

Title (en)

Print head substrate, print head using the same, and printing apparatus

Title (de)

Druckkopf-Substrat, Druckkopf mit Benützung desselben und Druckvorrichtung

Title (fr)

Substrat de tête d'impression, tête d'impression l'utilisant, et appareil d'impression

Publication

EP 0927635 A3 19990908 (EN)

Application

EP 99200744 A 19940902

Priority

- EP 94306488 A 19940902
- JP 21978693 A 19930903

Abstract (en)

[origin: EP0641655A2] The present invention is directed to resolve the noise problem with the ink in an ink jet head without changing the substrate manufacturing process for the ink jet head, that is, increasing the cost on the manufacture, and without needs of disposing a noise countermeasure component on the side of the printer main device, or making the design change for the countermeasure. The present invention is characterized in that to prevent malfunction from arising by the noise, a hysteresis circuit 101 to provide different input data threshold values upon rising and falling is provided on an input portion of the signal for a drive control logic system such as a drive input signal for a shift register 404 and a latch circuit 403 on the same substrate as that of the heating elements 401, the driver 402 and the drive control logic circuit, utilizing a diffusion layer constituting a driver 402. <IMAGE>

IPC 1-7

B41J 2/05

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

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EP 0641655 A2 19950308; EP 0641655 A3 19951122; EP 0641655 B1 19991201; DE 69421862 D1 20000105; DE 69421862 T2 20000504; DE 69432680 D1 20030618; DE 69432680 T2 20040311; EP 0927635 A2 19990707; EP 0927635 A3 19990908; EP 0927635 B1 20030514; JP 3323597 B2 20020909; JP H0768761 A 19950314; US RE44825 E 20140408

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