

Title (en)

Method for reducing spray in thermal ink jet pens firing polymer-containing inks.

Title (de)

Verfahren zur Sprühreduzierung in Thermo-Farbstrahschreibern mit Polymeren enthaltender Tinte.

Title (fr)

Méthode pour réduire les éclaboussements dans les dispositifs d'écriture thermiques par jet d'encre utilisant de l'encre contenant des polymères.

Publication

EP 0622198 A2 19941102 (EN)

Application

EP 94302813 A 19940420

Priority

US 5546693 A 19930429

Abstract (en)

Spray (or satellite drops) in thermal ink-jet pens firing inks containing polymer dispersants for pigments is reduced by increasing the distance between the firing resistor (10) and the nozzle (12). This may be done by offsetting the resistor with respect to the nozzle, increasing the thickness of the orifice plate (14), increasing the thickness of the barrier layer (18) which defines the firing chamber (20) and supports the nozzle plate, or recessing the resistor deeper into the substrate (16) on which it is supported. Any or all of the foregoing may be implemented to reduce spray. A combination of thicker top plates and offsetting the nozzle relative to the resistor is particularly efficacious in reducing spray. <IMAGE>

IPC 1-7

B41J 2/16

IPC 8 full level

B41J 2/05 (2006.01); **B41J 2/14** (2006.01); **B41J 2/16** (2006.01)

CPC (source: EP)

B41J 2/1404 (2013.01); **B41J 2002/14387** (2013.01)

Cited by

EP0792744A3; US6145963A; US6146915A; US6527369B1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0622198 A2 19941102; **EP 0622198 A3 19950208**; **EP 0622198 B1 19970219**; DE 69401759 D1 19970327; DE 69401759 T2 19971009; HK 92297 A 19970801; JP H071735 A 19950106

DOCDB simple family (application)

EP 94302813 A 19940420; DE 69401759 T 19940420; HK 92297 A 19970626; JP 10478794 A 19940419