

Problem 4.1.4x

Repeat Problem 4.1.4 using Baklanov rotation $\cos(\psi/2) = \cos(\psi_x/2)\cos(\psi_y/2)$ and the McClellan rotation $\cos(\psi) = \cos(\psi_x)\cos(\psi_y)$ for a Dolph-Chebyshev beampattern with -30 dB sidelobes. Use $\theta_0 = 0, \phi_0 = 0$. Sample the beampattern and use the inverse 2D DFT to find the array weights. Compare the beampatterns and the beampattern obtained with separable weightings.