

FORMULA 4.132.5

$$\int_0^{\infty} \frac{\cos ax \sinh \beta x}{e^{\gamma x} + 1} dx = -\frac{\beta}{2(a^2 + \beta^2)} + \frac{\pi}{\gamma} \frac{\sin \frac{\pi\beta}{\gamma} \cosh \frac{\pi a}{\gamma}}{\cosh \frac{2a\pi}{\gamma} - \cos \frac{2\beta\pi}{\gamma}}$$