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ABSTRACT

When a data processing circuit is formed on an insulating substrate by using TFTs, it is difficult to process a data signal having a high data rate, such as digital display data, at a high speed.

In a data processing circuit formed on an insulating substrate by using TFTs, a data signal having a small voltage amplitude input in series is increased in level to a data signal having a large voltage amplitude by a level shift circuit (11), the serial data signal having the large voltage amplitude is converted to parallel data signals by a serial-parallel conversion circuit (12), and then, the parallel data signals are reduced in level to data signals having a small voltage amplitude by level shift circuits (13A and 13B). Therefore, high-speed processing can be applied to digital data signals at a low power consumption.