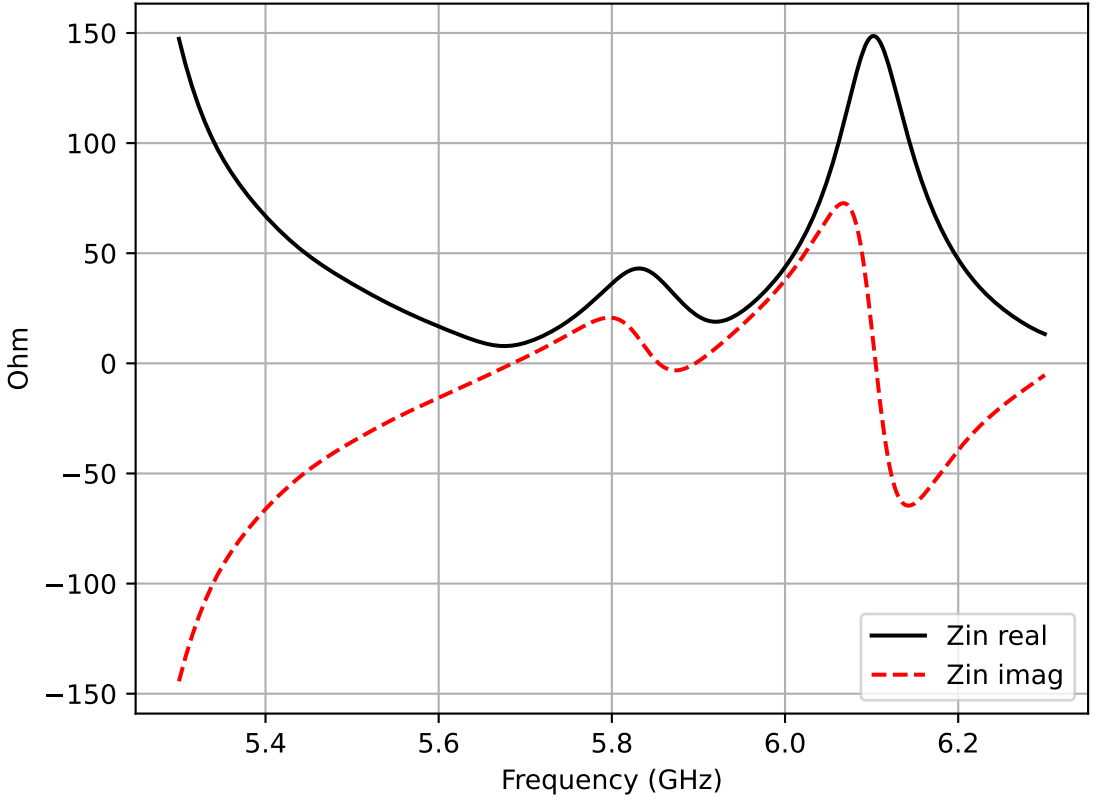
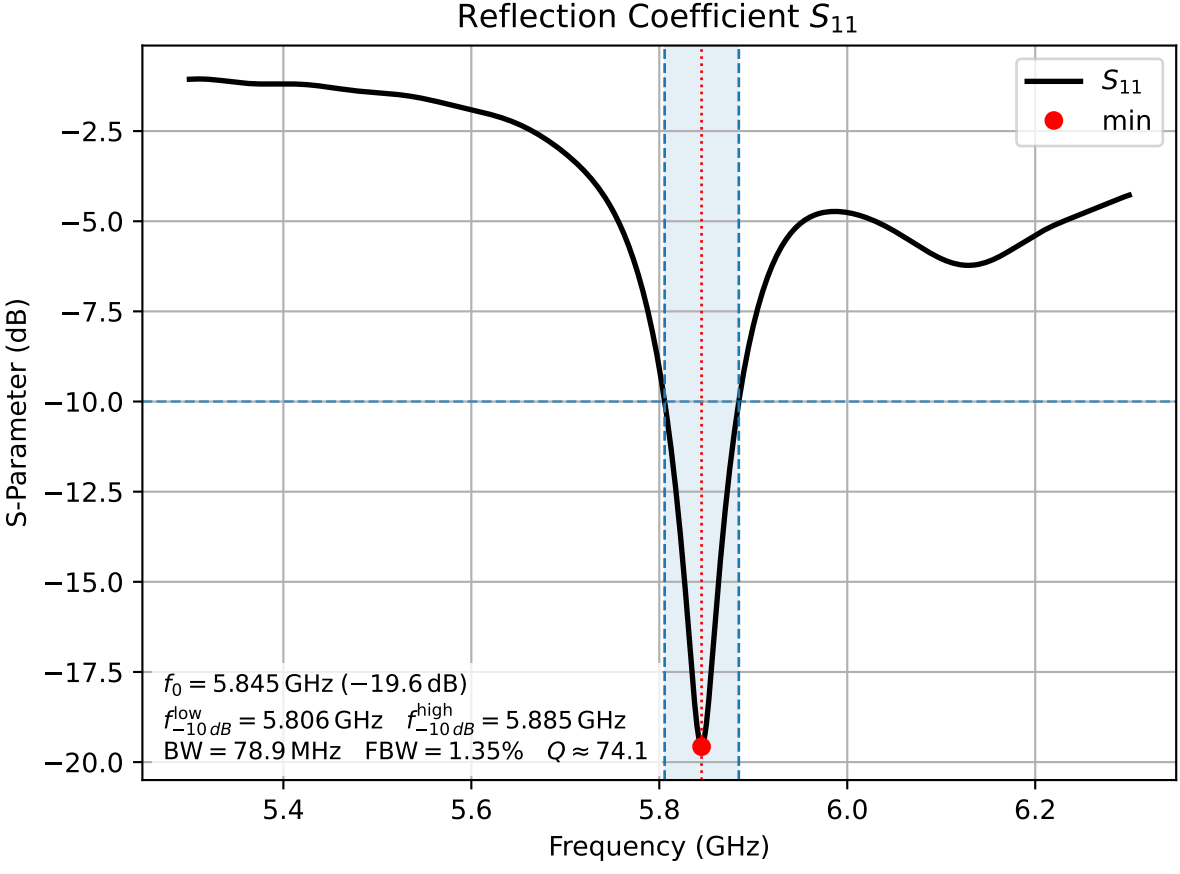
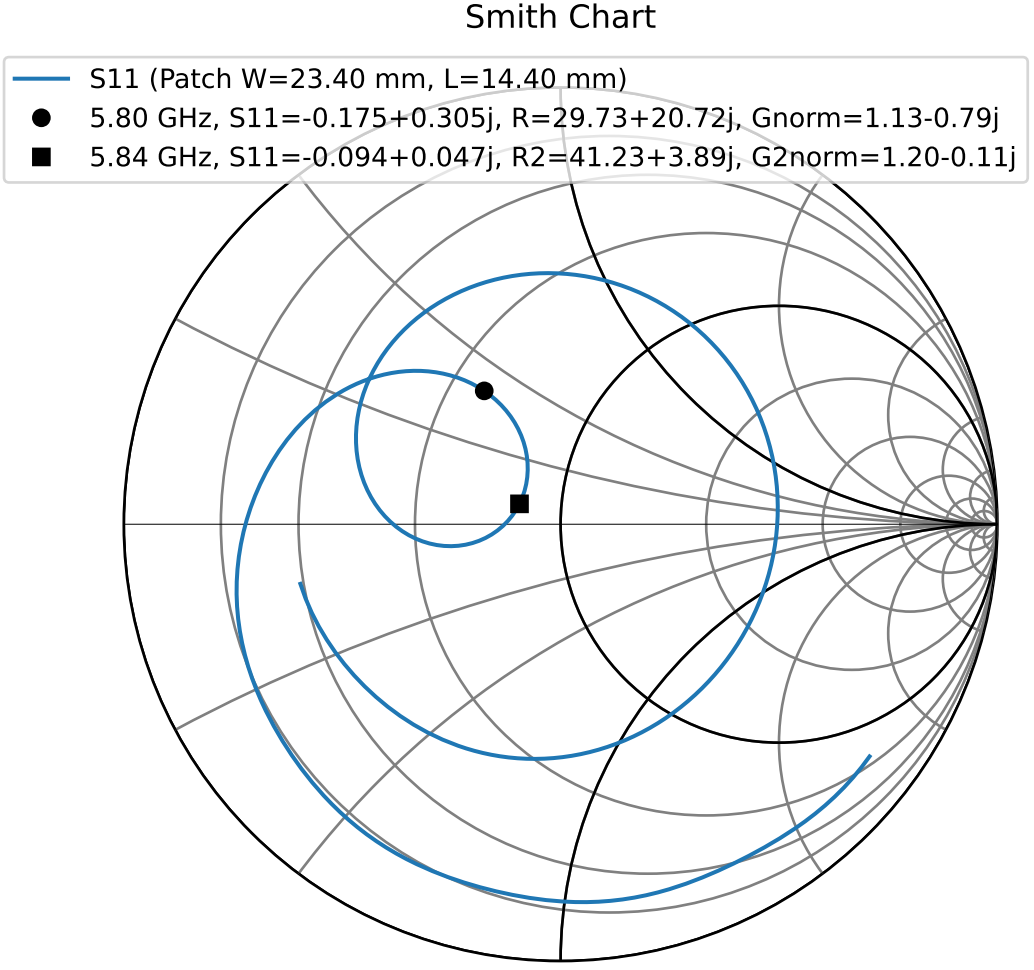
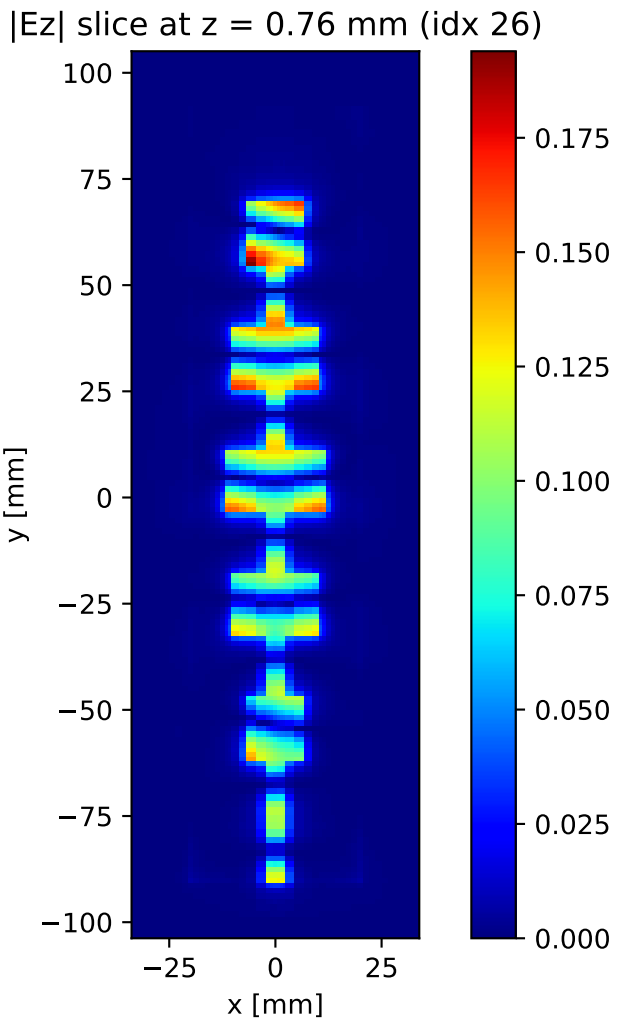
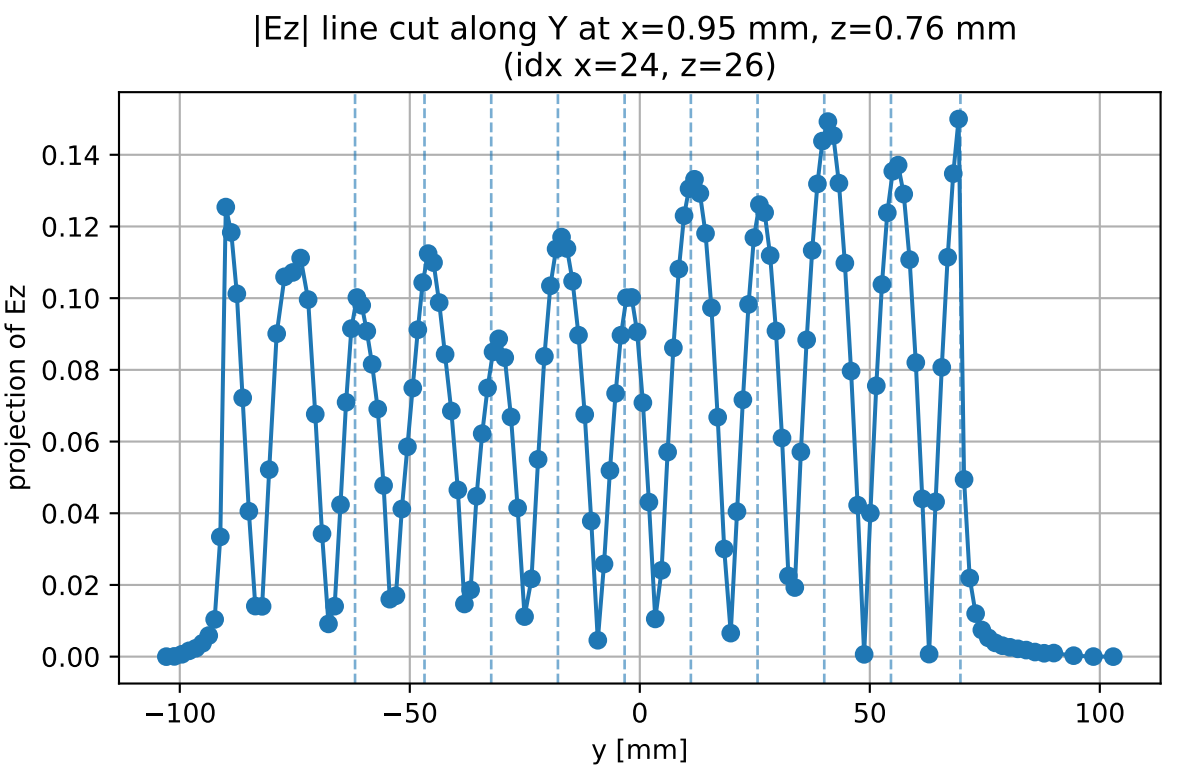
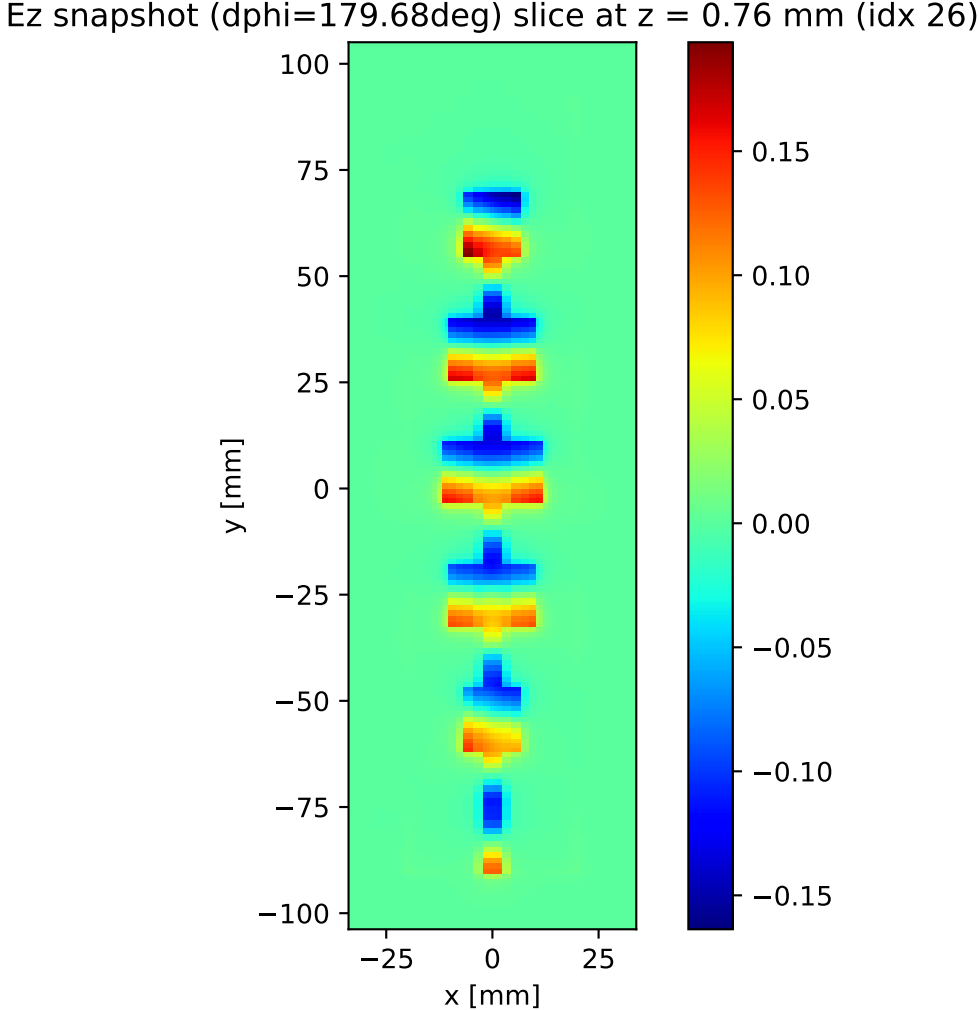

150
100
50
0
−50
−100
−150
Ohm
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)
Zin real
Zin imag

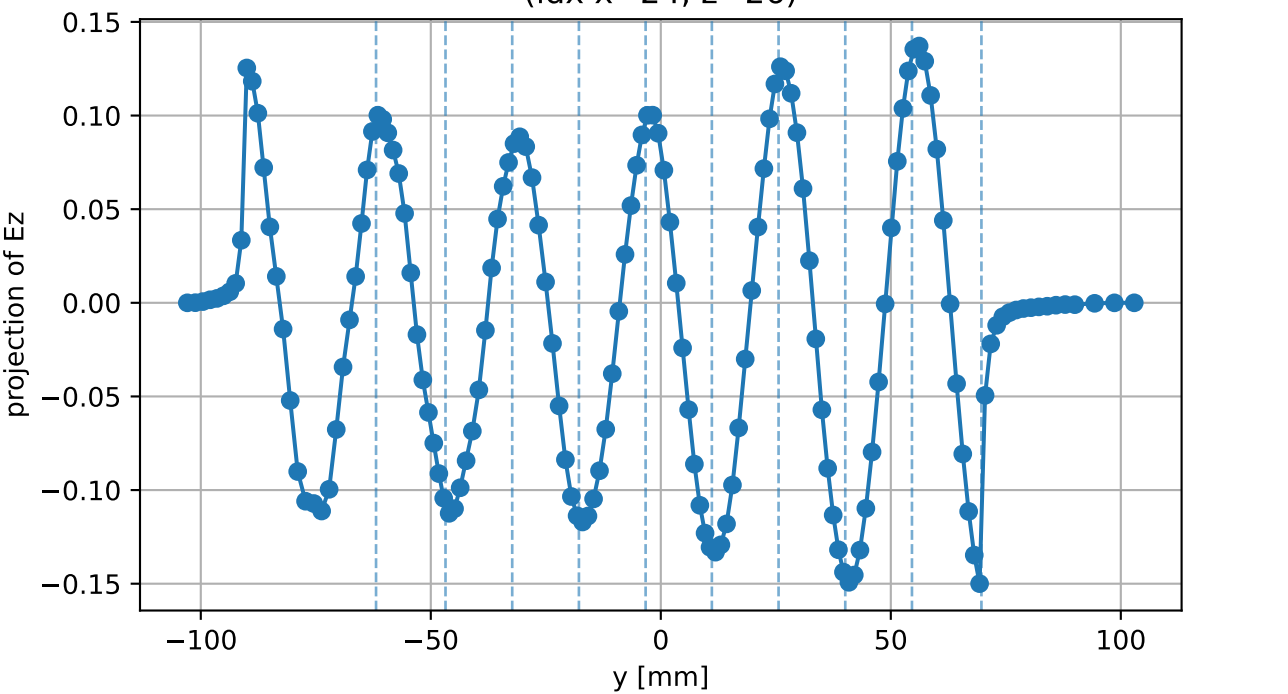

Reflection Coefficient S_{11}
S_{11}
min
S-Parameter (dB)
−2.5
−5.0
−7.5
−10.0
−12.5
−15.0
−17.5
−20.0
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)
$f_0 = 5.845\,\text{GHz}\ (-19.6\,\text{dB})$
$f^{\text{low}}_{-10\,dB} = 5.806\,\text{GHz}$ $f^{\text{high}}_{-10\,dB} = 5.885\,\text{GHz}$
$\text{BW} = 78.9\,\text{MHz}$ $\text{FBW} = 1.35\%$ $Q \approx 74.1$

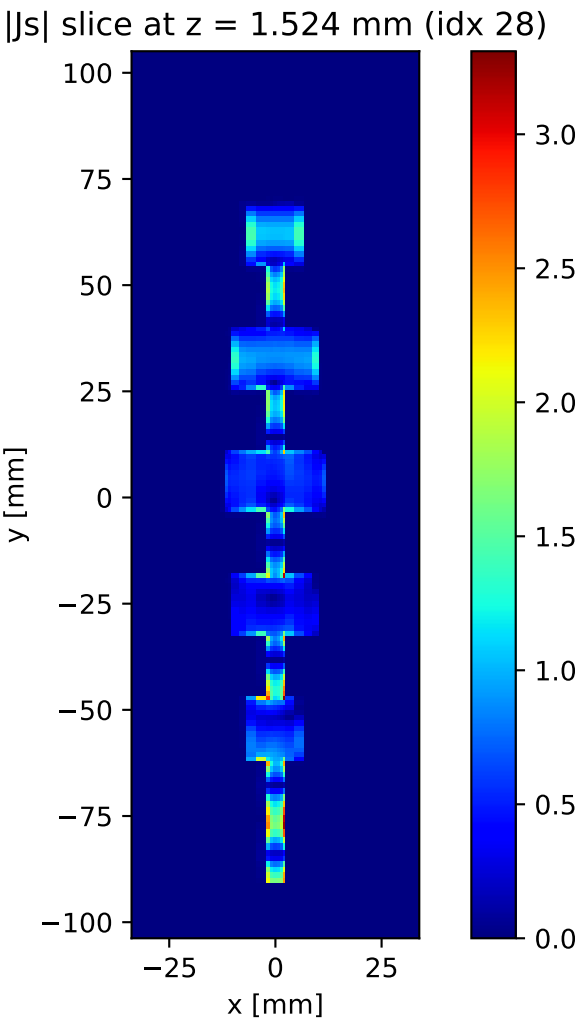

Smith Chart
S11 (Patch W=23.40 mm, L=14.40 mm)
5.80 GHz, S11=-0.175+0.305j, R=29.73+20.72j, Gnorm=1.13-0.79j
5.84 GHz, S11=-0.094+0.047j, R2=41.23+3.89j, G2norm=1.20-0.11j

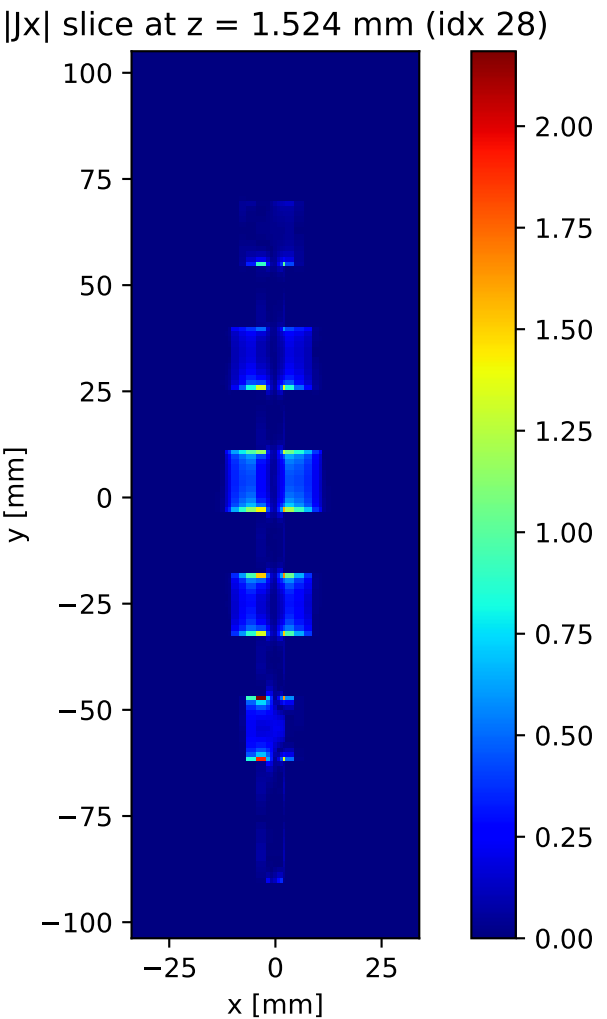

|Ez| slice at z = 0.76 mm (idx 26)
y [mm]
x [mm]
100
75
50
25
0
−25
−50
−75
−100
−25
0
25
0.175
0.150
0.125
0.100
0.075
0.050
0.025
0.000

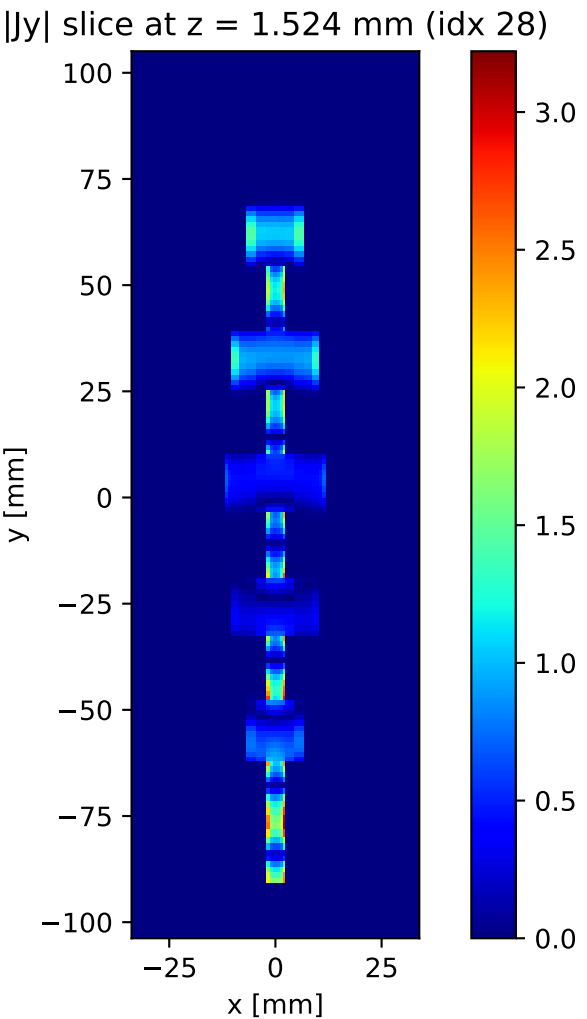

|Ez| line cut along Y at x=0.95 mm, z=0.76 mm
(idx x=24, z=26)
projection of Ez
0.14
0.12
0.10
0.08
0.06
0.04
0.02
0.00
−100
−50
0
50
100
y [mm]

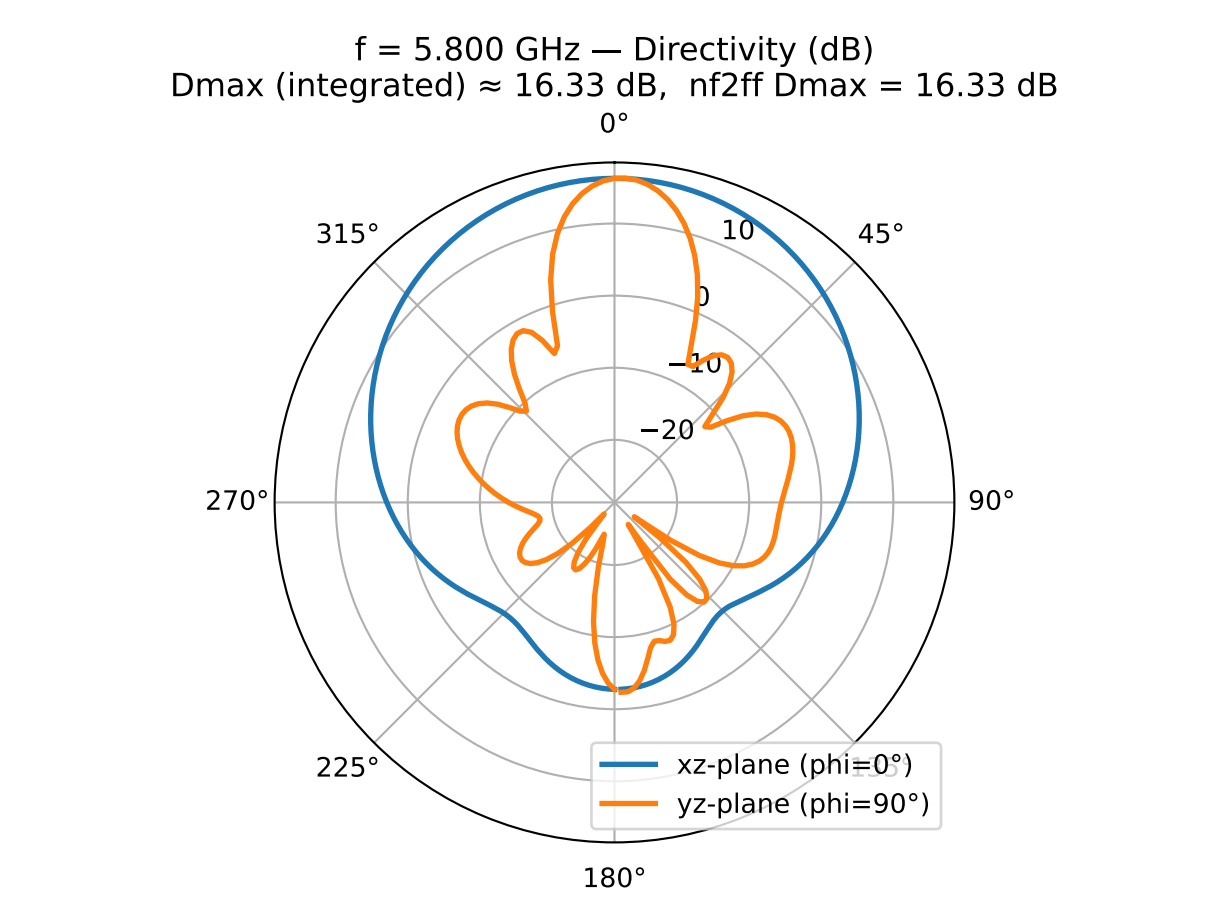

Ez snapshot (dphi=179.68deg) slice at z = 0.76 mm (idx 26)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−25
0
25
x [mm]
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15

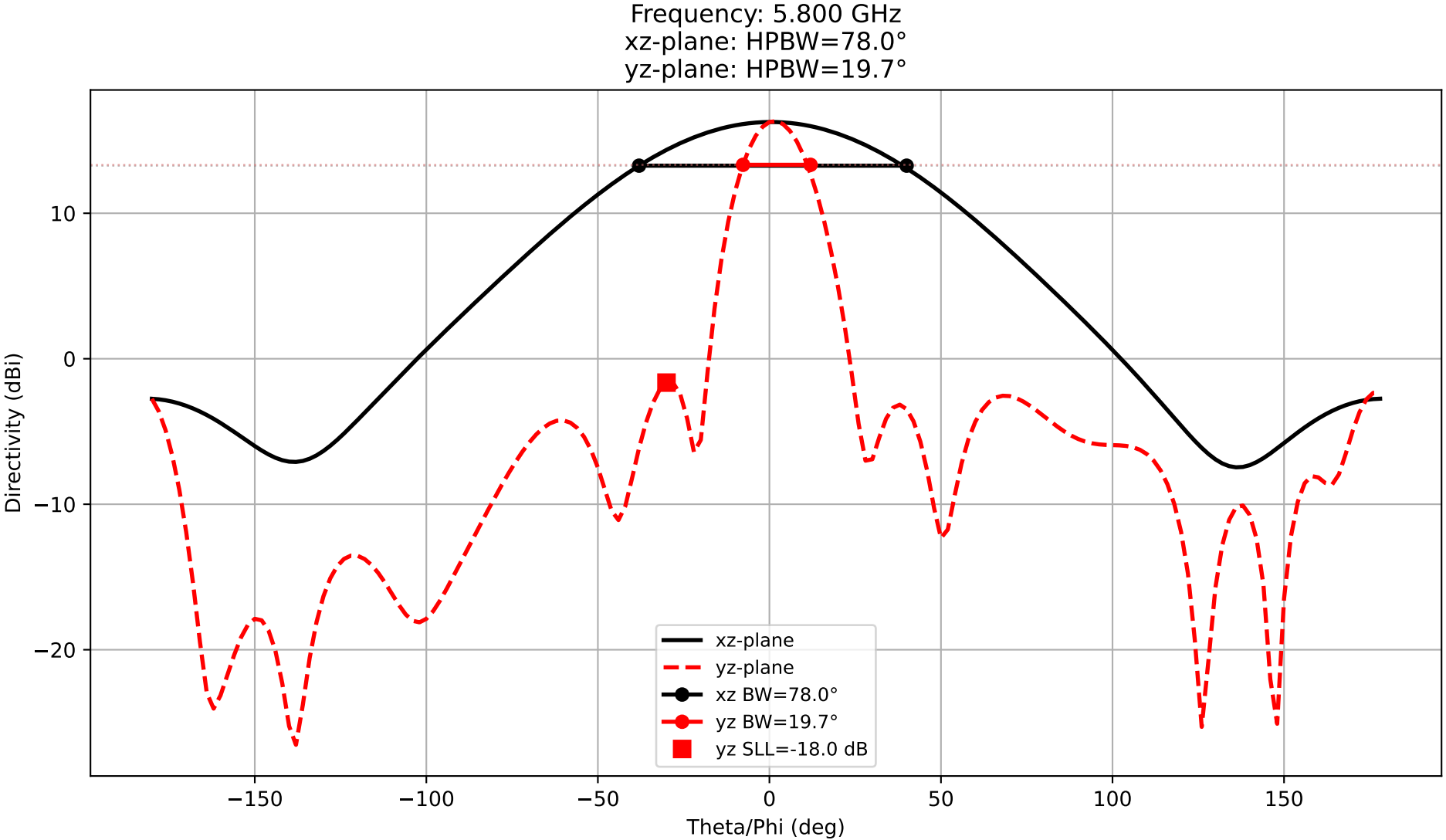

Ez snapshot (dphi=179.68deg) line cut along Y at x=0.95 mm, z=0.76 mm
(idx x=24, z=26)
projection of Ez
y [mm]
0.15
0.10
0.05
0.00
−0.05
−0.10
−0.15
−100
−50
0
50
100

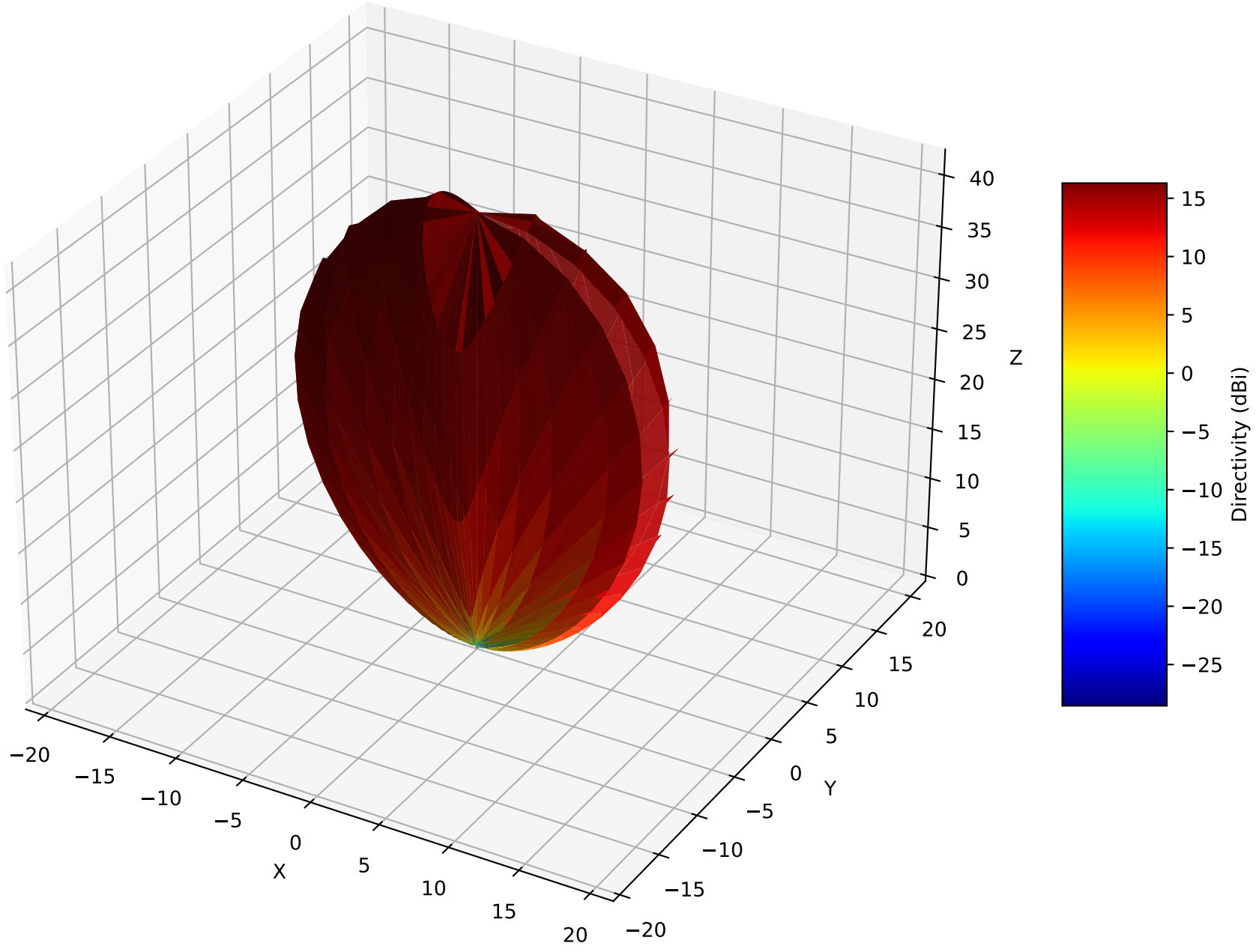

|Js| slice at z = 1.524 mm (idx 28)
y [mm]
x [mm]
100
75
50
25
0
−25
−50
−75
−100
−25
0
25
3.0
2.5
2.0
1.5
1.0
0.5
0.0


|Jx| slice at z = 1.524 mm (idx 28)
100
75
50
25
0
−25
−50
−75
−100
y [mm]
−25
0
25
x [mm]
2.00
1.75
1.50
1.25
1.00
0.75
0.50
0.25
0.00


|Jy| slice at z = 1.524 mm (idx 28)
y [mm]
x [mm]
100
75
50
25
0
−25
−50
−75
−100
−25
0
25
3.0
2.5
2.0
1.5
1.0
0.5
0.0


f = 5.800 GHz — Directivity (dB)
Dmax (integrated) ≈ 16.33 dB, nf2ff Dmax = 16.33 dB
0°
45°
90°
180°
225°
270°
315°
10
0
−10
−20
xz-plane (phi=0°)
yz-plane (phi=90°)


Frequency: 5.800 GHz
xz-plane: HPBW=78.0°
yz-plane: HPBW=19.7°
Directivity (dBi)
10
0
−10
−20
−150
−100
−50
0
50
100
150
Theta/Phi (deg)
xz-plane
yz-plane
xz BW=78.0°
yz BW=19.7°
yz SLL=-18.0 dB


3D Directivity Pattern
f = 5.800 GHz, Dmax = 16.30 dBi
X
Y
Z
Directivity (dBi)