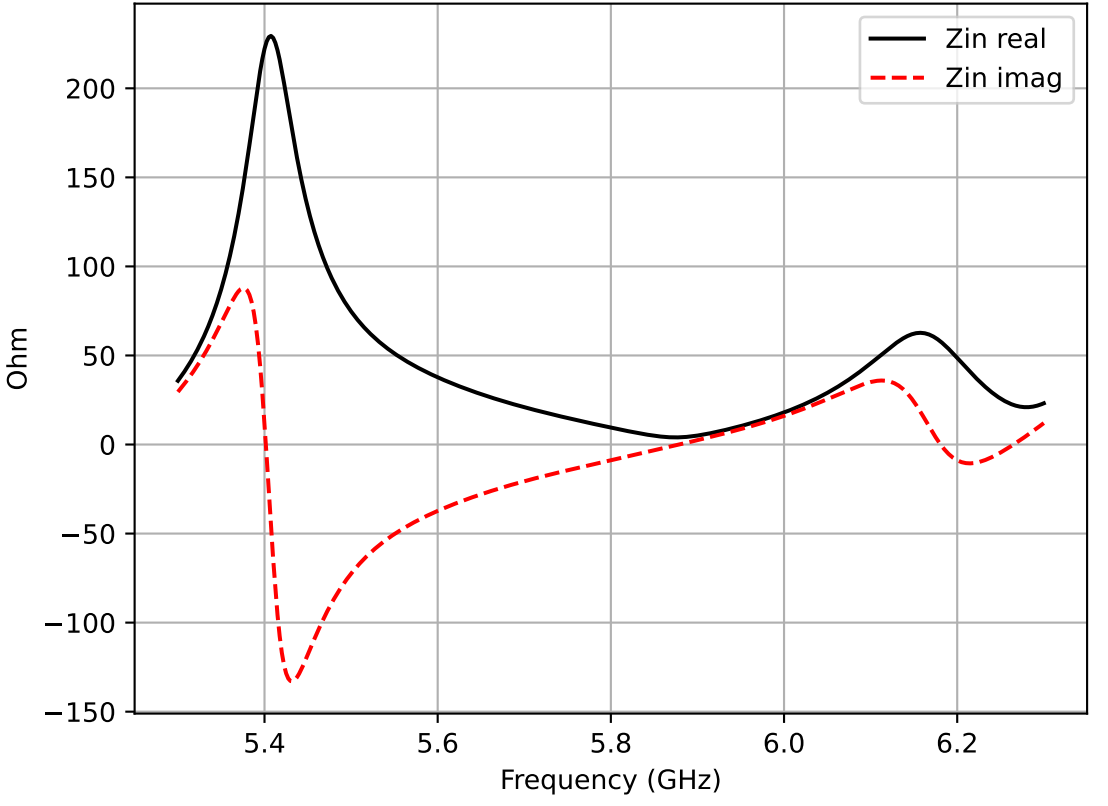
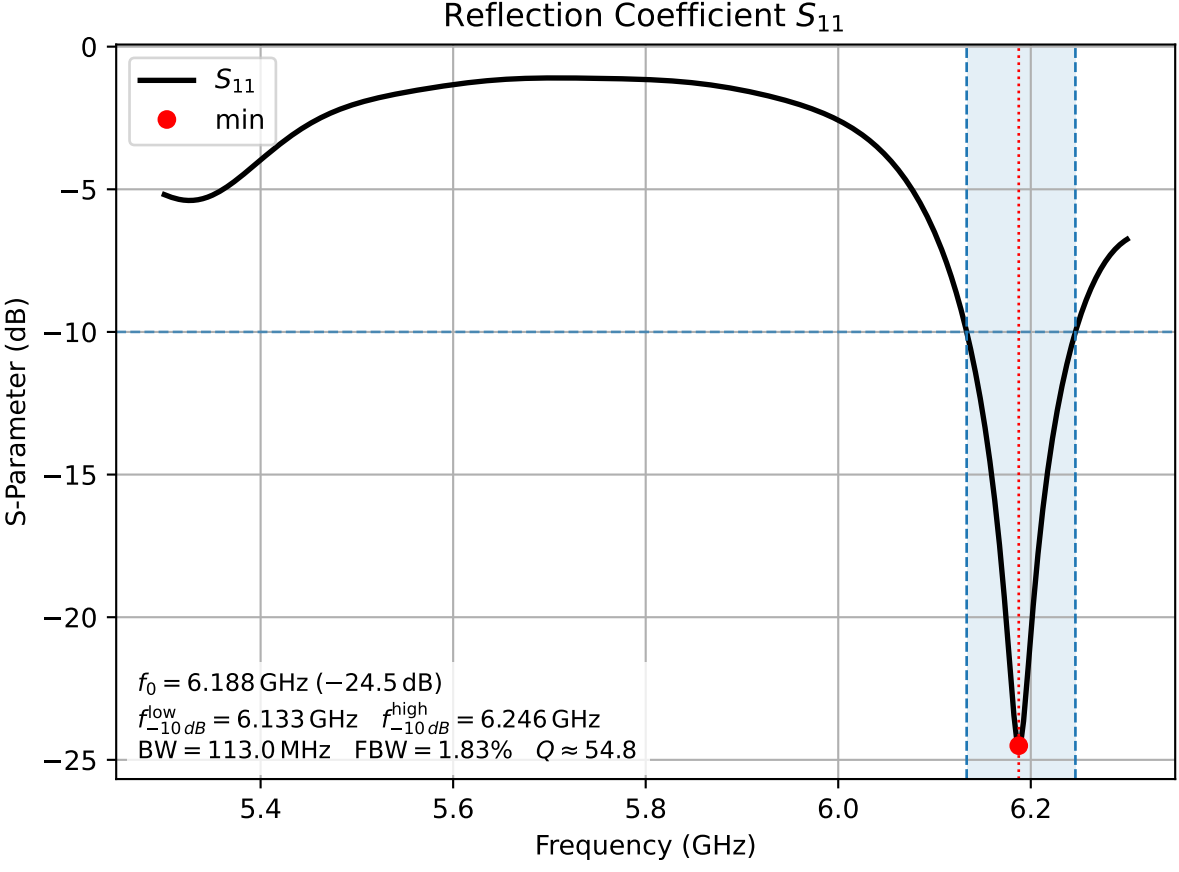
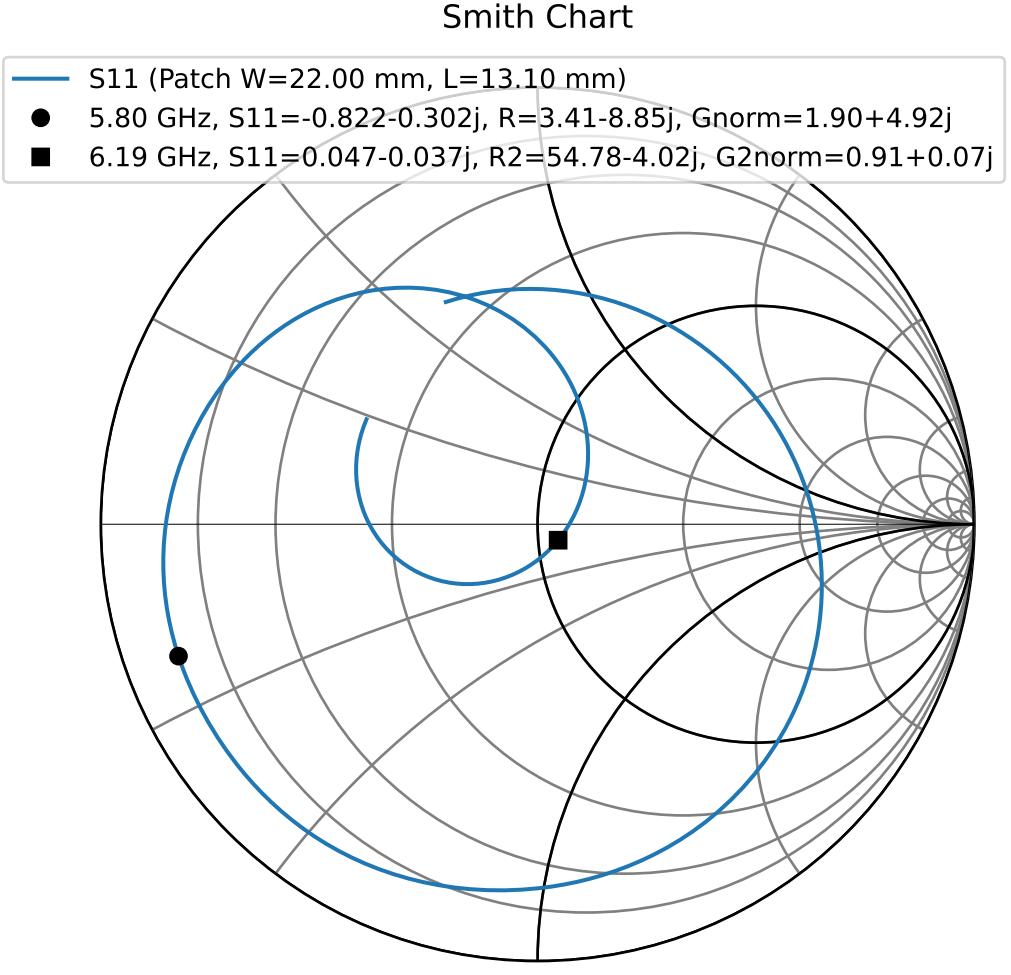
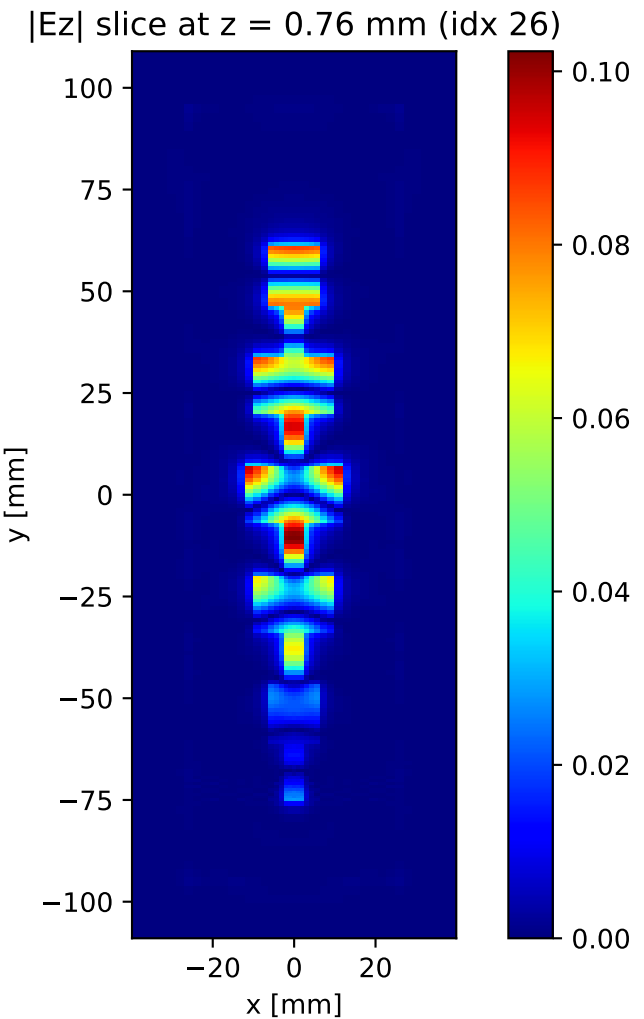
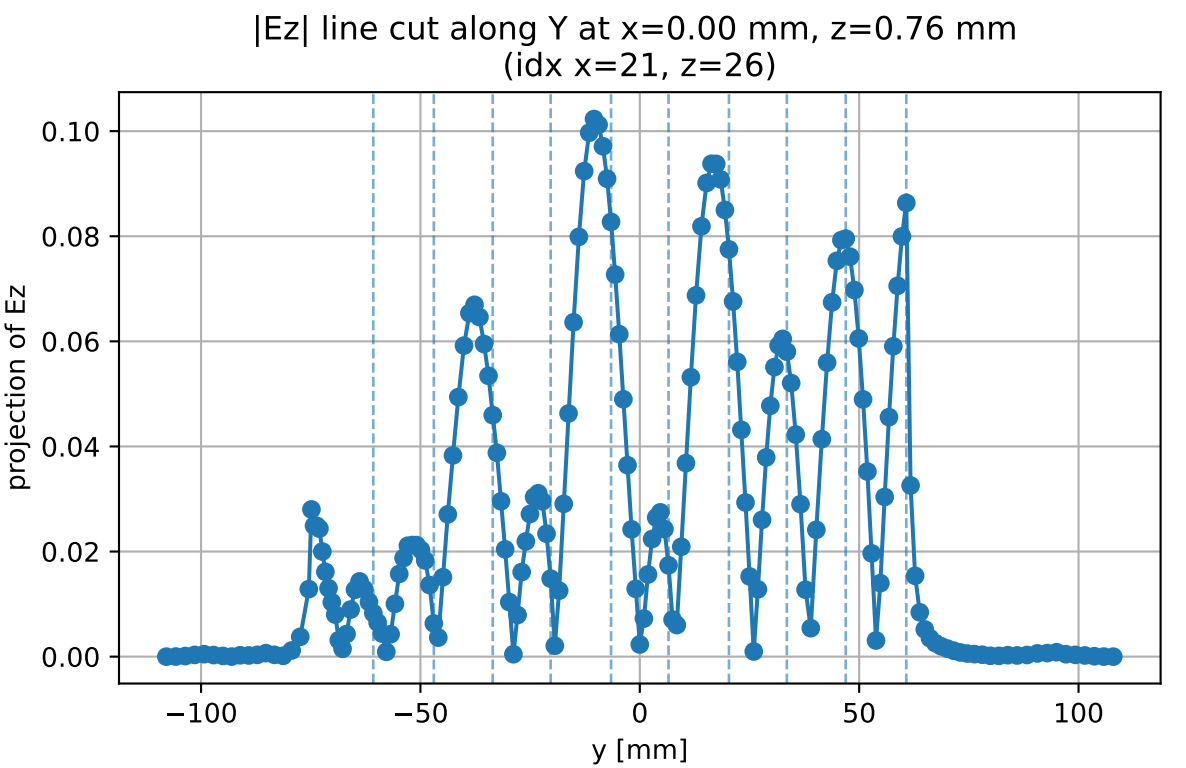
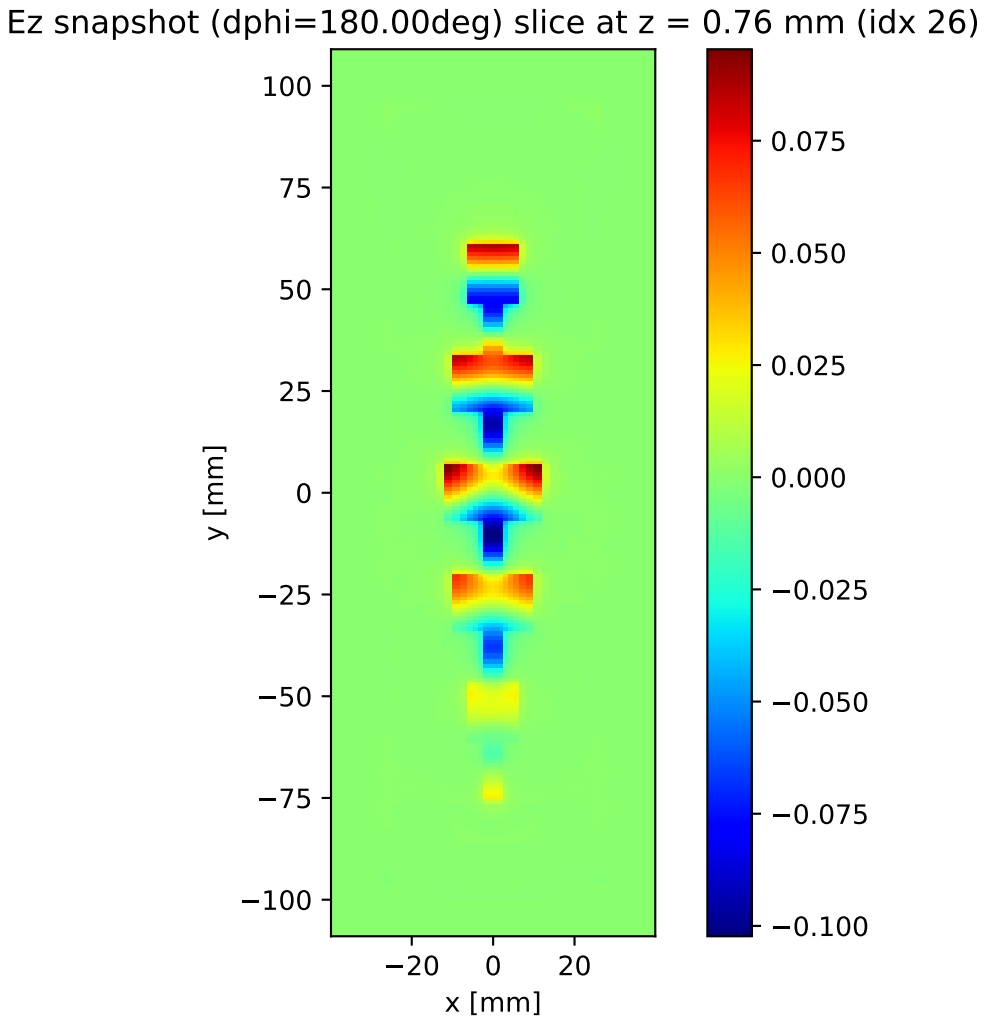

Zin real
Zin imag
200
150
100
50
0
−50
−100
−150
Ohm
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)

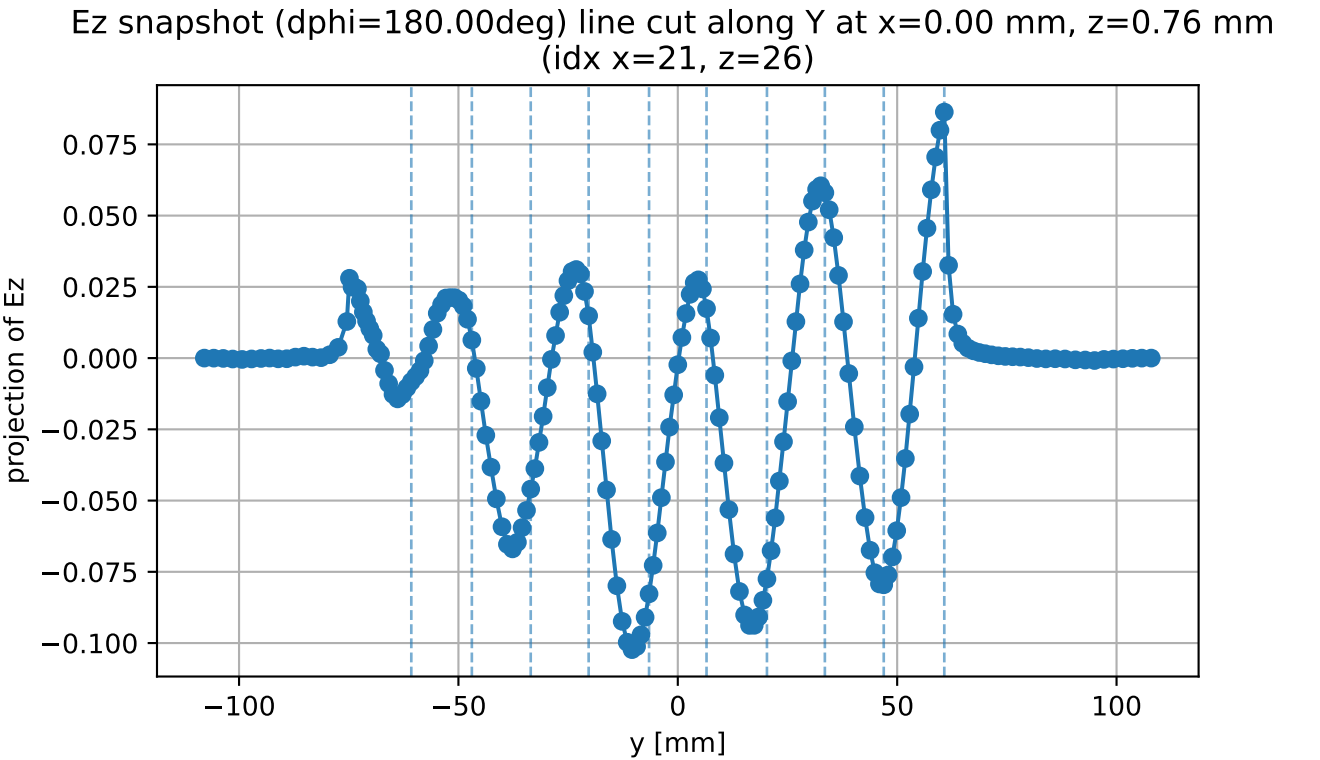

Reflection Coefficient S_{11}
S_{11}
min
0
−5
−10
−15
−20
−25
S-Parameter (dB)
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)
$f_0 = 6.188\,\text{GHz}\ (-24.5\,\text{dB})$
$f^{\text{low}}_{-10\,dB} = 6.133\,\text{GHz}$ $f^{\text{high}}_{-10\,dB} = 6.246\,\text{GHz}$
$\text{BW} = 113.0\,\text{MHz}$ $\text{FBW} = 1.83\%$ $Q \approx 54.8$

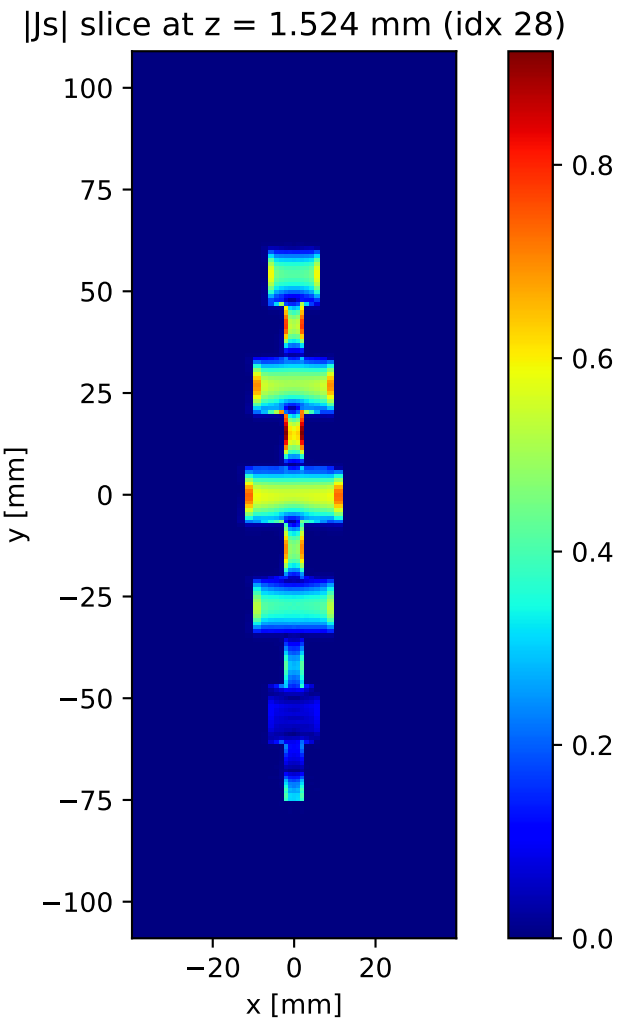

Smith Chart
S11 (Patch W=22.00 mm, L=13.10 mm)
5.80 GHz, S11=-0.822-0.302j, R=3.41-8.85j, Gnorm=1.90+4.92j
6.19 GHz, S11=0.047-0.037j, R2=54.78-4.02j, G2norm=0.91+0.07j

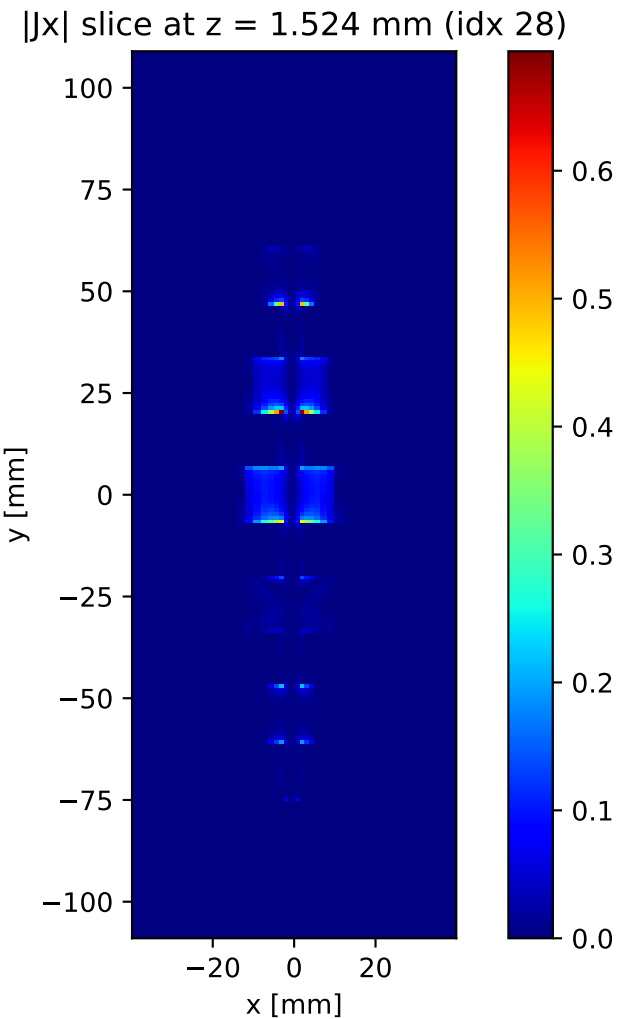

|Ez| slice at z = 0.76 mm (idx 26)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−20
0
20
x [mm]
0.10
0.08
0.06
0.04
0.02
0.00

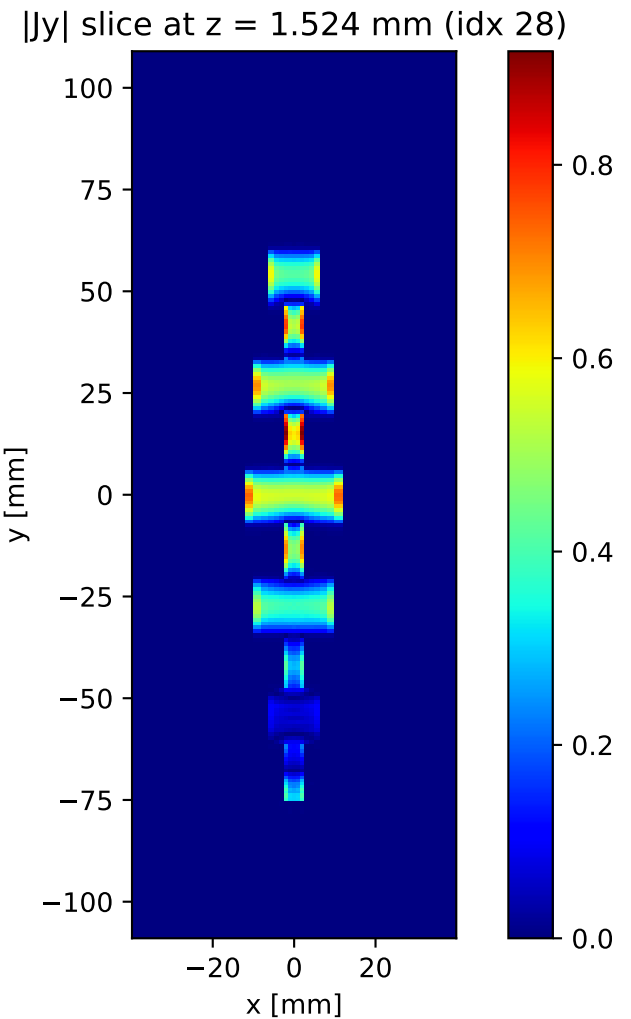

|Ez| line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=21, z=26)
projection of Ez
0.00
0.02
0.04
0.06
0.08
0.10
−100
−50
0
50
100
y [mm]

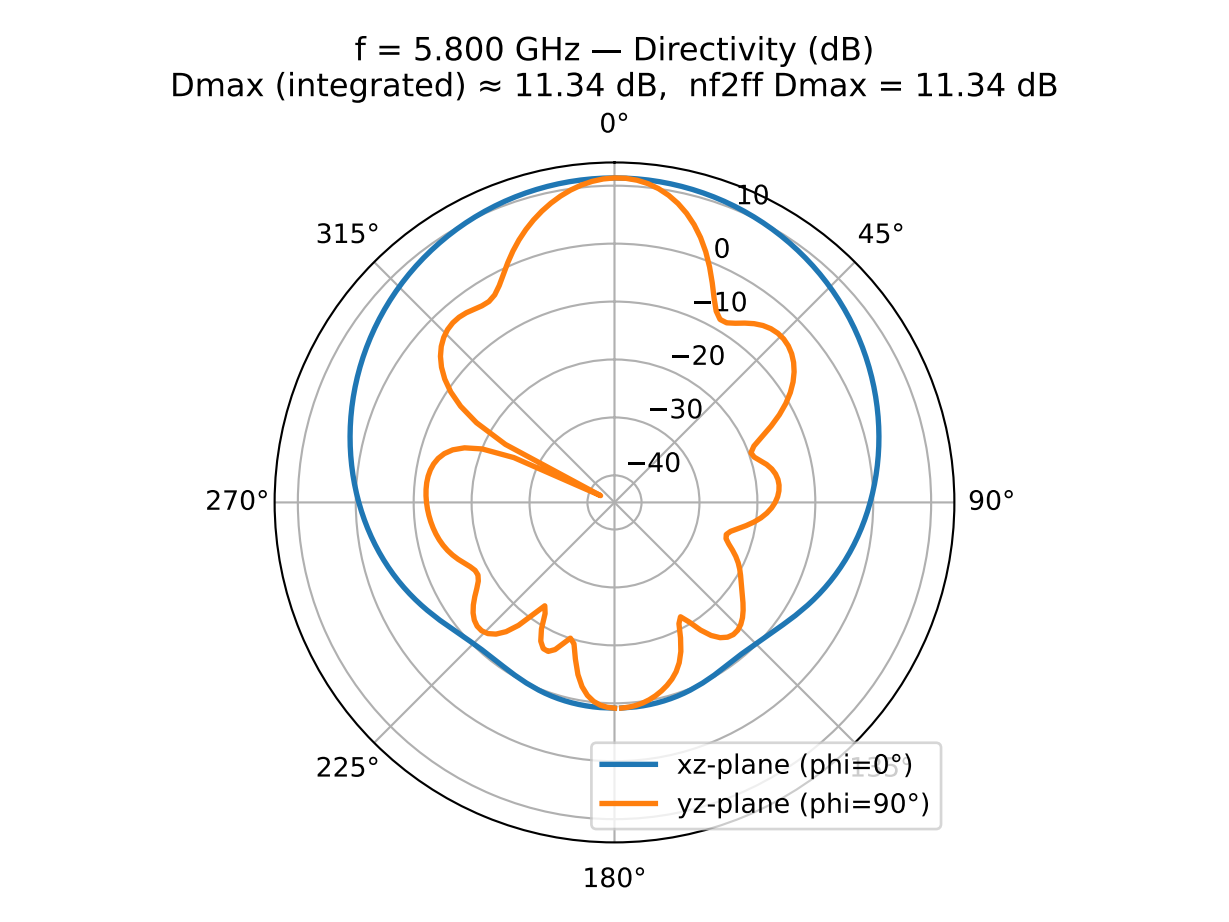

Ez snapshot (dphi=180.00deg) slice at z = 0.76 mm (idx 26)
y [mm]
x [mm]
100
75
50
25
0
−25
−50
−75
−100
−20
0
20
0.075
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100

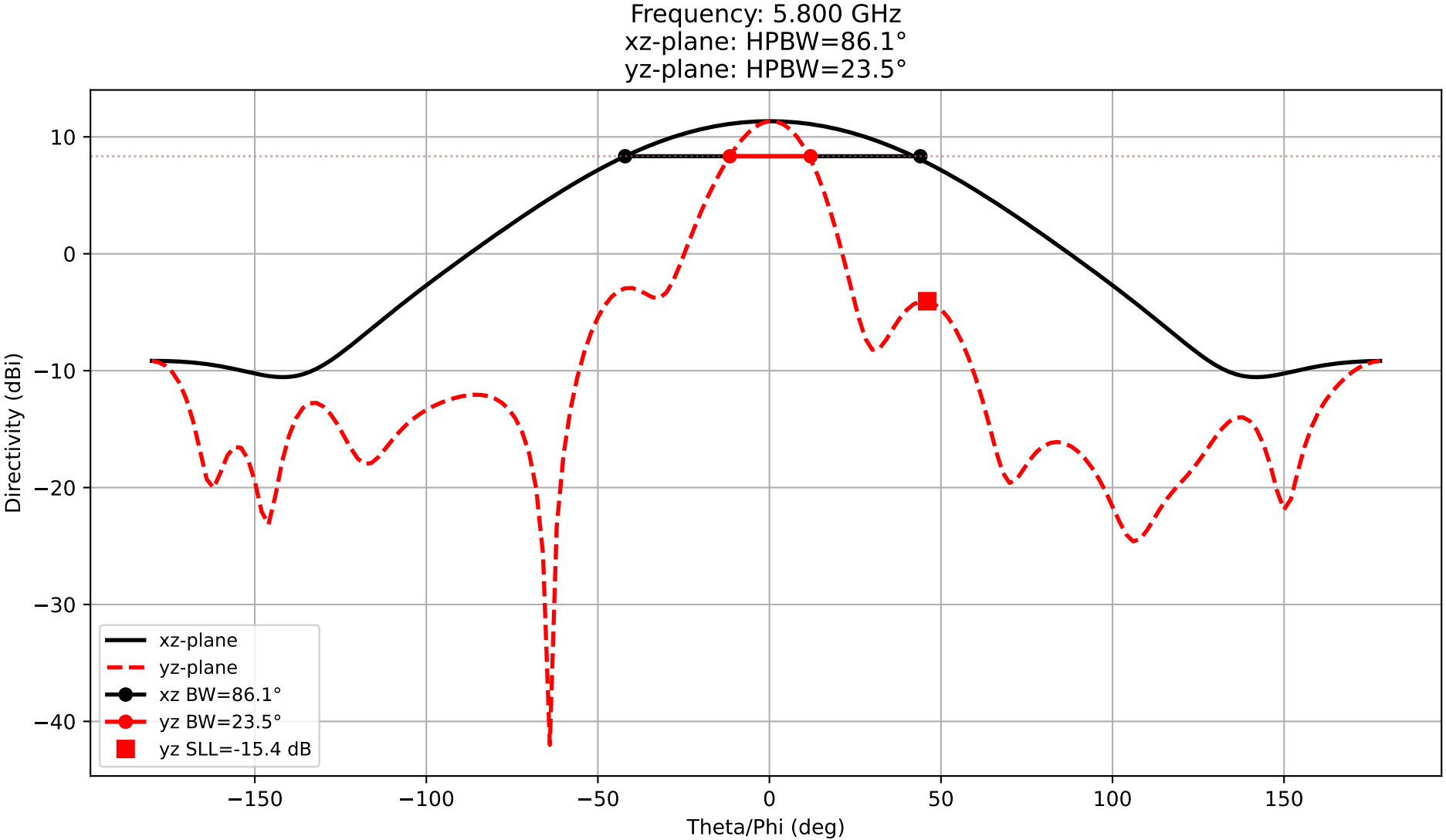

Ez snapshot (dphi=180.00deg) line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=21, z=26)
projection of Ez
y [mm]
0.075
0.050
0.025
0.000
−0.025
−0.050
−0.075
−0.100
−100
−50
0
50
100

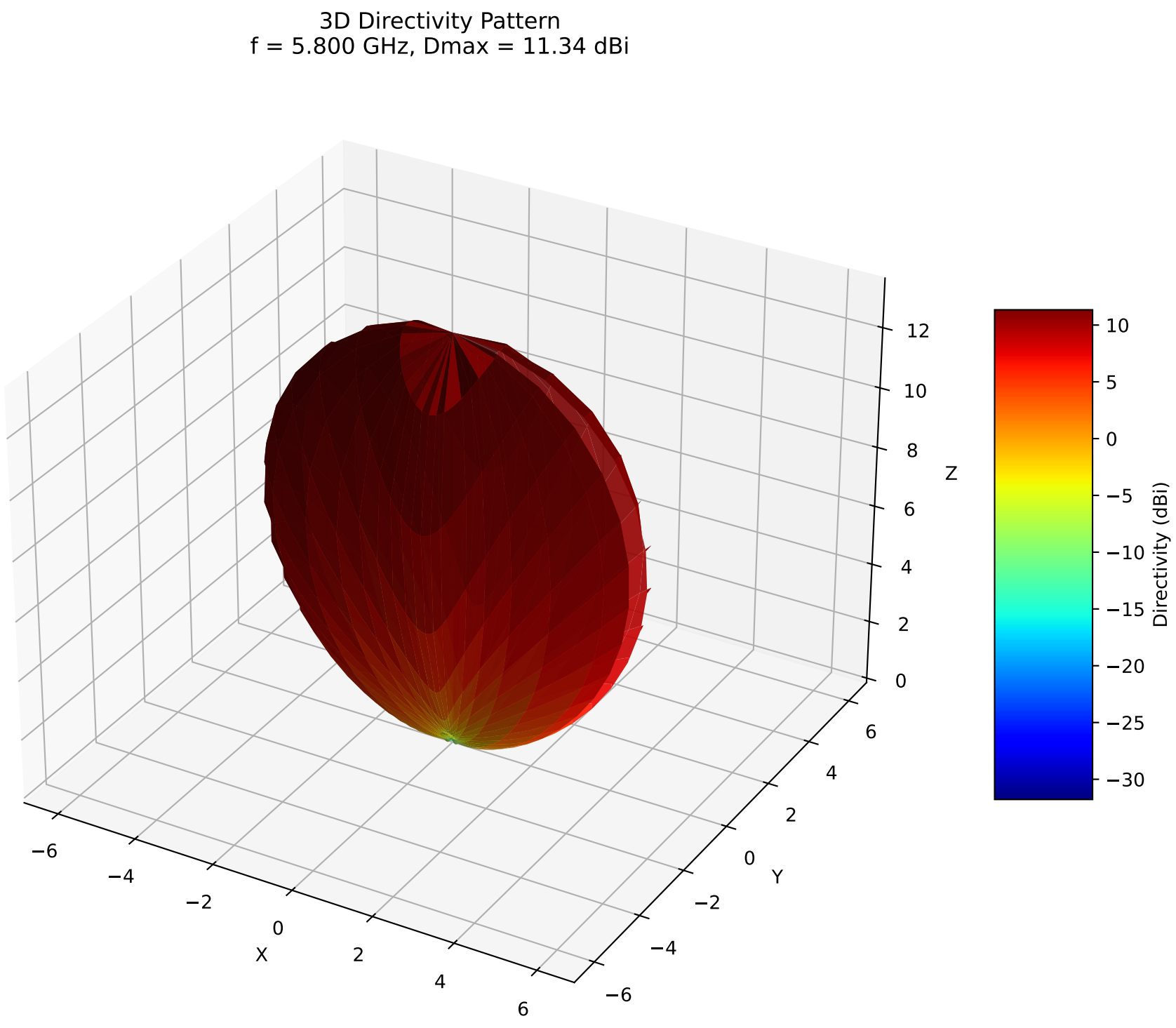

|Js| slice at z = 1.524 mm (idx 28)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−20
0
20
x [mm]
0.8
0.6
0.4
0.2
0.0


|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]
0.6
0.5
0.4
0.3
0.2
0.1
0.0


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


f = 5.800 GHz — Directivity (dB)
Dmax (integrated) ≈ 11.34 dB, nf2ff Dmax = 11.34 dB
0°
45°
90°
225°
270°
315°
180°
10
0
−10
−20
−30
−40
xz-plane (phi=0°)
yz-plane (phi=90°)


Frequency: 5.800 GHz
xz-plane: HPBW=86.1°
yz-plane: HPBW=23.5°
Directivity (dBi)
10
0
−10
−20
−30
−40
−150
−100
−50
0
50
100
150
Theta/Phi (deg)
xz-plane
yz-plane
xz BW=86.1°
yz BW=23.5°
yz SLL=-15.4 dB


3D Directivity Pattern
f = 5.800 GHz, Dmax = 11.34 dBi
X
Y
Z
Directivity (dBi)