

## 6 Example of Noise Suppression in Printers

### Installing EMI filters on Bus Lines

Bus lines contain many lines that switch on and off simultaneously. This causes instantaneous large currents to flow into the GND and power supply lines through the data and address. Therefore, it is necessary to suppress the current flow on the signal lines. The BLM series (Chip Ferrite Bead) is generally used for this purpose. On the control bus line, especially at high operating speeds, the BLM□□B series (Chip Ferrite Bead for high-speed signal lines that features a steep impedance rising) is used. On bus lines with high-level noise, the NFM21G series (Chip EMIFIL<sup>®</sup>) is sometimes used.

The radiation spectrum of noise generated from bus lines resembles that of noise generated from the motor. It is important to check which of the motor or bus lines is the source of the noise and then install EMI filters.

