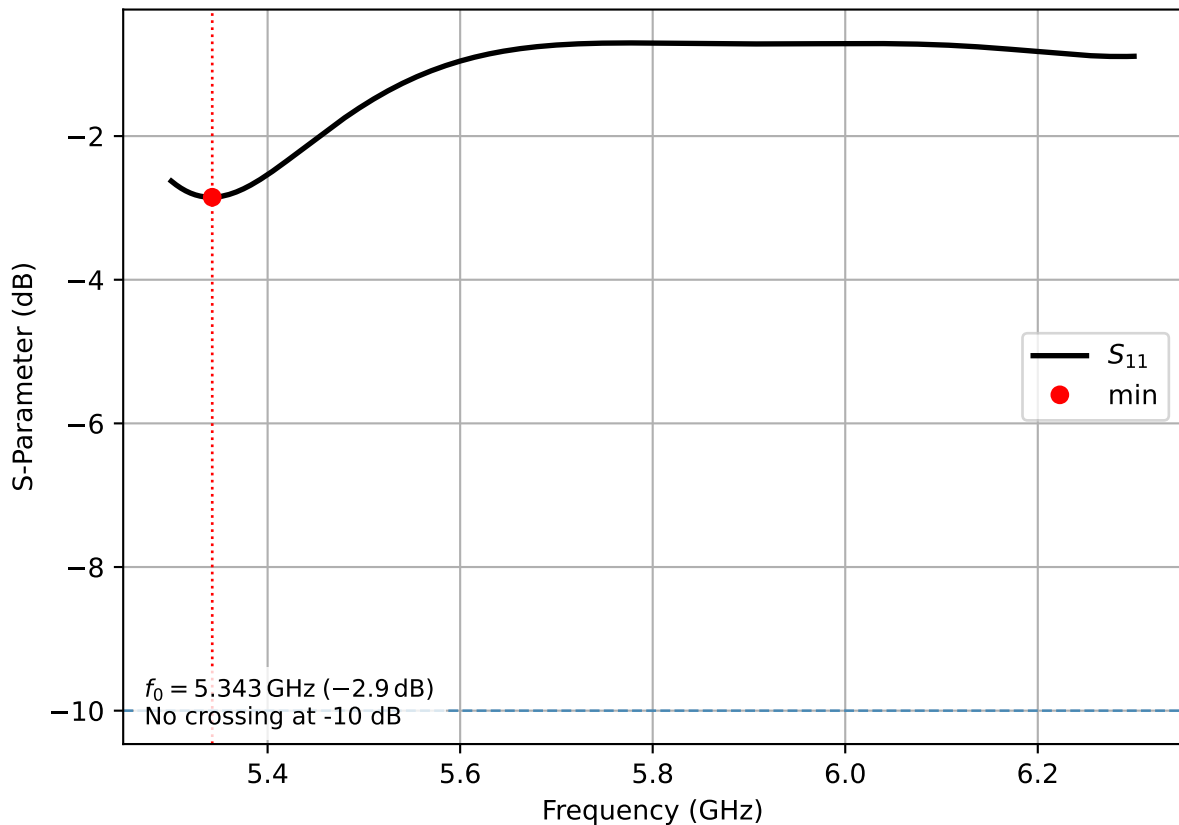


Reflection Coefficient S_{11}

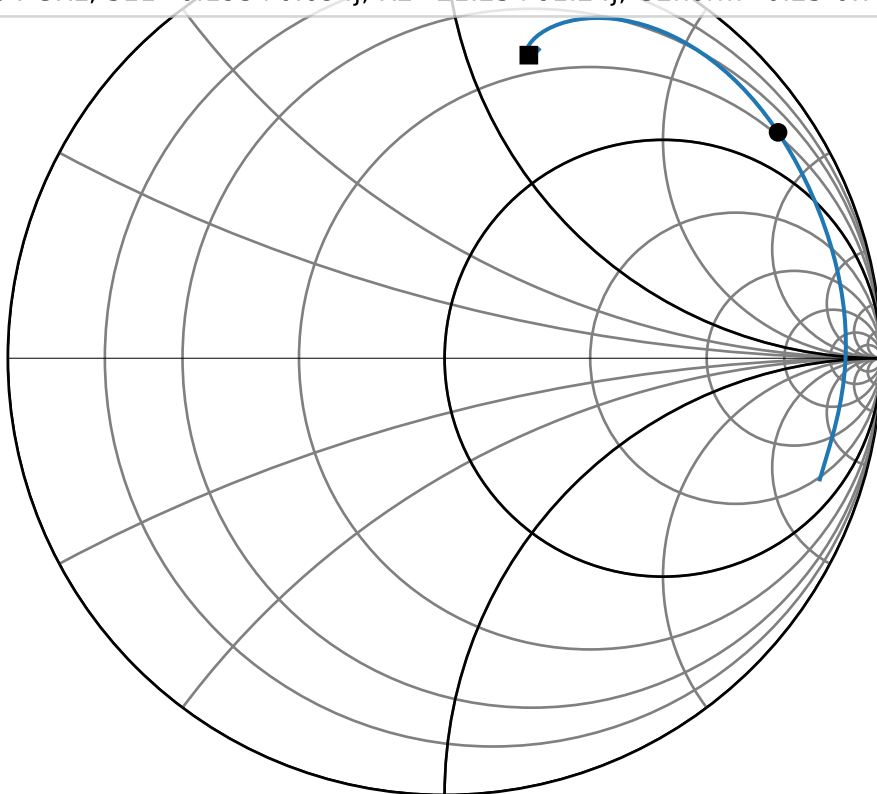


Smith Chart

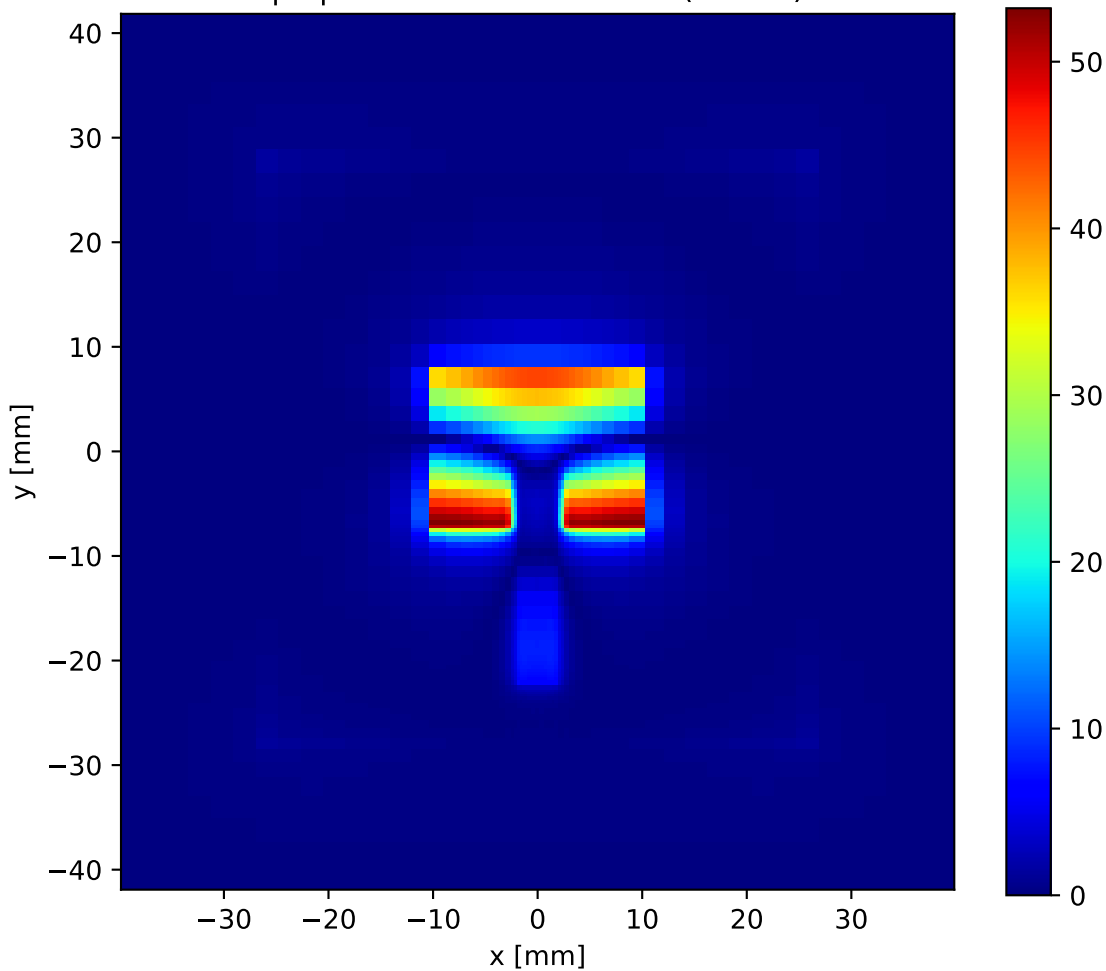
— S11 (Patch W=19.10 mm, L=14.10 mm)

● 5.80 GHz, $S_{11}=0.763+0.517j$, $R=23.15+159.91j$, $G_{\text{norm}}=0.04-0.31j$

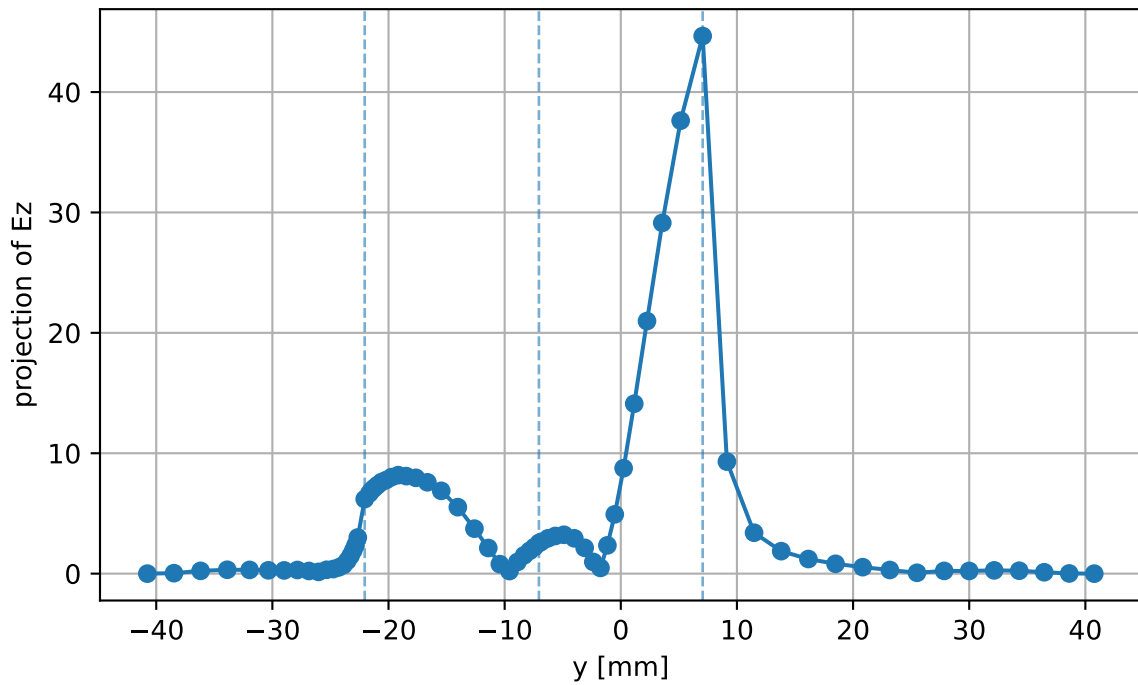
■ 5.34 GHz, $S_{11}=0.193+0.694j$, $R_2=21.25+61.24j$, $G_2_{\text{norm}}=0.25-0.73j$



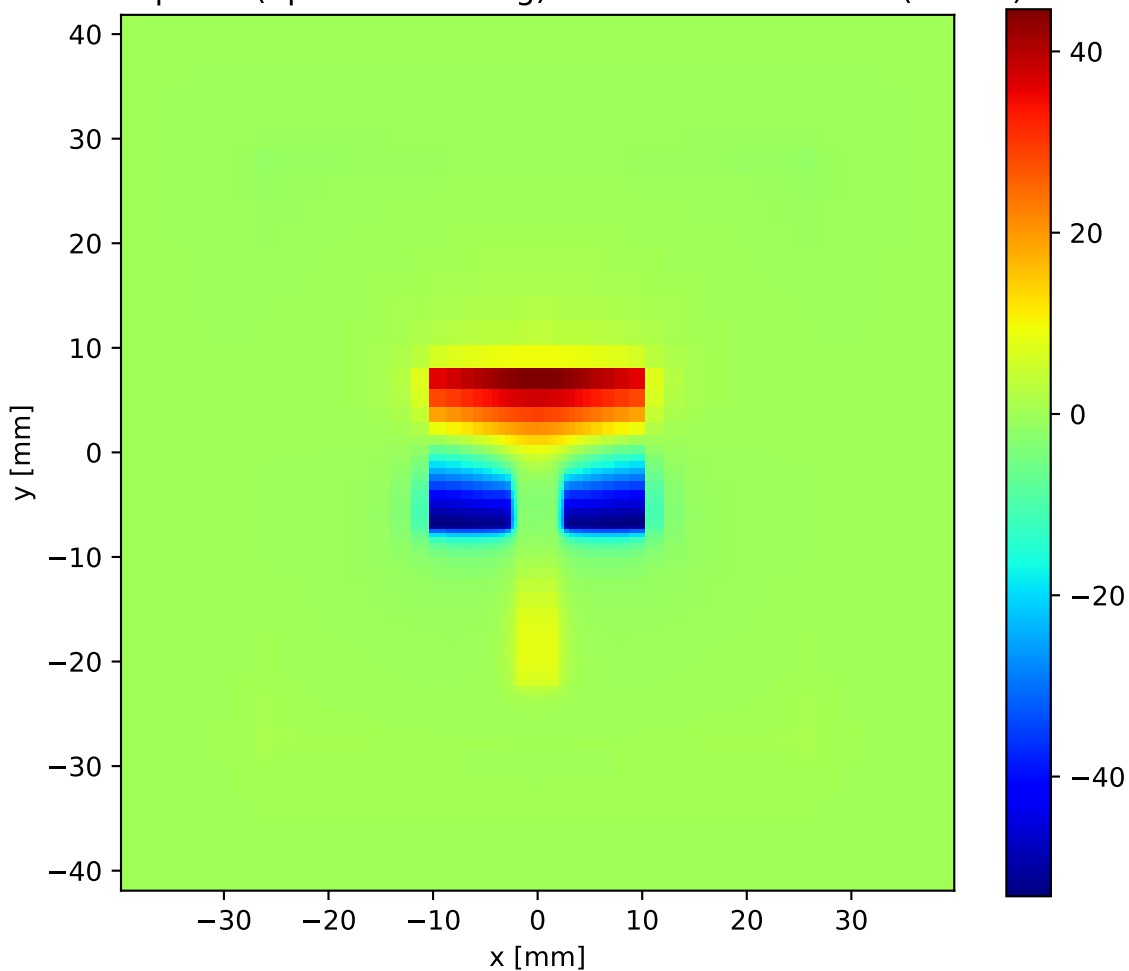
$|E_z|$ slice at $z = 0.76$ mm (idx 15)



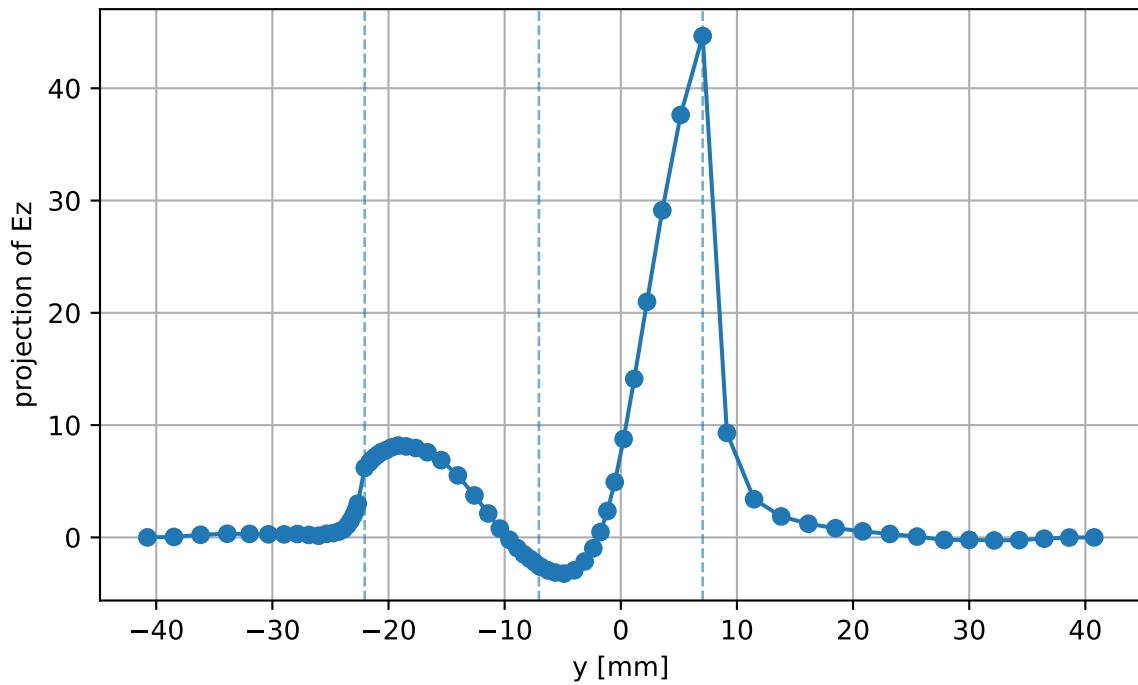
$|E_z|$ line cut along Y at $x=0.00$ mm, $z=0.76$ mm
(idx $x=31$, $z=15$)



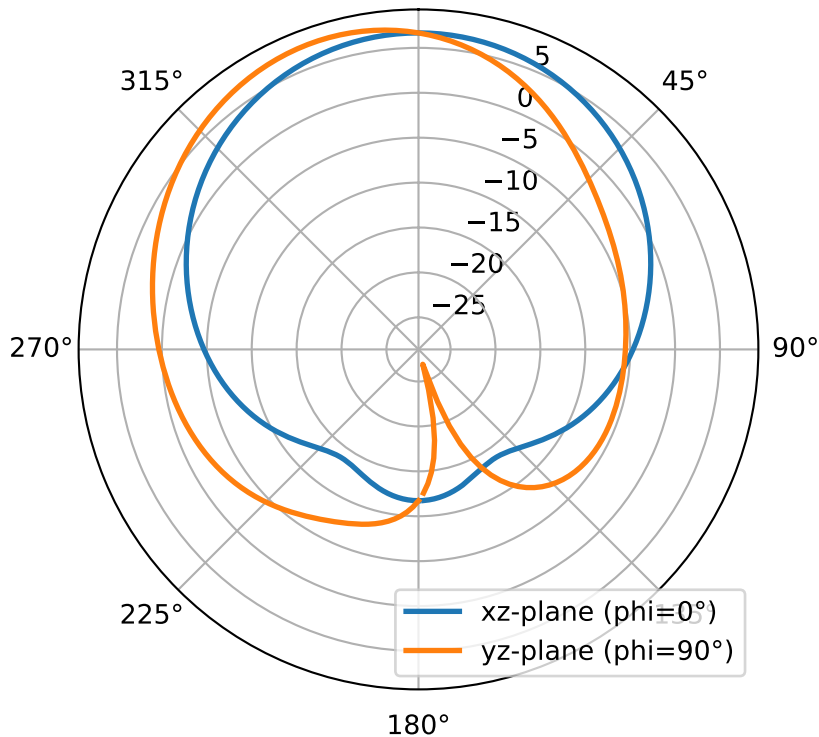
Ez snapshot (dphi=179.68deg) slice at z = 0.76 mm (idx 15)



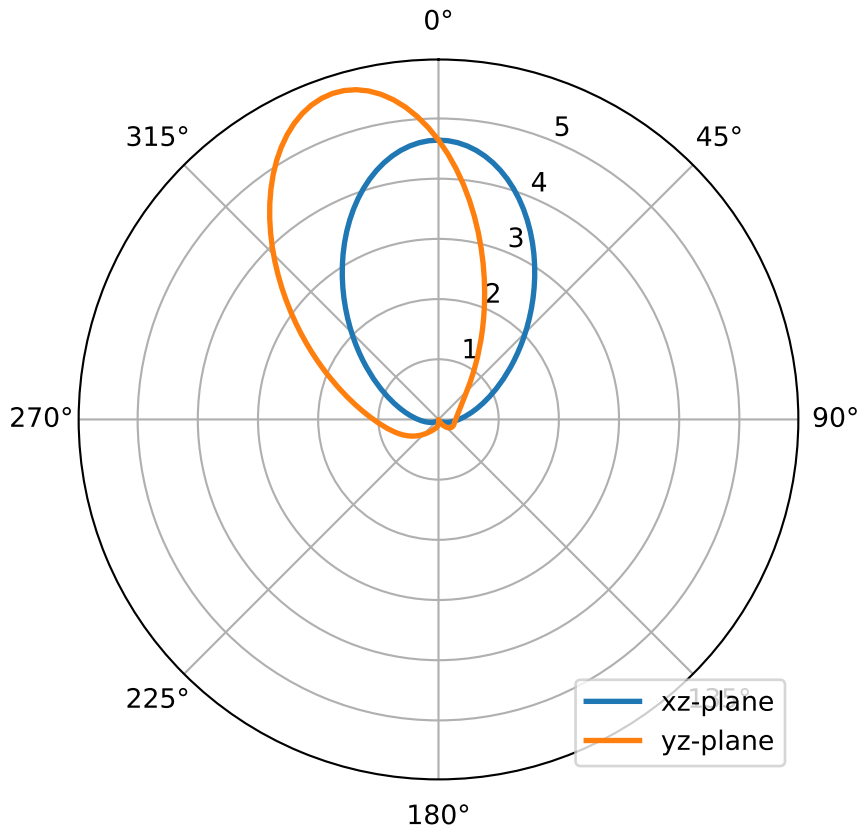
Ez snapshot (dphi=179.68deg) line cut along Y at x=0.00 mm, z=0.76 mm
(idx x=31, z=15)



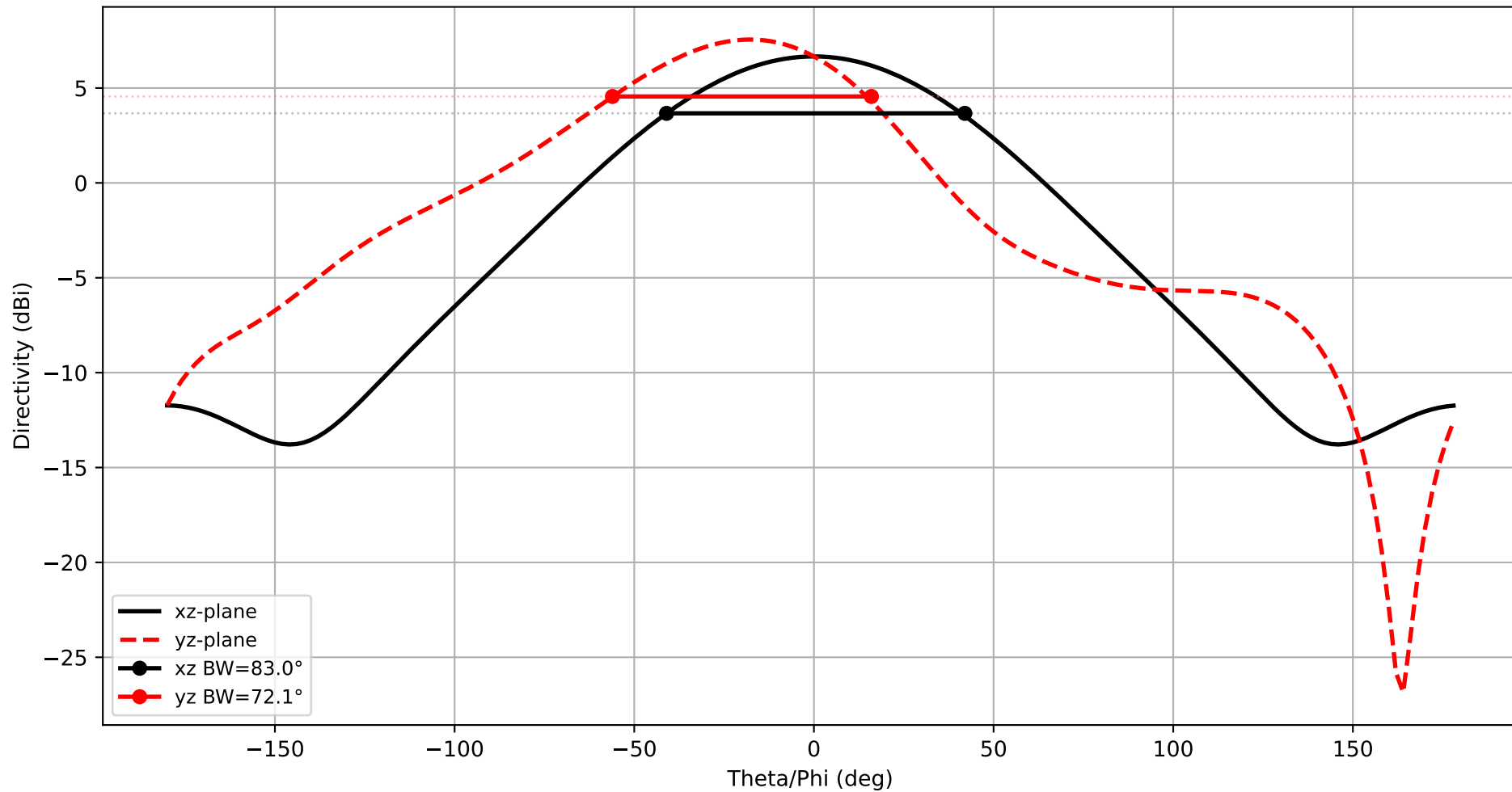
$f = 5.343 \text{ GHz}$ — Directivity (dB)
 $D_{\text{max}} (\text{integrated}) \approx 7.56 \text{ dB}$, $\text{nf2ff } D_{\text{max}} = 7.56 \text{ dB}$



Frequency: 5.343 GHz — Directivity (linear). Dmax: 5.696



Frequency: 5.343 GHz
xz-plane: HPBW=83.0°
yz-plane: HPBW=72.1°



3D Directivity Pattern
 $f = 5.343 \text{ GHz}$, $D_{\text{max}} = 7.54 \text{ dBi}$

