	$f(\mathbf{x}) = \int_{\mathbb{R}^D} F(\mathbf{u}) \exp(j2\pi\mathbf{u}\cdot\mathbf{x})\, d\mathbf{u}$	$F(\mathbf{u}) = \int_{\mathbb{R}^D} f(\mathbf{x}) \exp(-j2\pi\mathbf{u}\cdot\mathbf{x})\, d\mathbf{x}$
(2.1)	$Af(\mathbf{x}) + Bg(\mathbf{x})$	$AF(\mathbf{u}) + BG(\mathbf{u})$
(2.2)	$f(\mathbf{x} - \mathbf{x}_0)$	$F(\mathbf{u}) \exp(-j2\pi\mathbf{u}\cdot\mathbf{x}_0)$
(2.3)	$f(\mathbf{x}) \exp(j2\pi\mathbf{u}_0\cdot\mathbf{x})$	$F(\mathbf{u} - \mathbf{u}_0)$
(2.4)	$f(\mathbf{x}) * g(\mathbf{x})$	$F(\mathbf{u})G(\mathbf{u})$
(2.5)	$f(\mathbf{x})g(\mathbf{x})$	$F(\mathbf{u}) * G(\mathbf{u})$
(2.6)	$f(\mathbf{A}\mathbf{x})$	$\frac{1}{\lvert\det \mathbf{A}\rvert} F(\mathbf{A}^{-T}\mathbf{u})$
(2.7)	$\nabla_{\mathbf{x}} f(\mathbf{x})$	$j2\pi\mathbf{u}F(\mathbf{u})$
(2.8)	$\mathbf{x}f(\mathbf{x})$	$\frac{j}{2\pi}\nabla_{\mathbf{u}} F(\mathbf{u})$
(2.9)	$f^*(\mathbf{x})$	$F^*(-\mathbf{u})$
(2.10)	$F(\mathbf{x})$	$f(-\mathbf{u})$
(2.11)	$f_1(x_1)\cdots f_D(x_D)$	$F_1(u_1)\cdots F_D(u_D)$
(2.12)	$\int_{\mathbb{R}^D} f(\mathbf{x})g^*(\mathbf{x})\, d\mathbf{x} = \int_{\mathbb{R}^D} F(\mathbf{u})G^*(\mathbf{u})\, d\mathbf{u}$	

Table 2.1: Multidimensional Fourier transform properties.

$f(x,y) = \int_{\mathbb{R}^2} F(u,v) \exp(j2\pi(ux+vy))\, dudv$	$F(u,v) = \int_{\mathbb{R}^2} f(x,y) \exp(-j2\pi(ux+vy))\, dxdy$
$\mathrm{rect}(x,y)$	$\frac{\sin \pi u}{\pi u} \frac{\sin \pi v}{\pi v}$
$\mathrm{circ}(x,y)$	$\frac{1}{\sqrt{u^2+v^2}} J_1(2\pi\sqrt{u^2+v^2})$
$\exp(-(x^2+y^2)/2)$	$2\pi \exp(-2\pi^2(u^2+v^2))$
$\exp(-2\pi\sqrt{x^2+y^2})$	$\frac{1}{2\pi^2} \frac{1}{(1+u^2+v^2)^{3/2}}$
$\cos(\pi(x^2+y^2))$	$\sin(\pi(u^2+v^2))$
$\exp(j\pi(x^2+y^2))$	$j \exp(-j\pi(u^2+v^2))$
$\delta(x,y)$	1

Table 2.2: Two-dimensional Fourier transform of selected functions.