Test Report No.50103731 001

Appendix D: Radiated and Mains Spurious Emission Data

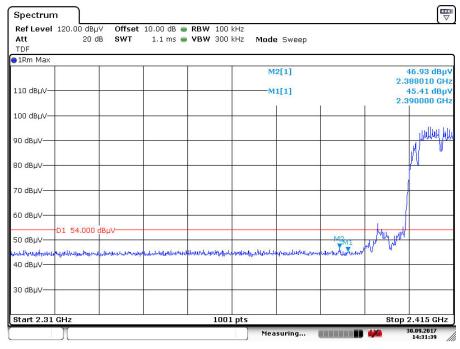
(File: 50103731 001AppendixD)

Contents

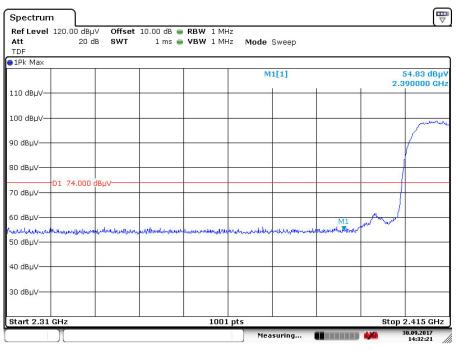
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Spurious Emissions, TX Mode, 18-26G	32
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Radiated Bandedge 11b

Low Channel (Hor)

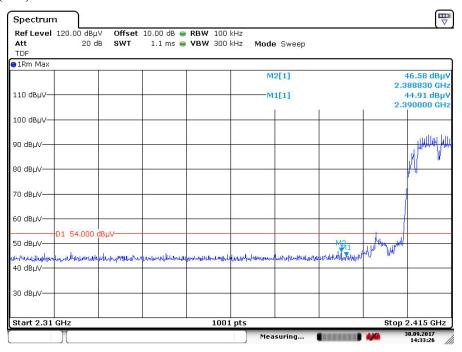


Date: 30.SEP.2017 14:31:40

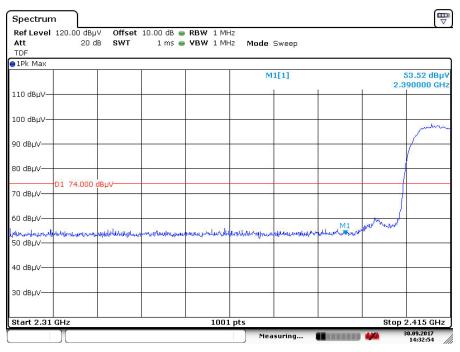


Date: 30.SEP.2017 14:32:21

Low Channel (Ver)



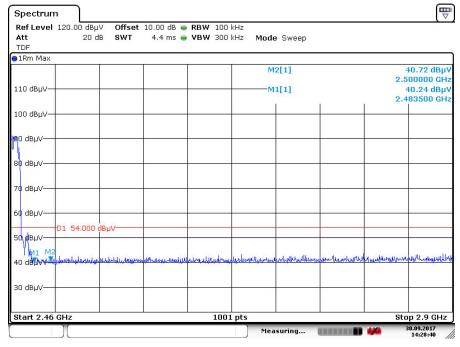
Date: 30.SEP.2017 14:33:26



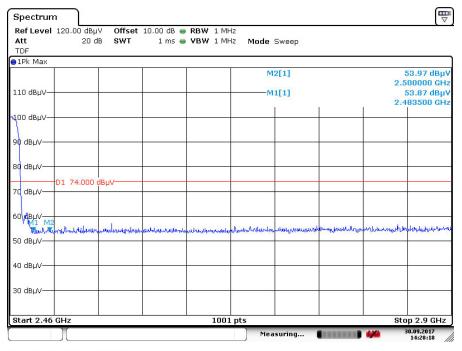
Date: 30.SEP.2017 14:32:54

Radiated Bandedge 11b

High Channel (Hor)

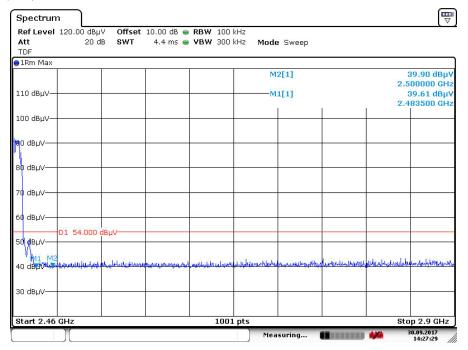


Date: 30.SEP.2017 14:28:40

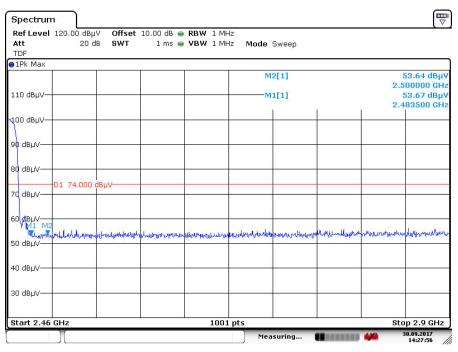


Date: 30.SEP.2017 14:28:18

High Channel (Ver)



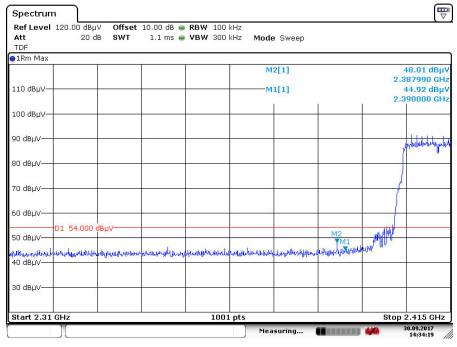
Date: 30.SEP.2017 14:27:30



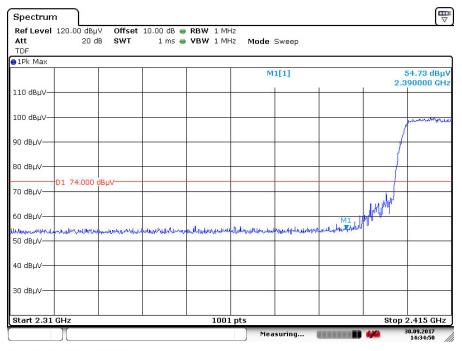
Date: 30.SEP.2017 14:27:56

Radiated Bandedge 11g

Low Channel (Hor)

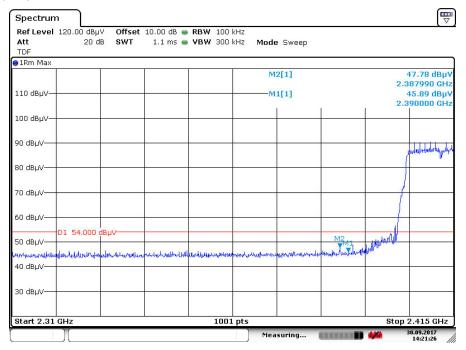


Date: 30.SEP.2017 14:34:19

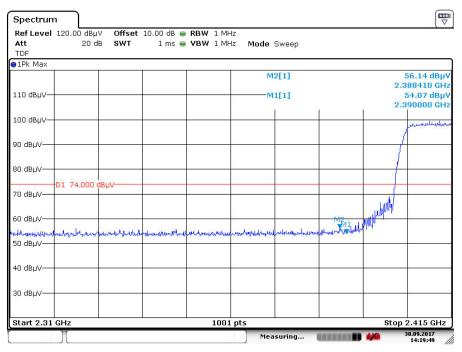


Date: 30.SEP.2017 14:34:50

Low Channel (Ver)



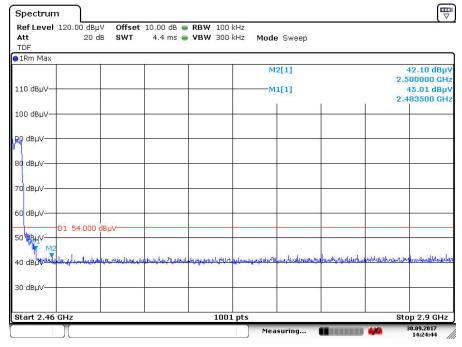
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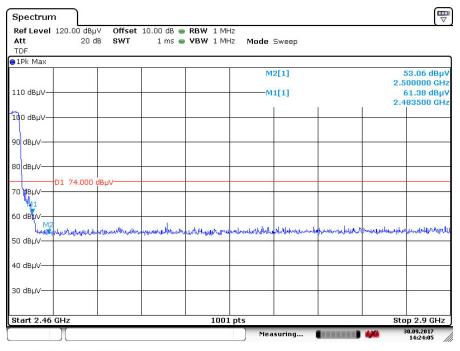
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Radiated Bandedge 11g

High Channel (Hor)

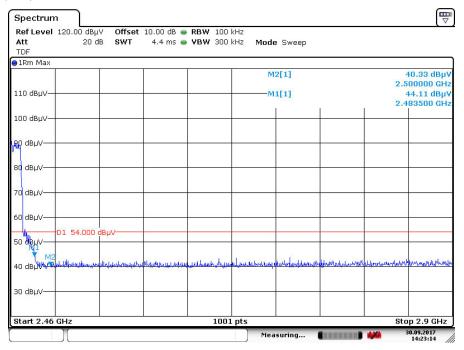


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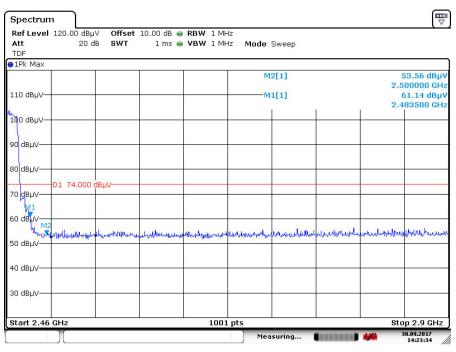


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High Channel (Ver)



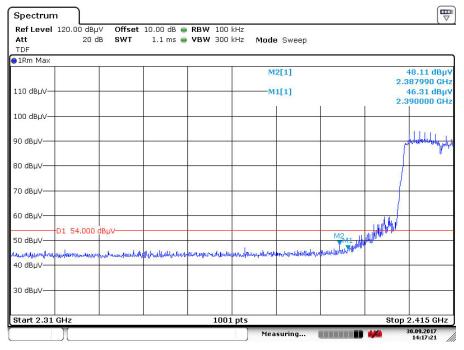
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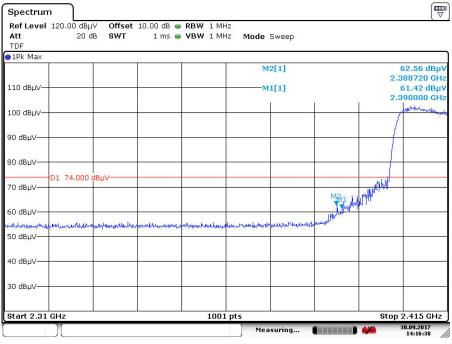
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Radiated Bandedge 11n

Low Channel (Hor)

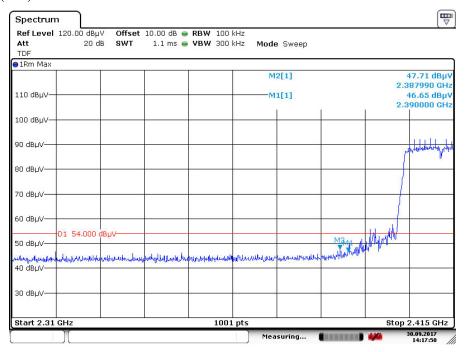


Date: 30.SEP.2017 14:17:21

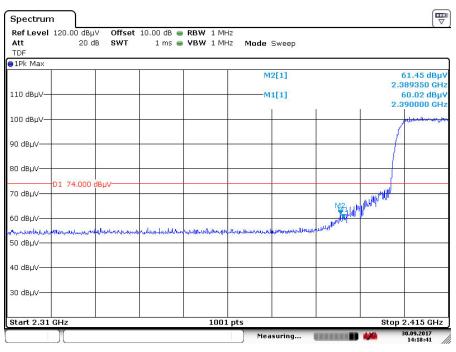


Date: 30.SEP.2017 14:16:38

Low Channel (Ver)



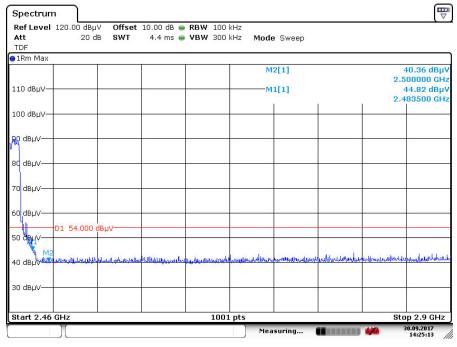
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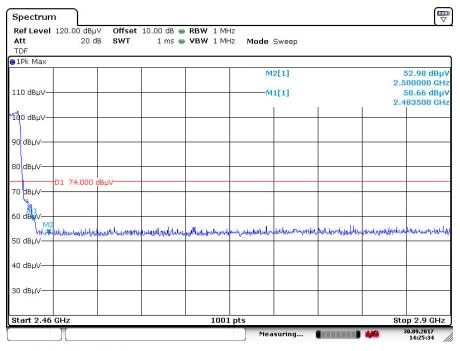
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Radiated Bandedge 11n

High Channel (Hor)

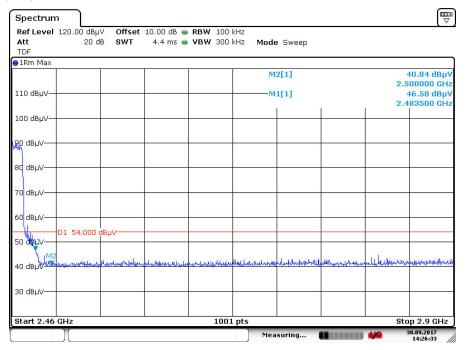


Date: 30.SEP.2017 14:25:14

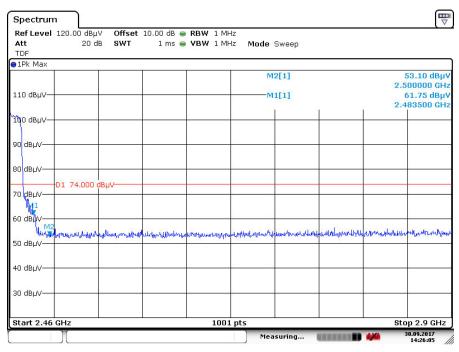


Date: 30.SEP.2017 14:25:34

High Channel (Ver)



Date: 30.SEP.2017 14:26:33

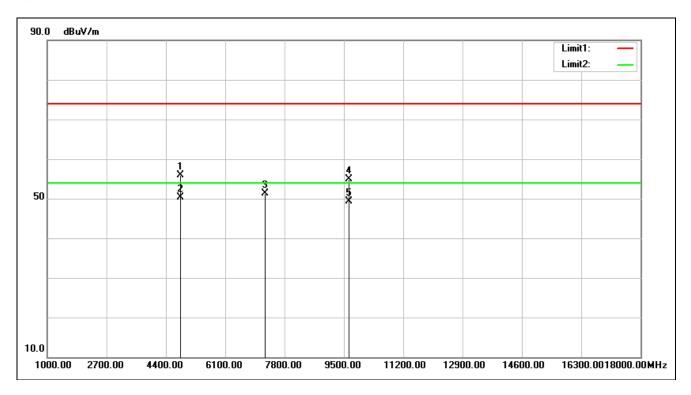


Date: 30.SEP.2017 14:26:05



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

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



Service No.: 114068828 **Test Distance:** 3m

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

Test item: **Radiation Emission Test Time:** 2017/9/30 14:35:54 **Applicant:**

Microchip Technology Inc. **Test Rating:** DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.($^{\circ}$)/Hum.($^{\circ}$): **21**(℃)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA **Test Engineer: George Yang**

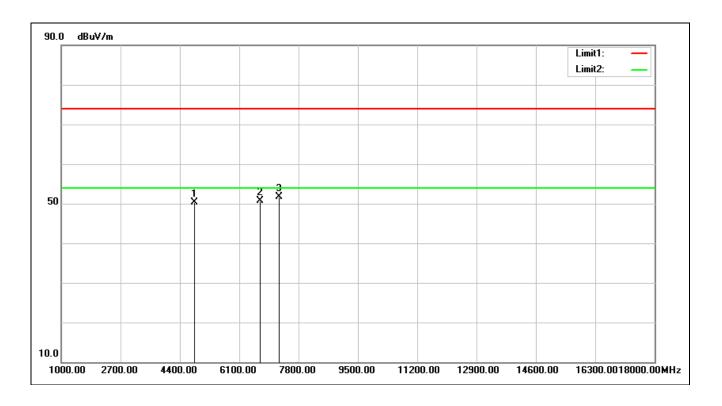
Test Mode: B-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4824.000	-2.65	58.63	55.98	74.00	-18.02	peak	100	321	
2	4824.000	-2.65	53.03	50.38	54.00	-3.62	AVG	100	321	
3	7236.000	5.37	45.93	51.30	74.00	-22.70	peak		0	
4	9648.000	6.31	48.62	54.93	74.00	-19.07	peak	100	349	
5	9648.000	6.31	43.08	49.39	54.00	-4.61	AVG	100	349	



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



Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 14:36:57

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

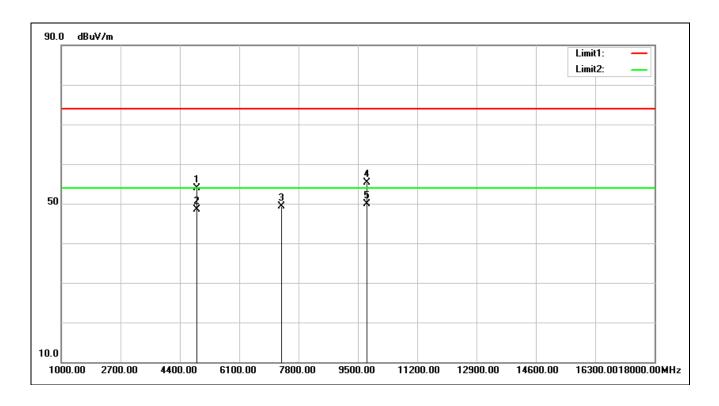
Test Mode: B-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4824.000	-2.65	52.95	50.30	74.00	-23.70	peak	100	25	
2	6695.000	5.12	45.66	50.78	74.00	-23.22	peak	100	72	
3	7236.000	5.37	46.40	51.77	74.00	-22.23	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 14:44:01

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

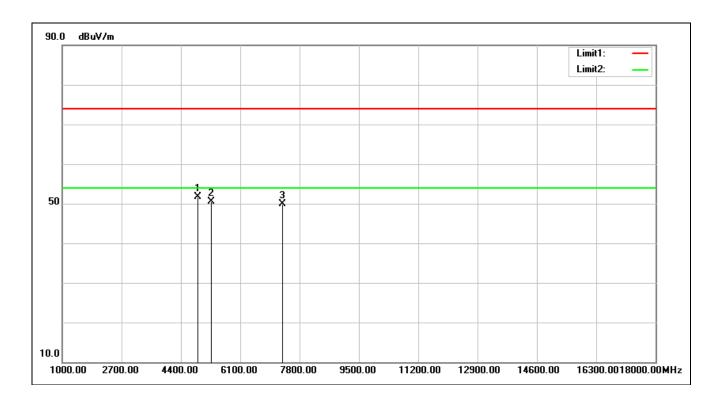
Test Mode: B-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4874.000	-2.52	56.42	53.90	74.00	-20.10	peak	100	318	
2	4874.000	-2.52	51.02	48.50	54.00	-5.50	AVG	100	318	
3	7311.000	5.57	43.72	49.29	74.00	-24.71	peak			
4	9748.000	6.15	49.22	55.37	74.00	-18.63	peak	100	3	
5	9748.000	6.15	43.75	49.90	54.00	-4.10	AVG	100	3	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 14:45:03

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

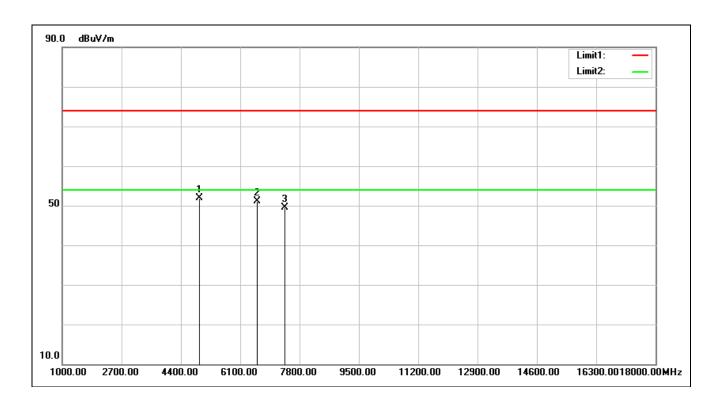
Test Mode: B-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4874.000	-2.52	54.13	51.61	74.00	-22.39	peak	100	335	
2	5267.000	-0.94	51.47	50.53	74.00	-23.47	peak	100	321	
3	7311.000	5.57	44.29	49.86	74.00	-24.14	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 14:47:47

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

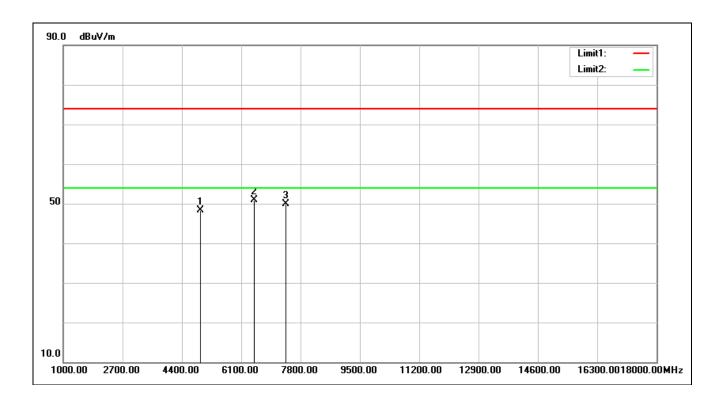
Test Mode: B-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4924.000	-2.39	54.39	52.00	74.00	-22.00	peak	100	174	
2	6576.000	5.25	45.78	51.03	74.00	-22.97	peak	100	307	
3	7386.000	5.75	43.76	49.51	74.00	-24.49	peak			



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



Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 14:48:49

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

cst Ruting. DC 3.0 v 10 4.2 v

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

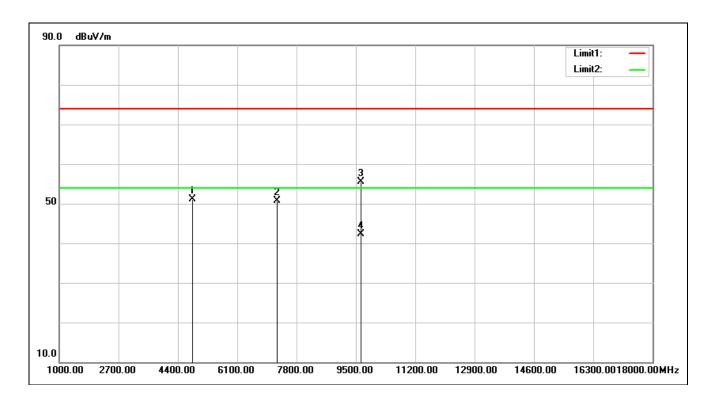
Test Mode: B-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4924.000	-2.39	50.65	48.26	74.00	-25.74	peak			
2	6474.000	5.25	45.63	50.88	74.00	-23.12	peak	100	192	
3	7386.000	5.75	44.25	50.00	74.00	-24.00	peak			



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Service No.: 114068828 **Test Distance:** 3m

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

Test item: **Radiation Emission Test Time:** 2017/9/30 14:51:45 **Applicant:** Microchip Technology Inc. DC 3.0V TO 4.2V

Test Rating:

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller **Temp.(℃)/Hum.(%):** 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA **Test Engineer: George Yang**

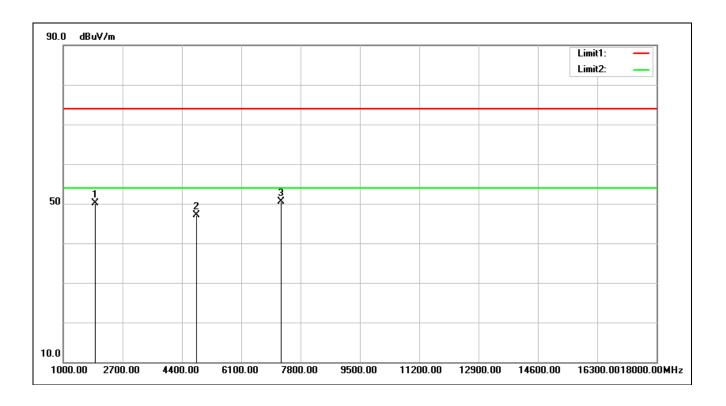
Test Mode: G-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4824.000	-2.65	53.85	51.20	74.00	-22.80	peak	100	329	
2	7236.000	5.37	45.33	50.70	74.00	-23.30	peak			
3	9648.000	6.31	49.19	55.50	74.00	-18.50	peak	100	1	
4	9648.000	6.31	35.99	42.30	54.00	-11.70	AVG	100	1	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 14:52:47

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

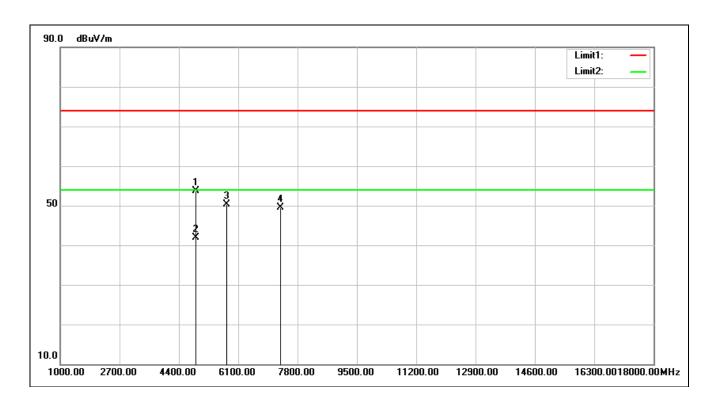
Test Mode: G-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	1918.000	-7.68	57.87	50.19	74.00	-23.81	peak	100	0	
2	4824.000	-2.65	49.75	47.10	74.00	-26.90	peak			
3	7236.000	5.37	45.12	50.49	74.00	-23.51	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 14:56:50

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

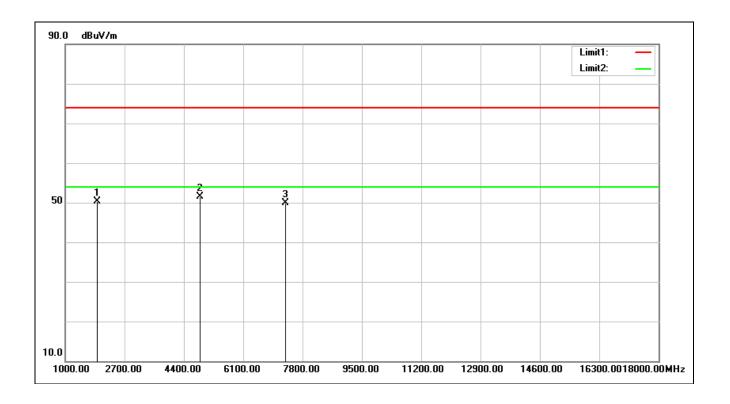
Test Mode: G-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4874.000	-2.52	56.28	53.76	74.00	-20.24	peak	100	316	
2	4874.000	-2.52	44.42	41.90	54.00	-12.10	AVG	100	316	
3	5777.000	1.97	48.33	50.30	74.00	-23.70	peak	100	177	
4	7311.000	5.57	43.94	49.51	74.00	-24.49	peak			



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



Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 14:57:52

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

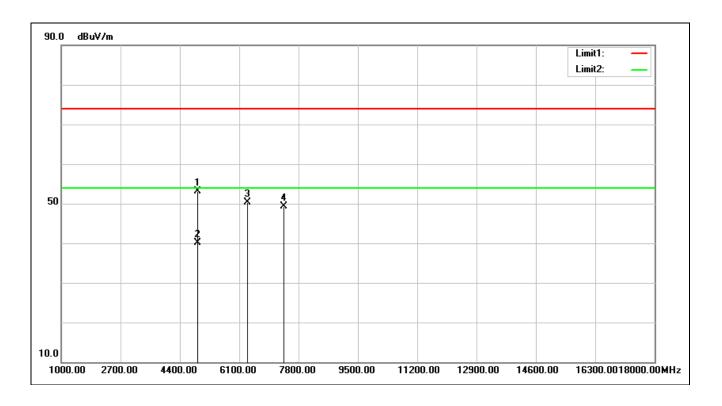
Test Mode: G-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	1918.000	-7.68	58.00	50.32	74.00	-23.68	peak	100	0	
2	4874.000	-2.52	54.10	51.58	74.00	-22.42	peak	100	338	
3	7311.000	5.57	44.41	49.98	74.00	-24.02	peak			



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



Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:03:36

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

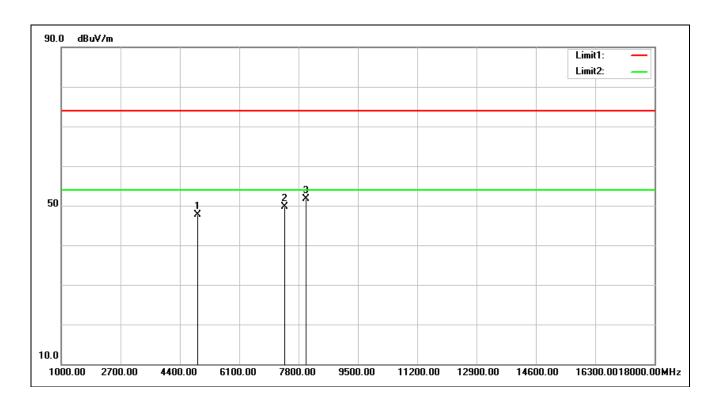
Test Mode: G-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4924.000	-2.39	55.45	53.06	74.00	-20.94	peak	100	177	
2	4924.000	-2.39	42.59	40.20	54.00	-13.80	AVG	100	177	
3	6338.000	4.71	45.65	50.36	74.00	-23.64	peak	100	50	
4	7386.000	5.75	43.49	49.24	74.00	-24.76	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:04:38

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

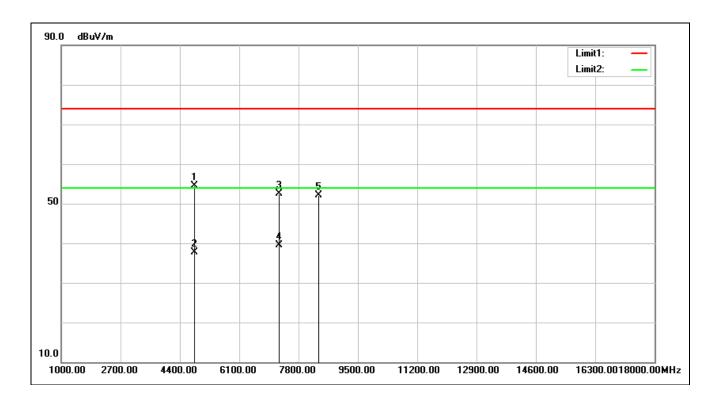
Test Mode: G-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4924.000	-2.39	50.17	47.78	74.00	-26.22	peak			
2	7386.000	5.75	43.97	49.72	74.00	-24.28	peak			
3	8021.000	5.82	45.94	51.76	74.00	-22.24	peak	100	241	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:07:06

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

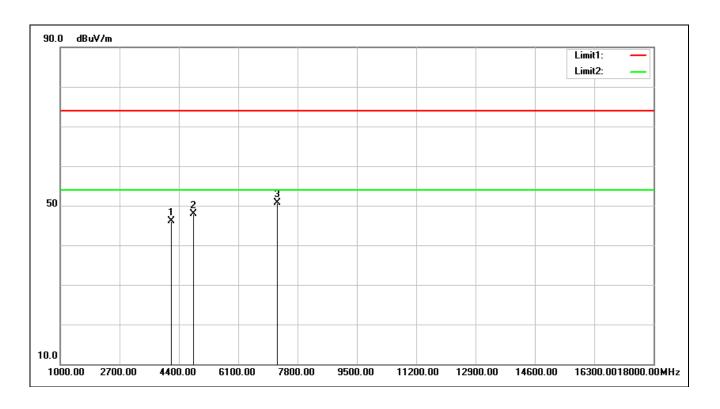
Test Mode: G20-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4824.000	-2.65	57.06	54.41	74.00	-19.59	peak	100	315	
2	4824.000	-2.65	40.35	37.70	54.00	-16.30	AVG	100	315	
3	7236.000	5.37	47.06	52.43	74.00	-21.57	peak	100	155	
4	7236.000	5.37	34.13	39.50	54.00	-14.50	AVG	100	155	
5	8378.000	6.32	45.78	52.10	74.00	-21.90	peak	100	235	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:08:09

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

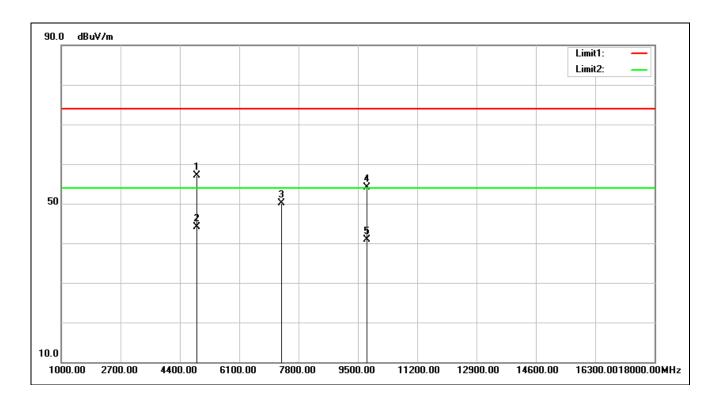
Test Mode: G20-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4179.000	-4.87	51.05	46.18	74.00	-27.82	peak	100	119	
2	4824.000	-2.65	50.65	48.00	74.00	-26.00	peak			
3	7236.000	5.37	45.36	50.73	74.00	-23.27	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:12:21

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

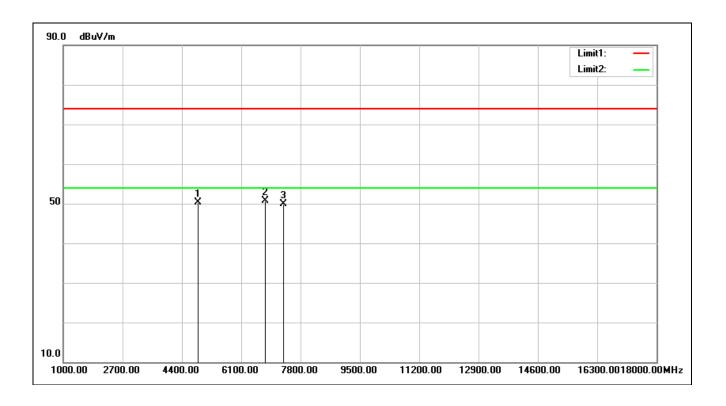
Test Mode: G20-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4874.000	-2.52	59.61	57.09	74.00	-16.91	peak	100	315	
2	4874.000	-2.52	46.64	44.12	54.00	-9.88	AVG	100	315	
3	7311.000	5.57	44.45	50.02	74.00	-23.98	peak			
4	9748.000	6.15	47.89	54.04	74.00	-19.96	peak	100	2	
5	9748.000	6.15	34.85	41.00	54.00	-13.00	AVG	100	2	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:13:24

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

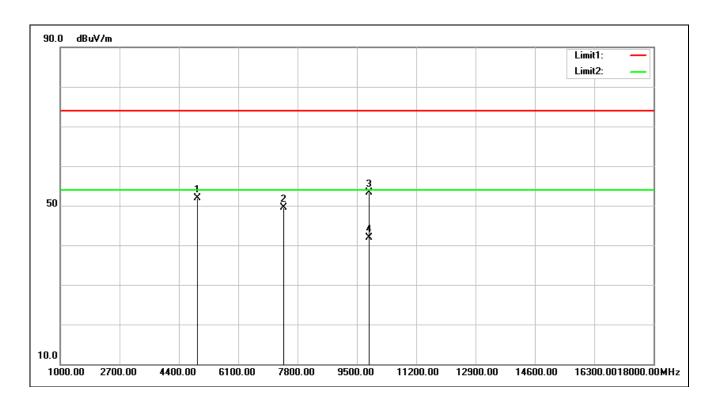
Test Mode: G20-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4874.000	-2.52	52.82	50.30	74.00	-23.70	peak	100	333	
2	6780.000	5.01	45.70	50.71	74.00	-23.29	peak	100	249	
3	7311.000	5.57	44.38	49.95	74.00	-24.05	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:16:44

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

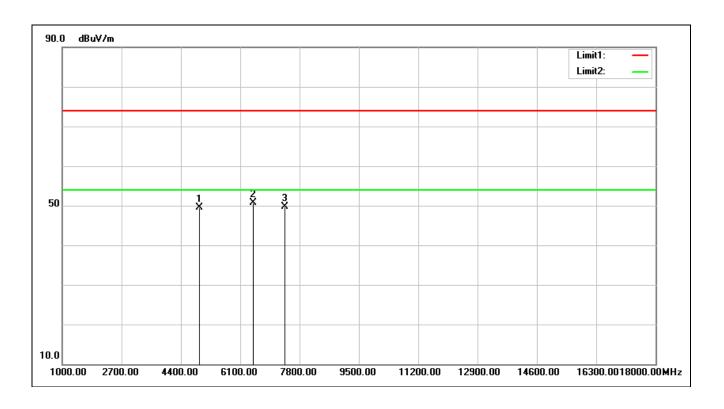
Test Mode: G20-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4924.000	-2.39	54.39	52.00	74.00	-22.00	peak	100	335	
2	7386.000	5.75	43.85	49.60	74.00	-24.40	peak			
3	9848.000	5.98	47.33	53.31	74.00	-20.69	peak	100	349	
4	9848.000	5.98	35.89	41.87	54.00	-12.13	AVG	100	349	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:17:47

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

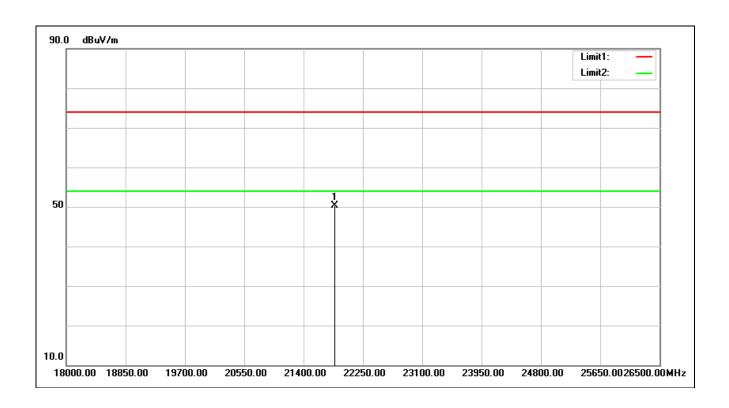
Test Mode: G20-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	4924.000	-2.39	51.82	49.43	74.00	-24.57	peak			
2	6474.000	5.25	45.37	50.62	74.00	-23.38	peak	100	47	
3	7386.000	5.75	43.88	49.63	74.00	-24.37	peak			



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

Test item:Radiation EmissionTest Time:2017/9/30 15:37:47Applicant:Microchip Technology Inc.Test Rating:DC 3.0V TO 4.2V

Test Distance:

(TYPICAL = 3.3V)

3m

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

Test Mode: B-2412-TX

114068828

Remark:

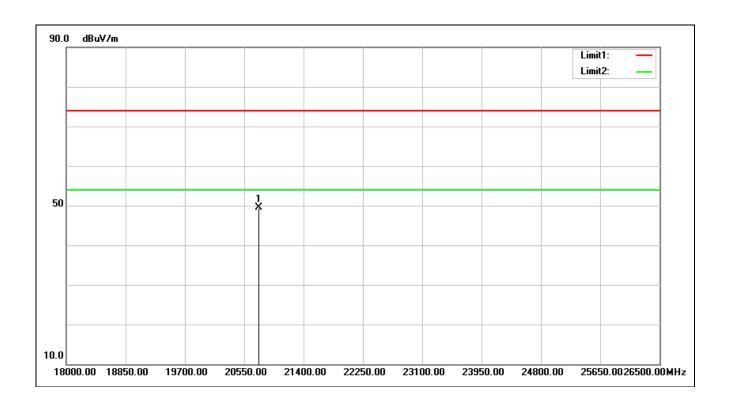
Service No.:

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	21842.000	32.41	17.93	50.34	74.00	-23.66	peak		0	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:37:57

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

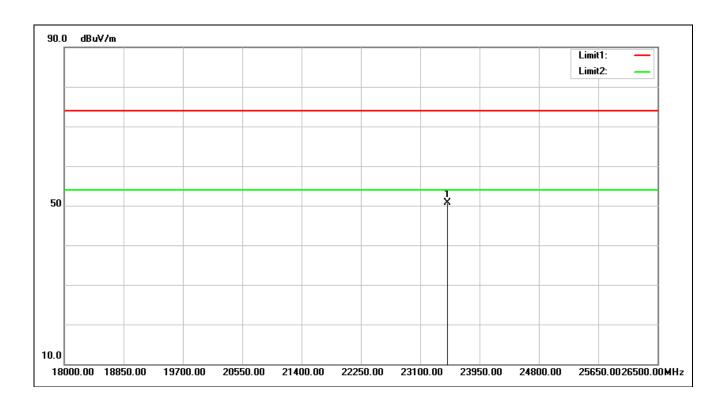
Test Mode: B-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	20762.500	31.13	18.39	49.52	74.00	-24.48	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:38:12

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

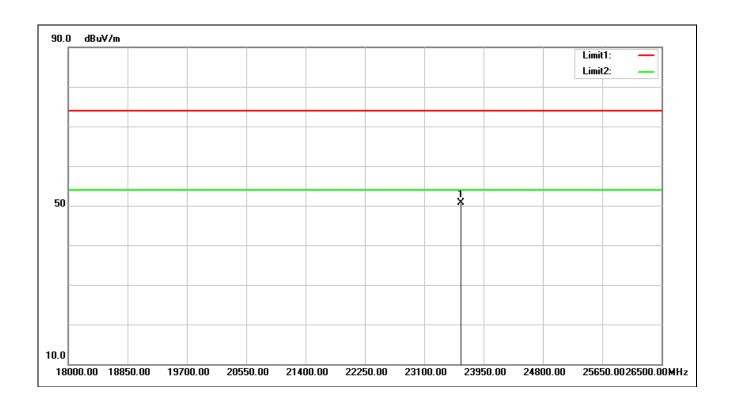
Test Mode: B-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	23491.000	32.42	18.21	50.63	74.00	-23.37	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:38:21

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

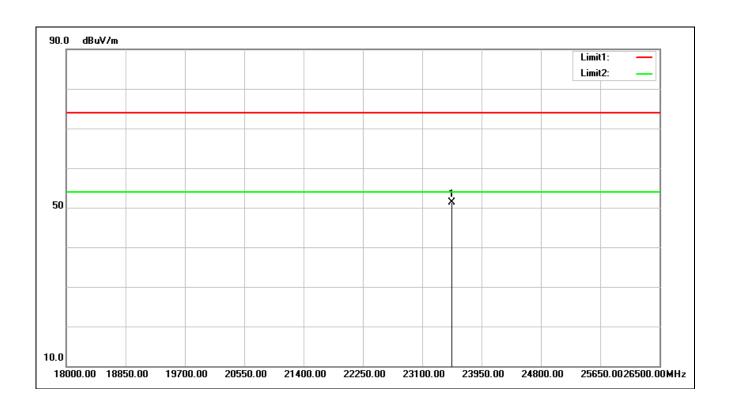
Test Mode: B-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	23627.000	32.23	18.45	50.68	74.00	-23.32	peak			



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Service No.: 114068828 **Test Distance:** 3m

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

Test item: **Radiation Emission Test Time:** 2017/9/30 15:38:37 **Applicant:** Microchip Technology Inc.

Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller **Temp.(℃)/Hum.(%):** 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA **Test Engineer: George Yang**

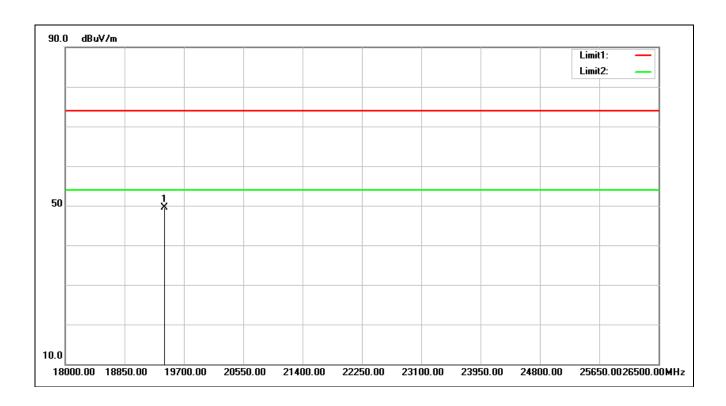
Test Mode: B-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	23525.000	32.39	18.89	51.28	74.00	-22.72	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:38:46

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

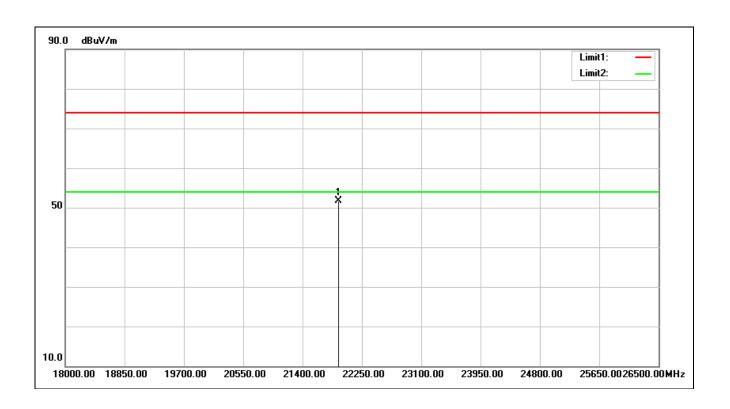
Test Mode: B-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	19419.500	29.87	19.62	49.49	74.00	-24.51	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:38:59

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

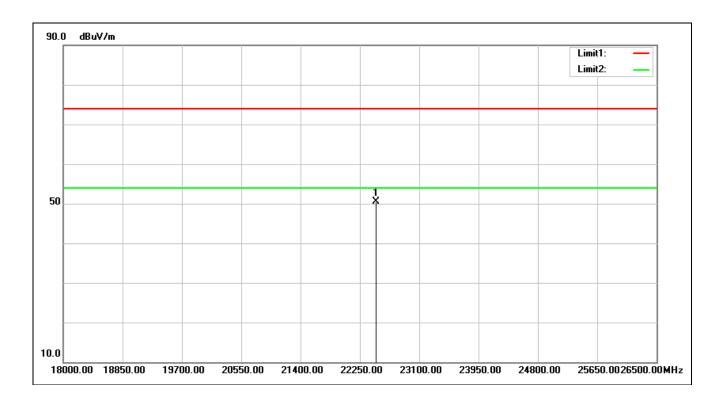
Test Mode: G-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	21918.500	32.49	19.31	51.80	74.00	-22.20	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:39:08

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

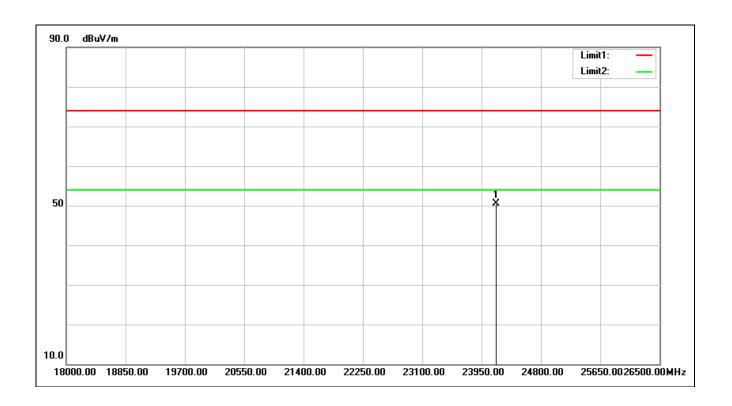
Test Mode: G-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22479.500	32.25	18.30	50.55	74.00	-23.45	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:39:26

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

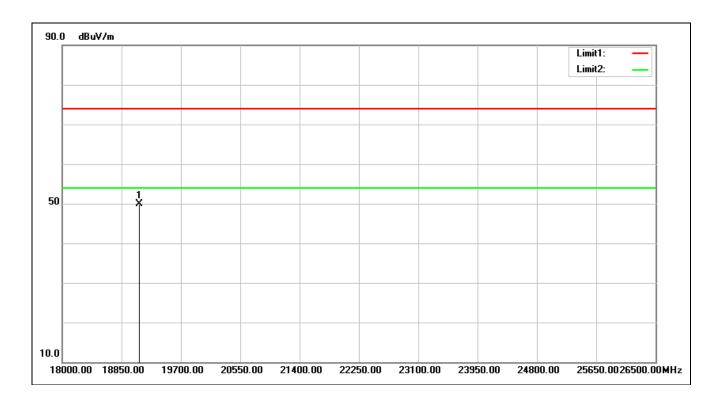
Test Mode: G-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	24162.500	31.87	18.55	50.42	74.00	-23.58	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:39:36

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

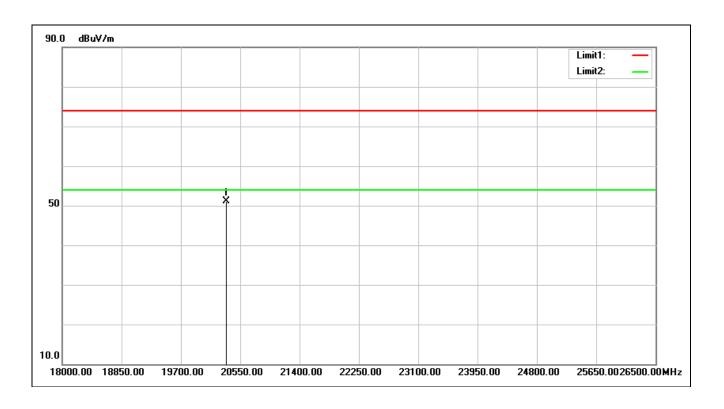
Test Mode: G-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	19105.000	29.29	20.53	49.82	74.00	-24.18	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:39:50

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

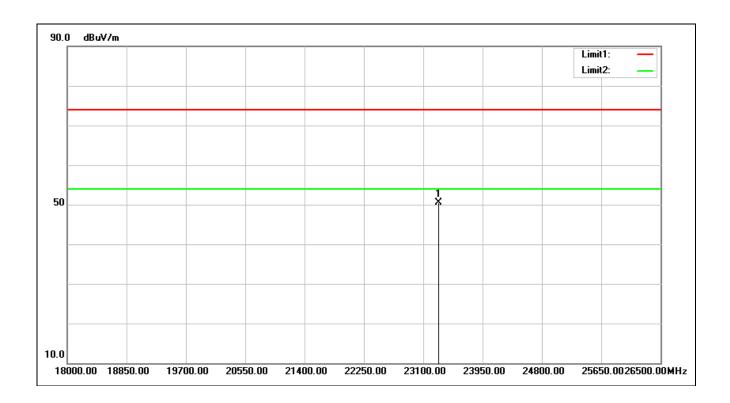
Test Mode: G-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	20346.000	30.84	20.18	51.02	74.00	-22.98	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:40:12

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

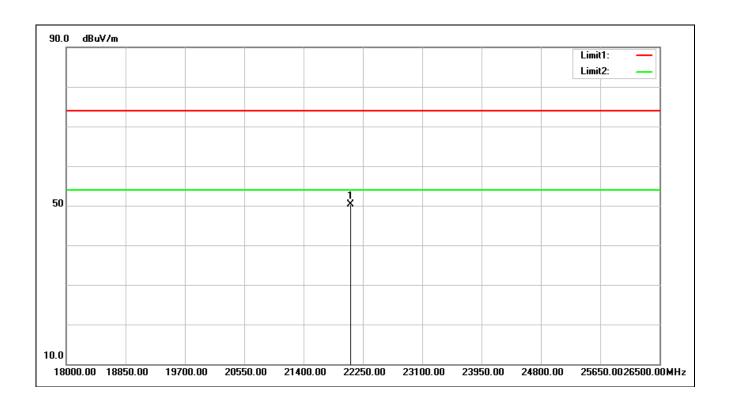
Test Mode: G-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	23321.000	32.25	18.27	50.52	74.00	-23.48	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:40:27

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

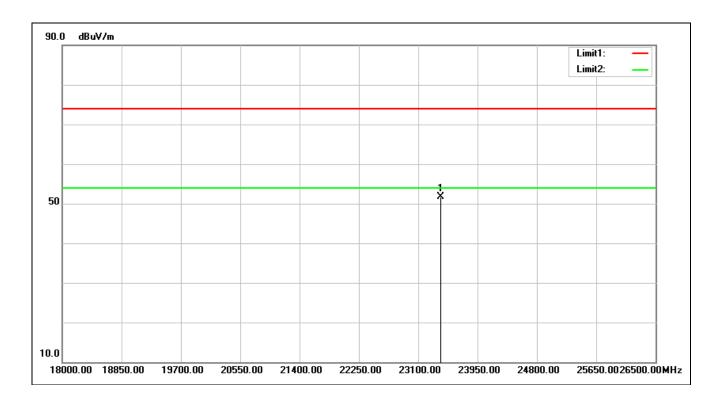
Test Mode: G20-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22071.500	32.54	17.75	50.29	74.00	-23.71	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:40:37

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

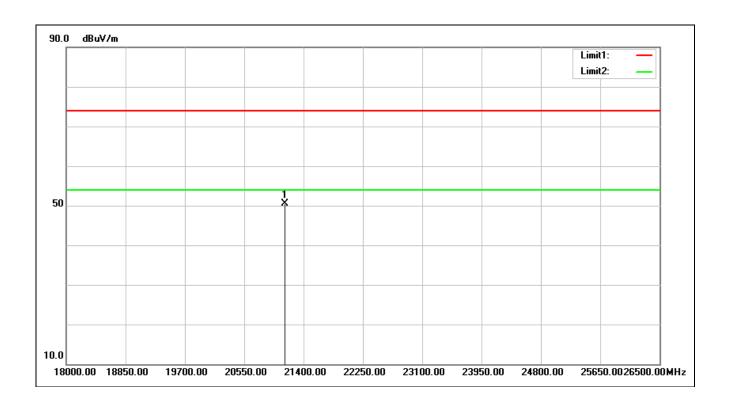
Test Mode: G20-2412-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	23423.000	32.35	19.41	51.76	74.00	-22.24	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:40:50

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

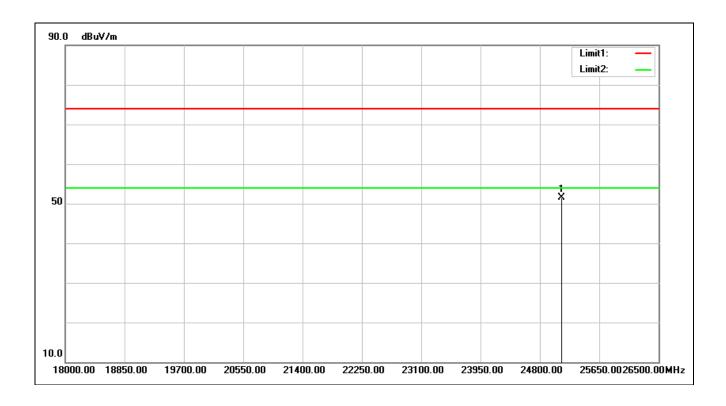
Test Mode: G20-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	21136.500	31.48	19.03	50.51	74.00	-23.49	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:40:59

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

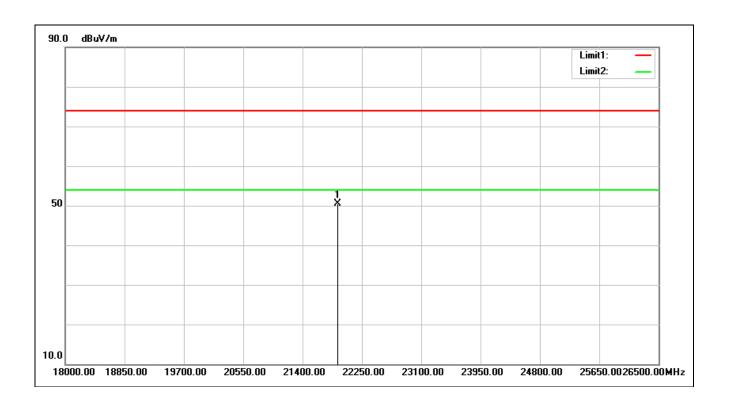
Test Mode: G20-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	25114.500	33.46	18.13	51.59	74.00	-22.41	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:41:12

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

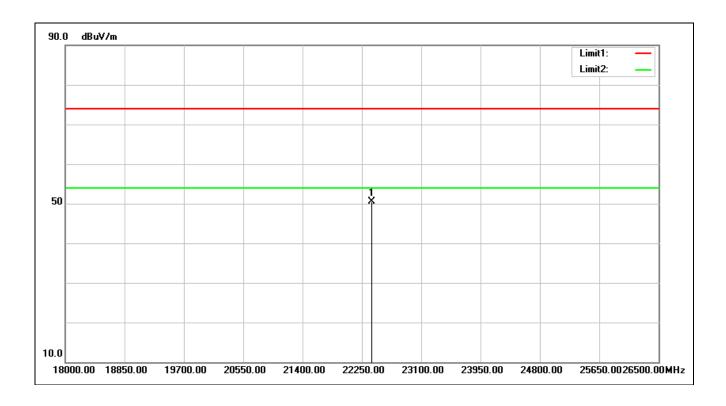
Test Mode: G20-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	21901.500	32.47	18.08	50.55	74.00	-23.45	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:41:24

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

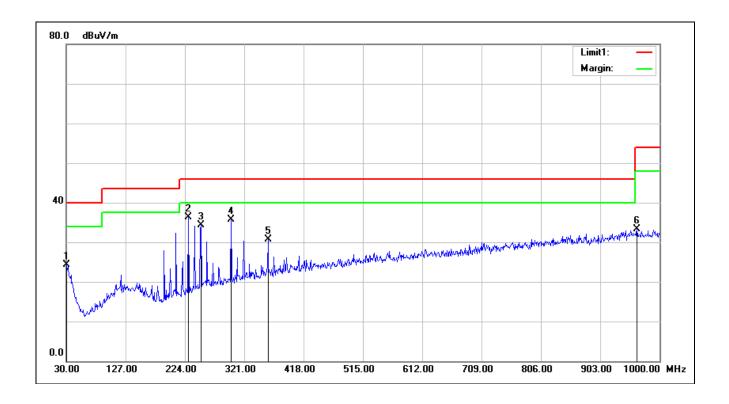
Test Mode: G20-2462-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22394.500	32.31	18.24	50.55	74.00	-23.45	peak			



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Service No.: 114068828 Test Distance: 3m

Test Standard: FCC Class B 3M Radiation Ant. Polarization: Horizontal

Test item: Radiation Emission Test Time: 2017/9/30 16:00:07

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

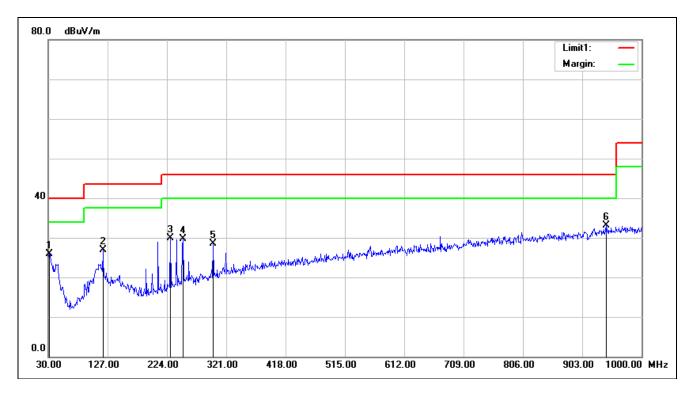
Test Mode: B-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	30.0000	-0.25	24.46	24.21	40.00	-15.79	QP	100	299	
2	229.8200	-7.57	43.90	36.33	46.00	-9.67	QP	100	136	
3	250.1900	-5.75	39.97	34.22	46.00	-11.78	QP	100	133	
4	299.6600	-4.57	40.18	35.61	46.00	-10.39	QP	100	143	
5	359.8000	-3.16	33.94	30.78	46.00	-15.22	QP	100	334	
6	963.1400	5.56	27.75	33.31	54.00	-20.69	QP	100	227	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 16:01:10

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 21($^{\circ}$ C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

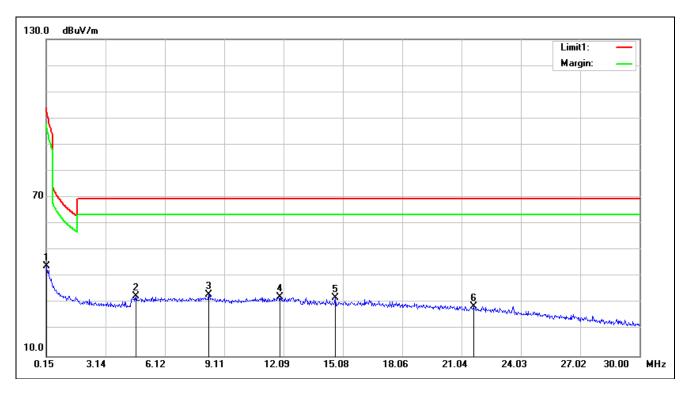
Test Mode: B-2437-TX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	31.9400	-1.36	27.26	25.90	40.00	-14.10	QP	100	75	
2	119.2400	-7.50	34.50	27.00	43.50	-16.50	QP	100	164	
3	229.8200	-7.57	37.38	29.81	46.00	-16.19	QP	100	299	
4	250.1900	-5.75	35.38	29.63	46.00	-16.37	QP	100	274	
5	299.6600	-4.57	33.11	28.54	46.00	-17.46	QP	100	208	
6	941.8000	5.26	27.94	33.20	46.00	-12.80	QP	100	131	



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Service No.: 114068828 Test Distance: 3m

Test Standard: FCC15.209_9k-1G_3m Ant. Polarization:

Test item: Radiation Emission Test Time: 2017/9/30 15:53:33

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

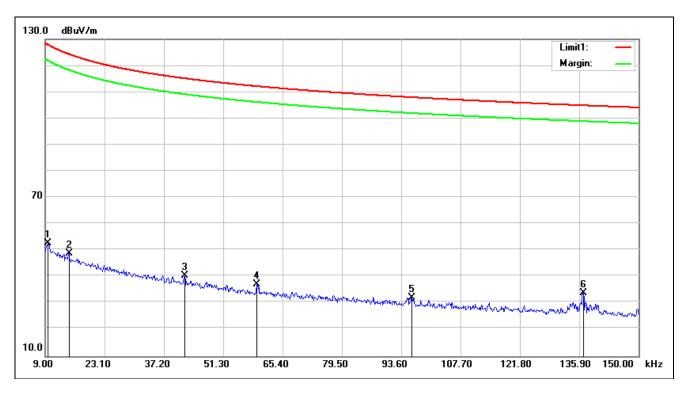
Test Mode: B-2437-TX

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	24.94	44.00	102.50	-58.50	QP	100	5	
2	4.6573	19.54	13.21	32.75	69.50	-36.75	QP	100	252	
3	8.3289	20.07	13.27	33.34	69.50	-36.16	QP	100	276	
4	11.9109	20.55	11.73	32.28	69.50	-37.22	QP	100	284	
5	14.6869	21.05	10.89	31.94	69.50	-37.56	QP	100	173	
6	21.6420	22.10	6.65	28.75	69.50	-40.75	QP	100	200	



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Service No.: 114068828 Test Distance: 3m

Test Standard: FCC15.209_9k-1G_3m Ant. Polarization:

Test item: Radiation Emission Test Time: 2017/9/30 15:50:19

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

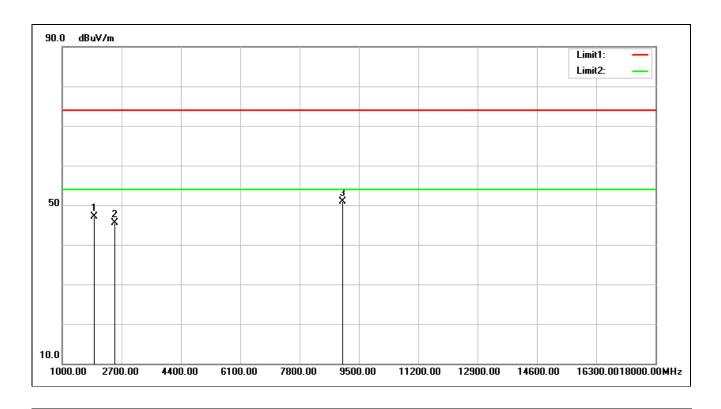
Test Mode: B-2437-TX

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	32.92	52.73	127.85	-75.12	QP	100	336	
2	0.0146	19.98	28.99	48.97	124.30	-75.33	QP	100	3	
3	0.0421	19.71	20.68	40.39	115.11	-74.72	QP	100	181	
4	0.0591	19.38	17.86	37.24	112.16	-74.92	QP	100	349	
5	0.0961	19.15	13.03	32.18	107.94	-75.76	QP	100	317	
6	0.1368	19.09	14.86	33.95	104.88	-70.93	QP	100	197	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:23:20

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

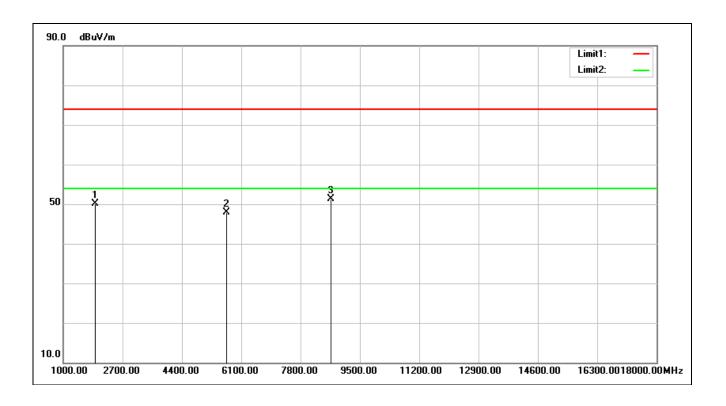
Test Mode: B-2437-RX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	1918.000	-8.64	55.65	47.01	74.00	-26.99	peak	100	86	
2	2513.000	-8.07	53.67	45.60	74.00	-28.40	peak	100	301	
3	9041.000	5.46	45.46	50.92	74.00	-23.08	peak	100	271	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:24:23

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.($^{\circ}$)/Hum.($^{\circ}$): 21($^{\circ}$)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

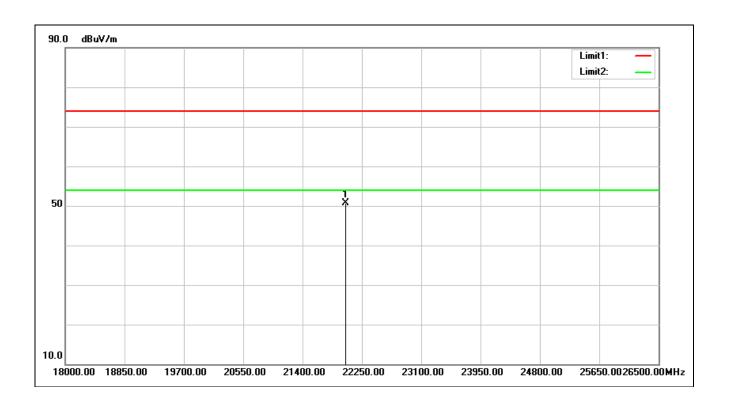
Test Mode: B-2437-RX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	1918.000	-8.64	58.79	50.15	74.00	-23.85	peak	100	291	
2	5675.000	0.27	47.57	47.84	74.00	-26.16	peak	100	258	
3	8667.000	5.46	45.92	51.38	74.00	-22.62	peak	100	219	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:41:42

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

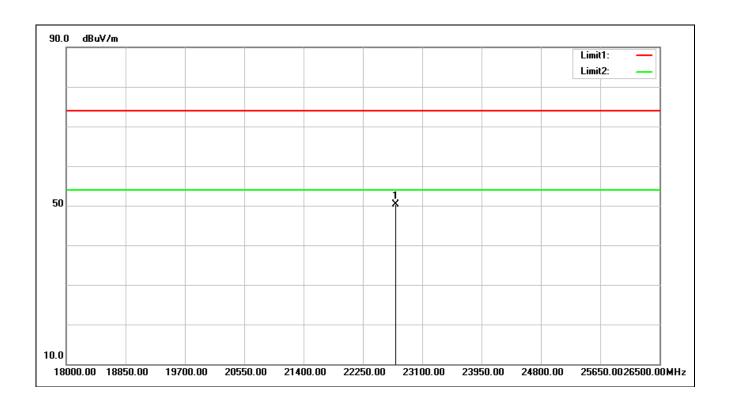
Test Mode: B-2437-RX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22012.000	32.57	18.08	50.65	74.00	-23.35	peak			



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 15:41:50

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

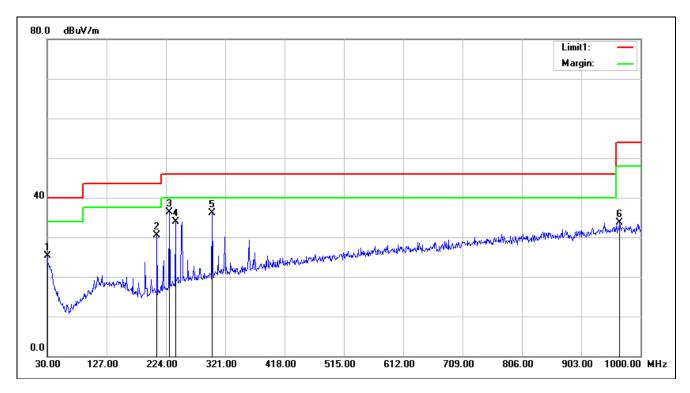
Test Mode: B-2437-RX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	22717.500	32.11	18.11	50.22	74.00	-23.78	peak			



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Service No.: 114068828 Test Distance: 3m

Test Standard: FCC Class B 3M Radiation Ant. Polarization: Horizontal

Test item: Radiation Emission Test Time: 2017/9/30 16:04:46

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

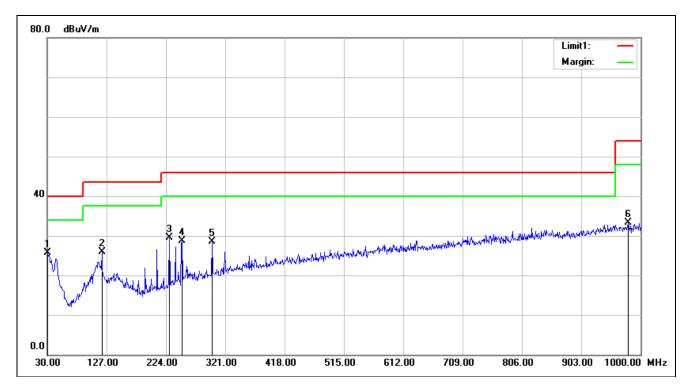
Test Mode: B-2437-RX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	30.0000	-0.25	25.61	25.36	40.00	-14.64	QP	100	72	
2	209.4500	-8.57	39.15	30.58	43.50	-12.92	QP	100	321	
3	229.8200	-7.57	43.92	36.35	46.00	-9.65	QP	100	130	
4	239.5200	-6.85	40.73	33.88	46.00	-12.12	QP	100	147	
5	299.6600	-4.57	40.76	36.19	46.00	-9.81	QP	100	155	
6	966.0500	5.57	28.13	33.70	54.00	-20.30	QP	100	318	



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Service No.: 114068828 Test Distance: 3m

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

Test item: Radiation Emission Test Time: 2017/9/30 16:05:49

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.($^{\circ}$ C)/Hum.($^{\circ}$): 21($^{\circ}$ C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

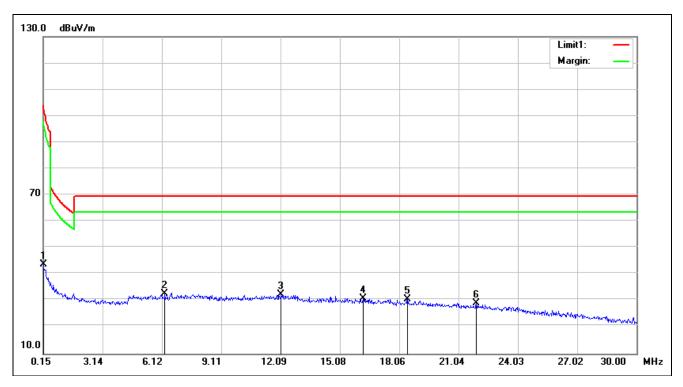
Test Mode: B-2437-RX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	30.0000	-0.25	25.88	25.63	40.00	-14.37	QP	100	200	
2	119.2400	-7.50	33.39	25.89	43.50	-17.61	QP	100	255	
3	229.8200	-7.57	37.09	29.52	46.00	-16.48	QP	100	308	
4	250.1900	-5.75	34.55	28.80	46.00	-17.20	QP	100	255	
5	299.6600	-4.57	33.13	28.56	46.00	-17.44	QP	100	208	
6	979.6300	5.64	27.66	33.30	54.00	-20.70	QP	100	28	



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Service No.: 114068828 Test Distance: 3m

Test Standard: FCC15.209_9k-1G_3m Ant. Polarization:

Test item: Radiation Emission Test Time: 2017/9/30 15:54:36

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.(°C)/Hum.(%): 21(°C)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

Test Mode: B-2437-RX

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	24.79	43.87	104.08	-60.21	QP	100	222	
2	6.2693	19.88	12.72	32.60	69.50	-36.90	QP	100	142	
3	12.1199	20.59	11.64	32.23	69.50	-37.27	QP	100	336	
4	16.2392	21.32	9.40	30.72	69.50	-38.78	QP	100	175	
5	18.4779	21.72	8.72	30.44	69.50	-39.06	QP	100	48	
6	21.9405	22.12	6.92	29.04	69.50	-40.46	QP	100	200	

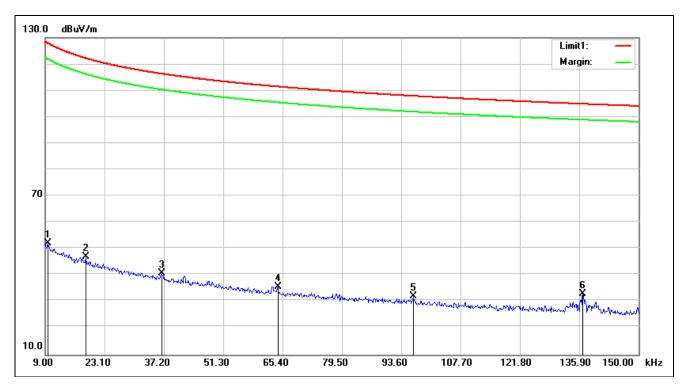
Spurious Emissions, RX Mode, 9K-150K



TUV Rheinland Taiwan Ltd.

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Service No.: 114068828 Test Distance: 3m

Test Standard: FCC15.209_9k-1G_3m Ant. Polarization:

Test item: Radiation Emission Test Time: 2017/9/30 15:51:22

Applicant: Microchip Technology Inc. Test Rating: DC 3.0V TO 4.2V

(TYPICAL = 3.3V)

Product: IEEE 802.11 b/g/n Network Controller Temp.($^{\circ}$)/Hum.($^{\circ}$): 21($^{\circ}$)/57%

Module With Integrated Bluetooth 4.0 (BLE)

Model No.: ATWINC3400-MR210CA Test Engineer: George Yang

Test Mode: B-2437-RX

No.	Frequency	Factor	Reading	Level	Limit	Margin	Det.	Height	Azimuth	Remark
	(MHz)	(dB/m)	(dBuV)	(dBuV/m)	(dBuV/m)	(dB)		(cm)	(•)	
1	0.0096	19.77	32.28	52.05	127.94	-75.89	QP	100	22	
2	0.0186	20.02	27.01	47.03	122.20	-75.17	QP	100	164	
3	0.0366	19.90	20.85	40.75	116.32	-75.57	QP	100	225	
4	0.0643	19.34	16.17	35.51	111.43	-75.92	QP	100	286	
5	0.0964	19.15	12.95	32.10	107.91	-75.81	QP	100	25	
6	0.1367	19.09	14.01	33.10	104.88	-71.78	QP	100	201	