

```

global__ void cmpFhD(float* rPhi, iPhi, phiMag,
    kx, ky, kz, x, y, z, rMu, iMu, int M) {

int n = blockIdx.x * FHD_THREADS_PER_BLOCK + threadIdx.x;

for (m = 0; m < M; m++) {
    float expFhD = 2*PI*(kx[n]*x[n]+ky[n]*y[n]+kz[n]*z[n]);

    float cArg = cos(expFhD);
    float sArg = sin(expFhD);

    rFhD[n] += rMu[m]*cArg - iMu[m]*sArg;
    iFhD[n] += iMu[m]*cArg + rMu[m]*sArg;
}
}

```