Power consumption cut by 50% with Panasonic's 32-bit microcomputer

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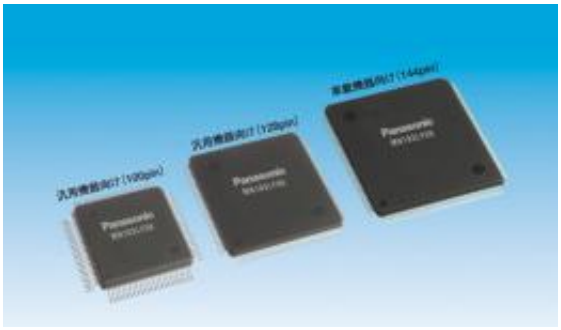

New Panasonic 32-bit microcomputers suitable for low power consumption equipment From left: MN103LF08, 100pin and 128 pin models, for general purpose, and MN103LF09 (144pin) for automotive applications

Panasonic Corporation has successfully developed a new series of 32-bit microcomputers with built-in flash memory which contribute to energy-saving and system cost reduction of in-car electronics, office equipment, and household electrical appliances. The company will start volume shipment of the MN103L series microcomputers in January, 2011.

These new microcomputers contribute to improving performance and energy-saving of the equipment in which they are used by achieving a good balance between performance and low power consumption. Especially, the new microcomputers are suitable for equipment requiring low power consumption in stand-by mode. In addition, they can meet the demand of a variety of operation voltages of the equipment, because

they can deliver superior performance over a wide voltage range. Moreover, the Panasonic microcomputers facilitate miniaturization and cost reduction of the equipment by reducing the number of parts necessary for the equipment, such as external EEPROM, and integrating an oscillator into the microcomputers.

The new MN103L series of microcomputers have the following features:

1. About 50%* reduction of the microcomputer's stand-by power consumption, enabling to reduce stand-by power consumption in electrical appliances.
2. Operable over a wide voltage range of 2.2 V - 5.5 V, enabling to reduce power consumption by about 50%* during operation
3. The number of external parts can be reduced by improving flash memory's rewriting performance and incorporating analog circuits in the microcomputers.

The new products use the following technologies:

1. Panasonic's newly developed 110 nm embedded flash memory process technology that achieves optimization of low leakage current and an optimum operation performance
2. The core design technology of Panasonic's newly developed 32-bit AM32L series core microcomputers that achieve about twice* the electric power efficiency, and embedded flash memory design technology that enables reading operation in a wide range of voltages.
3. High performance analog circuit technology that achieves voltage detection and built-in oscillation function and the embedded flash memory reliability technology that achieves 100,000 times of rewriting.

There is a growing market demand for environmentally-conscious

system control microcomputers with low power consumption and high energy efficiency. Moreover, cost reduction is called for by cutting the number of parts in the equipment and reducing the substrate area. Panasonic's new 32-bit microcomputers meet such demands of the users.

Provided by Panasonic Corporation