

Press-Release
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FOR IMMEDIATE RELEASE

NeuroMatrix® **NM6404** RISC/DSP Processor

Moscow, Russia, May 22, 2006 - Research Center Module (RC Module) announces **NM6404** – a 0.25 um high performance DSP-oriented RISC processor designed for real time data flow processing. The architecture is based on advanced VLIW/SIMD NMC2 core and includes two main units: 32/64-bit RISC and patented 64-bit VECTOR co-processor to support vector operations with elements of variable bit length.

NM6404 is the next generation of NeuroMatrix® NM6403 DSP family of a high performance dual-core microprocessor with the combination of VLIW/SIMD architectures. It is compatible with NM6403 but offers significant improvements including clock frequency increased to 80 MHz, 2Mbit on-chip memory to enhance the system performance, two 64-bit interfaces with 1.28Gbyte/sec throughput, two high-speed byte ports up to 60Mbyte/sec throughput, a JTAG port and two 32-bit timer. NM6404 is packaged in BGA576.

The RISC core performance is 80 MIPS and 240 MOPS for 32-bit data. The DSP performance - “multiplication and accumulation” (MAC) operations per cycle is from 2 for 32-bit data up to 224 for 2-bit data. The peak performance of NM6404 is 22.4 GMAC.

Research Centre Module (www.module.ru) is a leading Moscow-based fables semiconductor company which designs high-end RISC/DSP processor architectures, embedded computers and application software for video image processing, DSP and artificial neural networks. RC Module also provides system and ASIC/SIP design services to a variety of telecommunication and computer-related OEM manufactures.

The RC Module’s NeuroMatrix product family includes:

- NMC core, NMC2 core
- NeuroMatrix® [NM6403](#) RISC/DSP Processor
- NeuroMatrix® [MC431](#) Single-DSP PCI Evaluation Board
- BM1 PCI/CompactPCI Video Image Processing (VIP) Development Set

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