RiSE™ TECHNOLOGY

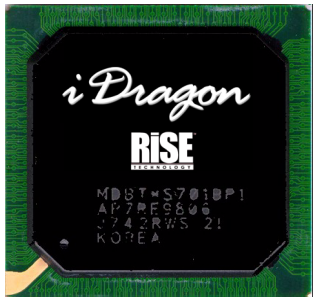
iDragon™ The Heart of 3 &.

*Low Power x86 Microprocessor* *mP6™*

***ADVANCED DATA***

# *iDragon™ mP6™ Microprocessor Overview*

The RiSE™ *mP6*™ processor is a sixth generation processor optimized for low–power, high-performance information appliance applications. The innovative RiSE™ *mP6*™ processor is the first superscalar, superpipelined, Pentium® MMX* compatible processor featuring 3 integer units, 3–way superscalar MMX technology, and a fully pipelined floating point unit. The innovative circuitry of the RiSE™ *mP6*™ processor maximizes processing per clock cycle while requiring minimal power consumption – providing an ideal choice for power–efficient PC-embedded consumer information appliance, thin server and thin client,




BGA387

- **x86 Instruction Set Enhanced with MMX™ Technology**
- **Pin Compatible with the Intel Pentium, AMD* K6, AMD K6-2, and Cyrix MII* Processors (Socket 7)**
  - 296 Pin BPGA “Socket 7” Package
  - 387 Ball T²BGA® “Socket 7-like” Package
  - Split Voltage Planes
- **Advanced Architectural Features**
  - Advanced Data Dependency Removal Techniques
  - Innovative Instruction Decode and Branch Prediction
  - Dynamic Allocation of Resources
- **Superscalar, Superpipelined Architecture**
  - Superscalar MMX* Execution and Three Superpipelined Integer Units
  - Pipelined Floating Point Unit
- **Separate Code and Data Caches**
  - 8KB Code and 8KB Data
  - Filtered Tag Prefetching
  - Split Line Access Mechanism
- **Advanced Power Management and Power Reduction Features**
  - SMM Compatible
  - Clock Control
  - ACPI Compliant
  - Facility Gating
  - Required Selection Only
  - Necessity Switching Only
- **High Performance FPU**
  - IEEE 854 and 754 Compliant
  - 80 Bit Results, 64 Bit Interface
- **IEEE 1149.1 Boundary Scan**
  - IEEE 854 and 754 Compliant
  - 80 Bit Results, 64 Bit Interface
- **ISO 9001 Wafer Fabrication, Assembly and Test**
- **Support for Bus Frequencies of 60, 66, 75, 83, 95, and 100 MHz**
- **CPU/Host Bus Ratio 2X, 2.5X, 3X, 3.5X**
- **3.3 V/2.0 V CMOS Technology**

Figure *MP6*™ Processor Block Diagram