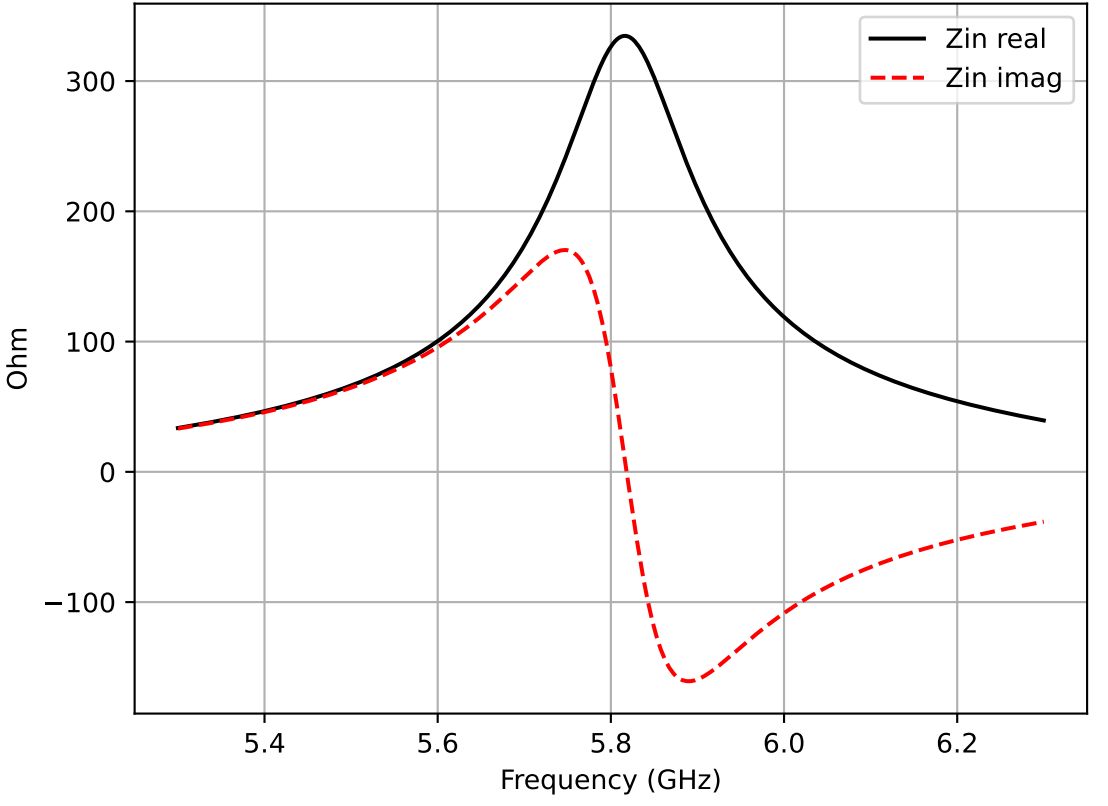
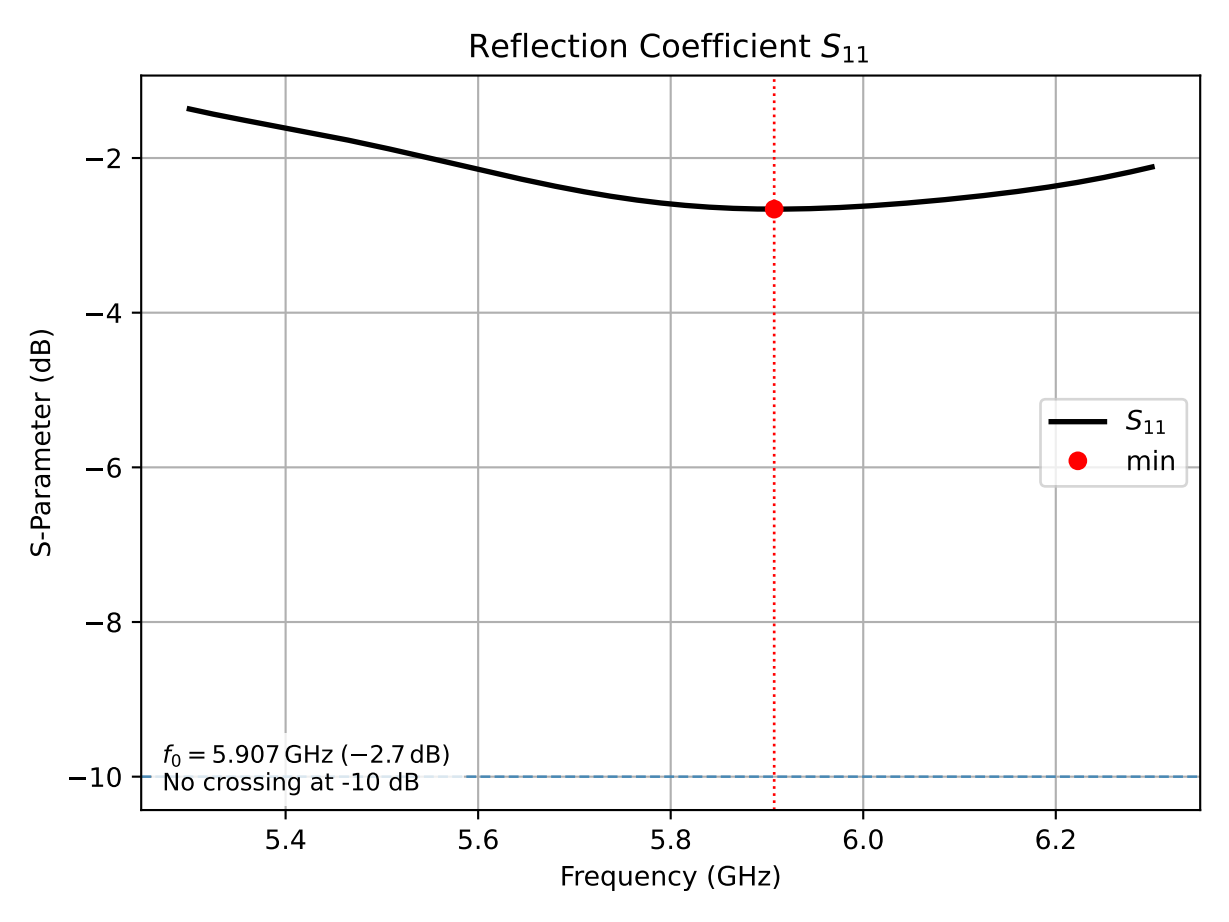
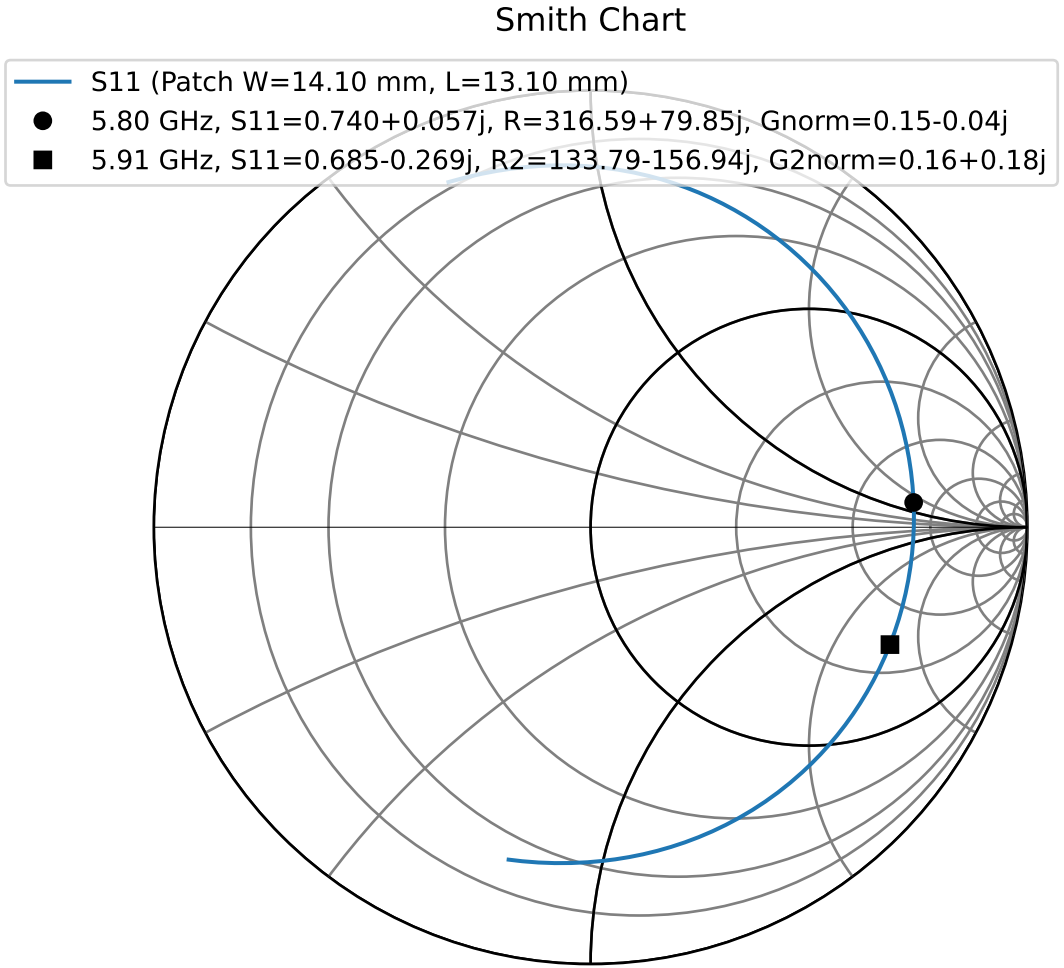
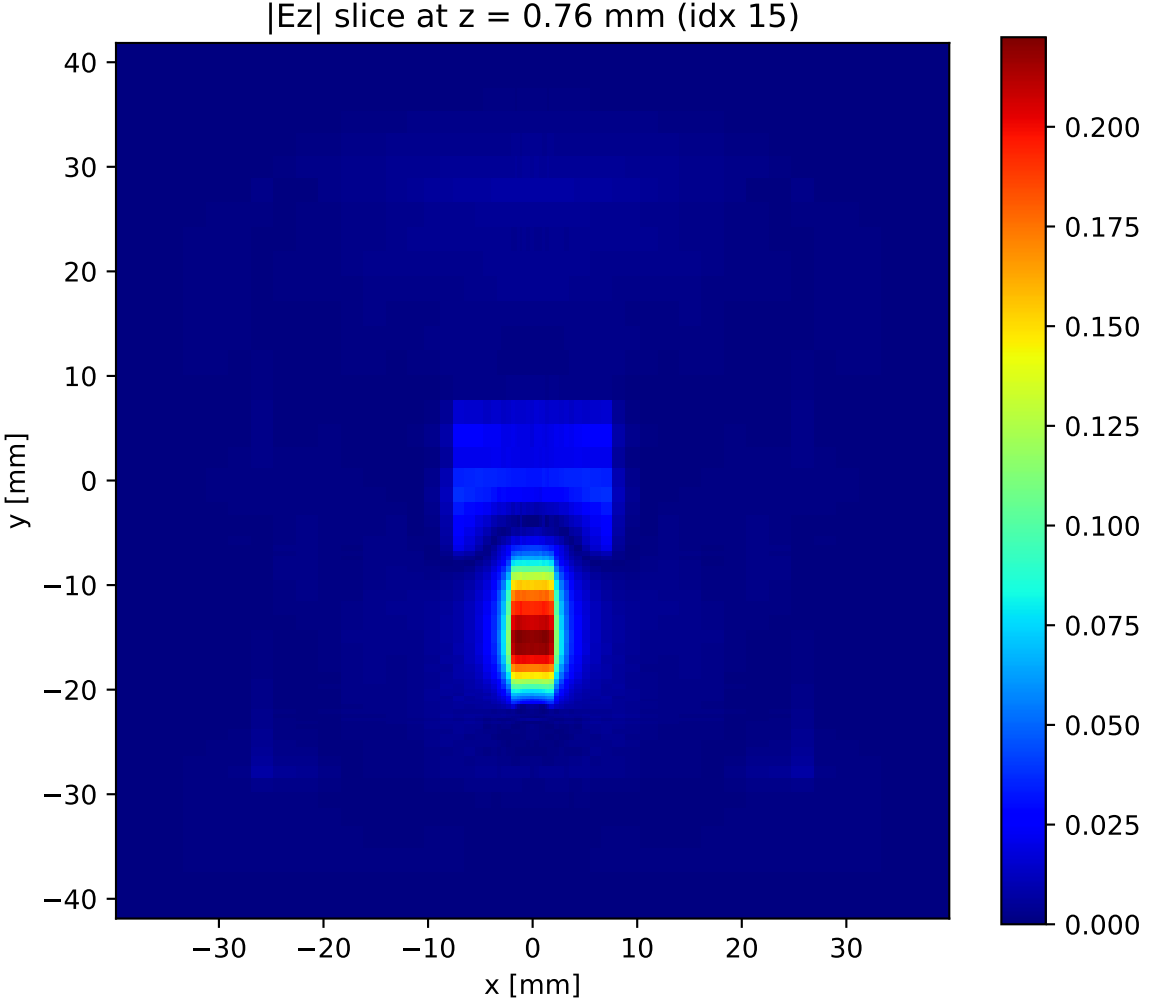
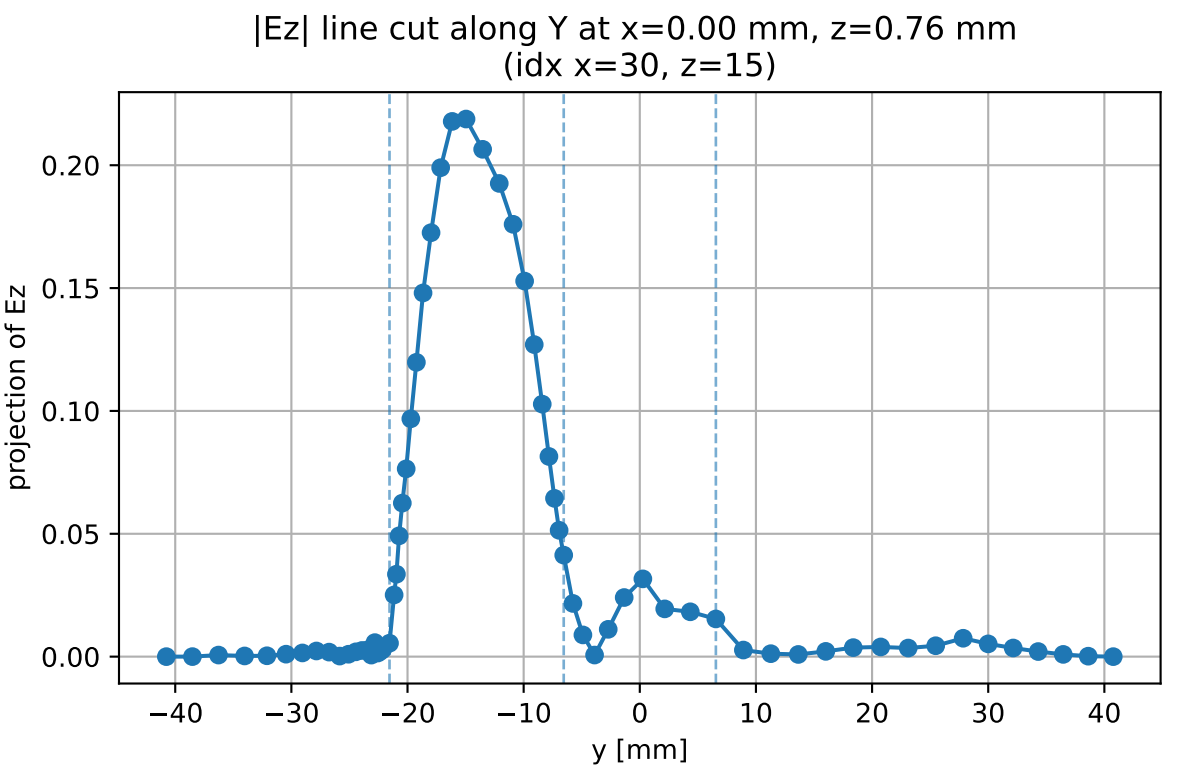
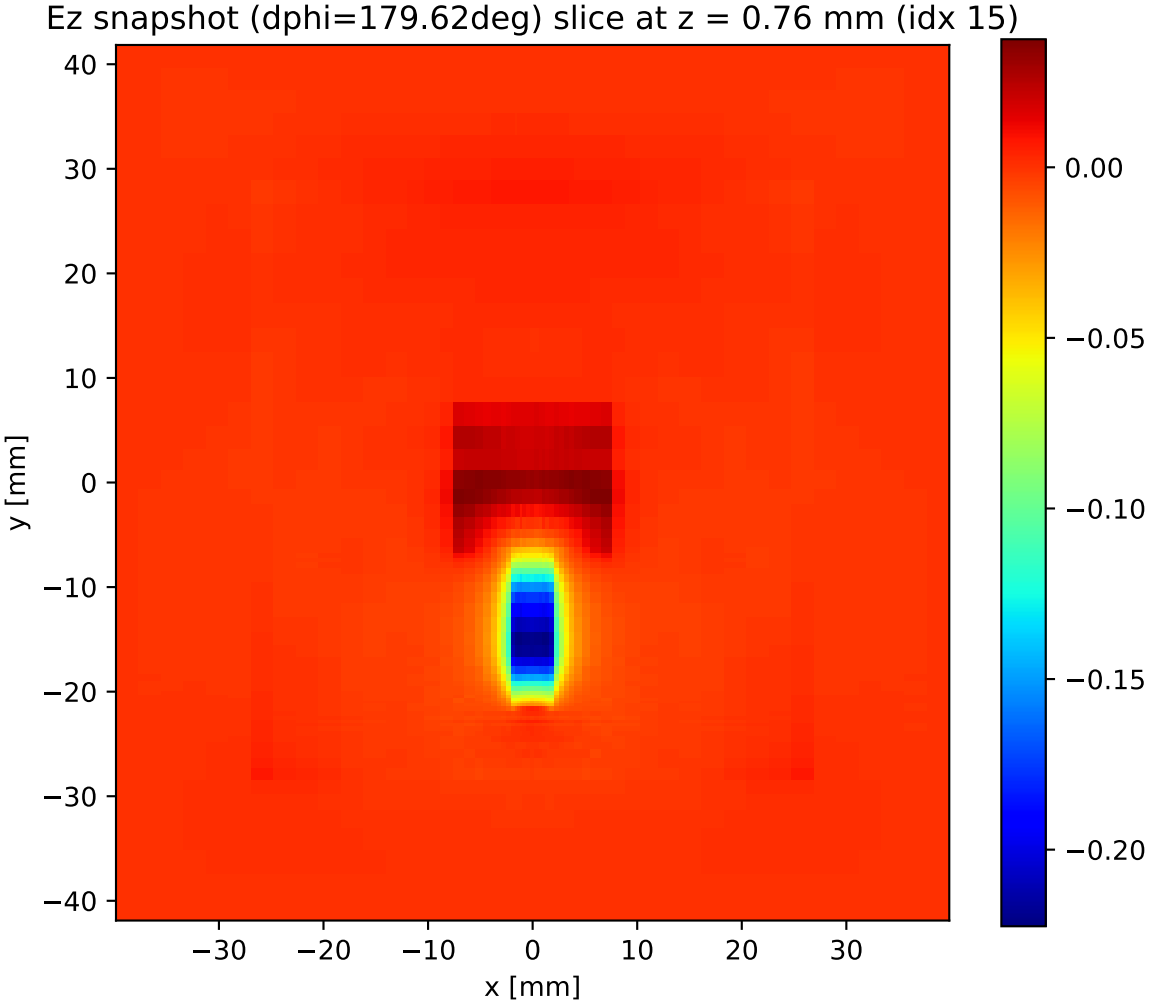

Zin real
Zin imag
300
200
100
0
−100
Ohm
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)

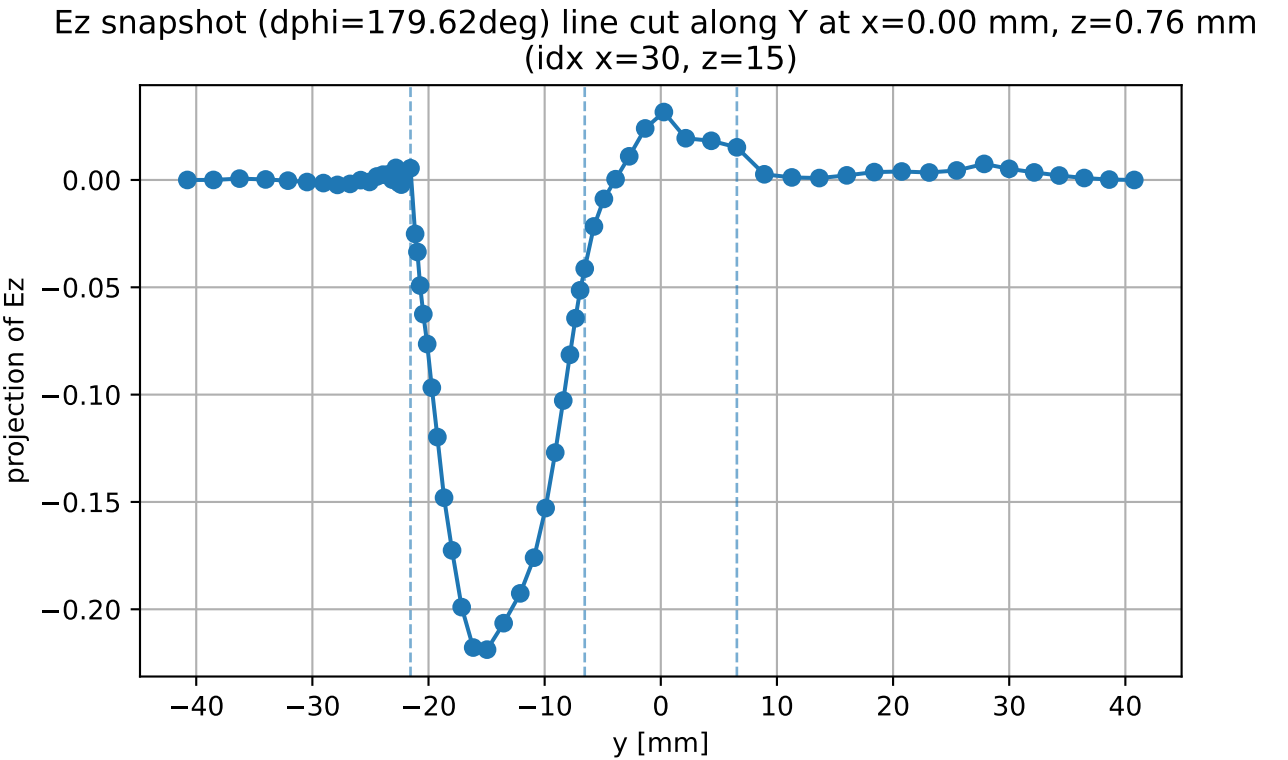

Reflection Coefficient S_{11}
S-Parameter (dB)
−2
−4
−6
−8
−10
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)
S_{11}
min
$f_0 = 5.907$ GHz (−2.7 dB)
No crossing at -10 dB

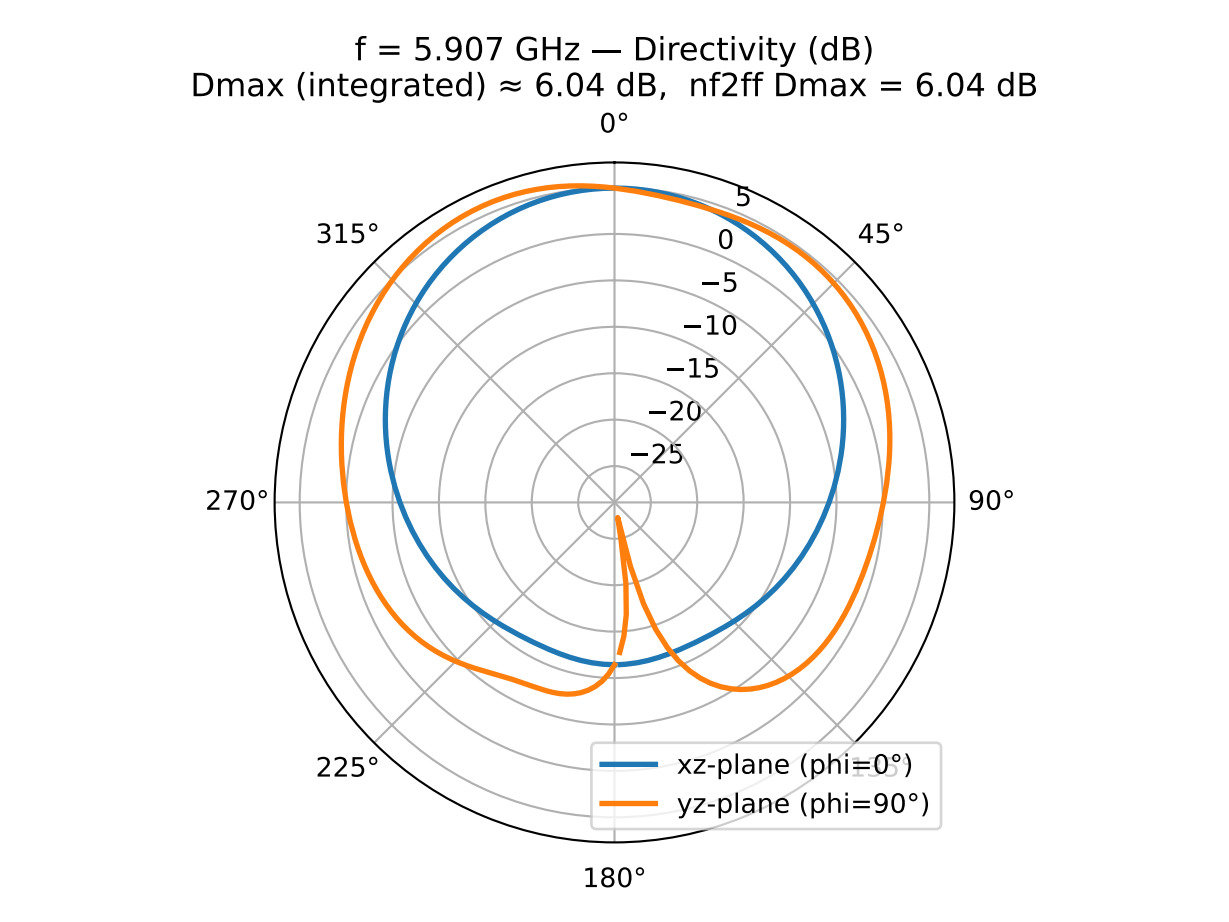

Smith Chart
S11 (Patch W=14.10 mm, L=13.10 mm)
5.80 GHz, S11=0.740+0.057j, R=316.59+79.85j, Gnorm=0.15-0.04j
5.91 GHz, S11=0.685-0.269j, R2=133.79-156.94j, G2norm=0.16+0.18j

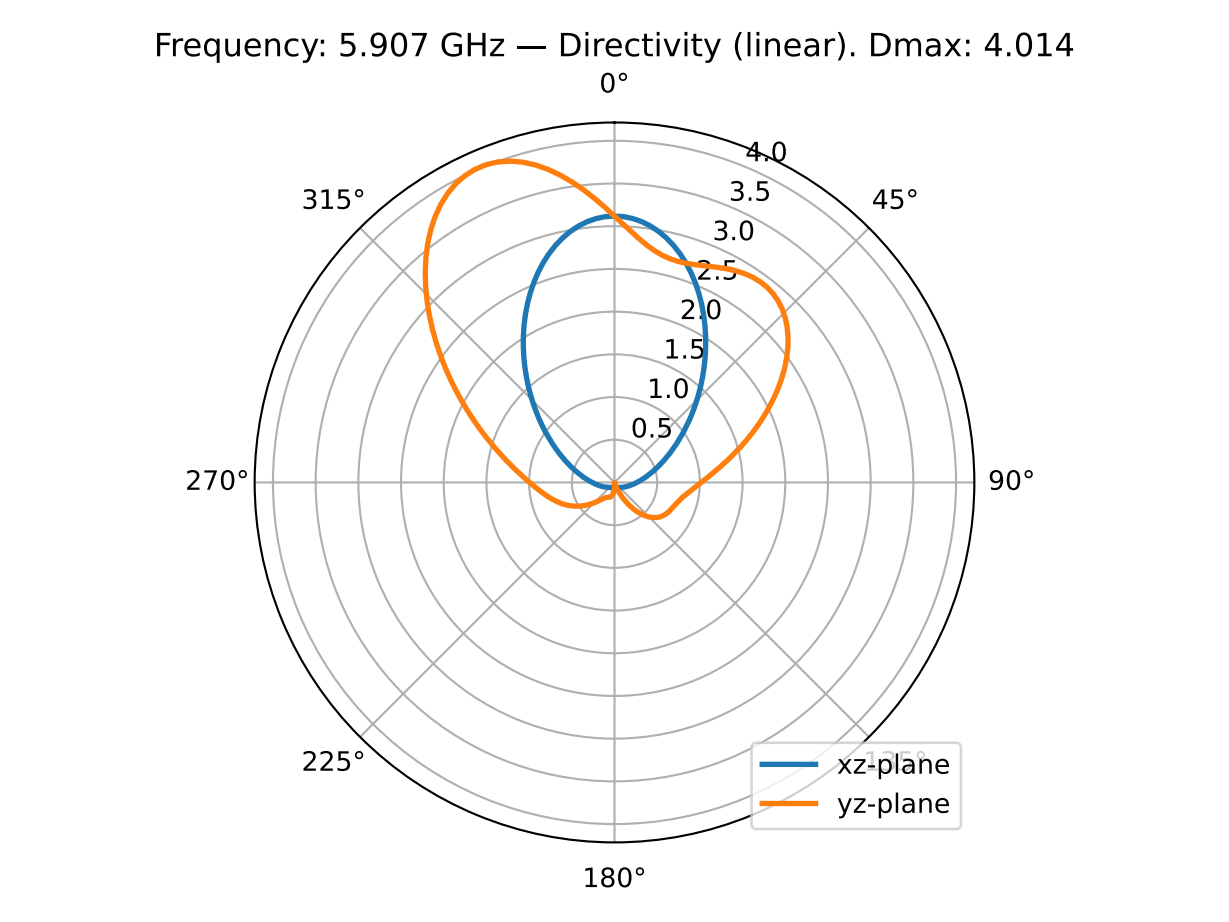

|Ez| slice at z = 0.76 mm (idx 15)
y [mm]
x [mm]
40
30
20
10
0
−10
−20
−30
−40
−30
−20
−10
0
10
20
30
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025
0.000

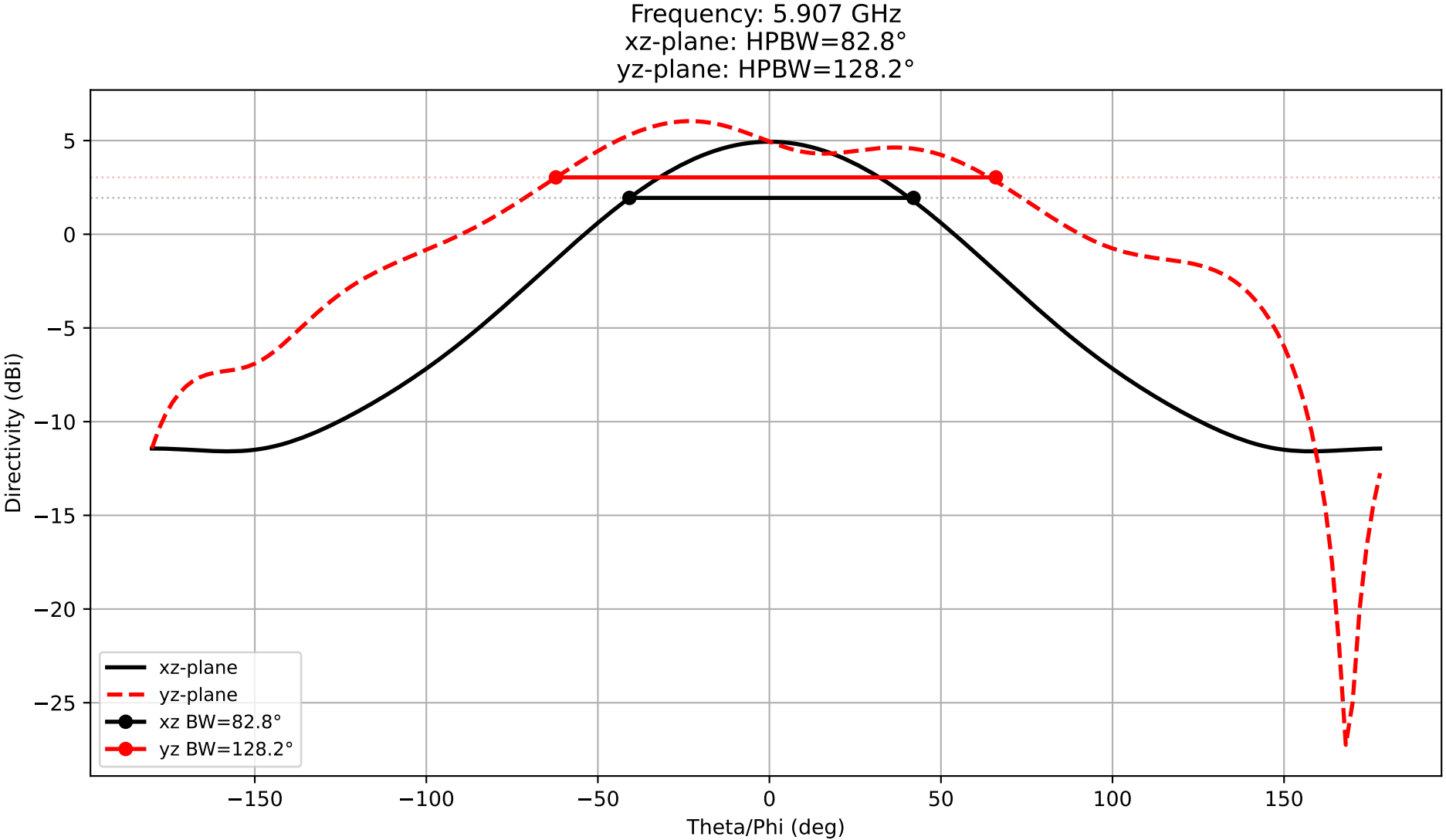

|Ez| line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=30, z=15)
projection of Ez
0.00
0.05
0.10
0.15
0.20
−40
−30
−20
−10
0
10
20
30
40
y [mm]


Ez snapshot (dphi=179.62deg) slice at z = 0.76 mm (idx 15)
y [mm]
x [mm]
40
30
20
10
0
−10
−20
−30
−40
−30
−20
−10
0
10
20
30
0.00
−0.05
−0.10
−0.15
−0.20


Ez snapshot (dphi=179.62deg) line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=30, z=15)
projection of Ez
0.00
−0.05
−0.10
−0.15
−0.20
−40
−30
−20
−10
0
10
20
30
40
y [mm]


f = 5.907 GHz — Directivity (dB)
Dmax (integrated) ≈ 6.04 dB, nf2ff Dmax = 6.04 dB
0°
45°
90°
225°
180°
270°
315°
5
0
−5
−10
−15
−20
−25
xz-plane (phi=0°)
yz-plane (phi=90°)


Frequency: 5.907 GHz — Directivity (linear). Dmax: 4.014
0°
45°
90°
180°
225°
270°
315°
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
xz-plane
yz-plane


Frequency: 5.907 GHz
xz-plane: HPBW=82.8°
yz-plane: HPBW=128.2°
Directivity (dBi)
Theta/Phi (deg)
5
0
−5
−10
−15
−20
−25
−150
−100
−50
0
50
100
150
xz-plane
yz-plane
xz BW=82.8°
yz BW=128.2°