An entire function f is said to belong to the Paley-Wiener space P_τ if it is of exponential type τ and is square integrable on the real axis. We shall present sharp upper bounds for

$$Q(y\,;\,f) := \left(\int_{-\infty}^{\infty} |f'(x+\mathrm{i}y) + \mathrm{i}\tau f(x+\mathrm{i}y)|^2 \,\mathrm{d}x \right) \Big/ \int_{-\infty}^{\infty} |f(x)|^2 \,\mathrm{d}x$$

for any given y, as f varies in the class P_τ. We also find the precise estimate for $Q(y\,;\,f)$ in the case where $f(x)$ is real on the real axis.