



Saeco equips a new generation of espresso machines with Sharp Microelectronics' BlueStreak processors. By **Graham Pitcher**.

With Italian roots and international ambition, the Saeco company was founded in 1981 in a small village near Bologna. Today, the company is a leading producer of fully automatic espresso coffee machines, with much of its technology developed internally and patented. The company produces 1 million coffee machines every year from three production plants.

Its latest Primea espresso machines feature the BlueStreak System on Chip LH75411 from Sharp Microelectronics. The mid range processor offers a range of features that make it an economical solution for controlling all types of vending



In touch with **taste**

machines with display units, says Sharp.

It was this functionality that convinced the development engineers at Saeco to design it into the latest coffee machine. "For the new Primea, it was important for us to find a processor that already included a touch screen colour display controller, which serves as control panel, as our core competence lies in the development of high quality brewing systems," explains Andrea Castellani, R&D director at Saeco.

The trend with coffee machines – and other vending machines – is increasingly towards intuitive operation via touch screens. This technology is not only of interest for household appliances like the Primea, but is also suitable for commercial coffee vending machines or com-

bined drink and food vending machines in public areas.

Gunter Wagschal, product marketing manager for the BlueStreak SoCs at Sharp, feels this first cooperation is the start of a long term partnership. "The BlueStreak SoCs, with peripherals and interfaces for this type of application, offer an ideal price performance ratio and therefore a good basis for further projects."

The LJ75411 is based on an ARM7TDMI-S 32bit risc core and operates at a clock speed of up to 84MHz from a 1.8V supply. The device also has 32kbyte of sram on chip and includes a number of peripherals, such as a greyscale and colour lcd controller and a high definition multichannel a/d con-

verter with an integrated touch screen controller. It is suitable for use in temperatures ranging from -40 to 85°C – the industrial temperature range.

Sharp's ARM9 and ARM7 based SoC families range from simple cpus, with a clock speed of 76MHz, to high performance 266MHz SoCs. All BlueStreak SoCs have a high level of integration and low energy consumption. The processors are thus suited for use in applications where low system cost is important.

Typical applications include next generation of mobile devices, including hand held games consoles or portable media and DVD players, as well as PDAs, GPS receivers, measuring equipment and portable medical devices. 