ROHM's new structure

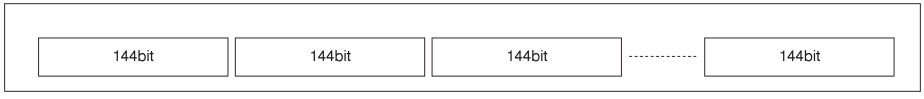
New structure 1:

Development of the driver IC of 144 bits per element

The special driver IC was generally 64 bits or 128 bits per element. However, the printhead for fax machines consists of 1728 bits. In split printing within one head, 27 of 64-bit ICs or 13.5 of 128-bit ICs are required. This has caused an inconvenience. Engineers working for IC manufacturers do not know about thermal printheads, so they develop only 64, 128, or 256-bit ICs. At ROHM, IC engineers and printhead engineers have cooperated and developed a 144-bit driver IC to eliminate this inconvenience. The 144-bit driver IC, which is now becoming a standard for fax machine printheads, is a masterpiece created by the comprehensive technical expertise of ROHM.

• Number of driver ICs for an A4-size printhead

27 of driver ICs of 64 bits per element are required.
This cannot perform even split printing.



12 of driver ICs of 144 bits per element are required.
This can perform even split printing.

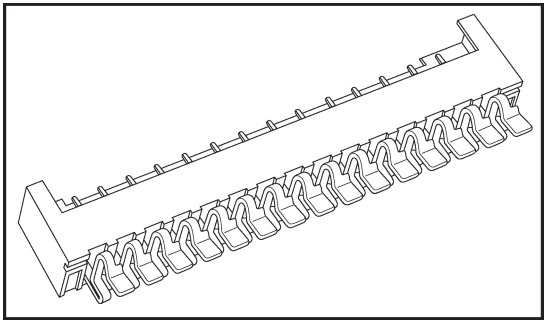
New structure 2:

Development of an exclusive connector

An exclusive connector for thermal printheads was developed to reduce the size of a thermal printhead.

In conventional models, a flexible cable that connects the connector and heating element circuit board prevented any attempts at size reduction of the thermal printhead. Therefore, an exclusive connector was developed with the idea that a connector directly attached to the circuit board eliminates the need for the flexible cable, thus contributing to the size reduction of the printhead. This connector structure greatly reduced the number of parts and enabled compact and lightweight printheads.

In addition, this new structure enables the heatsink to be separated, which provides a high degree of flexibility in designing the whole set.



New structure 3:

High performance heat history control (See next page for details)

Another example of product development using our own ICs is a thermal printhead with a built-in high performance heat history control.

Thermal printheads with a built-in heat history control are sold by other companies as well as ROHM.

The heat history control is limited by the performance of the driver IC that is on board. Even though better control gives higher speed and better printing quality, advanced technology is required to develop a compact high performance IC. Ahead of other manufacturers, ROHM has developed a high performance IC that enables advanced control considering the future printing information as well as the past printing information.

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