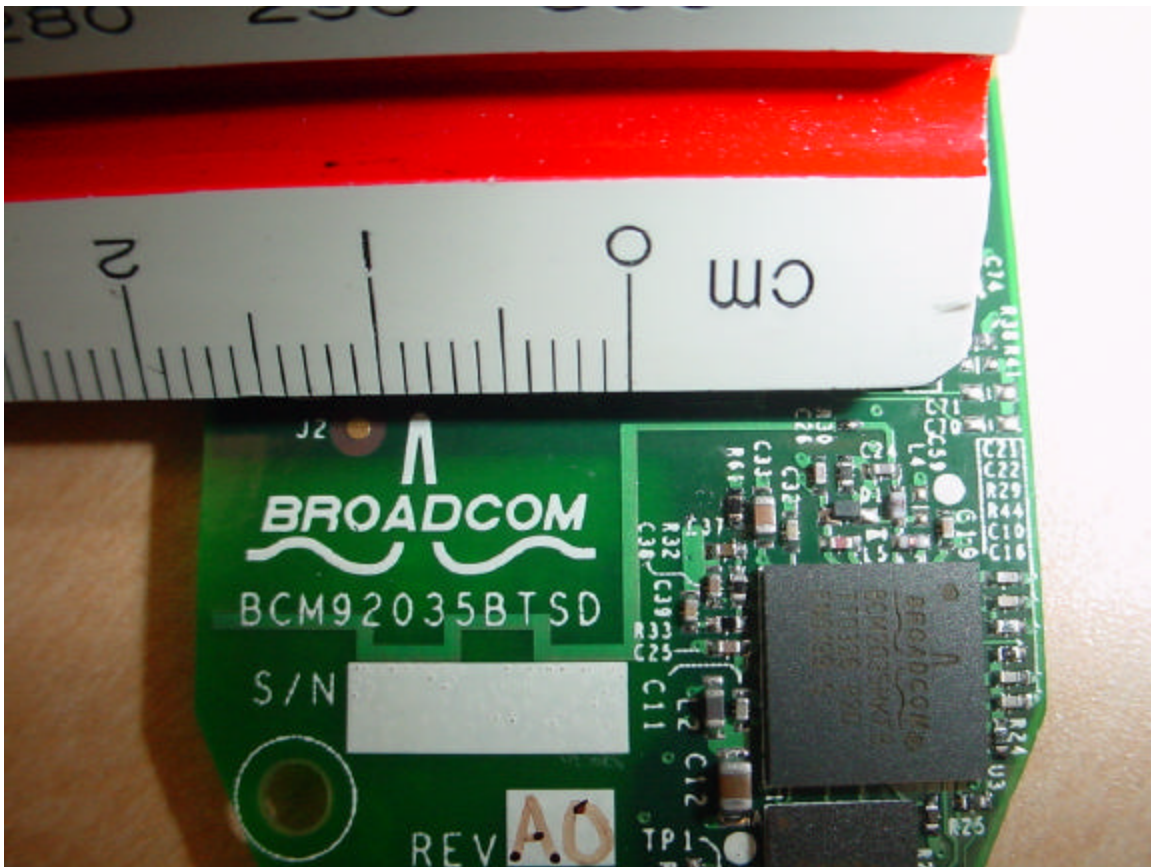


**03U2092 Broadcom USB Bluetooth Dongle
Antenna Information**

Antenna type: PCB antenna
Antenna peak gain: 2.76dBi



Antenna Directivity Pattern (dB) vs Phi at 2402 MHz, surface = abc-surface
Theta=90 degrees

```
__polar__ 0 1 -9 2 -11 -11 11 11
__settings__ 1 0 1 1 13 12 6 6 1 1
__legendpos__ -18.4022556390977 13.4812030075188
0      1.38437327911661
2      1.36112841838463
4      1.33853611013731
6      1.31705953933928
8      1.29712000878308
10     1.27909156271345
12     1.26329604356302
14     1.24999871486757
16     1.23940457515258
18     1.23165547373045
20     1.22682812035796
22     1.22493305726069
24     1.22591463499433
26     1.22965200396488
28     1.2359611022456
30     1.24459758876168
32     1.25526064020019
34     1.26759750145385
36     1.28120865437988
38     1.29565344949177
40     1.31045603112796
42     1.3251113796523
44     1.33909129497205
46     1.3518501542921
48     1.36283029322311
50     1.37146688227715
52     1.37719219910462
54     1.37943922888654
56     1.37764455921626
58     1.37125056964785
60     1.3597069480109
62     1.34247159397416
64     1.31901099389585
66     1.28880016883144
68     1.25132230921853
70     1.20606821518517
72     1.15253566100135
74     1.09022879662745
76     1.01865768961591
78     0.937338098013512
```

80	0.845791550762974
82	0.743545797870282
84	0.630135679789652
86	0.505104455605446
88	0.368005624214781
90	0.218405273464777
92	0.0558850008452988
94	-0.11995453209563
96	-0.309489318562356
98	-0.513066859372333
100	-0.730999945738613
102	-0.963559079698476
104	-1.21096312339973
106	-1.47336761775156
108	-1.75085002006123
110	-2.04339087418302
112	-2.35084964356153
114	-2.67293361284558
116	-3.00915791756196
118	-3.35879444055987
120	-3.72080711175859
122	-4.0937712327913
124	-4.4757751039129
126	-4.86430389942208
128	-5.25610904906003
130	-5.64707211253556
132	-6.03208099656909
134	-6.40494847820846
136	-6.75841688988906
138	-7.08430404212052
140	-7.37384557783774
142	-7.61826673370445
144	-7.80956360127102
146	-7.9413954087583
148	-8.00991217525384
150	-8.01431029292992
152	-7.95695677337399
154	-7.84304411529346
156	-7.67987763853536
158	-7.47598825560868
160	-7.2402719377124
162	-6.98129825123468
164	-6.70684761611512
166	-6.42366843872964
168	-6.13740718386841
170	-5.85265406406998

172 -5.57305358997549
174 -5.30144244297701
176 -5.03999048630918
178 -4.79033135026882
180 -4.5536763419026
182 -4.33090993092546
184 -4.12266753558759
186 -3.92939749179515
188 -3.75140947350992
190 -3.58891160160763
192 -3.44203825288663
194 -3.31087028674217
196 -3.19544910997109
198 -3.09578573032918
200 -3.01186571694807
202 -2.94365079032107
204 -2.89107760136519
206 -2.8540541215839
208 -2.83245394827852
210 -2.82610872486115
212 -2.83479878301415
214 -2.85824202914646
216 -2.89608102318046
218 -2.94786813698508
220 -3.01304864023929
222 -3.09094155520295
224 -3.18071816639298
226 -3.28137819059037
228 -3.39172383784296
230 -3.51033236182099
232 -3.63552824646627
234 -3.76535693668889
236 -3.89756300179219
238 -4.0295767797792
240 -4.15851476231234
242 -4.28119999398073
244 -4.39420917709703
246 -4.49395246572693
248 -4.5767895431071
250 -4.63918113506969
252 -4.67786874521534
254 -4.69006802315132
256 -4.67365457879396
258 -4.62731752473864
260 -4.55065753139047
262 -4.44421334283455

264 -4.30941218795511
266 -4.14845229715477
268 -3.96413623426724
270 -3.75967933994973
272 -3.53851749775578
274 -3.30413377923951
276 -3.05991646390734
278 -2.80905367690979
280 -2.5544639938789
282 -2.29875849953492
284 -2.04422790689294
286 -1.79284799655894
288 -1.54629725648382
290 -1.30598169538993
292 -1.07306301365419
294 -0.848487433580222
296 -0.633013419071658
298 -0.427237228688735
300 -0.231615762514303
302 -0.0464865163238686
304 0.127915315925325
306 0.291442413914366
308 0.444023326409741
310 0.585652607948741
312 0.716382808772
314 0.83631803980988
316 0.945608852650395
318 1.04444819639341
320 1.13306823644948
322 1.21173784316666
324 1.28076057988259
326 1.34047304024059
328 1.39124340323371
330 1.43347009141094
332 1.46758043300303
334 1.49402924243665
336 1.51329724588097
338 1.52588928924277
340 1.53233227560869
342 1.5331727878348
344 1.52897436020736
346 1.52031437132603
348 1.50778053911114
350 1.49196700861769
352 1.47347003457441
354 1.45288327352744

356 1.43079271520861
358 1.40777129904906
360 1.38437327911661
ADPTotal at theta = 90
__settings__ -1 8 2 0 1 1

Antenna Directivity Pattern (dB) vs Theta at 2402 MHz, surface = abc-surface
Phi=0

__polar__ 0 1 -5 3 -8 -8 8 8
__settings__ 1 0 1 1 13 9 6 6 1 1
__legendpos__ -13.3834586466165 9.80451127819549
0 1.95904187169265
2 2.05109793122414
4 2.13557041697413
6 2.21240361731774
8 2.28157084935563
10 2.34307422658739
12 2.39694434240689
14 2.44323988542781
16 2.48204719844932
18 2.51347978943754
20 2.53767780033337
22 2.5548074377633
24 2.56506036866609
26 2.56865308321805
28 2.56582622696594
30 2.55684390347916
32 2.54199294787148
34 2.52158217003337
36 2.49594156426308
38 2.46542147918008
40 2.43039173843586
42 2.39124069897156
44 2.34837422964726
46 2.30221458926472
48 2.25319917962967
50 2.20177914665949
52 2.14841780092748
54 2.09358882870596
56 2.03777426575023
58 1.98146220892897
60 1.9251442454868
62 1.86931258629689

64 1.81445689794732
66 1.76106083884566
68 1.70959831657247
70 1.66052949719279
72 1.61429661172595
74 1.57131961989403
76 1.53199180586003
78 1.49667539402365
80 1.46569728404815
82 1.43934501210511
84 1.41786304887159
86 1.40144954331314
88 1.39025361425645
90 1.38437327911661
92 1.38385409127384
94 1.38868853533028
96 1.39881620406779
98 1.41412475391675
100 1.43445160883024
102 1.45958635731042
104 1.48927376544547
106 1.52321731135664
108 1.56108313419117
110 1.60250428405645
112 1.64708515798877
114 1.69440601074753
116 1.74402743723021
118 1.79549473475389
120 1.84834206742237
122 1.90209637036446
124 1.95628094792054
126 2.01041873607928
128 2.0640352149374
130 2.11666097108678
132 2.16783392215436
134 2.21710122587606
136 2.26402090384728
138 2.30816321536445
140 2.34911181959688
142 2.38646476488485
144 2.41983534254524
146 2.44885283957982
148 2.4731632205801
150 2.49242976439297
152 2.50633367621244
154 2.51457469110054

156 2.51687168082198
158 2.5129632724964
160 2.50260848499253
162 2.48558738715182
164 2.46170178065955
166 2.43077590942317
168 2.39265719635049
170 2.34721700711748
172 2.29435143855942
174 2.23398212646739
176 2.16605706366909
178 2.09055141430078
180 2.00746830426558
182 1.91683956132229
184 1.81872637152414
186 1.71321981245336
188 1.60044121863233
190 1.48054233148178
192 1.35370518612335
194 1.22014169102936
196 1.08009286472394
198 0.933827706928635
200 0.781641699885483
202 0.62385495881741
204 0.460810077821851
206 0.292869747589014
208 0.120414252269849
210 -0.056161017859896
212 -0.236447876424647
214 -0.420027294766289
216 -0.606470813710696
218 -0.795341233482027
220 -0.986192422819835
222 -1.17856812484897
224 -1.37199968900194
226 -1.56600272363649
228 -1.76007274005654
230 -1.95367994154878
232 -2.14626339619952
234 -2.33722491468835
236 -2.5259230289336
238 -2.71166752951928
240 -2.89371506464426
242 -3.07126632655164
244 -3.24346534883543
246 -3.4094014056553

248 -3.56811393792341
250 -3.71860082878027
252 -3.85983020927398
254 -3.99075579557538
256 -4.11033554541687
258 -4.21755318275235
260 -4.31144189072309
262 -4.3911092345523
264 -4.45576217332587
266 -4.50473088009851
268 -4.53749003873438
270 -4.55367634190259
272 -4.55310108488439
274 -4.53575702698006
276 -4.50181905380098
278 -4.45163858423241
280 -4.3857320822806
282 -4.30476441245408
284 -4.20952808003761
286 -4.10091959862695
288 -3.97991431536981
290 -3.8475410029871
292 -3.70485741240654
294 -3.55292779416323
296 -3.39280316721371
298 -3.22550486612101
300 -3.05201165348452
302 -2.87325046042708
304 -2.69009062471352
306 -2.50334133948912
308 -2.31375190764537
310 -2.12201431672315
312 -1.92876760467009
314 -1.73460347436414
316 -1.54007263076702
318 -1.34569135467556
320 -1.15194788674286
322 -0.95930826981059
324 -0.768221381352954
326 -0.579122975502009
328 -0.392438640283233
330 -0.20858565532632
332 -0.0279738041887263
334 0.148994749592662
336 0.321926374341982
338 0.490437498468332

340 0.654156575695167
342 0.812726313348919
344 0.965806005776335
346 1.1130738384392
348 1.25422905600726
350 1.38899391690754
352 1.51711538482768
354 1.63836653274095
356 1.75254765588746
358 1.85948710618778
360 1.95904187169265

ADPTotal at phi = 0

__settings__ -1 8 2 0 1 1

Antenna Directivity Pattern (dB) vs Theta at 2402 MHz, surface = abc-surface
Phi=90 degrees

__polar__ 0 1 -4 3 -7 -7 7 7

__settings__ 1 0 1 1 13 8 6 6 1 1

__legendpos__ -11.7105263157895 8.57894736842105

0 1.95904187169265
2 1.99669113840421
4 2.02741200691294
6 2.05126449686399
8 2.06832981012514
10 2.07870989447667
12 2.08252693398511
14 2.0799228092695
16 2.07105856519898
18 2.05611391697412
20 2.03528681837707
22 2.00879310844137
24 1.97686624500529
26 1.93975712562013
28 1.89773398810779
30 1.85108237473684
32 1.80010513561228
34 1.74512243864205
36 1.68647174566886
38 1.62450770747612
40 1.55960192495278
42 1.49214252036761
44 1.42253346212566
46 1.35119358916726
48 1.27855528779472
50 1.20506278440526

52 1.13117003228048
54 1.0573381887501
56 0.984032699807255
58 0.911720031298484
60 0.84086410750953
62 0.771922537487489
64 0.705342724937733
66 0.641557967366789
68 0.580983653084377
70 0.524013660111829
72 0.47101704909351
74 0.422335123876851
76 0.378278910147613
78 0.339127076576106
80 0.305124296874263
82 0.27648002753899
84 0.253367657157199
86 0.23592397072236
88 0.224248867473049
90 0.218405273464774
92 0.218419199723089
94 0.224279911919712
96 0.235940195995607
98 0.253316723599878
100 0.276290539124286
102 0.304707704196223
104 0.33838014393109
106 0.377086740894977
108 0.420574717268254
110 0.46856133366106
112 0.520735915734626
114 0.576762199182263
116 0.636280962058863
118 0.698912893350351
120 0.764261630270843
122 0.831916885814535
124 0.901457583648704
126 0.972454919818636
128 1.04447527948019
130 1.1170829508521
132 1.18984259616952
134 1.26232145874185
136 1.33409130435782
138 1.40473011250435
140 1.47382354678866
142 1.54096624364026

144 1.60576296338856
146 1.66782964820556
148 1.72679442763707
150 1.78229860529615
152 1.83399765074197
154 1.88156220967496
156 1.92467913437709
158 1.96305252572648
160 1.99640476884401
162 2.02447753699437
164 2.04703273304165
166 2.06385333461564
168 2.07474410807235
170 2.07953215709757
172 2.07806727410904
174 2.07022206615456
176 2.05589183151822
178 2.03499416855187
180 2.00746830426558
182 1.97327413696602
184 1.93239099484487
186 1.88481612106234
188 1.83056290573302
190 1.76965889643489
192 1.70214363146389
194 1.62806635391416
196 1.54748367945508
198 1.46045730585667
200 1.36705186713673
202 1.26733304875438
204 1.16136609154863
206 1.04921482011381
208 0.930941335126175
210 0.806606508116798
212 0.676271410961502
214 0.5399998009217
216 0.397861765760675
218 0.249938612890393
220 0.0963290624135536
222 -0.0628432230306293
224 -0.227420768220666
226 -0.397202104108624
228 -0.571930340914745
230 -0.751280604206848
232 -0.934846496061184
234 -1.12212581232524

236 -1.31250583764127
238 -1.50524865900818
240 -1.69947709239411
242 -1.89416200890379
244 -2.08811207560823
246 -2.27996718067676
248 -2.46819706869094
250 -2.65110692773405
252 -2.826851781941
254 -2.99346146902454
256 -3.14887762851266
258 -3.29100340837289
260 -3.41776547024578
262 -3.5271863693839
264 -3.61746364958133
266 -3.68705029574122
268 -3.73472989349351
270 -3.75967933994973
272 -3.76151251547961
274 -3.74030002834013
276 -3.69656276355543
278 -3.6312400310757
280 -3.54563601252843
282 -3.44135039500183
284 -3.32020020401814
286 -3.18413983862402
288 -3.03518536047367
290 -2.87534754627689
292 -2.70657646490766
294 -2.53071870784034
296 -2.34948708827292
298 -2.16444171232469
300 -1.97698080186214
302 -1.78833944276286
304 -1.59959445315276
306 -1.41167372508796
308 -1.22536861886871
310 -1.0413482314131
312 -0.860174588428038
314 -0.682318009708286
316 -0.508172063850166
318 -0.33806766556936
320 -0.172285981337881
322 -0.011069903562624
324 0.145366064445408
326 0.296827596972646

328 0.44313402506433
330 0.584113462418089
332 0.719599479712039
334 0.849429182952888
336 0.973442515243832
338 1.09148257648531
340 1.2033967426485
342 1.30903836527678
344 1.40826884179528
346 1.50095986632309
348 1.58699569674761
350 1.66627530433707
352 1.73871430463806
354 1.80424660056073
356 1.86282569851721
358 1.91442568485075
360 1.95904187169265

ADPTotal at phi = 90

__settings__ -1 9 2 0 1 1

**Antenna Directivity Pattern (dB) vs Phi at 2440 MHz, surface = abc-surface
Theta=90 degrees**

```
__polar__ 0 1 -8 2 -10 -10 10 10  
__settings__ 1 0 1 1 13 11 6 6 1 1  
__legendpos__ -16.7293233082707 12.2556390977444  
0      1.52233670386932  
2      1.49785087295747  
4      1.47320385815543  
6      1.44885216068721  
8      1.4252179021411  
10     1.40268414863339  
12     1.38159043703422  
14     1.36222859368985  
16     1.34483893812543  
18     1.32960696462079  
20     1.3166605930233  
22     1.30606807619547  
24     1.29783664439113  
26     1.29191195580493  
28     1.28817840678861  
30     1.28646033428017  
32     1.28652411684588  
34     1.28808115004708  
36     1.29079163802376  
38     1.2942691083429  
40     1.29808552392049  
42     1.30177683704464  
44     1.30484880892029  
46     1.30678290594812  
48     1.30704208257405  
50     1.30507627046248  
52     1.30032741439708  
54     1.29223392520415  
56     1.28023445689936  
58     1.26377095648032  
60     1.24229097745113  
62     1.21524928949284  
64     1.18210885424187  
66     1.1423412689634  
68     1.09542680467629  
70     1.04085418231804  
72     0.978120239794001  
74     0.906729644784963  
76     0.826194804051464  
78     0.73603611114198
```

80 0.63578266266084
82 0.524973560555719
84 0.403159906333976
86 0.269907584842419
88 0.124800932375342
90 -0.0325526114799959
92 -0.20251675460015
94 -0.385419366080323
96 -0.581544073668543
98 -0.791120210075408
100 -1.01431080036086
102 -1.25119819103269
104 -1.50176681175126
106 -1.76588243586172
108 -2.04326717472876
110 -2.33346932010566
112 -2.63582706969299
114 -2.94942518648182
116 -3.27304383679698
118 -3.60509935203059
120 -3.94357764278317
122 -4.2859626880285
124 -4.62916517148987
126 -4.96946012389925
128 -5.30244730018979
130 -5.62305340921086
132 -5.9255997905132
134 -6.20396014977437
136 -6.45182706568308
138 -6.6630899762493
140 -6.83230067838189
142 -6.95516988028524
144 -7.02901129887102
146 -7.05304248792295
148 -7.0284733917363
150 -6.95836109641264
152 -6.84726527833284
154 -6.70078141624973
156 -6.52504354749889
158 -6.3262751945795
160 -6.11043741895586
162 -5.88299095079704
164 -5.64876488240684
166 -5.41191088912194
168 -5.17591792354911
170 -4.94366439748037

172 -4.71748971567769
174 -4.49927237509309
176 -4.29050649284397
178 -4.09237215800842
180 -3.90579743570151
182 -3.73151139182521
184 -3.57008839680433
186 -3.42198442079471
188 -3.28756621505618
190 -3.16713429890534
192 -3.06094061359491
194 -2.96920160929891
196 -2.892107425032
198 -2.82982771690338
200 -2.78251459278114
202 -2.75030302173757
204 -2.73330900252623
206 -2.73162569356966
208 -2.74531762393405
210 -2.77441301720235
212 -2.81889416541725
214 -2.87868568693446
216 -2.95364039051729
218 -3.04352235146926
220 -3.14798669133602
222 -3.26655545422521
224 -3.39858891282945
226 -3.54325165182996
228 -3.6994729199016
230 -3.86590109210568
232 -4.04085274736073
234 -4.22225797096029
236 -4.40760517800218
238 -4.59389112371485
240 -4.7775848055948
242 -4.95461739873649
244 -5.12041349503819
246 -5.26998044744036
248 -5.39807069357737
250 -5.49942454342274
252 -5.56908690958426
254 -5.60277198280641
256 -5.59722950420676
258 -5.55055269555125
260 -5.46236888147438
262 -5.33387279861181

264 -5.16769524960367
266 -4.96763505899725
268 -4.73830778555739
270 -4.4847728967214
272 -4.21219262283846
274 -3.92555706747771
276 -3.62948954292738
278 -3.3281295374606
280 -3.02508066848276
282 -2.72340703243437
284 -2.42566171553006
286 -2.1339338811575
288 -1.84990426038144
290 -1.57490211312671
292 -1.30995937566741
294 -1.05585966622814
296 -0.813181153729375
298 -0.582333136494746
300 -0.363586664315716
302 -0.157099784161018
304 0.0370619151012621
306 0.218908778212319
308 0.388513941365591
310 0.546002999392214
312 0.691545980622885
314 0.82535119689486
316 0.947660598948845
318 1.05874632239071
320 1.15890815649882
322 1.24847170821705
324 1.32778706774859
326 1.39722781133212
328 1.45719020197749
330 1.50809247090712
332 1.55037408173414
334 1.58449489638516
336 1.61093417669929
338 1.63018936870028
340 1.64277462792766
342 1.64921905413716
344 1.65006461240705
346 1.64586372553272
348 1.63717652992052
350 1.62456779436692
352 1.60860350846406
354 1.5898471551556

356 1.5688556903078
358 1.54617526104506
360 1.52233670386932
ADPTotal at theta = 90
__settings__ -1 8 2 0 1 1

Antenna Directivity Pattern (dB) vs Theta at 2440 MHz, surface = abc-surface
Phi=0 degree

__polar__ 0 1 -4 3 -7 -7 7 7
__settings__ 1 0 1 1 13 8 6 6 1 1
__legendpos__ -11.7105263157895 8.57894736842105
0 1.98099386545447
2 2.06972581156316
4 2.15123537040655
6 2.22544511666778
8 2.2923096307696
10 2.35181535149866
12 2.40398030362291
14 2.44885371757951
16 2.48651555297258
18 2.5170759330656
20 2.54067449389231
22 2.55747964908881
24 2.56768776998487
26 2.57152227970789
28 2.56923265982435
30 2.56109336813419
32 2.54740266642892
34 2.52848135715649
36 2.50467142789869
38 2.47633460231836
40 2.44385079579446
42 2.4076164734008
44 2.36804290729871
46 2.32555433011819
48 2.28058598060472
50 2.23358203780405
52 2.18499344041866
54 2.13527558874987
56 2.08488592788062
58 2.03428141249422
60 1.9839158560082
62 1.93423716958592
64 1.88568450013277

66 1.83868528064387
68 1.7936522112672
70 1.75098019513974
72 1.71104325930675
74 1.67419149758982
76 1.64074807873482
78 1.61100636903674
80 1.58522722330229
82 1.5636365008485
84 1.54642286366935
86 1.53373591149394
88 1.52568470298819
90 1.52233670386932
92 1.52371719156281
94 1.52980913287151
96 1.54055353680681
98 1.55585027024359
100 1.57555931041066
102 1.59950239632178
104 1.62746503179227
106 1.65919878610544
108 1.6944238348291
110 1.73283168259588
112 1.77408801148891
114 1.81783560251235
116 1.86369728290877
118 1.91127885826851
120 1.96017199498769
122 2.00995702530185
124 2.06020565358593
126 2.11048354868792
128 2.16035281262955
130 2.20937432097003
132 2.25710993440231
134 2.3031245846572
136 2.34698824045846
138 2.38827776106038
140 2.42657864581327
142 2.46148668831021
144 2.49260954310659
146 2.51956821197367
148 2.54199845539305
150 2.55955213378422
152 2.57189848202607
154 2.57872532038236
156 2.57974020508618

158 2.57467152259742
160 2.56326953283037
162 2.54530736826152
164 2.52058199748825
166 2.488915163167
168 2.45015430493696
170 2.4041734775528
172 2.35087427267831
174 2.29018674938143
176 2.22207037319375
178 2.14651495667808
180 2.06354158598861
182 1.97320350830355
184 1.8755869448516
186 1.7708117843178
188 1.65903210264033
190 1.54043644865492
192 1.41524783182062
194 1.28372334945866
196 1.14615339751623
198 1.00286042154176
200 0.854197183667656
202 0.700544546760818
204 0.542308807717805
206 0.379918646622984
208 0.213821794883184
210 0.0444815605387382
212 -0.12762662077168
214 -0.302018419006618
216 -0.478203427406355
218 -0.655687370823997
220 -0.833973534069126
222 -1.01256328082872
224 -1.19095559178168
226 -1.3686456224242
228 -1.54512236213049
230 -1.71986555994254
232 -1.89234216252259
234 -2.06200257843021
236 -2.2282771337363
238 -2.39057311145387
240 -2.54827276753669
242 -2.7007326875192
244 -2.84728479076172
246 -2.98723920654236
248 -3.11988914291582

250 -3.24451775225961
252 -3.3604068751265
254 -3.46684742558794
256 -3.5631510758027
258 -3.64866281315846
260 -3.7227738860643
262 -3.78493462753645
264 -3.83466664907297
266 -3.87157392778532
268 -3.89535236178589
270 -3.90579743570151
272 -3.90280971346523
274 -3.88639795437139
276 -3.85667972821315
278 -3.81387948588768
280 -3.75832412435493
282 -3.69043617061308
284 -3.61072479844
286 -3.51977498171245
288 -3.41823517410143
290 -3.30680397961003
292 -3.1862163335669
294 -3.05722974176492
296 -2.92061112110048
298 -2.77712474629858
300 -2.62752173584189
302 -2.47253141131274
304 -2.31285474597879
306 -2.14915999018971
308 -1.98208043302461
310 -1.8122141410616
312 -1.64012541415599
314 -1.46634762081504
316 -1.29138702603266
318 -1.11572720388115
320 -0.939833635079473
322 -0.764158123433438
324 -0.589142719974631
326 -0.415222913977949
328 -0.242829929177147
330 -0.0723920445934144
332 0.0956650639564828
334 0.260918898806415
336 0.422951516001992
338 0.581351548784174
340 0.73571670613996

342 0.885656569096739
344 1.03079551642333
346 1.17077563076865
348 1.30525946256024
350 1.43393255876204
352 1.55650569377553
354 1.67271676786168
356 1.78233236266907
358 1.88514896270326
360 1.98099386545446

ADPTotal at phi = 0

__settings__ -1 9 2 0 1 1

Antenna Directivity Pattern (dB) vs Theta at 2440 MHz, surface = abc-surface

Phi=90 degrees

__polar__ 0 1 -5 3 -8 -8 8 8

__settings__ 1 0 1 1 13 9 6 6 1 1

__legendpos__ -13.3834586466165 9.80451127819549

0 1.98099386545447
2 2.01848939526044
4 2.04848477284174
6 2.07105657515002
8 2.08630270812872
10 2.09434192851064
12 2.09531328168823
14 2.08937550474107
16 2.07670643772006
18 2.05750247952353
20 2.03197811749242
22 2.00036555238377
24 1.96291443270715
26 1.91989170449042
28 1.87158157429729
30 1.81828557467706
32 1.76032271217506
34 1.69802966866931
36 1.63176101737094
38 1.56188940574621
40 1.48880564946739
42 1.41291867500134
44 1.33465524440621
46 1.25445939514925
48 1.17279153100865

50 1.09012710790489
52 1.00695487103205
54 0.923774616723829
56 0.841094473416066
58 0.759427719689001
60 0.679289182080268
62 0.601191279218042
64 0.52563979975295
66 0.453129517572589
68 0.384139757207148
70 0.319130024101595
72 0.258535808232215
74 0.202764655945031
76 0.152192585313019
78 0.107160896892247
80 0.0679734071262807
82 0.0348941085737086
84 0.00814524217429423
86 -0.0120942460742604
88 -0.025689897213815
90 -0.0325526114799959
92 -0.0326392232875285
94 -0.0259527884823739
96 -0.0125425775895667
98 0.00749624646662479
100 0.0340232996895408
102 0.0668540372458197
104 0.105761241509191
106 0.150476967878433
108 0.200694961869047
110 0.256073538478923
112 0.316238888674011
114 0.380788750974191
116 0.449296361656833
118 0.521314577910171
120 0.596380056618743
122 0.674017368715197
124 0.753742935515302
126 0.83506868845949
128 0.91750537560947
130 1.00056546483242
132 1.08376562223518
134 1.16662877244129
136 1.24868577234276
138 1.32947675009828
140 1.40855217510939

142 1.48547373189654
144 1.55981507129503
146 1.6311625068557
148 1.69911571387521
150 1.76328847448842
152 1.82330949624935
154 1.87882331509265
156 1.92949127782911
158 1.97499258545894
160 2.01502536734246
162 2.04930774808019
164 2.07757886393528
166 2.09959978362627
168 2.11515428896446
170 2.12404947361664
172 2.12611612270149
174 2.12120884146017
176 2.10920590745126
178 2.09000882731452
180 2.06354158598861
182 2.02974958338119
184 1.98859826103777
186 1.94007142960544
188 1.88416931714606
190 1.82090636891042
192 1.75030884123463
194 1.67241224580274
196 1.58725871546731
198 1.49489437872562
200 1.39536684617218
202 1.28872292794122
204 1.17500671533756
206 1.05425817151648
208 0.926512384286499
210 0.791799638158499
212 0.650146462260777
214 0.501577805690385
216 0.346120482704031
218 0.183808017650369
220 0.0146870047077606
222 -0.161174918710277
224 -0.343679402969228
226 -0.532685957577743
228 -0.727998718961908
230 -0.929351396291214
232 -1.13639041352236

234 -1.34865632163139
236 -1.56556364165889
238 -1.78637943157362
240 -2.01020106569134
242 -2.23593399314284
244 -2.46227061785736
246 -2.6876719241617
248 -2.91035404834016
250 -3.12828262437427
252 -3.33917832095782
254 -3.54053738486815
256 -3.72967099669835
258 -3.90376656881326
260 -4.05997252597697
262 -4.19550547516497
264 -4.3077751066224
266 -4.39451814518009
268 -4.45392903783589
270 -4.4847728967214
272 -4.48646648724844
274 -4.45911620759518
276 -4.40350766445991
278 -4.32104839847396
280 -4.21367188166448
282 -4.08371556663377
284 -3.93378764344419
286 -3.76663626315339
288 -3.58503204616157
290 -3.39167077574344
292 -3.18909928659059
294 -2.97966438155663
296 -2.76548244871761
298 -2.54842629302065
300 -2.33012534452997
302 -2.1119755965838
304 -1.895156117691
306 -1.68064958356624
308 -1.4692648685363
310 -1.26166025304328
312 -1.05836622122303
314 -0.859807140163374
316 -0.666321344517683
318 -0.478179315851142
320 -0.295599764597389
322 -0.118763510174015
324 0.0521748759520961

326 0.21707764040125
328 0.375816553996262
330 0.528267627444137
332 0.674307665777744
334 0.813812452966722
336 0.946656329111909
338 1.07271290431428
340 1.19185664677041
342 1.30396508800438
344 1.40892140448425
346 1.50661716039529
348 1.59695502864409
350 1.67985134353712
352 1.75523837631634
354 1.82306626141252
356 1.88330453491648
358 1.93594327594628
360 1.98099386545446

ADPTotal at phi = 90

__settings__ -1 10 2 0 1 1

**Antenna Directivity Pattern (dB) vs Phi at 2480 MHz, surface = abc-surface
Theta=90 degrees**

```
__polar__ 0 1 -7 2 -9 -9 9 9  
__settings__ 1 0 1 1 13 10 6 6 1 1  
__legendpos__ -15.0563909774436 11.0300751879699  
0      1.5989595869448  
2      1.57330225554458  
4      1.54688458855628  
6      1.5201499217612  
8      1.49351219950774  
10     1.46735203402231  
12     1.44201283686361  
14     1.41779707044508  
16     1.39496267241937  
18     1.37371971276555  
20     1.35422735246157  
22     1.33659118283976  
24     1.3208610346082  
26     1.30702935298645  
28     1.29503023802317  
30     1.28473924455452  
32     1.27597402254256  
34     1.26849585476205  
36     1.26201211532104  
38     1.25617963106966  
40     1.25060888167155  
42     1.24486892708454  
44     1.23849290800638  
46     1.23098392993899  
48     1.22182111862793  
50     1.2104656262467  
52     1.19636637481821  
54     1.17896534544596  
56     1.15770225700877  
58     1.13201852302405  
60     1.10136042671713  
62     1.06518150803775  
64     1.02294420871787  
66     0.974120869250362  
68     0.918194212400509  
70     0.854657479910648  
72     0.78301441168345  
74     0.702779270044592  
76     0.613477116575027  
78     0.514644546994558
```

80	0.405831082704166
82	0.286601408234546
84	0.156538634577592
86	0.0152487618108499
88	-0.137633486930408
90	-0.302437281976573
92	-0.479446560610791
94	-0.668888938181345
96	-0.870922401085627
98	-1.08561948016839
100	-1.31294855170784
102	-1.55275186330641
104	-1.80471984624897
106	-2.06836127487186
108	-2.34296889934796
110	-2.62758035880524
112	-2.92093454422133
114	-3.22142421391169
116	-3.52704667491003
118	-3.83535583813974
120	-4.14342100274719
122	-4.4478002833628
124	-4.74453939901928
126	-5.02920897022887
128	-5.29699443226815
130	-5.54285065810202
132	-5.76172682514896
134	-5.94885512965602
136	-6.10008067706132
138	-6.21219298415796
140	-6.28320810247411
142	-6.3125506566464
144	-6.30110002774342
146	-6.25109148807204
148	-6.16589281253773
150	-6.04969968714772
152	-5.90720244656514
154	-5.74327176442734
156	-5.5626965419198
158	-5.3699899497505
160	-5.16926469743361
162	-4.96416876077805
164	-4.75786816436884
166	-4.55306275262578
168	-4.35202257480366
170	-4.1566351881201

172 -3.96845694730856
174 -3.78876373033289
176 -3.61859838622566
178 -3.45881349400767
180 -3.31010888138879
182 -3.1730638781661
184 -3.04816457235822
186 -2.93582647744183
188 -2.83641306553433
190 -2.75025061453883
192 -2.67763978337571
194 -2.61886428429562
196 -2.57419697345001
198 -2.54390363401518
200 -2.52824468059403
202 -2.5274749676228
204 -2.54184183502026
206 -2.57158146745486
208 -2.61691357502804
210 -2.67803431832197
212 -2.75510729508364
214 -2.84825227502235
216 -2.95753120968218
218 -3.08293085398556
220 -3.22434111561702
222 -3.38152800422364
224 -3.55409980070954
226 -3.74146484123454
228 -3.94277917316171
230 -4.15688239887258
232 -4.38222045353857
234 -4.61675513252039
236 -4.85786227023064
238 -5.10222404506138
240 -5.34572640879121
242 -5.58338031581515
244 -5.80929469998346
246 -6.01673795566029
248 -6.19832873333086
250 -6.34638965942952
252 -6.45347242696366
254 -6.51301750033774
256 -6.52005527045449
258 -6.47181016719122
260 -6.36806293759774
262 -6.21117453548404

264 -6.00576489335312
266 -5.75813271261323
268 -5.47555779797987
270 -5.16562821409577
272 -4.83569294911174
274 -4.49248428764887
276 -4.1419065211592
278 -3.78895965037272
280 -3.43775741759701
282 -3.09160192367112
284 -2.75308553137499
286 -2.42420011103886
288 -2.10644161927351
290 -1.80090380506662
292 -1.50835864421834
294 -1.22932336275172
296 -0.964115100946406
298 -0.712894784203513
300 -0.47570188693481
302 -0.252481686853159
304 -0.0431064236864859
306 0.152608435809334
308 0.334891830714622
310 0.504007824522767
312 0.660248752870271
314 0.803930271443954
316 0.935387877456278
318 1.05497455912347
320 1.16305929136751
322 1.2600261462523
324 1.34627382669007
326 1.42221546434974
328 1.48827854950025
330 1.5449048832272
332 1.59255046210616
334 1.63168522267533
336 1.66279258833195
338 1.68636877482026
340 1.70292182243303
342 1.71297033354088
344 1.71704190323433
346 1.71567123888811
348 1.70939797153805
350 1.69876416830391
352 1.68431156087434
354 1.66657851040974

356 1.64609673414631
358 1.62338782344899
360 1.5989595869448
ADPTotal at theta = 90
__settings__ -1 8 2 0 1 1

Antenna Directivity Pattern (dB) vs Theta at 2480 MHz, surface = abc-surface
Phi=0 Degree

__polar__ 0 1 -4 3 -7 -7 7 7
__settings__ 1 0 1 1 13 8 6 6 1 1
__legendpos__ -11.7105263157895 8.57894736842105

0	1.87511425523456
2	1.95783556119707
4	2.03386416560788
6	2.10308985717487
8	2.16543802823876
10	2.22086996293187
12	2.26938290050199
14	2.31100989641638
16	2.34581949743612
18	2.37391524077881
20	2.39543498223466
22	2.41055005394401
24	2.41946424960433
26	2.42241263315492
28	2.41966016641035
30	2.41150015156541
32	2.39825248584336
34	2.38026172768097
36	2.35789497662192
38	2.33153957241481
40	2.30160062256645
42	2.26849837164859
44	2.23266542982493
46	2.19454388214379
48	2.15458230387963
50	2.11323271033368
52	2.07094747175504
54	2.02817622519635
56	1.98536281503355
58	1.94294229253641
60	1.90133800239443
62	1.86095878074642
64	1.82219628541856
66	1.78542247520998

68 1.75098725165383
70 1.71921627413565
72 1.69040895784158
74 1.66483666380676
76 1.64274109118068
78 1.62433288334062
80 1.60979046110978
82 1.59925909742579
84 1.59285024772286
86 1.59064114853005
88 1.59267469306674
90 1.5989595869448
92 1.60947077979315
94 1.62415016031692
96 1.64290749381356
98 1.66562157341059
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102 1.72228840320158
104 1.75585651055298
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112 1.91939007191604
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118 2.06453045141415
120 2.11541687255665
122 2.16694744217534
124 2.21874007091359
126 2.2704037940088
128 2.32154044036944
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132 2.42061423263601
134 2.46773491016314
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182 2.16895986397406
184 2.07273059406759
186 1.96937839999168
188 1.85907044649406
190 1.74201107517816
192 1.61844225279748
194 1.48864368823621
196 1.35293253680757
198 1.21166261740906
200 1.06522308220805
202 0.914036500141695
204 0.75855634423765
206 0.599263907491082
208 0.436664710833365
210 0.271284506830752
212 0.103665020643431
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216 -0.236071021349325
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220 -0.578051185198408
222 -0.748475152297536
224 -0.917777959455099
226 -1.08540894723565
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318 -0.920889062492087
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322 -0.612887368935889
324 -0.458761341240459
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328 -0.152113074036057
330 -0.00034207326755942
332 0.149883037493688
334 0.298171594737563
336 0.444127726100216
338 0.58735233308234
340 0.727445845398247
342 0.864011552315687

344 0.996659307009869
346 1.12500940682071
348 1.2486964720574
350 1.36737317467662
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356 1.6902088645188
358 1.78584552093208
360 1.87511425523456

ADPTotal at phi = 0
__settings__ -1 9 2 0 1 1

Antenna Directivity Pattern (dB) vs Theta at 2480 MHz, surface = abc-surface
Phi= 90 degrees

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__legendpos__ -15.0563909774436 11.0300751879699
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2 1.91391292015616
4 1.9447879399317
6 1.96782025029366
8 1.98311302021875
10 1.99079121533125
12 1.99100103389641
14 1.98390927265638
16 1.96970267312887
18 1.94858729168754
20 1.92078792920691
22 1.88654764851469
24 1.84612740040693
26 1.79980577146565
28 1.74787885921036
30 1.69066027202574
32 1.62848124268885
34 1.56169083512101
36 1.49065621431476
38 1.41576293952292
40 1.33741523123452
42 1.25603615387629
44 1.17206764938484
46 1.08597035267514
48 0.998223119429094
50 0.909322200231837
52 0.819780003295513
54 0.730123400845223

56 0.640891551238134
58 0.552633229088676
60 0.465903677663629
62 0.381261019828363
64 0.299262283942334
66 0.220459117462308
68 0.14539327209004
70 0.0745919491491821
72 0.00856309231308455
74 -0.052209292492138
76 -0.107269721710254
78 -0.156195668595586
80 -0.198601805891133
82 -0.234144025311449
84 -0.262523207478487
86 -0.283488714696548
88 -0.296841571166135
90 -0.302437281976573
92 -0.300188225705784
94 -0.290065538843168
96 -0.272100397185274
98 -0.246384593442064
100 -0.213070314510477
102 -0.172369038037124
104 -0.124549496263294
106 -0.0699346942609544
108 -0.00889801643599563
110 0.0581414947682655
112 0.13072455575973
114 0.208357580666823
116 0.290518938465287
118 0.376665308988395
120 0.466237918795032
122 0.558668453992638
124 0.653384477135214
126 0.749814216047035
128 0.847390639807516
130 0.945554786779465
132 1.04375835723581
134 1.14146562517486
136 1.23815475751358
138 1.33331865224505
140 1.42646541963731
142 1.51711863242457
144 1.60481746332189
146 1.68911681282987

148 1.76958750932855
150 1.84581663918665
152 1.9174080392769
154 1.98398295989538
156 2.04518088427393
158 2.10066047283882
160 2.15010058681847
162 2.1932013369825
164 2.22968509904007
166 2.25929743704286
168 2.28180787930593
170 2.29701049703494
172 2.30472424317035
174 2.30479301714253
176 2.29708542963803
178 2.28149424966686
180 2.25793552397724
182 2.22634736619436
184 2.18668842016716
186 2.13893600924742
188 2.08308399104101
190 2.01914034601704
192 1.94712453862481
194 1.86706470149665
196 1.77899470694449
198 1.68295120508078
200 1.57897072403616
202 1.46708694419384
204 1.34732827422074
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208 1.08426225709624
210 0.940970698821459
212 0.789835510980442
214 0.630843457795397
216 0.463976415656174
218 0.28921546006282
220 0.106546533948472
222 -0.0840321493906567
224 -0.282500817035179
226 -0.488806807091161
228 -0.702851039931545
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232 -1.15342792134658
234 -1.38937441984552
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274 -5.16320823915563
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282 -4.75441373231551
284 -4.58319665686035
286 -4.39144040716033
288 -4.18286613592879
290 -3.96103970942809
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296 -3.24745504274543
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302 -2.51312824692654
304 -2.27199583399935
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314 -1.13700298723727
316 -0.927697417008827
318 -0.724934861355171
320 -0.528847596558408
322 -0.339530307166144
324 -0.157054275583523
326 0.0185212609686981
328 0.187140426103343
330 0.34874449781015

332 0.503267949352652
334 0.650636473214003
336 0.790766695942433
338 0.923567273338365
340 1.04894104894111
342 1.16678796529945
344 1.27700843666081
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350 1.56099708965297
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