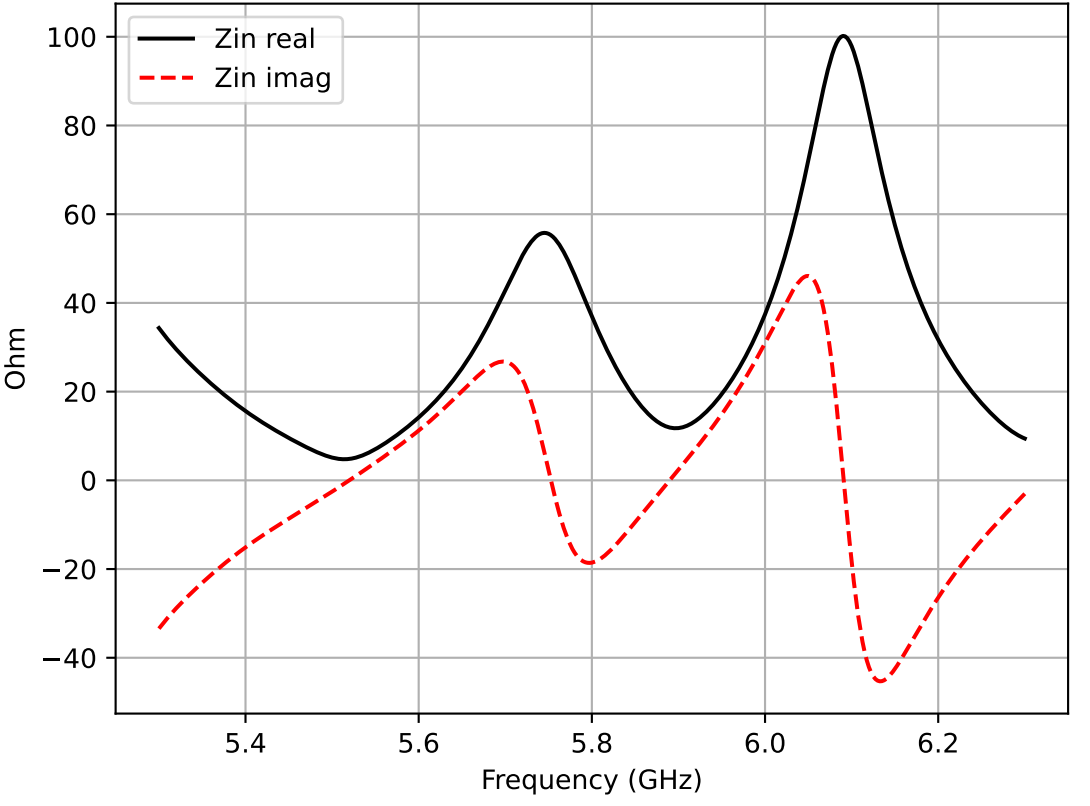
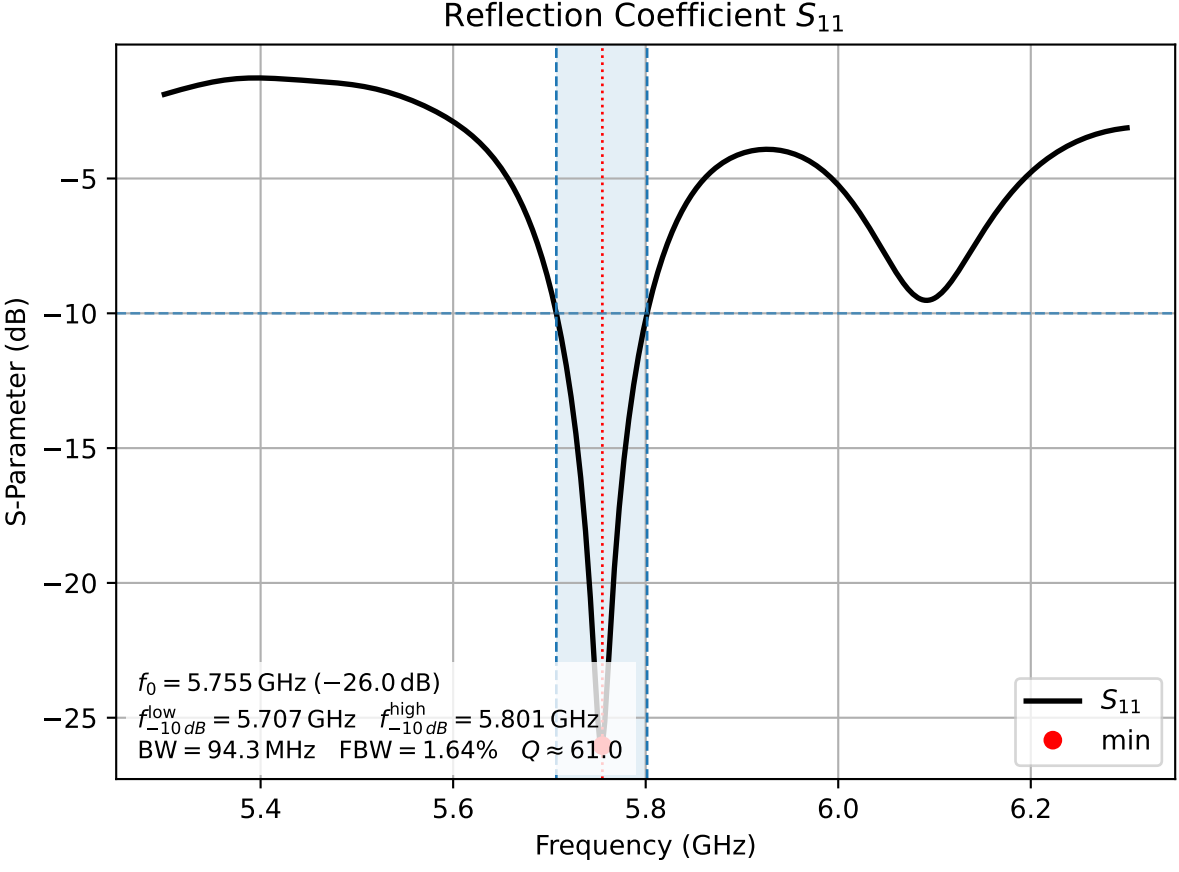
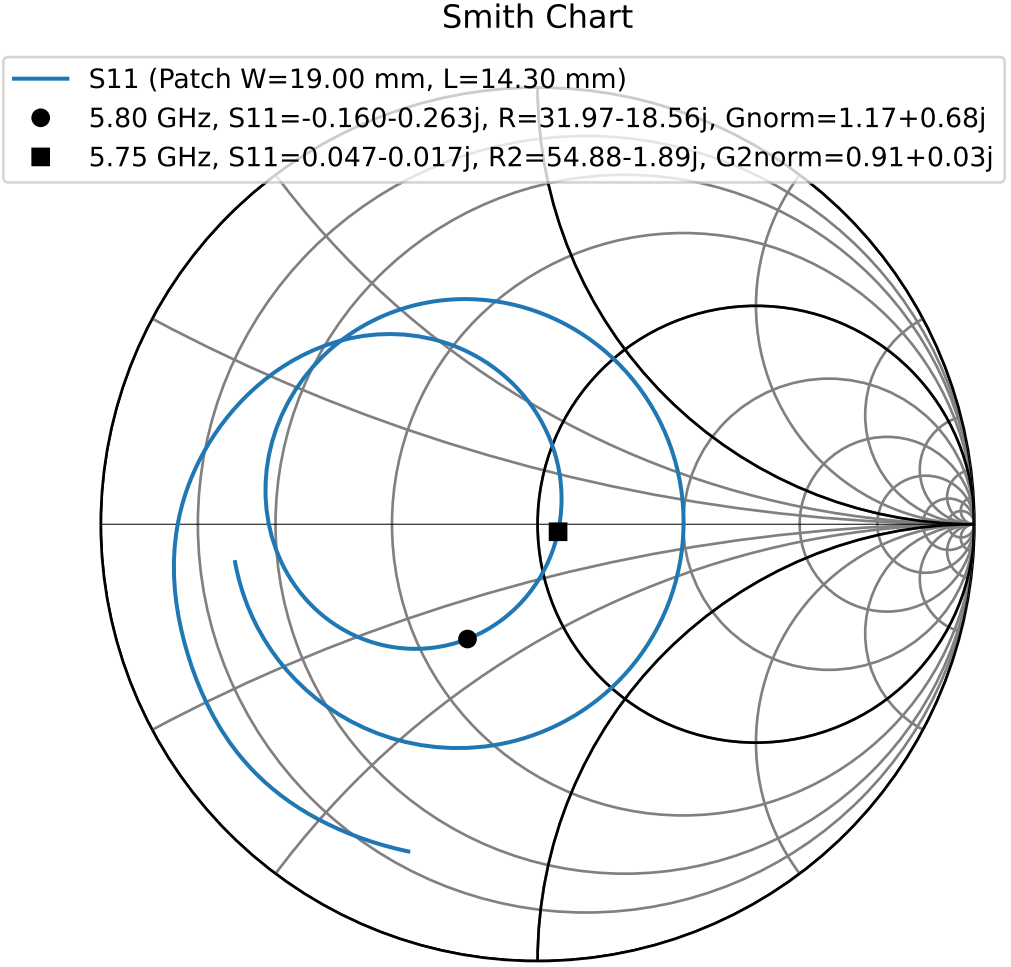
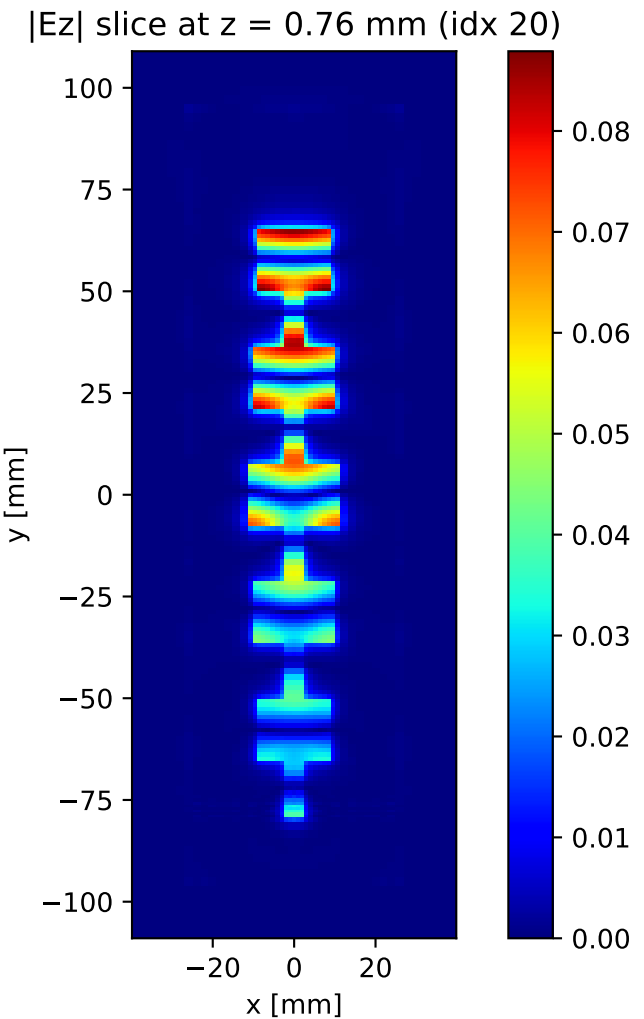
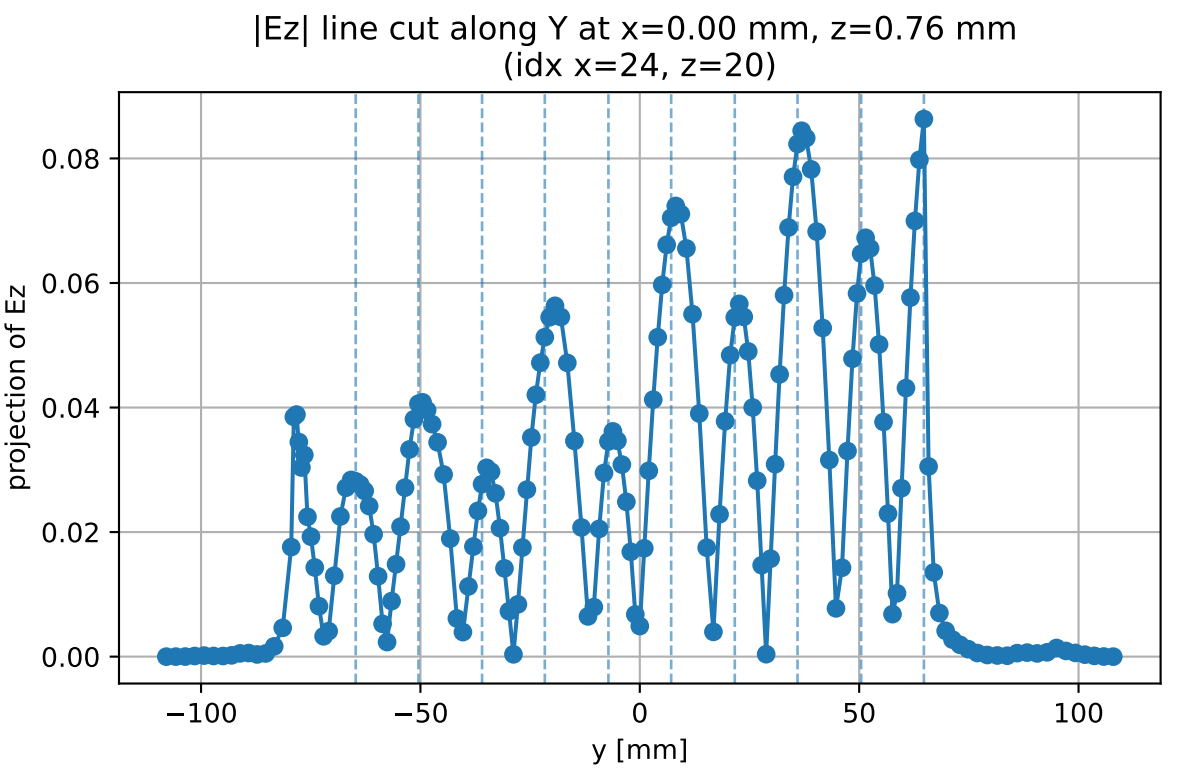
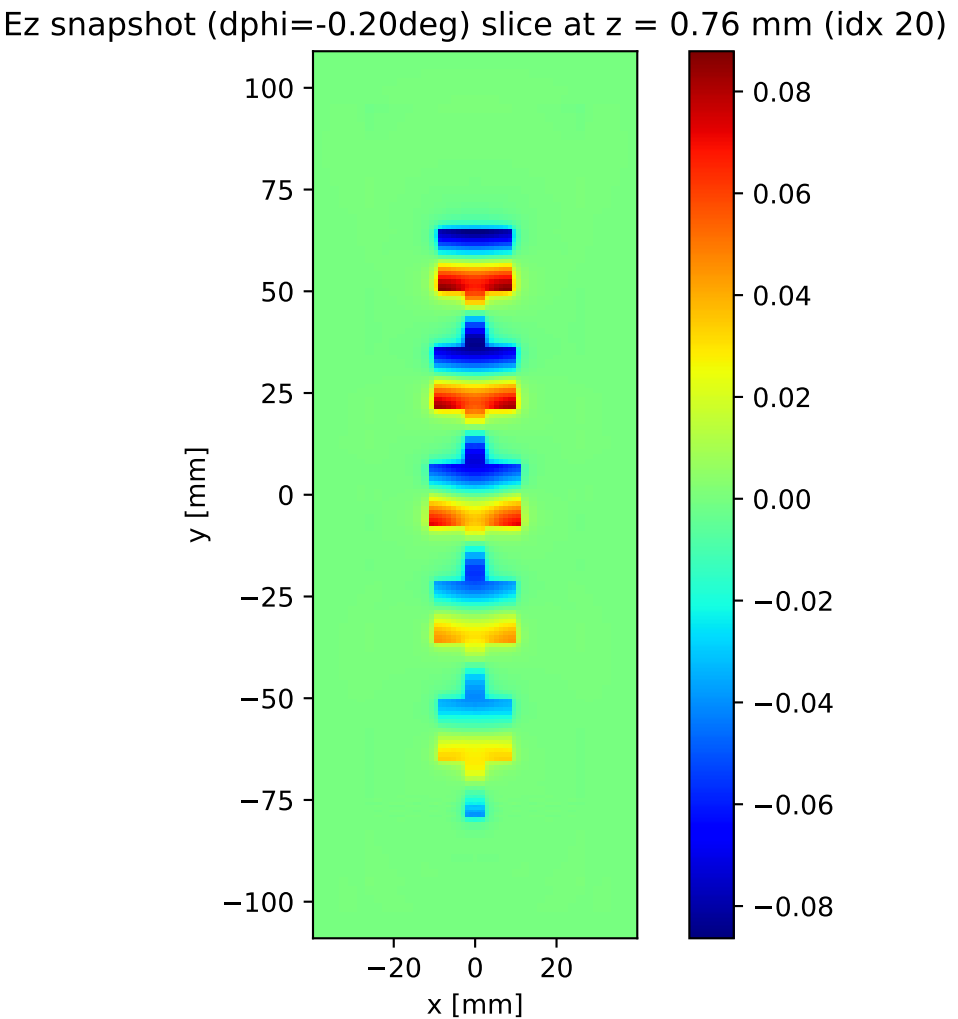

Zin real
Zin imag
100
80
60
40
20
0
−20
−40
Ohm
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)

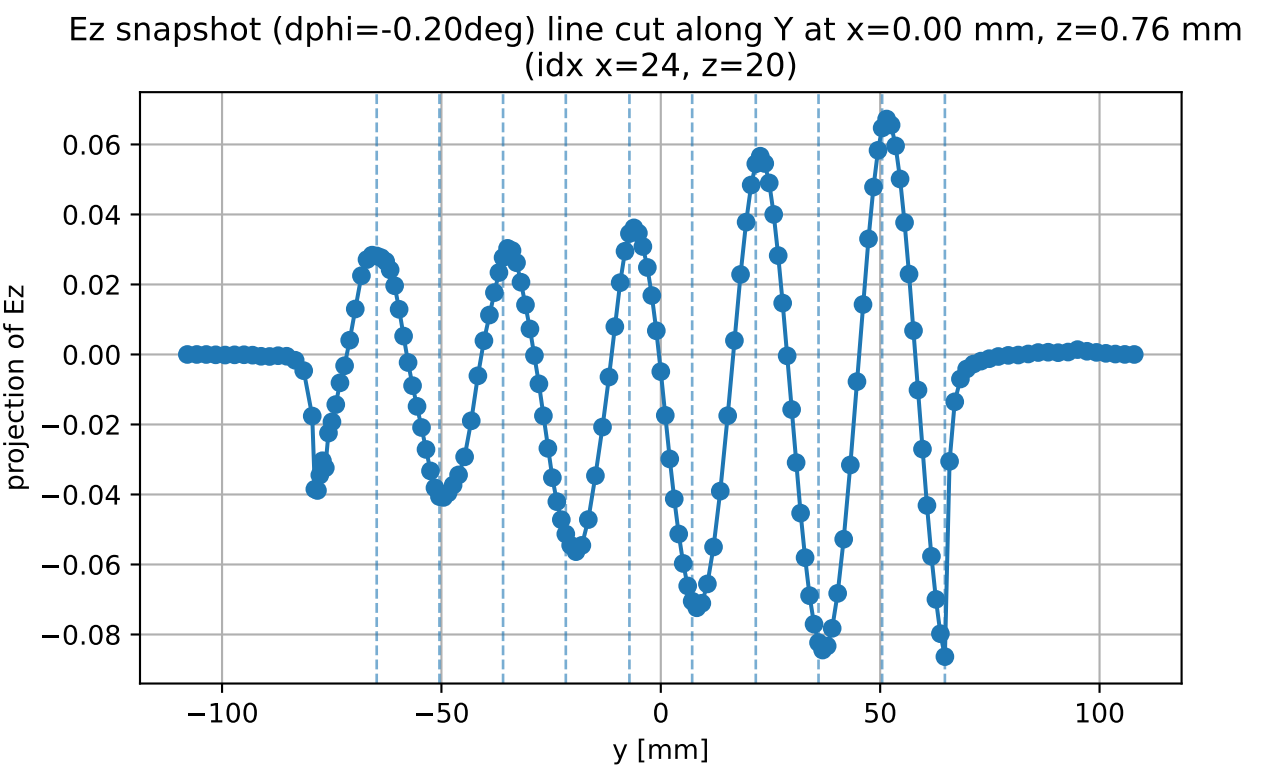

Reflection Coefficient S_{11}
S-Parameter (dB)
−5
−10
−15
−20
−25
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)
$f_0 = 5.755\,\text{GHz}$ (−26.0 dB)
$f^{\text{low}}_{-10\,dB} = 5.707\,\text{GHz}$ $f^{\text{high}}_{-10\,dB} = 5.801\,\text{GHz}$
BW = 94.3 MHz FBW = 1.64% $Q \approx 61.0$
S_{11}
min

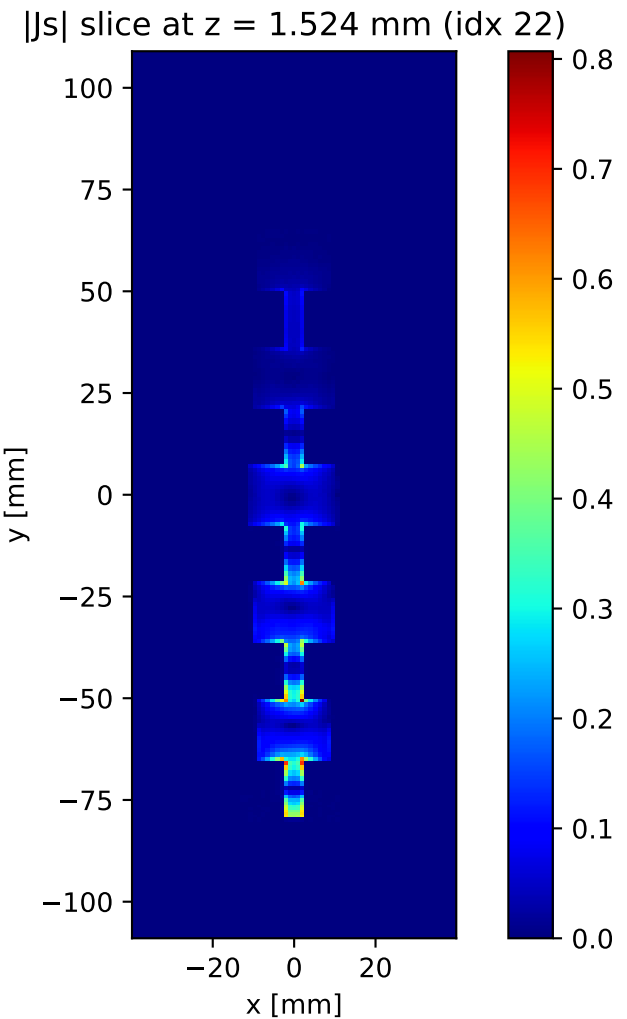

Smith Chart
S11 (Patch W=19.00 mm, L=14.30 mm)
5.80 GHz, S11=-0.160-0.263j, R=31.97-18.56j, Gnorm=1.17+0.68j
5.75 GHz, S11=0.047-0.017j, R2=54.88-1.89j, G2norm=0.91+0.03j

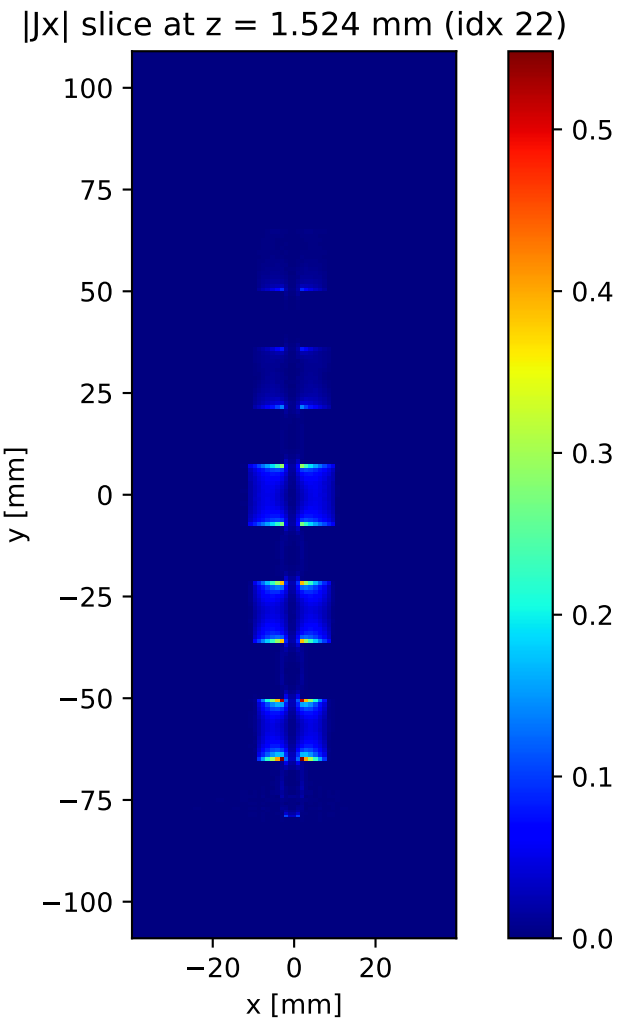

|Ez| slice at z = 0.76 mm (idx 20)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−20
0
20
x [mm]
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00

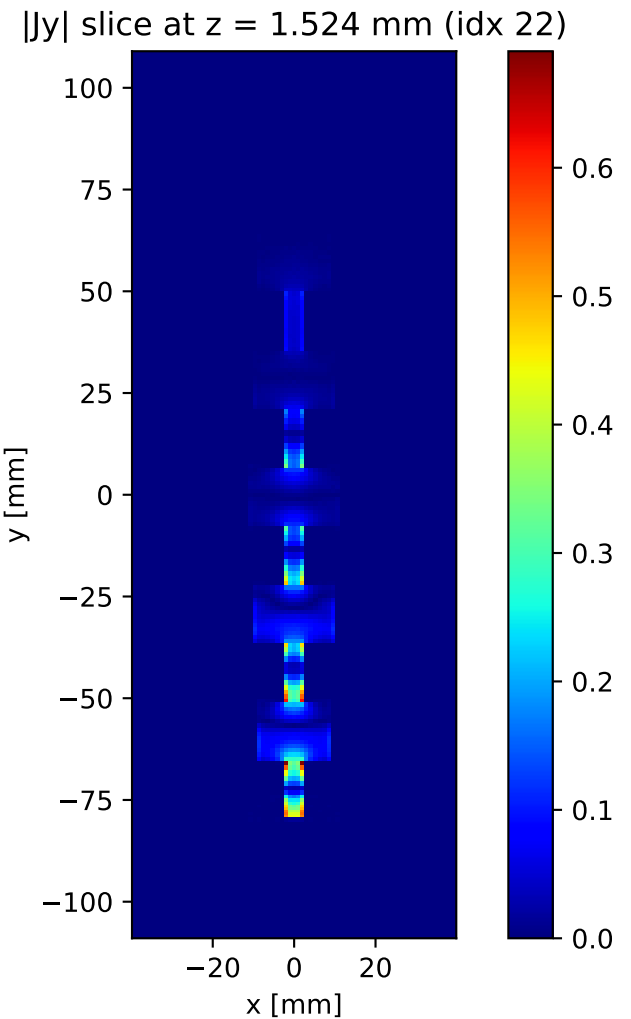

|Ez| line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=24, z=20)
projection of Ez
0.00
0.02
0.04
0.06
0.08
−100
−50
0
50
100
y [mm]

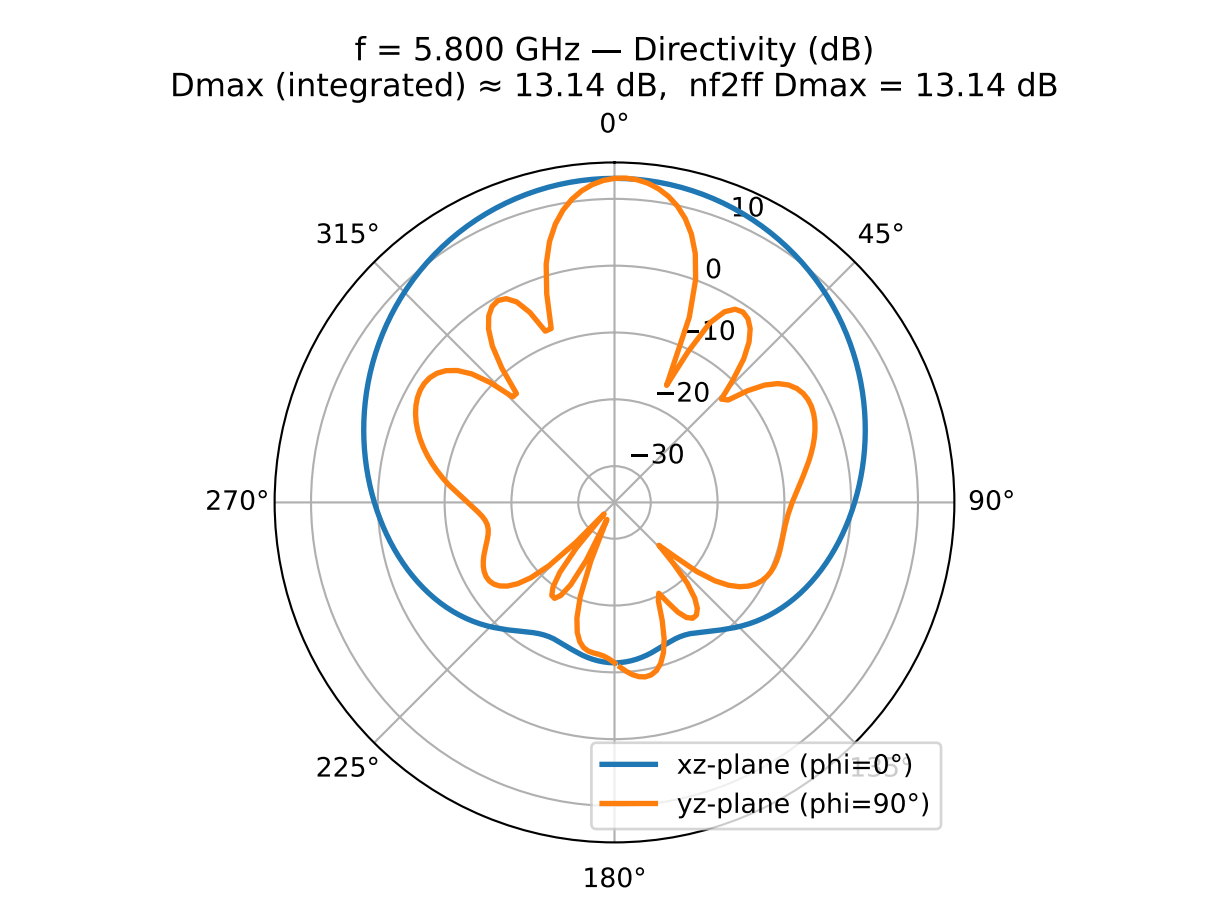

Ez snapshot (dphi=-0.20deg) slice at z = 0.76 mm (idx 20)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−20
0
20
x [mm]
0.08
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08

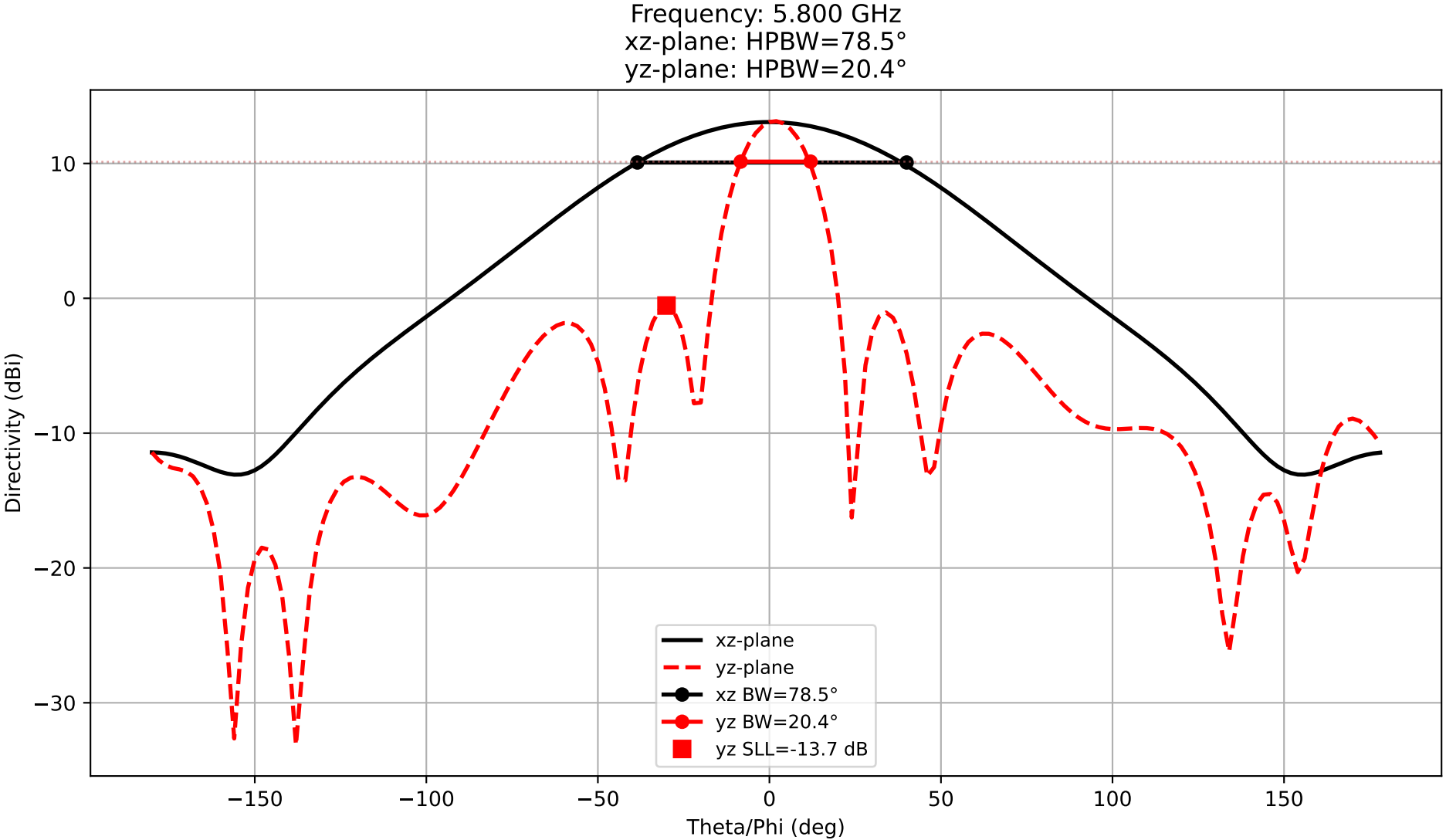

Ez snapshot (dphi=-0.20deg) line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=24, z=20)
projection of Ez
0.06
0.04
0.02
0.00
−0.02
−0.04
−0.06
−0.08
−100
−50
0
50
100
y [mm]

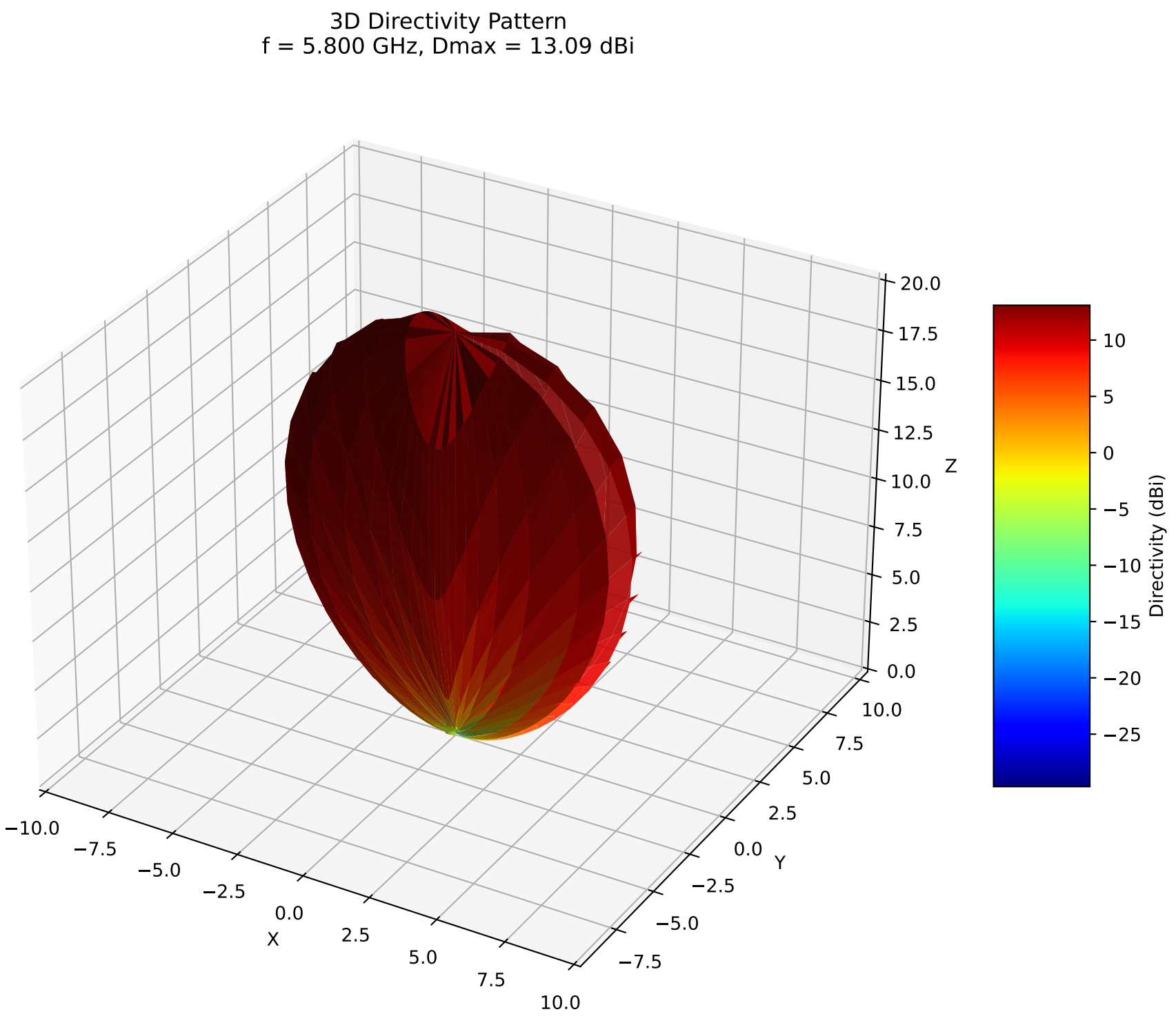

|Js| slice at z = 1.524 mm (idx 22)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−20
0
20
x [mm]
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0


|Jx| slice at z = 1.524 mm (idx 22)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−20
0
20
x [mm]
0.5
0.4
0.3
0.2
0.1
0.0


|Jy| slice at z = 1.524 mm (idx 22)
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


f = 5.800 GHz — Directivity (dB)
Dmax (integrated) ≈ 13.14 dB, nf2ff Dmax = 13.14 dB
0°
45°
90°
225°
270°
315°
180°
10
0
−10
−20
−30
xz-plane (phi=0°)
yz-plane (phi=90°)


Frequency: 5.800 GHz
xz-plane: HPBW=78.5°
yz-plane: HPBW=20.4°
Directivity (dBi)
10
0
−10
−20
−30
−150
−100
−50
0
50
100
150
Theta/Phi (deg)
xz-plane
yz-plane
xz BW=78.5°
yz BW=20.4°
yz SLL=-13.7 dB


3D Directivity Pattern
f = 5.800 GHz, Dmax = 13.09 dBi
X
Y
Z
Directivity (dBi)
−10.0
−7.5
−5.0
−2.5
0.0
2.5
5.0
7.5
10.0
0.0
2.5
5.0
7.5
10.0
12.5
15.0
17.5
20.0
10
5
0
−5
−10
−15
−20
−25