

Title (en)

A system and method for high-speed, reliable ink jet printing

Title (de)

System und Verfahren für zuverlässiges Hochgeschwindigkeits-Tintenstrahldrucken

Title (fr)

Système et procédé pour impression par jet d'encre à grande vitesse et fiable

Publication

EP 2072259 A1 20090624 (EN)

Application

EP 07123944 A 20071221

Priority

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Abstract (en)

An ink jet printing method is disclosed wherein an ink jet print head and an ink jet ink are provided. The ink jet print head has an ink channel and electrically actuatable means to eject a number of successive droplets (d1,d2). The method includes the steps of (i) applying a number of successive electrical drive signals to the electrically actuatable means, each electrical drive signal for ejecting a corresponding droplet, each electrical drive signal inducing in the ink channel an underpressure pulse (51 2) followed by a pressure pulse (52 2) for ejecting the corresponding droplet and each electrical drive signal is unipolar and of the same polarity; (ii) after applying the last electrical drive signal for ejecting the last droplet of a maximum number of successive droplets, applying a electrical cancel signal for reducing residual acoustic pressure waves in the ink channel. The electrical cancel signal induces in the ink channel an underpressure pulse (51 c),and a pressure pulse (52 c), and at least one of the underpressure pulse or the pressure pulse is applied in antiresonance with the pressure pulse of the last electrical drive signal.

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Citation (applicant)

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