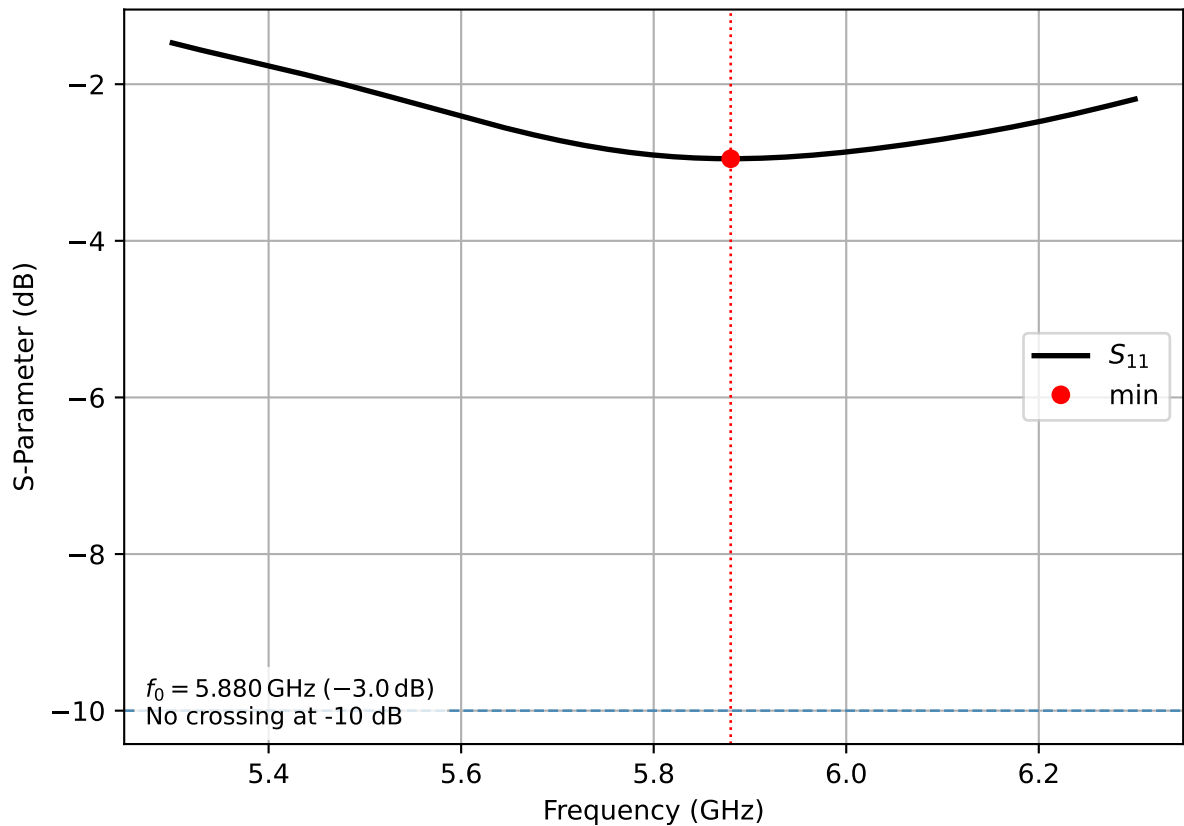


Reflection Coefficient  $S_{11}$

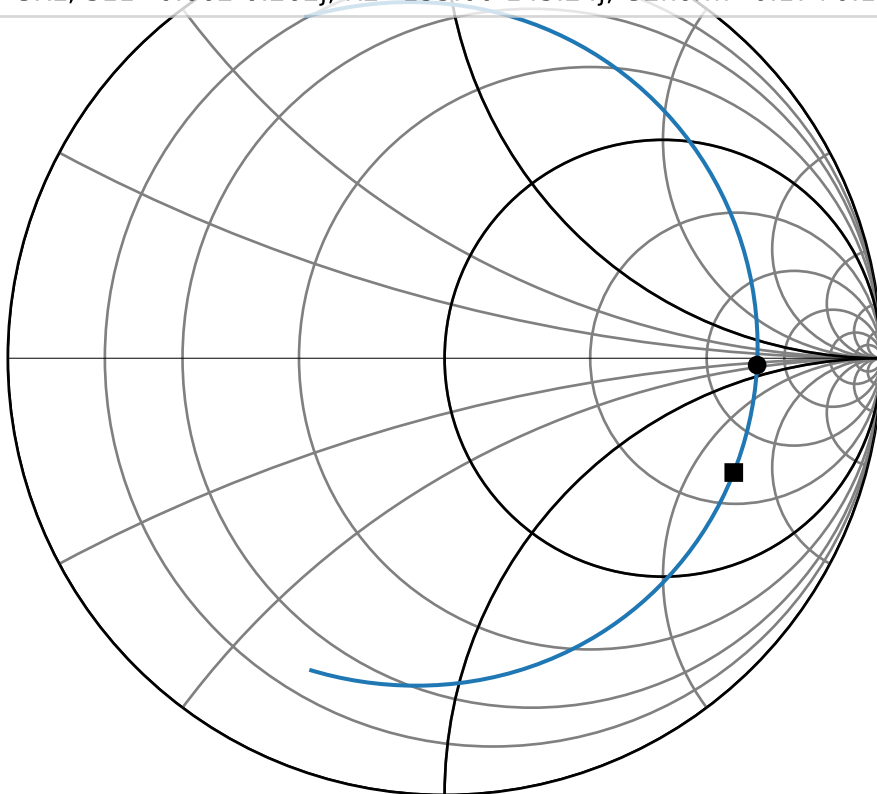


# Smith Chart

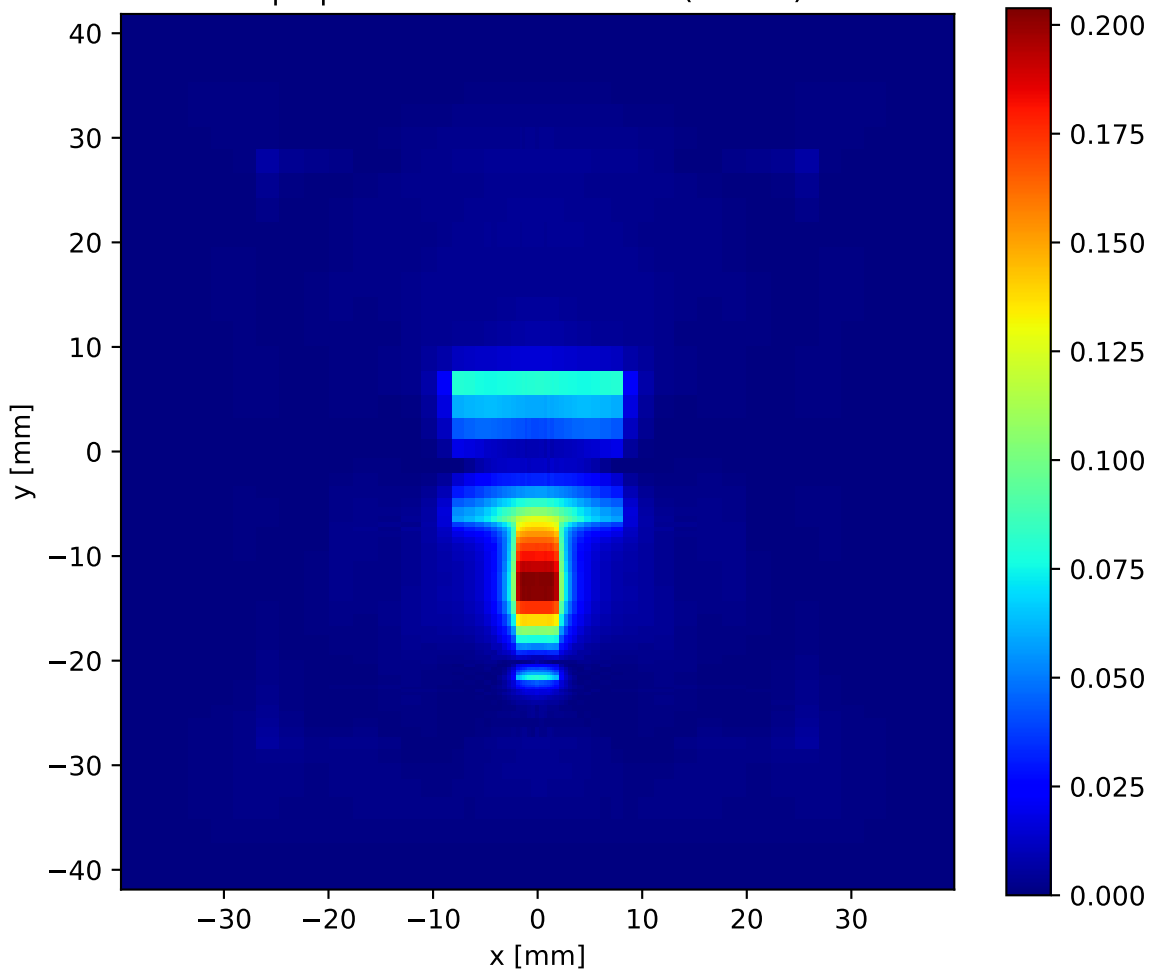
— S11 (Patch W=15.10 mm, L=13.10 mm)

● 5.80 GHz,  $S_{11}=0.716-0.016j$ ,  $R=300.50-19.25j$ ,  $G_{\text{norm}}=0.17+0.01j$

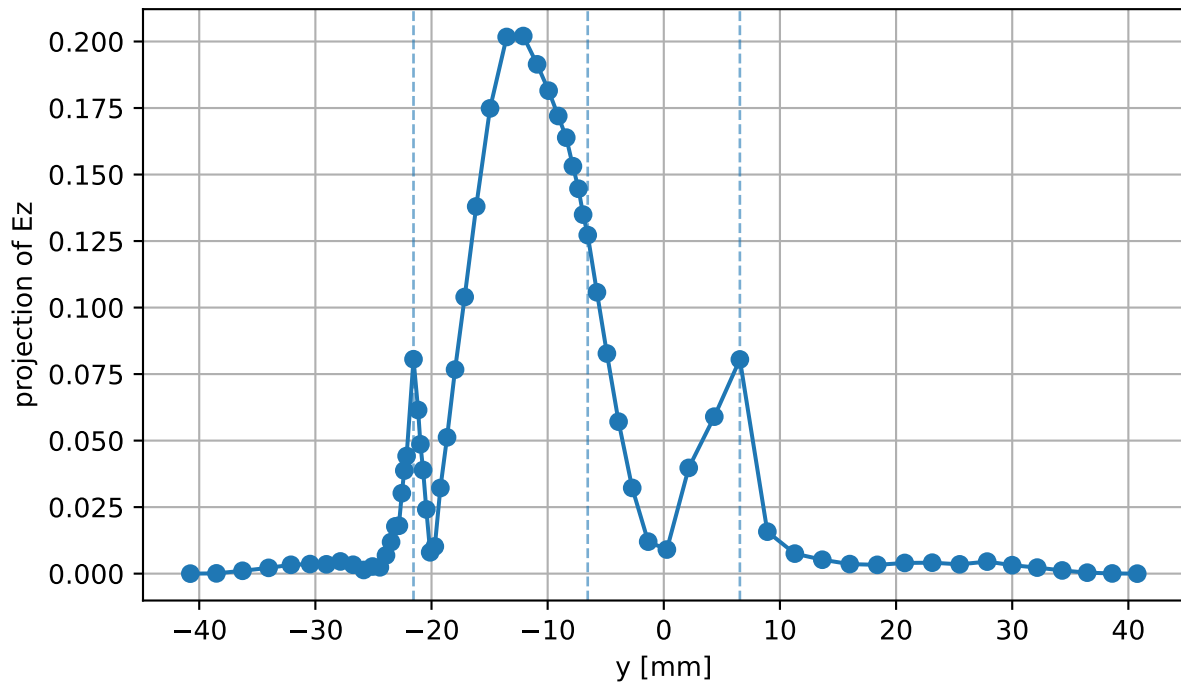
■ 5.88 GHz,  $S_{11}=0.662-0.262j$ ,  $R_2=135.00-143.24j$ ,  $G_2\text{norm}=0.17+0.18j$



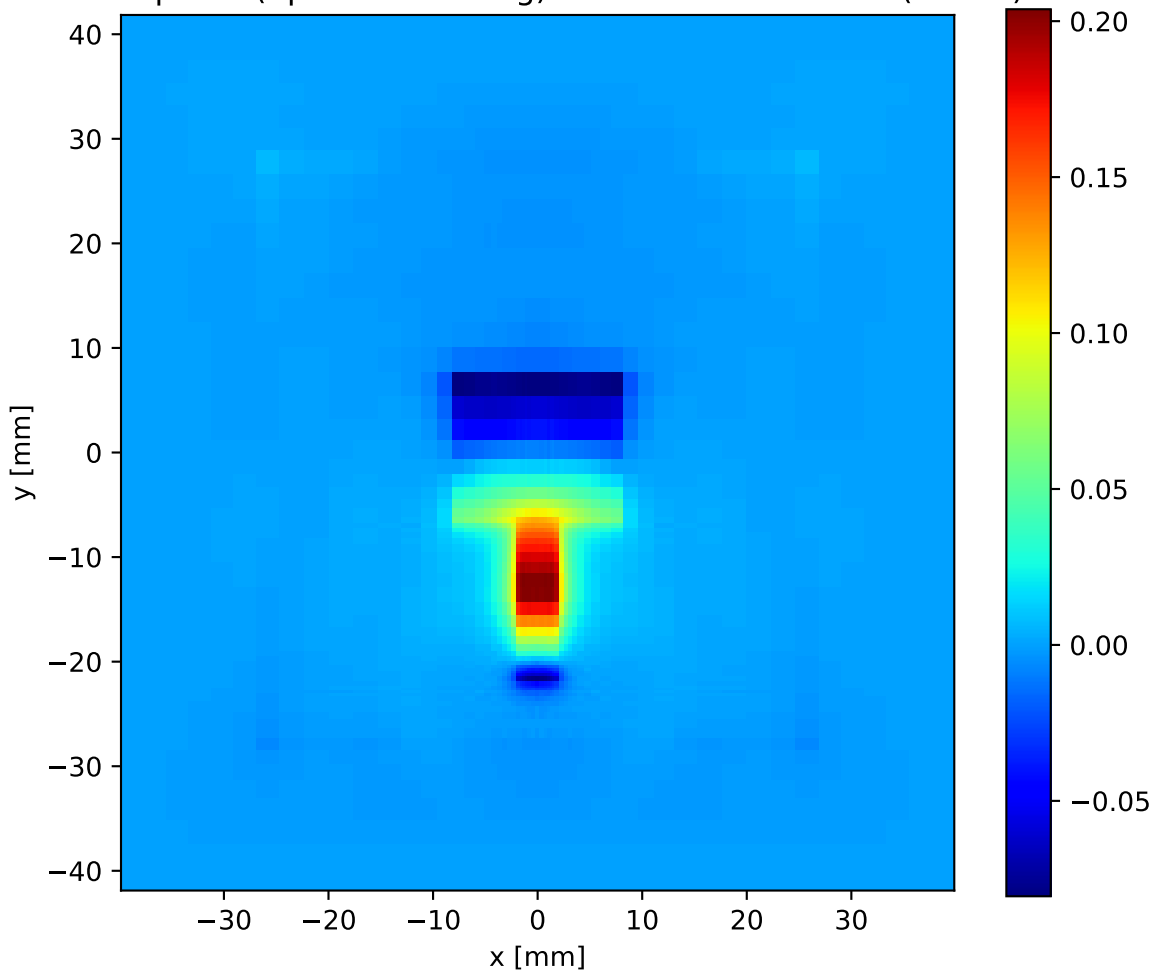
$|E_z|$  slice at  $z = 0.76$  mm (idx 15)



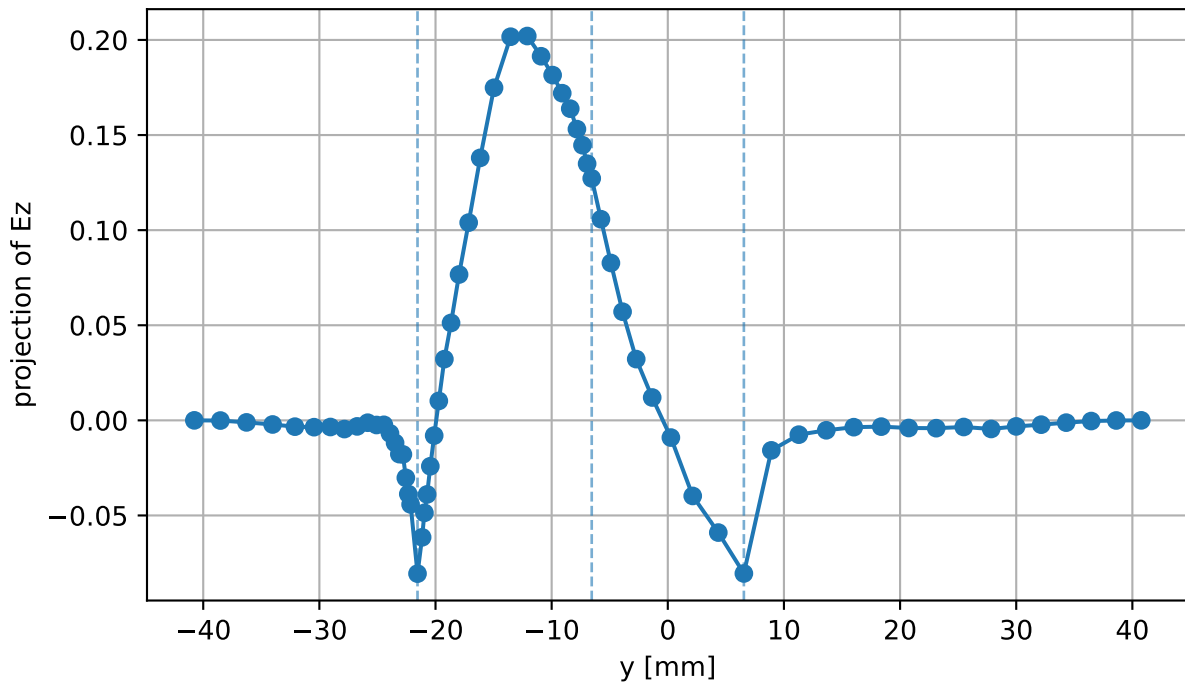
$|E_z|$  line cut along Y at  $x=0.00$  mm,  $z=0.76$  mm  
(idx x=30, z=15)



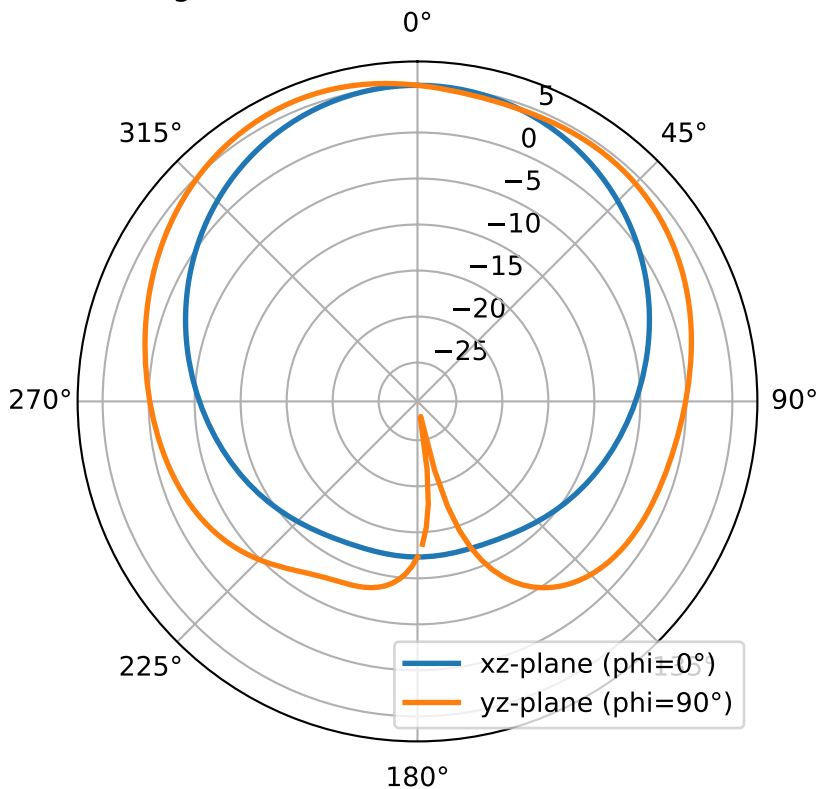
Ez snapshot (dphi=179.82deg) slice at z = 0.76 mm (idx 15)



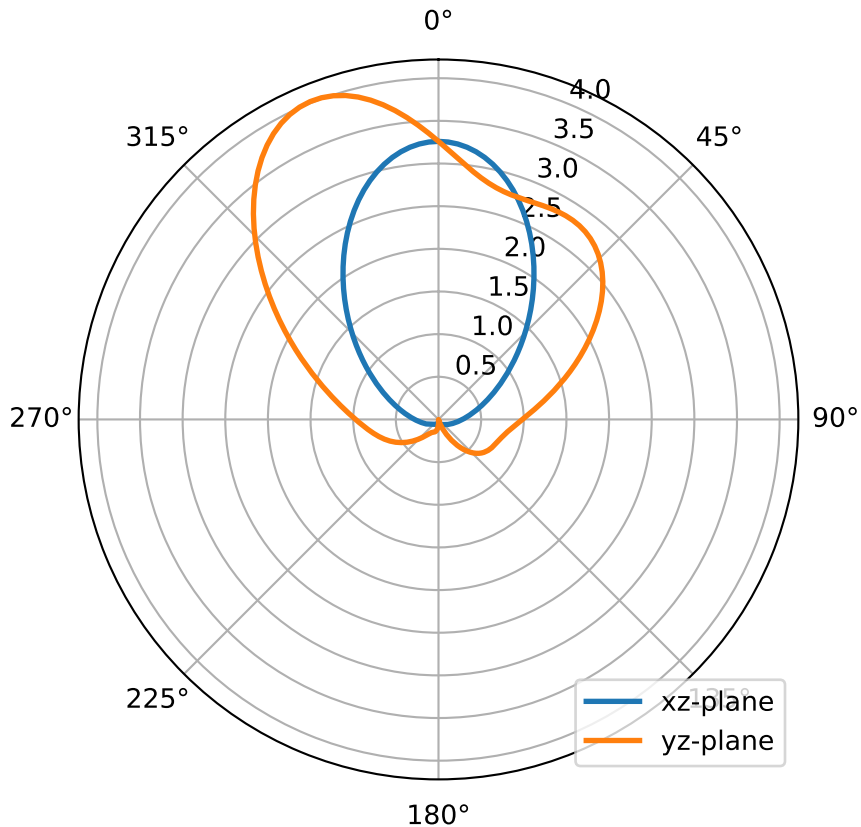
Ez snapshot (dphi=179.82deg) line cut along Y at x=0.00 mm, z=0.76 mm  
(idx x=30, z=15)



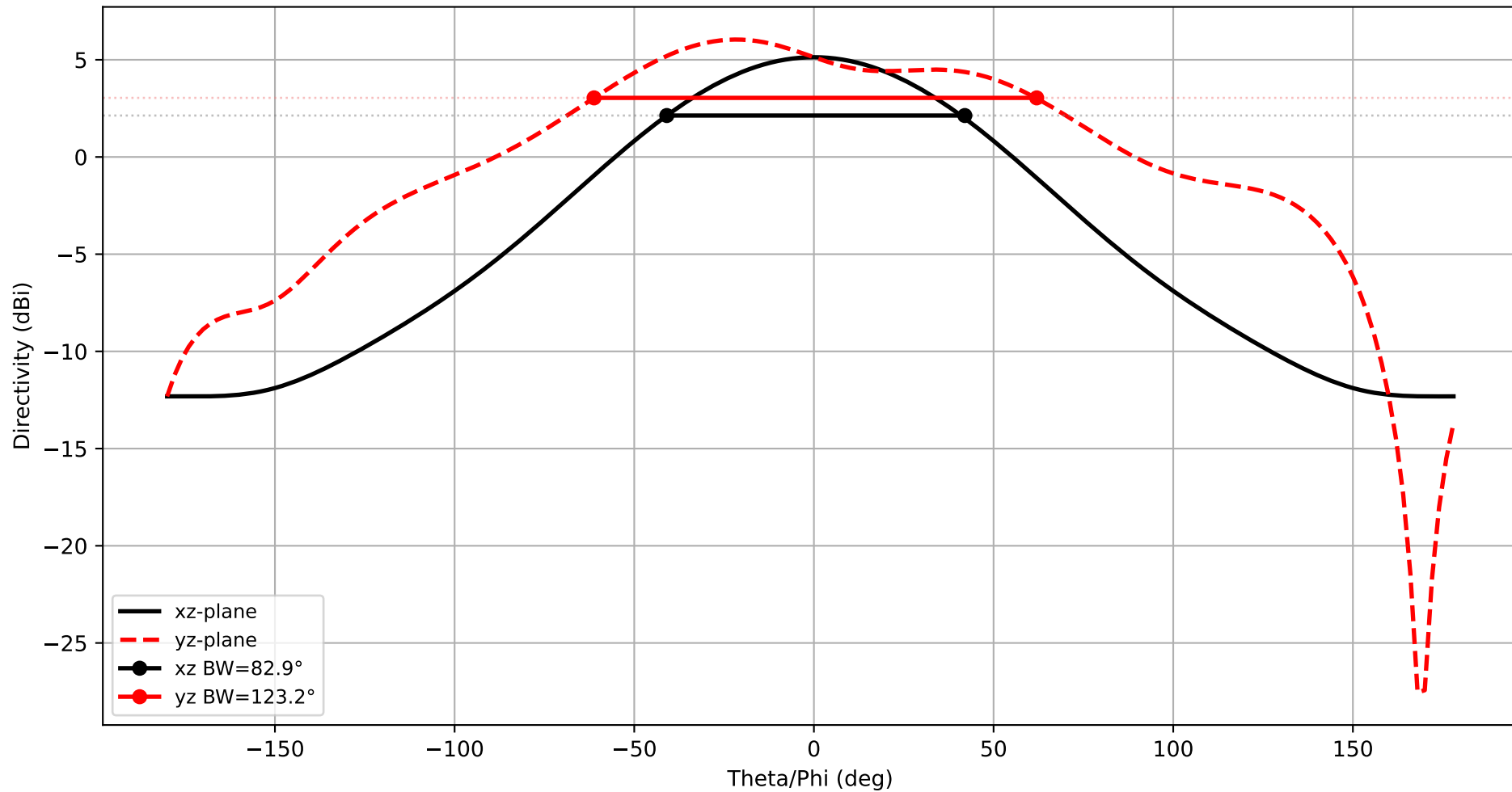
$f = 5.880 \text{ GHz}$  — Directivity (dB)  
 $D_{\text{max}} (\text{integrated}) \approx 6.04 \text{ dB}$ ,  $\text{nf2ff } D_{\text{max}} = 6.04 \text{ dB}$



Frequency: 5.880 GHz — Directivity (linear). Dmax: 4.019



Frequency: 5.880 GHz  
xz-plane: HPBW=82.9°  
yz-plane: HPBW=123.2°



3D Directivity Pattern  
 $f = 5.880$  GHz,  $D_{\max} = 6.03$  dBi

