

# Test Report No.50175099 003

## Appendix D: Radiated Spurious Emission Data

(File: 50175099 003 Appendix D)

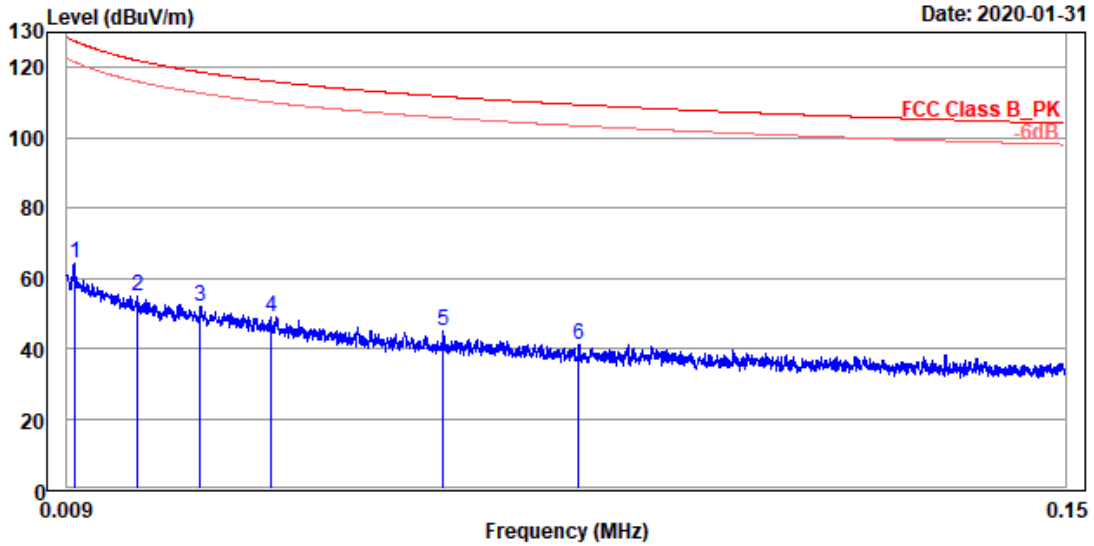
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# Spurious Emissions, TX Mode, 9kHz-30MHz (500k)

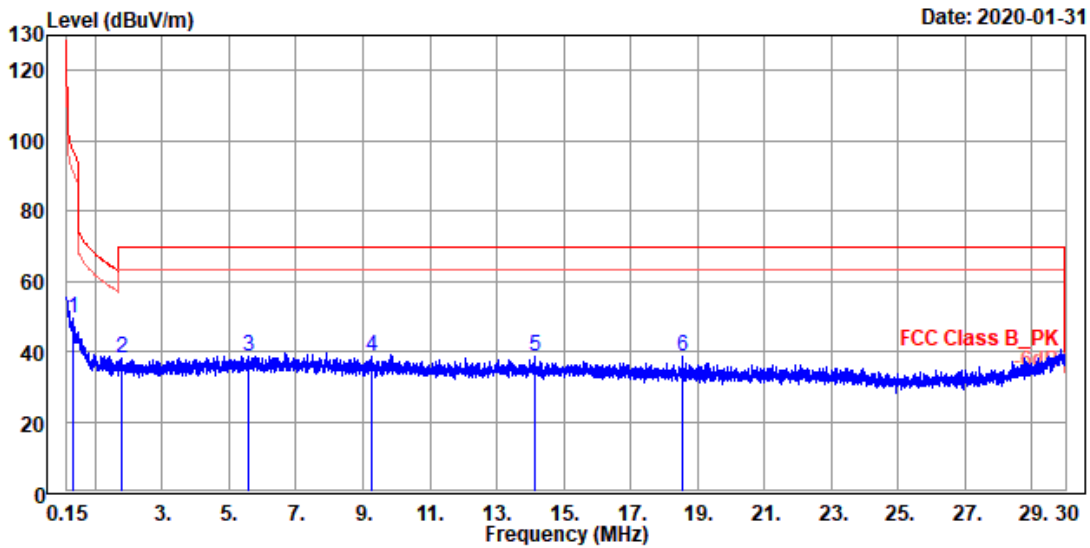


TUV Rheinland Taiwan Ltd.  
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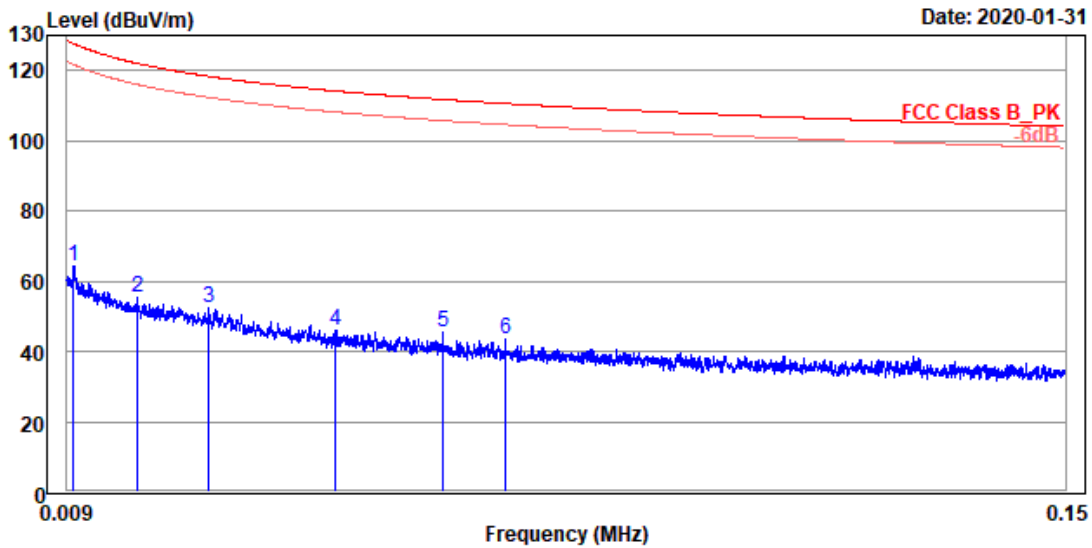
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: key  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Temp/Hum : 22.7°C/53.9%  
 Mode : TX\_903MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Limit Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.010	64.05	-14.78	78.83	127.57	-63.52	100	327	QP	vertical
2	0.019	54.85	-18.40	73.25	122.07	-67.22	100	179	QP	vertical
3	0.028	51.79	-19.33	71.12	118.68	-66.89	100	118	QP	vertical
4	0.038	48.90	-19.35	68.25	116.04	-67.14	100	337	QP	vertical
5	0.062	45.06	-18.32	63.38	111.73	-66.67	100	2	QP	vertical
6	0.081	40.84	-20.30	61.14	109.39	-68.55	100	222	QP	vertical



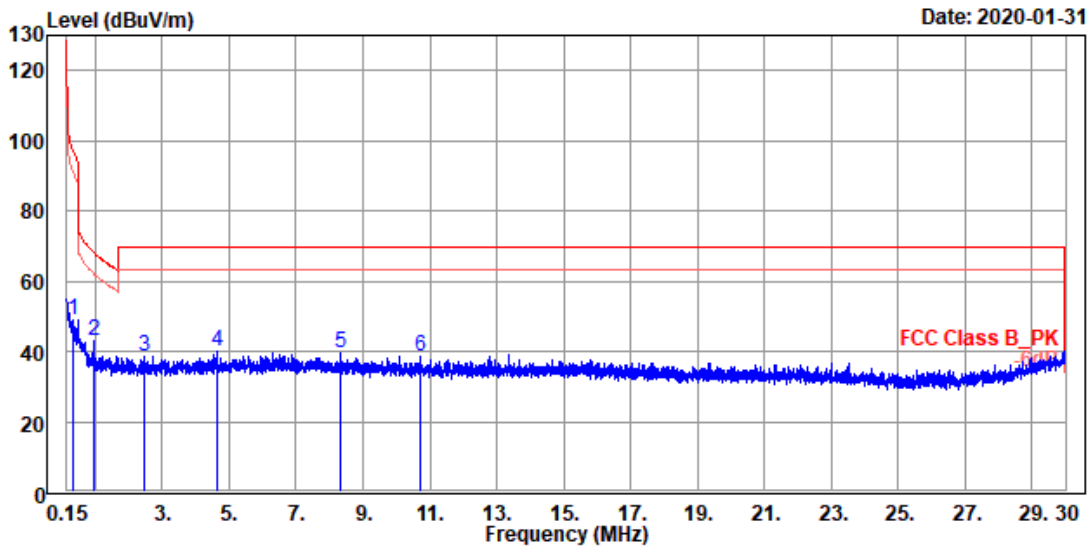
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_903MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.338	49.35	-0.31	49.66	97.02	-47.67	100	62	QP	vertical
2	1.774	38.09	-0.89	38.98	69.50	-31.41	100	346	QP	vertical
3	5.592	38.66	0.31	38.35	69.50	-30.84	100	39	QP	vertical
4	9.248	38.67	0.94	37.73	69.50	-30.83	100	36	QP	vertical
5	14.138	38.68	1.05	37.63	69.50	-30.82	100	147	QP	vertical
6	18.561	38.47	1.84	36.63	69.50	-31.03	100	7	QP	vertical



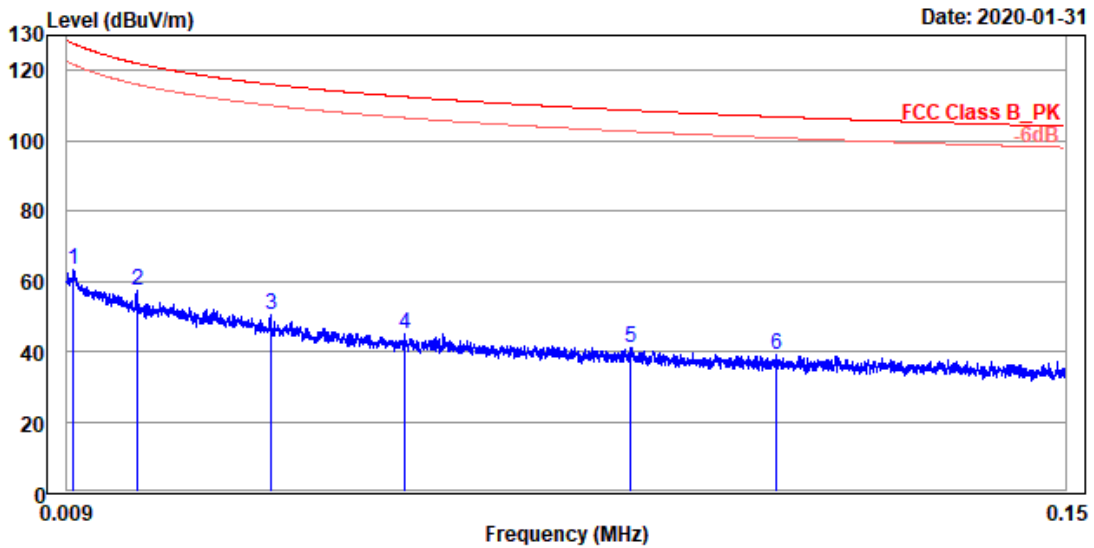
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_914.2MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.010	64.47	-14.42	78.89	127.62	-63.15	100	226	QP	vertical
2	0.019	55.35	-17.89	73.24	122.07	-66.72	100	338	QP	vertical
3	0.029	52.17	-18.76	70.93	118.36	-66.19	100	297	QP	vertical
4	0.047	46.22	-19.58	65.80	114.15	-67.93	100	250	QP	vertical
5	0.062	45.66	-17.72	63.38	111.73	-66.07	100	283	QP	vertical
6	0.071	43.55	-18.70	62.25	110.58	-67.03	100	360	QP	vertical



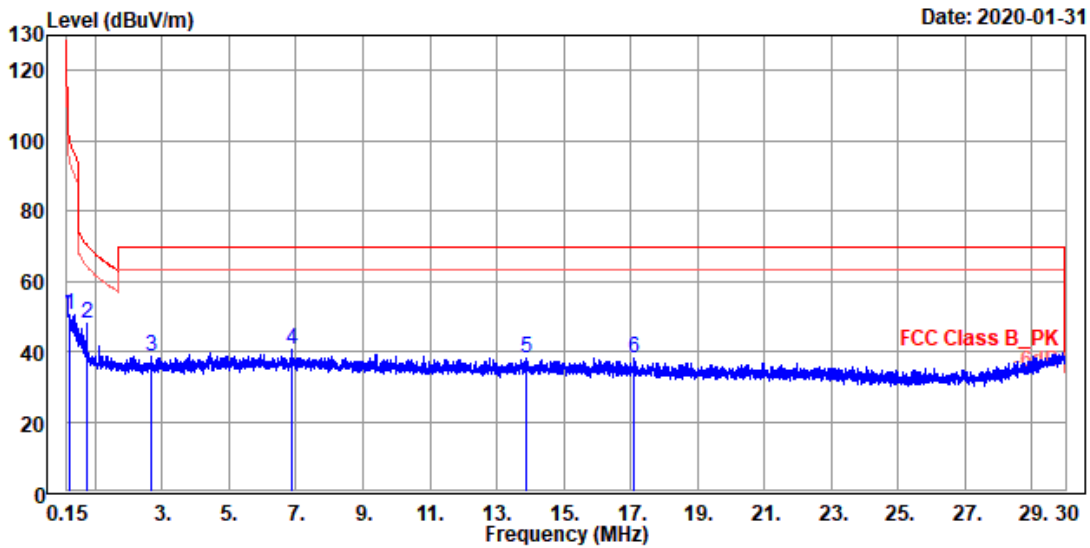
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: key  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_914.2MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.308	48.87	-1.42	50.29	97.82	-48.95	100	342	QP	vertical
2	0.950	42.88	2.45	40.43	68.05	-25.17	100	154	QP	vertical
3	2.454	38.74	0.26	38.48	69.50	-30.76	100	342	QP	vertical
4	4.625	39.84	1.50	38.34	69.50	-29.66	100	231	QP	vertical
5	8.323	39.60	1.62	37.98	69.50	-29.90	100	123	QP	vertical
6	10.732	38.62	1.32	37.30	69.50	-30.88	100	164	QP	vertical



Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: key  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_927.5MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.010	63.27	-15.62	78.89	127.62	-64.35	100	292	QP	vertical
2	0.019	57.23	-16.04	73.27	122.09	-64.86	100	110	QP	vertical
3	0.038	50.31	-17.95	68.26	116.05	-65.74	100	110	QP	vertical
4	0.057	44.99	-19.13	64.12	112.53	-67.54	100	309	QP	vertical
5	0.089	40.92	-19.63	60.55	108.64	-67.72	100	8	QP	vertical
6	0.109	38.94	-19.78	58.72	106.84	-67.90	100	360	QP	vertical



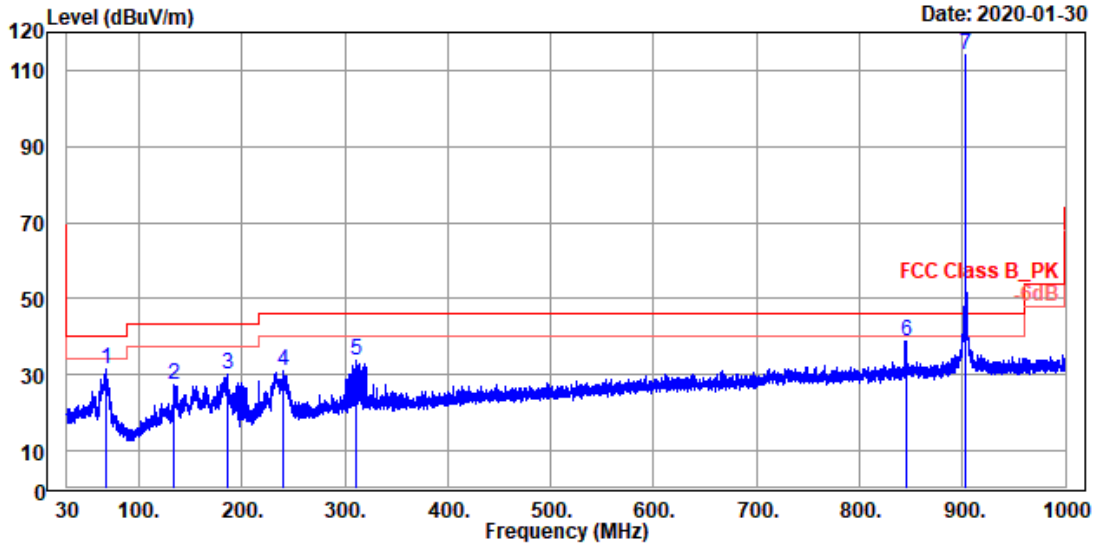
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_927.5MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	0.228	50.23	-2.39	52.62	100.46	-50.23	100	360	QP	vertical
2	0.735	47.95	5.52	42.43	70.28	-22.33	100	138	QP	vertical
3	2.660	38.50	0.12	38.38	69.50	-31.00	100	102	QP	vertical
4	6.881	40.37	2.00	38.37	69.50	-29.13	100	38	QP	vertical
5	13.875	37.91	0.31	37.60	69.50	-31.59	100	352	QP	vertical
6	17.108	37.92	0.81	37.11	69.50	-31.58	100	342	QP	vertical

# Spurious Emissions, TX Mode, 30MHz-1GHz (500k)



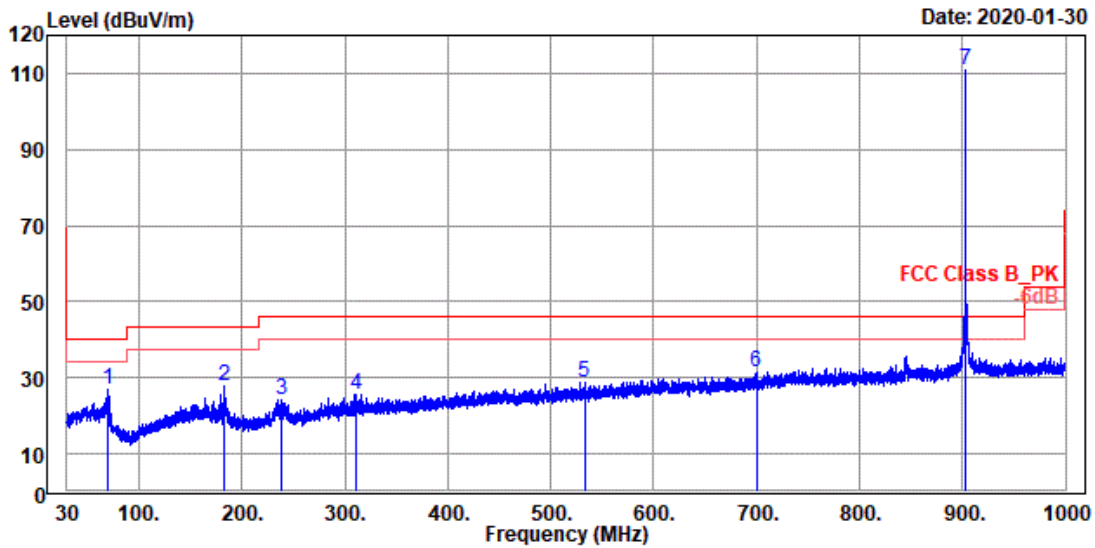
TUV Rheinland Taiwan Ltd.  
 No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)  
 Tel:+886-2172-1000 Fax:+886-2172-1322



Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK horizontal  
 Test Engineer: key  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_903MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

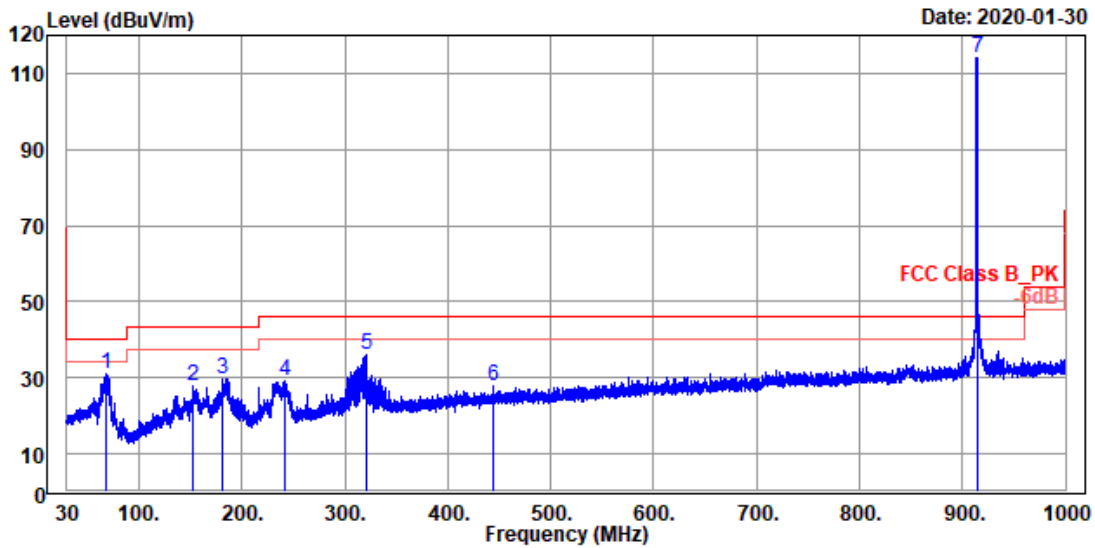
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	67.248	31.46	39.37	-7.91	40.00	-8.54	200	195 QP		horizontal
2	134.469	27.38	34.61	-7.23	43.50	-16.12	200	169 QP		horizontal
3	185.297	30.00	37.79	-7.79	43.50	-13.50	100	132 QP		horizontal
4	240.393	31.18	38.03	-6.85	46.00	-14.82	100	155 QP		horizontal
5	310.330	33.58	38.28	-4.70	46.00	-12.42	100	148 QP		horizontal
6	844.897	38.98	35.55	3.43	46.00	-7.02	100	95 QP		horizontal
7 *	903.000	113.90	109.76	4.14	46.00	67.90	100	95 Peak		horizontal





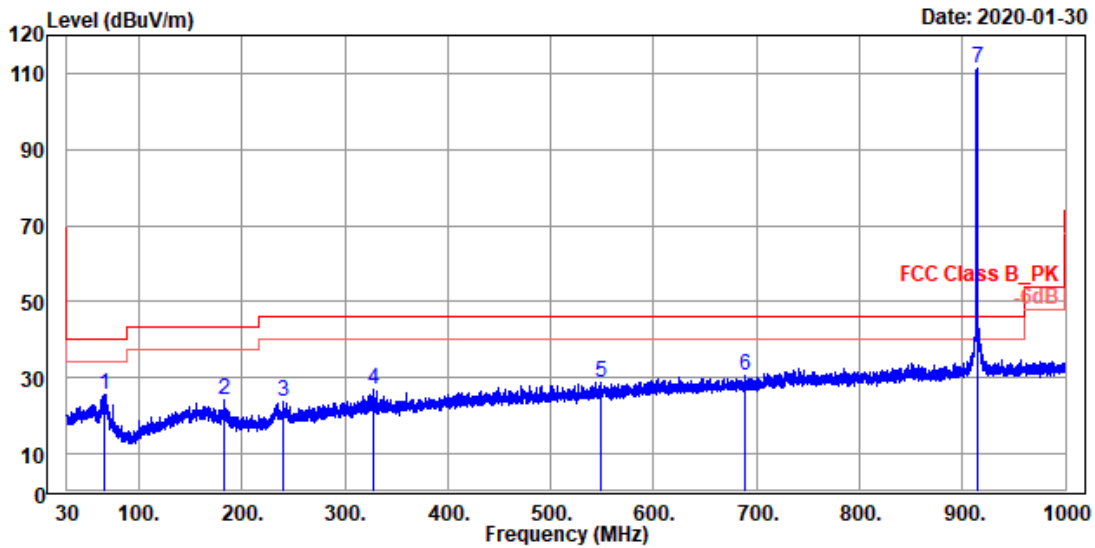
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_903MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	69.479	26.92	35.25	-8.33	40.00	-13.08	100	61	QP	vertical
2	183.066	27.62	35.19	-7.57	43.50	-15.88	200	220	QP	vertical
3	238.065	24.38	31.31	-6.93	46.00	-21.62	100	104	QP	vertical
4	310.912	25.68	30.37	-4.69	46.00	-20.32	100	104	QP	vertical
5	532.751	28.89	30.17	-1.28	46.00	-17.11	200	41	QP	vertical
6	699.785	31.59	30.25	1.34	46.00	-14.41	100	304	QP	vertical
7 *	903.000	110.75	106.61	4.14	46.00	64.75	100	0	Peak	vertical



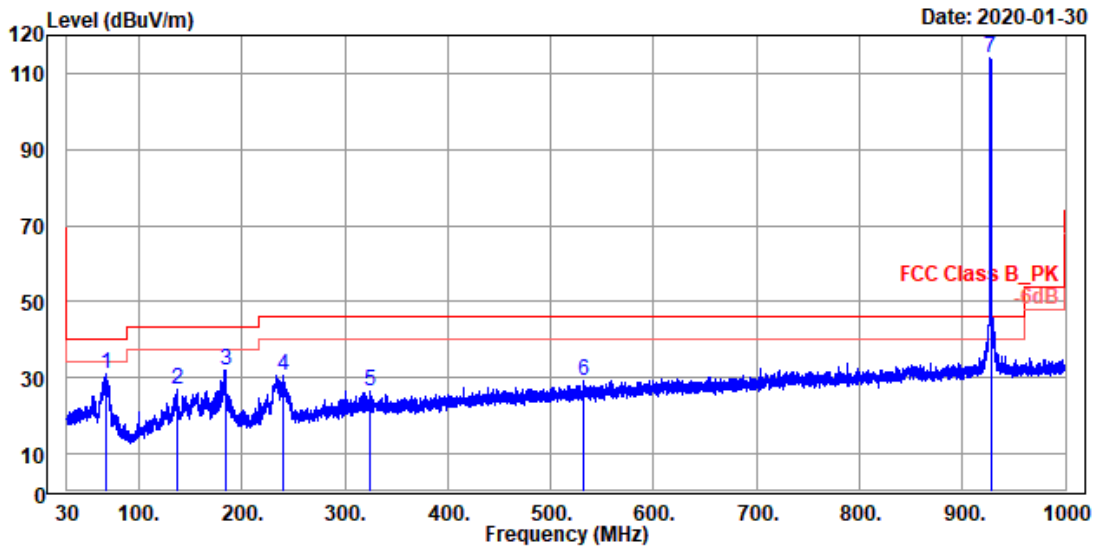
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK horizontal  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_914.2MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	67.345	31.15	39.08	-7.93	40.00	-8.85	200	190	QP	horizontal
2	152.511	28.00	34.27	-6.27	43.50	-15.50	200	116	QP	horizontal
3	181.708	29.71	37.13	-7.42	43.50	-13.79	100	347	QP	horizontal
4	241.751	29.24	36.05	-6.81	46.00	-16.76	100	158	QP	horizontal
5	320.806	35.88	40.19	-4.31	46.00	-10.12	100	64	QP	horizontal
6	444.481	27.77	30.01	-2.24	46.00	-18.23	102	360	QP	horizontal
7 *	914.200	114.10	109.69	4.41	46.00	68.10	100	98	Peak	horizontal



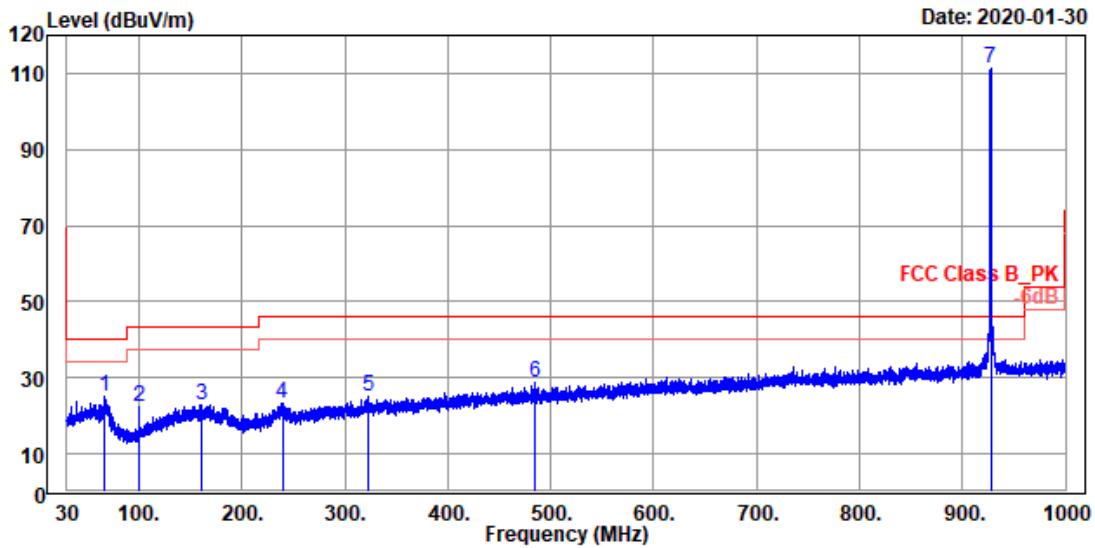
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_914.2MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	66.181	25.77	33.49	-7.72	40.00	-14.23	100	260	QP	vertical
2	182.775	24.10	31.65	-7.55	43.50	-19.40	200	107	QP	vertical
3	239.617	23.61	30.48	-6.87	46.00	-22.39	200	78	QP	vertical
4	327.887	26.72	30.87	-4.15	46.00	-19.28	133	360	QP	vertical
5	547.980	28.83	29.78	-0.95	46.00	-17.17	200	208	QP	vertical
6	688.436	30.61	29.36	1.25	46.00	-15.39	100	166	QP	vertical
7 *	914.200	111.16	106.75	4.41	46.00	65.16	100	293	Peak	vertical



Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK horizontal  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_927.5MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	68.509	30.80	38.93	-8.13	40.00	-9.20	100	208	QP	horizontal
2	137.088	26.74	33.66	-6.92	43.50	-16.76	200	193	QP	horizontal
3	184.327	31.95	39.66	-7.71	43.50	-11.55	200	166	QP	horizontal
4	240.296	30.64	37.49	-6.85	46.00	-15.36	100	139	QP	horizontal
5	325.074	26.53	30.71	-4.18	46.00	-19.47	100	41	QP	horizontal
6	531.393	29.35	30.67	-1.32	46.00	-16.65	100	348	QP	horizontal
7 *	927.500	114.07	109.39	4.68	46.00	68.07	100	98	Peak	horizontal



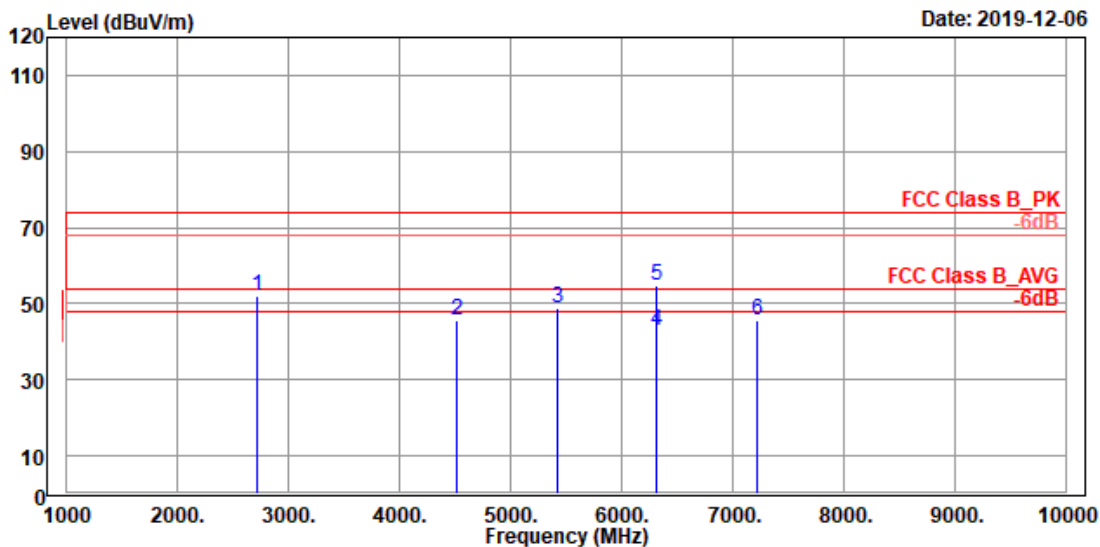
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_927.5MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	66.278	24.93	32.67	-7.74	40.00	-15.07	100	96	QP	vertical
2	99.452	22.30	33.46	-11.16	43.50	-21.20	200	157	QP	vertical
3	160.562	22.93	28.90	-5.97	43.50	-20.57	200	113	QP	vertical
4	239.229	23.45	30.33	-6.88	46.00	-22.55	200	103	QP	vertical
5	322.940	25.00	29.25	-4.25	46.00	-21.00	200	290	QP	vertical
6	485.027	28.71	30.78	-2.07	46.00	-17.29	200	200	QP	vertical
7 *	927.500	111.41	106.73	4.68	46.00	65.41	100	292	Peak	vertical

# Spurious Emissions, TX Mode, 1GHz-10GHz (500k)



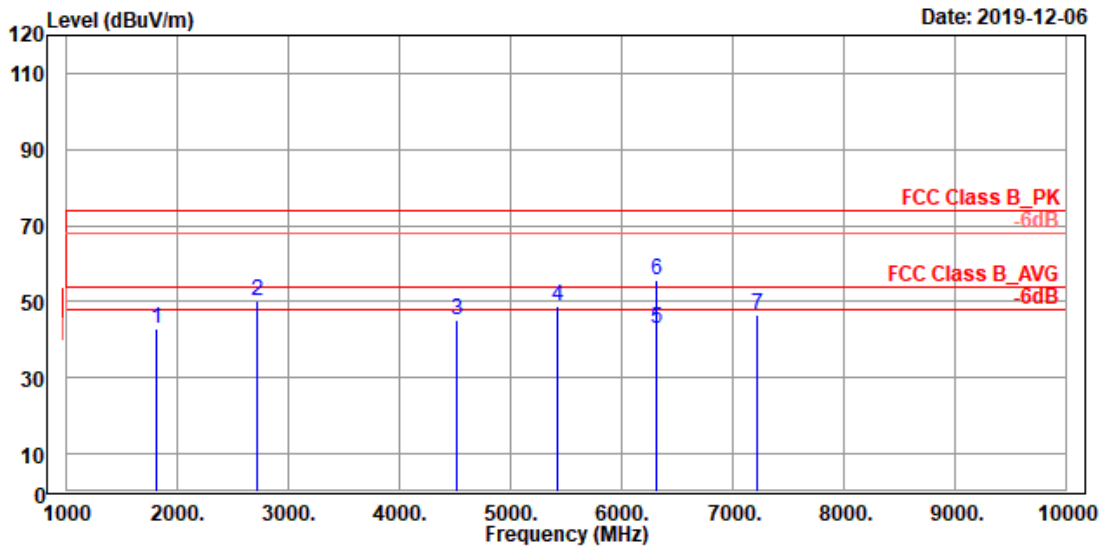
TUV Rheinland Taiwan Ltd.  
 No. 458-18, Sec 2, Fenliao, Linkou Dist., New Taipei City 244, Taiwan(R.O.C.)  
 Tel:+886-2172-1000 Fax:+886-2172-1322



Date: 2019-12-06

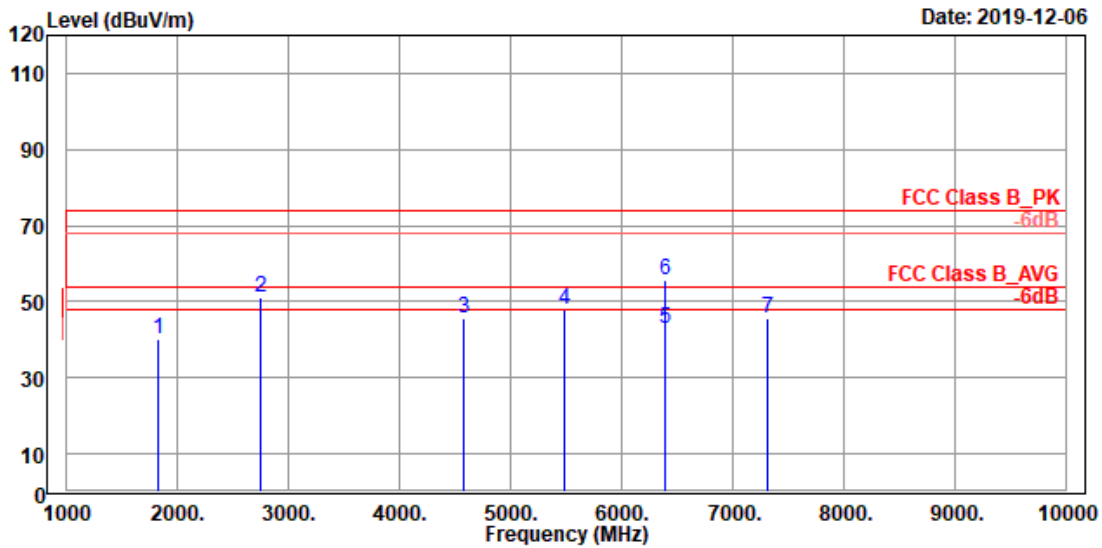
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK horizontal  
 Test Engineer: key  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_903MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2709.500	51.93	65.26	-13.33	74.00	-22.07	100	276	Peak	
2	4514.000	45.84	55.56	-9.72	74.00	-28.16	100	249	Peak	
3	5418.500	48.81	57.07	-8.26	74.00	-25.19	100	53	Peak	
4	6321.500	42.77	50.21	-7.44	54.00	-11.23	100	256	Average	Non-BR
5	6321.500	54.67	62.11	-7.44	74.00	-19.33	100	256	Peak	Non-BR
6	7223.000	45.79	52.56	-6.77	74.00	-28.21	100	17	Peak	



Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
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 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_903MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

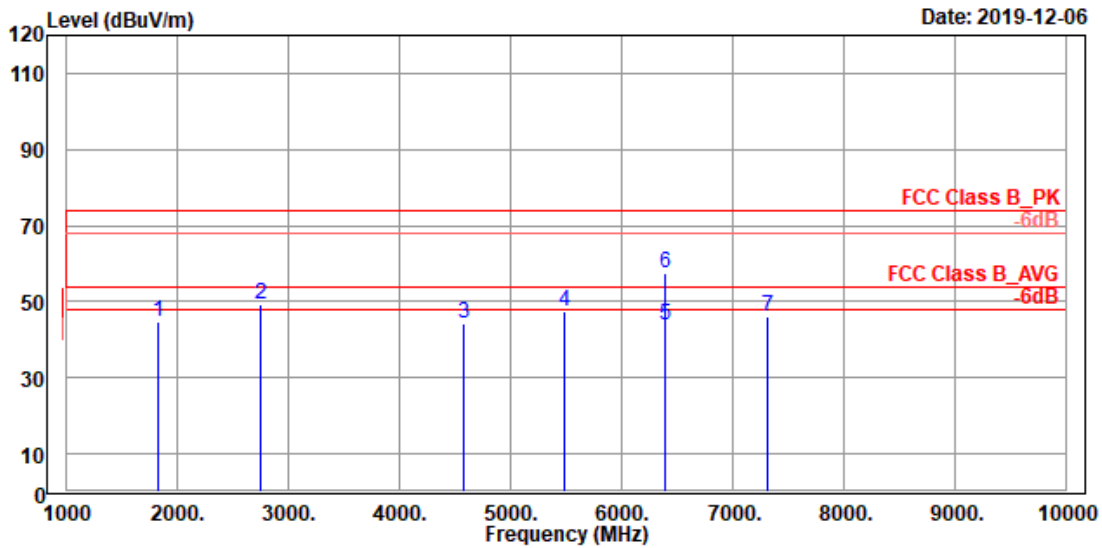
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1805.500	42.81	59.26	-16.45	74.00	-31.19	100	319	Peak	
2	2709.500	50.10	63.43	-13.33	74.00	-23.90	300	66	Peak	
3	4514.000	45.27	54.99	-9.72	74.00	-28.73	300	179	Peak	
4	5419.000	48.91	57.16	-8.25	74.00	-25.09	100	246	Peak	
5	6321.500	42.98	50.42	-7.44	54.00	-11.02	400	227	Average	Non-BR
6	6321.500	55.51	62.95	-7.44	74.00	-18.49	400	227	Peak	Non-BR
7	7222.500	46.34	53.12	-6.78	74.00	-27.66	400	296	Peak	



Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK horizontal  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_914.2MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

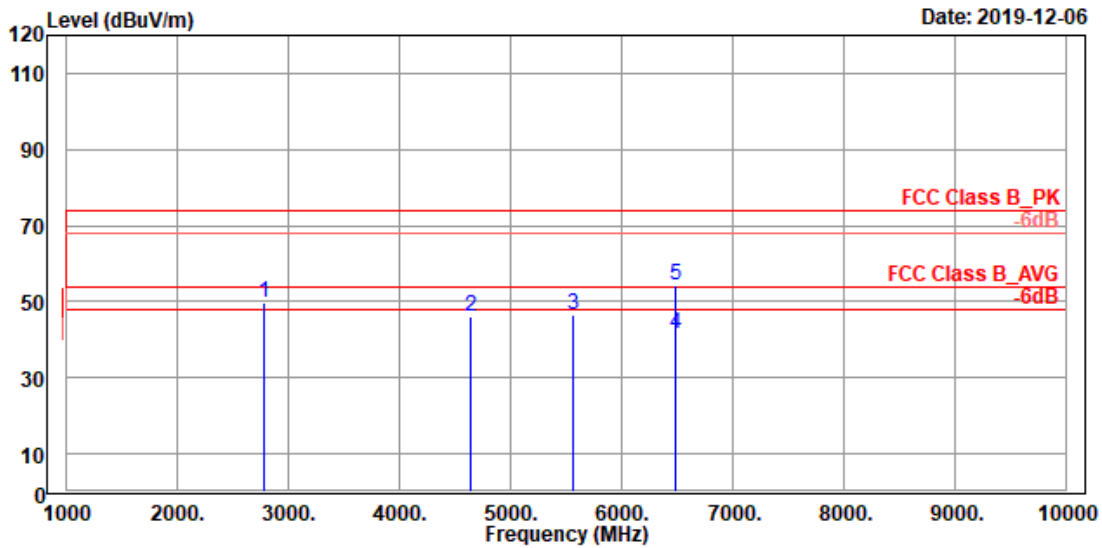
	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1828.000	40.05	56.24	-16.19	74.00	-33.95	300	77	Peak	
2	2742.500	51.06	64.15	-13.09	74.00	-22.94	300	275	Peak	
3	4570.000	45.59	55.31	-9.72	74.00	-28.41	100	208	Peak	
4	5484.500	47.84	55.98	-8.14	74.00	-26.16	400	210	Peak	
5	6399.000	42.84	50.25	-7.41	54.00	-11.16	100	262	Average	Non-BR
6	6399.000	55.71	63.12	-7.41	74.00	-18.29	100	262	Peak	Non-BR
7	7313.000	45.43	52.14	-6.71	74.00	-28.57	300	23	Peak	





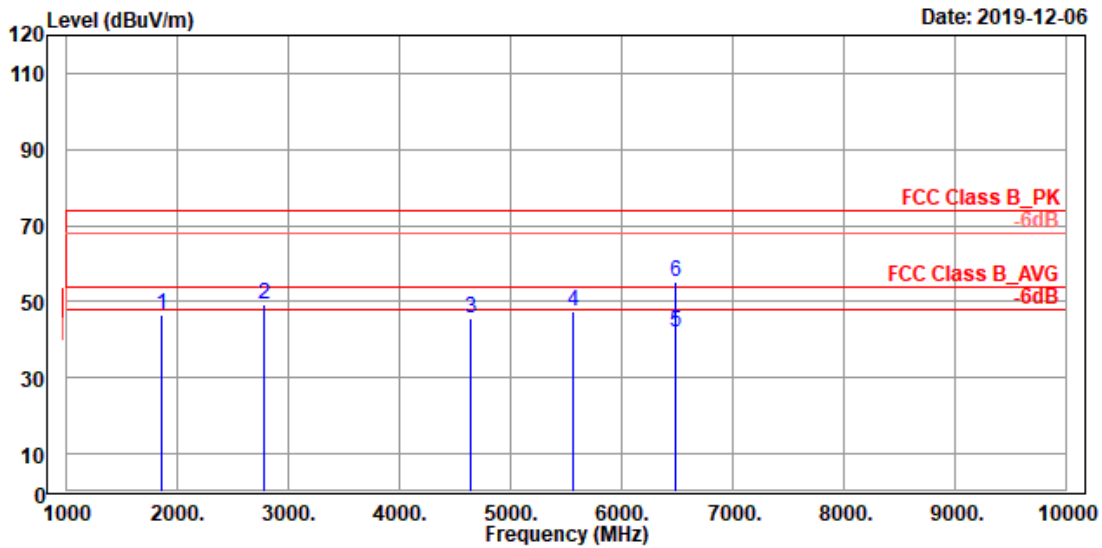
Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_914.2MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1828.000	44.79	60.98	-16.19	74.00	-29.21	126	360	Peak	
2	2743.000	49.37	62.46	-13.09	74.00	-24.63	230	0	Peak	
3	4570.000	44.13	53.85	-9.72	74.00	-29.87	300	196	Peak	
4	5485.500	47.67	55.81	-8.14	74.00	-26.33	300	273	Peak	
5	6398.500	43.60	51.01	-7.41	54.00	-10.40	100	97	Average	Non-BR
6	6398.500	57.34	64.75	-7.41	74.00	-16.66	100	97	Peak	Non-BR
7	7314.000	46.02	52.73	-6.71	74.00	-27.98	300	153	Peak	



Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK horizontal  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_927.5MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	2783.000	49.61	62.62	-13.01	74.00	-24.39	400	272	Peak	
2	4636.500	46.03	55.63	-9.60	74.00	-27.97	100	215	Peak	
3	5566.500	46.38	54.58	-8.20	74.00	-27.62	100	61	Peak	
4	6492.500	41.59	48.97	-7.38	54.00	-12.41	100	262	Average	Non-BR
5	6492.500	54.15	61.53	-7.38	74.00	-19.85	100	262	Peak	Non-BR



Site : 3m\_Semi-Anechoic\_Chamber(966\_D)  
 Condition : FCC Class B\_PK vertical  
 Test Engineer: kay  
 Product : Wireless Module  
 Model NO : SAMR34  
 Test Rating : 5V  
 Tmp/Hum : 22.7°C/53.9%  
 Mode : TX\_927.5MHz\_DTS Mode(500k)  
 Power setting: 20/sf12

	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg		
1	1855.000	46.36	62.27	-15.91	74.00	-27.64	100	138	Peak	
2	2782.500	49.43	62.44	-13.01	74.00	-24.57	300	339	Peak	
3	4639.000	45.67	55.26	-9.59	74.00	-28.33	400	179	Peak	
4	5566.000	47.48	55.68	-8.20	74.00	-26.52	100	254	Peak	
5	6493.500	41.97	49.35	-7.38	54.00	-12.03	100	99	Average	Non-BR
6	6493.500	55.33	62.71	-7.38	74.00	-18.67	100	99	Peak	Non-BR