

Tabuľka Fourierových transformácií

$f(t)$	$F(j\omega)$
$e^{-at}H(t)$	$(\omega + j\omega)^{-1}$
$te^{-at}H(t)$	$(\omega + j\omega)^{-2}$
$\varphi_{A,T}(t) = \begin{cases} A & t \leq T \\ 0 & t > T \end{cases}$	$2AT \operatorname{si}(\omega T)$
$e^{-a t }$	$\frac{2a}{a^2 + \omega^2}$
$f(t - \tau)$	$F(j\omega)e^{-j\omega\tau}$
$f'(t)$	$(j\omega)F(j\omega)$
$e^{j\omega_0 t}f(t)$	$F(j(\omega - \omega_0))$
$F(jt)$	$2\pi f(-\omega)$
$e^{j\omega_0 t}$	$2\pi\delta(\omega - \omega_0)$
$\cos(\omega_0 t)$	$\pi[\delta(\omega + \omega_0) + \delta(\omega - \omega_0)]$
$\sin(\omega_0 t)$	$\pi j[\delta(\omega + \omega_0) - \delta(\omega - \omega_0)]$
$\delta(t)$	1
$H(t)$	$\frac{1}{j\omega} + \pi\delta(\omega)$
$u * v$	$U(j\omega) \cdot V(j\omega)$
$u \cdot v$	$\frac{1}{2\pi}U(j\omega) * V(j\omega)$
$\int_{-\infty}^t f(\tau)d\tau$	$\frac{F(j\omega)}{j\omega} + \pi F(0)\delta(\omega)$
$\{g_k\}_{k=-\infty}^{\infty}$	$G(e^{j\theta}) = \sum_{n=-\infty}^{\infty} g_n e^{-jn\theta}$

$$g_k = \frac{1}{2\pi} \int_{-\pi}^{\pi} G(e^{j\theta}) e^{jn\theta} d\theta$$

DFT

$$G_k = \sum_{n=0}^{N-1} g_n e^{-jnk\Delta\omega T} \quad TN\Delta\omega = 2\pi$$

$$g_n = \frac{1}{N} \sum_{k=0}^{N-1} G_k e^{jnk\Delta\omega T}$$