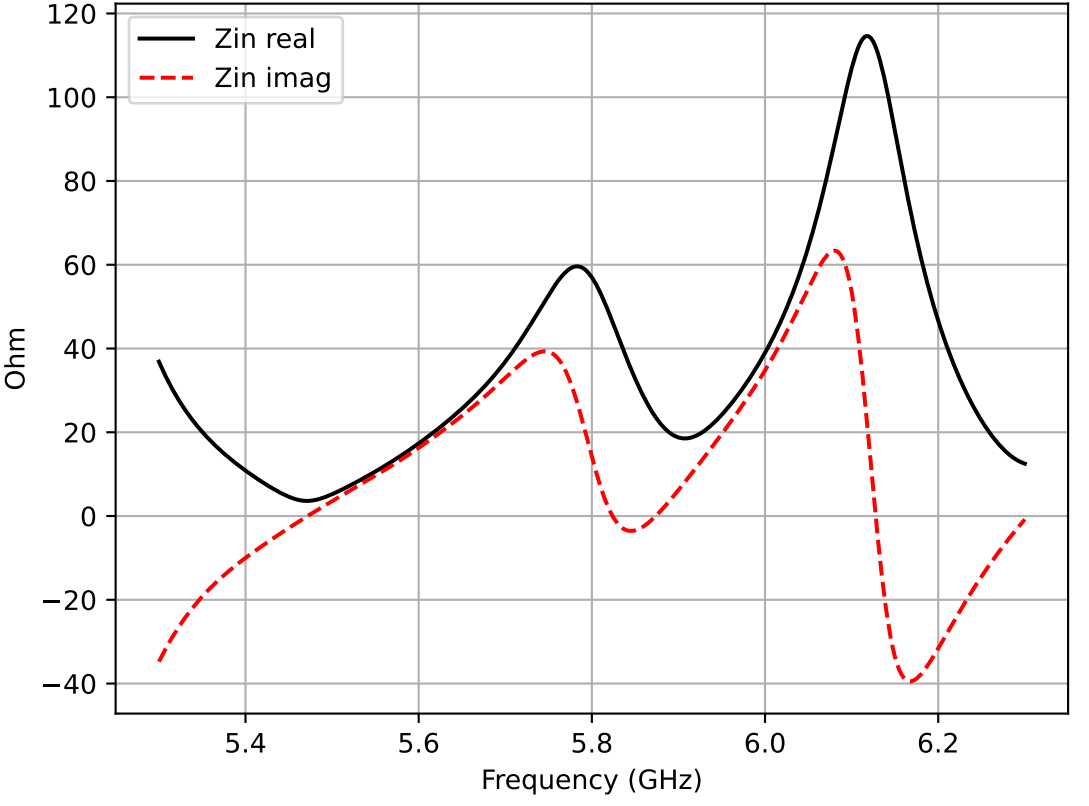
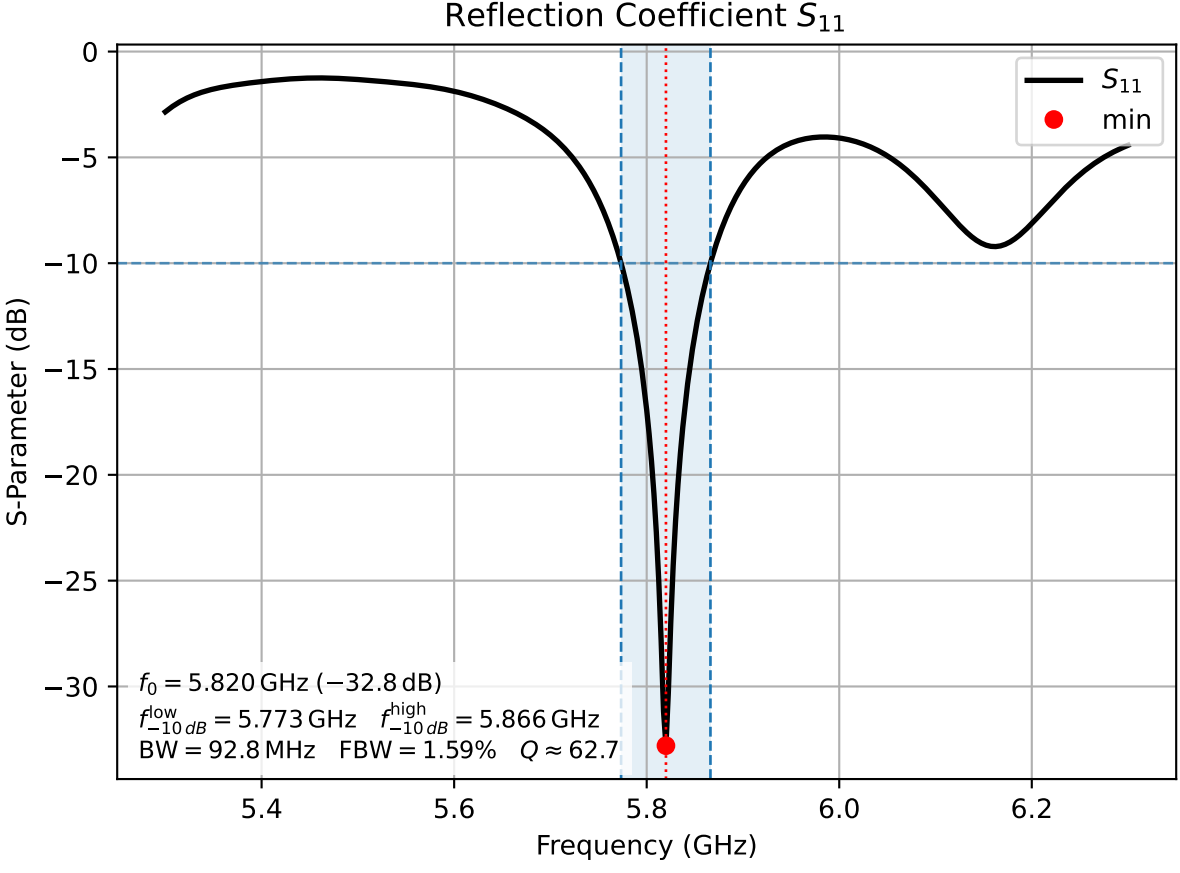
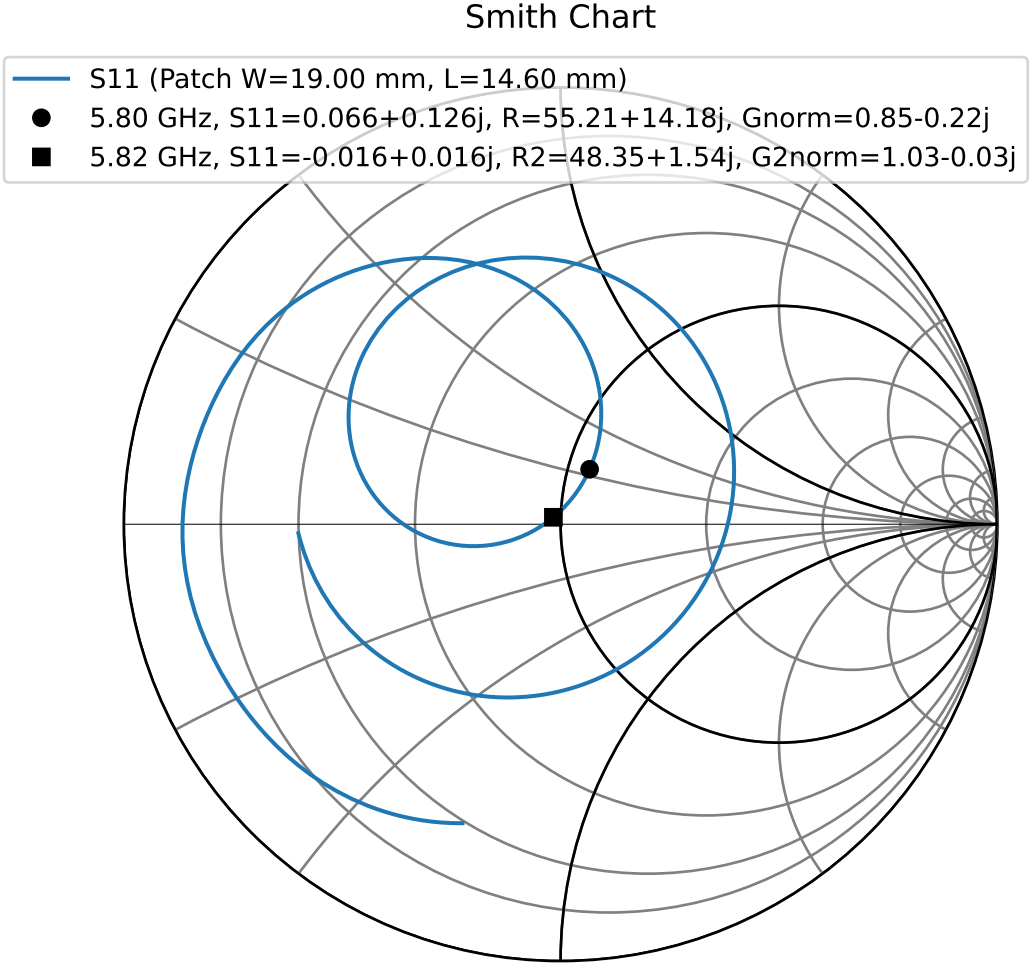
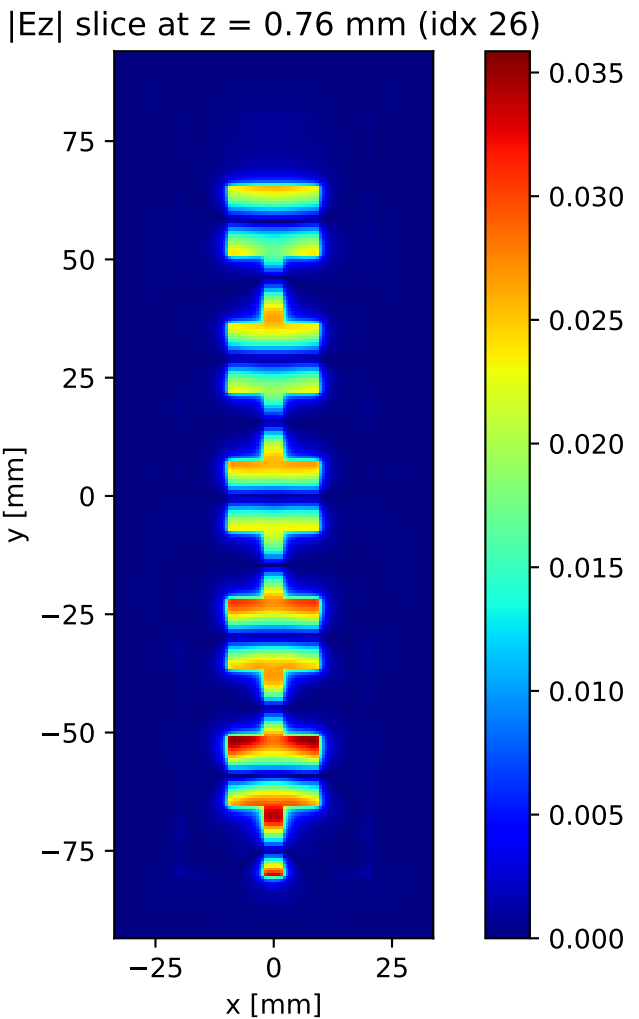
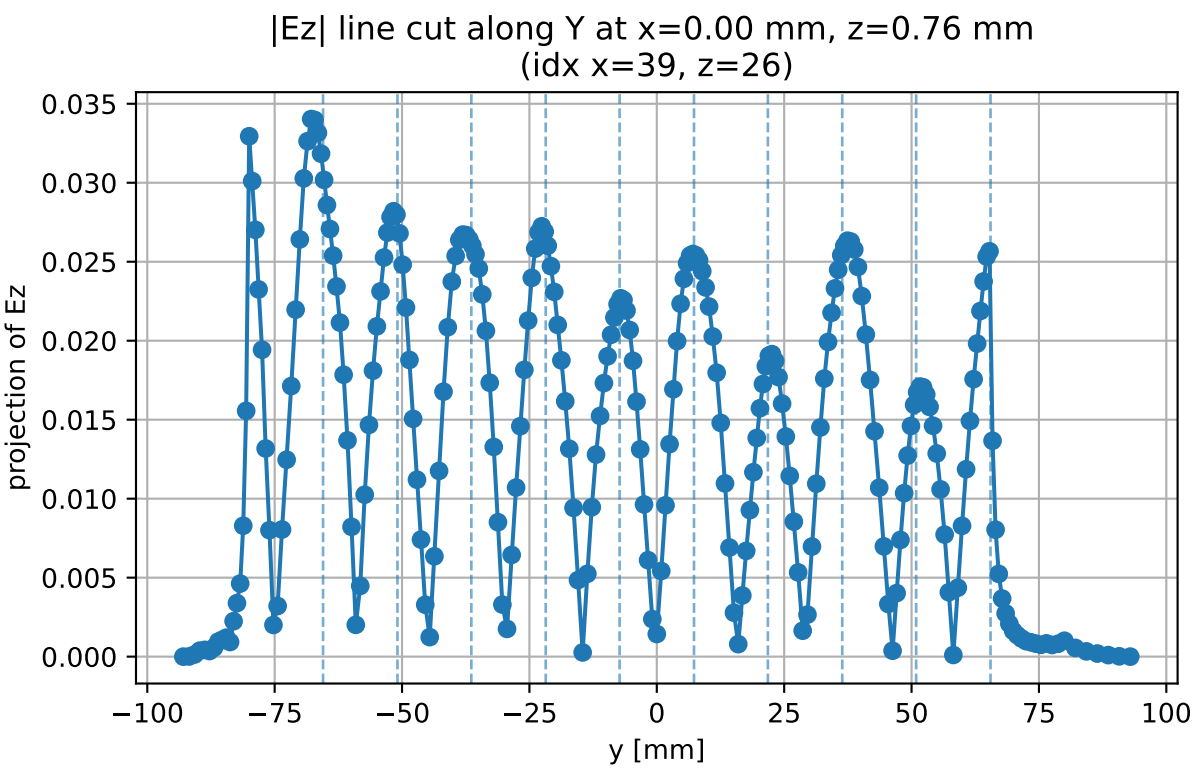
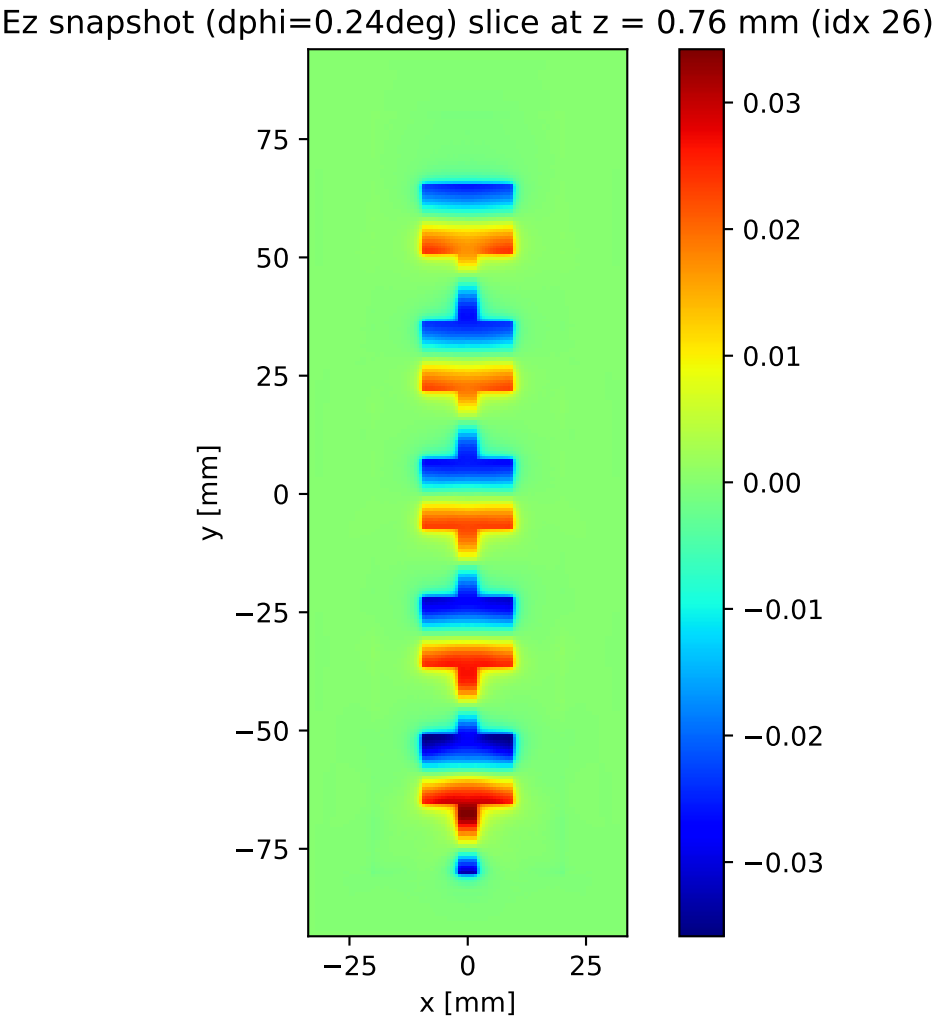

Zin real
Zin imag
120
100
80
60
40
20
0
−20
−40
Ohm
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)

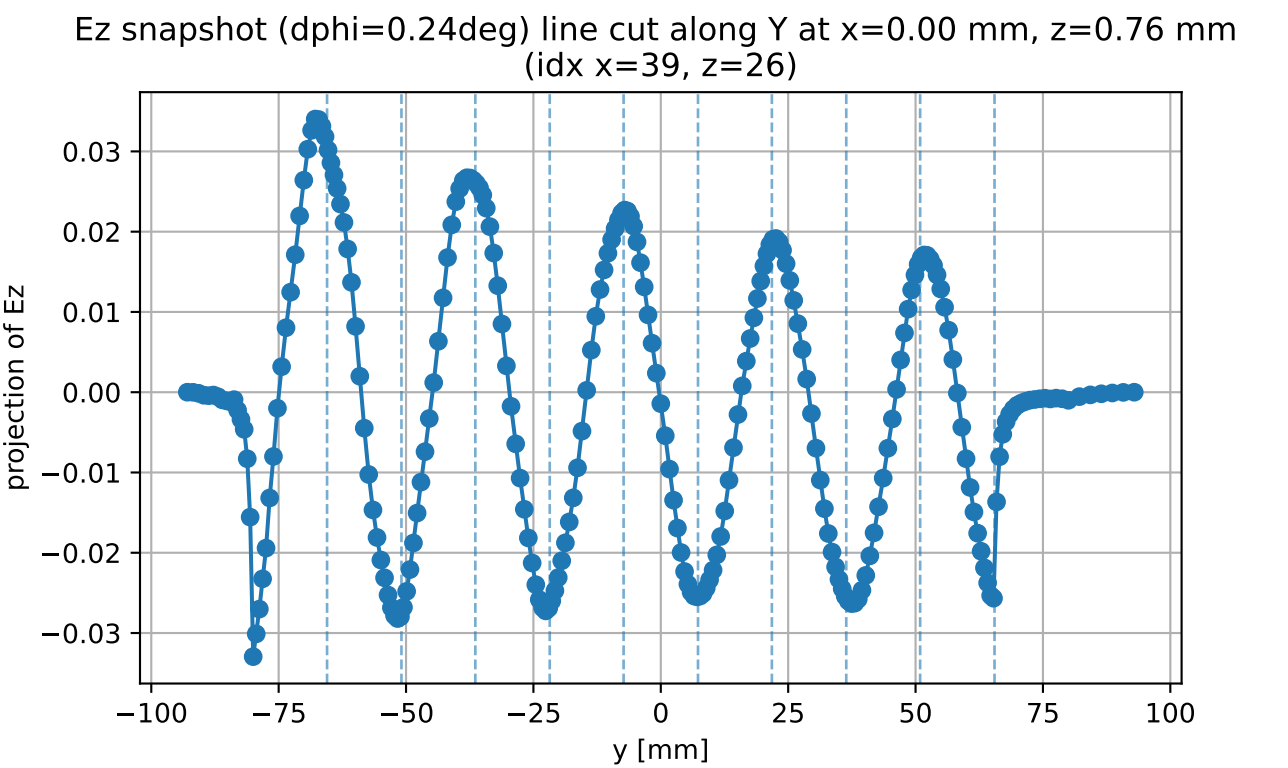

Reflection Coefficient S_{11}
S_{11}
min
S-Parameter (dB)
Frequency (GHz)
0
−5
−10
−15
−20
−25
−30
5.4
5.6
5.8
6.0
6.2
$f_0 = 5.820\,\text{GHz}\ (-32.8\,\text{dB})$
$f^{\text{low}}_{-10\,dB} = 5.773\,\text{GHz}$ $f^{\text{high}}_{-10\,dB} = 5.866\,\text{GHz}$
$\text{BW} = 92.8\,\text{MHz}$ $\text{FBW} = 1.59\%$ $Q \approx 62.7$

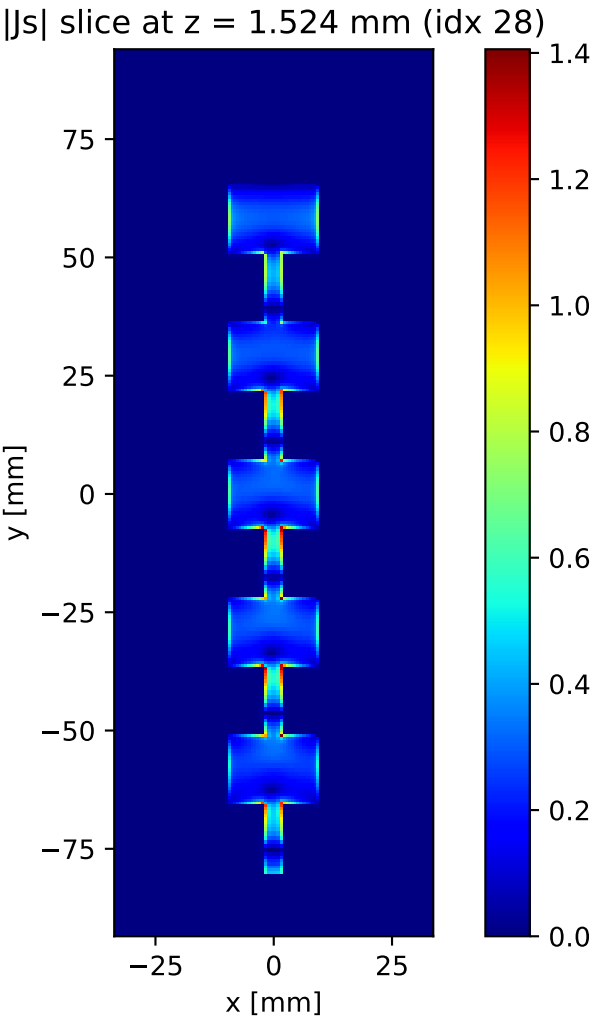

Smith Chart
S11 (Patch W=19.00 mm, L=14.60 mm)
5.80 GHz, S11=0.066+0.126j, R=55.21+14.18j, Gnorm=0.85-0.22j
5.82 GHz, S11=-0.016+0.016j, R2=48.35+1.54j, G2norm=1.03-0.03j

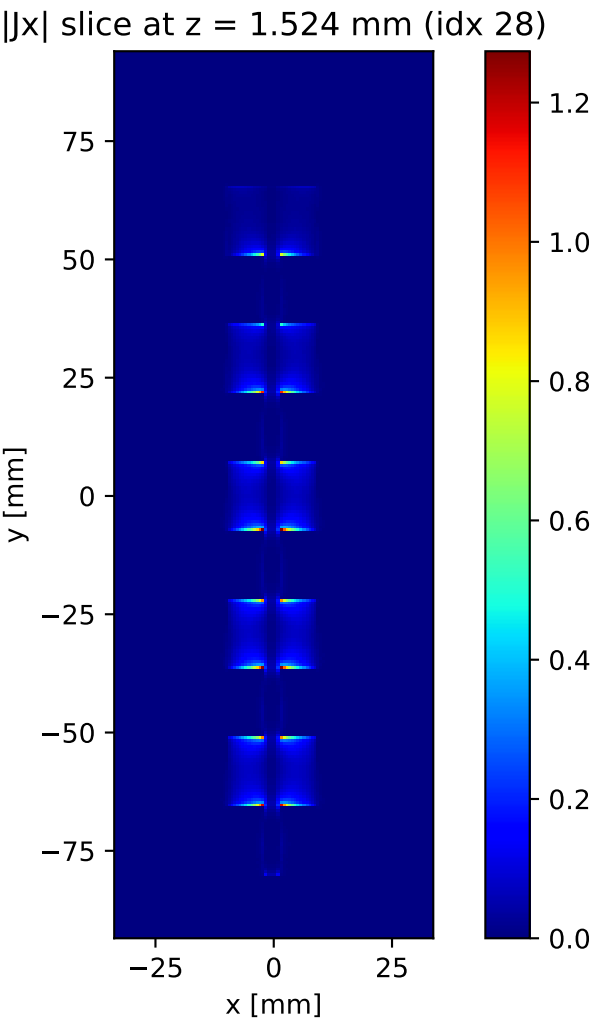

|Ez| slice at z = 0.76 mm (idx 26)
y [mm]
x [mm]
75
50
25
0
−25
−50
−75
−25
0
25
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000

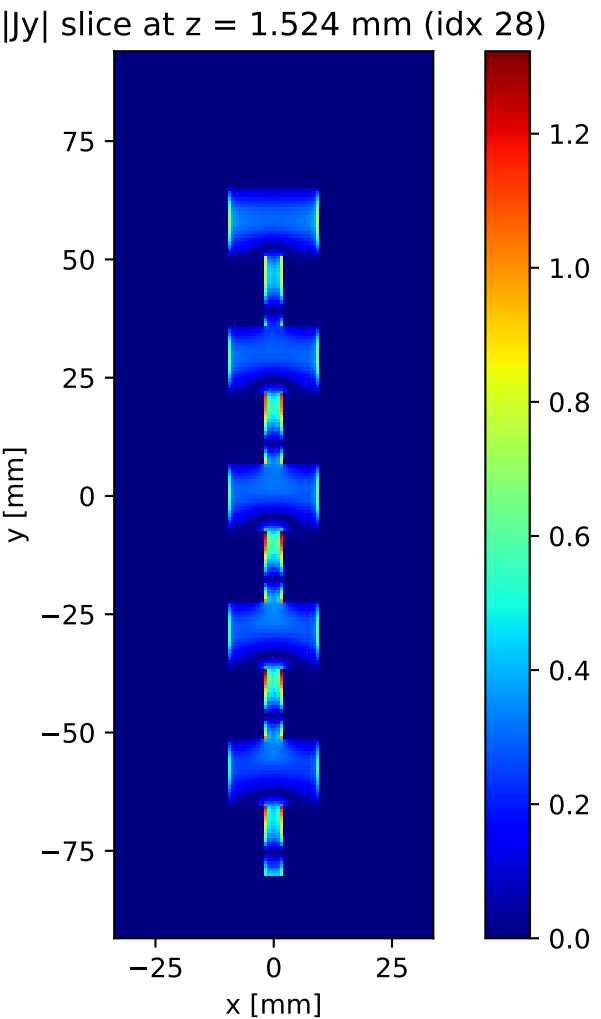

|Ez| line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=39, z=26)
projection of Ez
y [mm]
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
−100
−75
−50
−25
0
25
50
75
100

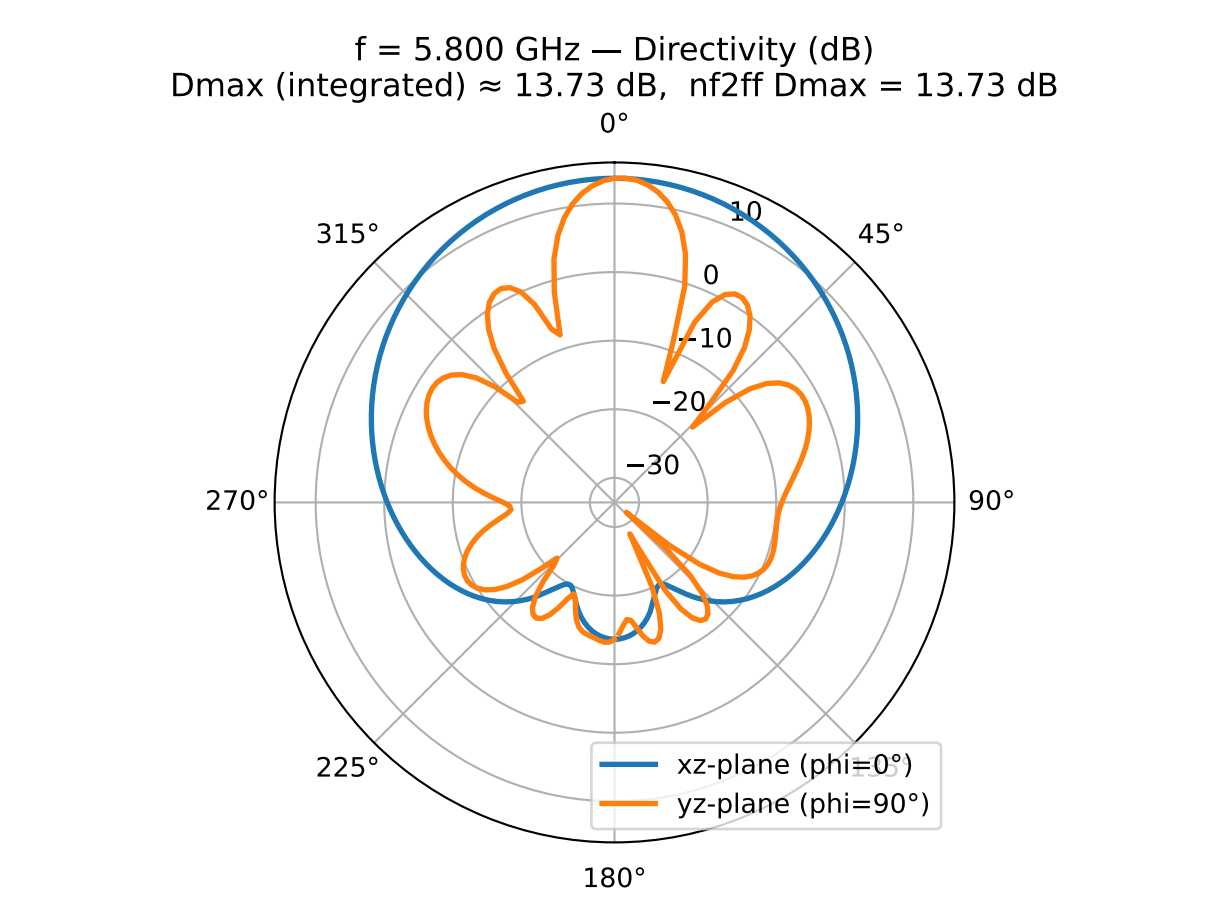

Ez snapshot (dphi=0.24deg) slice at z = 0.76 mm (idx 26)
y [mm]
x [mm]
75
50
25
0
−25
−50
−75
−25
0
25
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03

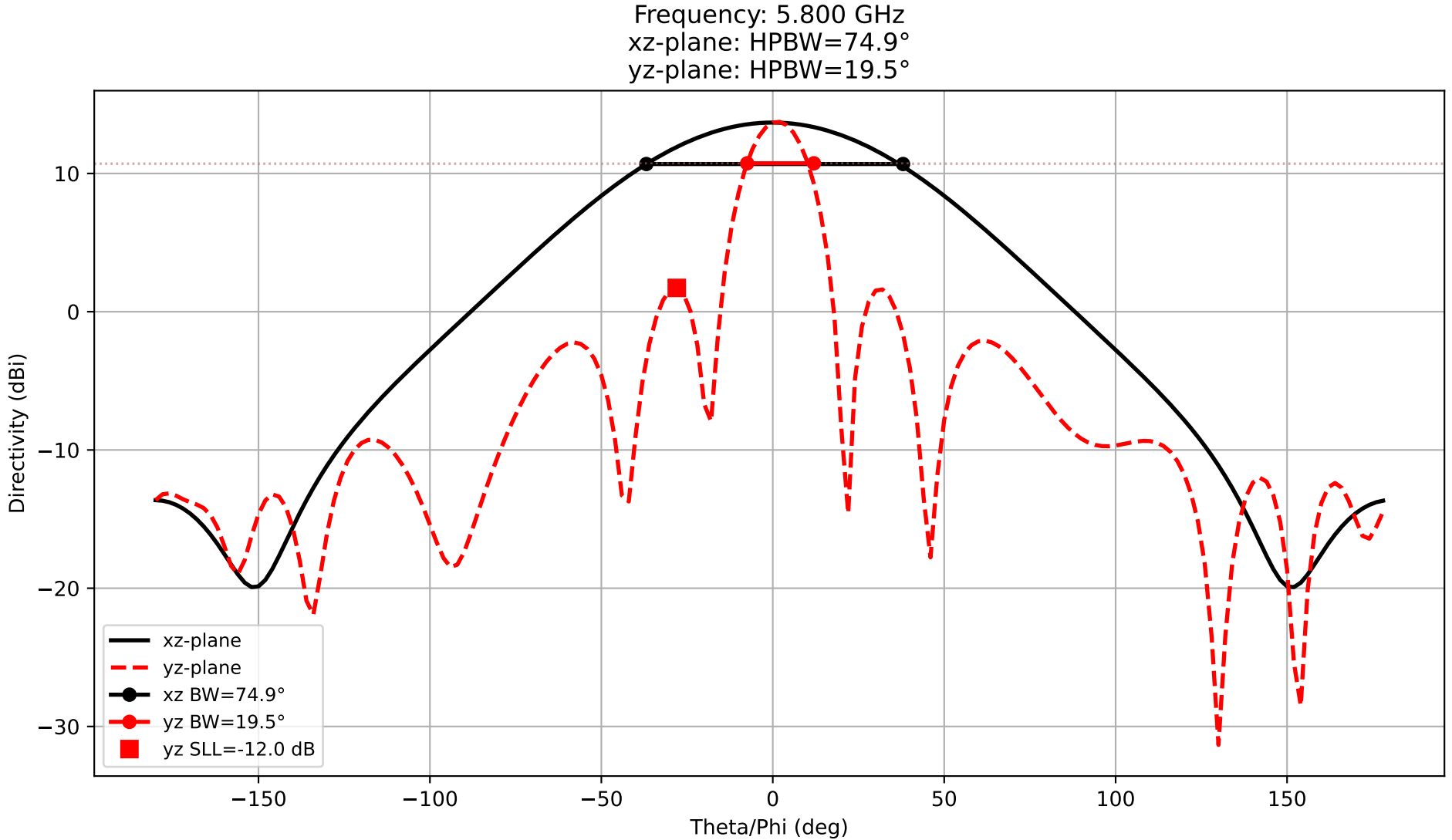

Ez snapshot (dphi=0.24deg) line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=39, z=26)
projection of Ez
y [mm]
0.03
0.02
0.01
0.00
−0.01
−0.02
−0.03
−100
−75
−50
−25
0
25
50
75
100

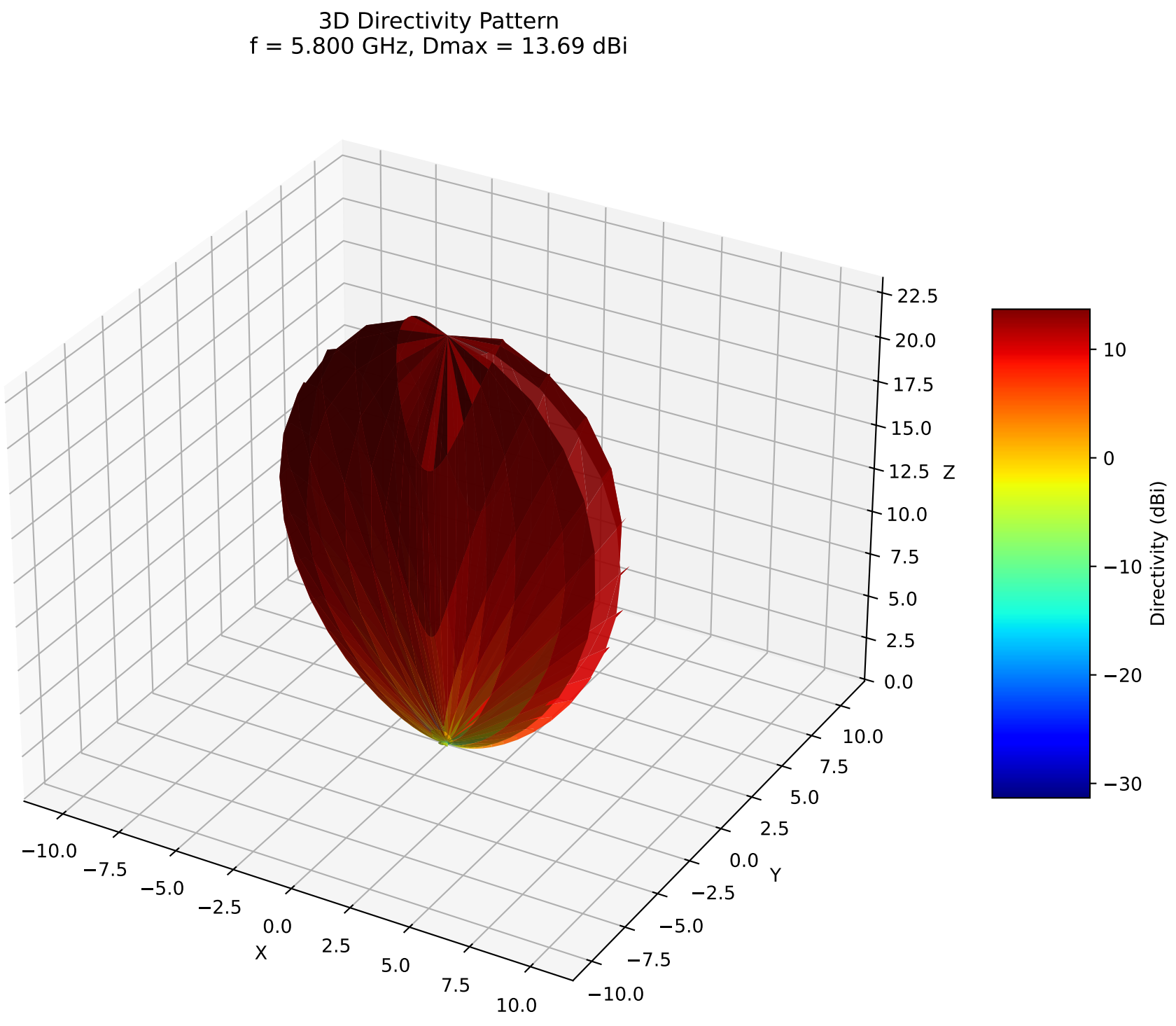

|Js| slice at z = 1.524 mm (idx 28)
y [mm]
x [mm]
75
50
25
0
−25
−50
−75
−25
0
25
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0


|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) ≈ 13.73 dB, nf2ff Dmax = 13.73 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=74.9°
yz-plane: HPBW=19.5°
Directivity (dBi)
10
0
−10
−20
−30
−150
−100
−50
0
50
100
150
Theta/Phi (deg)
xz-plane
yz-plane
xz BW=74.9°
yz BW=19.5°
yz SLL=-12.0 dB


3D Directivity Pattern
f = 5.800 GHz, Dmax = 13.69 dBi
X
Y
Z
Directivity (dBi)