

ABSTRACT OF THE DISCLOSURE (FIG. 2)

"HEAD DRIVING DEVICE OF INK-JET PRINTER"

A head driving device includes an ink-jet head having a large number of ink chambers arranged side by side and separated by piezoelectric elements (31), FETs (28) for connecting electrodes of the ink chambers to a +Vcc power source line, FETs (29) for connecting the electrodes of the ink chambers to a -Vcc power source line, bi-directional switches (30) for connecting the electrodes of the ink chambers to a ground line, selectors each for selecting one of a plurality of pulse signals in which at least one of the pulse width and pulse interval is different according to gradation data, sequencers (SQ) for generating sequence signals according to the pulse signals from the selectors, and decoders (DE) for decoding the sequence signals into driving signals and supplying them to the FETs and bi-directional switches (30). Particularly, the head driving device changes the voltage and timing for causing the piezoelectric element to effect the distorting operation according to the selected pulse signal so as to change an amount of ink ejected from the ink chamber and perform the gradation printing for each dot.