

ECEn 560
Electromagnetic Wave Theory

Homework #14

Due March 3, 2016 (may be turned in late for half credit)

A vertical magnetic dipole lies a distance d above a dielectric half-space. (a) Find an integral expression for the z component of the magnetic field intensity above the dipole. (b) Use the saddle point method to find the field far above the dipole. (c) Can you interpret any of the physics associated with the final formula?