

Title (en)

DRIVING METHOD OF INKJET HEAD, DRIVING APPARATUS OF INKJET HEAD, AND INKJET RECORDING APPARATUS

Title (de)

TINTENSTRAHLKOPF-ANSTEUERUNGSVERFAHREN, TINTENSTRAHLKOPF-ANSTEUERUNGSVORRICHTUNG UND
TINTENSTRAHLDRUCKVORRICHTUNG

Title (fr)

PROCÉDÉ D'ATTAQUE DE TÊTE À JET D'ENCRE, DISPOSITIF D'ATTAQUE DE TÊTE À JET D'ENCRE ET DISPOSITIF D'IMPRESSION À JET
D'ENCRE

Publication

EP 2905138 A1 20150812 (EN)

Application

EP 13843417 A 20131001

Priority

- JP 2012220398 A 20121002
- JP 2013076735 W 20131001

Abstract (en)

The purpose of the present invention is to provide an inkjet head driving method, an inkjet head driving device, and an inkjet printing device, which, without making any changes to head structure, can simultaneously reduce drive load and the crosstalk generated between multiple rows of pressure chambers that communicate through a common ink chamber. In an inkjet head comprising two or more rows of pressure chambers for generating the pressure to discharge the ink therein from the nozzles by means of pressure-supplying means that are operated by the application of drive signals and in which the pressure chambers of each row of pressure chambers communicate with each other through a common ink chamber: the rows of pressure chambers are divided into N (N being an integer 2 or greater) drive groups; and between different drive groups, a phase difference of $nAL+t$ (n is an integer 1 or greater, AL is $\frac{1}{2}$ of the acoustic resonance period of the pressure wave in the pressure chambers, and t is the pressure wave transmission time determined from [inter-nozzle distance between drive groups]/[velocity at which sound is conducted through the ink]) is provided for the drive signals that are applied to the pressure-supplying means of the pressure chambers.

IPC 8 full level

B41J 2/045 (2006.01); **B41J 2/055** (2006.01); **B41J 2/14** (2006.01)

CPC (source: EP)

B41J 2/04543 (2013.01); **B41J 2/04573** (2013.01); **B41J 2/04581** (2013.01); **B41J 2/14209** (2013.01); **B41J 2002/14459** (2013.01)

Cited by

US10500854B2; WO2017118843A1; WO2023180713A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

EP 2905138 A1 20150812; **EP 2905138 A4 20161221**; **EP 2905138 B1 20190605**; CN 104703801 A 20150610; CN 104703801 B 20160824;
JP 6202002 B2 20170927; JP WO2014054655 A1 20160825; WO 2014054655 A1 20140410

DOCDB simple family (application)

EP 13843417 A 20131001; CN 201380051194 A 20131001; JP 2013076735 W 20131001; JP 2014539766 A 20131001