Title (en)

HEATER POWER COMPENSATION FOR THERMAL LAG IN THERMAL PRINTING SYSTEMS

Title (de)

KOMPENSATION DER STROMVERSORGUNG DER HEIZELEMENTE IN FUNKTION DER THERMISCHEN VERSCHIEBUNG IN THERMISCHEN DRUCKSYSTEMEN

Title (fr)

COMPENSATION DE PUISSANCE DU DISPOSITIF DE CHAUFFAGE POUR LE DECALAGE THERMIQUE DANS LES SYSTEMES D'IMPRESSION THERMIQUE

Publication

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Application

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Abstract (en)

[origin: WO9632269A1] A method of and apparatus for compensating printing heads which operate in thermal drop-on-demand printing modes for the effects of thermal lag is disclosed. The apparatus includes a counter which provides a number representing the amount of elapsed time during a heater energizing pulse as a proportion of the entire pulse duration. The output of the counter is connected to a device which determines the power supply voltage required at the said elapsed time. This result is used to control a programmable power supply which is connected to the heater power supply of the print head. The device is preferably a lookup table stored in digital memory, containing a pulse waveform calculated using iterated transient finite element analysis of the thermal state of the nozzle during simulated operation.

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IPC 8 full level

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