

FORMULA 3.462.1

$$\int_0^{\infty} x^{\nu-1} e^{-\beta x^2 - \gamma x} dx = (2\beta)^{-\nu/2} \Gamma(\nu) \exp\left(\frac{\gamma^2}{8\beta}\right) D_{-\nu}\left(\frac{\gamma}{\sqrt{2\beta}}\right) \quad \text{Re } \beta > 0, \text{ Re } \nu > 0$$