$$\frac{j\operatorname{Im}(\underline{u})}{\hat{u}\cos(\omega t + \varphi_u)} \\
-\frac{\hat{u}'}{\hat{u}'} \int j\hat{u}\sin(\omega t + \varphi_u) \\
\frac{\hat{u}'}{\hat{u}'} \int \frac{\hat{u}e^{j\varphi_u}}{\hat{u}} \\
\operatorname{Re}(\underline{u})$$