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PRINthead WITH REDUCED INTERCONNECTIONS TO A PRINTER**ABSTRACT**

The interconnections (24, 26, 28) for transmitting print commands from a printer (12) to a printhead (14) are reduced by the use of on-printhead circuitry (16, 30). In a basic embodiment, the printhead driver circuitry (16) includes a matrix of drivers (31) controlled by gates, power and control interconnections. Interconnections are reduced by enabling rows and columns of drivers with the power and control interconnections. A multiplexer (70) may also be added to further reduce control interconnections. In an advanced embodiment, the printhead driver circuitry (30) includes a register (40) for converting a serial stream of print enable signals from the printer (12) into a format for applying such signals concurrently to switching devices (46) for one or more heater resistors (44). An address generator (34) on the printhead (14) generates address signals in response to an address generating signal from the printer (12). The printer (12) provides constant power to the printhead (14) so that energizing of the heater resistors (44) is a function of the address and print enable signals and not of the power. Variations on the basic and advanced embodiments are also shown and described.

(Fig. 3)

