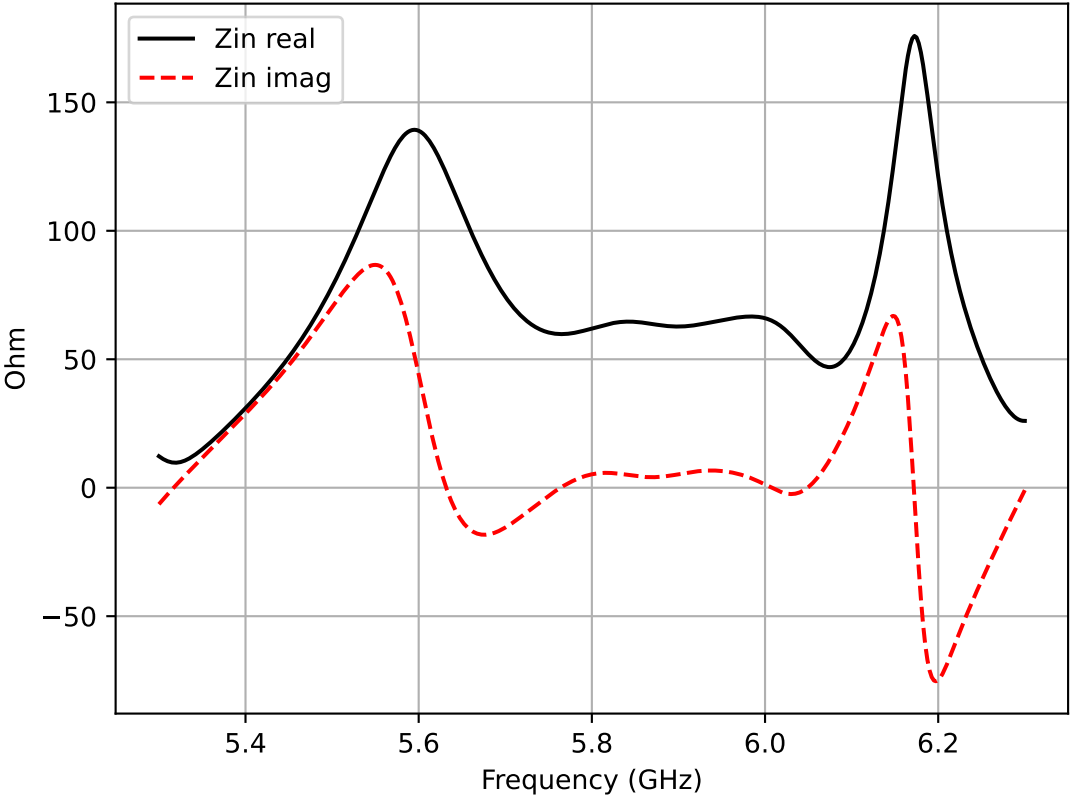
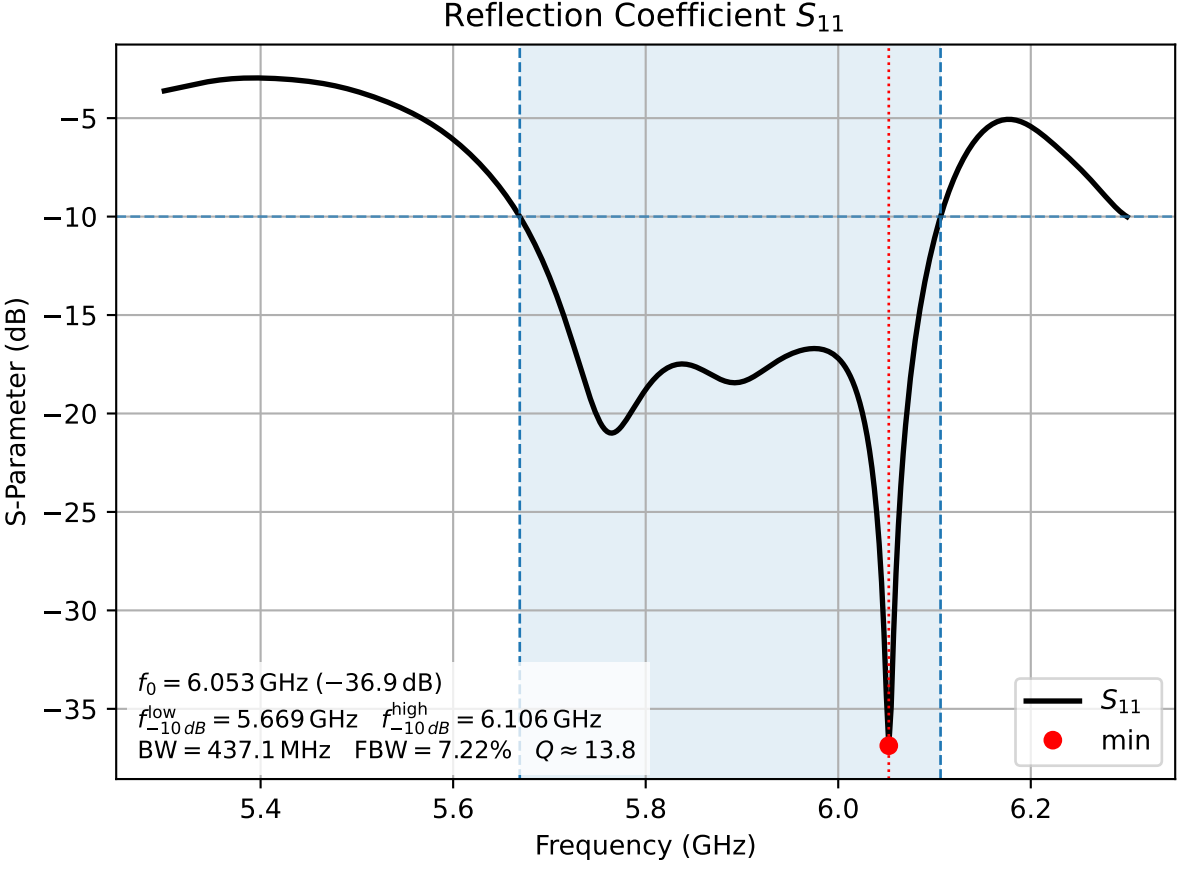
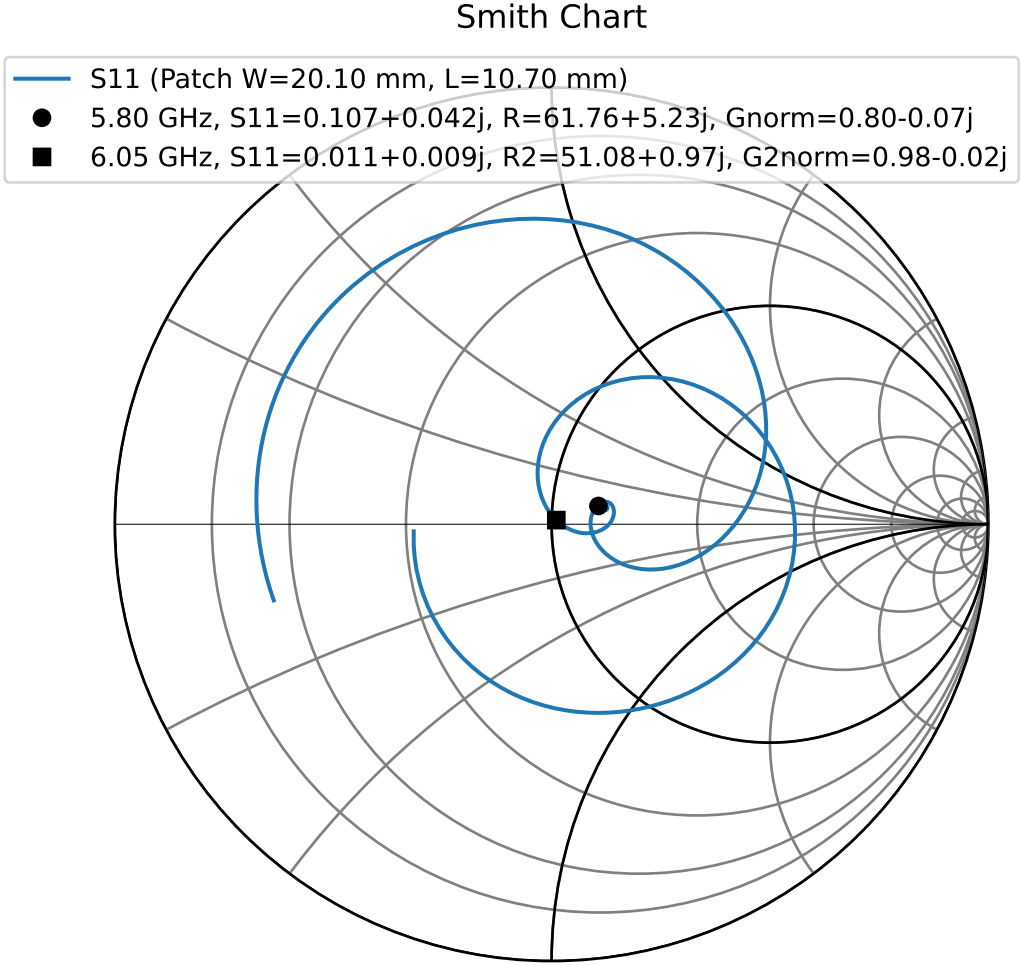
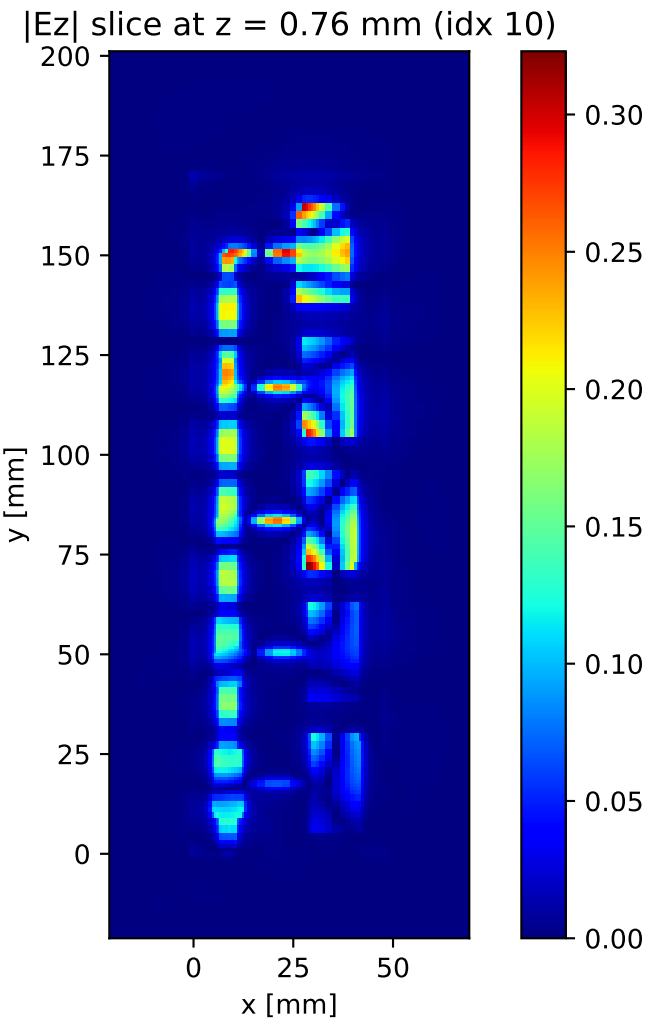
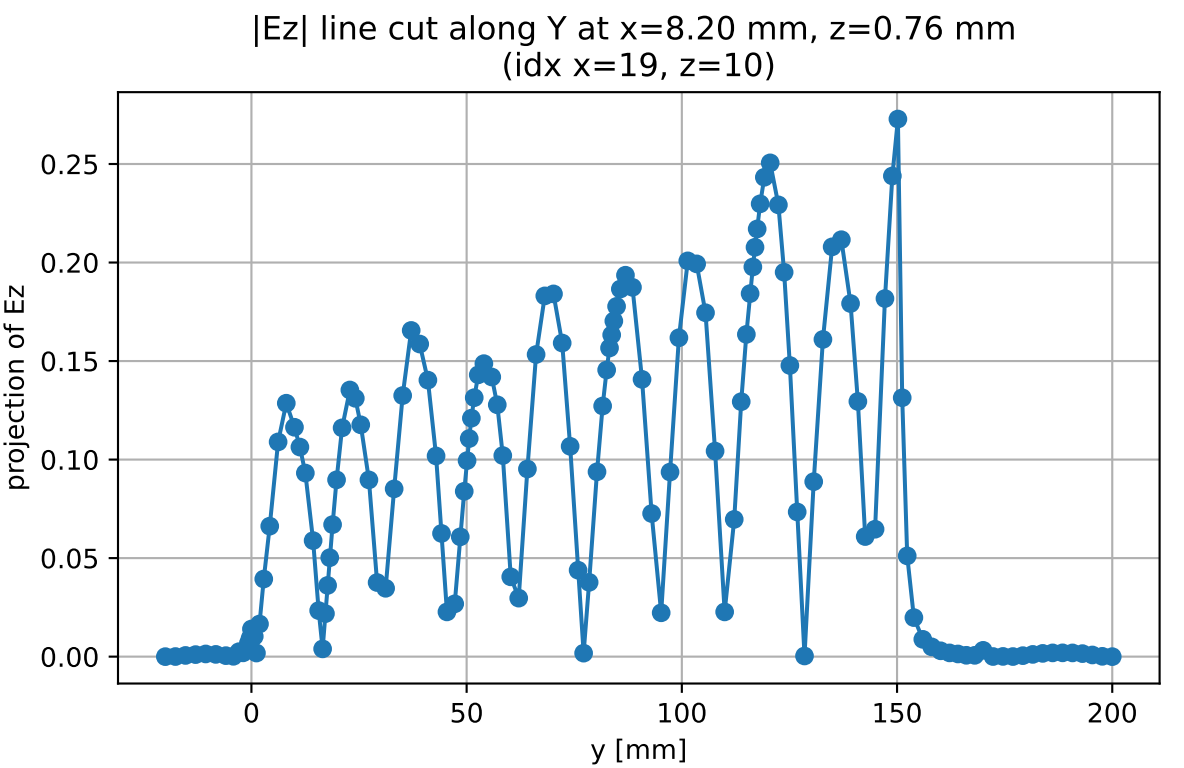
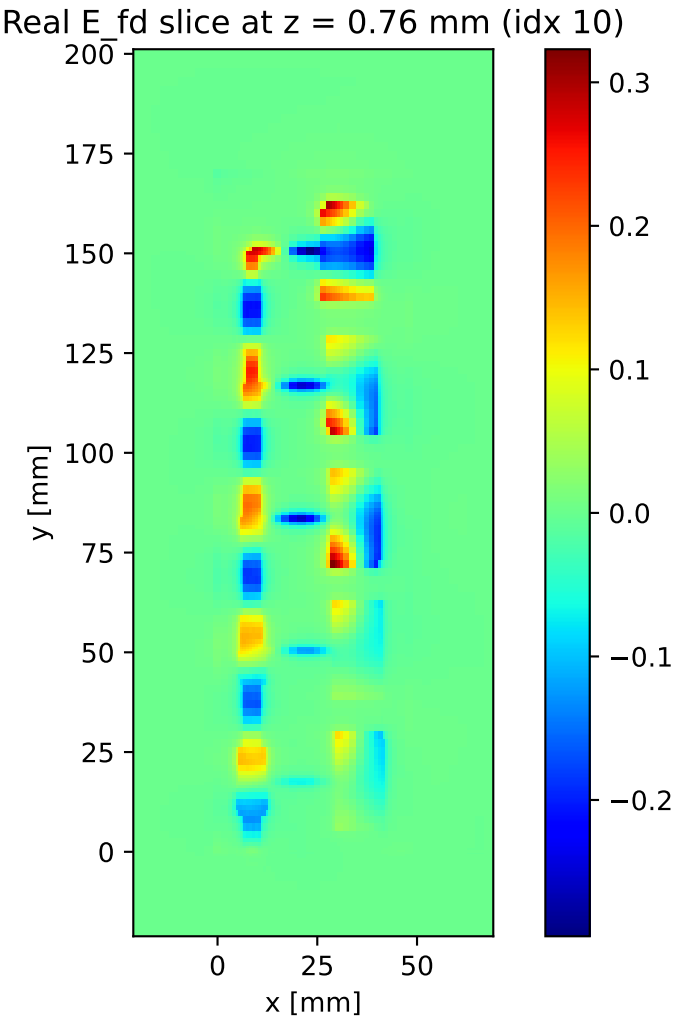

Zin real
Zin imag
150
100
50
0
−50
Ohm
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)

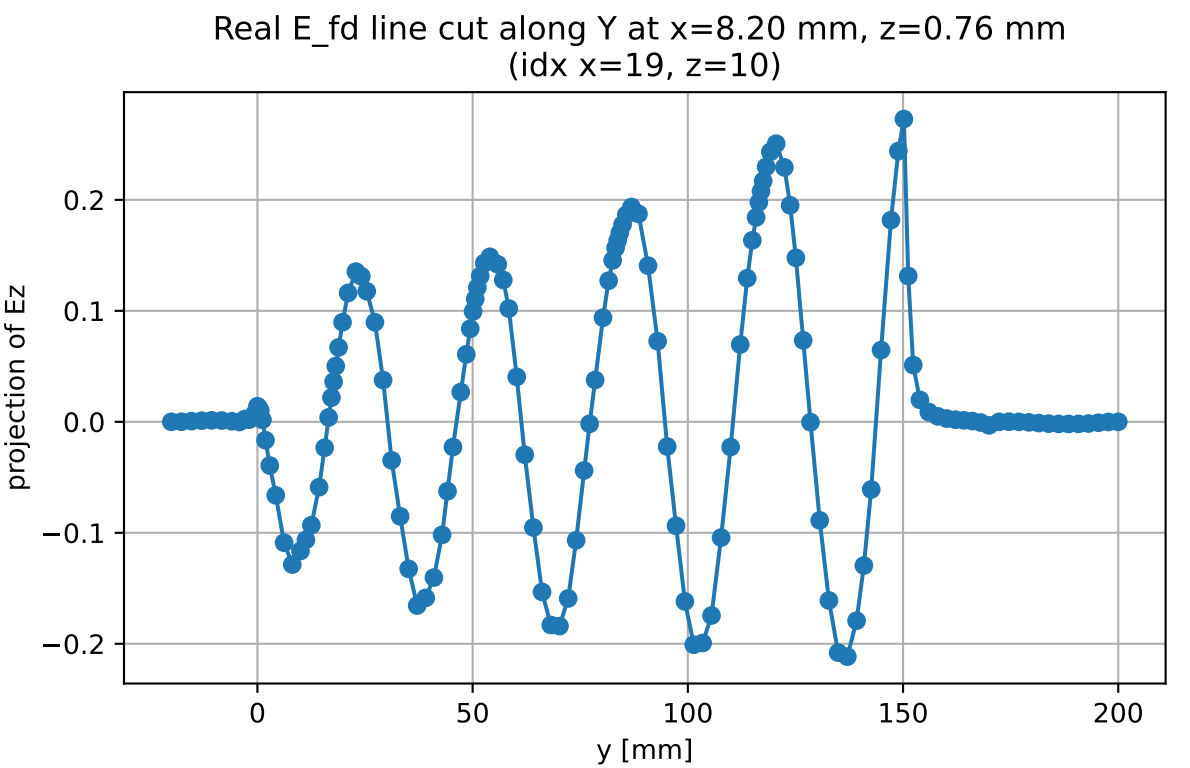

Reflection Coefficient S_{11}
S-Parameter (dB)
−5
−10
−15
−20
−25
−30
−35
5.4
5.6
5.8
6.0
6.2
Frequency (GHz)
$f_0 = 6.053\,\text{GHz}\ (-36.9\,\text{dB})$
$f_{-10\,dB}^{low} = 5.669\,\text{GHz}$ $f_{-10\,dB}^{high} = 6.106\,\text{GHz}$
$\text{BW} = 437.1\,\text{MHz}$ $\text{FBW} = 7.22\%$ $Q \approx 13.8$
S_{11}
min

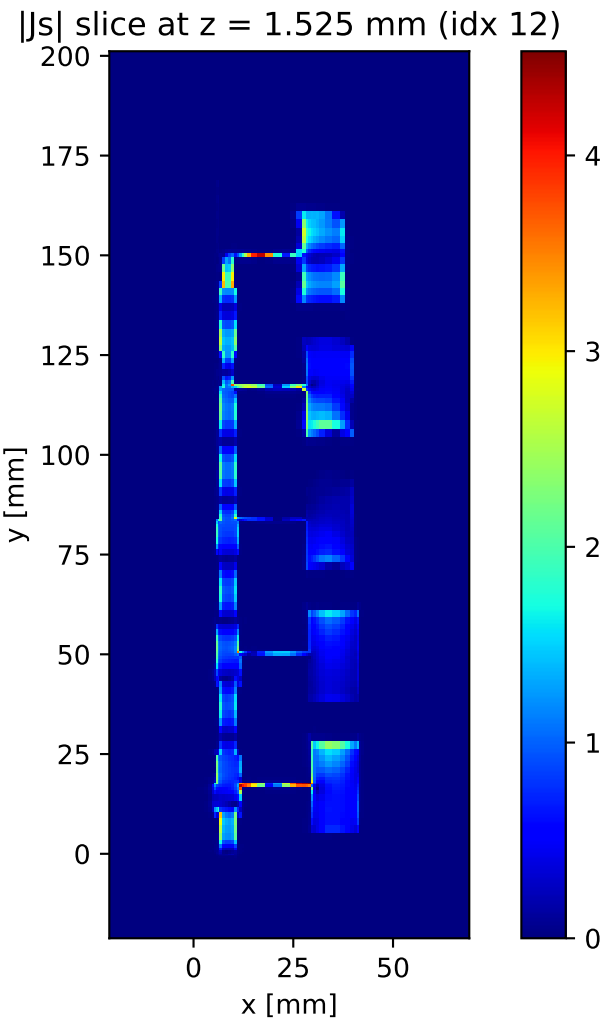

Smith Chart
S11 (Patch W=20.10 mm, L=10.70 mm)
5.80 GHz, S11=0.107+0.042j, R=61.76+5.23j, Gnorm=0.80-0.07j
6.05 GHz, S11=0.011+0.009j, R2=51.08+0.97j, G2norm=0.98-0.02j

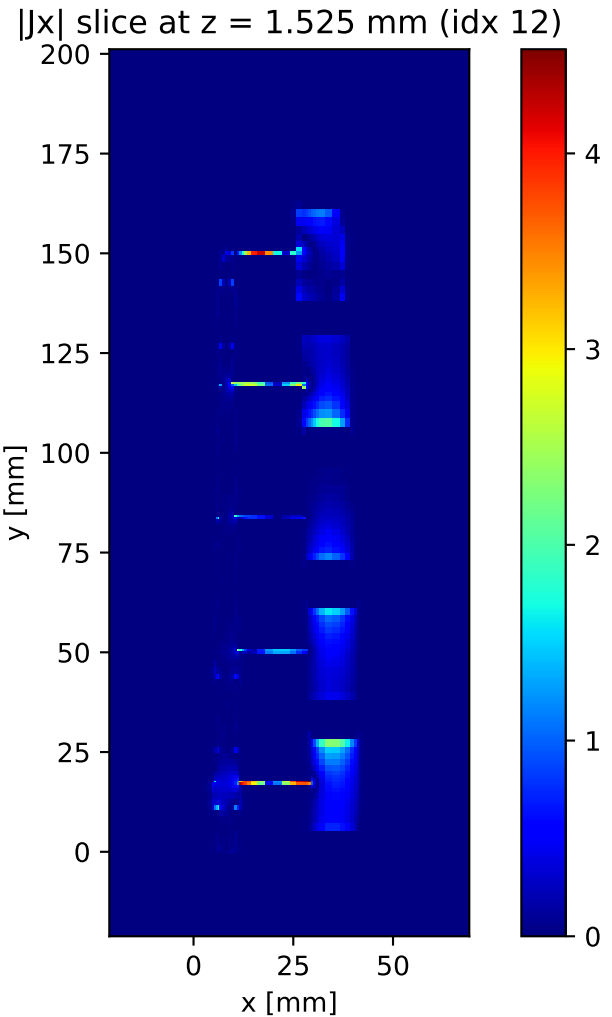

|Ez| slice at z = 0.76 mm (idx 10)
200
175
150
125
100
75
50
25
0
y [mm]
0
25
50
x [mm]
0.30
0.25
0.20
0.15
0.10
0.05
0.00

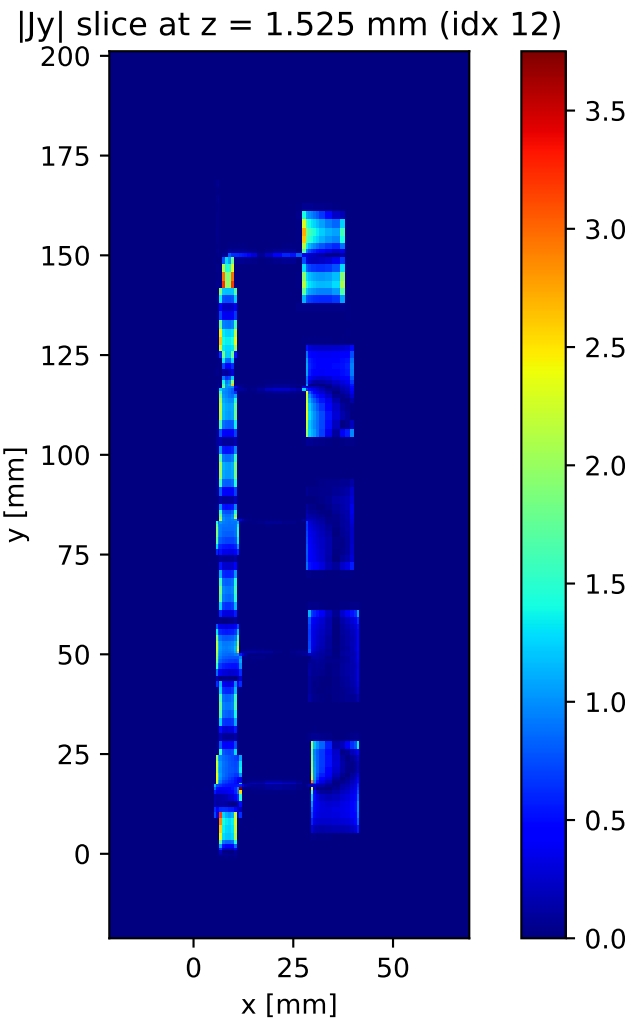

|Ez| line cut along Y at x=8.20 mm, z=0.76 mm
(idx x=19, z=10)
projection of Ez
0.00
0.05
0.10
0.15
0.20
0.25
0
50
100
150
200
y [mm]

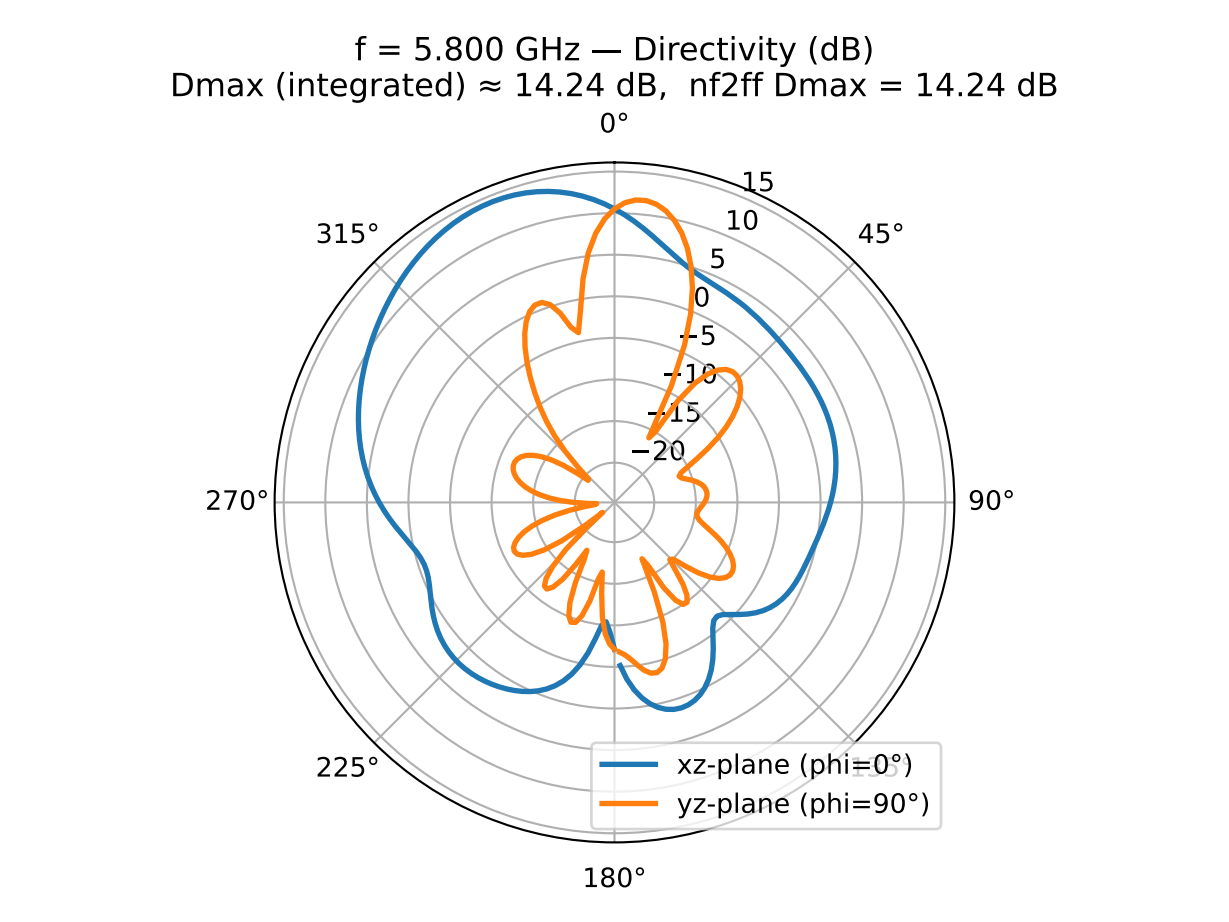

Real E_fd slice at z = 0.76 mm (idx 10)
200
175
150
125
100
75
50
25
0
y [mm]
0
25
50
x [mm]
0.3
0.2
0.1
0.0
−0.1
−0.2

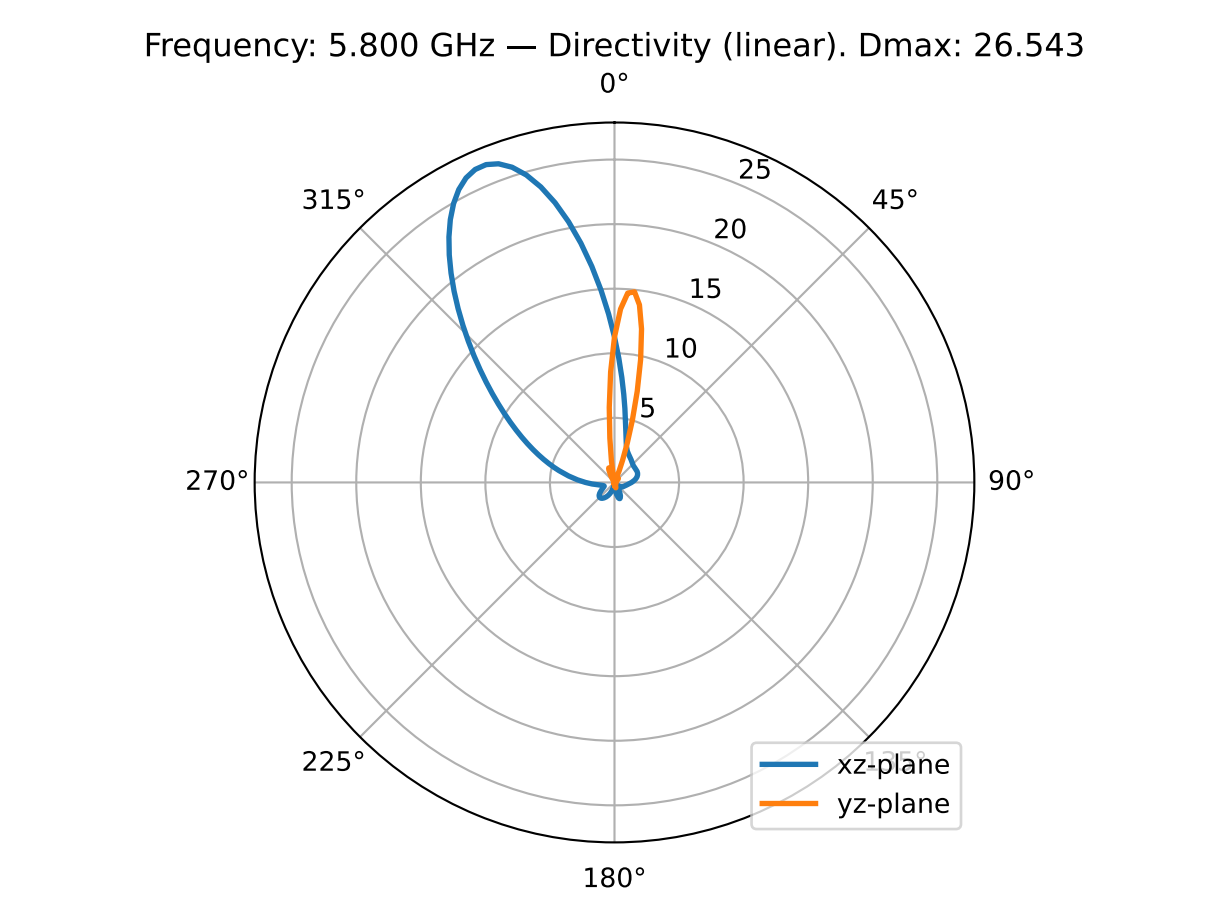

Real E_fd line cut along Y at x=8.20 mm, z=0.76 mm
(idx x=19, z=10)
projection of Ez
0.2
0.1
0.0
−0.1
−0.2
0
50
100
150
200
y [mm]

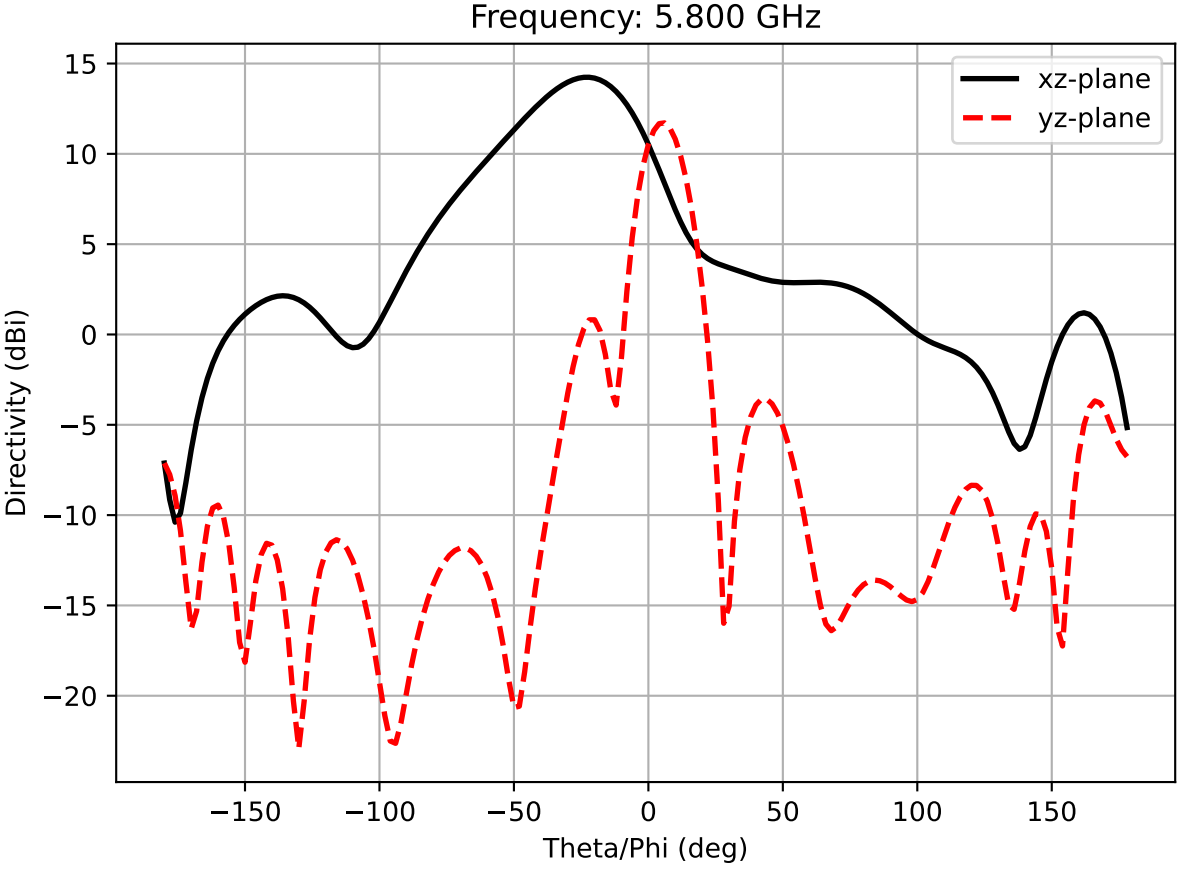

|Js| slice at z = 1.525 mm (idx 12)
200
175
150
125
100
75
50
25
0
y [mm]
0
25
50
x [mm]
4
3
2
1
0

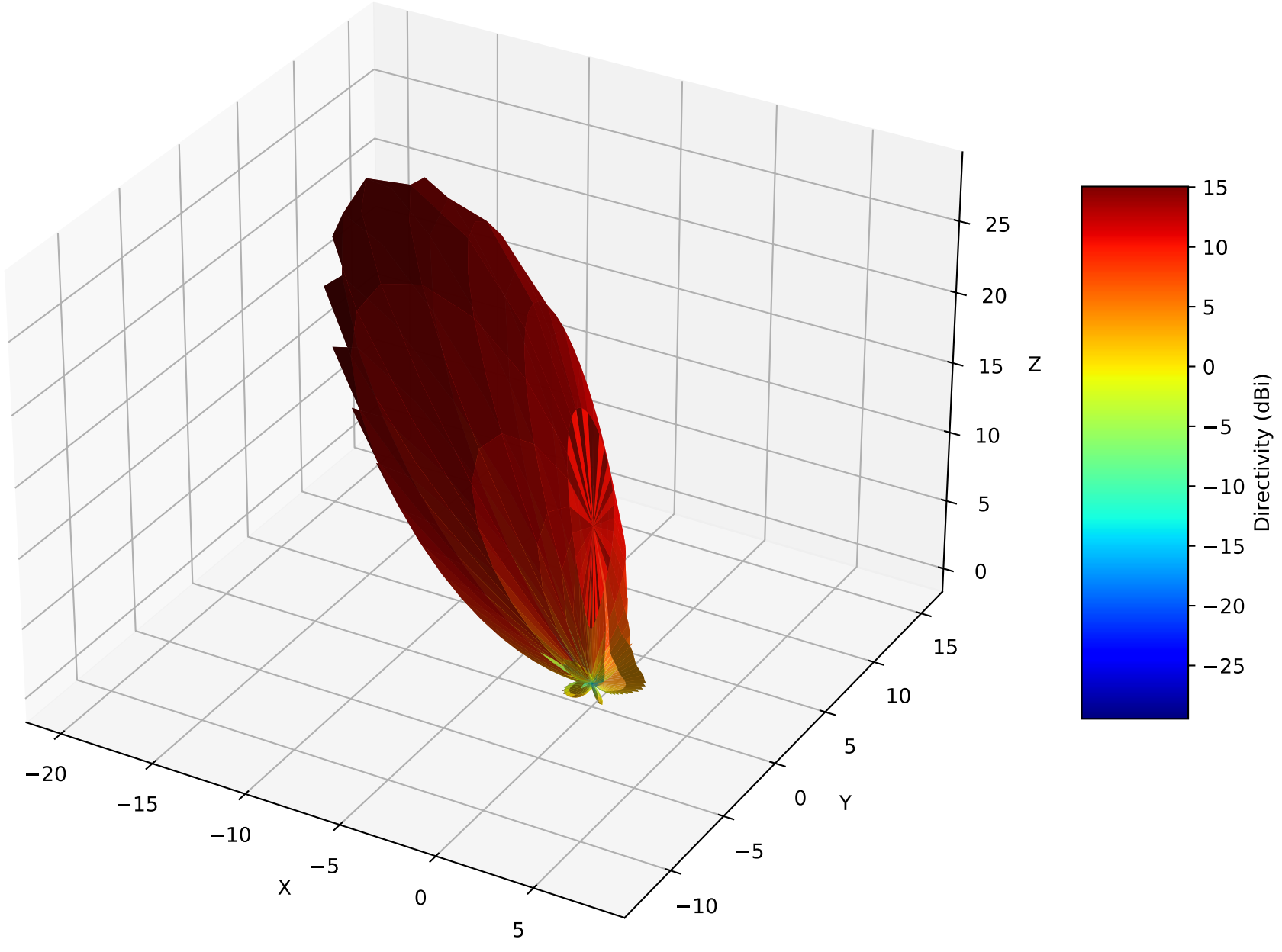

|Jx| slice at z = 1.525 mm (idx 12)
200
175
150
125
100
75
50
25
0
y [mm]
0
25
50
x [mm]
4
3
2
1
0


|Jy| slice at z = 1.525 mm (idx 12)
200
175
150
125
100
75
50
25
0
y [mm]
0
25
50
x [mm]
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0


f = 5.800 GHz — Directivity (dB)
Dmax (integrated) ≈ 14.24 dB, nf2ff Dmax = 14.24 dB
0°
45°
90°
225°
180°
270°
315°
15
10
5
0
−5
−10
−15
−20
xz-plane (phi=0°)
yz-plane (phi=90°)


Frequency: 5.800 GHz — Directivity (linear). Dmax: 26.543
0°
45°
90°
180°
225°
270°
315°
5
10
15
20
25
xz-plane
yz-plane


Frequency: 5.800 GHz
xz-plane
yz-plane
Directivity (dBi)
15
10
5
0
−5
−10
−15
−20
−150
−100
−50
0
50
100
150
Theta/Phi (deg)


3D Directivity Pattern
f = 5.800 GHz, Dmax = 15.05 dBi
X
Y
Z
Directivity (dBi)
−20
−15
−10
−5
0
5
10
15
20
25
−25