

Appendix B: Test Results

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Appendix B.1: Occupied Bandwidth

FL: 76.021GHz, FH: 76.837GHz
Limit: Within assigned band (76GHz to 81GHz)



Appendix B.2: Radiated E.I.R.P. Power

Horizontal:

Frequency (GHz)	Measurement Distance (m)	EIRP (dBm)	EIRP Limit(dBm)
76.425	1	19.35	55 (Peak)
76.425	1	0.43	50(Average)

Vertical:

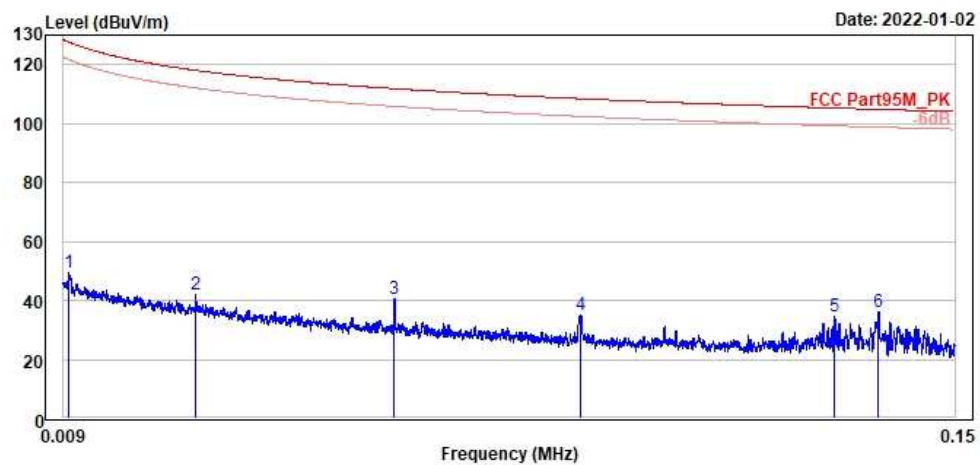
Frequency (GHz)	Measurement Distance (m)	EIRP (dBm)	EIRP Limit(dBm)
76.425	1	10.81	55 (Peak)
76.425	1	-7.84	50(Average)

Appendix B.3: Unwanted emissions

9kHz-30MHz



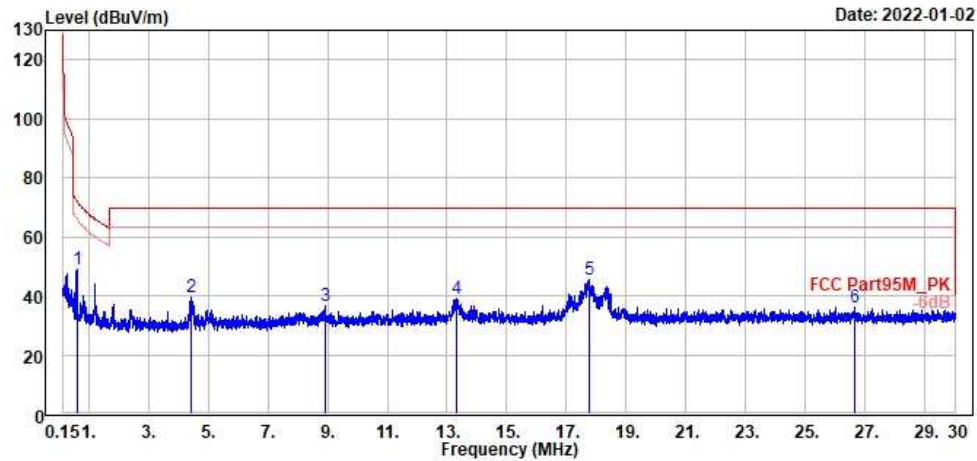
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	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.01	49.32	31.56	17.76	127.63	-78.31	100	168	QP	Open	
2	0.03	41.93	22.38	19.55	118.06	-76.13	100	292	QP	Open	
3	0.06	40.51	21.41	19.10	111.83	-71.32	100	100	QP	Open	
4	0.09	35.08	16.62	18.46	108.44	-73.36	100	116	QP	Open	
5	0.13	34.65	16.28	18.37	105.26	-70.61	100	120	QP	Open	
6	0.14	36.14	17.75	18.39	104.80	-68.66	100	108	QP	Open	



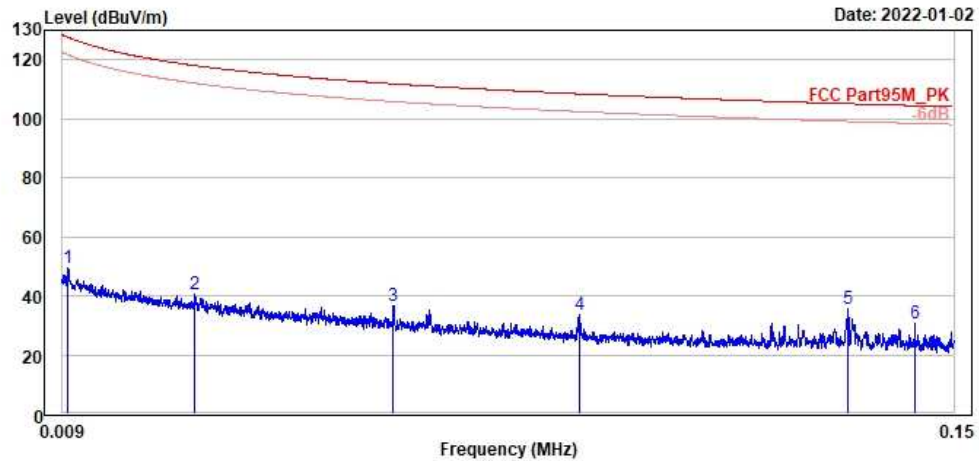
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	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.61	49.15	30.10	19.05	71.94	-22.79	100	133	QP	Open	
2	4.45	39.66	20.27	19.39	69.50	-29.84	100	298	QP	Open	
3	8.93	36.76	15.82	20.94	69.50	-32.74	100	122	QP	Open	
4	13.31	39.28	17.68	21.60	69.50	-30.22	100	24	QP	Open	
5	17.75	45.52	23.61	21.91	69.50	-23.98	100	110	QP	Open	
6	26.64	36.09	13.79	22.30	69.50	-33.41	100	87	QP	Open	



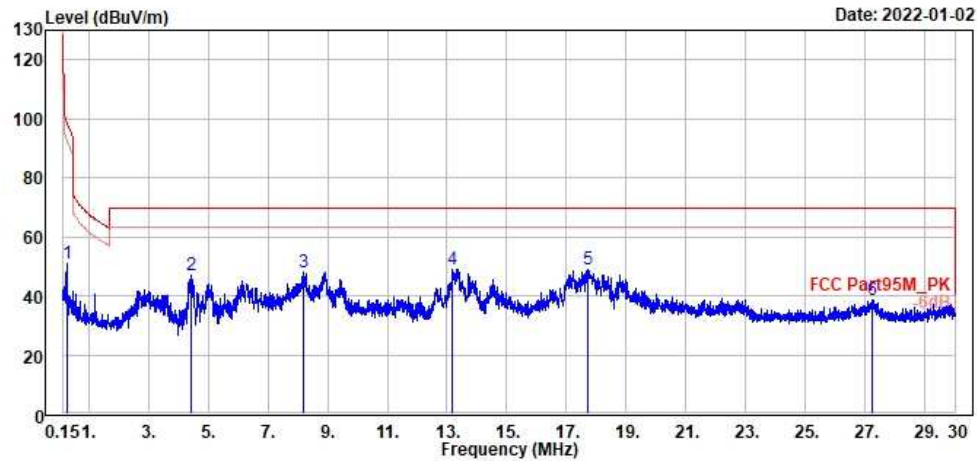
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	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.01	49.36	31.60	17.76	127.63	-78.27	100	248 QP		Close	
2	0.03	40.29	20.74	19.55	118.06	-77.77	100	163 QP		Close	
3	0.06	36.49	17.39	19.10	111.83	-75.34	100	47 QP		Close	
4	0.09	33.81	15.35	18.46	108.44	-74.63	100	183 QP		Close	
5	0.13	35.63	17.25	18.38	105.11	-69.48	100	159 QP		Close	
6	0.14	30.76	12.35	18.41	104.44	-73.68	100	172 QP		Close	



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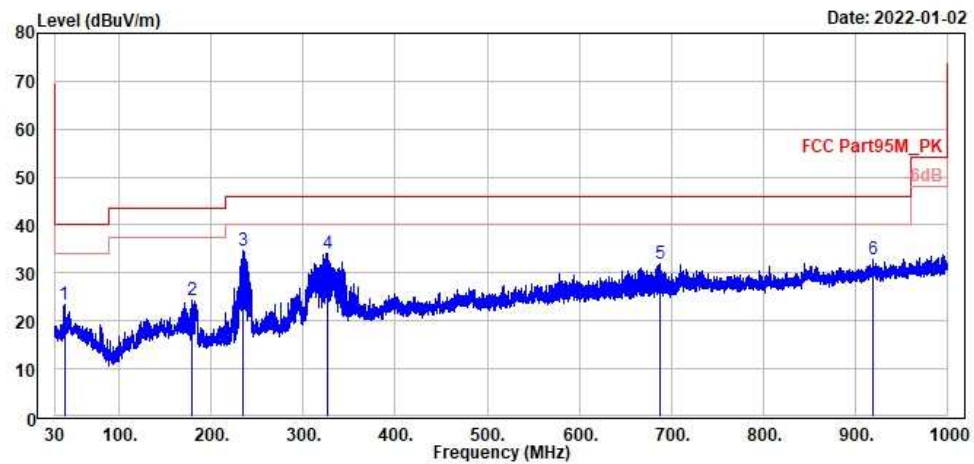


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	0.29	50.72	31.77	18.95	98.26	-47.54	100	169 QP		Close	
2	4.45	46.73	27.34	19.39	69.50	-22.77	100	248 QP		Close	
3	8.21	48.18	27.53	20.65	69.50	-21.32	100	174 QP		Close	
4	13.19	49.03	27.44	21.59	69.50	-20.47	100	164 QP		Close	
5	17.70	48.92	27.02	21.90	69.50	-20.58	100	94 QP		Close	
6	27.22	38.33	16.01	22.32	69.50	-31.17	100	7 QP		Close	

30MHz to 1GHz



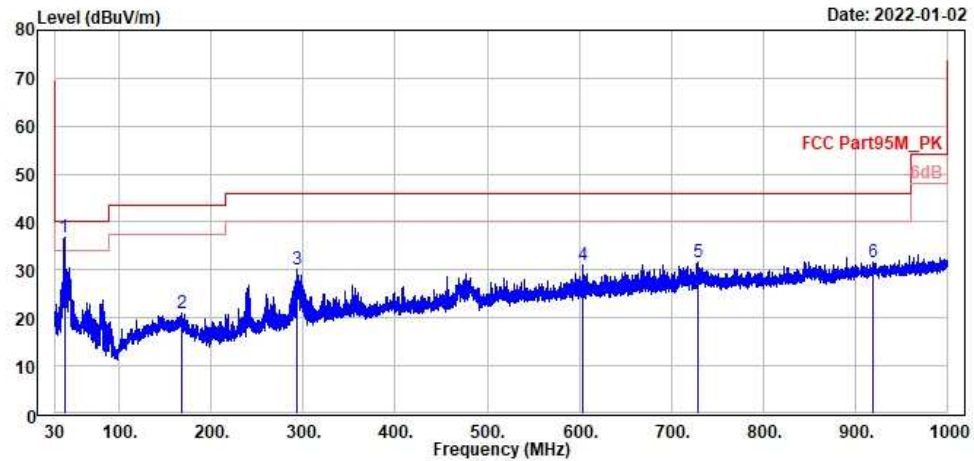
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	Freq	Level	Read	Factor	Limit	Over	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	39.99	23.29	31.60	-8.31	40.00	-16.71	300	220	QP	Horizontal	
2	178.70	24.35	32.76	-8.41	43.50	-19.15	200	167	QP	Horizontal	
3	234.96	34.62	43.05	-8.43	46.00	-11.38	200	189	QP	Horizontal	
4	326.43	34.19	40.00	-5.81	46.00	-11.81	300	360	QP	Horizontal	
5	687.56	31.89	31.72	0.17	46.00	-14.11	100	284	QP	Horizontal	
6	920.17	32.74	28.88	3.86	46.00	-13.26	400	107	QP	Horizontal	



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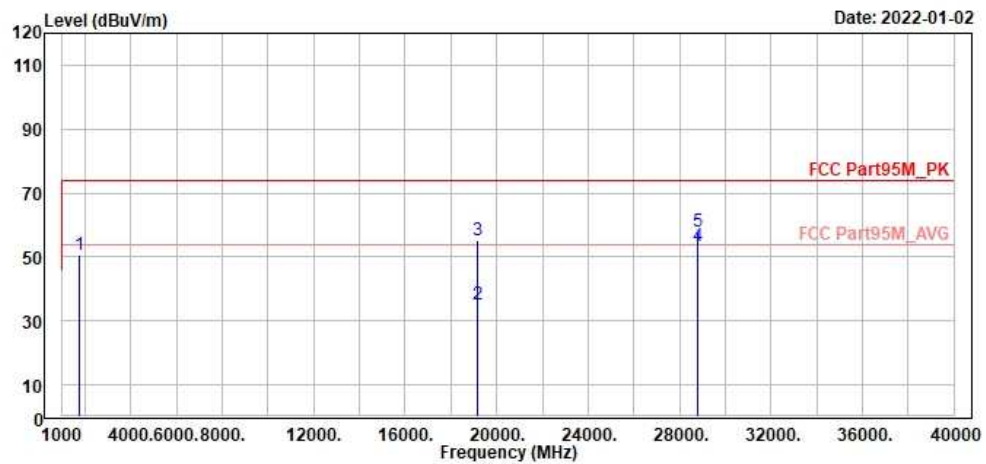


	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1 !	39.99	36.69	45.00	-8.31	40.00	-3.31	100	360	QP	Vertical	
2	167.93	21.12	28.45	-7.33	43.50	-22.38	100	211	QP	Vertical	
3	293.65	29.97	36.57	-6.60	46.00	-16.03	100	237	QP	Vertical	
4	603.56	31.08	32.32	-1.24	46.00	-14.92	100	197	QP	Vertical	
5	728.98	31.51	30.75	0.76	46.00	-14.49	100	189	QP	Vertical	
6	918.81	31.73	27.90	3.83	46.00	-14.27	300	360	QP	Vertical	

1GHz to 40GHz



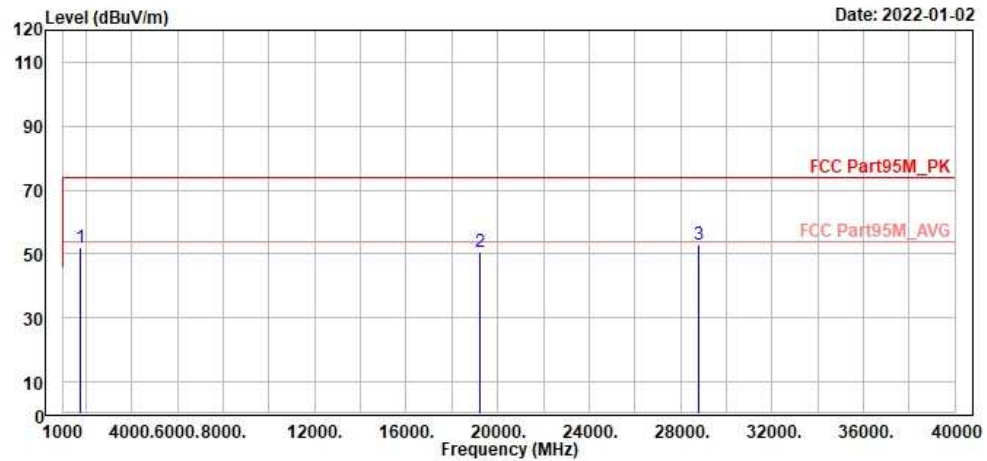
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	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	1770.00	50.70	67.87	-17.17	74.00	-23.30	400	110	Peak	Horizontal	
2	19145.00	34.93	36.82	-1.89	54.00	-19.07	100	66	Average	Horizontal	
3	19145.00	55.19	57.08	-1.89	74.00	-18.81	100	66	Peak	Horizontal	
4	28800.00	53.45	47.51	5.94	54.00	-0.55	300	51	Average	Horizontal	
5	28800.00	57.89	51.95	5.94	74.00	-16.11	300	51	Peak	Horizontal	



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	Freq	Level	Read Level	Factor	Limit Line	Over Limit	APos	TPos	Remark	Pol/Phase	Note
	MHz	dBuV/m	dBuV	dB/m	dBuV/m	dB	cm	deg			
1	1757.00	52.07	69.42	-17.35	74.00	-21.93	400	25	Peak	Vertical	
2	19203.00	50.85	52.75	-1.90	74.00	-23.15	200	132	Peak	Vertical	
3	28800.00	53.12	47.18	5.94	74.00	-20.88	224	0	Peak	Vertical	

Above 40GHz

TX_40G~50G_H				
Frequency (GHz)	Measurement Distance (m)	Cal. Measurement Distance (1m to 3m) Level Power Density (W/cm ²)	Power Density (pW/cm ²)	Limit@3m (pW/cm ²)
45.6	1	0.000000003	0.29	600
TX_40G~50G_V				
Frequency (GHz)	Measurement Distance (m)	Cal. Measurement Distance (1m to 3m) Level Power Density (W/cm ²)	Power Density (pW/cm ²)	Limit@3m (pW/cm ²)
45.27	1	0.000000002	0.18	600
TX_50G~75G_H				
Frequency (GHz)	Measurement Distance (m)	Cal. Measurement Distance (1m to 3m) Level Power Density (W/cm ²)	Power Density (pW/cm ²)	Limit@3m (pW/cm ²)
57.45	1	0.000000003	0.03	600
TX_50G~75G_V				
Frequency (GHz)	Measurement Distance (m)	Cal. Measurement Distance (1m to 3m) Level Power Density (W/cm ²)	Power Density (pW/cm ²)	Limit@3m (pW/cm ²)
52.25	1	0.000000002	0.02	600
TX_75G~110G_H				
Frequency (GHz)	Measurement Distance (m)	Cal. Measurement Distance (1m to 3m) Level Power Density (W/cm ²)	Power Density (pW/cm ²)	Limit@3m (pW/cm ²)
83.575	1	0.000000034	3.41	600
TX_75G~110G_V				
Frequency (GHz)	Measurement Distance (m)	Cal. Measurement Distance (1m to 3m) Level Power Density (W/cm ²)	Power Density (pW/cm ²)	Limit@3m (pW/cm ²)
83.54	1	0.000000001	0.11	600

TX 110G~140G_H				
Frequency (GHz)	Measurement Distance (m)	Cal. Measurement Distance (1m to 3m) Level Power Density (W/cm ²)	Power Density (pW/cm ²)	Limit@3m (pW/cm ²)
118.01	1	0.000000001	0.11	600
TX 110G~140G_V				
Frequency (GHz)	Measurement Distance (m)	Cal. Measurement Distance (1m to 3m) Level Power Density (W/cm ²)	Power Density (pW/cm ²)	Limit@3m (pW/cm ²)
136.82	1	0.000000001	0.14	600
TX 140G~231G_H				
Frequency (GHz)	Measurement Distance (m)	Cal. Measurement Distance (1m to 3m) Level Power Density (W/cm ²)	Power Density (pW/cm ²)	Limit@3m (pW/cm ²)
152.85	1	0.000000002	0.15	600
TX 140G~231G_V				
Frequency (GHz)	Measurement Distance (m)	Cal. Measurement Distance (1m to 3m) Level Power Density (W/cm ²)	Power Density (pW/cm ²)	Limit@3m (pW/cm ²)
152.85	1	0.000000001	0.13	600

Appendix B.4: Frequency stability

Test Temperature (°C)	Test Voltage (Vdc)	Measured Frequency (GHz)	Delta Frequency (kHz)	Limit (Within 76GHz to 81GHz)
50	12	76.4254	2082.04	Within assigned band
40	12	76.4218	-1523.63	
30	12	76.4207	-2554.94	
20	12	76.4233	0.00	
10	12	76.4249	1620.17	
0	12	76.4239	648.95	
-10	12	76.4231	-195.65	
-20	12	76.4297	6390.44	
Test Temperature (°C)	Test Voltage (Vdc)	Measured Frequency (GHz)	Delta Frequency (kHz)	Limit (Within 76GHz to 81GHz)
20	13.8	76.4249	1637.21	Within assigned band
20	12	76.4233	0.00	
20	10.2	76.4184	-4869.38	