

$$F(u,v)=\frac{2}{n}C(u)C(v)\sum_{j=0}^{n-1}\sum_{k=0}^{n-1}f(j,k)\cos\left(\frac{(2j+1)u\pi}{2n}\right)\cos\left(\frac{(2k+1)v\pi}{2n}\right)$$