

Title (en)

A method and device for direct electrostatic printing (DEP).

Title (de)

Verfahren und Vorrichtung für direktes elektrostatisches Drucken (DEP).

Title (fr)

Procédé et dispositif d'impression électrostatique directe (DEP).

Publication

**EP 0675417 A1 19951004 (EN)**

Application

**EP 95200603 A 19950314**

Priority

- EP 95200603 A 19950314
- EP 94200855 A 19940329
- EP 94201026 A 19940414

Abstract (en)

A method for direct electrostatic printing (DEP) on an intermediate substrate or on a final substrate is provided, using a device that comprises a back electrode (5), a printhead structure (6) comprising a control electrode in combination with apertures (7), a toner delivery means (1) presenting a cloud (4) of toner particles in the vicinity of said apertures (7), characterised in that (i) a multi-component developer is used comprising at least toning particles (toner particles) and magnetic attractable carrier particles and (ii) said toner delivery means is a magnetic brush assembly and said toner cloud is generated directly from said multi-component developer present at the surface of said magnetic brush assembly and (iii) said toner cloud is generated by an oscillating field. The reference surface of said magnetic brush assembly is placed a distance (l) from the surface of the printhead structure facing said magnetic brush assembly, wherein l fulfils the condition :  $l \geq \frac{1}{2} \sqrt{\frac{2 \pi \epsilon_0 \epsilon_r}{\rho}}$  wherein all dimensions are expressed in  $\mu m$  and L is defined as the maximum thickness of the developer layer on said magnetic brush assembly in the absence of said oscillating field. <IMAGE>

IPC 1-7

**G03G 15/34**

IPC 8 full level

**G03G 15/34** (2006.01)

CPC (source: EP)

**G03G 15/346** (2013.01)

Citation (search report)

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- [Y] PATENT ABSTRACTS OF JAPAN vol. 10, no. 147 (P - 460)<2204> 29 May 1986 (1986-05-29)
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Designated contracting state (EPC)

BE DE FR GB NL

DOCDB simple family (publication)

**EP 0675417 A1 19951004; EP 0675417 B1 19980603**

DOCDB simple family (application)

**EP 95200603 A 19950314**