

Title (en)

Drop generator for long array ink jet printer

Title (de)

Tropfenerzeuger für Tintenstrahldrucker mit einer langen Düsenreihe

Title (fr)

Générateur de gouttes pour imprimante à jet d'encre à longue rangée d'orifices

Publication

EP 1013422 B1 20060823 (EN)

Application

EP 99309513 A 19991129

Priority

US 21105998 A 19981214

Abstract (en)

[origin: EP1013422A2] A drop generator for use in an ink jet printer is capable of stimulating long ink jet arrays at high operating frequencies. The drop generator comprises a substantially uniform cross section for a central portion and two end sections with different cross sections. The end sections have features to adjust a resonant frequency of the end sections to match that of the central portion. In particular, these features comprise cuts on a top of the drop generator. The drop generator utilizes multi-lobed radial bending modes for vibration of an array of orifices, and the vibrational modes are driven by at least two rows of transducers which extend substantially the length of the drop generator. The transducers are placed consistent with a lobe structure of an operational radial bending mode. <IMAGE>

IPC 8 full level

B41J 2/025 (2006.01); **B41J 2/045** (2006.01); **B41J 2/03** (2006.01); **B41J 2/04** (2006.01); **B41J 2/055** (2006.01)

CPC (source: EP)

B41J 2/025 (2013.01); **B41J 2/03** (2013.01); **B41J 2/04** (2013.01)

Cited by

US7584539B2; US8797373B2; US9682556B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1013422 A2 20000628; **EP 1013422 A3 20010404**; **EP 1013422 B1 20060823**; CA 2292239 A1 20000614; DE 69932914 D1 20061005; DE 69932914 T2 20070405; EP 1602484 A2 20051207; EP 1602484 A3 20090107; EP 1602484 B1 20110921; JP 2000218785 A 20000808; JP 2009190415 A 20090827; JP 4417499 B2 20100217; JP 4886817 B2 20120229

DOCDB simple family (application)

EP 99309513 A 19991129; CA 2292239 A 19991210; DE 69932914 T 19991129; EP 05016732 A 19991129; JP 2009133699 A 20090603; JP 35300099 A 19991213