$$\alpha(\theta) = 1.05 + 0.95 \cos\left(\frac{\theta}{150^\circ} 180^\circ\right) .$$

$$H_{\mathrm{hs}} = \frac{(\omega_0 + \alpha F_s) + (\omega_0 - \alpha F_s) z^{-1}}{(\omega_0 + F_s) + (\omega_0 - F_s) z^{-1}} .$$

$$\tau_{\mathrm{h}}(\theta) = \begin{cases} -\frac{a}{c} \cos\theta & \text{if } 0 \leq |\theta| < \frac{\pi}{2} \\ \frac{a}{c} \left(|\theta| - \frac{\pi}{2}\right) & \text{if } \frac{\pi}{2} \leq |\theta| < \pi \end{cases} .$$