

ABSTRACT. For $f \in H^2$, let

$$G'_f := \{g \in zH^2 : f + \bar{g} \in L^\infty \text{ and } T_{f+\bar{g}} \text{ is hyponormal}\}.$$

In 1988, C. Cowen posed the following question: If $g \in G'_f$ is such that $\lambda g \notin G'_f$ (all $\lambda \in \mathbb{C}$, $|\lambda| > 1$), is g an extreme point of G'_f ? In this note we answer this question in the negative. At the same time, we obtain a general sufficient condition for the answer to be affirmative; that is, when $f \in H^\infty$ is such that $\text{rank } H_{\bar{f}} < \infty$.