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CORE COMPETENCY

Pact eyes multimedia, telecom

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Fujitsu Microelectronics Europe GmbH (Frankfurt, Germany) has licensed the NeuroMatrix core from Russian design group Research Center Module for use in multimedia and telecom ASICs. The first Fujitsu chips to embed the core are expected in the third quarter of 2000.

RC Module (www.module.ru) is the developer of the NeuroMatrix NM6403 32-bit DSP chip. The NeuroMatrix core, made available last month for licensing as intellectual property, was written as a synthesizable Verilog RTL model of the NeuroMatrix DSP. It includes two main units: a 32-bit RISC processor and a 64-bit vector coprocessor to support vector operations.

The 1- to 64-bit vector coprocessor can be used to accelerate neural network emulation. It supports vector/matrix calculations with elements of variable bit length, and it performs one to 288 multiplication and accumulations in one processor cycle, according to RC Module.

The core is said to consume 80,000 equivalent gates and to deliver more than 35 GMACs in Fujitsu's CE71 0.25-micron CMOS process. See www.fujitsu-fme.com.