Study of 1200dpi High Resolution Thermal Print Head

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Abstract

This paper is intended as an evaluation of a high-resolution thermal print head exceeding 600dpi. In the preceding paper we reported on the optimum structure and shape for 600dpi-head based on a series of experiments on thermal diffusivity of various materials possibly used as components. In the process of development we reached a two-ply structure consisted of a Si-single-crystal substrate superior tin heat conductivity and a low thermal diffusion layer sputtered over the substrate. Carrying out FEM analysis of a 1200dpi-head of the above structure, we came to the conclusion that high resolution of up to 1200dpi was technically achievable. We also confirmed the possibility through print test.

Biography

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See NIP17 Proceedings, 2001, pp. 504-507 for full paper.