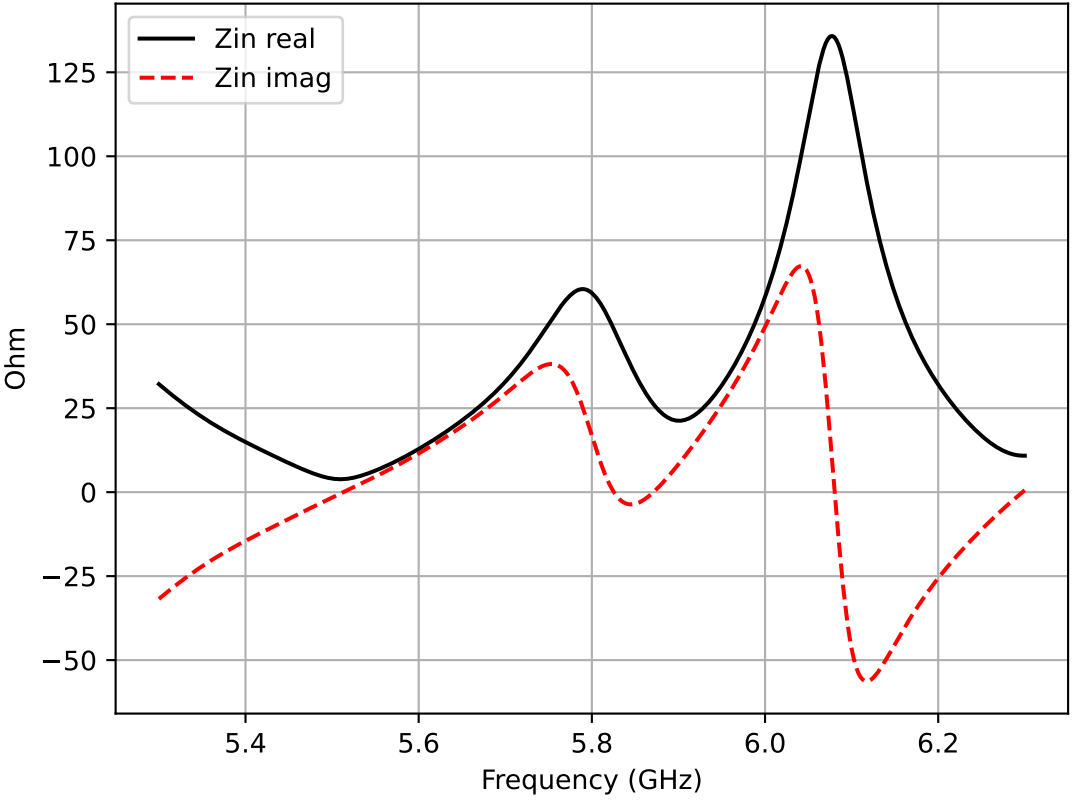
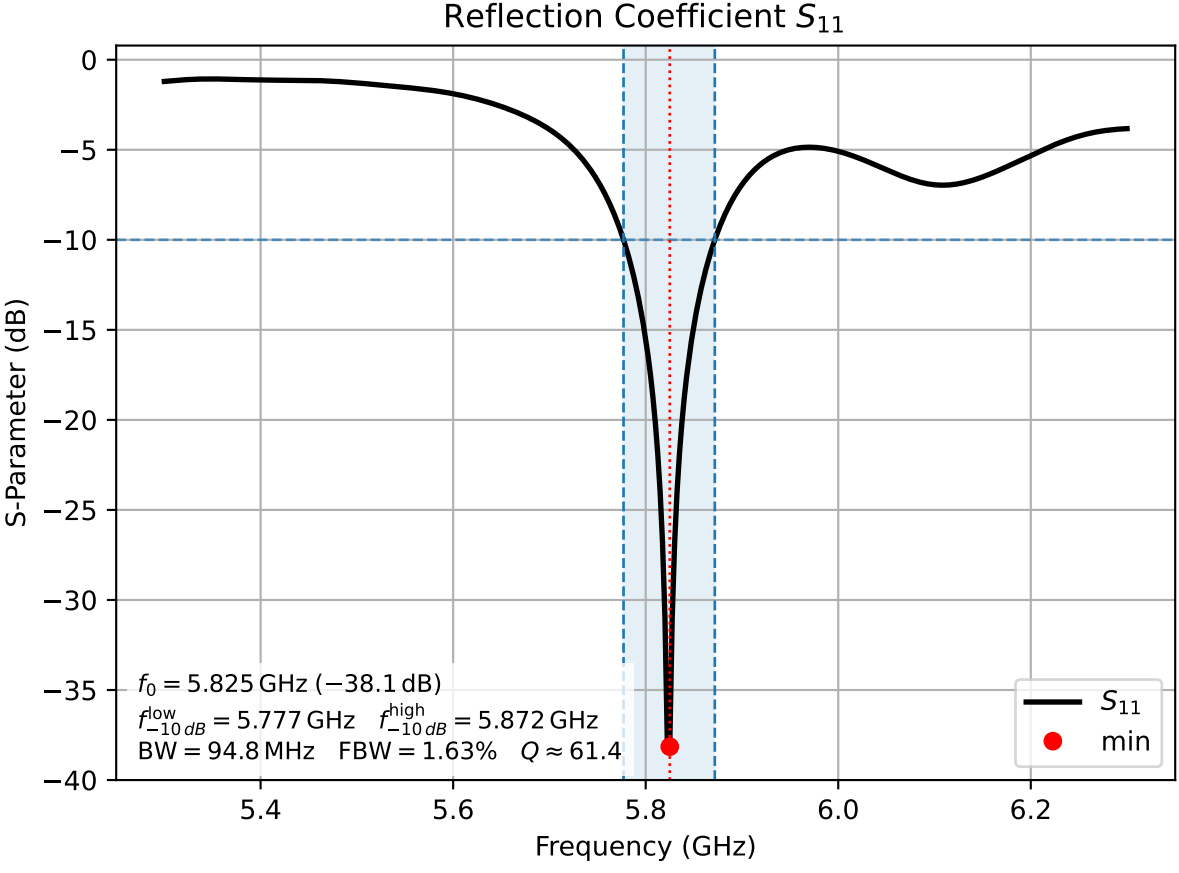
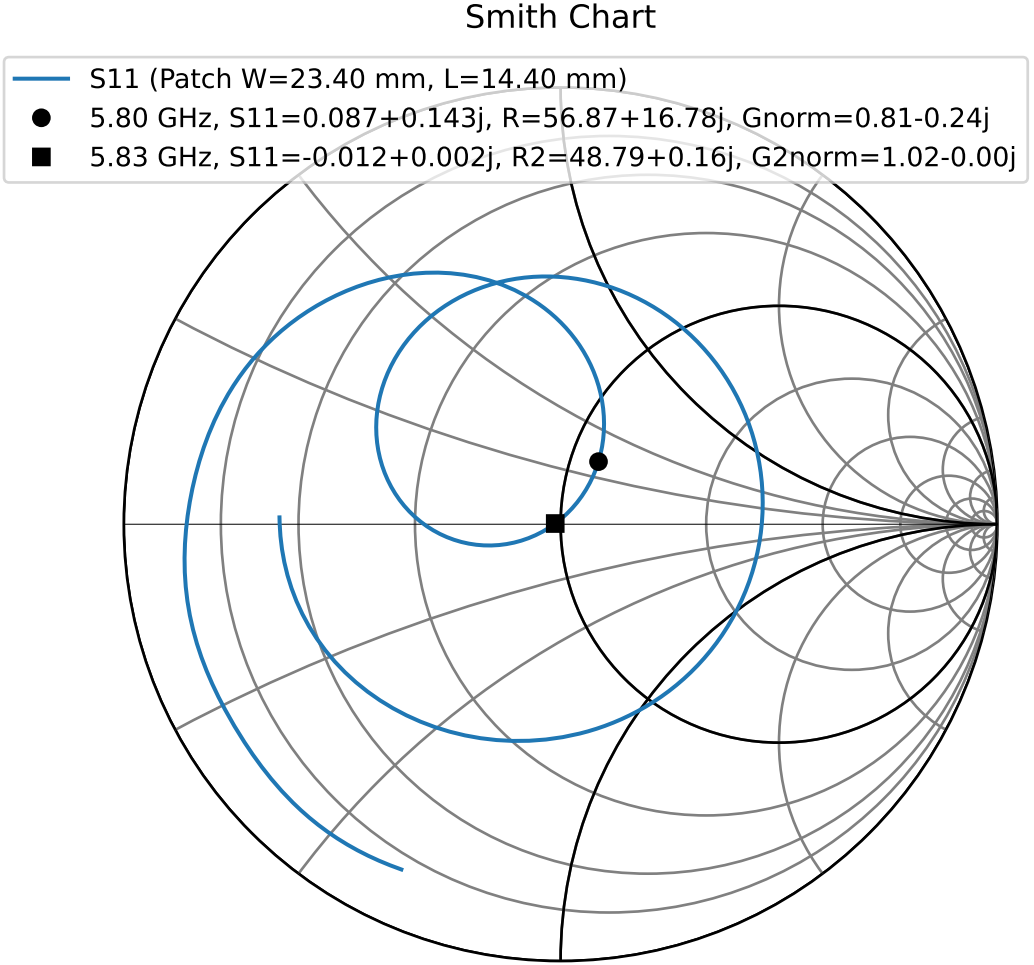
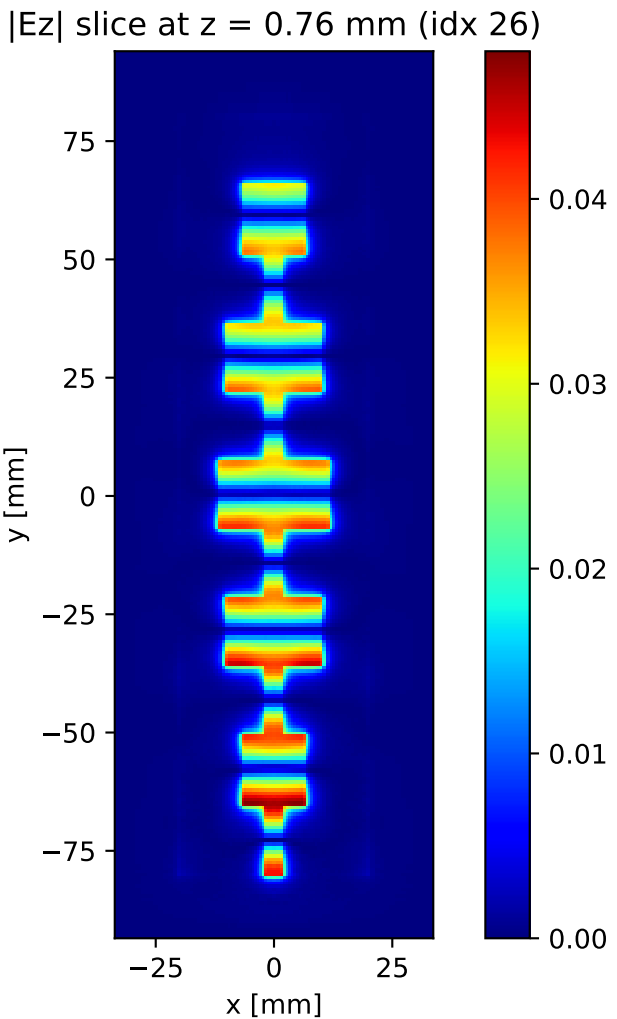
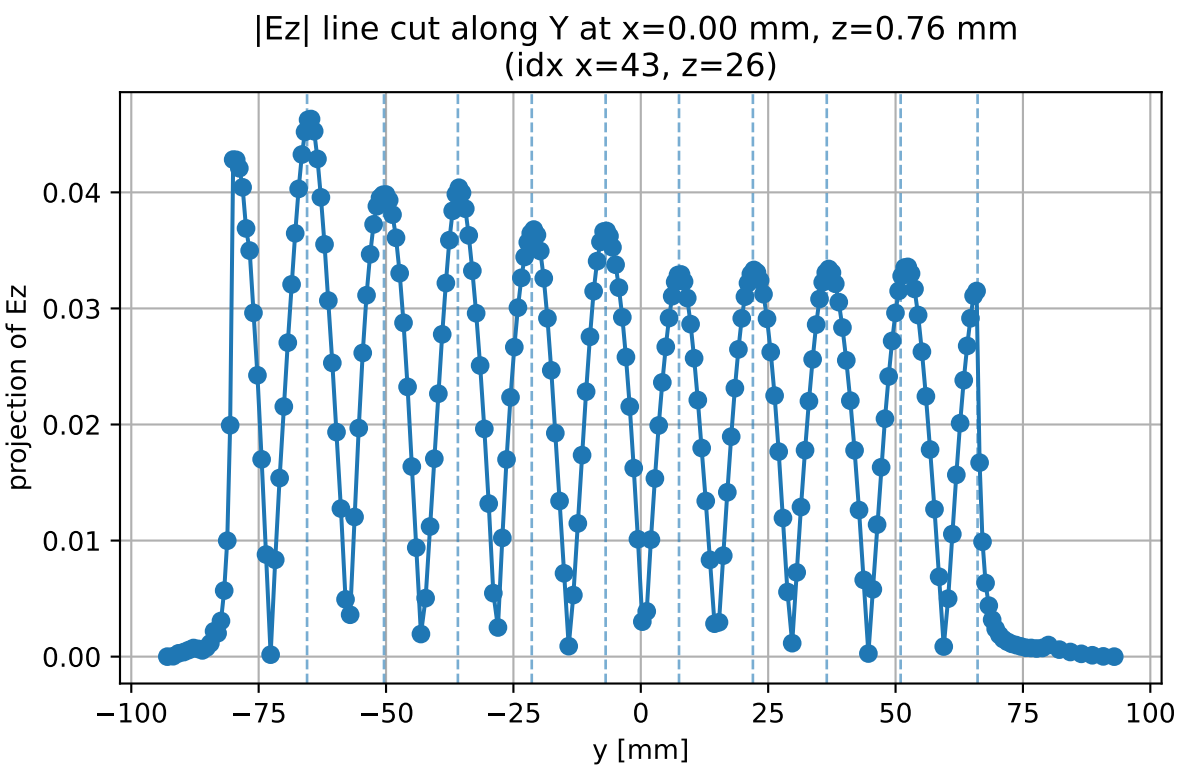
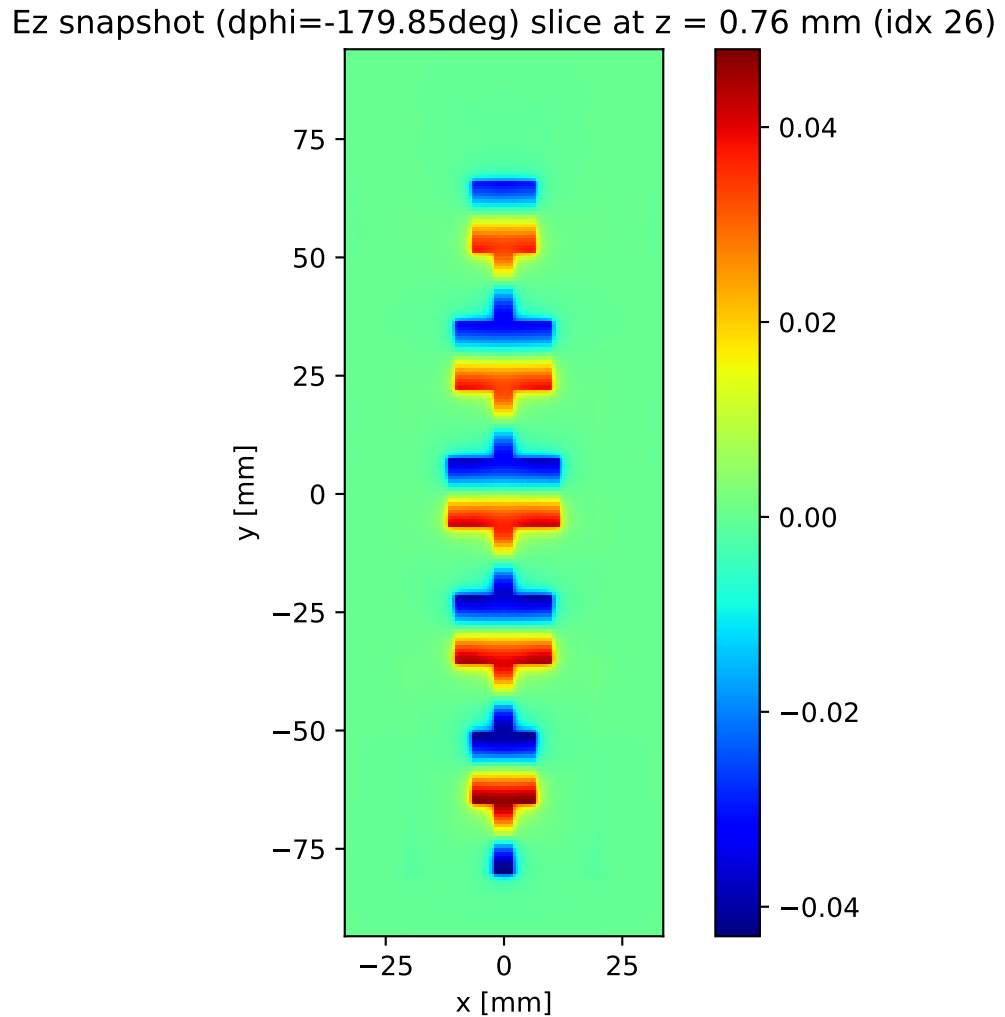

Zin real
Zin imag
125
100
75
50
25
0
−25
−50
Ohm
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)

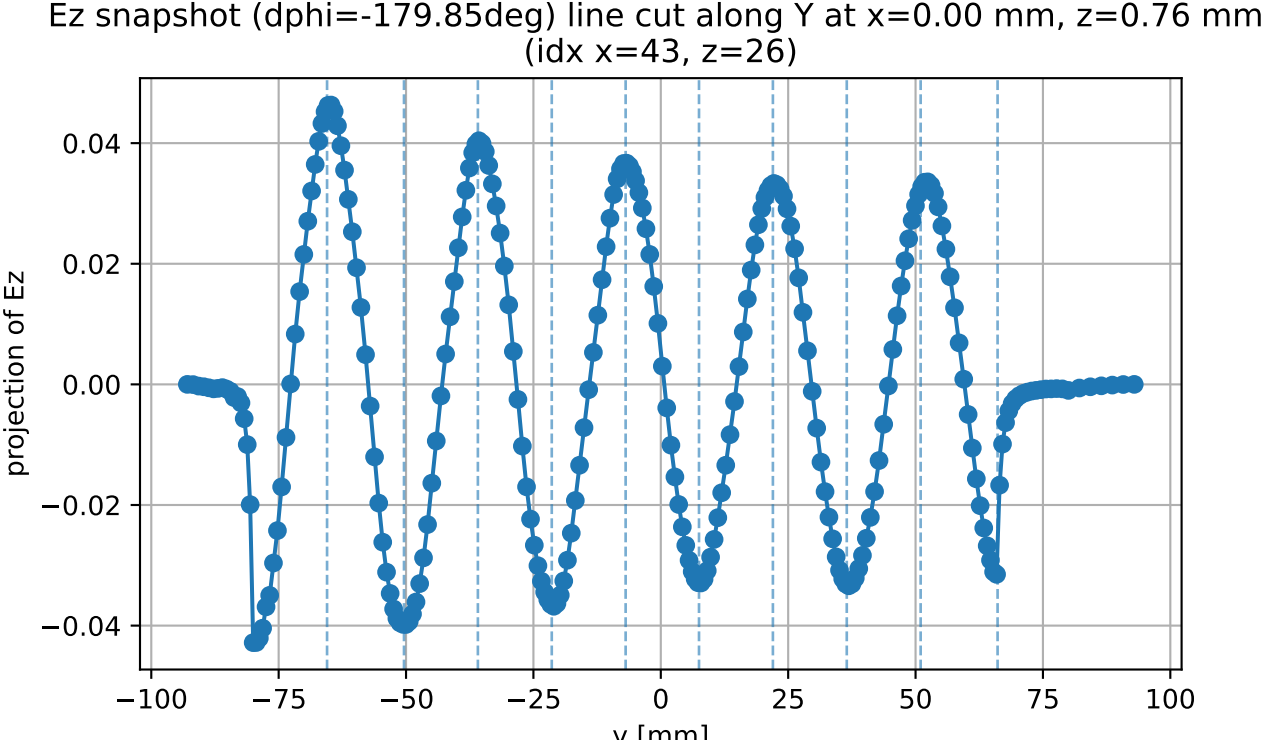

Reflection Coefficient S_{11}
S-Parameter (dB)
Frequency (GHz)
0
−5
−10
−15
−20
−25
−30
−35
−40
5.4
5.6
5.8
6.0
6.2
$f_0 = 5.825\,\text{GHz}\ (-38.1\,\text{dB})$
$f^{\text{low}}_{-10\,dB} = 5.777\,\text{GHz}$ $f^{\text{high}}_{-10\,dB} = 5.872\,\text{GHz}$
$\text{BW} = 94.8\,\text{MHz}$ $\text{FBW} = 1.63\%$ $Q \approx 61.4$
S_{11}
min

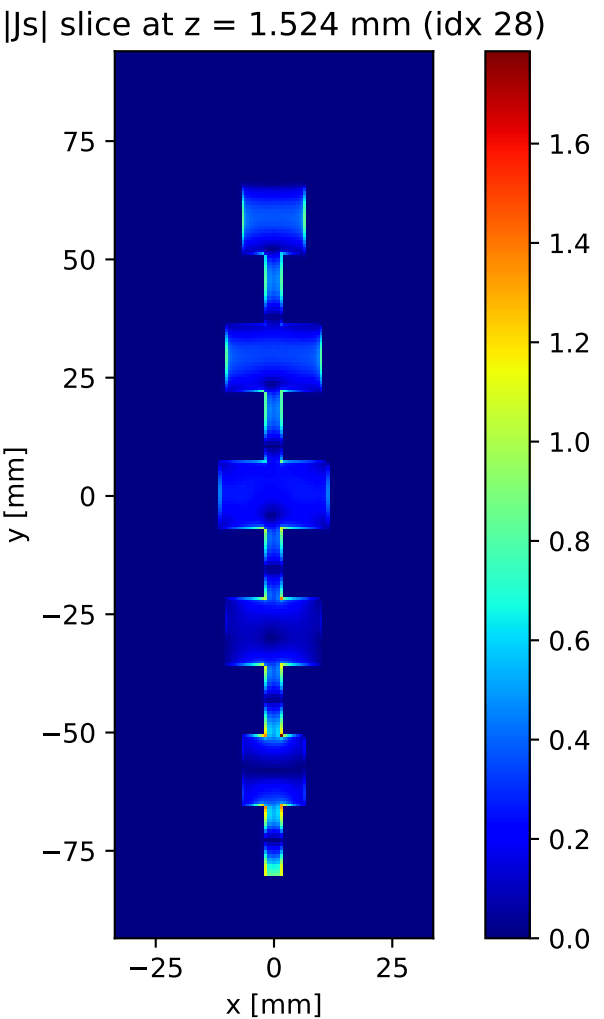

Smith Chart
S11 (Patch W=23.40 mm, L=14.40 mm)
5.80 GHz, S11=0.087+0.143j, R=56.87+16.78j, Gnorm=0.81-0.24j
5.83 GHz, S11=-0.012+0.002j, R2=48.79+0.16j, G2norm=1.02-0.00j

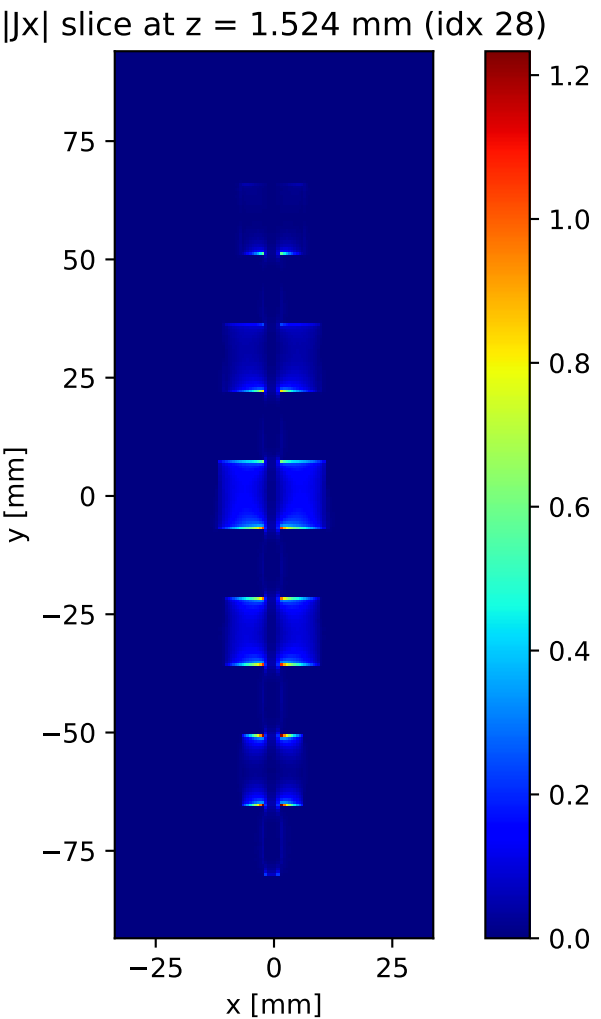

|Ez| slice at z = 0.76 mm (idx 26)
75
50
25
0
−25
−50
−75
y [mm]
−25
0
25
x [mm]
0.04
0.03
0.02
0.01
0.00

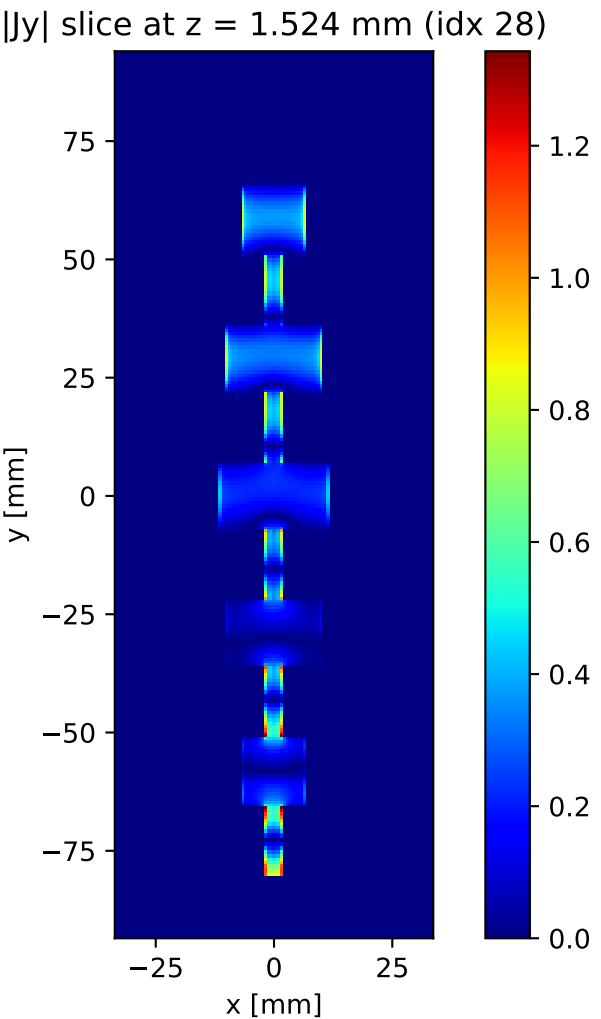

|Ez| line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=43, z=26)
projection of Ez
0.00
0.01
0.02
0.03
0.04
−100
−75
−50
−25
0
25
50
75
100
y [mm]

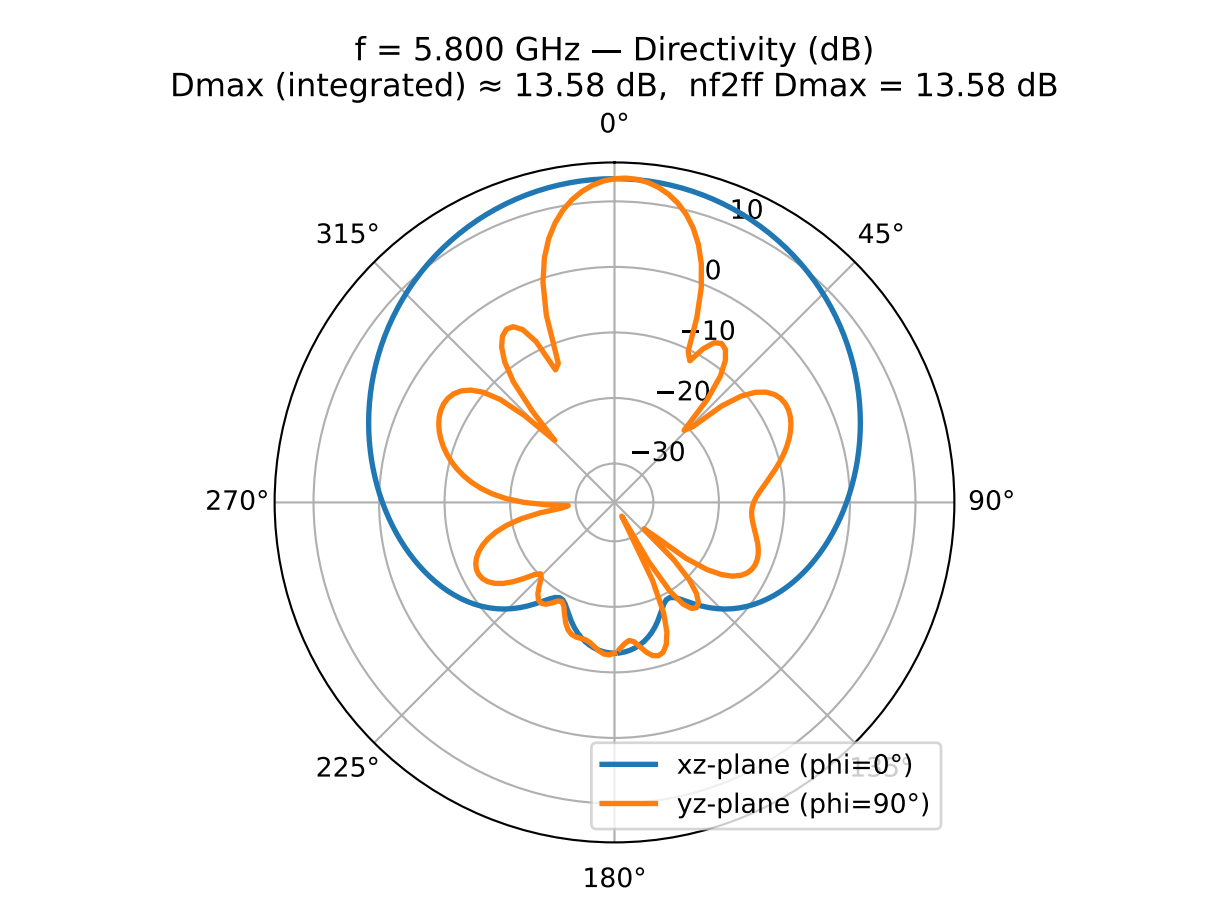

Ez snapshot (dphi=-179.85deg) slice at z = 0.76 mm (idx 26)
y [mm]
x [mm]
75
50
25
0
−25
−50
−75
−25
0
25
0.04
0.02
0.00
−0.02
−0.04

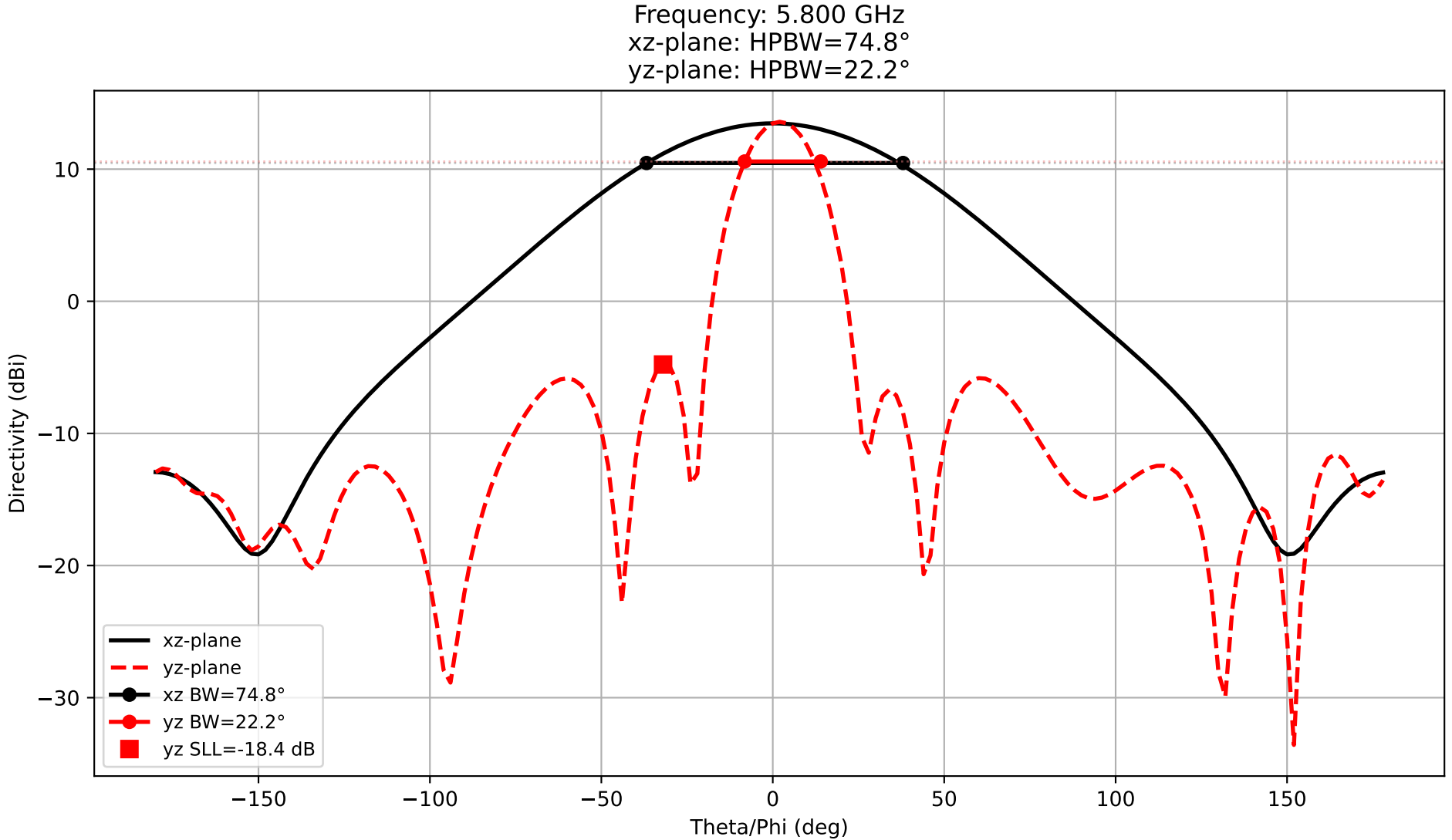

Ez snapshot (dphi=-179.85deg) line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=43, z=26)
projection of Ez
0.04
0.02
0.00
−0.02
−0.04
−100
−75
−50
−25
0
25
50
75
100
y [mm]

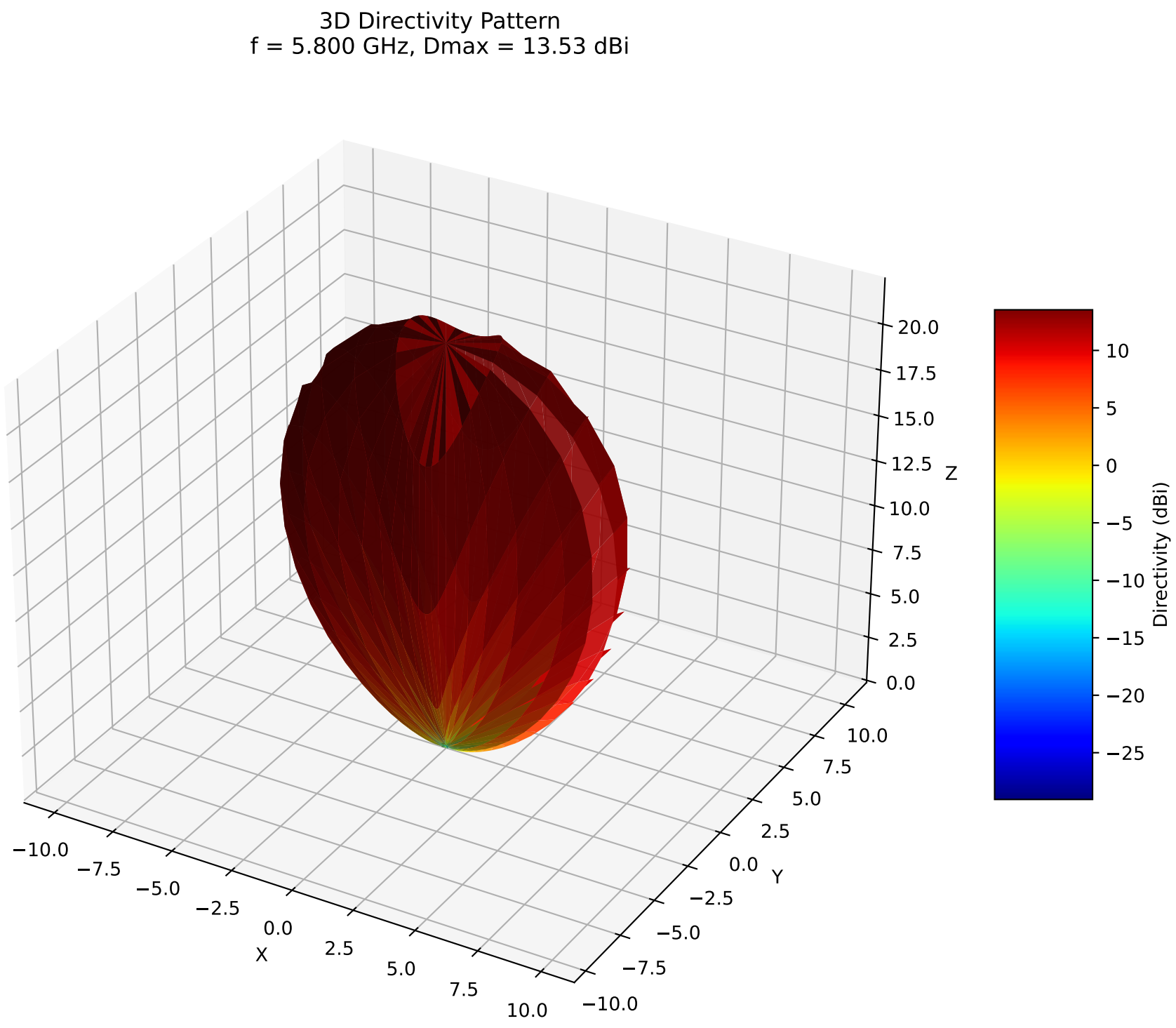

|Js| slice at z = 1.524 mm (idx 28)
y [mm]
x [mm]
75
50
25
0
−25
−50
−75
−25
0
25
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0


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


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


f = 5.800 GHz — Directivity (dB)
Dmax (integrated) ≈ 13.58 dB, nf2ff Dmax = 13.58 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=74.8°
yz-plane: HPBW=22.2°
Directivity (dBi)
10
0
−10
−20
−30
−150
−100
−50
0
50
100
150
Theta/Phi (deg)
xz-plane
yz-plane
xz BW=74.8°
yz BW=22.2°
yz SLL=-18.4 dB


3D Directivity Pattern
f = 5.800 GHz, Dmax = 13.53 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