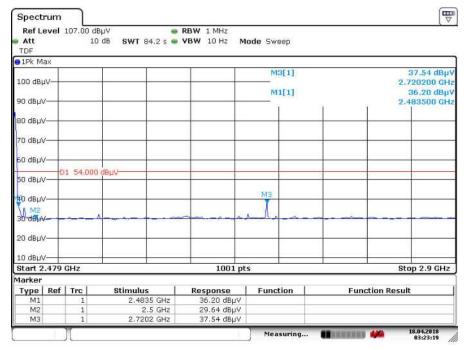


Date: 18.APR.2018 03:20:15

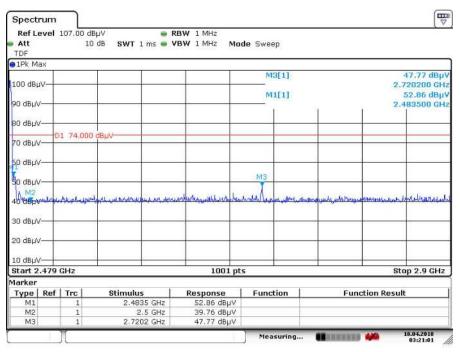


Date: 18.APR.2018 03:18:17

High Channel (Ver)



Date: 18.APR.2018 03:23:19



Date: 18.APR.2018 03:21:01

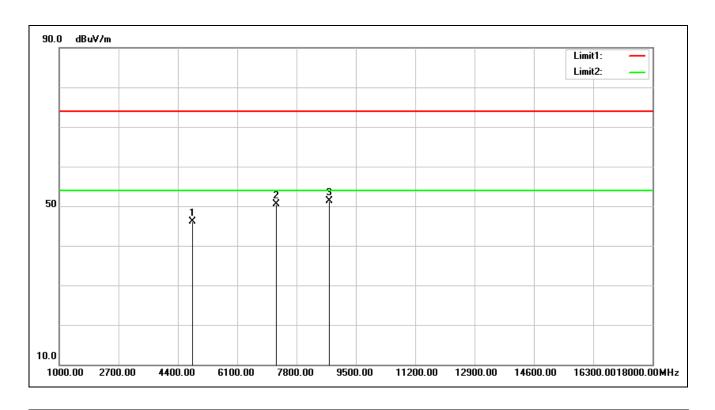
Spurious Emissions, TX Mode, 1-18G



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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: 2018/4/18 03:16:21

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2402-TX

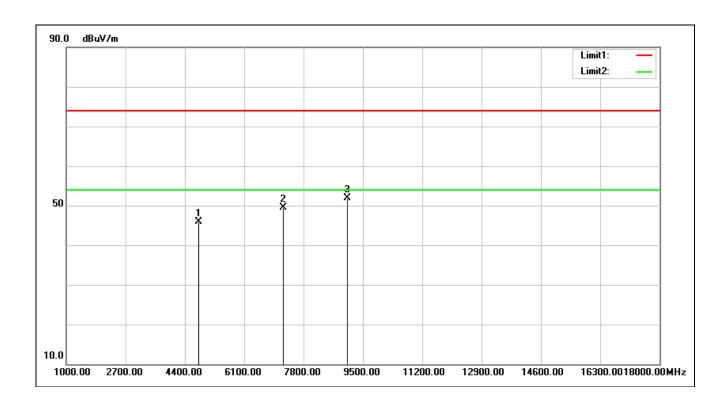
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	48.75	46.03	74.00	-27.97	peak		0	
2	7206.000	5.25	45.22	50.47	74.00	-23.53	peak		0	
3	8735.000	6.40	44.96	51.36	74.00	-22.64	peak		0	



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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: 2018/4/18 03:17:14

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2402-TX

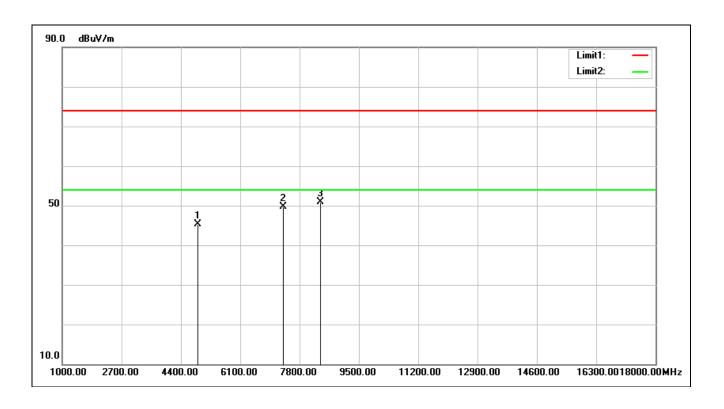
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	48.67	45.95	74.00	-28.05	peak			
2	7206.000	5.25	44.28	49.53	74.00	-24.47	peak			
3	9058.000	6.46	45.49	51.95	74.00	-22.05	peak	100	90	



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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: 2018/4/18 03:21:06

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

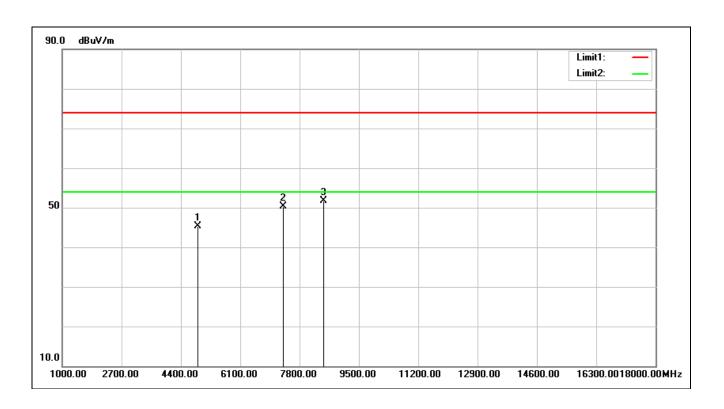
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4882.000	-2.50	47.83	45.33	74.00	-28.67	peak			
2	7323.000	5.54	44.14	49.68	74.00	-24.32	peak			
3	8395.000	6.26	44.60	50.86	74.00	-23.14	peak	100	284	



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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: 2018/4/18 03:21:58

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

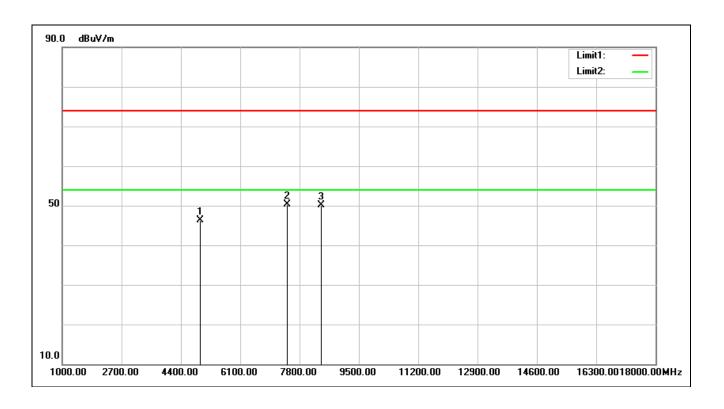
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4882.000	-2.50	47.75	45.25	74.00	-28.75	peak			
2	7323.000	5.54	44.81	50.35	74.00	-23.65	peak			
3	8480.000	6.35	45.26	51.61	74.00	-22.39	peak	100	357	



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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: 2018/4/18 03:24:02

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2480-TX

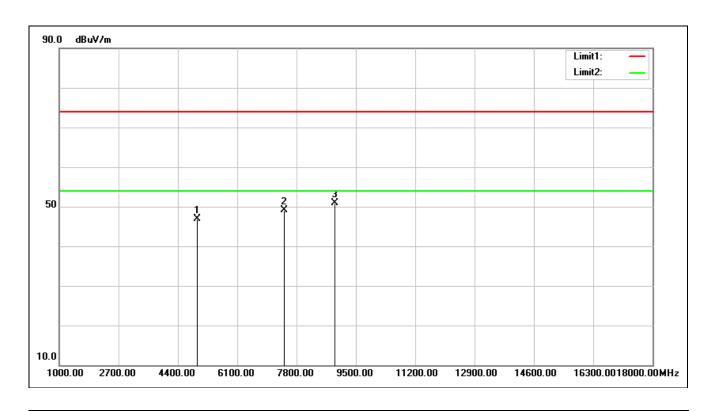
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	48.62	46.34	74.00	-27.66	peak			
2	7440.000	5.84	44.49	50.33	74.00	-23.67	peak			
3	8429.000	6.30	43.73	50.03	74.00	-23.97	peak	100	61	



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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: 2018/4/18 03:24:55

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2480-TX

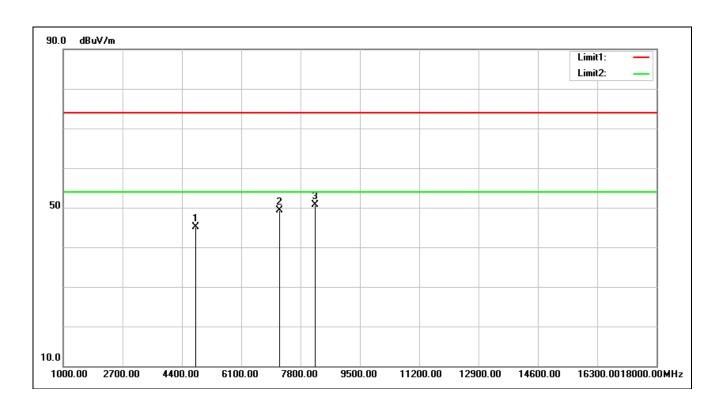
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	49.12	46.84	74.00	-27.16	peak			
2	7440.000	5.84	43.30	49.14	74.00	-24.86	peak			
3	8905.000	6.42	44.56	50.98	74.00	-23.02	peak	100	211	



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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: 2018/4/18 03:26:44

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2402-TX

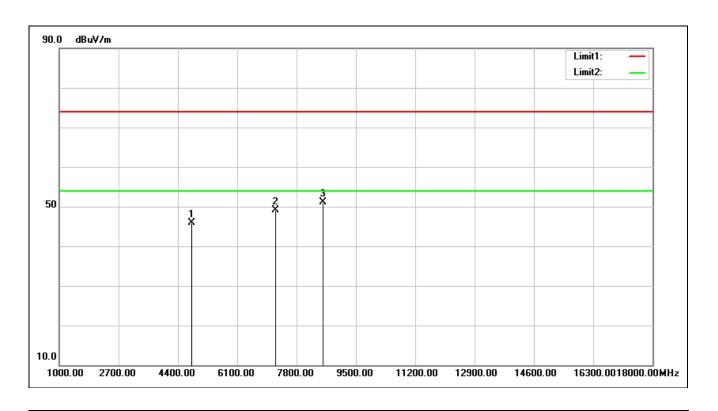
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	47.86	45.14	74.00	-28.86	peak			
2	7206.000	5.25	43.97	49.22	74.00	-24.78	peak			
3	8225.000	6.08	44.63	50.71	74.00	-23.29	peak	100	98	



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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: 2018/4/18 03:27:36

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$)/Hum.($^{\circ}$): 20($^{\circ}$)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2402-TX

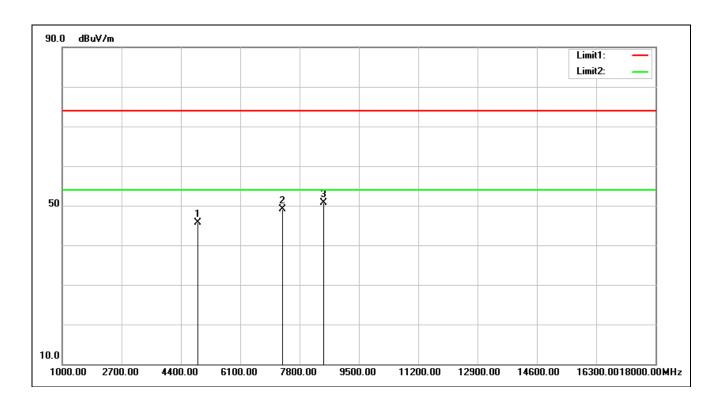
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4804.000	-2.72	48.63	45.91	74.00	-28.09	peak			
2	7206.000	5.25	43.89	49.14	74.00	-24.86	peak			
3	8548.000	6.38	44.71	51.09	74.00	-22.91	peak	100	334	



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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: 2018/4/18 03:29:12

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2441-TX

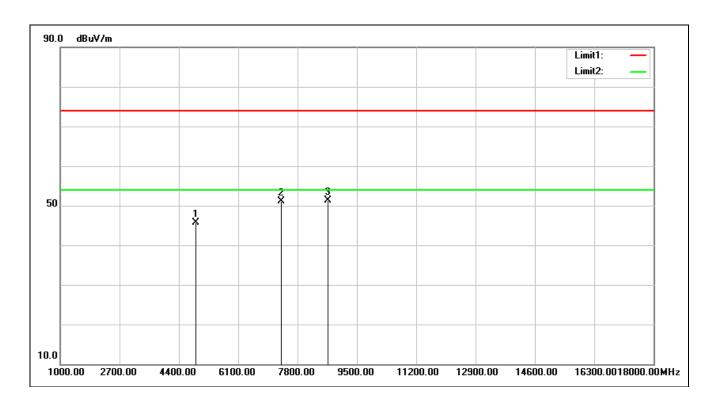
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4882.000	-2.50	48.29	45.79	74.00	-28.21	peak			
2	7323.000	5.54	43.59	49.13	74.00	-24.87	peak			
3	8480.000	6.35	44.45	50.80	74.00	-23.20	peak	100	229	



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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: 2018/4/18 03:30:04

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2441-TX

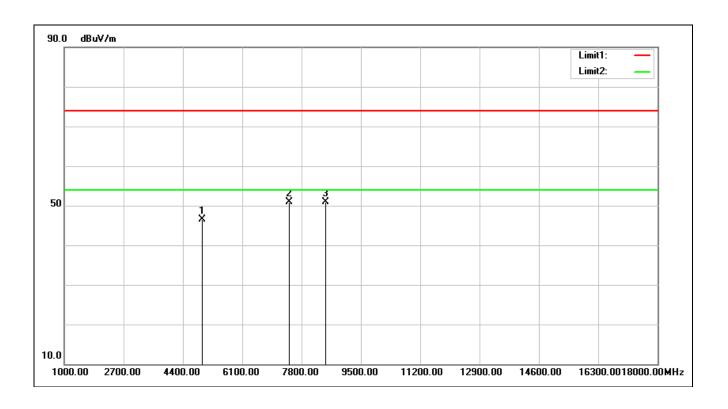
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4882.000	-2.50	48.20	45.70	74.00	-28.30	peak			
2	7323.000	5.54	45.59	51.13	74.00	-22.87	peak			
3	8667.000	6.40	44.84	51.24	74.00	-22.76	peak	100	282	



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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: 2018/4/18 03:31:39

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2480-TX

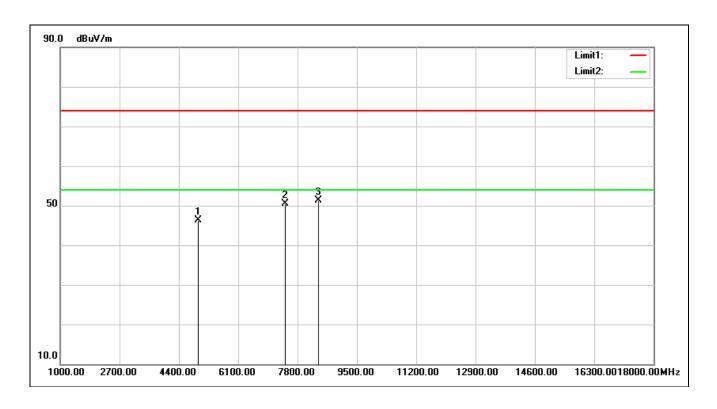
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	48.69	46.41	74.00	-27.59	peak			
2	7440.000	5.84	45.15	50.99	74.00	-23.01	peak			
3	8480.000	6.35	44.46	50.81	74.00	-23.19	peak	100	245	



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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: 2018/4/18 03:32:31

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2480-TX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4960.000	-2.28	48.66	46.38	74.00	-27.62	peak			
2	7440.000	5.84	44.75	50.59	74.00	-23.41	peak			
3	8395.000	6.26	44.99	51.25	74.00	-22.75	peak	100	145	

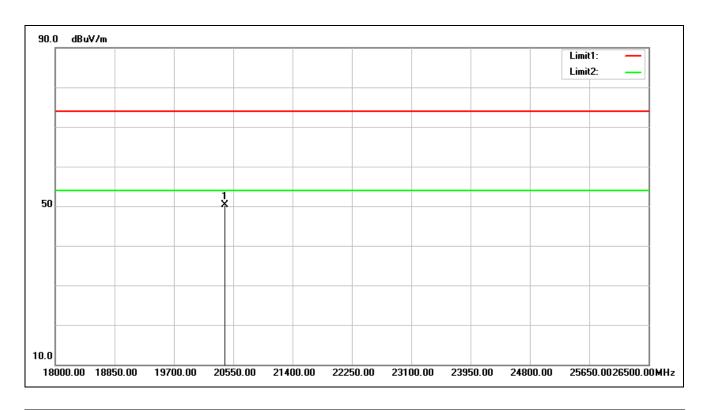
Spurious Emissions, TX Mode, 18-26G



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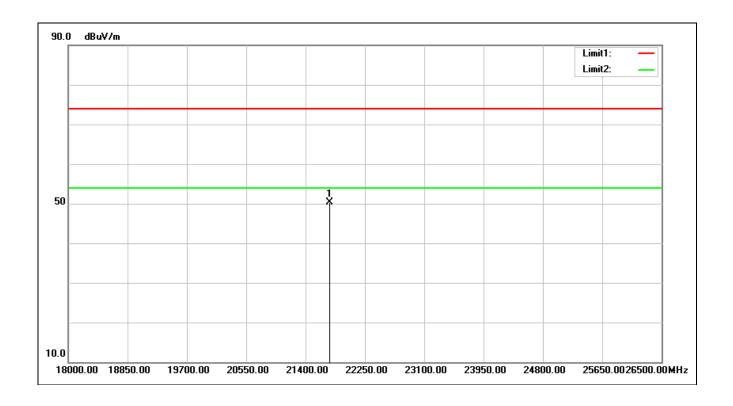
Service No.: 114074446 **Test Distance:** 3m **Test Standard:** FCC&ISED Above 1G PEAK Ant. Polarization: Horizontal Test item: **Test Time: Radiation Emission** 2018/4/18 05:36:11 **Applicant:** Microchip **Test Rating:** DC 3.3V **Product:** IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50% With Integrated Bluetooth ATWILC3000-MR110UA Model No.: **Test Engineer: Curry Chen Test Mode:** 1DH5-2402-TX Remark: RFPCA381013IMAB701-ANT

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	20431.000	31.38	18.86	50.24	74.00	-23.76	peak		0	



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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Vertical Test item: **Test Time:** 2018/4/18 05:36:18 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 22($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth

Test Distance:

3m

114074446

Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen**

Test Mode: 1DH5-2402-TX

Remark:

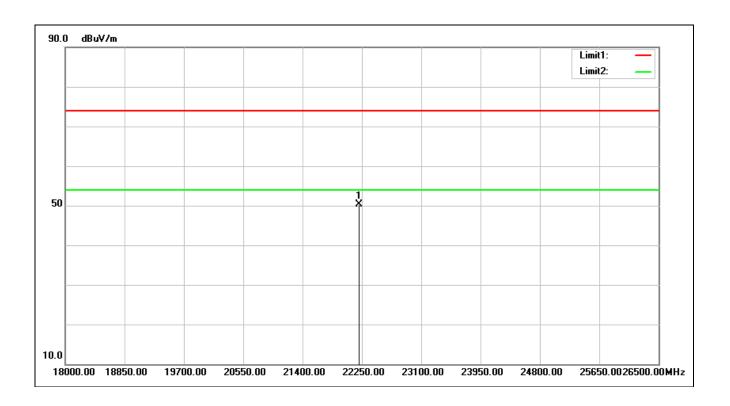
Service No.:

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	17.61	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: 2018/4/18 05:36:49

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

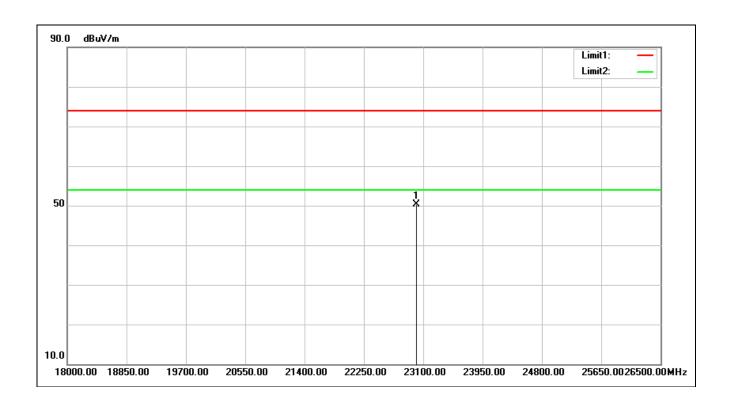
Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	22207.500	32.61	17.63	50.24	74.00	-23.76	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: 2018/4/18 05:36:56

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$)/Hum.($^{\circ}$): 22($^{\circ}$)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

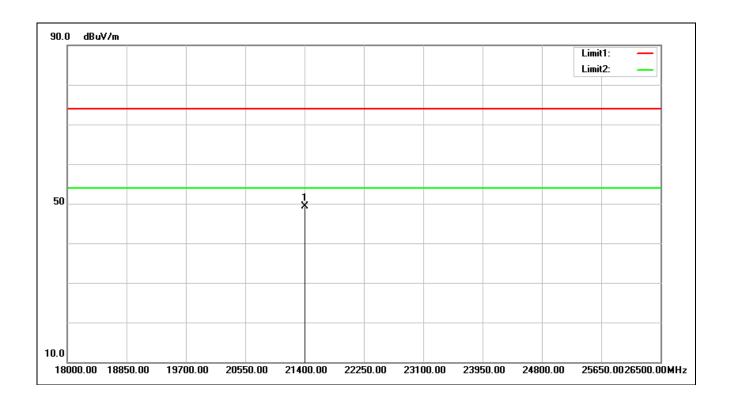
Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (•)	Remark
1	22998.000	32.80	17.52	50.32	74.00	-23.68	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: 2018/4/18 05:37:31

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$)/Hum.($^{\circ}$): 22($^{\circ}$)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2480-TX

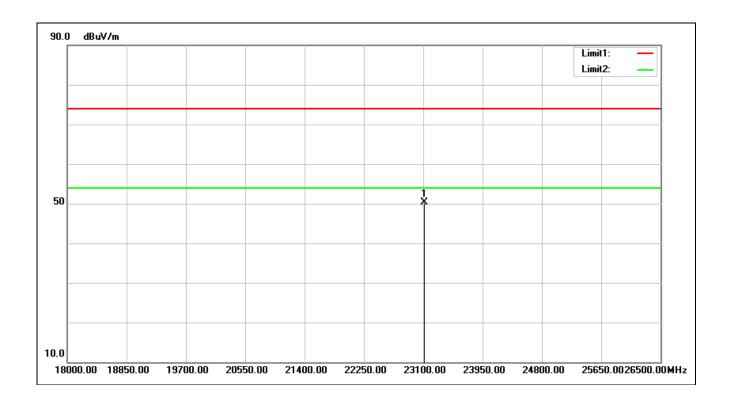
Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	21400.000	32.80	16.47	49.27	74.00	-24.73	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: 2018/4/18 05:37:38

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2480-TX

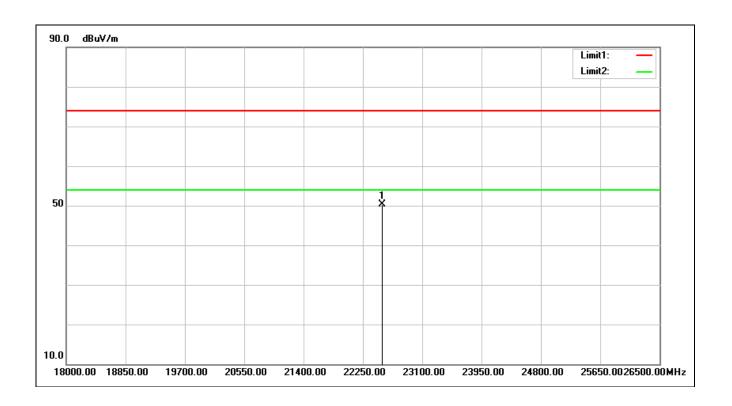
Remark:

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	17.44	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: 2018/4/18 05:38:09

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2402-TX

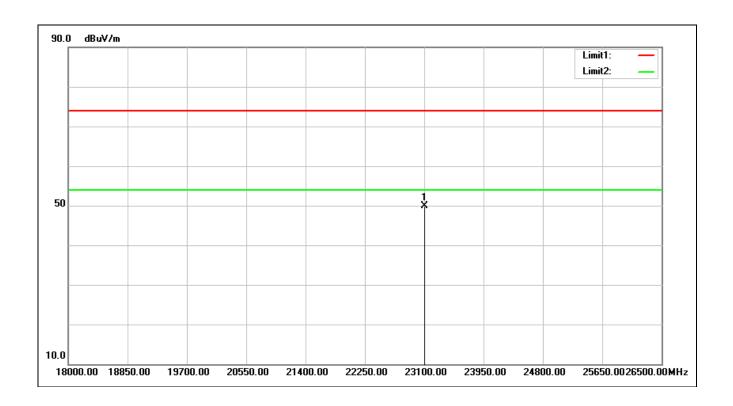
Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (•)	Remark
1	22530.500	32.65	17.63	50.28	74.00	-23.72	peak			



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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Vertical Test item: **Test Time:** 2018/4/18 05:38:16 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 22($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen**

Test Distance:

3m

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Test Mode: 3DH5-2402-TX

114074446

Remark:

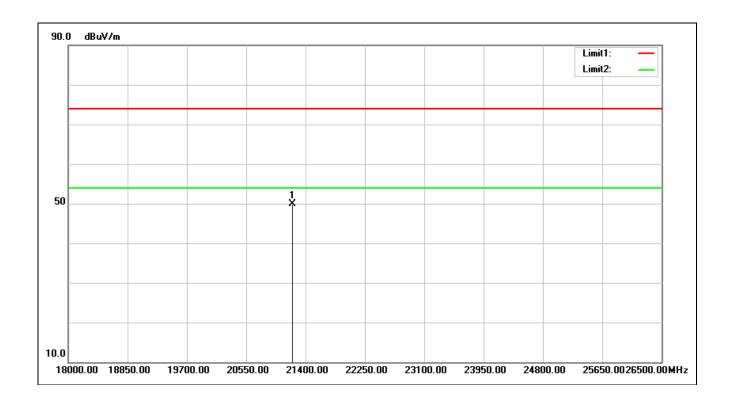
Service No.:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (°)	Remark
1	23108.500	32.90	17.04	49.94	74.00	-24.06	peak			



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Service No.: 114074446 **Test Distance:** 3m **Test Standard:** FCC&ISED Above 1G PEAK Ant. Polarization:

Horizontal

Test item: **Test Time:** 2018/4/18 05:38:36 **Radiation Emission**

Applicant: Microchip **Test Rating:** DC 3.3V

Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 22($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen**

Test Mode: 3DH5-2441-TX

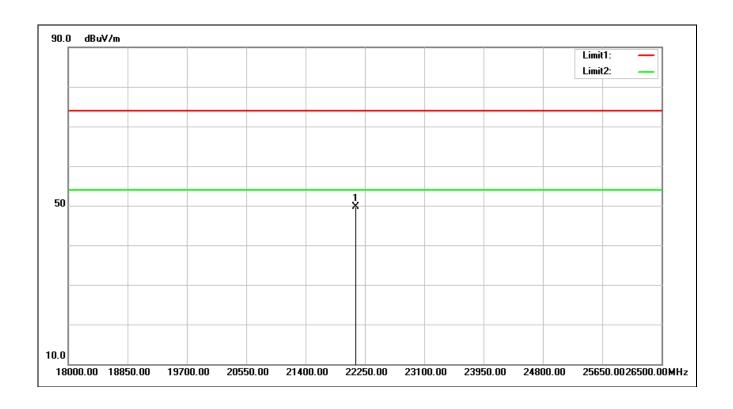
Remark:

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (•)	Remark
1	21213.000	32.63	17.25	49.88	74.00	-24.12	peak			



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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Vertical Test item: **Test Time:** 2018/4/18 05:38:43 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 22($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen Test Mode:** 3DH5-2441-TX

Test Distance:

3m

Remark:

Service No.:

RFPCA381013IMAB701-ANT

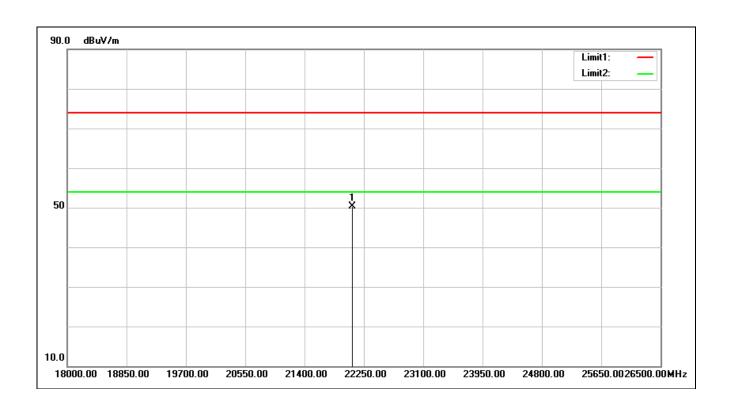
114074446

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.	Height (cm)	Azimuth (•)	Remark
1	22114.000	32.60	17.08	49.68	74.00	-24.32	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: 2018/4/18 05:39:05

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 3DH5-2480-TX

Remark:

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	17.69	50.29	74.00	-23.71	peak			



Service No.:

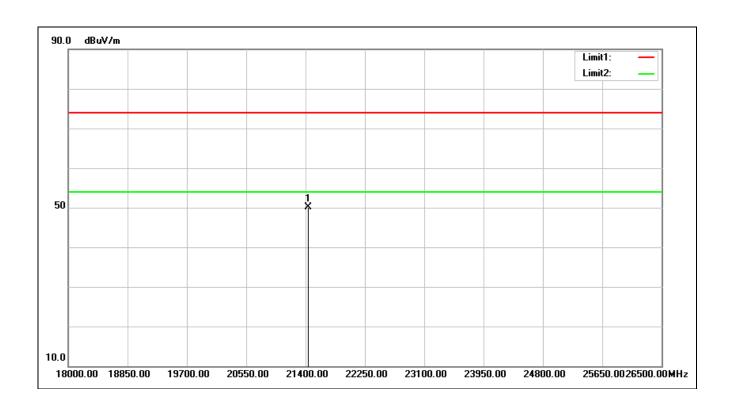
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RFPCA381013IMAB701-ANT

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Test Standard: FCC&ISED Above 1G PEAK Ant. Polarization: Vertical Test item: **Test Time:** 2018/4/18 05:39:12 **Radiation Emission Applicant:** Microchip **Test Rating:** DC 3.3V Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 22($^{\circ}$ C)/50% **Product:** IEEE 802.11 b/g/n Link Controller Module With Integrated Bluetooth Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen Test Mode:** 3DH5-2480-TX Remark:

Test Distance:

3m

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	17.23	50.06	74.00	-23.94	peak			

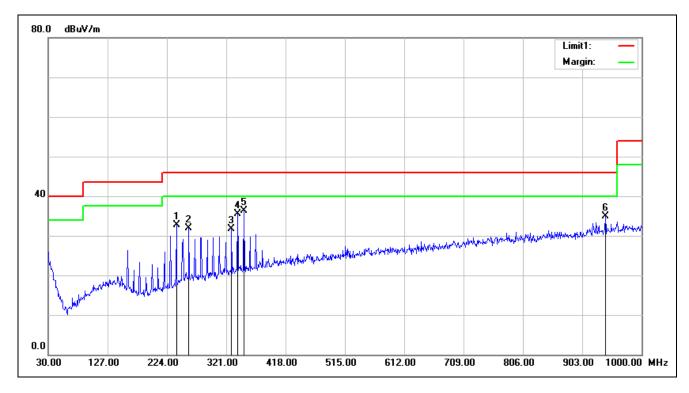
Spurious Emissions, TX Mode, 30M-1G



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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: 2018/4/19 04:58:04

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

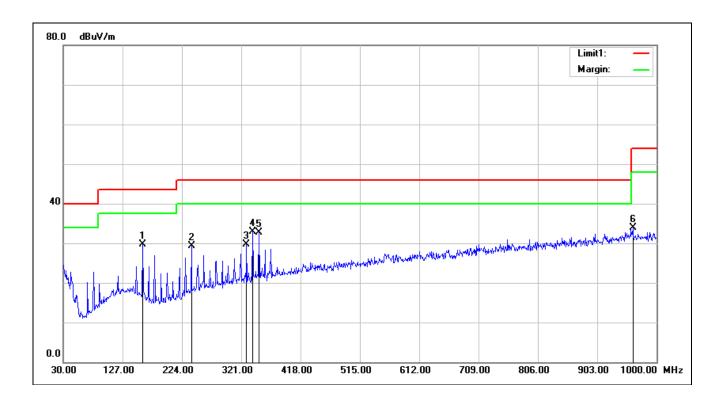
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	239.5200	-6.85	39.56	32.71	46.00	-13.29	QP	100	250	
2	259.8900	-4.94	36.90	31.96	46.00	-14.04	QP	100	273	
3	329.7300	-3.84	35.57	31.73	46.00	-14.27	QP	100	266	
4	339.4300	-3.61	39.19	35.58	46.00	-10.42	QP	100	256	
5	350.1000	-3.34	39.62	36.28	46.00	-9.72	QP	100	253	
6	940.8300	5.23	29.60	34.83	46.00	-11.17	QP	100	56	



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Service No.: 114074446 Test Distance: 3m

Test Standard: FCC&ISED Class B 3M Radiation Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2018/4/19 04:58:57

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	159.9800	-8.07	37.83	29.76	43.50	-13.74	QP	100	97	
2	239.5200	-6.85	36.19	29.34	46.00	-16.66	QP	100	211	
3	329.7300	-3.84	33.57	29.73	46.00	-16.27	QP	100	336	
4	339.4300	-3.61	36.49	32.88	46.00	-13.12	QP	100	354	
5	350.1000	-3.34	36.05	32.71	46.00	-13.29	QP	100	340	
6	961.2000	5.54	28.37	33.91	54.00	-20.09	QP	100	306	

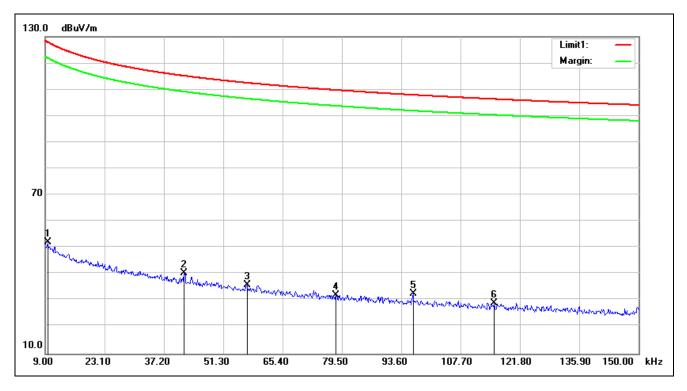
Spurious Emissions, TX Mode, 9k-30M



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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: 2018/4/19 05:08:08

Applicant: Microchip Test Rating: DC 3.3V Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$ C)/Hum.($^{\circ}$ C): 21($^{\circ}$ C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

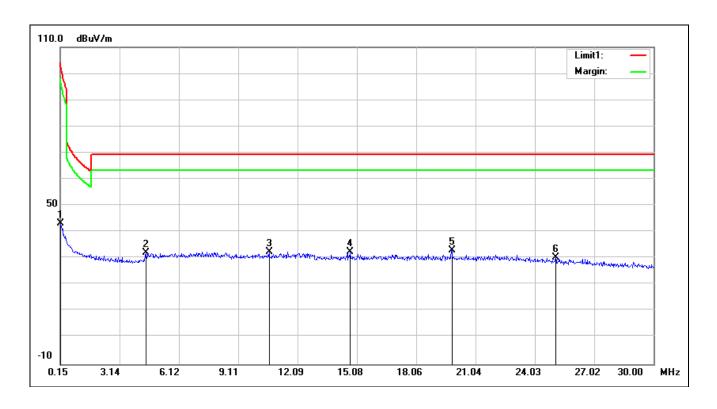
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.0095	19.73	32.50	52.23	128.03	-75.80	QP	100	164	
2	0.0419	19.71	20.74	40.45	115.15	-74.70	QP	100	292	
3	0.0569	19.39	16.57	35.96	112.49	-76.53	QP	100	16	
4	0.0780	19.26	12.83	32.09	109.75	-77.66	QP	100	269	
5	0.0964	19.15	13.40	32.55	107.91	-75.36	QP	100	36	
6	0.1157	19.11	9.92	29.03	106.33	-77.30	QP	100	170	



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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: 2018/4/19 05:10:48

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-TX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.1500	19.08	24.32	43.40	104.08	-60.68	QP	100	98	
2	4.4484	19.42	12.61	32.03	69.50	-37.47	QP	100	360	
3	10.6572	20.33	12.02	32.35	69.50	-37.15	QP	100	256	
4	14.7466	21.06	11.26	32.32	69.50	-37.18	QP	100	348	
5	19.8510	21.95	11.03	32.98	69.50	-36.52	QP	100	360	
6	25.0747	22.32	8.09	30.41	69.50	-39.09	QP	100	105	

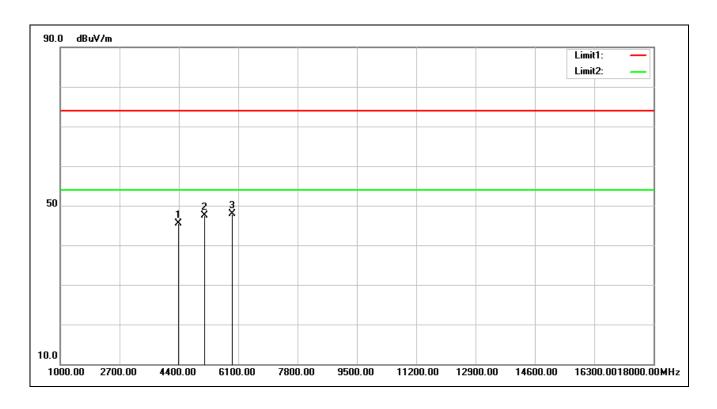
Spurious Emissions, RX Mode, 1-18G



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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: 2018/4/18 03:34:34

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

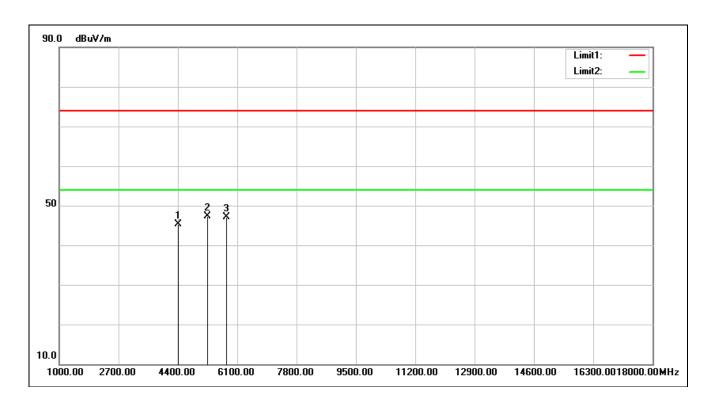
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4383.000	-4.46	49.91	45.45	74.00	-28.55	peak	100	201	
2	5131.000	-2.58	49.99	47.41	74.00	-26.59	peak	100	256	
3	5930.000	1.90	46.05	47.95	74.00	-26.05	peak	100	96	



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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: 2018/4/18 03:35:26

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 20(°C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4417.000	-4.33	49.68	45.35	74.00	-28.65	peak	100	1	
2	5250.000	-2.03	49.25	47.22	74.00	-26.78	peak	100	347	
3	5794.000	1.03	46.13	47.16	74.00	-26.84	peak	100	220	

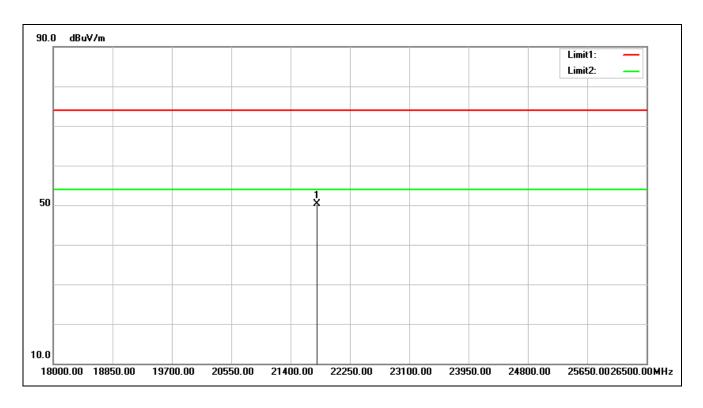
Spurious Emissions, RX Mode, 18-26G



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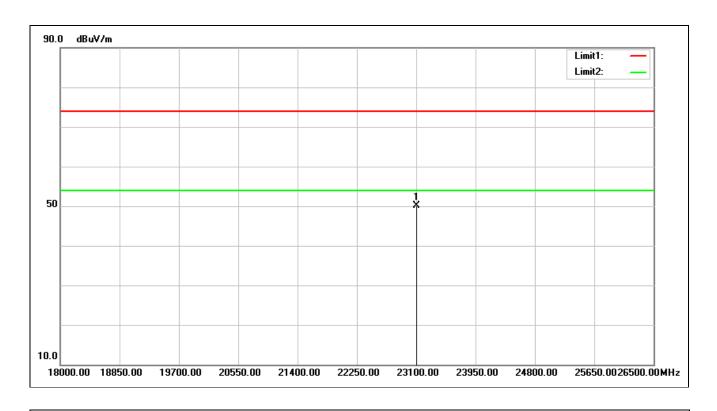
Service No.: 114074446 **Test Distance:** 3m **Test Standard:** FCC&ISED Above 1G PEAK Ant. Polarization: Horizontal Test item: **Test Time: Radiation Emission** 2018/4/18 05:39:35 **Applicant:** Microchip **Test Rating:** DC 3.3V **Product:** IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 22(°C)/50% With Integrated Bluetooth ATWILC3000-MR110UA Model No.: **Test Engineer: Curry Chen Test Mode:** 1DH5-2441-RX Remark: RFPCA381013IMAB701-ANT

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	21782.500	32.72	17.50	50.22	74.00	-23.78	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: 2018/4/18 05:39:42

Applicant: Microchip Test Rating: DC 3.3V Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 22($^{\circ}$ C)/50%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	23108.500	32.90	17.21	50.11	74.00	-23.89	peak			

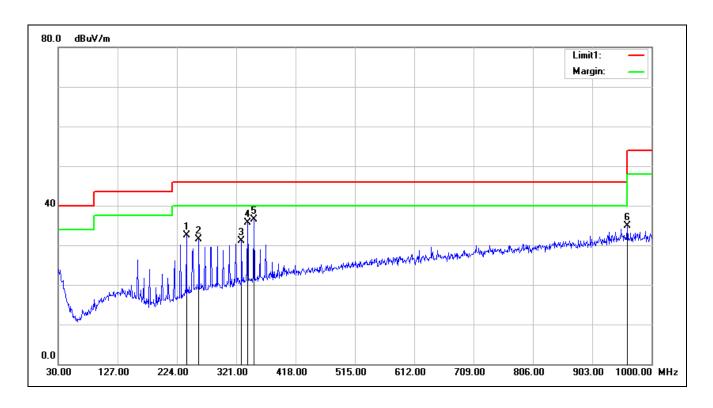
Spurious Emissions, RX Mode, 30M-1G



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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: 2018/4/19 05:00:27

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.(°C)/Hum.(%): 21(°C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

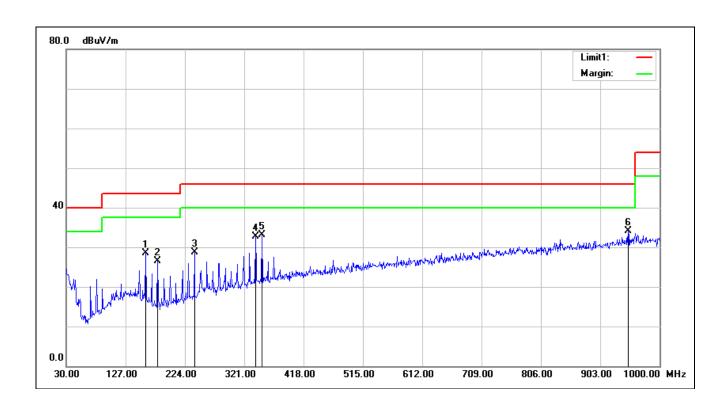
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	239.5200	-6.85	39.26	32.41	46.00	-13.59	QP	100	108	
2	259.8900	-4.94	36.51	31.57	46.00	-14.43	QP	100	248	
3	329.7300	-3.84	35.04	31.20	46.00	-14.80	QP	100	252	
4	339.4300	-3.61	39.26	35.65	46.00	-10.35	QP	100	258	
5	350.1000	-3.34	39.76	36.42	46.00	-9.58	QP	100	245	
6	960.2300	5.54	29.45	34.99	54.00	-19.01	QP	100	61	



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Service No.: 114074446 **Test Distance:** 3m **Test Standard:**

FCC&ISED Class B 3M Radiation Ant. Polarization: Vertical

Test item: Radiation Emission Test Time: 2018/4/19 05:01:20

Applicant: Microchip **Test Rating:** DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$)/Hum.($^{\circ}$): 21($^{\circ}$)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA **Test Engineer: Curry Chen**

Test Mode: 1DH5-2441-RX

Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	159.9800	-8.07	36.65	28.58	43.50	-14.92	QP	100	97	
2	179.3800	-9.59	36.07	26.48	43.50	-17.02	QP	100	74	
3	239.5200	-6.85	35.61	28.76	46.00	-17.24	QP	100	195	
4	339.4300	-3.61	36.34	32.73	46.00	-13.27	QP	100	360	
5	350.1000	-3.34	36.48	33.14	46.00	-12.86	QP	100	353	
6	948.5900	5.46	28.57	34.03	46.00	-11.97	QP	100	37	

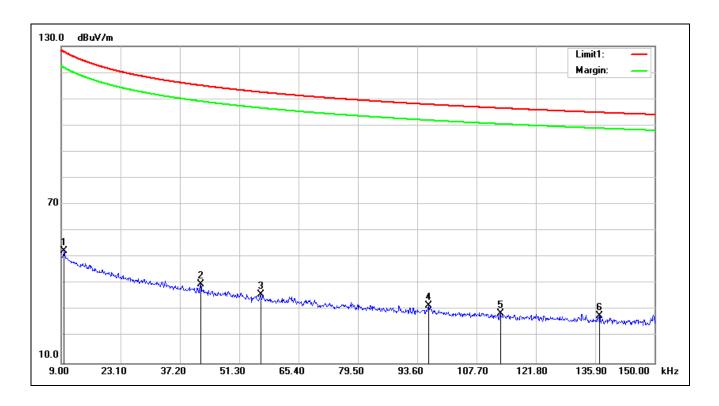
Spurious Emissions, RX Mode, 9K-30M



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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: 2018/4/19 05:09:02

Applicant: Microchip Test Rating: DC 3.3V Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$ C)/Hum.($^{\circ}$ C): 21($^{\circ}$ C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

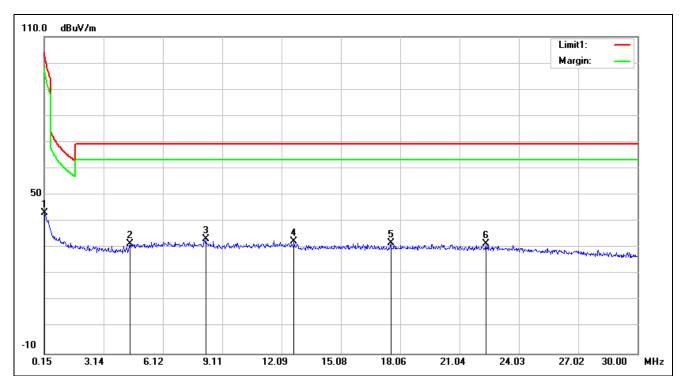
Remark:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.0097	19.81	32.54	52.35	127.85	-75.50	QP	100	52	
2	0.0421	19.71	20.12	39.83	115.11	-75.28	QP	100	56	
3	0.0564	19.39	16.52	35.91	112.57	-76.66	QP	100	243	
4	0.0963	19.15	12.50	31.65	107.92	-76.27	QP	100	292	
5	0.1133	19.12	9.49	28.61	106.51	-77.90	QP	100	138	
6	0.1369	19.09	8.69	27.78	104.87	-77.09	QP	100	105	



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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: 2018/4/19 05:11:41

Applicant: Microchip Test Rating: DC 3.3V

Product: IEEE 802.11 b/g/n Link Controller Module Temp.($^{\circ}$ C)/Hum.($^{\circ}$ C): 21($^{\circ}$ C)/55%

With Integrated Bluetooth

Model No.: ATWILC3000-MR110UA Test Engineer: Curry Chen

Test Mode: 1DH5-2441-RX

Remark:

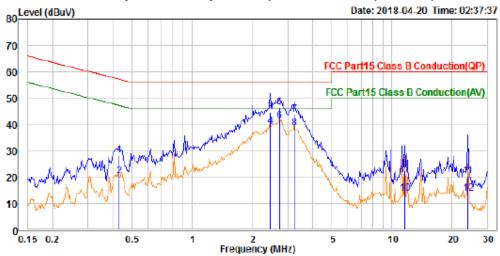
No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.1500	19.08	24.28	43.36	104.08	-60.72	QP	100	155	
2	4.4484	19.42	12.10	31.52	69.50	-37.98	QP	100	210	
3	8.2692	20.06	13.34	33.40	69.50	-36.10	QP	100	237	
4	12.7169	20.70	11.78	32.48	69.50	-37.02	QP	100	1	
5	17.5824	21.56	10.18	31.74	69.50	-37.76	QP	100	0	
6	22.3584	22.14	9.30	31.44	69.50	-38.06	QP	100	190	

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

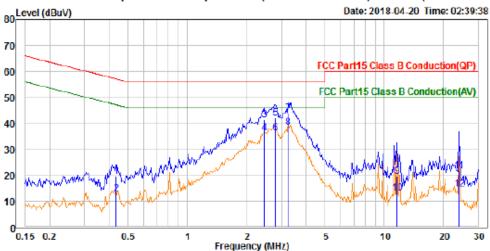
Test Rating : 120Vac/60Hz Tmp/Hum : 22.7 ℃ / 52 %

Memo : Mains

		Read			Limit	0ver	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	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	-35.38	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



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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 ℃ / 52 %

Memo : Mains

		Read			Limit	0ver	
	Freq	Level	Factor	Level	Line	Limit	Remark
	MHz	dBuV	dB	dBuV	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