

Title (en)  
ACOUSTIC INK PRINTERS HAVING REDUCED FOCUSING SENSITIVITY

Publication  
**EP 0375433 A3 19900912 (EN)**

Application  
**EP 89313455 A 19891221**

Priority  
US 28779188 A 19881221

Abstract (en)  
[origin: EP0375433A2] To improve the tolerance of acoustic ink printers (21) to changes in their free ink surface (25) levels, provision is made for significantly reducing the effect of half wave resonances on the acoustic power density of the acoustic beam (30) or beams that are incident on the free ink surface (25) of such a printer (21), thereby reducing its focusing sensitivity. Some of the approaches that are taken to accomplish this rely upon acoustic losses to damp out the halfwave resonances and anti-resonances, while others employ multi-frequency rf voltage pulses for driving the droplet ejector (23) or ejectors so that the acoustic power perturbations caused by the half wave resonances and anti-resonances of the different frequencies tend to neutralize each other. Indeed, the use of an acoustically lossy ink (26) to dampen the half wave resonances and anti-resonances is compatible with selecting the frequency content of the acoustic radiation to neutralize them, so a combination of those two techniques can be employed, if desired, to carry out this ink printer (21).

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IPC 8 full level  
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CPC (source: EP)  
**B41J 2/14008** (2013.01); **B41J 2002/14322** (2013.01)

Citation (search report)  
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• [A] DE 3324191 A1 19840105 - RICOH KK [JP]  
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