Appendix F _ Radiated Test Data &AC Power Line conducted Emission Data

Note:

All antennas have been tested for radiated spurious emission,But the report only shows the worst data of the Avior antenna1.

Radiated emission below 30MHz

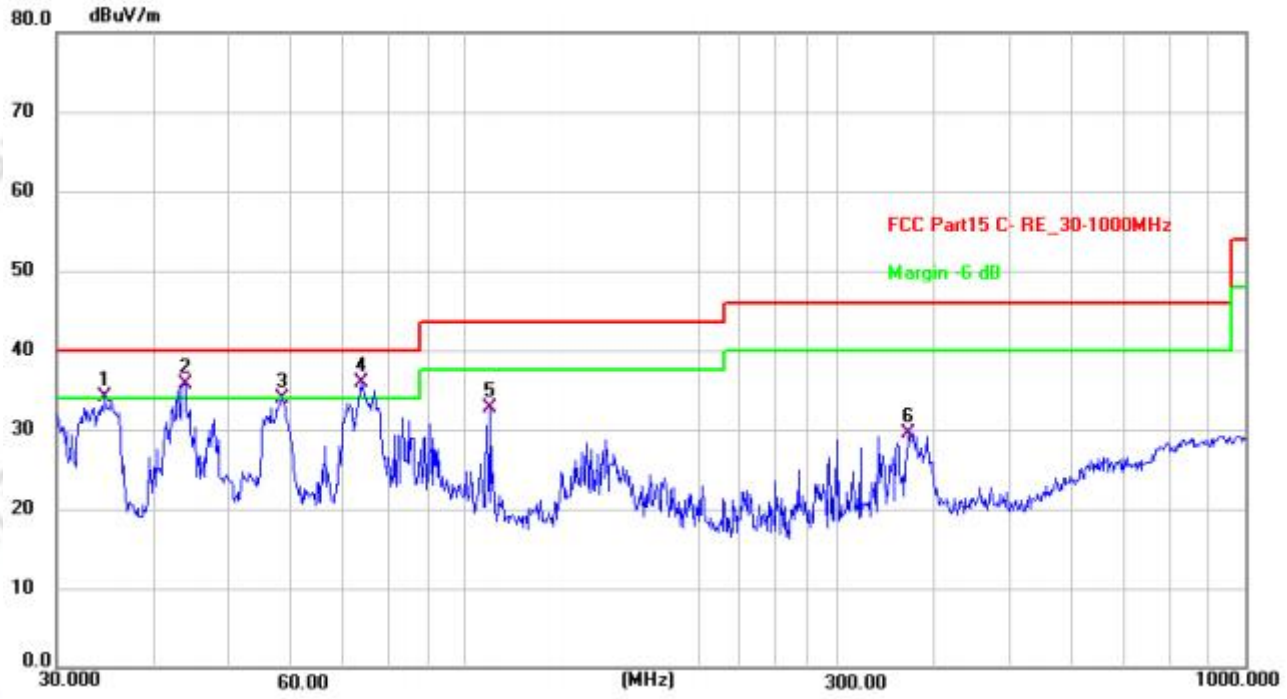
The amplitude of spurious emissions from 9kHz to 30MHz which are attenuated more than 20 dB below the permissible value need not be reported.

Radiated emission below 1000MHz

Temperature	24℃	**Relative Humidity**	55%
Test Channel	CH01	**Test Voltage**	DC56V
Test Mode	Dense reader mode ISO-18000-63	**Antenna**	Horizontal

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	34.5173	58.92	-24.52	34.40	40.00	-5.60	QP	100	285	P	
2	106.7587	61.14	-27.32	33.82	43.50	-9.68	QP	100	285	P	
3	297.2241	60.61	-22.90	37.71	46.00	-8.29	QP	100	285	P	
4	154.8204	57.22	-24.11	33.11	43.50	-10.39	QP	100	285	P	
5	866.0879	45.19	-11.36	33.83	46.00	-12.17	QP	100	285	P	
6	84.7019	60.66	-29.09	31.57	40.00	-8.43	AVG	100	285	P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH01	Test Voltage	DC56V
Test Mode	Dense reader mode ISO-18000-63	Antenna	Vertical

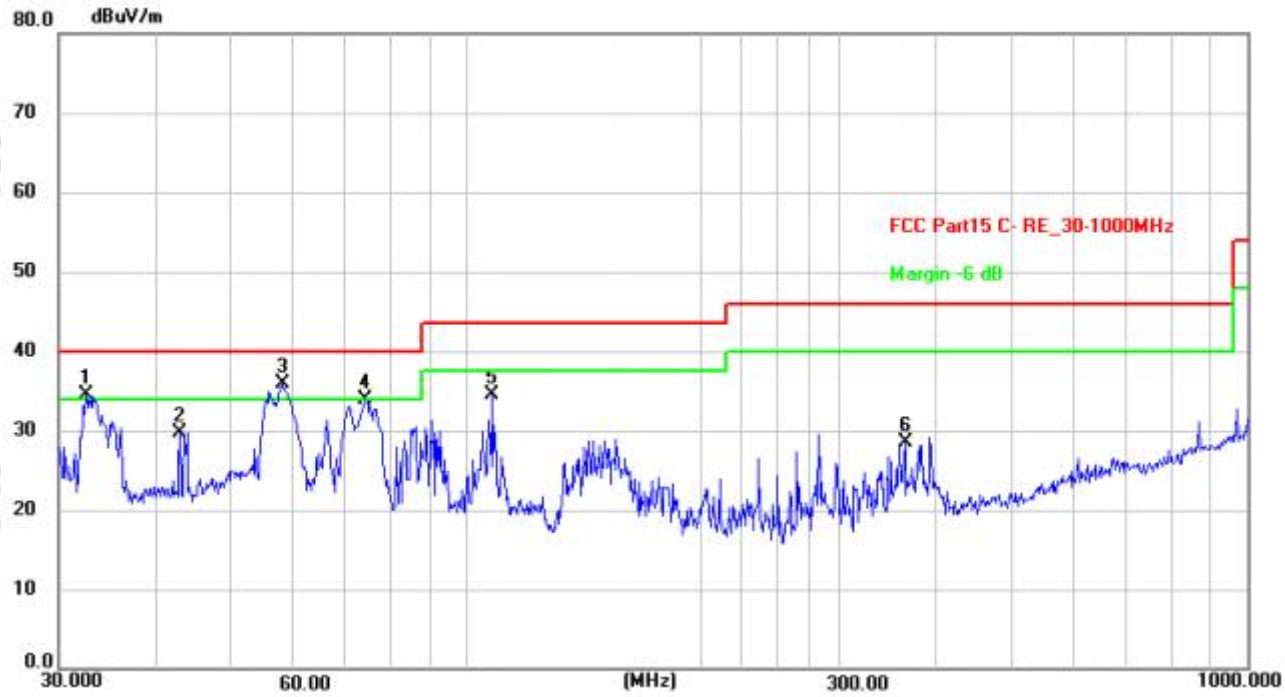


No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 !	34.5172	58.61	-24.53	34.08	40.00	-5.92	QP			P	
2 !	43.8120	58.74	-23.03	35.71	40.00	-4.29	QP			P	
3	58.4074	58.79	-24.80	33.99	40.00	-6.01	QP			P	
4 *	73.6170	62.83	-27.02	35.81	40.00	-4.19	QP			P	
5	107.8877	59.98	-27.26	32.72	43.50	-10.78	QP			P	
6	370.7023	50.64	-21.11	29.53	46.00	-16.47	QP			P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH50	Test Voltage	DC56V
Test Mode	Dense reader mode ISO-18000-63	Antenna	Horizontal

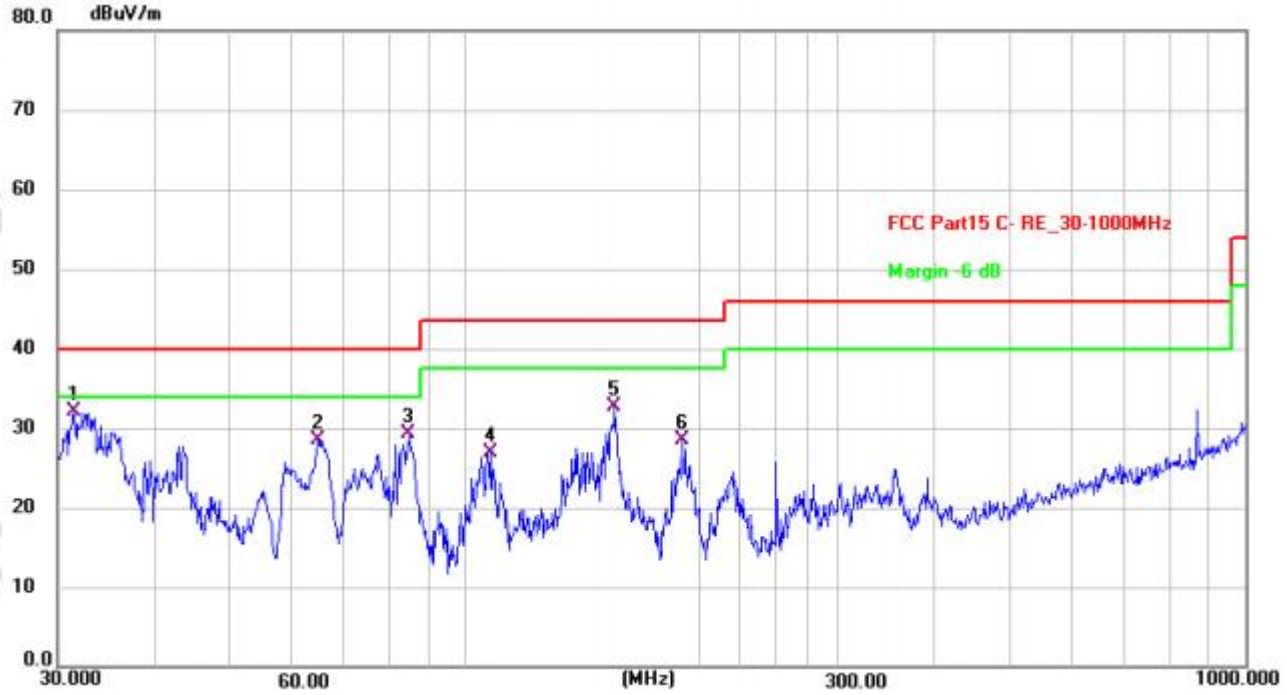
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	32.5198	59.07	-24.86	34.21	40.00	-5.79	QP	100	360	P	
2	43.5057	49.02	-23.06	25.96	40.00	-14.04	QP	100	360	P	
3	65.3432	53.54	-25.60	27.94	40.00	-12.06	QP	100	360	P	
4	106.7587	54.82	-27.32	27.50	43.50	-16.00	QP	100	360	P	
5	155.3644	56.55	-24.07	32.48	43.50	-11.02	QP	100	360	P	
6	250.3012	51.54	-25.17	26.37	46.00	-19.63	QP	100	360	P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH50	Test Voltage	DC56V
Test Mode	Dense reader mode ISO-18000-63	Antenna	Vertical



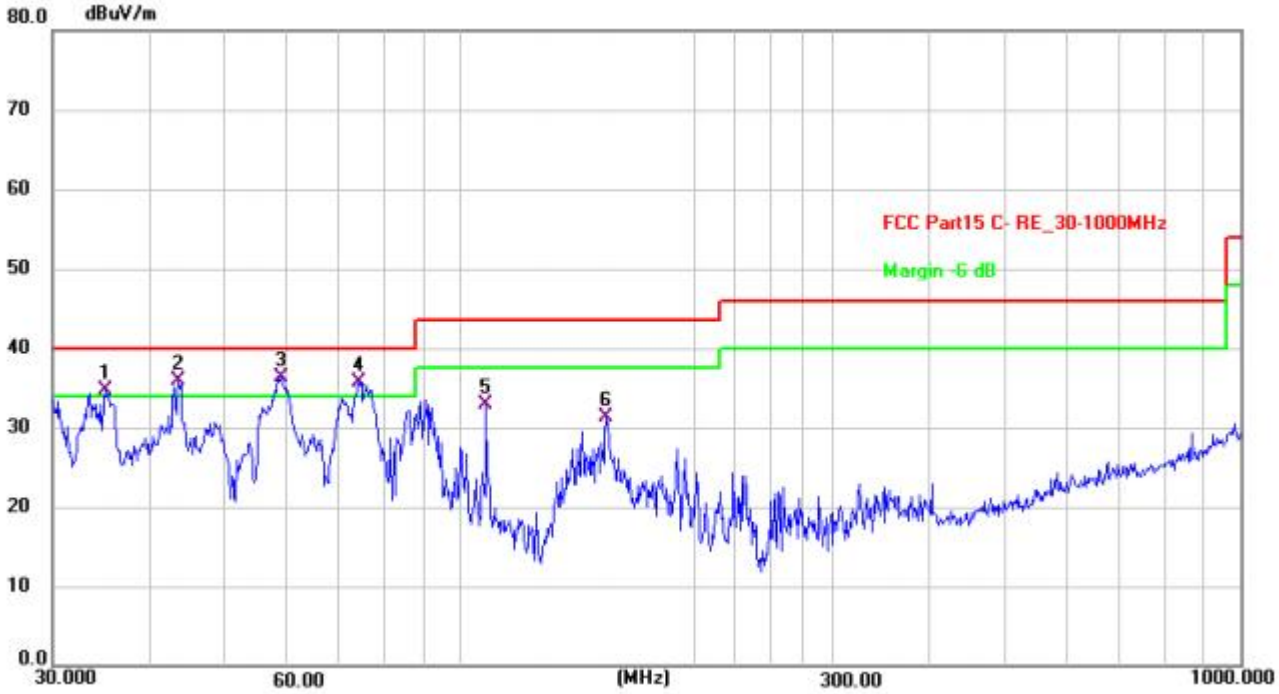
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 !	32.5198	59.41	-24.86	34.55	40.00	-5.45	peak	100	360	P	
2	42.8998	52.82	-23.11	29.71	40.00	-10.29	peak	100	360	P	
3 *	57.9993	60.65	-24.75	35.90	40.00	-4.10	peak	100	360	P	
4	74.1351	61.03	-27.16	33.87	40.00	-6.13	peak	100	360	P	
5	107.8877	61.82	-27.26	34.56	43.50	-8.94	peak	100	360	P	
6	364.2595	49.86	-21.28	28.58	46.00	-17.42	peak	100	360	P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH01	Test Voltage	DC56V
Test Mode	Single reader mode ISO-18000-63	Antenna	Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 *	31.5095	57.08	-25.04	32.04	40.00	-7.96	QP	100	360	P	
2	64.6594	54.05	-25.53	28.52	40.00	-11.48	QP	100	360	P	
3	84.7019	58.46	-29.09	29.37	40.00	-10.63	QP	100	360	P	
4	107.8877	54.08	-27.26	26.82	43.50	-16.68	QP	100	360	P	
5	155.3644	56.73	-24.07	32.66	43.50	-10.84	QP	100	360	P	
6	189.7385	54.61	-26.05	28.56	43.50	-14.94	QP	100	360	P	

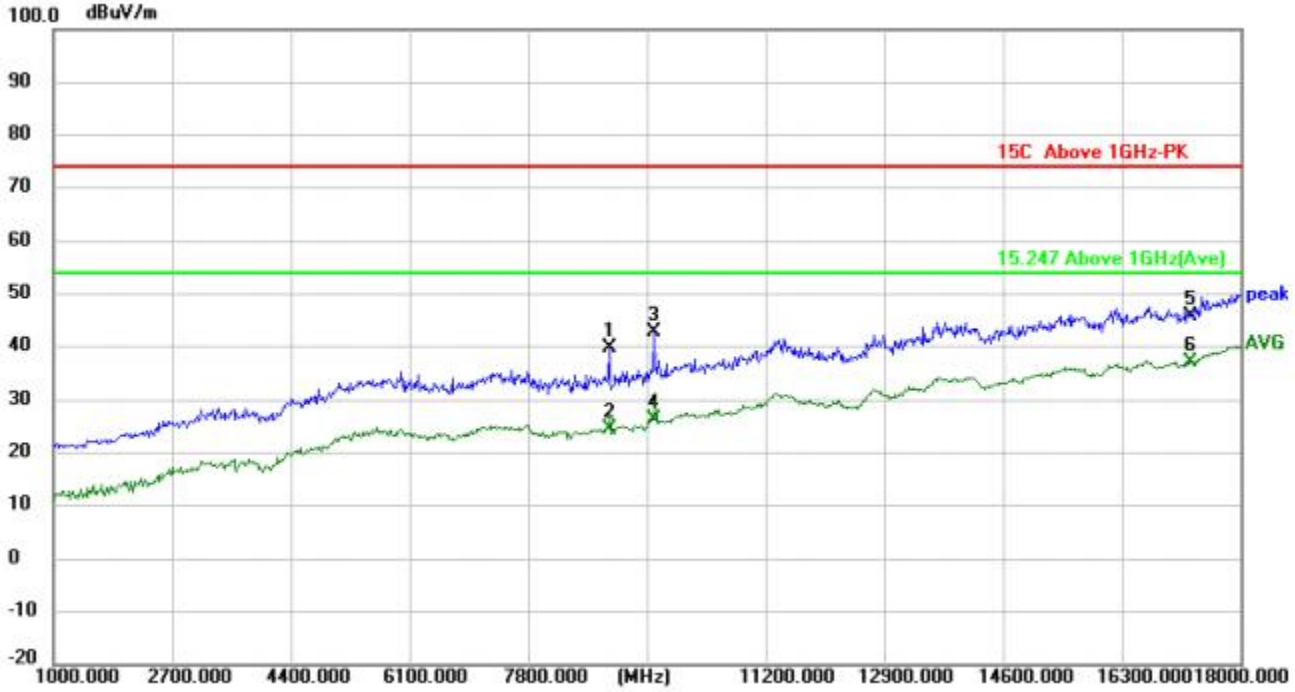
Temperature	24℃	Relative Humidity	55%
Test Channel	CH01	Test Voltage	DC56V
Test Mode	Single reader mode ISO-18000-63	Antenna	Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1 !	35.0048	59.08	-24.44	34.64	40.00	-5.36	QP	100	360	P	
2 !	43.5057	59.02	-23.06	35.96	40.00	-4.04	QP	100	360	P	
3 *	58.8185	61.13	-24.84	36.29	40.00	-3.71	QP	100	360	P	
4 !	74.1351	62.85	-27.16	35.69	40.00	-4.31	QP	100	360	P	
5	107.8877	60.16	-27.26	32.90	43.50	-10.60	QP	100	360	P	
6	153.7385	55.42	-24.18	31.24	43.50	-12.26	QP	100	360	P	

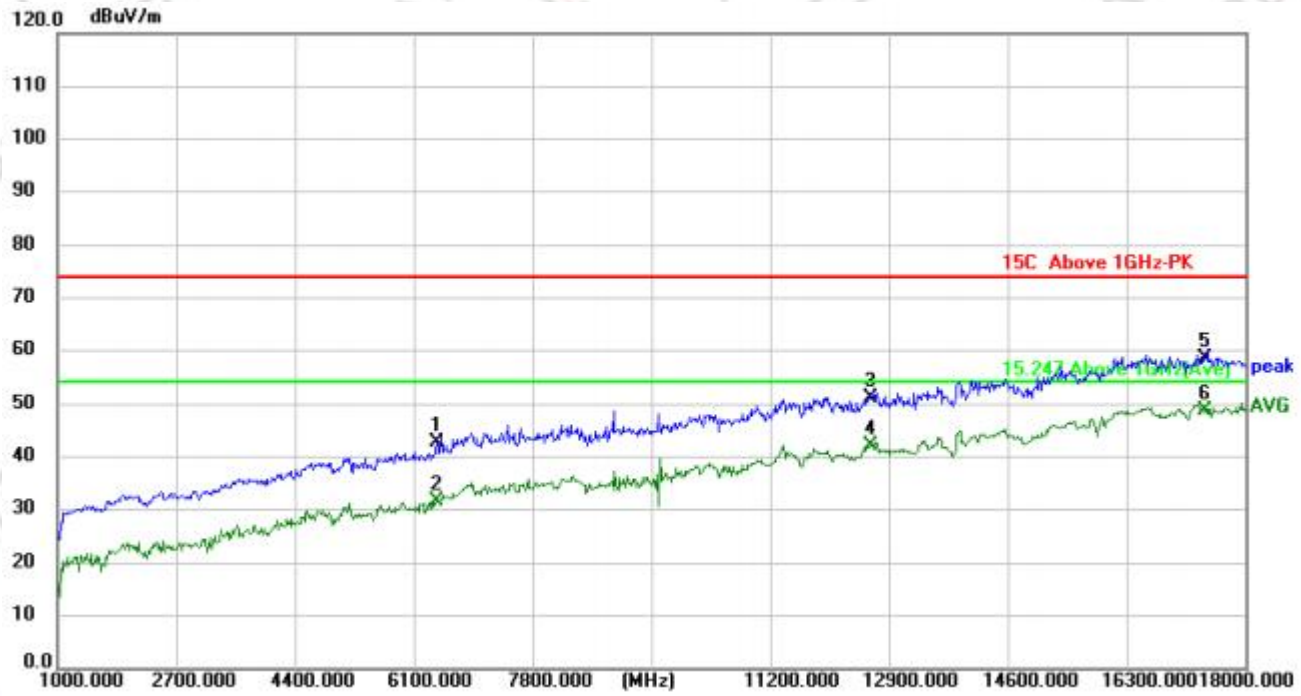
Radiated emission above 1GHz

Temperature	24℃	**Relative Humidity**	55%
Test Channel	CH01	**Test Voltage**	DC56V
Test Mode	Dense reader mode ISO-18000-63	**Antenna**	Horizontal



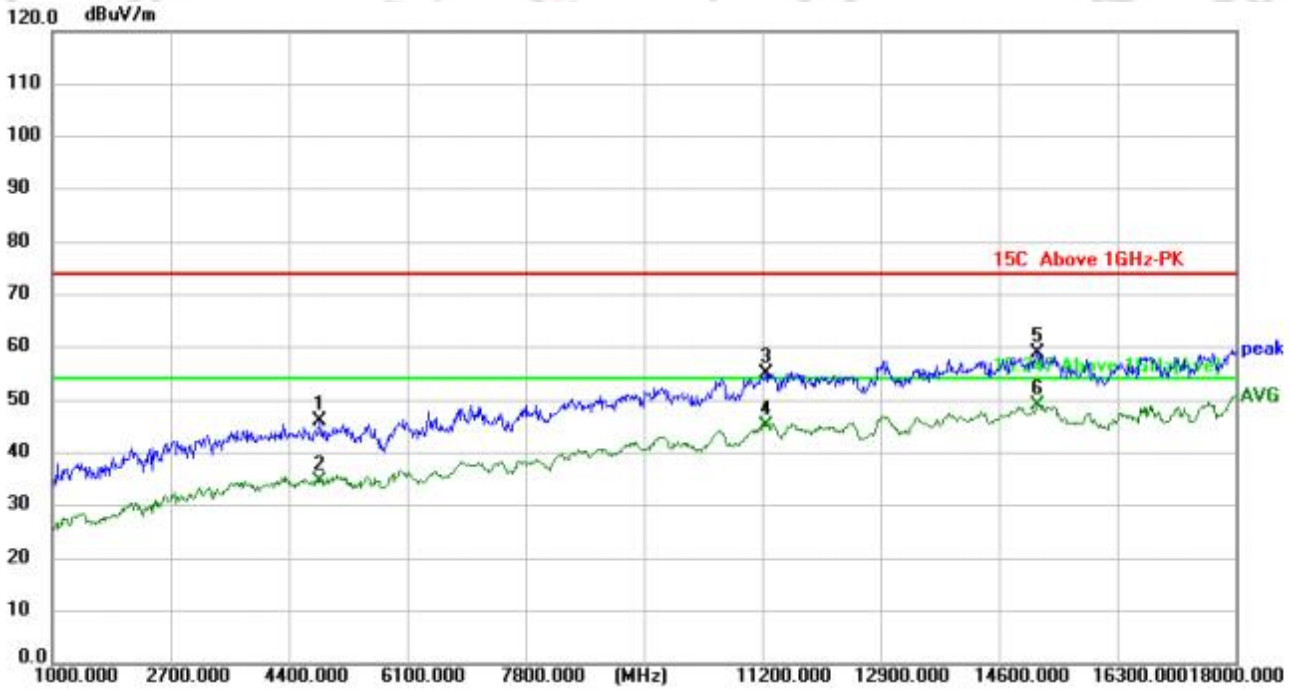
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	8956.000	35.75	4.17	39.92	74.00	-34.08	peak	150	360	P	
2	8956.000	20.38	4.17	24.55	54.00	-29.45	AVG	150	360	P	
3	9602.000	37.85	4.88	42.73	74.00	-31.27	peak	150	360	P	
4	9602.000	21.48	4.88	26.36	54.00	-27.64	AVG	150	360	P	
5	17286.000	30.75	15.18	45.93	74.00	-28.07	peak	150	360	P	
6 *	17286.000	21.96	15.18	37.14	54.00	-16.86	AVG	150	360	P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH01	Test Voltage	DC56V
Test Mode	Dense reader mode ISO-18000-63	Antenna	Vertical



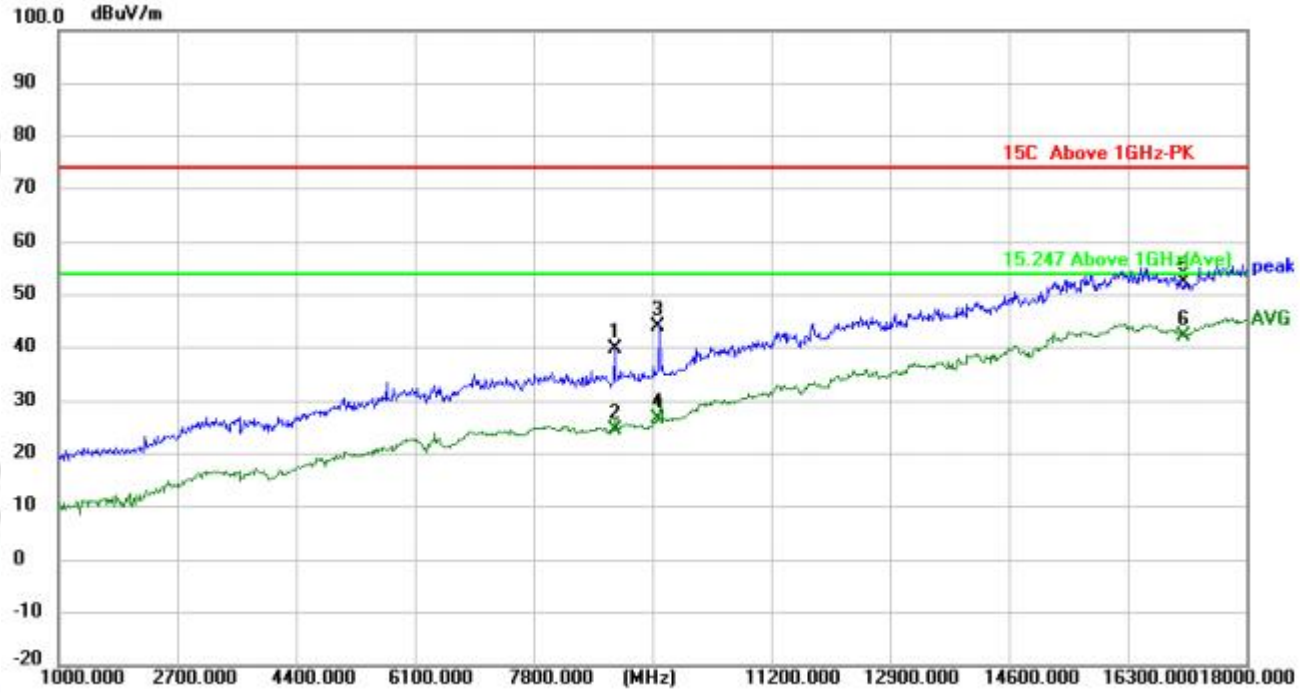
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	6423.000	44.82	-2.10	42.72	74.00	-31.28	peak	150	360	P	
2	6423.000	33.80	-2.10	31.70	54.00	-22.30	AVG	150	360	P	
3	12645.000	41.95	9.30	51.25	74.00	-22.75	peak	150	360	P	
4	12645.000	32.95	9.30	42.25	54.00	-11.75	AVG	150	360	P	
5	17422.000	42.76	16.02	58.78	74.00	-15.22	peak	150	360	P	
6 *	17422.000	32.65	16.02	48.67	54.00	-5.33	AVG	150	360	P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH26	Test Voltage	DC56V
Test Mode	Dense reader mode ISO-18000-63	Antenna	Horizontal



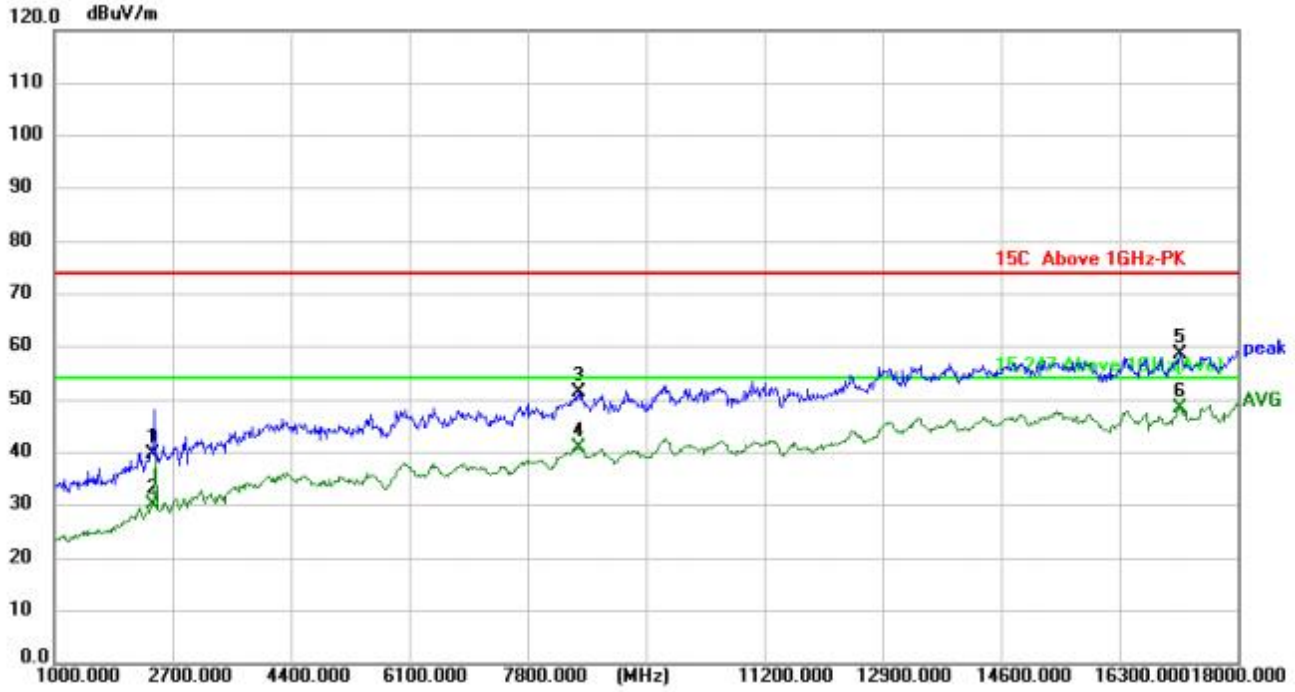
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	4842.000	52.67	-6.63	46.04	74.00	-27.96	peak	150	360	P	
2	4842.000	41.25	-6.63	34.62	54.00	-19.38	AVG	150	360	P	
3	11251.000	46.84	8.25	55.09	74.00	-18.91	peak	150	360	P	
4	11251.000	36.86	8.25	45.11	54.00	-8.89	AVG	150	360	P	
5	15144.000	47.02	11.95	58.97	74.00	-15.03	peak	150	360	P	
6 *	15144.000	36.99	11.95	48.94	54.00	-5.06	AVG	150	360	P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH26	Test Voltage	DC56V
Test Mode	Dense reader mode ISO-18000-63	Antenna	Vertical



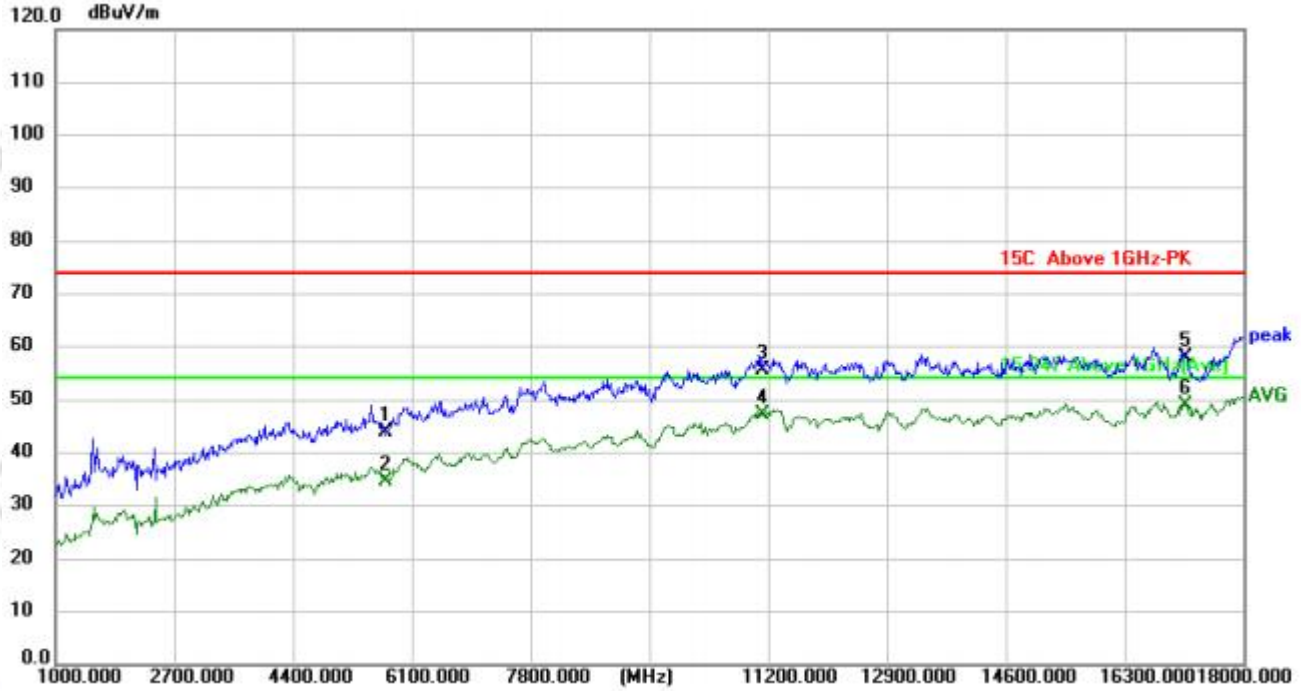
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	8956.000	35.77	4.17	39.94	74.00	-34.06	peak			P	
2	8956.000	20.53	4.17	24.70	54.00	-29.30	AVG			P	
3	9586.000	39.31	4.84	44.15	74.00	-29.85	peak			P	
4	9586.000	21.71	4.84	26.55	54.00	-27.45	AVG			P	
5	17111.000	38.31	14.09	52.40	74.00	-21.60	peak			P	
6 *	17111.000	28.06	14.09	42.15	54.00	-11.85	AVG			P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH50	Test Voltage	DC56V
Test Mode	Dense reader mode ISO-18000-63	Antenna	Horizontal



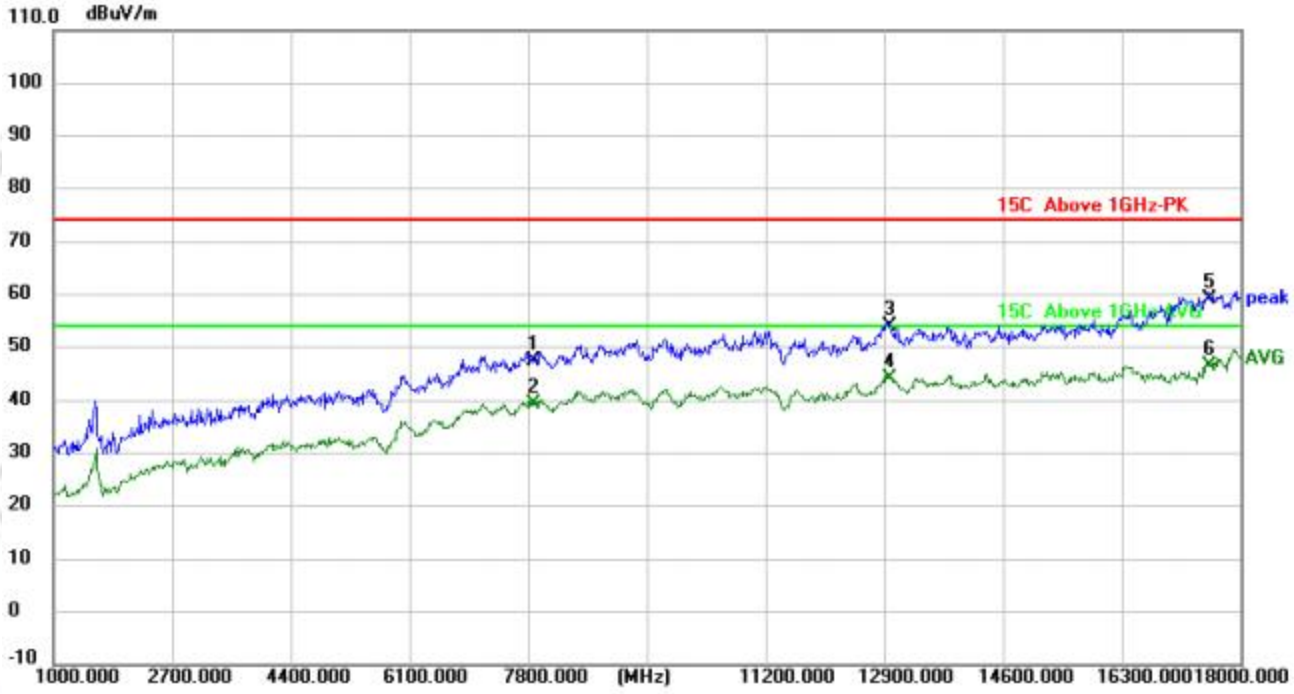
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	2411.000	54.78	-15.00	39.78	74.00	-34.22	peak	150	360	P	
2	2411.000	45.02	-15.00	30.02	54.00	-23.98	AVG	150	360	P	
3	8531.000	48.51	2.90	51.41	74.00	-22.59	peak	150	360	P	
4	8531.000	38.10	2.90	41.00	54.00	-13.00	AVG	150	360	P	
5	17167.000	44.37	14.43	58.80	74.00	-15.20	peak	150	360	P	
6 *	17167.000	34.01	14.43	48.44	54.00	-5.56	AVG	150	360	P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH50	Test Voltage	DC56V
Test Mode	Dense reader mode ISO-18000-63	Antenna	Vertical



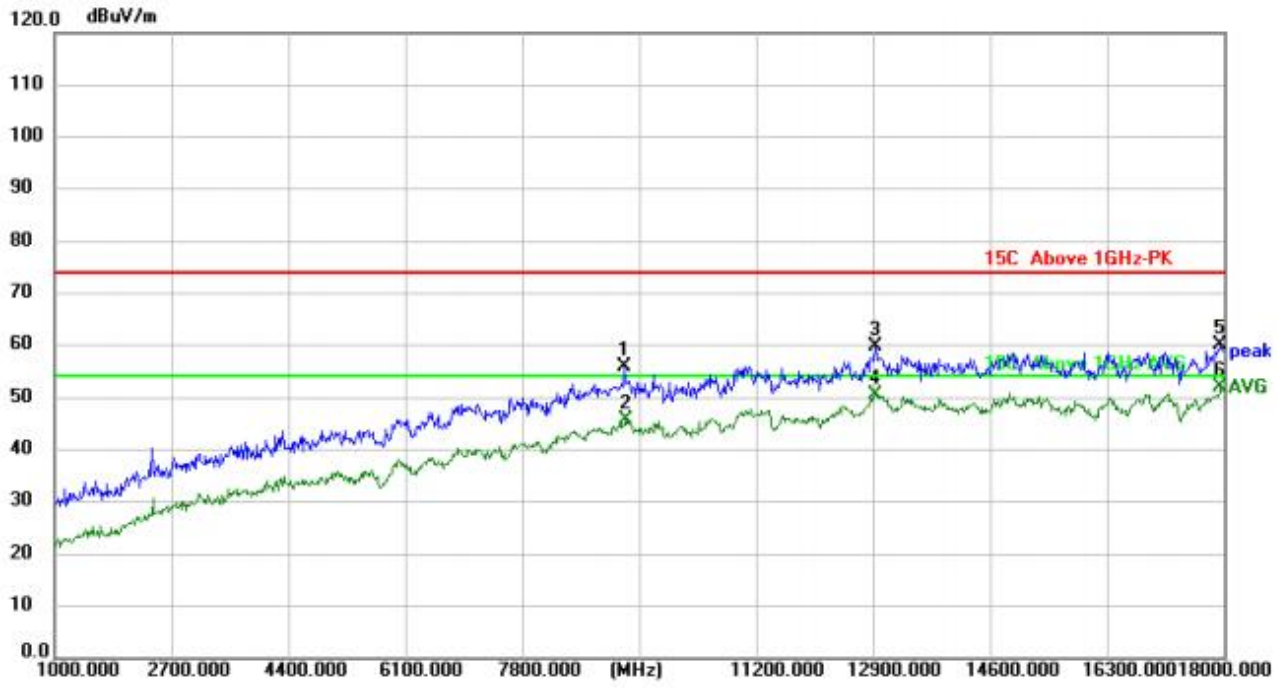
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	5741.000	48.43	-4.59	43.84	74.00	-30.16	peak	150	360	P	
2	5741.000	39.28	-4.59	34.69	54.00	-19.31	AVG	150	360	P	
3	11115.000	47.45	8.06	55.51	74.00	-18.49	peak	150	360	P	
4	11115.000	39.23	8.06	47.29	54.00	-6.71	AVG	150	360	P	
5	17167.000	43.51	14.43	57.94	74.00	-16.06	peak	150	360	P	
6 *	17167.000	34.73	14.43	49.16	54.00	-4.84	AVG	150	360	P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH01	Test Voltage	DC56V
Test Mode	Single reader mode ISO-18000-63	Antenna	Horizontal



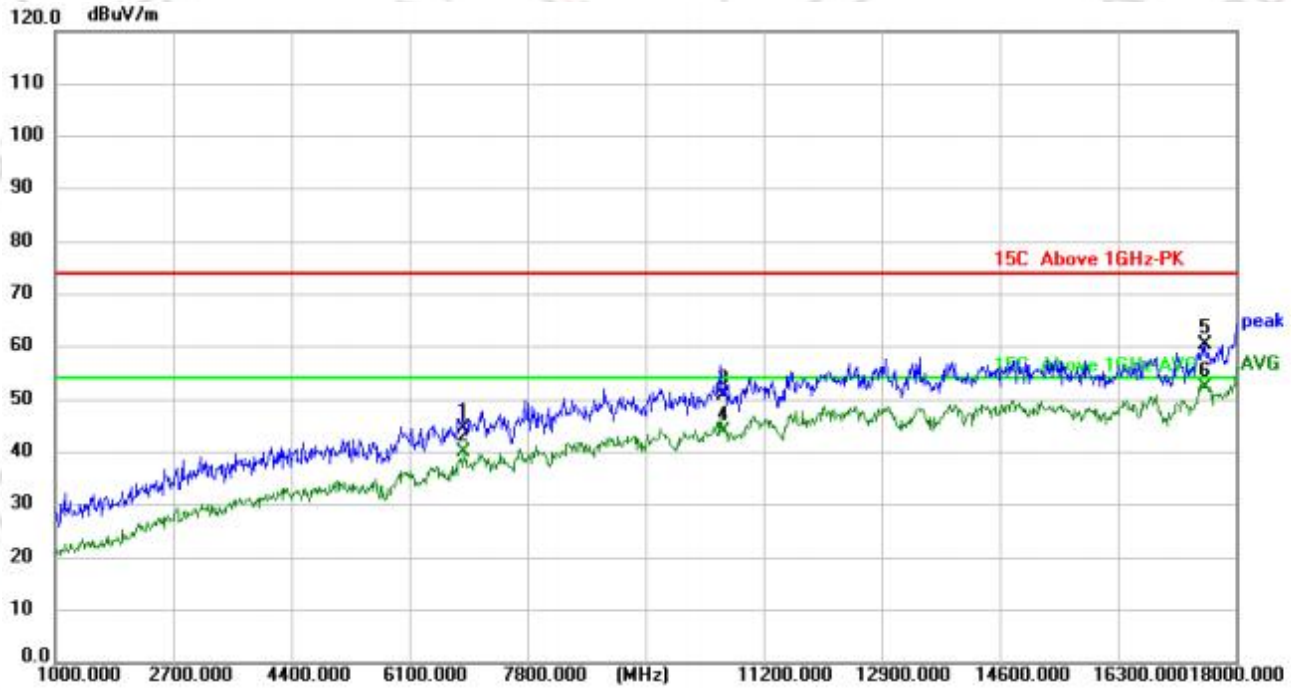
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	7868.000	46.04	1.51	47.55	74.00	-26.45	peak	150	360	P	
2	7868.000	37.75	1.51	39.26	54.00	-14.74	AVG	150	360	P	
3	12985.000	44.12	9.96	54.08	74.00	-19.92	peak	150	360	P	
4	12985.000	34.09	9.96	44.05	54.00	-9.95	AVG	150	360	P	
5	17558.000	42.36	16.76	59.12	74.00	-14.88	peak	150	360	P	
6 *	17558.000	29.86	16.76	46.62	54.00	-7.38	AVG	150	360	P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH01	Test Voltage	DC56V
Test Mode	Single reader mode ISO-18000-63	Antenna	Vertical



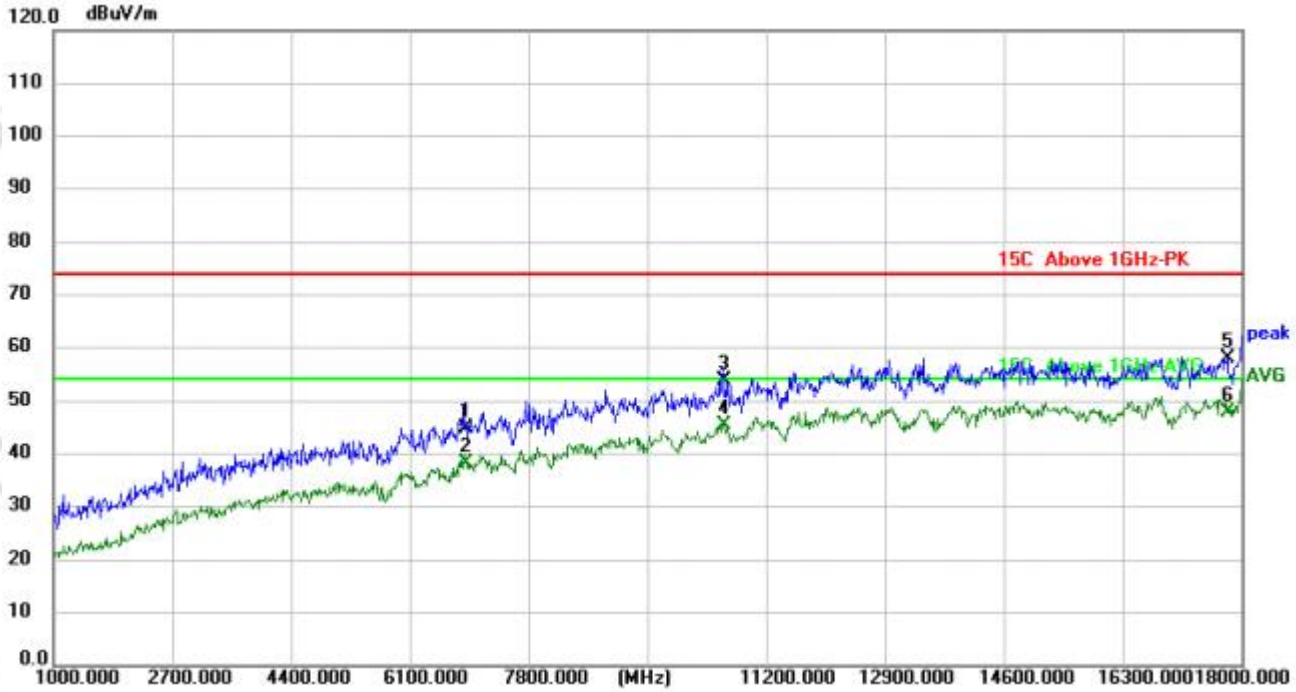
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	9279.000	51.57	4.47	56.04	74.00	-17.96	peak	100	360	P	
2	9296.000	41.37	4.48	45.85	54.00	-8.15	AVG	100	360	P	
3	12934.000	50.01	9.86	59.87	74.00	-14.13	peak	100	360	P	
4	12934.000	40.79	9.86	50.65	54.00	-3.35	AVG	100	360	P	
5	17949.000	41.56	18.48	60.04	74.00	-13.96	peak	100	360	P	
6 *	17949.000	33.51	18.48	51.99	54.00	-2.01	AVG	100	360	P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH26	Test Voltage	DC56V
Test Mode	Single reader mode ISO-18000-63	Antenna	Horizontal



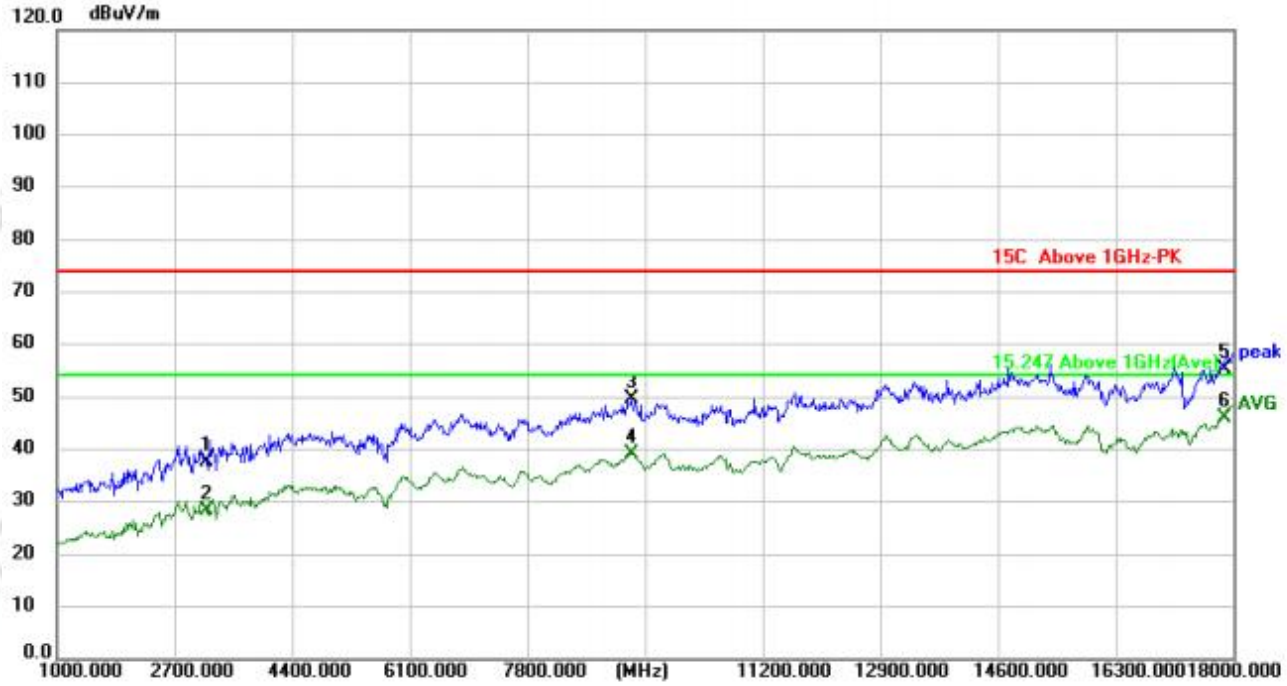
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	6882.000	45.00	-0.52	44.48	74.00	-29.52	peak			P	
2	6882.000	40.58	-0.52	40.06	54.00	-13.94	AVG			P	
3	10622.000	43.43	7.30	50.73	74.00	-23.27	peak			P	
4	10622.000	36.58	7.30	43.88	54.00	-10.12	AVG			P	
5	17558.000	43.61	16.76	60.37	74.00	-13.63	peak			P	
6 *	17558.000	35.50	16.76	52.26	54.00	-1.74	AVG			P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH26	Test Voltage	DC56V
Test Mode	Single reader mode ISO-18000-63	Antenna	Vertical



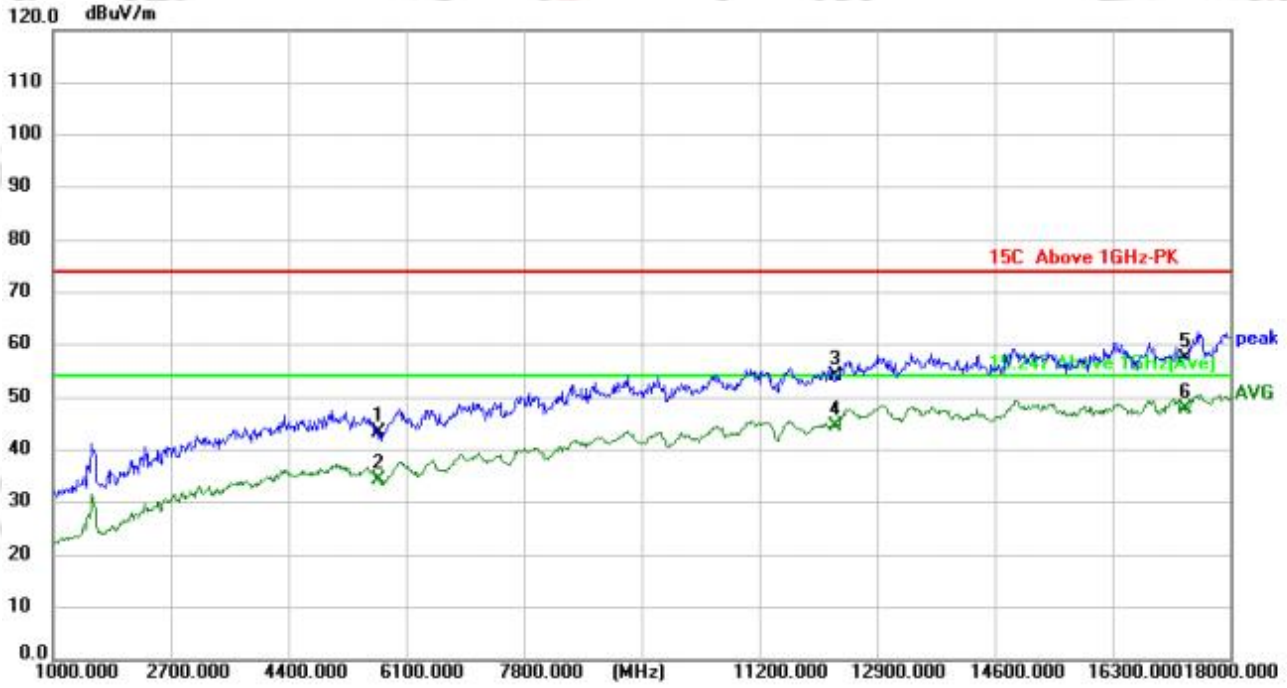
No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	6899.000	45.20	-0.46	44.74	74.00	-29.26	peak			P	
2	6899.000	38.66	-0.46	38.20	54.00	-15.80	AVG			P	
3	10588.000	46.55	7.25	53.80	74.00	-20.20	peak			P	
4	10588.000	38.10	7.25	45.35	54.00	-8.65	AVG			P	
5	17796.000	40.18	17.80	57.98	74.00	-16.02	peak			P	
6 *	17796.000	30.08	17.80	47.88	54.00	-6.12	AVG			P	

Temperature	24℃	Relative Humidity	55%
Test Channel	CH50	Test Voltage	DC56V
Test Mode	Single reader mode ISO-18000-63	Antenna	Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	3159.000	49.08	-11.55	37.53	74.00	-36.47	peak	150	360	P	
2	3159.000	39.82	-11.55	28.27	54.00	-25.73	AVG	150	360	P	
3	9296.000	45.16	4.48	49.64	74.00	-24.36	peak	150	360	P	
4	9296.000	34.60	4.48	39.08	54.00	-14.92	AVG	150	360	P	
5	17864.000	37.37	18.09	55.46	74.00	-18.54	peak	150	360	P	
6 *	17864.000	28.10	18.09	46.19	54.00	-7.81	AVG	150	360	P	

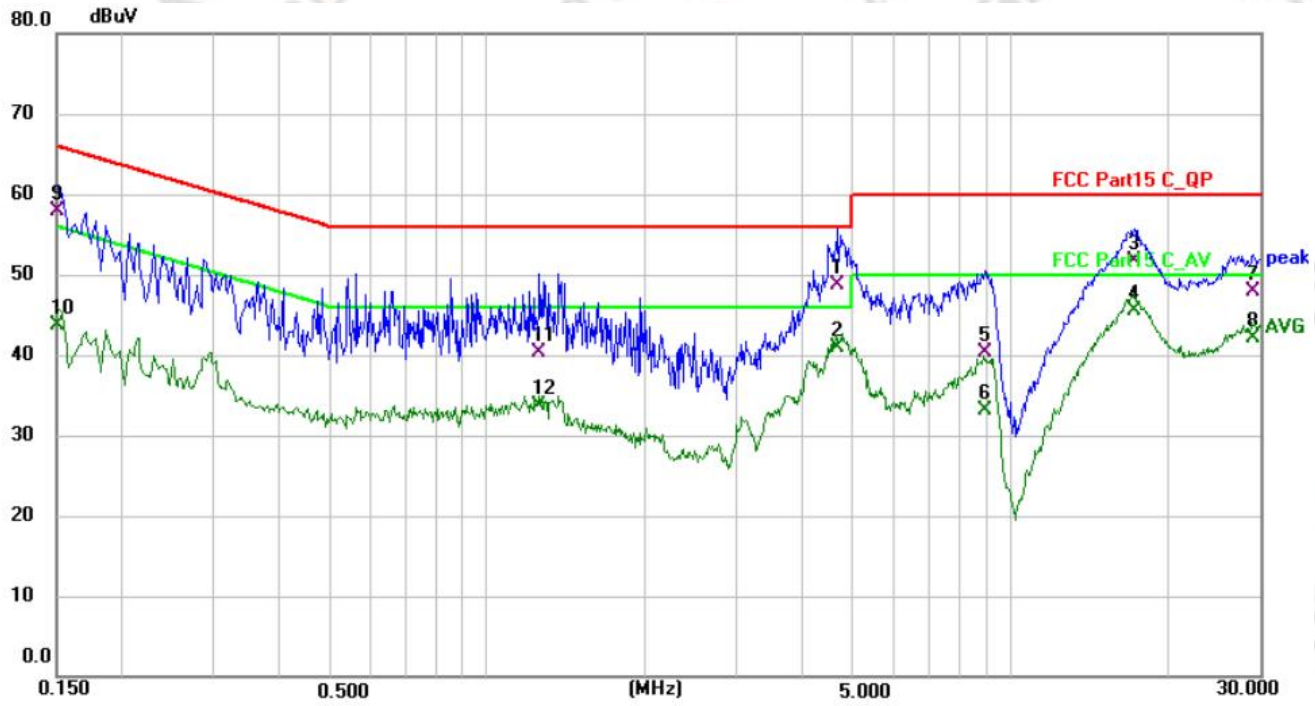
Temperature	24℃	Relative Humidity	55%
Test Channel	CH50	Test Voltage	DC56V
Test Mode	Single reader mode ISO-18000-63	Antenna	Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	5709.000	48.09	-4.70	43.39	74.00	-30.61	peak			P	
2	5709.000	38.98	-4.70	34.28	54.00	-19.72	AVG			P	
3	12305.000	45.33	8.88	54.21	74.00	-19.79	peak			P	
4	12305.000	35.60	8.88	44.48	54.00	-9.52	AVG			P	
5	17354.000	41.87	15.60	57.47	74.00	-16.53	peak			P	
6 *	17354.000	32.37	15.60	47.97	54.00	-6.03	AVG			P	

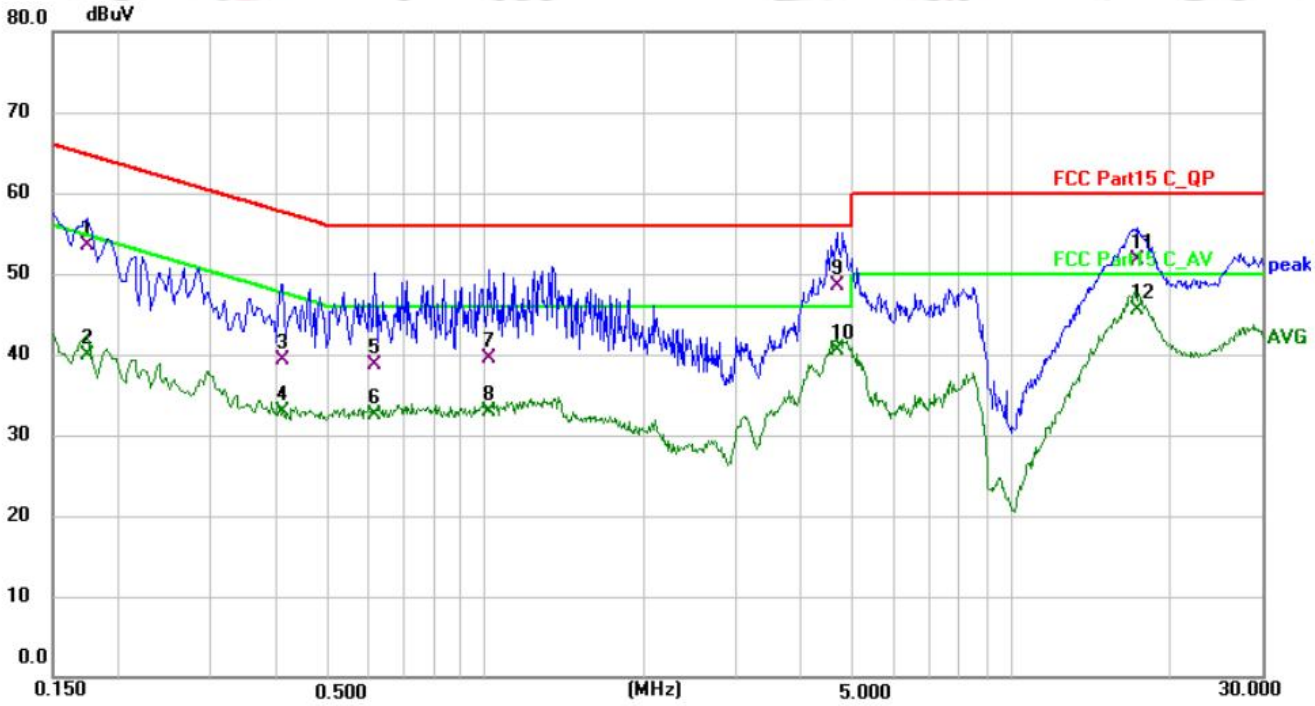
AC Power Line conducted Emission Data

Temperature	24℃	**Relative Humidity**	56%
Test Channel	960mbar	**Test Voltage**	DC56V
Test Mode	Densereadermode ISO-18000-63-902.75	**Phase:**	N



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	4.6779	29.42	19.38	48.80	56.00	-7.20	QP	P
2	4.6779	21.47	19.38	40.85	46.00	-5.15	AVG	P
3	17.2700	32.24	19.43	51.67	60.00	-8.33	QP	P
4 *	17.2700	26.10	19.43	45.53	50.00	-4.47	AVG	P
5	8.9420	20.83	19.40	40.23	60.00	-19.77	QP	P
6	8.9420	13.66	19.40	33.06	50.00	-16.94	AVG	P
7	29.2060	28.46	19.44	47.90	60.00	-12.10	QP	P
8	29.2060	22.59	19.44	42.03	50.00	-7.97	AVG	P
9	0.1500	38.52	19.33	57.85	66.00	-8.15	QP	P
10	0.1500	24.40	19.33	43.73	56.00	-12.27	AVG	P
11	1.2620	20.99	19.35	40.34	56.00	-15.66	QP	P
12	1.2620	14.33	19.35	33.68	46.00	-12.32	AVG	P

Temperature	24℃	Relative Humidity	56%
Test Channel	960mbar	Test Voltage	DC56V
Test Mode	Densereadermode ISO-18000-63-902.75	Phase:	L



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1740	34.08	19.33	53.41	64.77	-11.36	QP	P
2	0.1740	20.62	19.33	39.95	54.77	-14.82	AVG	P
3	0.4100	20.11	19.27	39.38	57.65	-18.27	QP	P
4	0.4100	13.63	19.27	32.90	47.65	-14.75	AVG	P
5	0.6140	19.42	19.35	38.77	56.00	-17.23	QP	P
6	0.6140	13.13	19.35	32.48	46.00	-13.52	AVG	P
7	1.0140	20.26	19.25	39.51	56.00	-16.49	QP	P
8	1.0140	13.72	19.25	32.97	46.00	-13.03	AVG	P
9	4.6660	29.02	19.44	48.46	56.00	-7.54	QP	P
10	4.6660	21.10	19.44	40.54	46.00	-5.46	AVG	P
11	17.3100	32.26	19.47	51.73	60.00	-8.27	QP	P
12 *	17.3100	26.13	19.47	45.60	50.00	-4.40	AVG	P

※※※※※END OF APPENDIX B※※※※※