

FORMULA 3.479.2

$$\int_0^{\infty} \frac{x^{\nu-1} \exp(i\mu\sqrt{1+x^2})}{\sqrt{1+x^2}} dx = i \frac{\sqrt{\pi}}{2} \left(\frac{\mu}{2}\right)^{\frac{1-\nu}{2}} \Gamma\left(\frac{\nu}{2}\right) H_{\frac{1-\nu}{2}}^{(1)}(\mu) \quad \text{Im } \mu > 0, \text{ Re } \nu > 0$$