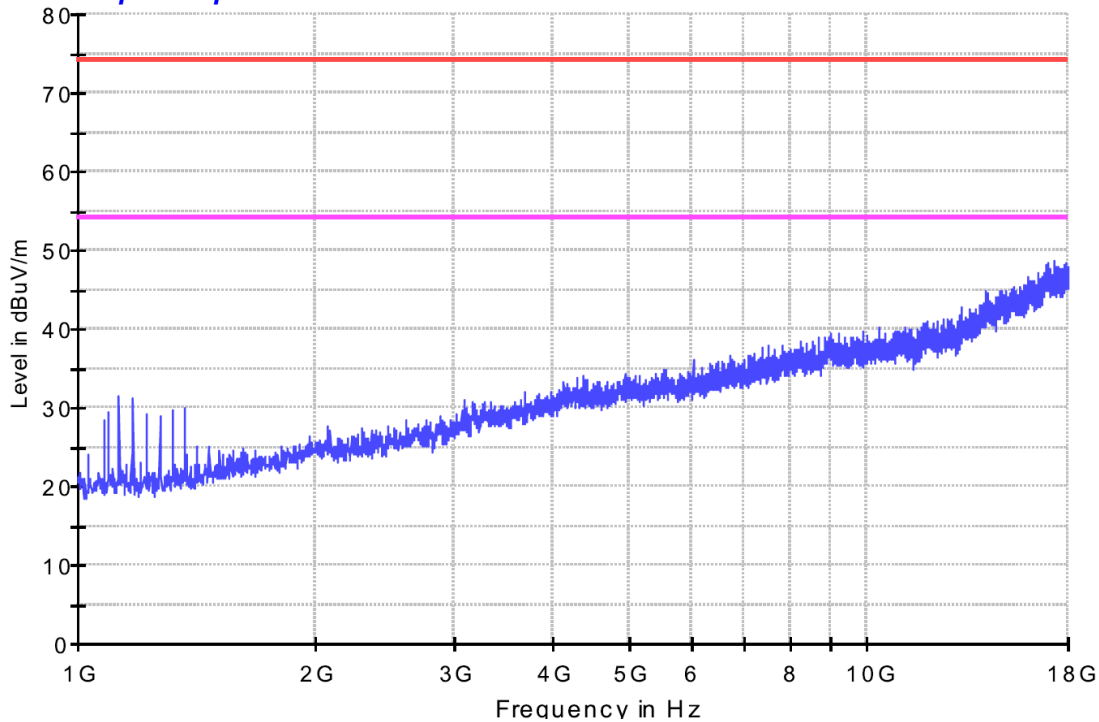


Prepared by: Dr Vitas Anderson (Two Fields Consulting)
Date: 16 June 2022

FCC ID: SWSH1000 (Configuration 1, Figure/Page 18, Class B device)
Frequency span: 1 GHz to 18 GHz
RBW: 0.001 GHz, distance: 3 m
Peak-to-average correction: N/A
No. of sample points: 17,000
Cumulative S level: $5.099\text{E-}07 \text{ W/m}^2$
Device radiated power: 0.0352 mW

EMC test spectral plot



Plot of extracted data from EMC test spectral plot

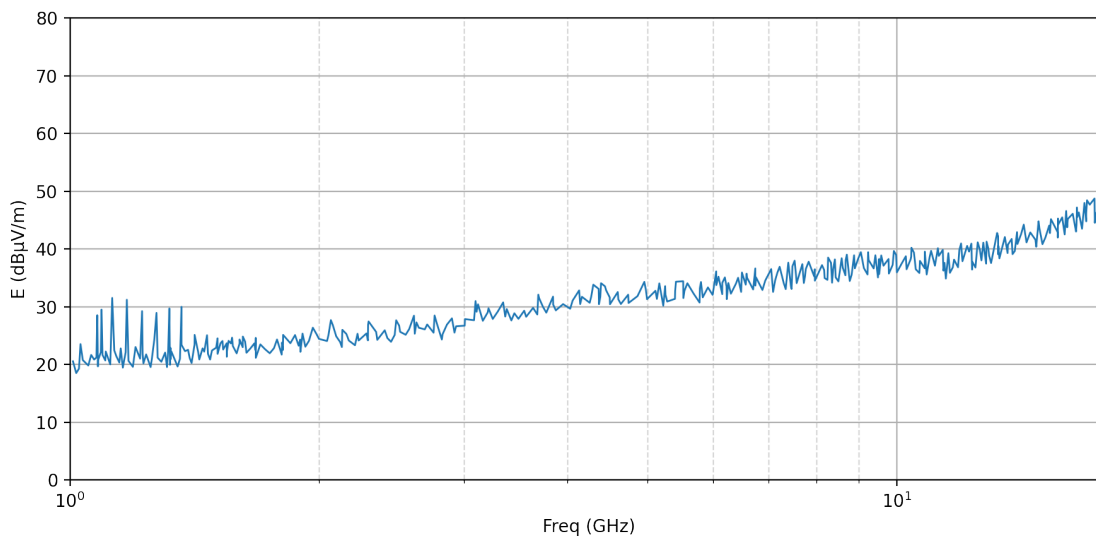


Table of extracted data from EMC test spectral plot

Freq (GHz)	E (dBμV/m)	E (V/m rms)	S (W/m²)
1.008	20.56	2.056E+01	3.015E-13
1.017	18.52	1.852E+01	1.886E-13
1.025	19.29	1.929E+01	2.253E-13
1.03	23.54	2.354E+01	5.989E-13
1.036	20.77	2.077E+01	3.167E-13
1.052	19.83	1.983E+01	2.552E-13
1.061	21.66	2.166E+01	3.889E-13
1.069	20.86	2.086E+01	3.235E-13
1.076	21.22	2.122E+01	3.512E-13
1.079	28.54	2.854E+01	1.893E-12
1.081	19.68	1.968E+01	2.463E-13
1.081	20.73	2.073E+01	3.137E-13
1.09	22.13	2.213E+01	4.334E-13
1.092	29.51	2.951E+01	2.369E-12
1.095	21.66	2.166E+01	3.889E-13
1.103	20.71	2.071E+01	3.122E-13
1.105	22.25	2.225E+01	4.454E-13
1.119	20.02	2.002E+01	2.666E-13
1.12	21.96	2.196E+01	4.162E-13
1.125	31.53	3.153E+01	3.774E-12
1.131	22.44	2.244E+01	4.655E-13
1.138	21.43	2.143E+01	3.683E-13
1.147	20.35	2.035E+01	2.874E-13
1.152	22.79	2.279E+01	5.043E-13
1.158	19.46	1.946E+01	2.345E-13
1.168	22.12	2.212E+01	4.319E-13
1.171	31.22	3.122E+01	3.509E-12
1.177	20.64	2.064E+01	3.073E-13
1.191	19.60	1.960E+01	2.420E-13
1.2	23.03	2.303E+01	5.326E-13
1.215	21.02	2.102E+01	3.358E-13
1.222	29.24	2.924E+01	2.229E-12
1.224	21.81	2.181E+01	4.020E-13
1.227	20.20	2.020E+01	2.778E-13
1.236	21.75	2.175E+01	3.967E-13
1.252	19.56	1.956E+01	2.397E-13
1.256	20.89	2.089E+01	3.259E-13
1.265	24.39	2.439E+01	7.291E-13
1.272	28.94	2.894E+01	2.079E-12
1.276	21.18	2.118E+01	3.481E-13
1.29	20.48	2.048E+01	2.962E-13
1.303	22.06	2.206E+01	4.263E-13
1.31	19.56	1.956E+01	2.397E-13
1.314	22.46	2.246E+01	4.672E-13
1.319	29.70	2.970E+01	2.478E-12
1.321	19.96	1.996E+01	2.626E-13

Calculate device radiated power from EMC test data

1.323	22.89	2.289E+01	5.154E-13
1.323	20.91	2.091E+01	3.268E-13
1.326	22.25	2.225E+01	4.449E-13
1.349	19.66	1.966E+01	2.452E-13
1.358	21.00	2.100E+01	3.341E-13
1.364	29.99	2.999E+01	2.646E-12
1.364	23.41	2.341E+01	5.821E-13
1.377	22.32	2.232E+01	4.520E-13
1.389	22.54	2.254E+01	4.765E-13
1.395	21.11	2.111E+01	3.428E-13
1.403	20.27	2.027E+01	2.820E-13
1.414	23.43	2.343E+01	5.849E-13
1.415	25.13	2.513E+01	8.643E-13
1.429	22.10	2.210E+01	4.300E-13
1.433	20.88	2.088E+01	3.247E-13
1.446	22.80	2.280E+01	5.054E-13
1.453	22.23	2.223E+01	4.434E-13
1.464	25.07	2.507E+01	8.530E-13
1.468	21.85	2.185E+01	4.064E-13
1.477	20.87	2.087E+01	3.240E-13
1.485	22.43	2.243E+01	4.642E-13
1.502	22.91	2.291E+01	5.188E-13
1.508	24.53	2.453E+01	7.533E-13
1.508	21.85	2.185E+01	4.064E-13
1.52	23.68	2.368E+01	6.182E-13
1.529	24.08	2.408E+01	6.784E-13
1.532	22.60	2.260E+01	4.828E-13
1.547	23.68	2.368E+01	6.190E-13
1.547	21.35	2.135E+01	3.616E-13
1.548	22.25	2.225E+01	4.455E-13
1.555	24.11	2.411E+01	6.829E-13
1.565	23.65	2.365E+01	6.150E-13
1.57	24.65	2.465E+01	7.733E-13
1.574	23.21	2.321E+01	5.553E-13
1.59	21.93	2.193E+01	4.139E-13
1.603	23.65	2.365E+01	6.150E-13
1.603	24.33	2.433E+01	7.196E-13
1.617	23.00	2.300E+01	5.295E-13
1.618	24.85	2.485E+01	8.095E-13
1.628	23.95	2.395E+01	6.587E-13
1.634	22.03	2.203E+01	4.238E-13
1.652	22.77	2.277E+01	5.021E-13
1.671	23.65	2.365E+01	6.150E-13
1.675	22.52	2.252E+01	4.742E-13
1.677	24.62	2.462E+01	7.682E-13
1.677	21.16	2.116E+01	3.466E-13
1.699	23.49	2.349E+01	5.919E-13
1.721	22.66	2.266E+01	4.893E-13
1.744	21.95	2.195E+01	4.153E-13

1.765	22.83	2.283E+01	5.094E-13
1.78	24.33	2.433E+01	7.196E-13
1.803	21.72	2.172E+01	3.941E-13
1.804	23.81	2.381E+01	6.371E-13
1.809	22.52	2.252E+01	4.741E-13
1.81	25.13	2.513E+01	8.643E-13
1.847	23.69	2.369E+01	6.203E-13
1.871	25.10	2.510E+01	8.586E-13
1.89	23.26	2.326E+01	5.619E-13
1.898	24.32	2.432E+01	7.167E-13
1.899	22.20	2.220E+01	4.405E-13
1.911	25.36	2.536E+01	9.107E-13
1.926	23.08	2.308E+01	5.396E-13
1.945	24.10	2.410E+01	6.819E-13
1.966	26.38	2.638E+01	1.153E-12
1.986	25.26	2.526E+01	8.903E-13
2.0	24.44	2.444E+01	7.378E-13
2.046	24.07	2.407E+01	6.766E-13
2.054	25.11	2.511E+01	8.608E-13
2.067	27.69	2.769E+01	1.557E-12
2.078	26.84	2.684E+01	1.282E-12
2.098	24.89	2.489E+01	8.187E-13
2.121	23.90	2.390E+01	6.509E-13
2.132	23.03	2.303E+01	5.326E-13
2.134	26.01	2.601E+01	1.059E-12
2.159	25.28	2.528E+01	8.954E-13
2.173	24.15	2.415E+01	6.902E-13
2.211	23.34	2.334E+01	5.723E-13
2.227	25.33	2.533E+01	9.043E-13
2.234	24.16	2.416E+01	6.908E-13
2.283	25.38	2.538E+01	9.164E-13
2.292	24.18	2.418E+01	6.941E-13
2.293	26.89	2.689E+01	1.297E-12
2.296	27.46	2.746E+01	1.478E-12
2.345	25.64	2.564E+01	9.730E-13
2.353	24.27	2.427E+01	7.094E-13
2.402	25.93	2.593E+01	1.039E-12
2.42	24.57	2.457E+01	7.605E-13
2.444	23.94	2.394E+01	6.566E-13
2.47	25.13	2.513E+01	8.641E-13
2.48	27.66	2.766E+01	1.547E-12
2.5	26.73	2.673E+01	1.248E-12
2.507	25.66	2.566E+01	9.769E-13
2.546	25.15	2.515E+01	8.689E-13
2.571	26.13	2.613E+01	1.089E-12
2.606	28.45	2.845E+01	1.858E-12
2.611	25.33	2.533E+01	9.054E-13
2.624	27.29	2.729E+01	1.421E-12
2.641	26.37	2.637E+01	1.149E-12

2.685	26.09	2.609E+01	1.077E-12
2.703	26.94	2.694E+01	1.310E-12
2.752	25.51	2.551E+01	9.439E-13
2.759	28.48	2.848E+01	1.870E-12
2.778	27.07	2.707E+01	1.353E-12
2.816	24.33	2.433E+01	7.196E-13
2.822	25.23	2.523E+01	8.849E-13
2.856	26.91	2.691E+01	1.301E-12
2.896	27.99	2.799E+01	1.671E-12
2.917	25.53	2.553E+01	9.475E-13
2.93	26.62	2.662E+01	1.218E-12
3.001	26.73	2.673E+01	1.249E-12
3.004	27.87	2.787E+01	1.623E-12
3.08	27.67	2.767E+01	1.552E-12
3.093	30.98	3.098E+01	3.327E-12
3.102	29.13	2.913E+01	2.173E-12
3.114	30.42	3.042E+01	2.924E-12
3.156	27.57	2.757E+01	1.516E-12
3.199	29.01	2.901E+01	2.113E-12
3.207	29.73	2.973E+01	2.495E-12
3.245	27.89	2.789E+01	1.632E-12
3.29	29.17	2.917E+01	2.192E-12
3.34	30.76	3.076E+01	3.157E-12
3.359	28.31	2.831E+01	1.796E-12
3.374	29.60	2.960E+01	2.418E-12
3.417	27.63	2.763E+01	1.537E-12
3.446	28.87	2.887E+01	2.046E-12
3.485	27.91	2.791E+01	1.639E-12
3.542	29.31	2.931E+01	2.265E-12
3.561	28.27	2.827E+01	1.779E-12
3.63	29.81	2.981E+01	2.539E-12
3.673	28.66	2.866E+01	1.950E-12
3.683	32.09	3.209E+01	4.294E-12
3.692	31.49	3.149E+01	3.738E-12
3.732	29.96	2.996E+01	2.629E-12
3.767	28.98	2.898E+01	2.097E-12
3.838	31.75	3.175E+01	3.969E-12
3.839	30.37	3.037E+01	2.889E-12
3.868	29.38	2.938E+01	2.299E-12
3.947	30.46	3.046E+01	2.947E-12
4.026	29.67	2.967E+01	2.456E-12
4.053	31.07	3.107E+01	3.396E-12
4.127	32.83	3.283E+01	5.093E-12
4.139	30.47	3.047E+01	2.953E-12
4.16	31.73	3.173E+01	3.947E-12
4.25	30.69	3.069E+01	3.109E-12
4.268	31.75	3.175E+01	3.966E-12
4.293	33.83	3.383E+01	6.400E-12
4.357	33.10	3.310E+01	5.414E-12

4.362	30.45	3.045E+01	2.939E-12
4.378	31.73	3.173E+01	3.952E-12
4.386	34.08	3.408E+01	6.788E-12
4.435	33.54	3.354E+01	5.994E-12
4.449	32.87	3.287E+01	5.133E-12
4.494	31.61	3.161E+01	3.847E-12
4.497	30.44	3.044E+01	2.934E-12
4.595	32.55	3.255E+01	4.770E-12
4.603	31.28	3.128E+01	3.565E-12
4.636	30.48	3.048E+01	2.961E-12
4.731	32.09	3.209E+01	4.291E-12
4.736	30.65	3.065E+01	3.083E-12
4.855	31.84	3.184E+01	4.050E-12
4.949	34.31	3.431E+01	7.153E-12
4.971	32.89	3.289E+01	5.160E-12
4.986	31.31	3.131E+01	3.585E-12
5.104	32.77	3.277E+01	5.015E-12
5.124	31.36	3.136E+01	3.632E-12
5.159	34.05	3.405E+01	6.744E-12
5.217	30.19	3.019E+01	2.770E-12
5.244	33.57	3.357E+01	6.034E-12
5.249	32.07	3.207E+01	4.270E-12
5.274	30.91	3.091E+01	3.269E-12
5.389	31.37	3.137E+01	3.634E-12
5.392	32.71	3.271E+01	4.947E-12
5.404	34.34	3.434E+01	7.200E-12
5.514	34.42	3.442E+01	7.342E-12
5.517	31.51	3.151E+01	3.753E-12
5.533	32.76	3.276E+01	5.011E-12
5.579	34.07	3.407E+01	6.775E-12
5.677	32.27	3.227E+01	4.474E-12
5.771	30.73	3.073E+01	3.136E-12
5.776	33.21	3.321E+01	5.551E-12
5.794	34.28	3.428E+01	7.106E-12
5.822	31.63	3.163E+01	3.861E-12
5.907	33.35	3.335E+01	5.736E-12
5.985	32.05	3.205E+01	4.251E-12
6.045	36.13	3.613E+01	1.087E-11
6.048	33.76	3.376E+01	6.298E-12
6.083	35.21	3.521E+01	8.801E-12
6.147	32.19	3.219E+01	4.389E-12
6.148	34.14	3.414E+01	6.877E-12
6.192	35.08	3.508E+01	8.535E-12
6.221	33.51	3.351E+01	5.949E-12
6.225	31.32	3.132E+01	3.598E-12
6.253	34.11	3.411E+01	6.832E-12
6.297	32.26	3.226E+01	4.465E-12
6.386	34.00	3.400E+01	6.660E-12
6.425	35.02	3.502E+01	8.425E-12

6.479	32.57	3.257E+01	4.799E-12
6.494	35.93	3.593E+01	1.039E-11
6.563	33.83	3.383E+01	6.409E-12
6.579	35.73	3.573E+01	9.921E-12
6.587	35.03	3.503E+01	8.449E-12
6.7	33.00	3.300E+01	5.290E-12
6.74	36.64	3.664E+01	1.223E-11
6.742	33.67	3.367E+01	6.178E-12
6.754	35.08	3.508E+01	8.549E-12
6.875	32.90	3.290E+01	5.176E-12
6.93	34.53	3.453E+01	7.536E-12
7.045	36.52	3.652E+01	1.192E-11
7.074	33.38	3.338E+01	5.774E-12
7.082	32.57	3.257E+01	4.799E-12
7.123	34.56	3.456E+01	7.585E-12
7.169	35.93	3.593E+01	1.039E-11
7.213	36.92	3.692E+01	1.306E-11
7.296	34.06	3.406E+01	6.760E-12
7.336	33.06	3.306E+01	5.363E-12
7.363	35.50	3.550E+01	9.419E-12
7.389	37.63	3.763E+01	1.538E-11
7.443	33.53	3.353E+01	5.980E-12
7.457	33.09	3.309E+01	5.399E-12
7.474	37.00	3.700E+01	1.329E-11
7.52	37.97	3.797E+01	1.664E-11
7.55	35.43	3.543E+01	9.264E-12
7.563	34.09	3.409E+01	6.805E-12
7.684	37.38	3.738E+01	1.450E-11
7.715	34.11	3.411E+01	6.837E-12
7.742	35.30	3.530E+01	8.993E-12
7.758	36.54	3.654E+01	1.196E-11
7.82	37.80	3.780E+01	1.599E-11
7.938	35.30	3.530E+01	8.995E-12
7.956	36.50	3.650E+01	1.184E-11
7.956	34.51	3.451E+01	7.500E-12
8.116	37.21	3.721E+01	1.394E-11
8.165	36.36	3.636E+01	1.147E-11
8.175	34.97	3.497E+01	8.331E-12
8.24	34.66	3.466E+01	7.752E-12
8.255	38.51	3.851E+01	1.884E-11
8.322	37.60	3.760E+01	1.527E-11
8.347	34.17	3.417E+01	6.922E-12
8.371	36.48	3.648E+01	1.178E-11
8.412	38.20	3.820E+01	1.753E-11
8.431	35.09	3.509E+01	8.557E-12
8.495	34.39	3.439E+01	7.294E-12
8.573	38.40	3.840E+01	1.835E-11
8.599	36.77	3.677E+01	1.261E-11
8.662	35.45	3.545E+01	9.301E-12

8.669	38.07	3.807E+01	1.703E-11
8.697	39.03	3.903E+01	2.119E-11
8.767	34.46	3.446E+01	7.407E-12
8.814	35.53	3.553E+01	9.480E-12
8.874	38.91	3.891E+01	2.064E-11
8.893	36.65	3.665E+01	1.228E-11
8.975	38.31	3.831E+01	1.796E-11
9.043	39.45	3.945E+01	2.338E-11
9.119	36.70	3.670E+01	1.240E-11
9.213	35.59	3.559E+01	9.613E-12
9.228	39.45	3.945E+01	2.338E-11
9.241	38.09	3.809E+01	1.707E-11
9.371	36.64	3.664E+01	1.222E-11
9.416	38.91	3.891E+01	2.064E-11
9.484	35.08	3.508E+01	8.535E-12
9.514	38.27	3.827E+01	1.782E-11
9.517	35.66	3.566E+01	9.761E-12
9.571	38.88	3.888E+01	2.051E-11
9.631	37.11	3.711E+01	1.363E-11
9.768	38.27	3.827E+01	1.780E-11
9.777	35.75	3.575E+01	9.959E-12
9.88	37.24	3.724E+01	1.406E-11
9.914	39.65	3.965E+01	2.447E-11
9.975	38.98	3.898E+01	2.097E-11
9.998	35.96	3.596E+01	1.045E-11
10.136	37.54	3.754E+01	1.504E-11
10.249	38.74	3.874E+01	1.985E-11
10.271	36.49	3.649E+01	1.183E-11
10.387	38.21	3.821E+01	1.758E-11
10.404	38.68	3.868E+01	1.959E-11
10.411	40.22	4.022E+01	2.789E-11
10.484	39.37	3.937E+01	2.292E-11
10.537	36.49	3.649E+01	1.183E-11
10.644	35.84	3.584E+01	1.018E-11
10.66	37.94	3.794E+01	1.651E-11
10.803	36.65	3.665E+01	1.228E-11
10.805	39.54	3.954E+01	2.384E-11
10.861	35.59	3.559E+01	9.601E-12
10.953	38.64	3.864E+01	1.941E-11
10.997	39.68	3.968E+01	2.463E-11
11.115	37.12	3.712E+01	1.366E-11
11.206	40.13	4.013E+01	2.735E-11
11.235	38.81	3.881E+01	2.016E-11
11.361	39.85	3.985E+01	2.562E-11
11.38	36.25	3.625E+01	1.120E-11
11.415	37.60	3.760E+01	1.527E-11
11.458	34.88	3.488E+01	8.153E-12
11.538	39.28	3.928E+01	2.245E-11
11.588	35.88	3.588E+01	1.027E-11

11.681	36.82	3.682E+01	1.274E-11
11.722	38.16	3.816E+01	1.735E-11
11.853	36.84	3.684E+01	1.280E-11
11.896	39.82	3.982E+01	2.543E-11
11.953	40.96	4.096E+01	3.307E-11
12.0	37.89	3.789E+01	1.631E-11
12.158	40.53	4.053E+01	2.998E-11
12.223	39.55	3.955E+01	2.393E-11
12.301	40.93	4.093E+01	3.285E-11
12.325	36.44	3.644E+01	1.168E-11
12.334	37.79	3.779E+01	1.596E-11
12.442	36.80	3.680E+01	1.269E-11
12.52	41.16	4.116E+01	3.462E-11
12.593	39.93	3.993E+01	2.610E-11
12.651	38.03	3.803E+01	1.687E-11
12.717	41.10	4.110E+01	3.417E-11
12.817	37.46	3.746E+01	1.479E-11
12.834	41.27	4.127E+01	3.553E-11
12.895	40.09	4.009E+01	2.705E-11
12.927	38.82	3.882E+01	2.023E-11
12.995	37.57	3.757E+01	1.517E-11
13.216	42.78	4.278E+01	5.026E-11
13.252	42.20	4.220E+01	4.400E-11
13.256	39.09	3.909E+01	2.149E-11
13.259	40.53	4.053E+01	2.995E-11
13.3	38.38	3.838E+01	1.826E-11
13.503	42.07	4.207E+01	4.268E-11
13.606	39.30	3.930E+01	2.256E-11
13.62	40.75	4.075E+01	3.152E-11
13.762	41.74	4.174E+01	3.956E-11
13.796	39.11	3.911E+01	2.162E-11
13.883	39.65	3.965E+01	2.447E-11
13.969	42.92	4.292E+01	5.193E-11
13.986	40.87	4.087E+01	3.241E-11
14.129	42.59	4.259E+01	4.816E-11
14.232	44.22	4.422E+01	7.001E-11
14.342	41.14	4.114E+01	3.451E-11
14.494	42.87	4.287E+01	5.134E-11
14.702	41.61	4.161E+01	3.845E-11
14.736	40.39	4.039E+01	2.902E-11
14.832	44.79	4.479E+01	7.998E-11
14.868	43.57	4.357E+01	6.034E-11
14.994	40.84	4.084E+01	3.217E-11
15.115	41.97	4.197E+01	4.170E-11
15.279	44.06	4.406E+01	6.754E-11
15.31	42.75	4.275E+01	4.995E-11
15.353	45.16	4.516E+01	8.708E-11
15.647	42.88	4.288E+01	5.148E-11
15.647	41.98	4.198E+01	4.183E-11

Calculate device radiated power from EMC test data

15.656	45.28	4.528E+01	8.939E-11
15.667	44.24	4.424E+01	7.046E-11
15.841	45.48	4.548E+01	9.358E-11
15.95	42.52	4.252E+01	4.740E-11
16.018	46.58	4.658E+01	1.208E-10
16.06	43.75	4.375E+01	6.295E-11
16.09	45.20	4.520E+01	8.780E-11
16.313	46.10	4.610E+01	1.081E-10
16.463	43.02	4.302E+01	5.315E-11
16.484	44.11	4.411E+01	6.834E-11
16.505	47.18	4.718E+01	1.386E-10
16.521	45.55	4.555E+01	9.521E-11
16.592	46.33	4.633E+01	1.139E-10
16.74	43.51	4.351E+01	5.952E-11
16.853	47.98	4.798E+01	1.664E-10
16.936	44.79	4.479E+01	7.989E-11
16.938	46.22	4.622E+01	1.112E-10
16.975	48.43	4.843E+01	1.848E-10
17.104	47.68	4.768E+01	1.554E-10
17.332	48.74	4.874E+01	1.986E-10
17.349	44.53	4.453E+01	7.528E-11
17.379	45.89	4.589E+01	1.029E-10
17.573	47.40	4.740E+01	1.456E-10
17.723	44.56	4.456E+01	7.580E-11
17.87	45.96	4.596E+01	1.045E-10
17.906	48.23	4.823E+01	1.765E-10
17.952	47.70	4.770E+01	1.563E-10
18.08	45.80	4.580E+01	1.007E-10