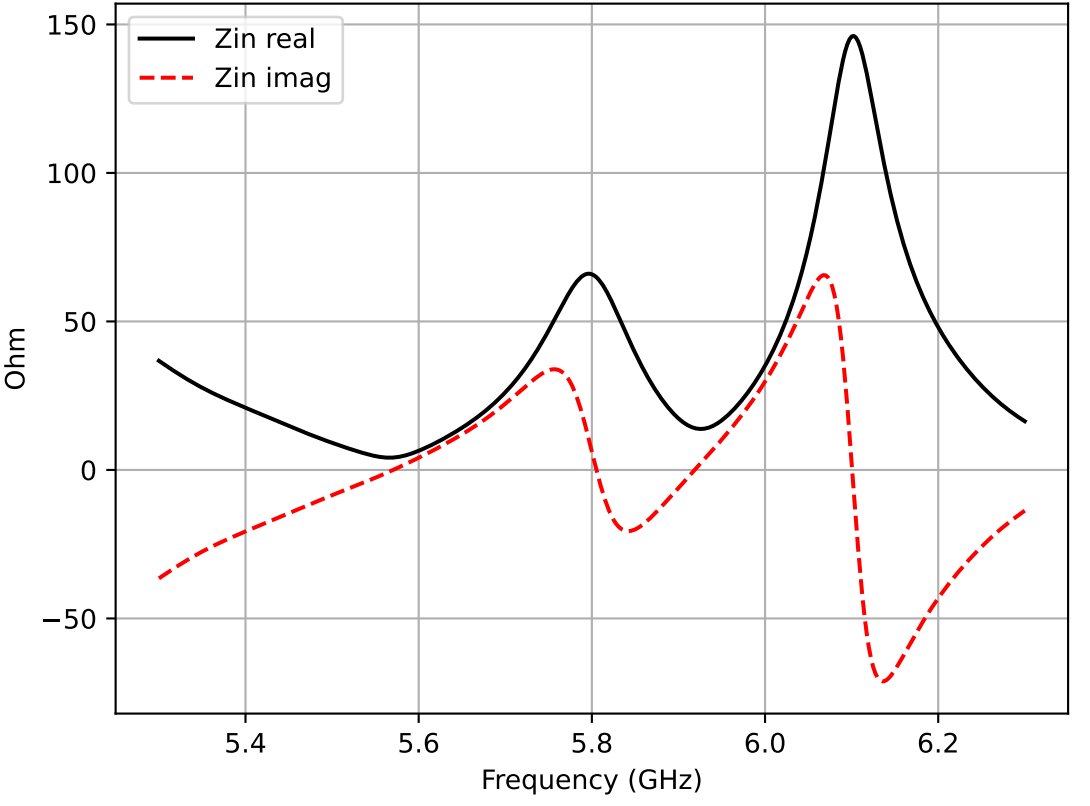
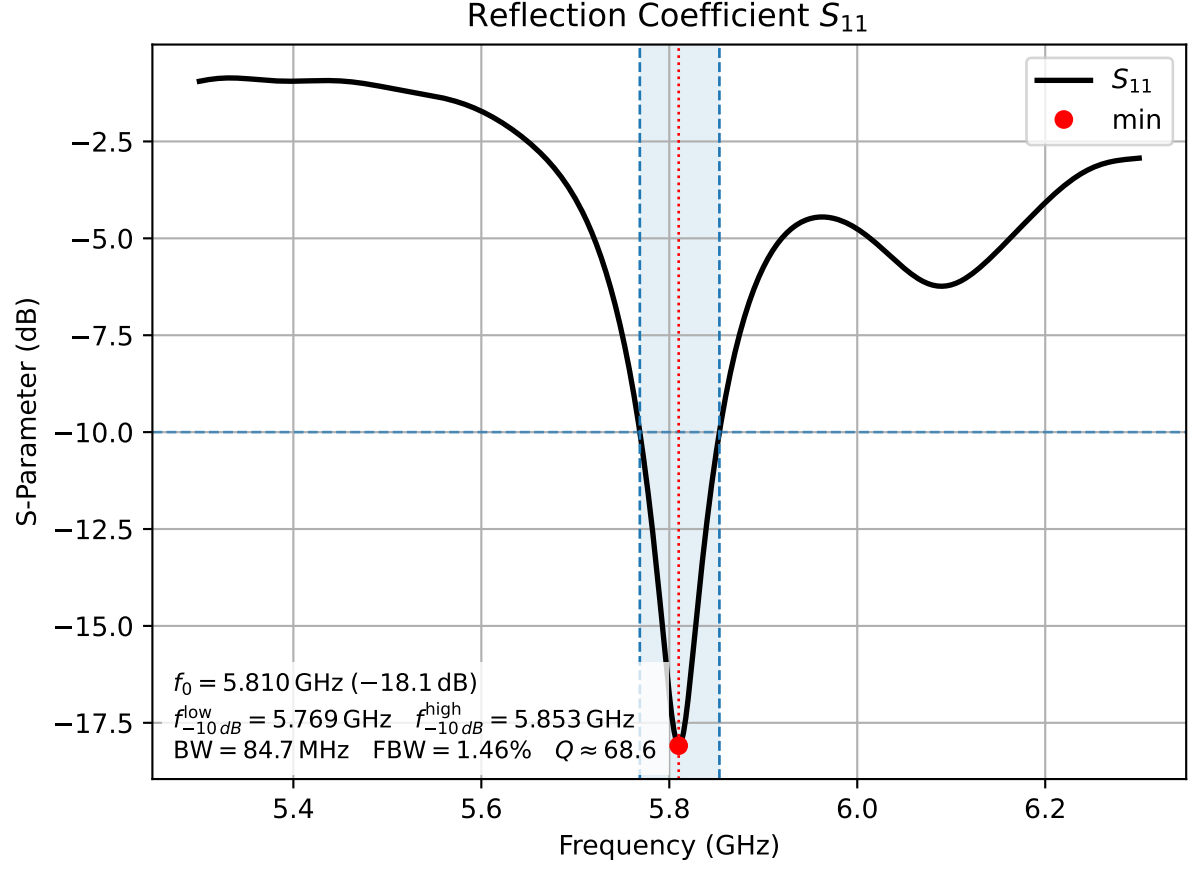
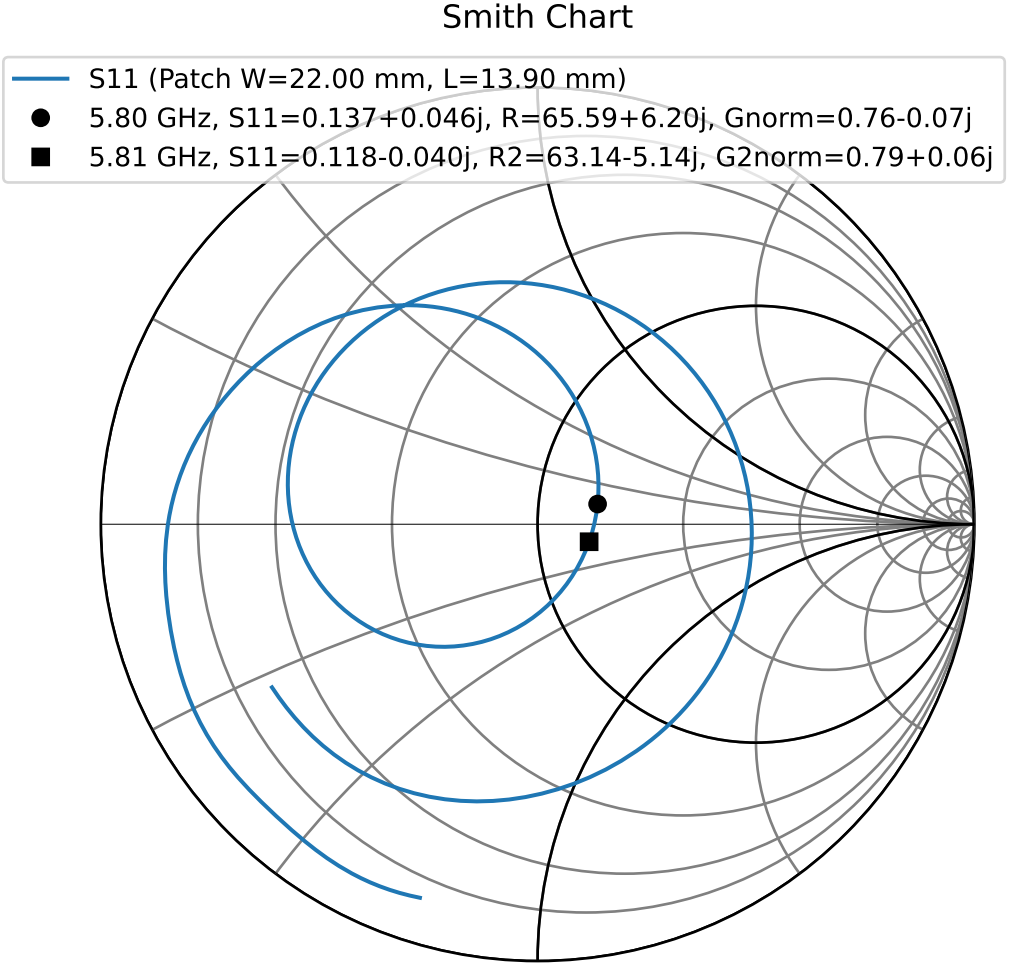
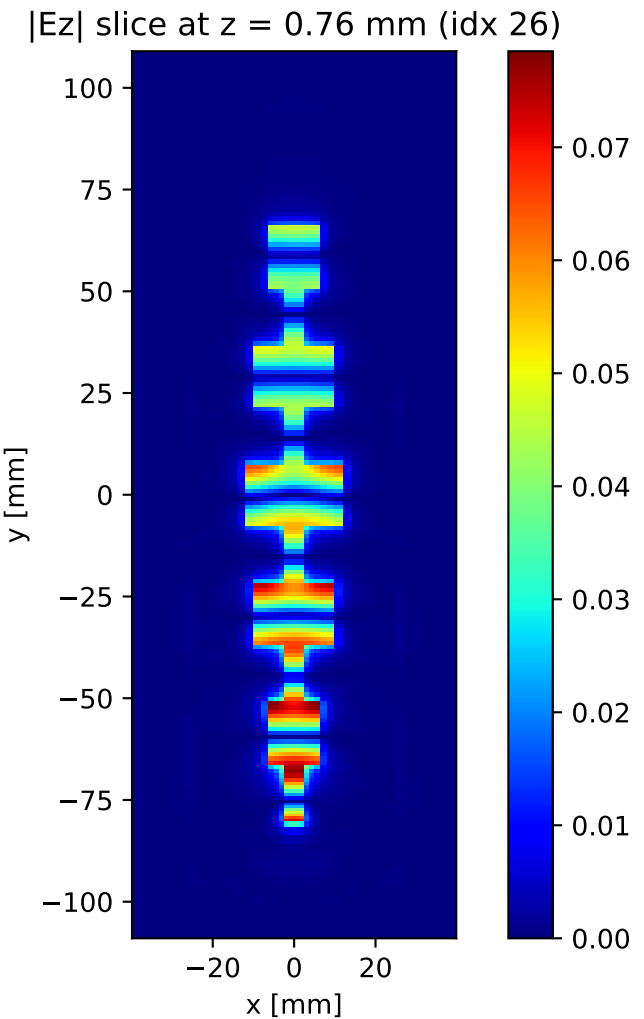
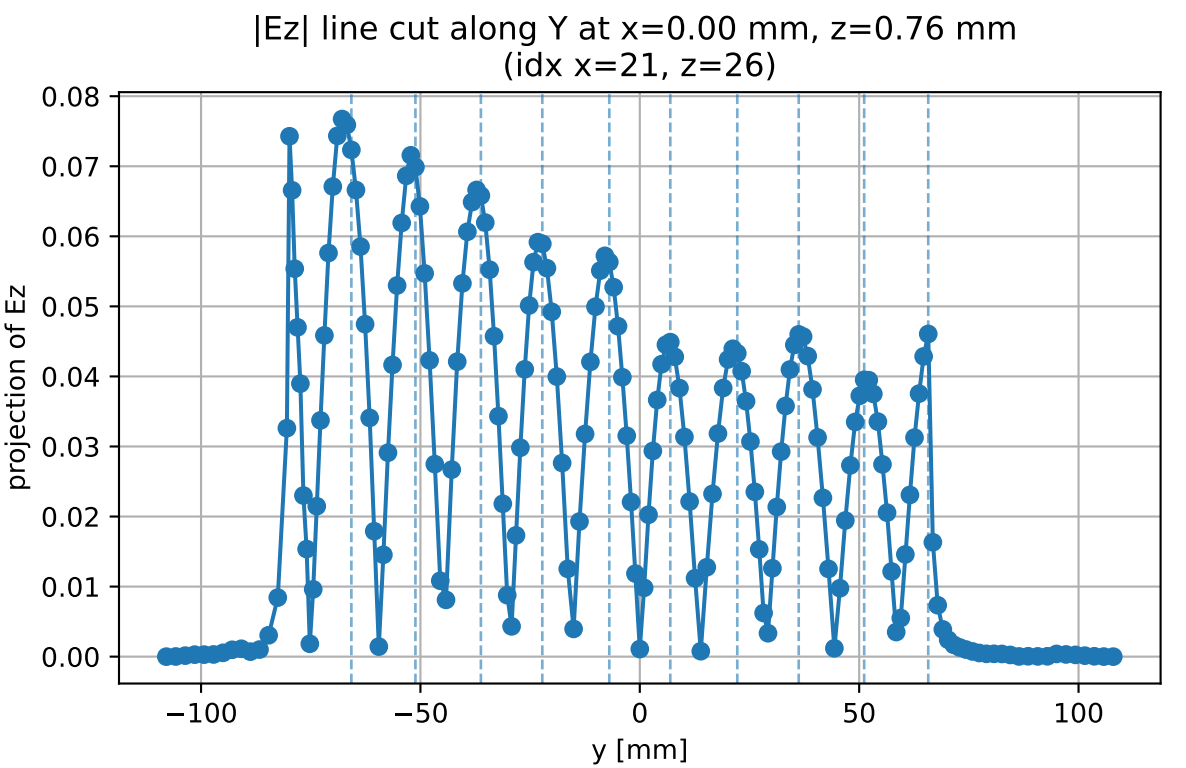
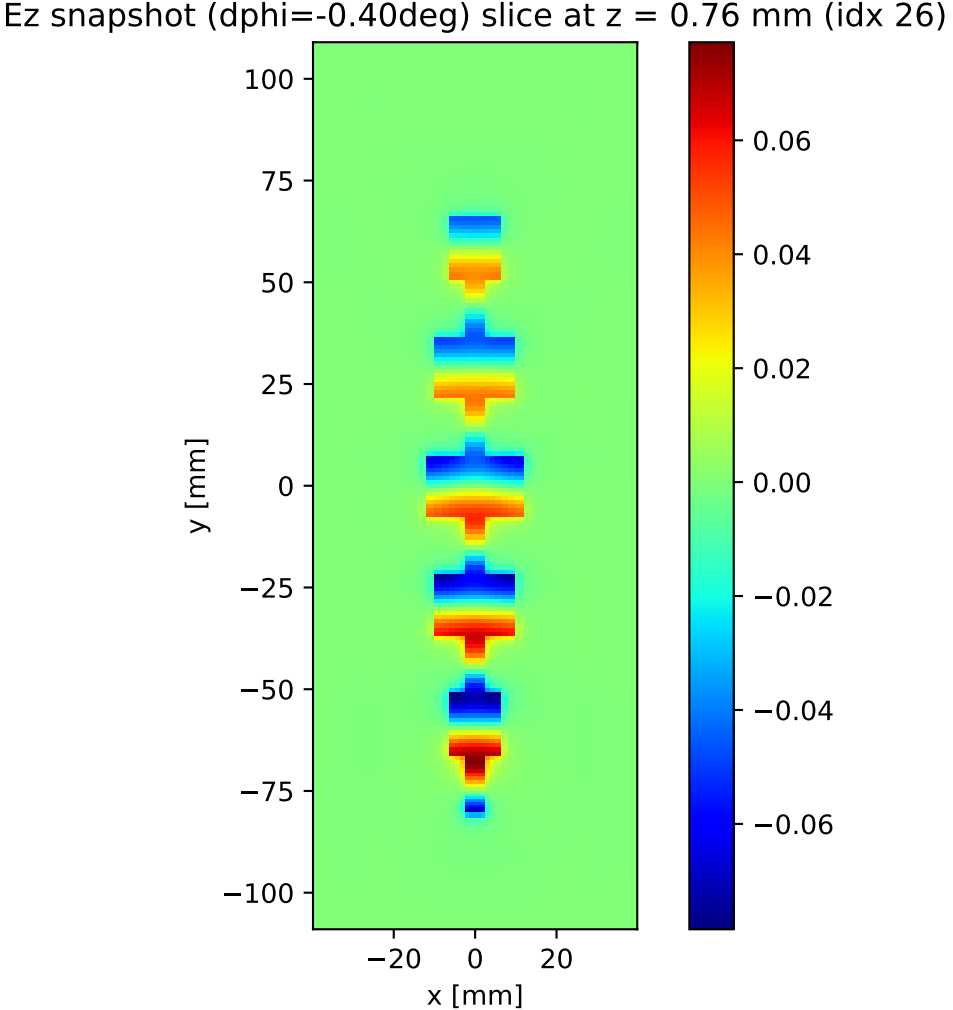

Zin real
Zin imag
150
100
50
0
−50
Ohm
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)

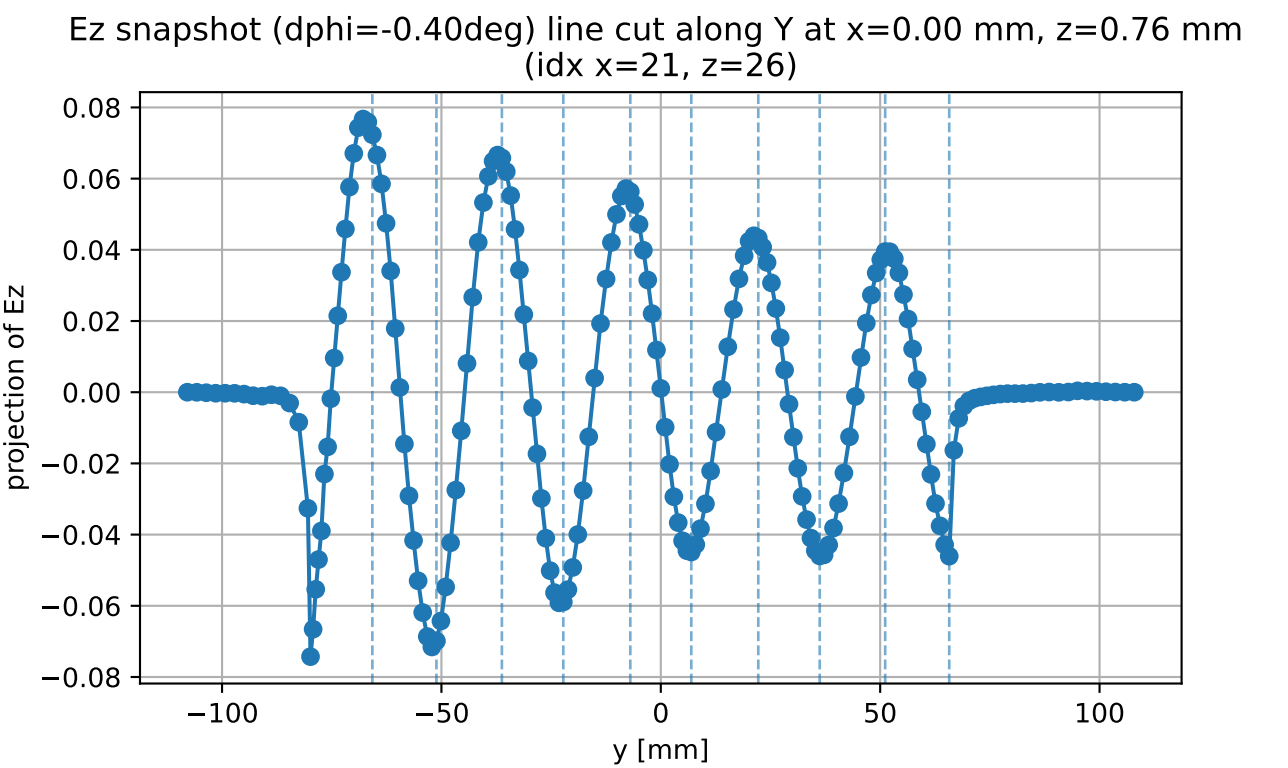

Reflection Coefficient S_{11}
S_{11}
min
S-Parameter (dB)
−2.5
−5.0
−7.5
−10.0
−12.5
−15.0
−17.5
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)
$f_0 = 5.810\,\text{GHz}\ (-18.1\,\text{dB})$
$f^{\text{low}}_{-10\,dB} = 5.769\,\text{GHz}$ $f^{\text{high}}_{-10\,dB} = 5.853\,\text{GHz}$
$\text{BW} = 84.7\,\text{MHz}$ $\text{FBW} = 1.46\%$ $Q \approx 68.6$

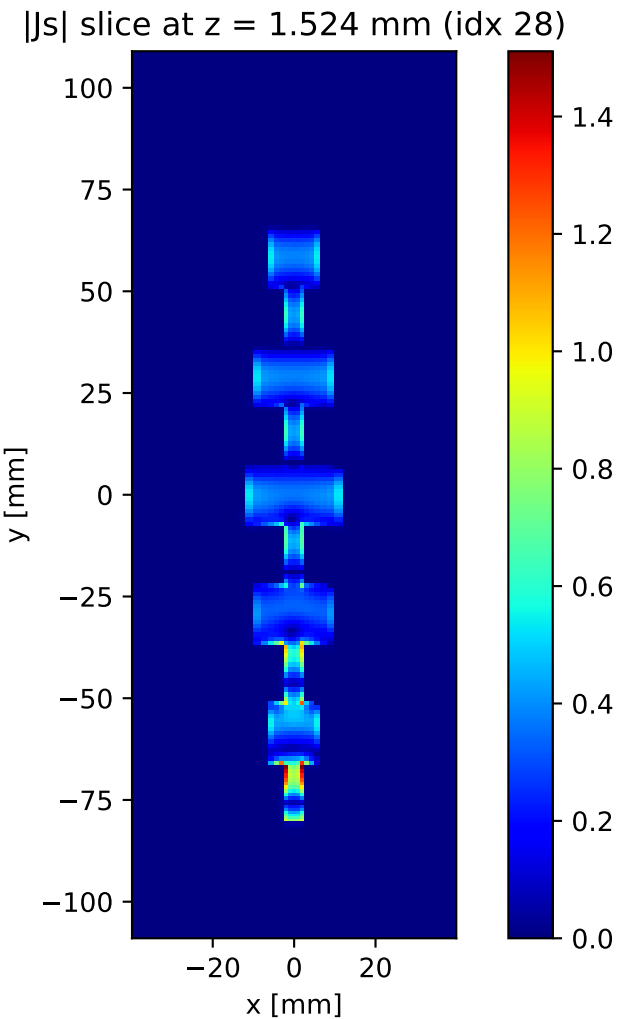

Smith Chart
S11 (Patch W=22.00 mm, L=13.90 mm)
5.80 GHz, S11=0.137+0.046j, R=65.59+6.20j, Gnorm=0.76-0.07j
5.81 GHz, S11=0.118-0.040j, R2=63.14-5.14j, G2norm=0.79+0.06j

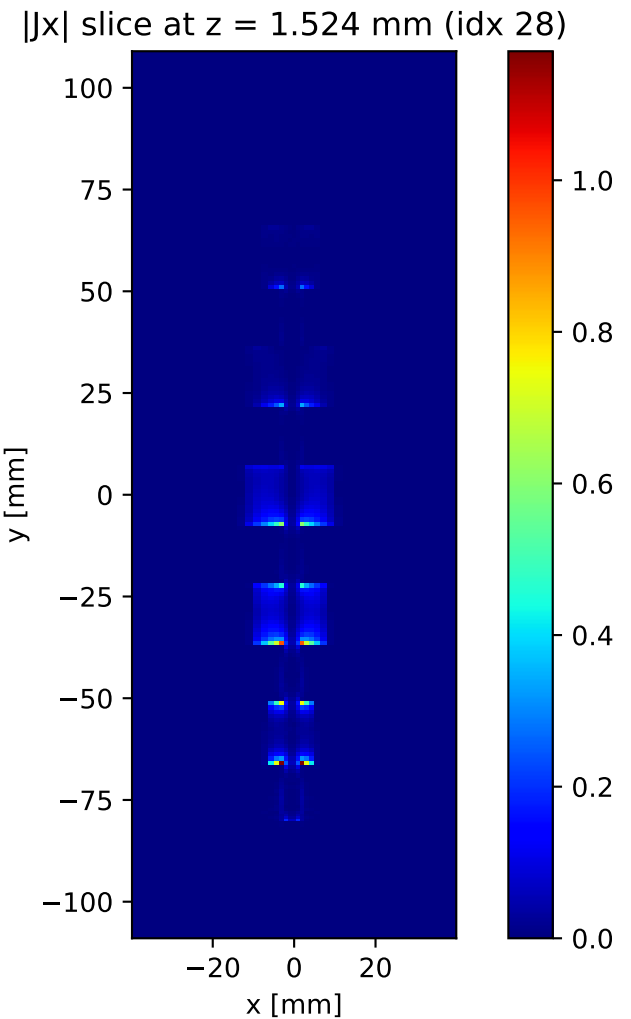

|Ez| slice at z = 0.76 mm (idx 26)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−20
0
20
x [mm]
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00

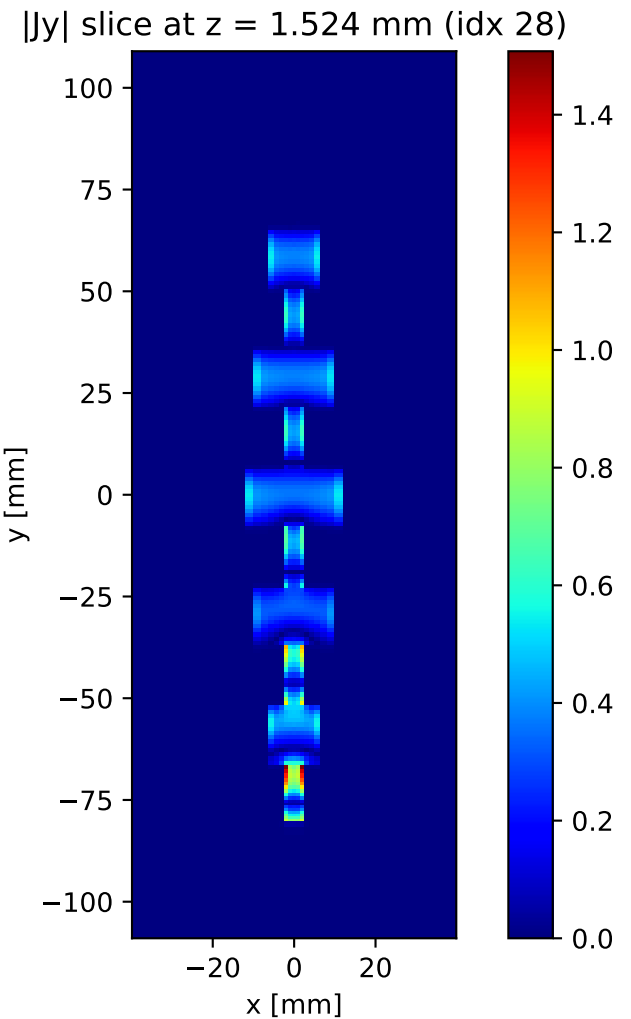

|Ez| line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=21, z=26)
projection of Ez
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
−100
−50
0
50
100
y [mm]

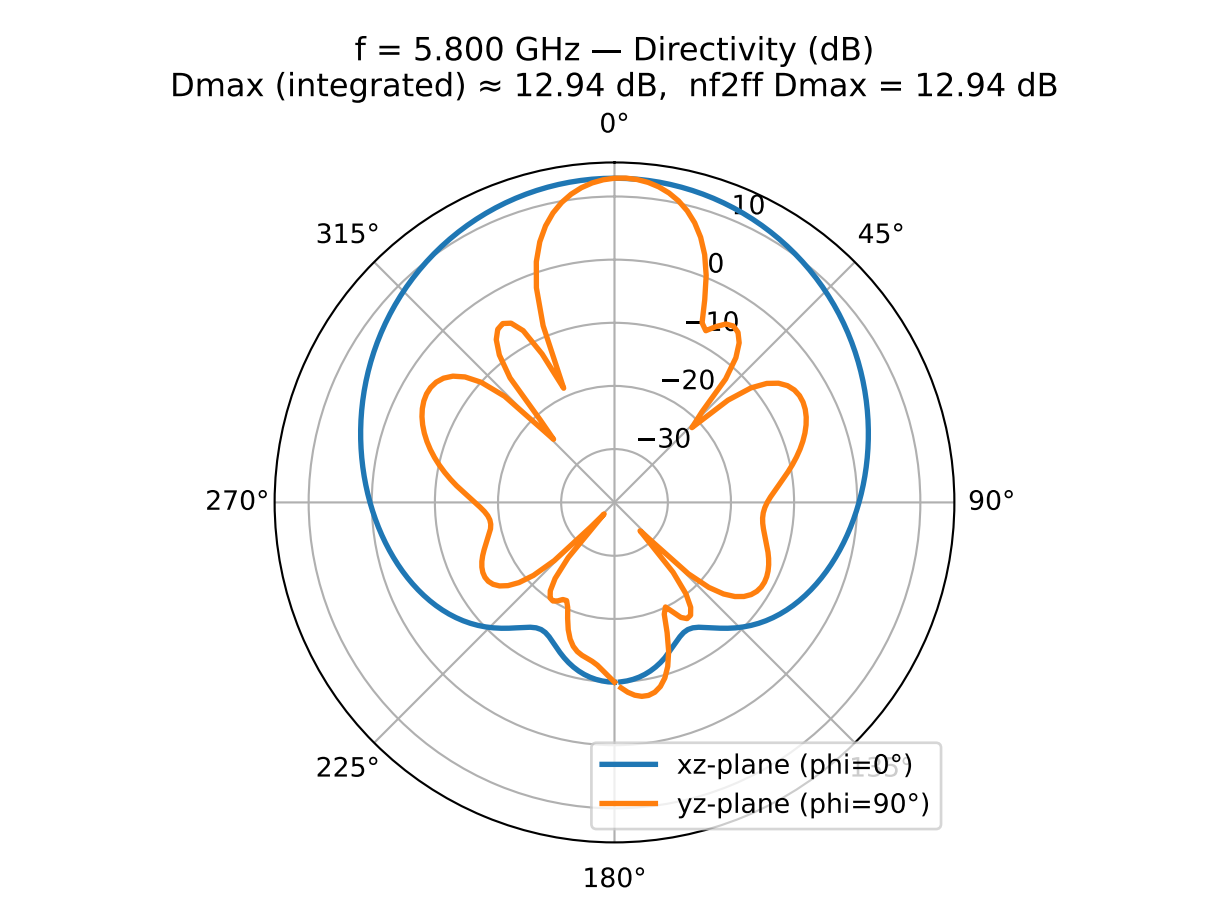

Ez snapshot (dphi=-0.40deg) slice at z = 0.76 mm (idx 26)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−20
0
20
x [mm]
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06

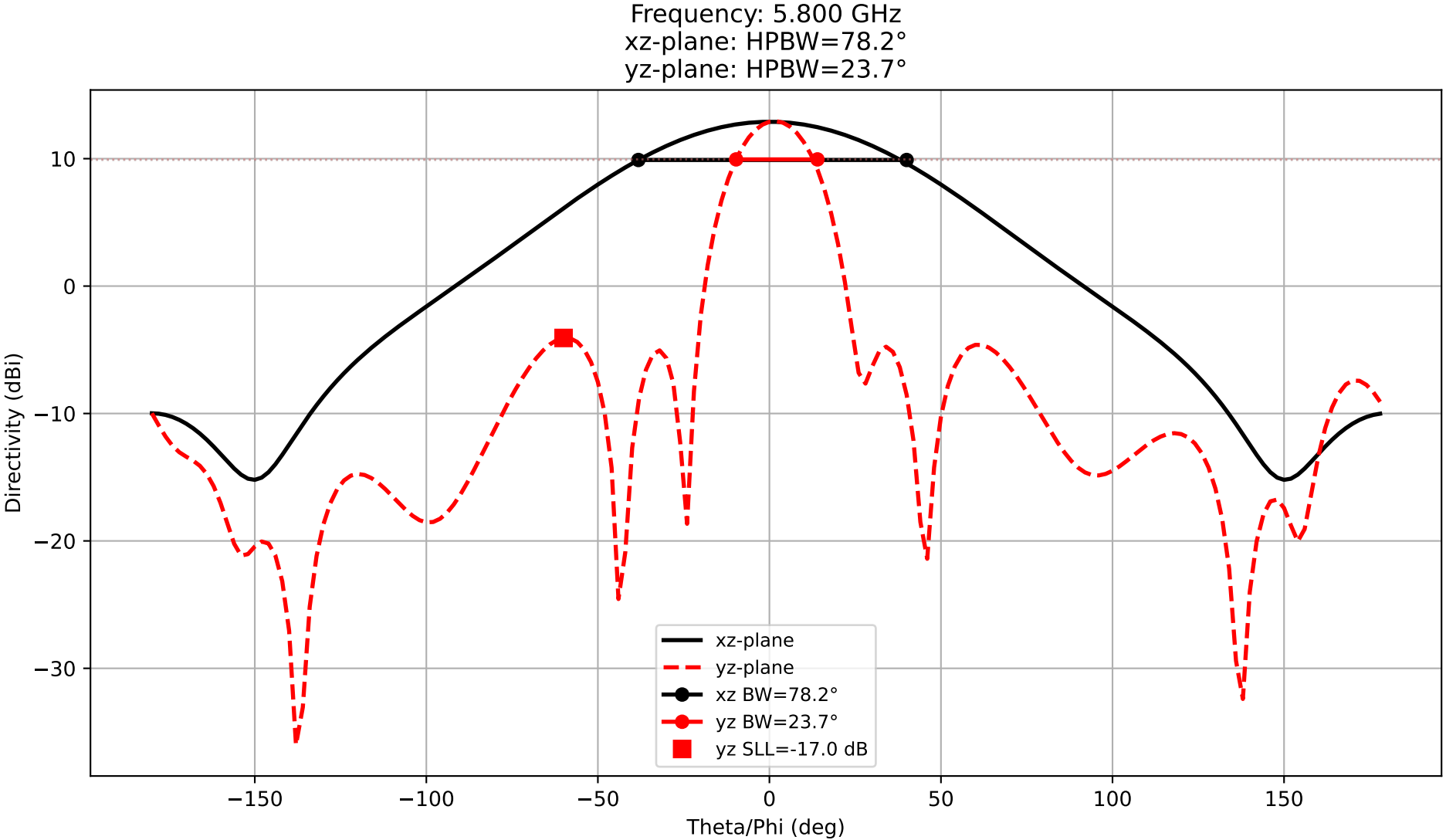

Ez snapshot (dphi=-0.40deg) line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=21, z=26)
projection of Ez
y [mm]
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
−100
−50
0
50
100

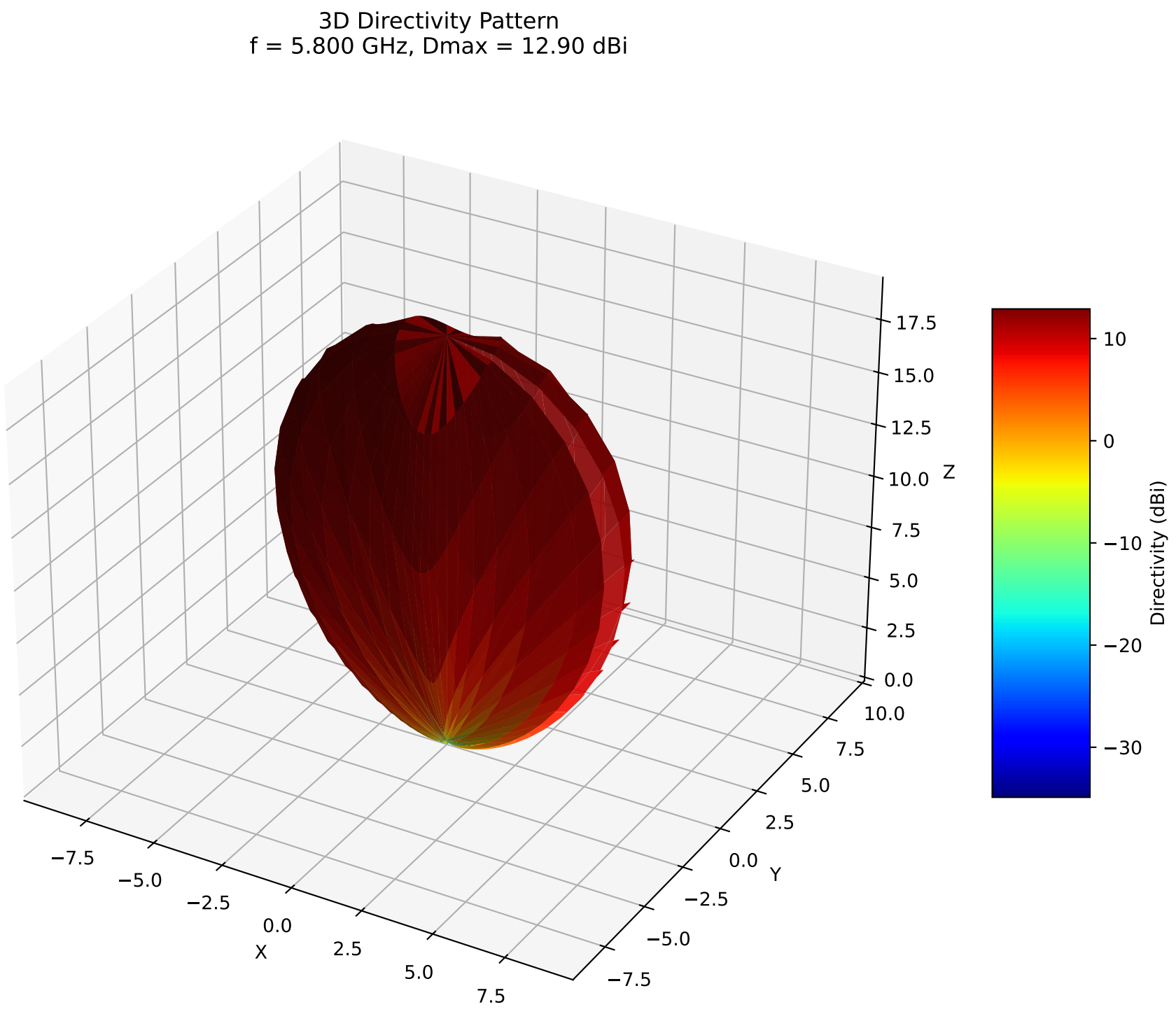

|Js| slice at z = 1.524 mm (idx 28)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−20
0
20
x [mm]
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0


|Jx| slice at z = 1.524 mm (idx 28)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−20
0
20
x [mm]
1.0
0.8
0.6
0.4
0.2
0.0


|Jy| slice at z = 1.524 mm (idx 28)
y [mm]
x [mm]
100
75
50
25
0
−25
−50
−75
−100
−20
0
20
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0


f = 5.800 GHz — Directivity (dB)
Dmax (integrated) ≈ 12.94 dB, nf2ff Dmax = 12.94 dB
0°
45°
90°
180°
225°
270°
315°
10
0
−10
−20
−30
xz-plane (phi=0°)
yz-plane (phi=90°)


Frequency: 5.800 GHz
xz-plane: HPBW=78.2°
yz-plane: HPBW=23.7°
Directivity (dBi)
10
0
−10
−20
−30
−150
−100
−50
0
50
100
150
Theta/Phi (deg)
xz-plane
yz-plane
xz BW=78.2°
yz BW=23.7°
yz SLL=-17.0 dB


3D Directivity Pattern
f = 5.800 GHz, Dmax = 12.90 dBi
X
Y
Z
Directivity (dBi)