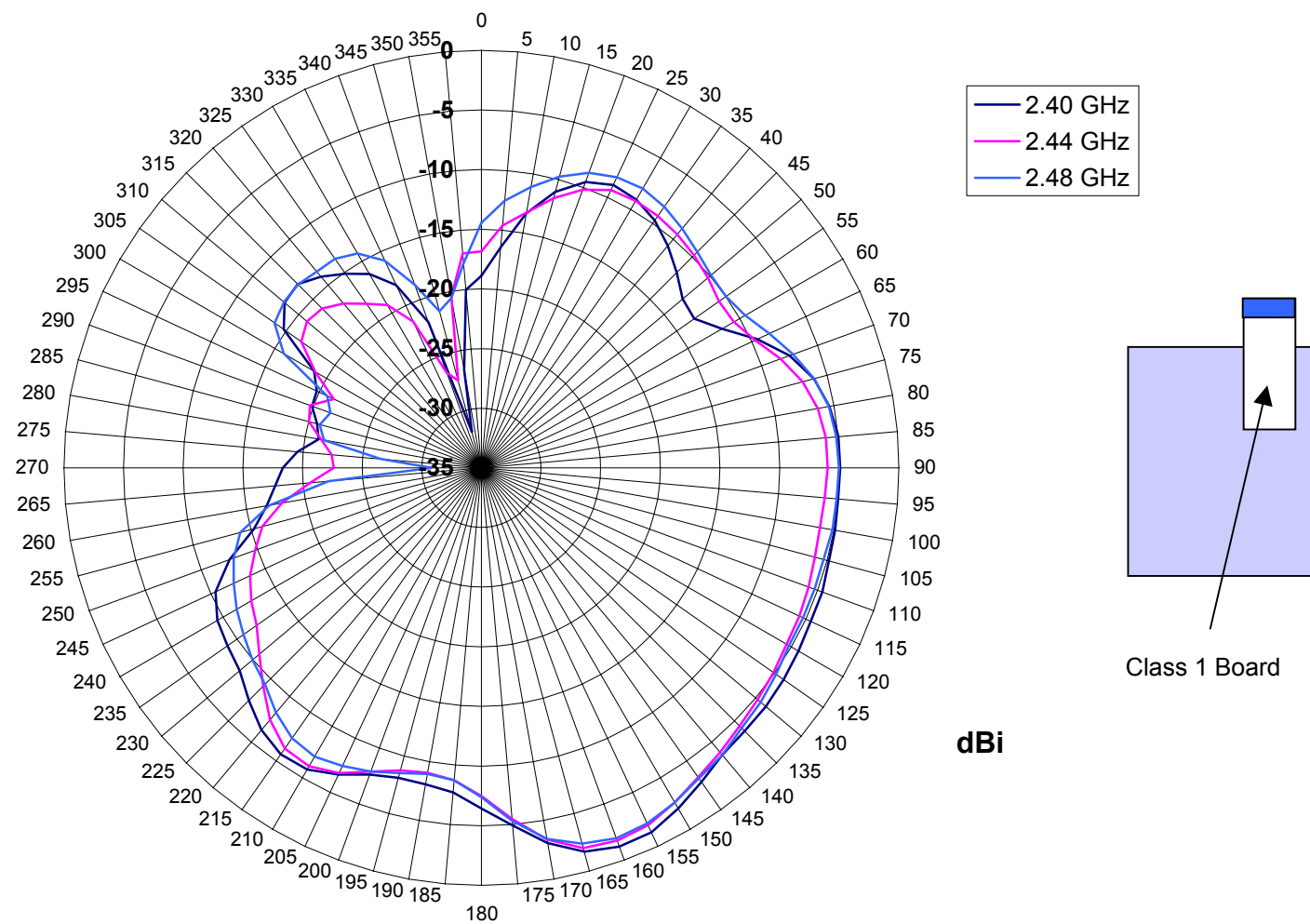
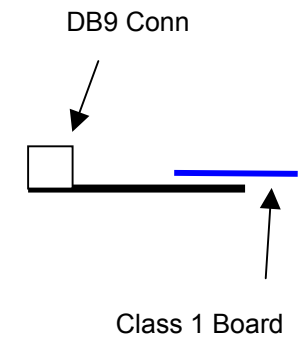
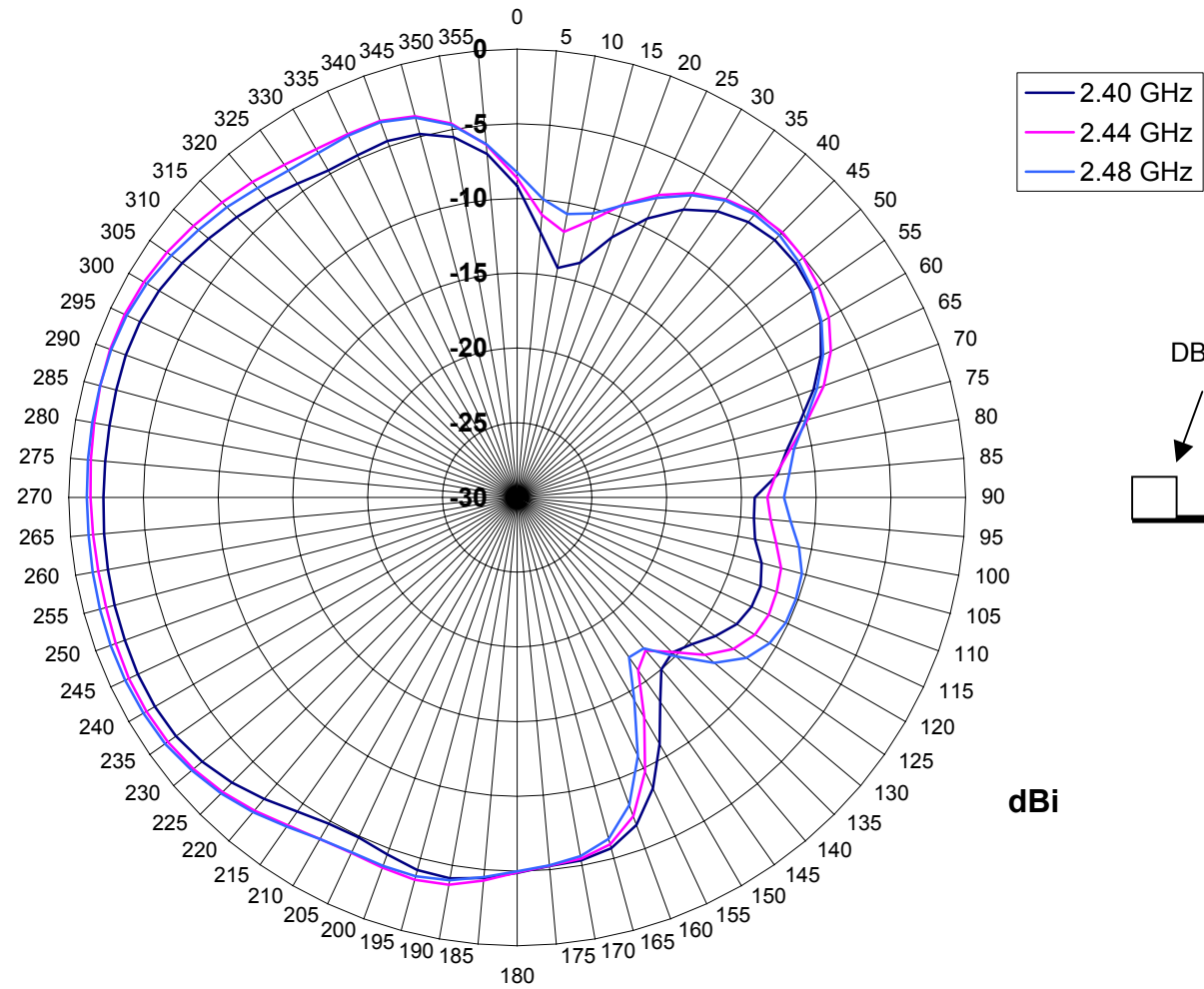


Note: Antenna is a PCB trace on the Bluetooth Module. Because it is integral to the device, it is compliant with FCC 15.203 requirements.

Printed Antenna on Class 1 Board; w/ Adaptor Board and DC Power Cable



Printed Antenna on Class 1 Board; w/ Adaptor Board and DC Power Cable



Azimuth Pattern

Peak Gain (dBi) = -1.23075 -1.78221 -1.97694

	2.40 GHz	2.44 GHz	2.48 GHz
0	-18.90833	-16.87548	-14.46603
5	-16.43053	-14.62488	-12.54679
10	-13.34451	-13.28617	-11.10282
15	-11.04139	-11.58832	-9.72702
20	-9.49914	-10.19664	-8.69333
25	-8.85623	-9.29336	-8.12623
30	-9.04384	-9.14629	-7.99142
35	-9.70756	-9.22085	-8.27832
40	-10.69804	-9.47839	-8.83683
45	-11.85154	-9.80237	-9.40099
50	-12.9903	-10.23013	-9.91397
55	-13.20998	-10.69463	-9.98839
60	-11.73517	-10.56776	-9.4698
65	-9.47243	-9.70472	-8.38048
70	-7.53182	-8.33001	-7.19935
75	-6.16755	-7.13913	-6.14586
80	-5.3829	-6.38536	-5.43494
85	-4.96728	-6.0421	-5.14836
90	-4.94898	-5.99836	-5.03193
95	-4.98571	-6.14151	-5.10165
100	-4.91408	-6.17776	-5.14745
105	-4.86398	-6.05006	-5.30721
110	-4.59319	-5.84495	-5.29338
115	-4.55744	-5.61679	-5.25742
120	-4.32774	-5.47679	-5.22889
125	-4.09968	-5.12597	-4.83685
130	-3.89811	-4.7884	-4.47705
135	-3.80568	-4.42089	-4.16006
140	-3.58144	-3.88843	-3.58152
145	-2.85991	-3.35373	-3.25342
150	-2.04258	-2.6092	-2.60989
155	-1.3288	-1.96172	-2.14151
160	-1.23075	-1.78221	-1.97694
165	-1.69033	-2.02264	-2.39589
170	-3.09561	-3.38707	-3.43096
175	-4.91304	-5.45289	-5.28217
180	-6.46996	-7.50792	-7.41312
185	-7.72069	-8.72264	-8.73844
190	-8.08717	-9.06729	-8.95171
195	-8.1149	-8.76827	-8.53858
200	-7.64759	-7.93749	-7.93323
205	-6.65111	-6.7968	-7.42915
210	-5.82056	-6.12461	-7.06761
215	-5.6895	-6.29285	-7.36613

Elevation Pattern

-2.006266 -1.037943 -1.065933

	2.40 GHz	2.44 GHz	2.48 GHz
0	-9.160888	-8.637012	-8.266529
5	-12.18249	-11.02493	-9.973262
10	-14.40816	-11.95577	-10.7521
15	-13.74909	-10.7972	-10.33241
20	-11.46982	-9.110342	-9.198091
25	-9.414347	-7.679699	-7.887162
30	-7.759455	-6.505565	-6.654611
35	-6.638519	-5.657063	-5.748193
40	-5.952101	-5.131969	-5.29615
45	-5.65024	-4.918756	-5.200534
50	-5.670627	-5.039235	-5.434415
55	-5.937057	-5.381953	-5.856371
60	-6.552597	-5.918911	-6.504365
65	-7.590194	-6.853382	-7.416608
70	-8.910665	-8.183635	-8.659559
75	-10.42473	-9.893233	-10.02584
80	-11.68897	-11.46568	-11.18159
85	-12.53023	-12.65121	-11.72974
90	-14.11737	-13.26988	-12.1555
95	-14.10187	-12.97919	-11.63117
100	-13.84017	-12.41258	-10.86573
105	-13.07998	-11.72828	-10.2828
110	-12.66905	-11.53302	-10.15465
115	-12.7061	-11.42801	-10.18248
120	-13.05774	-11.63955	-10.51116
125	-13.82859	-12.33357	-11.29422
130	-14.73351	-13.60728	-12.7905
135	-15.32696	-15.37802	-14.95796
140	-14.98699	-16.63277	-16.82558
145	-13.31049	-15.90321	-16.95014
150	-10.95266	-13.01188	-14.32784
155	-8.52983	-9.756866	-10.90553
160	-6.683016	-7.304085	-8.092056
165	-5.707751	-5.979442	-6.363689
170	-5.350864	-5.467906	-5.629998
175	-5.250532	-5.273756	-5.297385
180	-4.890285	-4.918119	-4.987824
185	-4.444683	-4.278977	-4.514767
190	-4.13221	-3.702389	-3.997285
195	-4.196367	-3.528836	-3.765191
200	-4.59883	-3.640774	-3.77934
205	-4.906649	-3.766038	-3.813608
210	-4.796404	-3.615267	-3.612649
215	-4.349221	-3.226615	-3.119839

220	-6.34525	-7.42664	-8.24461	-3.682412	-2.66086	-2.520975
225	-7.466	-9.12939	-9.3527	-3.02958	-2.135429	-2.004283
230	-8.56263	-10.71169	-9.95031	-2.503506	-1.742262	-1.598
235	-9.02471	-11.98958	-10.64188	-2.147642	-1.486913	-1.264991
240	-9.45566	-12.71879	-11.33033	-2.017285	-1.365911	-1.135995
245	-10.42724	-13.62161	-12.10431	-2.006266	-1.348028	-1.065933
250	-12.55382	-14.81553	-12.91481	-2.069617	-1.435978	-1.072295
255	-15.27255	-15.97942	-14.06627	-2.12776	-1.543367	-1.110129
260	-16.73935	-18.02638	-16.97203	-2.201172	-1.563359	-1.172076
265	-17.62684	-20.61219	-22.13693	-2.268811	-1.531087	-1.234756
270	-18.35336	-22.62857	-30.83386	-2.330534	-1.465265	-1.217892
275	-19.54445	-22.39594	-26.53411	-2.346656	-1.379935	-1.190877
280	-21.15634	-21.37083	-21.6063	-2.320439	-1.267069	-1.146373
285	-20.75808	-20.0518	-20.97058	-2.236097	-1.13625	-1.117978
290	-19.88718	-19.71594	-21.53607	-2.1497	-1.037943	-1.106237
295	-19.78113	-21.34298	-20.74565	-2.166465	-1.040048	-1.186365
300	-18.81554	-18.92622	-15.8756	-2.342095	-1.177438	-1.391992
305	-14.76333	-16.55734	-13.85727	-2.659877	-1.410302	-1.767505
310	-13.47836	-15.92768	-13.4057	-3.073546	-1.744359	-2.168527
315	-13.23632	-16.1478	-13.27369	-3.485019	-2.08368	-2.546265
320	-14.08843	-17.02678	-13.53445	-3.901876	-2.448459	-2.988078
325	-15.1437	-18.21226	-13.61755	-4.376491	-2.830161	-3.317284
330	-16.24838	-19.23415	-14.26783	-4.744809	-3.09862	-3.39607
335	-18.07568	-21.47015	-15.84133	-4.751252	-3.181208	-3.2947
340	-22.01998	-26.51514	-18.71548	-4.627187	-3.197851	-3.281994
345	-31.88361	-27.45321	-21.40433	-4.831775	-3.599096	-3.694389
350	-26.6679	-20.42361	-20.55158	-5.531715	-4.592829	-4.695645
355	-20.04409	-16.96845	-17.78216	-6.936408	-6.318734	-6.279684

EIRP Calculation

Nominal Tx Power Output = +14.0 dBm (25.1 mW)

dBm	mW	
14	25.11886432	Typical
16	39.81071706	Max

Freq (GHz)	Peak Gain (dBi)	EIRP (mW)
2.4	-1.2	30.20
2.44	-1	31.62
2.48	-1.1	30.90